



### ***Engineering, Operations, and Technology Committee***

12/8/2025 Committee Meeting

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#### **Subject**

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Power Cost Exposure with Lower Lake Mead Storage

#### **Executive Summary**

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This is a board information item that will follow up on a presentation by staff to the Engineering, Operations, and Technology (EO&T) Committee on the risk of a major reduction in the rated capacity of Hoover Dam hydroelectric generation capacity under Lake Mead low-water elevation conditions. Staff will present preliminary results of a technical and financial analysis of the impact of such a capacity derate to Metropolitan, provide an overview of potential mitigations for these impacts, and outline future actions.

#### **Fiscal Impact**

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This is an information item and thus does not have direct financial impact; however, the topic under discussion could have medium- and long-term fiscal impacts on Metropolitan's energy costs in future years.

#### **Applicable Policy**

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Metropolitan Water District Administrative Code Section 8122(e): General Manager's Contracting Authority in Specified Circumstances – Power and Transmission Contracts

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

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

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Staff will return to the committee at a future date with recommended mitigations for board consideration and approval if necessary.

#### **Details and Background**

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##### **Background**

The Metropolitan Water District of Southern California is the largest single contractor for capacity and energy generated by the US Bureau of Reclamation's (USBR) Hoover Dam on the Colorado River. USBR generation at Hoover Dam and Parker Dam annually provides from one-half to two-thirds of the energy required for pumping operations on the Colorado River Aqueduct (CRA). Metropolitan also relies on the capacity from Hoover Dam and Parker Dam to meet Resource Adequacy obligations as a part of the California ISO (CAISO) balancing area. The energy and capacity provided by Hoover Dam represents a cost to Metropolitan that is significantly less than typical market rates and annually represents a significant savings on CRA energy costs.

At the EO&T committee in February 2025, staff presented a revised output curve published by the Bureau of Reclamation showing that the generation capability at Hoover Dam would be severely restricted should Lake Mead fall below an elevation of 1035 feet. This February EO&T presentation is included as an attachment to this letter. Essentially, 12 of the 17 generators at Hoover Dam have not been retrofitted with wide-head low-water capable turbines and would experience unacceptable cavitation damage at Lake Mead levels below 1,035 feet of

elevation. Therefore, generation at elevations below 1,035 feet would be restricted to the five previously retrofitted generators.

Additionally, staff presented an Update on Colorado River Hydrologic Conditions at the June 23 Special Subcommittee on Imported Water. This update showed dry conditions on the Colorado River System and an increasing likelihood that Lake Mead would fall below the 1,035 elevation in the near future. The June 23 presentation is also attached.

This information item will update the committee on progress on the financial and technical analysis of power costs under lower Lake Mead storage, provide a high-level estimate of the financial impact, and present potential options for short-, medium-, and long-term mitigations.

### **Timing and Urgency**

The Bureau of Reclamation's most recent 24-month forecast for Lake Mead indicates that the lake elevation could fall below 1,035 feet in mid- to late-2027. Such an event would have financial implications for Metropolitan; therefore, it is of some urgency to begin consideration of those impacts and potential mitigations.

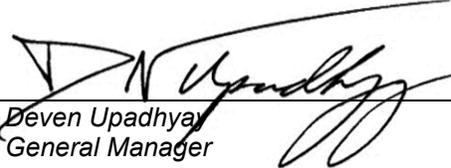
### ***Project Milestone***

Staff will present the results of the financial and technical analysis and recommendations for potential mitigations to the staff Risk Oversight Committee, that operates under the authority delegated by the Board to the General Manager for the purpose of managing risks associated with CRA energy costs. Staff will return to this committee in 2026 to provide an update on this situation and request approvals for mitigation measures if needed.

  
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Keith Nobriga  
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Planning & Support Services

12/3/2025

Date

  
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Deven Upadhyay  
General Manager

12/3/2025

Date