THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Board Action

- **Board of Directors**
  One Water and Adaptation Committee

9/15/2026 Board Meeting

7-5

Subject

Authorize the General Manager to enter into a funding agreement with the California Department of Water Resources for an invasive mussel mitigation pilot treatment at the Rialto Pipeline; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

Executive Summary

This action requests board authorization for the General Manager to enter into a funding agreement with the California Department of Water Resources (DWR) to charge for costs related to an invasive mussel mitigation pilot treatment at Metropolitan's Rialto Pipeline via the State Water Project (SWP) Statement of Charges (SOC) in a non-standard manner. DWR's standard practice for cost recovery of SWP operations and maintenance activities is to charge all SWP contractors participating in a particular repayment reach. Since this pilot treatment directly benefits only Metropolitan's turnout and downstream facilities and not all reach participants, a separate funding agreement between DWR and Metropolitan is needed to allow DWR to allocate and charge costs only to Metropolitan. This pilot by DWR is integral to Metropolitan's overall strategy to manage and control invasive mussel species as they enter the Southern California raw water supply system. Detailed presentations on additional work activities related to invasive musssels have been presented to the Engineering, Operations and Technology Committee.

Proposed Action(s)/Recommendation(s) and Options

Staff Recommendation: Option #1

Option #1

Authorize the General Manager to enter into a funding agreement with the California Department of Water Resources for an invasive mussel mitigation pilot treatment at the Rialto Pipeline.

Fiscal Impact: Up to $543,516.04 to be paid from the approved biennial budget for State Water Project expenditures.

Business Analysis: This pilot treatment was recommended by Metropolitan's invasive mussel task force and is necessary to mitigate the golden mussel infestation inside the Rialto Pipeline and to assess chemical control strategies for other locations.

Option #2

Do not authorize the General Manager to enter into a funding agreement.

Fiscal Impact: Additional O&M costs and unscheduled shutdown to remove adult golden mussel colonies from inside the Rialto Pipeline and other locations, if practical control strategies are not assessed and developed.

Business Analysis: The golden mussel infestation in the Rialto Pipeline and other locations will worsen, potentially affecting conveyance and treatment operations and restricting raw water deliveries.

Alternatives Considered

Staff is coordinating with DWR, other SWP contractors, and other agencies impacted by the golden mussel infestation. Several alternative mitigation methods, such as desiccation, physical scraping, and power washing, are not appropriate for the Rialto Pipeline without a complete shutdown of the pipeline that would restrict SWP deliveries.

Applicable Policy

By Minute Item 20984, dated November 1, 1960, the Board adopted Resolution 5838 and approved execution of the State Water Project Contract with the Department of Water Resources.

Metropolitan Water District Administrative Code Section 8121: General Authority of the General Manager to Enter Contracts.

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities.

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

By Minute Item 54281, dated October 14, 2025, the Board amended the Capital Investment Plan for fiscal years 2024/25 and 2025/26 to include invasive mussel mitigation and control at Metropolitan facilities; and (b) Authorize an increase of $500,000 in the operation and maintenance budget for fiscal year 2025/26 to purchase operating equipment to control the growth of invasive mussels, as set forth in Agenda Item 7-1 board letter.

In January 2025, August 2025, March 2026, and September 2026, staff provided progress updates on the SWP invasive mussel mitigation initiative at the Engineering, Operations, and Technology Committee.

Summary of Outreach Completed

Metropolitan operations staff are working closely with Inland Empire Utilities Agency and Three Valleys Municipal Water District, the two member agencies that will receive the treated water, to coordinate operations and ensure potential concerns are properly addressed.

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is not defined as a project under CEQA because it will not result in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. (State CEQA Guidelines Section 15378(a).) In addition, the proposed action is exempt from CEQA as it consists of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use (Section 15301 of the State CEQA Guidelines).

CEQA determination for Option #2

None required

Details and Background

Metropolitan's Invasive Mussel Control Experience

Metropolitan staff have a long history of dealing with invasive mussel infestation. First discovered in Lake Mead in January 2007, quagga mussels quickly infested the Colorado River Aqueduct (CRA) and were found throughout the aqueduct by July 2008. Although invasive mussels do not affect the safety of drinking water, clusters of multi-generation quagga mussels colonize intakes and raw water conveyance systems, impeding water delivery and treatment if not controlled.

For the past 20 years, Metropolitan has employed multiple control methods to minimize the impact of quagga mussels on infrastructure and operations. These control approaches include periodic cleaning of trash racks and

fish screens, continuous chlorination at Copper Basin, Lake Mathews, and Lake Skinner, and extensive veliger monitoring. During the annual CRA shutdown, the entire aqueduct is dewatered, allowing for desiccation of adult quagga mussels, cleaning, mussel removal, and infrastructure inspection. In addition, raw water discharges are filtered as necessary to prevent the release of veligers to downstream waters.

The Golden Mussel Infestation

Compared to quagga mussels, golden mussels are more robust, not limited by low calcium, and can adapt to a wider range of freshwater environments, making most California freshwater lakes and brackish areas vulnerable to infestation.

Golden mussel adults were first detected in the Port of Stockton and O'Neill Forebay at San Luis Reservoir in October 2024. They quickly infested the SWP, and in April 2025, the state of California created a task force to determine the extent of the invasion and assess control measures. In August 2025, adult golden mussels were detected in the West and East Branches of the California Aqueduct, including Silverwood Lake. Adult mussels were found in Metropolitan's Box Springs Feeder in December 2025, Rialto Pipeline in January 2026, and Live Oak Reservoir in April 2026.

Following approval of the SWP Invasive Mussel Mitigation and Control Program in October 2025 by Metropolitan's Board, staff have been working on several capital and O&M projects to protect infrastructure and raw water deliveries. The details of these expansive projects were provided to the Engineering, Operations and Technology Committee in March and September 2026. In addition to internal collaboration, Metropolitan staff participate on statewide task forces to address the golden mussel infestation. Metropolitan staff is also coordinating with DWR to investigate control strategies at SWP infrastructure prior to or at the turnouts with Metropolitan. As part of this collaboration, Metropolitan has requested DWR to conduct a pilot treatment plan for both the West and East Branches of the California Aqueduct, focused on protecting Metropolitan's SWP supplies.

Invasive Mussel Mitigation Pilot Treatment

The pilot treatment plan was developed in collaboration with DWR and its consultants with specialized mussel mitigation experience. The purpose of the pilot treatment is to utilize a copper-based molluscicide to control the settlement and establishment of golden mussels in the Rialto Pipeline, to collect data on the efficacy of the treatment, and to assess the feasibility of chemical control at other locations. Adult golden mussels have been detected at service connections off the Rialto Pipeline and in Live Oak Reservoir, indicating that the Rialto Pipeline is currently being colonized by mussels.

The copper pilot treatment will be at DWR's Devil Canyon Second Afterbay facility, at the start of Metropolitan's Rialto Pipeline. The chemical dosage will gradually increase over an anticipated six-week period in late summer 2026. This pilot treatment is needed immediately because golden mussels are already present and reproducing within Metropolitan's system, and because copper treatment is more effective in killing adult golden mussels when water temperature is above 20°C (68°F), which is achieved in the latter part of summer. A similar pilot treatment was recently conducted by DWR at the request of the San Bernardino Valley Municipal Water District and San Gabriel Valley Municipal Water District.

Long-Term Mitigation

The pilot copper treatment in the Rialto Pipeline will provide an immediate benefit in controlling mussels within the pipeline and will assess the feasibility of similar future treatments at other locations. Staff will continue working with DWR to assess chemical control methods and locations for permanent and long-term treatment facilities. The results of the feasibility study will inform the selection of alternative locations within DWR's infrastructure. Staff will also continue discussions with DWR on approaches to combat the colonization of golden mussels and other invasive mussels in all Metropolitan pipelines receiving SWP water (Foothill Feeder, Rialto Pipeline, and Inland Feeder) as well as DWR's Santa Ana Valley Pipeline that feeds Metropolitan's Henry J. Mills Water Treatment Plant and Metropolitan's Perris Bypass pipeline. Staff continues to develop and implement near- and long-term control measures in Metropolitan's system through the SWP Invasive Mussel Mitigation and Control Program.

Need for a Separate Funding Agreement with the Department of Water Resources

DWR's standard practice is to recover SWP operation and maintenance expenses by charging all SWP contractors participating in the repayment of costs within a particular SWP reach by pre-determined allocation factors. However, if a SWP contractor requests DWR to work on a specific project for its own benefit, DWR needs a separate funding agreement allowing DWR to recover costs, via the SWP SOC, charging only the SWP contractor requesting the project. The pilot treatment requested by Metropolitan for its own benefit requires a funding agreement (**Attachment 1**), which is being brought to the Board because the projected costs exceed the General Manager's approval authority.

Staff anticipates that the costs associated with the pilot treatment will be covered and remain within the approved SWP budget. Staff will continue to track expenses and proposed treatment projects and will return to the Board with updates as needed.

9/2/2026
Brandon J. Goshi *Date*
Manager, Water Resource Management

9/2/2026
Shivaji Deshmukh *Date*
General Manager

Attachment 1 – Draft funding agreement

Ref# wrm12709431

State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES

AGREEMENT FOR FUNDING BETWEEN THE DEPARTMENT OF WATER RESOURCES OF THE STATE OF CALIFORNIA AND THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA FOR THE COSTS OF A PILOT CHEMICAL TREATMENT PROJECT FOR MITIGATION OF GOLDEN MUSSELS AT THE DEVIL CANYON POWER PLANT SECOND AFTERBAY

SWP #26603

THIS AGREEMENT is made pursuant to the provisions of the California Water Resources Development Bond Act, the State Central Valley Project Act, and other applicable laws of the State of California, between the Department of Water Resources of the State of California, hereinafter called “DWR,” and The Metropolitan Water District of Southern California, hereinafter called “Metropolitan.” As used in this Agreement, “Party” or “Parties” means a signatory to this Agreement.

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RECITALS

A. DWR is authorized to construct, operate and maintain facilities for the storage and conveyance of water, certain of which facilities make water available to Metropolitan's service area.

B. Metropolitan has contracted with DWR for State Water Project (SWP) water service and other water deliveries under Metropolitan's Water Supply Contract, dated November 4, 1960, and subsequently amended, with supplies to be delivered through the California Aqueduct to Metropolitan's service area.

C. Invasive golden mussels were discovered in California in 2024 and have since spread into various SWP facilities posing potential operational impacts to water infrastructure and delivery systems, including Devil Canyon Power Plant (DCPP) second afterbay. DCPP second afterbay is a critical SWP delivery facility where Metropolitan has delivery structures through which it receives SWP water into its service area.

D. On April 27, 2026, Metropolitan requested that DWR conduct a pilot chemical treatment project to be implemented where SWP water is delivered from the DCPP second afterbay into the Rialto pipeline for mitigation of golden mussels.

E. In June 2026, Dudek, a consulting contractor, prepared a Draft Golden Mussel Copper Treatment Plan for the Devil Canyon Power Plant Second Afterbay at the Rialto Pipeline Inlet for DWR, which was later finalized in August 2026 (Attachment A). Attachment A outlines a treatment plan and estimated costs, which DWR approved under Contract No. 4600016188, Task Order 19. On August 17, 2026, Dudek will begin 6-weeks of treatment to water delivered through Metropolitan's Rialto pipeline at the DCPP second afterbay through September 27, 2026 in accordance with Attachment A (Pilot Chemical Treatment Project).

F. Metropolitan desires to fund all costs of the Pilot Chemical Treatment Project and application of treatments through its Statement of Charges (SOC) issued by DWR pursuant to Metropolitan's Water Supply Contract.

G. This Agreement (Funding Agreement) is required to recover SWP costs requested by Metropolitan that vary from the typical cost recovery authorized under Metropolitan's Water Supply Contract and allows DWR to recover task order costs incurred to implement the Pilot Chemical Treatment Project from August 17, 2026 through September 27, 2026. These costs will be allocated specifically to Metropolitan and included in Metropolitan's SOC, instead of allocating to all SWP Contractors that participate in repaying operation and maintenance expenses for the DCPP second afterbay. Estimated costs are described in Attachment B of this Agreement.

H. This Funding Agreement is an administrative activity and not a Project as defined in Title 14 California Code of Regulations §15378. The implementation of the Pilot Chemical Treatment Project is exempt from CEQA as described in Title 14

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California Code of Regulations §15301. DWR filed a Notice of Exemption (NOE) with the State Clearinghouse on 07/16/26 (SCH#2026070620). The Parties may execute an amendment or an additional agreement in the future to continue treatment beyond September 27, 2026, and/or on a permanent basis. The Parties will comply with CEQA prior to executing any such amendment or additional agreement. This Funding Agreement does not represent a contractual commitment by DWR or Metropolitan to approve continued treatment beyond September 27, 2026, or for permanent treatment facilities or to execute any amendment or additional agreement.

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AGREEMENT

The Parties agree as follows:

DEFINITIONS

When used in this Agreement, the following definitions will apply:

1. "Metropolitan's Water Supply Contract" means the long-term water supply contract between DWR and Metropolitan, dated November 4, 1960, and subsequent amendments.

2. "Statement of Charges" or "SOC" means the annual statement of charges distributed to Metropolitan on or before July 1 of each year as defined in Article 29 of Metropolitan's Water Supply Contract.

3. "SWP" means the State Water Project that is owned, operated and maintained by DWR. The SWP is also known as the State Water Facilities, as defined in California Water Code section 12934(d), and certain facilities authorized by the Central Valley Project Act at section 11100 et seq.

PURPOSE

4. The purpose of this Agreement is to allow DWR to apply task order costs incurred to implement the Pilot Chemical Treatment Project onto Metropolitan's Statement of Charges.

TERM

5. This Funding Agreement shall become effective upon execution by all Parties and shall terminate December 31, 2028, or upon final payment to DWR of all costs attributable to this Agreement, whichever occurs later. However, the Agreement shall remain in effect until any claim or litigation concerning this Agreement asserted to either Party within the applicable statute of limitations is finally resolved, whichever occurs later.

RESPONSIBILITIES OF THE PARTIES

6. DWR shall implement the Pilot Chemical Treatment Project and coordinate with Metropolitan on its implementation.

7. Metropolitan shall participate with DWR in the implementation of the Pilot Chemical Treatment Project.

PROJECT COSTS AND SOC CHARGE

8. The estimated costs for the Pilot Chemical Treatment Project are set forth in Attachment B. The estimate is based on anticipated work to be performed during the term of the Pilot Chemical Treatment Project and may be revised as

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necessary. However, if a change in costs is expected for the Pilot Chemical Treatment Project, DWR will obtain Metropolitan's concurrence prior to accepting the change. Any change in costs for the Pilot Chemical Treatment Project is subject to the provisions of this Funding Agreement.

9. DWR shall recover all costs incurred for the Pilot Chemical Treatment Project through the 2028 SOC issued to Metropolitan pursuant to its Water Supply Contract. The Pilot Chemical Treatment Project will be charged as a line item under the Transportation Minimum billing component. Metropolitan shall be responsible for its own internal costs, which are not enumerated in Attachment B and are associated with the implementation of and participation in the Pilot Chemical Treatment Project, including attorneys' fees.

NOTICES OR OTHER COMMUNICATIONS

10. All notices or other communications required under this Agreement will be in writing, and will be deemed to have been duly given upon the date of service, if:

    a. Served personally on the Party to whom notice is to be given;

    b. Sent by electronic mail, and the Party to whom notice is to be given confirms receipt; or

    c. On the third day after mailing, if mailed to the Party to whom the notice or other communication is directed, by first-class mail, postage prepaid and properly addressed to the designated representative(s) of the Party set forth below.

        i. Department of Water Resources
        State Water Project Incident Command Team
        Golden Mussel Incident Response
        Post Office Box 942836
        Sacramento, California 94236-0001
        Email: golden_mussel_response_red@water.ca.gov

        ii. The Metropolitan Water District of Southern California
        Water Resources Management Group Manager
        Post Office Box 54153
        Los Angeles, California 90054-0153
        Email: WRMGroupManager@mwdh2o.com

11. The time for providing any notices or other communications specified in this Agreement may be extended within the term of this Agreement with the consent of the Parties, confirmed in writing, without requiring an amendment to this Agreement.

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AMENDMENTS

12. This Agreement may be amended at any time by mutual agreement of the Parties, except insofar as any proposed amendments are in any way contrary to applicable law.

APPLICABLE LAW

13. This Agreement was made under and shall be construed with the laws of the State of California.

LONG-TERM WATER SUPPLY CONTRACTS

14. Nothing in this Agreement shall modify Metropolitan's Water Supply Contract.

LIABILITY

15. Metropolitan agrees to defend and hold DWR, it officers, employees, and agents harmless from any direct or indirect loss, liability, lawsuits, cause of action, judgment or claim, and shall indemnify DWR, its officers, employees, and agents from all lawsuits, costs, damages, judgment, attorneys' fees, and liability that DWR, its officers, employees, and agents incur as a result of DWR approving this Agreement or providing services under this Agreement, except to the extent resulting from the sole negligence or willful misconduct of DWR, its officers, employees, and agents.

COMPLETE CONTRACT

16. This Agreement constitutes the sole, final, complete, exclusive and integrated expression and statement of the terms of this Funding Agreement between the Parties concerning the subject matter, and supersedes all prior negotiations, representations or agreement, either oral or written, that may be related to the subject matter of this Funding Agreement, except as to those other agreements that are expressly referred to in this Funding Agreement.

EXECUTION

17. The Parties agree that this Agreement will be executed using Docusign by electronic signature, which shall be considered an original signature for all purposes and shall have the same force and effect as an original signature.

18. All Parties will receive an executed copy of this Agreement via Docusign after all Parties have signed.

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IN WITNESS WHEREOF, the Parties hereto have entered into this Agreement.

Approved as to Legal Form
and Sufficiency

_____
Ann K. B. Carroll
General Counsel
Department of Water Resources

_____
Date

STATE OF CALIFORNIA DEPARTMENT OF WATER RESOURCES

_____
John Yarbrough
Deputy Director
State Water Project

_____
Date

Approved as to Legal Form
and Sufficiency

_____
John Schlotterbeck
Senior Deputy General Counsel
The Metropolitan Water District
of Southern California

_____
Date

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

_____
Brandon Goshi
Water Resources Management Group Manager

_____
Date

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ATTACHMENT A

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ATTACHMENT B

CHEMICAL TREATMENT PROJECT ESTIMATED COSTS[1]		
Costs		**8/17/2026 - 9/27/2026**
FIXED	Clean Lakes Mobilization	$9,000.00
	Clean Lakes Labor	$89,000.00
	Dudek Labor	$25,000.00
	Ironclad Poly Cube Storage Tank with Secondary Containment	$5,457.48
	United Rentals 20-foot Storage Container	$1,590.00
	LMI Chemical Metering Pumps, TD Series	$3,417.70
	Miscellaneous Supplies and PPE (hose, fittings, power cables, spill kit, etc.)	$3,000.00
Chemical Treatment[2]		$313,640.31
Chemical Delivery Costs		$44,000.00
Subtotal		$494,105.49
10% Contingency[3]		$49,410.55
Total w/10% Contingency		**$543,516.04**

[1] Amounts listed are maximum costs that shall not be exceeded.
[2] Assumes treatment for water flow rate of 150 cfs.
[3] Contingency for variation in actual flow rates, demobilization and reporting costs.

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