



THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA

# Board Information

- **Board of Directors**

- Finance, Affordability, Asset Management, and Efficiency Committee***

6/10/2025 Board Meeting

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9-5

## Subject

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Overview of Potential Business Model Financial Refinements

## Executive Summary

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In response to the Board's directive in April 2024 to review the Treatment Surcharge and broader business model issues, Metropolitan established an Ad Hoc Working Group of member agency general managers. The group formed a Financial Policies Business Model Support Sub-Working Group (the "Financial Sub-Working Group") to focus on the business model issues relating to financial matters while forming other sub-working groups to address water resources and engineering matters. The Financial Sub-Working Group was tasked with addressing treated water cost recovery, fixed and volumetric revenues, and other key fiscal priorities.

Over the course of more than a dozen workshops, the Financial Sub-Working Group developed proposals across four areas determined to be most relevant to enhance Metropolitan's long-term financial stability. The four key financial areas include: Treated Water Cost Recovery, Unrestricted Reserve Policy, Conservative Water Demand Projections, and Other Fixed Revenues. The discussion in this report reflects a year-long collaborative process informed by member agency input, technical analyses, and independent review and verification by Raftelis Financial Consultants (Raftelis), Metropolitan's external rate consultant.

### 1. Treated Water Cost Recovery

After twelve (12) months of evaluating alternative approaches to Treated Water Cost Recovery, there is broad recognition that the current 100 percent volumetric structure is inconsistent with the Board's previously adopted Policy Principles on Treated Water. One proposal—supported by a majority of member agency managers—would recover approximately 30 percent of Metropolitan's treatment revenues through a fixed charge, reflecting the agency's fixed costs associated with standby and peaking capacity. The peaking component of this charge would be based on an annual peak day billing determinant. A second alternative proposal, which has significantly less support, follows the same general structure but differs in its billing determinant. Instead of using an annual peak day, it proposes a summer peak day as the basis for the peaking component.

The March 14, 2025, member agency proposal with an annual peak day determinant received support from managers representing 18 member agencies. The alternative March 14, 2025 proposal with a summer peak day determinant is supported by one (1) member agency. One (1) member agency remains neutral, as it does not receive treated water service and is deferring the decision to agencies that receive treated water. The remaining six (6) agencies have not provided feedback on the alternatives.

The Financial Sub-Working Group identified four items for further review in advance of the fiscal year (FY) 2028/29 budget process: (1) a potential Regional Drought Reliability charge; (2) considerations related to incremental peaking billing determinants; (3) refinement of the unused standby charge to better reflect potential use of standby capacity rather than relying solely on volumetric usage; and (4) collaboration with member agencies to identify opportunities to partially or fully decommission unneeded treatment infrastructure.

Features	Option 1: Mar 14, 2025 Proposal w/Annual Peak	Option 2: Alternative Mar 14, 2025 Proposal w/ Summer Peak
Peaking Capacity Charge	A fixed charge would be collected based on a 3-year trailing <b>maximum annual peak day</b> demand in cubic feet per second (CFS).	A fixed charge would be collected based on a 3-year trailing <b>maximum summer peak day</b> demand in CFS.
	Treatment peaking capacity costs <b>~10 percent</b> of total treatment costs based on allocated revenue requirements	
Standby Capacity Charge	<p><b>Used Standby Capacity Charge:</b> A fixed charge for used standby capacity would be collected based on a 10-year trailing annual standby use, i.e., 10-year maximum annual use minus average use in acre-feet (AF).</p> <p><b>Remaining Standby Capacity Charge:</b> A fixed charge for remaining standby capacity would be collected based on 5-year trailing maximum annual use in AF.</p> <p>This charge inclusive of the Peaking and Used Standby Charge would add up to 30 percent of the Treatment Revenue Requirements, unless the allocated combined fixed costs are less than 30 percent.</p>	
Volumetric	Remaining (~70 percent) of treatment costs	

There was broad support among member agency managers for phased-in implementation of the Peaking and Standby fixed charges to minimize initial member agency impacts and provide opportunities for member agencies to adjust operations accordingly. These two remaining proposals were developed following extensive data review and presentations by Metropolitan staff, with Raftelis Financial Consultants actively participating throughout the evaluation. Raftelis provided technical input, reviewed cost-of-service (COS) methodologies and conducted an independent assessment of the final proposals. In their memorandum, Raftelis concluded that both offer a reasonable balance between cost recovery principles and Metropolitan's broader objectives and priorities (see **Attachment 1**).

## 2. Unrestricted Reserve Policy

To enhance financial stability and better address evolving risks, including those driven by climate change, the Financial Sub-Working Group recommends technical refinements to the reserve policy.

- **Link reserve percentage to water demand exceedance levels:** Adjust reserve percentage based on budgeted exceedance level, with the following assumptions:
  - 80 percent exceedance = 15 percent reserve percentage;
  - 70 percent exceedance = 19 percent reserve percentage;
  - 50 percent exceedance = 25 percent reserve percentage; and
  - Establish a policy to set water demand at 70 percent exceedance for rate setting with a long-term target of 80 percent without relying on one-time revenues or reserve draws.
- **Recognize the disconnect between supplies and sales and exclude variable costs from reserve calculations.**
- **Incorporate protection for treated water sales volatility:** Treatment revenue requirements will be incorporated into the Unrestricted Reserves Minimum and Target levels to provide enhanced protection against treated sales volatility. The Treatment Surcharge Stabilization Fund will be consolidated into Unrestricted Reserves to streamline fund management and increase flexibility.
- **Exclude uncertain revenues:** Unpredictable revenue sources, such as unawarded grants and one-time revenues, should be excluded from reserve calculations to protect against revenue shortfall risks.

**Under the 70 percent exceedance scenario, the minimum reserve would increase from \$229 million to \$467 million, while the target reserve would rise from \$645 million to \$1.189 billion. This change would not result in a rate impact, as current projected reserve balances fall within the new minimum and target levels. Importantly, as additional fixed revenues are approved by the Board (e.g., standby and peaking treatment fixed revenues, property taxes, etc.), the minimum and target reserve levels reflected above would be reduced. Furthermore, these target levels do not incorporate the recently announced baseline deliveries under the SDCWA/MWD settlement agreement, which would further reduce both the minimum and target reserve levels.**

### **3. Conservative Water Demand Projections**

The Financial Sub-Working Group recommends that Metropolitan establish a policy to set water demand projections at 70 percent exceedance for rate setting, with a long-term target of 80 percent. This approach creates a mechanism to maintain reserves at the target level, providing additional protection against rate spikes.

### **4. Other Fixed Revenues Under Consideration**

The Financial Sub-Working Group recommends that Metropolitan consider adopting and implementing the proposed fixed treatment charges as outlined in the Treated Water Cost Recovery recommendations while continuing to evaluate additional fixed revenue alternatives. Potential fixed revenue alternatives that require additional discussion include:

- Voluntary Level Pay Plan
- Fixed charge for Demand Management (i.e., conservation, Local Resource Program)
- Expansion of current Readiness-to-Serve and Capacity Charge to recover operations and maintenance costs
- Ad Valorem Property Taxes

Metropolitan staff will convene additional meetings with interested member agencies to continue these discussions.

## **Fiscal Impact**

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The recommended refinements do not result in immediate fiscal impacts but are intended to strengthen Metropolitan's long-term financial stability.

Adoption of one of the leading treated water cost recovery options would increase the share of fixed revenues to approximately 30 percent of total revenues, aligning more closely with industry standards for fixed-variable cost recovery. This adjustment would enhance revenue stability by ensuring recovery of standby and peaking treatment capacity costs through fixed charges and would support a more equitable allocation of treatment service costs, consistent with cost-of-service principles.

Proposed updates to the Unrestricted Reserve Policy would further enhance financial resilience by linking reserve targets to conservative water demand projections (70 percent exceedance level, with a long-term target of 80 percent). Under the 70 percent exceedance scenario, the minimum reserve would increase from \$229 million to \$467 million, while the target reserve would rise from \$645 million to \$1.189 billion. This change would not result in a rate impact, as current projected reserve balances fall within the new minimum and target levels. This approach mitigates the risk of underperforming sales, reduces reliance on unplanned reserve draws, and provides greater protection against revenue volatility from treated water sales, supply fluctuations, and uncertain or one-time funding sources.

Collectively, these refinements support Metropolitan's efforts to improve revenue reliability and fiscal resilience under variable supply and demand conditions.

## **Applicable Policy**

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Metropolitan Water District Act Section 124.5: Ad Valorem Tax Limitation

Metropolitan Water District Act Section 130: General Powers to Provide Water Services

Metropolitan Water District Act Section 133: Fixing of Water Rates

Metropolitan Water District Act Section 134: Adequacy of Water Rates; Uniformity of Rates

Metropolitan Water District Act Section 134.5: Water Standby or Availability of Service Charge

Metropolitan Water District Administrative Code Section 4304: Apportionment of Revenues and Setting of Water Rates

Metropolitan Water District Administrative Code Section 4401: Rates

Metropolitan Water District Administrative Code Section 5202: Fund Parameters

## **Related Board Action(s)/Future Action(s)**

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The following sets forth the proposed schedule for proposed board action on the various policy refinements and business model updates.

- July 2025 – Board to consider action to Approve a Treated Water Cost Recovery Rate Structure to be included with the staff proposal for the FY 26/27 and 27/28 Biennial Budget and CYs 27 and 28 Rates and Charges
- July 2025 –Board to consider action to Approve Revisions to Metropolitan's Reserves Policy and Direct Staff to Implement Specific Sales Projections for the proposed FY26/27 and 27/28 Biennial Budget

## **Details and Background**

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### **Background**

Extreme weather conditions in recent years—swings from severe and extended drought to record-setting wet seasons—pose a unique challenge to Southern California, placing mounting pressure on the year-to-year management of available water resources.

On July 22, 2024, The Metropolitan Water District of Southern California's (Metropolitan) Chair of the Board of Directors, Vice Chair of the Board of Directors for Finance and Planning, and Chair of the CAMP4Water Task Force (Board Leadership) commissioned an Ad Hoc Working Group comprised of the general managers of Metropolitan's 26 member agencies (Ad Hoc Working Group) to analyze Metropolitan's business model and propose business model refinement options, where appropriate. In its July 22nd letter, Board Leadership directed the Ad Hoc Working Group to ensure that it considers five factors and opportunities: (1) treated water cost recovery; (2) Metropolitan's role in member agency local supply development; (3) potential member agency supply exchange program; (4) proportion and components of fixed and volumetric charges; and (5) conservation program and funding source(s). The Ad Hoc Working Group formed three sub-working groups to focus on specific factors. The Financial Sub-Working Group took on the financial factors directed for review.

In accordance with Board Leadership direction and following a series of Ad Hoc Working Group workshops, the Financial Sub-Working Group has developed and reviewed four key proposals aimed at promoting financial stability, ensuring equitable cost recovery, and aligning with previously adopted Policy Principles. These proposals—centered on Treated Water Cost Recovery, Unrestricted Reserve Policy, Conservative Water Demand Projections, and Other Fixed Revenues—reflect an ongoing collaborative effort with member agencies to refine and modernize Metropolitan's financial framework.

### **Metropolitan System Use by Member Agencies**

Metropolitan plays a critical role in supporting the region's water reliability by delivering both treated and untreated water tailored to the infrastructure and operational needs of its 26 member agencies. The distinction between treated and untreated water usage reflects each agency's strategic approach to water management.

Agencies with robust local treatment capabilities often opt for untreated water to enhance flexibility and reduce costs, while others depend on Metropolitan's treated water to meet public health and service requirements.

Fifteen of the 26 member agencies – Beverly Hills, Calleguas, Compton, Foothill, Fullerton, Glendale, Las Virgenes, Long Beach, Pasadena, San Fernando, San Marino, Santa Ana, Santa Monica, Torrance, and West Basin—receive only treated water. One (1) agency, Inland Empire, exclusively takes untreated water. The remaining 10 agencies —Anaheim, Burbank, Central Basin, Eastern, Los Angeles, MWD, San Diego, Three Valleys, Upper San Gabriel, and Western—receive a combination of both treated and untreated supplies. Over the past five years, agencies limited to treated water have accounted for approximately 44 percent of total annual treated water sales, underscoring their significant reliance on Metropolitan's centralized treatment system.

### **The Collaborative Process with Member Agencies**

Beginning in May 2024, Metropolitan held 13 workshops, including seven Treated Water Cost Recovery workshops and six Financial Policies Business Model Support Sub-Working Group workshops (the group was renamed in January 2025). These workshops served as a forum for in-depth exploration of treatment system operations, historical treated water usage, COS principles, and alternative rate design methodologies.

The process was supported by multiple rounds of detailed financial and operational analyses, including evaluations of usage data, cost allocations, and rate design impacts. These analyses were performed following workshops to provide member agencies with additional supporting information and to address specific questions and feedback received at the workshops. Input collected throughout the process from member agencies helped shape the direction of the discussions, informed subsequent analyses, and guided the development of alternative options to ensure that the proposed approaches addressed member agency concerns and reflected operational realities.

Raftelis Financial Consultants, Metropolitan's independent rate consultant, played an integral role throughout the Treated Water Cost Recovery process by validating methodologies, providing expert assessments, and ensuring alignment with COS principles and industry best practices. Building on this involvement, Metropolitan engaged Raftelis in late April to conduct an independent review of the two remaining proposals and to prepare a memorandum summarizing their evaluation and findings (**Attachment 1**).

### **Potential Business Model Financial Refinements**

#### **1. Treated Water Cost Recovery**

On April 9, 2024, the Metropolitan Board adopted the FY 2024/25 and FY 2025/26 Biennial Budget that directed staff to work with member agencies to evaluate and analyze the Treatment Surcharge. Specifically, the Board directed staff to address issues identified through the analysis, including potential modifications to the calculation methodology. The Board further emphasized that a final methodology should be prioritized as part of the broader new business model discussion and recommended for adoption as soon as possible, but no later than the approval of the new business model.

Beginning in May 2024, Metropolitan convened a series of 13 workshops with participating member agency managers under the Treated Water Cost Recovery Workgroup—renamed in January 2025 to the Financial Policies Business Model Support Sub-Working Group. These workshops provided a forum for in-depth exploration of treatment system operations, historical treated water usage, COS principles, and alternative rate design methodologies.

Throughout the process, regular status updates were provided to the Subcommittee on Long-Term Regional Planning Processes and Business Modeling Workgroup, the Business Model Review and Refinement Ad Hoc Working Group, and the Finance, Affordability, Asset Management, and Efficiency Committee. The work was grounded in detailed data analysis and consistently informed by Metropolitan's external rate consultant, Raftelis Financial Consultants. Raftelis actively participated by attending meetings, responding to technical questions, offering expert insights, and presenting key information to ensure alignment with COS principles and industry best practices.

Throughout the evaluation process, Metropolitan provided comprehensive data to support the analysis of various peak and standby capacity charge alternatives. This included daily flow records for all member agency meters

from 2014 through 2023, historical treatment plant capacity utilization (by facility and in aggregate), connected capacity by member agency, treatment plant capacities, a review of COS fundamentals, and member agency treated water demands over the same period. Metropolitan's Integrated Operations Planning and Support Service and Water Quality teams participated in these discussions.

For each alternative, agency-specific historical treated water use and demand patterns were incorporated into the billing determinants, expressed in either acre-feet (AF) or cubic feet per second (CFS), depending on the alternative's structure. These billing determinants formed the basis for calculating member agency cost allocations and assessing recovery of the total revenue requirement. The analysis featured illustrative member agency bills looking back over multiple years, showing how costs would have varied based on historical usage patterns and the characteristics of each alternative had these changes already been in place. Year-over-year dollar and percentage changes were calculated to highlight potential variability and sensitivity in agency costs under each scenario.

Results were summarized to reflect a full range of potential impacts—both increases and decreases—offering a clear view of each alternative's distributional effects and revenue stability. This side-by-side comparison, grounded in historical data, was designed to reflect agency-specific operational characteristics. It is important to note that these results are based on historical information—the best available at the time—and do not represent future impacts, as actual demands may differ from past usage patterns.

As part of this extensive review, Metropolitan and member agencies considered:

- Six (6) Treatment Peaking Alternatives
- Nine (9) Treatment Standby Alternatives
- Five (5) separate proposals were introduced by member agencies in January 2025, February 2025, March 2025, March 14, 2025, and March 14, 2025 with Summer Peak.

### ***Guiding Framework for Rate Design Solutions***

In alignment with the 2017 Adopted Policy Principles and incorporating feedback from member agencies received during the FY 2024/25–2025/26 biennial budget process and subsequent Treated Water Cost Recovery workshops, the Financial Sub-Working Group developed a guiding framework for rate design solutions to support the evaluation of alternatives, facilitate comparisons, and inform discussion and decision-making.

#### **1. Be consistent with industry-standard cost-of-service principles**

- Provide a nexus between member agency cost responsibility and benefits received.
- “Rate charged should reflect the cost of having capacity reserved and available for the customer” (AWWA M1 Principles of Water Rates, Fees, and Charges, 7th Edition)

#### **2. Align treatment rates with treatment services received**

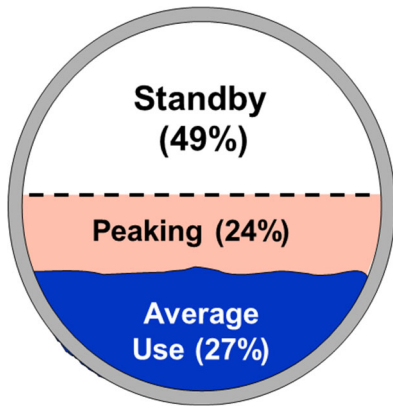
- Align the treated water cost recovery with (1) the service commitments and (2) infrastructure capital investments made by Metropolitan.
- Reflect the cost to maintain the treatment capacity and the treatment benefits received for average, peaking, and standby uses.
- Evaluate the portion of standby capacity that provides regional drought reliability.

#### **3. Enhance rate stability and predictability**

- Recover a portion of the treatment costs on fixed charge(s).
- Work closely with member agencies to continue to identify opportunities to partially or fully decommission unneeded treatment infrastructure and minimize future operations and maintenance (O&M) and capital expenditures.
- Continue to obtain member agency commitment to utilize new or expanded future capacity.

After twelve (12) months of evaluating alternative approaches to Treated Water Cost Recovery, there is broad recognition that action is necessary, as the current 100 percent volumetric structure is inconsistent with the Board's previously adopted Policy Principles on Treated Water.

### ***Treatment Plant Capacity, Use, and Cost***



The water treatment system is built with a total designed capacity of 3,651 CFS, strategically allocated across various operational categories to meet treated water demand for average use, peaking use, standby for unforeseen demands, and emergency readiness.

Metropolitan's existing COS process already identifies the function of costs to allocate them to standby, peaking, and average use (in the "Allocated Cost" section, pages 70–72 of the Metropolitan Cost-of-Service Report Fiscal Years 2024/25 and 2025/26). Metropolitan functionalizes those costs and then combines them into a bundled Treatment Surcharge. For the process of identifying fixed charge alternatives, staff further refined the functionalization of treatment costs to identify peaking and standby capacity costs.

Approximately 27 percent of the system's capacity is dedicated to average use, which represents the routine, ongoing water treatment demand. Another 24 percent of the system's capacity is allocated for peaking use, which is designed to handle short-term demand spikes, such as those that occur during heat waves or seasonal usage increases. While not used constantly, maintaining this capacity incurs substantial readiness costs and results in a notable portion of the treatment cost. The remaining 49 percent of capacity is reserved as treatment standby. This includes both used and unused standby capacity that provides critical system redundancy and allows for operational flexibility during planned maintenance or emergencies. Although this capacity is not frequently used, the associated infrastructure is maintained and kept operational, contributing a considerable share of fixed costs.

Under the current cost recovery model, these costs are recovered entirely through a volumetric surcharge, charging agencies based on the amount of water delivered. While this method is simple and usage-based, it does not reflect the full cost of maintaining system capacity but does not account for the varying patterns of system use by member agencies. Additionally, because this model relies solely on volumetric charges, it creates a revenue vulnerability as demand declines, despite the substantial fixed costs required to maintain system capacity, including peaking and standby readiness.

This has led to concerns that agencies with lower water use, with peaking use for a short period of time in a year, are contributing less than the funds needed to support Metropolitan's treatment infrastructure. Recognizing this misalignment, Metropolitan and its member agencies have undertaken a comprehensive review of the rate structure. Through a collaborative, year-long process involving workshops and technical evaluations, two leading proposals have emerged.

Both proposals retain the volumetric approach for recovering the majority of treatment costs but introduce a hybrid model that shifts up to 30 percent of treatment revenue recovery to fixed charges. These fixed costs would be allocated based on each agency's use of standby and peaking capacity, more accurately aligning cost recovery with the drivers of system investment and operational readiness. This change does not increase overall costs but reallocates existing costs to better reflect the infrastructure and service levels required to meet all levels of demand. The remaining 70 percent, or more, of treatment costs would continue to be recovered through volumetric rates, ensuring that usage-based pricing remains a core component of the rate structure.

### Leading Proposals

As a result of an extensive engagement process, two leading proposals have emerged to refine the approach to recovering treated water costs. Both proposals seek to recover up to 30 percent of Metropolitan's total treatment revenue requirements through fixed charges based on the percentage of fixed costs associated with standby and peaking capacity. While they share common foundational elements, the proposals differ in the methodology used to calculate the Treatment Peaking Charge.

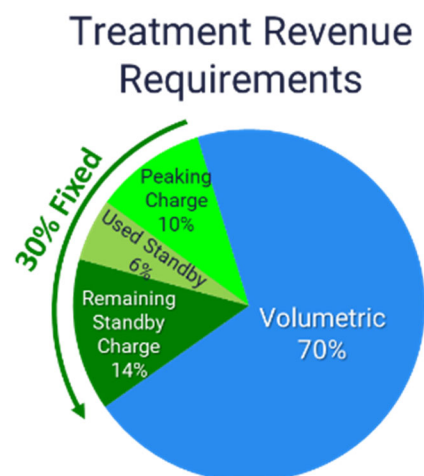
Key Difference: Treatment Peaking Charge Determinant

#### Option 1 – March 14, 2025, MA Proposal, Annual Peak Day

- A fixed charge would be collected based on a 3-year trailing maximum annual peak day demand in cubic feet per second (CFS).

#### Option 2 – March 14, 2025, Alternative Proposal, Summer Peak Day

- A fixed charge would be collected based on a 3-year trailing maximum summer peak day demand in CFS.



Features	Option 1: Mar 14, 2025 Proposal w/Annual Peak	Option 2: Mar 14, 2025 Alternative Proposal w/ Summer Peak
Peaking Capacity Charge	A fixed charge would be collected based on a 3-year trailing <b>maximum annual peak day</b> demand in CFS.	A fixed charge would be collected based on a 3-year trailing <b>maximum summer peak day</b> demand in CFS.
	Treatment peaking capacity costs <b>~10 percent</b> of total treatment costs based on allocated revenue requirements.	
Standby Capacity Charge	<p><b>Used Standby Capacity Charge:</b> A fixed charge for used standby capacity would be collected based on a 10-year trailing annual standby use, i.e., 10-year maximum annual use minus average use in AF.</p> <p><b>Remaining Standby Capacity Charge:</b> A fixed charge for remaining standby capacity would be collected based on a 5-year trailing maximum annual use in AF.</p> <p>This charge, inclusive of the Peaking and Used Standby Charge, would add up to 30 percent of the Treatment Revenue Requirements, unless the allocated combined costs are less than 30 percent.</p>	
Volumetric	Remaining (~70 percent) of treatment costs	



Currently, the March 14, 2025, member agency proposal has the most support among member agency managers. Based on recent input:

- The March 14, 2025, proposal has received support from managers representing 18 member agencies.
- The alternative March 14, 2025, proposal with a Summer Peak component has received support from one (1) member agency.
- One (1) member agency has remained neutral, deferring to agencies that receive treated water to guide the decision.

The following adjustments / Certifications to Peaking Flows are applicable to all proposals:

- Similar to the existing Capacity Charge, treated water peaking flows resulting from Metropolitan's operational requests (e.g., shutdowns, service disruptions, wet year operations, dry year operations) do not reflect member agency demand on Metropolitan and, therefore, will not be included in an agency's peaking calculations; and,
- All data and adjustments would be fully documented and validated by each agency, following the existing process for Readiness-To-Serve and Capacity Charges.

The Financial Sub-Working Group identified four items for further review in advance of the FY2028/29 budget process: (1) a potential Regional Drought Reliability charge; (2) considerations related to incremental peaking billing determinants; (3) refinement of the unused standby charge to better reflect potential use of standby capacity rather than relying solely on volumetric usage; and (4) collaboration with member agencies to identify opportunities to partially or fully decommission unneeded treatment infrastructure.

There was broad support among member agency managers for phased-in implementation of the Peaking and Standby fixed charges to minimize initial member agency impacts and provide opportunities for member agencies to adjust operations accordingly:

- Peaking = 3-year phase-in
- Standby:
  - Used = 10-year phase-in
  - Remaining = 5-year phase-in

In late April, Metropolitan engaged Raftelis to conduct an independent review of the two remaining proposals and to prepare a memorandum summarizing their evaluation and findings. In their memorandum, Raftelis concluded that both proposals offer a reasonable balance between cost recovery principles and Metropolitan's broader objectives and priorities (see **Attachment 1**).

### ***Alternatives Considered***

The Financial Sub-Working Group developed and evaluated multiple alternatives for recovering treated water costs related to peaking and standby capacity (summarized in **Attachment 2**). While the concept of a regional drought reliability benefit was also analyzed, further discussion is needed. It is recommended that these discussions continue with the goal of incorporating potential changes into Metropolitan's rate structure prior to the FY 2028/29 budget process.

Hypothetical impact analyses were conducted for all proposed alternatives, along with sensitivity analyses illustrating year-over-year changes to fixed charges for member agencies under each scenario. Raftelis reviewed the alternatives and concluded that each presents a reasonable nexus to COS standards.

### ***Next Steps***

The Financial Sub-Working Group has concluded its technical evaluation of the treated water cost recovery proposals, including detailed assessments of implementation strategies, COS alignment, and legal compliance. Based on board input and recommendation, staff plans to bring back action items in the July/August timeframe.

## **2. Unrestricted Reserve Policy**

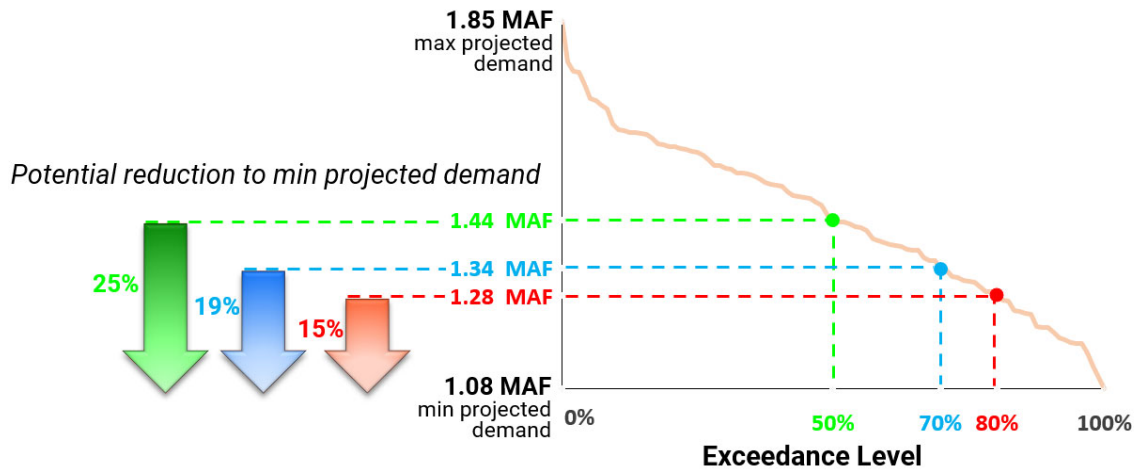
The current Unrestricted Reserve Policy, originally adopted with the 1999 Long Range Finance Plan, is governed by Metropolitan Administrative Code § 5202. It is designed to cover revenue shortfall resulting from declines in water transactions, ensuring a minimum of 18 months and up to 42 months of rate protection at the target level. The policy has been generally effective, as Metropolitan has not required emergency rate increases outside of its regular rate-setting process. Unrestricted reserves exceeding the target level may be used for any lawful purpose as determined by the Board. Although the policy aims to provide 3.5 years of rate protection at the target level, it currently lacks a clear policy mechanism to ensure reserves reach and maintain that target level.

The existing reserve calculation is based on hydrologic risk estimates from the 1999 Long Range Finance Plan. However, climate change, which has exacerbated the volatility of both demand and supply, and the associated risks over the years, have highlighted the need for refinements. The minimum reserve level is set to cover 18 months of reserves, comprising the next fiscal year's reserve amount plus half of the subsequent fiscal year's reserve. The target reserve level extends this calculation by an additional two years, totaling 42 months (3.5 years) of reserve coverage.

The current policy assumes that variable supply and power costs decrease when water demand is low, but this is not always the case. During wet years with low demand, power costs may actually increase due to the need to move and store excess water. Additionally, the policy does not account for revenue shortfalls from the Treatment Surcharge during periods of low treated water sales. The Treatment Surcharge Stabilization Fund, which currently has no fund balance, lacks defined minimum and target levels, limiting its effectiveness in providing rate protection.

The reserve policy's minimum and target levels are based on the revenue risk associated with lower water sales. Reserves, however, have been used to address all unforeseen cash shortages, including shortfalls in treated system revenues and to add water to storage during years of surplus. In addition, the policy will lose its effectiveness if rates are not adopted to fully cover costs, such as setting rates based on planned draws from reserves or setting rates based on one-time revenues.

Metropolitan reviewed the calculations for determining the portion of the net revenue requirement that is collected by volumetric water rates. Certain line items that were deducted from the net revenue requirement were no longer appropriate due to climate-related volatility, the uncertain nature of the assumed revenues, and the disconnect between supplies and sales. The reserve percentage was also analyzed in light of recent water transactions and potential demand variability. Historical data indicated that actual water transactions were consistently lower than budgeted projections for eight of the past nine years. By correlating this trend with a revised reserve percentage, the sub-working group recommended aligning the reserve percentage with the budgeted exceedance level—the higher the exceedance level, the lower the volatility, allowing for a lower reserve percentage in the calculation, as shown in Figure 1 below.

**Figure 1: Projected Demand Variability for Calendar Year 2025**

To enhance financial stability and better address evolving risks, the sub-working group recommends the following technical refinements to the reserve policy:

- **Link reserve percentage to water demand exceedance level:** Adjust reserve percentage based on budgeted exceedance level, with the following assumptions:
  - 80 percent exceedance = 15 percent reserve percentage;
  - 70 percent exceedance = 19 percent reserve percentage;
  - 50 percent exceedance = 25 percent reserve percentage; and
  - Establish a policy to set water demand at 70 percent exceedance for rate setting with a long-term target of 80 percent without relying on one-time revenues or reserve draws.
- **Recognize the disconnect between supplies and sales and exclude variable costs from reserve calculations.**
- **Incorporate protection for treated water sales volatility:** Treatment revenue requirements will be incorporated into the Unrestricted Reserves Minimum and Target levels to provide enhanced protection against treated sales volatility. The Treatment Surcharge Stabilization Fund will be consolidated into Unrestricted Reserves to streamline fund management and increase flexibility.
- **Exclude uncertain revenues:** Revenue sources that are unpredictable, such as unawarded grants and one-time revenues, should be excluded from reserve calculations to protect against revenue shortfall risks.

Gradually implementing a higher exceedance level (i.e., 80 percent) in rate setting would help reduce risk associated with sales variability, increasing the likelihood that Metropolitan meets its budgeted water transaction projections. This approach creates a mechanism to maintain reserves at the target level, providing additional protection against rate spikes and emergency rate adjustments.

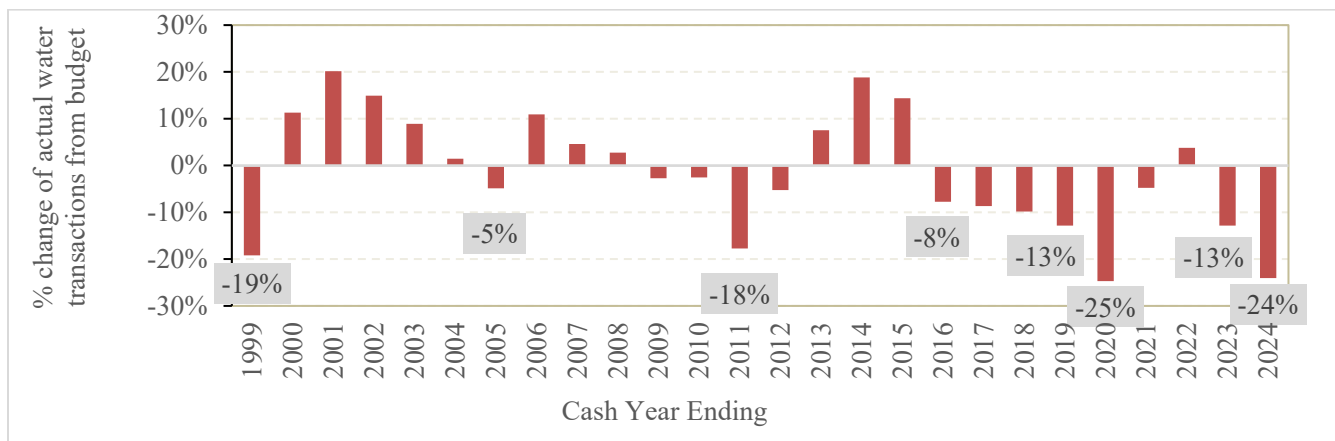
**Under the 70 percent exceedance scenario, the minimum reserve would increase from \$229 million to \$467 million, while the target reserve would rise from \$645 million to \$1.189 billion. This change would not result in a rate impact, as current projected reserve balances fall within the new minimum and target levels. Importantly, as additional fixed revenues are approved by the Board (e.g., standby and peaking treatment fixed revenues, property taxes, etc.), the minimum and target reserve levels reflected above would be reduced. Furthermore, these target levels do not incorporate the recently announced baseline deliveries under the SDCWA/MWD settlement agreement, which would further reduce the minimum and target reserve levels.**

### 3. Conservative Water Transactions in Rate Setting

The Financial Sub-Working Group developed a recommendation for adopting a more conservative approach to forecasting water transactions for rate-setting purposes. This proposal is in response to significant and persistent variability in Metropolitan's actual water sales, which have often fallen short of budgeted expectations.

Over the last 25 years, Metropolitan has experienced notable volatility in water transactions. This trend has become more pronounced in recent years, with actual sales in 2019, 2020, 2023, and 2024 falling short of projections by 13 percent to 25 percent. These recurring shortfalls have increased the strain on unrestricted reserves and raised the risk of unplanned revenue deficits, undermining the reliability of rate recovery and financial planning.

**Figure 2: Variability of Metropolitan's Historic Water Transactions from Budget**



Historically, Metropolitan's biennial budget, along with its rates and charges, has been based on average demand (aligned with a 50 percent exceedance level), meaning there is a 50 percent likelihood that actual demand will meet or exceed the forecast. While this approach was effective during periods of more stable demand, over the past decade, climate change and other factors have increased uncertainty in sales projections, resulting in revenue shortfalls when actual water transactions fall below budgeted levels. Since the exceedance level relies on historical hydrology, adopting a more conservative demand projection would help mitigate financial risk by reducing the likelihood of overestimating sales, thereby safeguarding revenue and reserves.

The Financial Sub-Working Group recommends that Metropolitan establish a policy to use a minimum of 70 percent exceedance level for rate setting during biennial budget development, with a long-term target of 80 percent exceedance level, ensuring financial stability without relying on one-time revenues or reserve draws. Gradually reaching the target of 80 percent exceedance will mitigate sales volatility and create a mechanism for building and maintaining reserves at the target levels, providing additional protection against rate spikes while minimizing the potential initial impacts. This proposal aligns with recommendations on the Unrestricted Reserve Policy and other fixed revenue strategies.

### 4. Other Fixed Revenue Recommendations

The Financial Sub-Working Group recommends that Metropolitan consider adopting and implementing the proposed fixed treatment charges as outlined in the Treated Water Cost Recovery recommendations while continuing to evaluate additional fixed revenue alternatives.


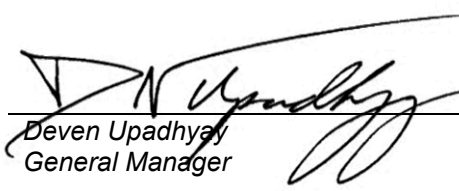
Potential fixed revenue alternatives that require additional discussion include:

- Voluntary Level Pay Plan
  - Member agencies interested in a Voluntary Level Pay Plan will make recommendations to Metropolitan staff. Staff will convene a meeting with the interested member agencies to explore

the alternatives, analyze the impacts, and identify the changes to Metropolitan's policies that would be required for implementation.

- Fixed charge for Demand Management (i.e., conservation, Local Resource Program)
  - Staff will evaluate fixed charges based upon the recommendations made by the water resources sub-working group.
- Expansion of current Readiness-to-Serve and Capacity Charge to recover O&M costs
- Ad Valorem Property Taxes
  - Staff will evaluate the impacts on rates, charges, and reserves from increasing the ad valorem property tax rate in future budgets.

Metropolitan staff will convene additional meetings with interested member agencies to continue these discussions.

	6/3/2025
Katano Kasaine	Date
Assistant General Manager/ Chief Financial Officer	
	6/3/2025
Deven Upadhyay	Date
General Manager	

**Attachment 1 – Raftelis' Technical Memorandum and Presentation for June 10, 2025 FAAME Committee Meeting**

**Attachment 2 – Appendix A, Summary of Treated Water Cost Recovery Alternatives**

# TECHNICAL MEMORANDUM

**To:** Metropolitan Water District of Southern California

**From:** John Mastracchio, CFA, P.E., John Wright, CPA, Raftelis

**Date:** May 19, 2025

**Re:** Treatment Surcharge – Peaking Cost Recovery

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## Introduction

This memorandum was prepared for the Metropolitan Water District of Southern California (“Metropolitan”). It summarizes Raftelis’ comments on Metropolitan using the annual maximum peak day demands of member agencies, as measured on a three-year trailing basis (Option 1) and using the summer maximum peak day demands of member agencies, as measured on a three-year trailing basis (Option 2) to calculate a new water treatment peaking capacity charge. We understand that Metropolitan is considering adopting one of these cost recovery options and desires input from Raftelis on how this alternative aligns with industry cost-of-service principles and Metropolitan’s objectives.

## Cost-of-Service Principles and Metropolitan Objectives

According to the American Water Works Association (“AWWA”), water utility rates are generally considered to be fair and equitable when they provide for full cost recovery from customers in proportion to the benefits received and the cost to serve each class of customer.<sup>1</sup> While recovery of the full revenue requirement in a fair and equitable manner is a key objective of the cost-of-service ratemaking process, it is often not the only objective. There are other objectives that can be considered in establishing cost-based rates, including the following:

- Effectiveness in yielding the total revenue requirements (full cost recovery)
- Revenue stability and predictability
- Stability and predictability of the rates themselves from unexpected or adverse changes
- Promotion of efficient resource use
- Fairness in the apportionment of total costs of service among different ratepayers
- Avoidance of undue discrimination (subsidies) within the rates
- Dynamic efficiency in responding to changing supply-and-demand patterns
- Simple and easy to understand and administer
- Legal and defensible

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<sup>1</sup>AWWA, Manual of Water Supply Practices M1, Seventh Edition.

In considering alternatives for the treatment surcharge, Metropolitan has identified the following high priority objectives:

1. Be consistent with industry standard cost of service principles
  - a. Provide a clear nexus between member agency cost responsibility and the benefits received.
  - b. Establish rates that reflect the cost of having capacity reserved and available for member agencies.
2. Align treatment rates with treatment services received
  - a. Align the treated water cost recovery with (1) the service commitments, and (2) infrastructure capital investments made by Metropolitan.
  - b. Reflect the cost to maintain the treatment capacity and the treatment benefits received for average, peaking, and standby uses.
  - c. Evaluate the portion of standby capacity that provides regional drought reliability.
3. Enhance rate stability and predictability
  - a. Recover a portion of the treatment cost on fixed charge(s)
  - b. Work closely with member agencies to continue to identify opportunities to partially or fully decommission unneeded treatment infrastructure and minimize future operations and maintenance (“O&M”) expenses and capital expenditures.
  - c. Continue to obtain member agency commitment to utilize new or expanded future capacity.

## **Evaluation of Using a Three-year Trailing Maximum Annual Peak Day Demand as the Basis for the Water Treatment Peaking Capacity Charge**

Several member agencies have proposed that Metropolitan utilize a three-year trailing maximum annual peak day demand (Option 1) as the basis or billing determinant for charging member agencies a water treatment peaking capacity charge. Raftelis has reviewed this option in comparison to the objectives described above and finds the option is acceptable from a cost-of-service principles standpoint and reasonably satisfies Metropolitan’s other stated objectives. Our review comments are summarized below.

### **Consistency with Cost-of-Service Principles**

Metropolitan has built water treatment capacity and has made this treatment capacity available to member agencies to utilize anytime throughout the year.<sup>2</sup> Under Option 1, those that use or benefit from the water treatment capacity to satisfy customer water use peaking throughout the year would help pay for the capacity. This directly aligns with the cost-of-service principles discussed above.

For example, some member agencies served by Metropolitan have their highest peak day use in the summer months whereas others have their highest peak day use in the winter months. Furthermore, Metropolitan has built more than sufficient water treatment capacity to satisfy customer peak demands regardless of whether they occur in the summer months or the winter months. Option 1 charges each member agency a

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<sup>2</sup> The current capacity of Metropolitan’s five water treatment plants is 2,360 million gallons per day (MGD) or 3,651 cubic feet per second (CFS). Metropolitan’s peak treatment capacity usage estimated for the 2024/25 budget year is 1,859 CFS.

proportionate share of costs of the use of the system to satisfy its own peak day demands regardless of when the peak occurs. This is referred to as their non-coincident peak – the peak day usage of each member agency regardless of when the system as a whole peaks (i.e., when the total system coincident peak occurs).

Utilizing this approach results in a fair and equitable sharing of the cost of peak treatment capacity in proportion to each member agency's individual needs and how much they use the system overall. Using non-coincident peaking helps to ensure that all member agencies share in the cost of their use of peak treatment capacity fairly and avoids penalizing a group of member agencies just because their individual peak usage is aligned with the system's overall peak or allowing member agencies to use system peaking capacity without sharing in the cost. This outcome can occur if a peaking charge is based on a member agency's contribution to total system coincident peak but their actual agency specific peak occurs at a different time. For example, if the total system coincident peak occurs during the summer months but a member agency's actual peak usage occurs during the fall or winter months, they may receive a lower allocation of costs during the cost-of-service process.

### **Align Treatment Rates with Treatment Services Received**

Option 1 aligns the peaking capacity charge with the treatment services received. Member agencies that utilize the peak treatment capacity, whenever it is used, share in the cost of infrastructure capital investments that have been made by Metropolitan to make and maintain the capacity available to customers.

### **Enhance Rate Stability and Predictability**

Option 1, if implemented, would result in a fixed charge that would provide stable and predictable fixed revenues for Metropolitan and rate stability and predictability for member agencies. This is because the basis of billing, i.e., three-year trailing maximum annual peak day demand, incorporates three years of member agency water demand data. Peak day demand for a member agency over the trailing three-year period has the potential to stay consistent for up to three years. In addition, the treatment peaking charge would be set by Metropolitan annually and member agencies would know what their peaking charge will be in the upcoming year, providing them with predictability in their water treatment charges from Metropolitan.

### **Other Considerations**

This option does not provide member agencies with an incentive to shift their peak usage of treatment capacity during off-peak usage periods, although such an incentive exists with the capacity charge. This incentive may be advantageous to minimize the cost of maintaining treatment capacity to satisfy demands during system peak periods by potentially allowing Metropolitan to decommission more unused capacity. However, Metropolitan's water treatment plants have more than sufficient treatment capacity to meet coincident peak capacity demands and it does not need to incentivize the use of capacity during non-peak periods to be able to accommodate peak usage of treatment capacity.



## **Evaluation of Using a Three-year Trailing Maximum Summer Peak Day Demand as the Basis for the Water Treatment Peaking Charge**

Another member agency proposal is for Metropolitan to utilize a three-year trailing maximum summer peak day demand (Option 2) as the basis or billing determinant for charging member agencies a water treatment peaking charge. Raftelis has reviewed this option in comparison to the objectives described above and finds that the option is acceptable from a cost-of-service principles standpoint and reasonably satisfies Metropolitan's other stated objectives. Our review comments are summarized below.

### **Consistency with Cost-of-Service Principles**

Utilizing this option results in full cost recovery of peak treatment capacity in proportion to the use of the capacity during the period when the system realizes its maximum period usage, i.e., during the summer. Using coincident peaking helps to recover costs from those that require Metropolitan to maintain sufficient treatment capacity to meet system peak demands and could help Metropolitan minimize future maintenance and capital expenses.

### **Align Treatment Rates with Treatment Services Received**

Option 2 aligns the peaking capacity charge with the treatment services received. Member agencies that have their peak capacity demands during the periods when the system peaks share in the cost of infrastructure that has been maintained to make water treatment capacity available to customers during peak usage periods when the system experiences its maximum peak day demands.

### **Enhance Rate Stability and Predictability**

Option 2, if implemented, would result in a fixed charge that would provide stable and predictable fixed revenues for Metropolitan and rate stability and predictability for member agencies. Peak day summer demand for a member agency over the trailing three-year period has the potential to stay consistent for up to three years. In addition, the treatment peaking charge would be set by Metropolitan annually and member agencies would know what their peaking charge will be in the upcoming year, providing them with predictability in their water treatment charges from Metropolitan.

### **Other Considerations**

Some utilities charge their customers for their contribution to the use of capacity during the total system coincident peak. A capacity constrained utility may desire to send a price signal to customers to minimize their usage during the time of the total system coincident peak in order better manage limited system capacity. For example, Metropolitan has limited distribution capacity and has adopted a capacity charge that recovers the cost to provide peak capacity within the distribution system. It also provides a price signal to encourage agencies to reduce peak demands on the distribution system and shift demands that occur during the summer period to the winter period, resulting in the benefit of deferring capacity expansion costs.

In the case of Metropolitan's water treatment plants, it has more than sufficient treatment capacity to meet coincident peak capacity demands and it does not need to incentivize the use of water treatment capacity during other periods. Therefore, Option 2, while acceptable from a cost-of-service perspective, may not be the preferred approach if Metropolitan does not desire to incentivize the off-peak usage of the treatment capacity.

## Conclusion

Based on a review of the member agency proposed options for recovery of water treatment peaking costs, both options are consistent with cost-of-service principles, would help to align member agency treatment rates with treatment services received, and provide an enhancement in rate stability and predictability over the existing method of recovery of Metropolitan's water treatment costs. Neither option is a perfect solution from a cost recovery principle standpoint. However, both options reflect a reasonable balance between cost recovery principles and Metropolitan's other objectives and priorities.



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# Review of New Treated Water Cost Recovery Alternatives for Peak Capacity Costs

June 10, 2025

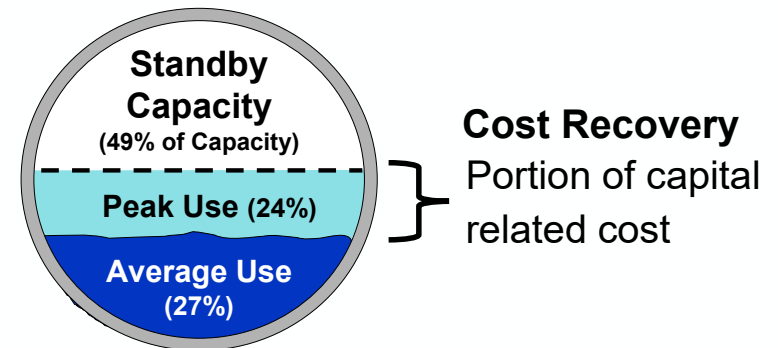


## Review of the March 14, 2025 proposal w/ Annual Peak and w/ Summer Peak

Features	Option 1: Mar 14, 2025 Proposal w/ Annual Peak	Option 2: Alternative Mar 14, 2025 Proposal w/ Summer Peak
Peaking Capacity Charge	A fixed charge would be collected based on a 3-year trailing <b>maximum annual peak day</b> demand in cubic feet per second (CFS)	A fixed charge would be collected based on a 3-year trailing <b>maximum summer peak day</b> demand in CFS
	Treatment peaking capacity costs <u>~10%</u> of total treatment costs based on allocated revenue requirements	
Standby Capacity Charge	<p><b>Used Standby Capacity Charge:</b> A fixed charge for used standby capacity would be collected based on a 10-year trailing annual standby use, i.e. 10-year maximum annual use minus average use in acre feet (AF)</p> <p><b>Remaining Standby Capacity Charge:</b> A fixed charge for remaining standby capacity would be collected based on 5-year trailing maximum annual use in AF</p> <p>This charge inclusive of the Peaking and Used Standby Charge would add up to 30% of the Treatment Revenue Requirements, unless the allocated combined fixed costs are less than 30%.</p>	
Volumetric	Remaining (~70%) of treatment costs	

## What are the Treatment Surcharge Peaking Costs?

- Treatment peaking costs are a portion of capital-related costs. They are existing and ongoing costs associated with paying for and maintaining the treatment capacity to satisfy peak demand.
- These are not new costs incurred when peak demands occur or caused directly by the peaking usage today.
- These treatment capacity costs are segregated into categories:
  - › Capacity available for standby or emergency use
  - › Capacity used to satisfy peak demands
  - › Capacity used for average demands



# Cost of Service Guiding Principles

Full cost recovery in proportion to the benefits received and the cost to serve



May consider other objectives that result in a reasonable fit for the utility.



## Metropolitan's Rate Structure Framework

Stability of  
revenue and  
coverage of cost

Fairness

Certainty and  
predictability

No significant  
economic  
disadvantage

Reasonably  
simple and easy to  
understand

Dry-year allocation  
should be based  
on need

# Review of Proposed Options

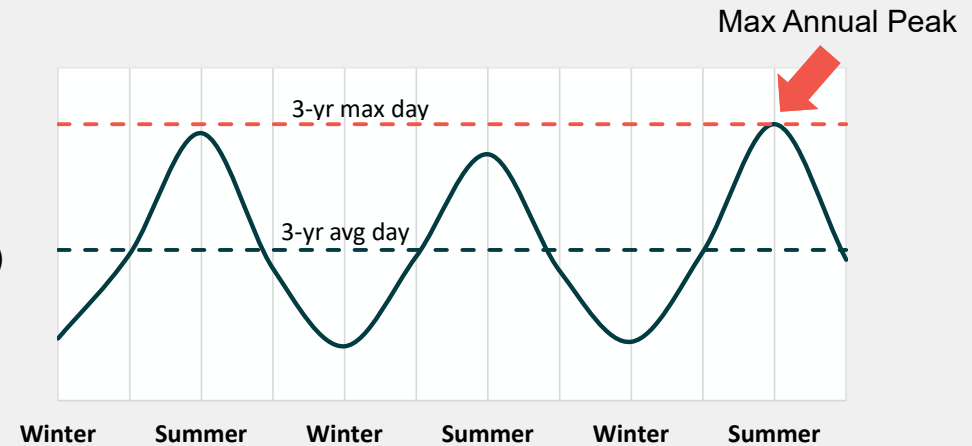


Proposal	Description	Comments
March 14 <sup>th</sup> Option 1	3-Yr Trailing Annual Peak	<ul style="list-style-type: none"> <li>• Customers that use MET's water treatment capacity shares in the cost, whenever it is used.</li> <li>• Avoids allowing MAs to utilize available treatment capacity without having to share in its costs.</li> <li>• Enhancement of rate and revenue stability and predictability over current treatment surcharge.</li> <li>• Since MET has excess treatment capacity available to meet all MA demands, there is no need to incentivize MAs to shift when their maximum use of the treatment capacity occurs. Incentive already exists with capacity charge.</li> </ul>
March 14 <sup>th</sup> Option 2	3-Yr Trailing Summer Peak	<ul style="list-style-type: none"> <li>• Recovers costs from MA's that require MET to maintain sufficient treatment capacity to meet system peak demands.</li> <li>• Could help MET minimize future maintenance and capital expenses by allowing MET to decommission more unused capacity.</li> <li>• Enhancement of rate and revenue stability and predictability over current treatment surcharge.</li> <li>• Provides added incentive for MAs to shift when their maximum use of the treatment capacity occurs.</li> </ul>

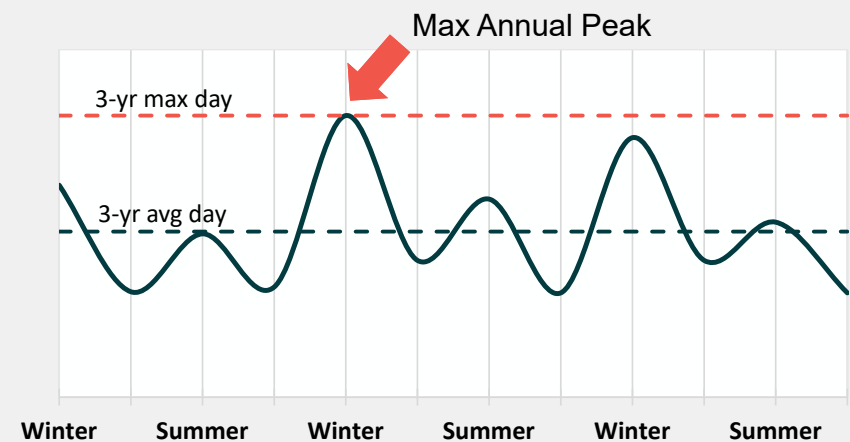
## Option 1 - Annual Maximum Peak Day Demand Measured Over a Trailing 3-Year Period

Under Option 1, both Customers A and B would pay a peaking charge in accordance with their peak use of the system over a trailing three-year period.

**Customer A  
(Summer Peak)**



**Customer B  
(Winter Peak)**

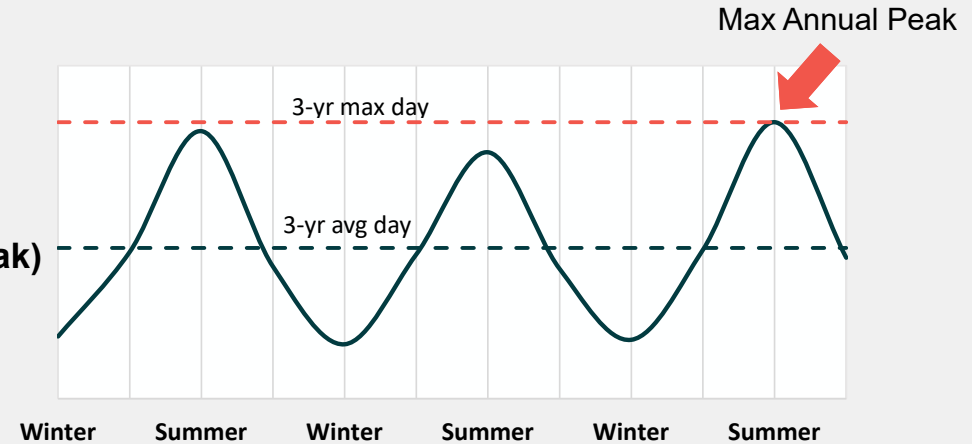




## Option 2- Summer Maximum Peak Day Demands Measured Over a Trailing 3-Year Summer Period

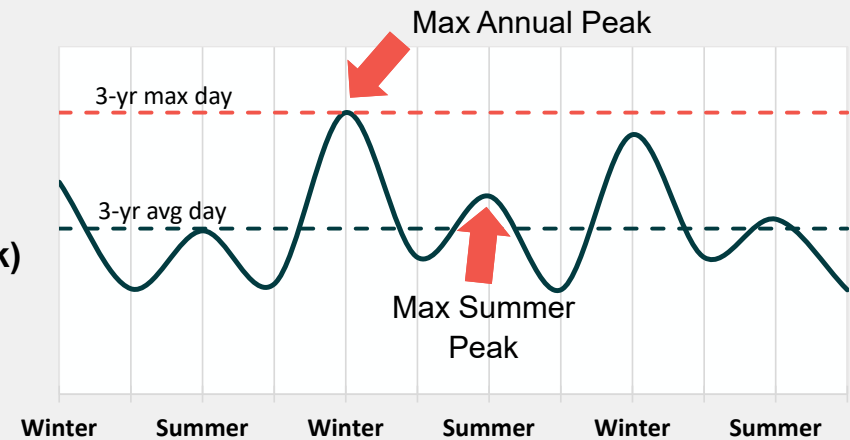
Customer A (peaks in the summer) and would pay a peaking charge in accordance with their peak use of the system

**Customer A  
(Summer Peak)**



Customer B (peaks in the winter) and would pay a peaking charge that does not reflect their full peak use

**Customer B  
(Winter Peak)**



## Raftelis Summary Comments on Options 1 & 2

1. Both options are consistent with cost-of-service principles
  - › Both would help to align water treatment surcharges with treatment services received.
2. Both provide an enhancement in rate and revenue stability and predictability over the existing method of recovery of water treatment capacity costs.
3. There is no perfect option - both provide a reasonable balance between cost recovery and other objectives and priorities.
4. Suggest Option 1 (Annual Peak) if MET does not desire to further incentivize the use of treatment peak capacity during off-peak periods

Appendix A  
Summary of Treated Water Cost Recovery Alternatives

This appendix summarizes the treated water cost recovery alternatives developed and evaluated by the sub-working group for peaking and standby use. Tables 1 and 2 present these alternatives and illustrate potential billing determinants under each option, supporting the discussions in the main report.

The alternatives were designed to explore different methods for recovering existing costs associated with providing treated water service, particularly for demands related to peaking and standby demands. The analysis included hypothetical impact assessments and a sensitivity analysis of year-over-year changes to Member Agency fixed charges.

**Table 1 – Treatment Peaking Cost Recovery Alternatives Analyzed**

	Billing Determinants	Units	Details	Descriptions
Alt 1	3-yr trailing maximum <u>summer</u> peak day demand	CFS	3-yr trailing max day <b>May-Sep</b>	Proposed in 2017 Treatment Capacity Charge (similar to the current Capacity Charge), represents member agencies' summer peak use.
Alt 2	3-yr trailing maximum <u>annual</u> peak day demand	CFS	3-yr trailing max day <b>Jan-Dec</b>	Represents member agencies' peak use throughout the year
Alt 3	3-yr trailing <u>annual incremental</u> peak demand	CFS	3-yr trailing max day Jan-Dec minus 3-yr avg day	Represents member agencies' <u>incremental</u> peak use throughout the year
Alt 4	3-yr trailing <u>summer incremental</u> peak demand	CFS	3-yr trailing max day May-Sep minus 3-yr avg day	Represents member agencies' <u>incremental</u> peak use during summer and supports local supply development
Alt 5	3-yr trailing <u>annual incremental seasonally adjusted</u> peak demand	CFS	3-yr trailing seasonal adjusted max day minus 3-yr avg day	Represents member agencies' <u>incremental</u> peak use with seasonal factors to reduce summer peak impact on MWD distribution system
Alt 6	3-yr trailing <u>average incremental</u> peak demand	CFS	3-yr <u>average</u> trailing of max day Jan-Dec minus avg day	Represents member agencies' <u>average incremental</u> peak use over the 3-year period
Feb 2025 MA Proposal - Peaking	3-yr trailing maximum <u>annual</u> peak day demand	CFS	3-yr trailing max day <b>Jan-Dec</b>	Recovers treatment peaking costs, capped at 10% of treatment costs, billing determinants same as Alt 2
Mar 2025 MA Proposal	3-yr trailing maximum <u>annual</u> peak day demand	CFS	3-yr trailing max day <b>Jan-Dec</b>	Same as Alt 2
Mar 14 2025 MA Proposal – Annual Peaking	3-yr trailing maximum <u>annual</u> peak day demand	CFS	3-yr trailing max day <b>Jan-Dec</b>	Same as Alt 2
Mar 14 2025 MA Proposal – Summer Peaking	3-yr trailing maximum <u>summer</u> peak day demand	CFS	3-yr trailing max day <b>May-Sep</b>	Same as Alt 1

Appendix A  
Summary of Treated Water Cost Recovery Alternatives

**Table 2 – Treatment Standby Cost Recovery Alternatives Analyzed**

	Billing Determinants	Units	Details	Descriptions
Alt A	Max of TYRA or 1998-2007 Avg	AF	(TYRA= 10-yr rolling avg)	1998-2007 Represents the basis when MWD made major investments in treatment plants
Alt B	10-yr Trailing Max Year	AF	Max annual usage in the past 10 years	Represents MA's standby use in the past 10-yrs beyond seasonal peak
Alt C	10-yr Trailing Annual Standby Use	AF	10-yr max annual usage minus 10-yr average use	Represents MA's standby use in the past 10-yrs beyond seasonal peak and average use
Alt D	Treatment Connected Capacity	CFS	Sum of Member Agency treated connections	Potential Member Agency capacity to MWD's treatment system
Alt E	Treatment Capacity Reservation	CFS		Capacity requested by each Member Agency
Alt F	Treatment Connected Capacity available for Standby	CFS	Treatment connected capacity minus 3-yr trailing max day (Alt 2)	Potential Member Agency capacity to MWD's treatment system not used in the last 3-yrs but available for emergency use (standby)
Alt G	10-yr Trailing Standby Use	CFS	10-yr max day minus 3-yrs trailing max day (Alt 2)	Represents the standby use as incremental use above peak day flows in the past 10-yrs
Alt H	10-yr Trailing Max Day Flow	CFS	10-yr max day	Represents MA's max use in the past 10 years
Alt I	5-yr Average Annual Demand	AF	5-year rolling average of annual treated demand	Recovers all treatment standby costs, inclusive of Regional Drought Benefits, on fixed charge and offers member agencies greater rate stability and predictability
Jan 2025 MA Proposal	5-yr Average Annual Demand	AF	25% Fixed Charge on 5-yr average annual treated demand	Recovers 25% of Treatment Costs based on 5-year rolling average treated demand. Provides MWD with additional fixed cost recovery and offers member agencies greater rate stability & predictability.
Feb 2025 MA Proposal - Standby	10-yr Trailing Annual Standby Use	AF	10-yr max annual usage minus 10-yr average use	Recovers all treatment standby costs, capped at 20% of Treatment Costs
Mar 2025 MA Proposal	Treatment Fixed Charge	AF	Remaining 30% Treatment Fixed Charge based on a 5-yr average annual treated demand	This charge inclusive of the Peaking Charge adds up to 30% of the Treatment Revenue Requirements.
Mar 14 2025 MA Proposal - Standby	Used Treatment Standby Charge	AF	10-yr max annual usage minus 10-yr average use	Recovers used treatment standby costs based on 10-yr annual standby use (Alt C)
	Remaining Treatment Standby Charge	AF	5-yr Trailing Max Annual Demand	Recovers remaining treatment standby costs, up to 30% of treatment costs inclusive of peaking and used standby charges, based on 5-yr max annual demand