THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Committee Item
INFORMATION

Engineering, Operations, and Technology Committee

3/9/2026 Committee Meeting

6a

Subject

State Water Project Invasive Mussel Mitigation and Control Update

Executive Summary

Following the discovery of both quagga and golden mussels in the State Water Project (SWP), staff initiated a multi-disciplinary task force to investigate and address the impacts of invasive mussels on Metropolitan's operations and facilities. This effort supports regulatory compliance, addresses short-term mitigation and control of invasive mussels, and develops a strategy to protect Metropolitan's critical infrastructure exposed to SWP supplies. In October 2025, the Board amended the Capital Investment Plan (CIP) and authorized an increase in the operating equipment budget to address invasive mussels.

The task force has made progress in procuring essential operating equipment and is working with member agencies and regulatory authorities to develop control plans for water deliveries, while also enhancing monitoring, conducting research and feasibility studies, and initiating critical CIP projects. Staff will present an update on ongoing program activities and next steps to advance this initiative.

Fiscal Impact

None

Applicable Policy

By Minute Item 49165, dated August 21, 2012, the Board adopted its Policy Principle on Source Water Quality.

As part of the 2026 Legislative Policy Principles, adopted in December 2025, the Board adopted a policy to support actions and funding to reduce the threats from invasive species to source waters.

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

On October 14, 2025, the Board amended the CIP for fiscal years 2024/25 and 2025/26 to include invasive mussel mitigation and control at Metropolitan facilities and authorized an increase of $500,000 in the operating equipment budget for the current biennium to purchase equipment to control the growth and spread of invasive mussels. Staff previously updated the Board on golden mussel response activities at the January 2025 and August 2025 Engineering, Operations, and Technology Committee meetings.

Details and Background

Background

Invasive mussels, such as quagga mussels and golden mussels, can reproduce prolifically and infest critical infrastructure, including water storage, pumping, conveyance, and treatment facilities. Invasive mussel infestation within Metropolitan's imported supplies was limited to the Colorado River Aqueduct (CRA) system until December 2016, when adult quagga mussels were first discovered in the SWP at Pyramid Lake and the Angeles Tunnel. Based on Metropolitan's previous experience with quagga mussel control, extensive monitoring of adult mussels and veligers was conducted along the west and east branches of the SWP.

In late 2024, California's invasive mussel issue was exacerbated by the first discovery of golden mussels in North America at the Port of Stockton and San Luis Reservoir, and golden mussel veligers in Silverwood Lake, in fall 2025. Golden mussels have migrated further down the west and east branches of the SWP and into Metropolitan's system. Adult mussels were recently detected in the Box Springs Feeder and the Rialto Pipeline. No golden mussel veligers or adults have been detected in Castaic Lake, Diamond Valley Lake, or other Metropolitan reservoirs.

Leveraging lessons from Metropolitan's CRA quagga mussel control program, staff initiated a multi-disciplinary task force to investigate and address invasive mussel impacts on Metropolitan's facilities supplied by the SWP, and support regulatory compliance, including control plans, research and development, and legislation.

SWP Invasive Mussel Mitigation and Control Program

In October 2025, Metropolitan's Board authorized implementation of the SWP Invasive Mussel Mitigation and Control Program and the purchase of operating equipment to control the growth and spread of invasive mussels.

The program has been organized into three phases targeting urgent, near-term, and long-term strategies to meet a range of delivery and reliability goals. Phase I includes urgent activities prioritizing near-term protection of the most vulnerable infrastructure, development of control plans, and resuming raw water deliveries to key areas. Phases II and III include design, construction, and installation of near- and long-term projects prioritizing the development of robust, reliable infrastructure upgrades that will be integrated into Metropolitan's standard operational practices for invasive mussel control.

Staff is currently working on several Phase I and Phase II projects to protect infrastructure and water deliveries. These projects include protecting the ozone-cooling loop system at the Jensen treatment plant, installing chemical storage and feed equipment at the Foothill Feeder Pressure Control Structure, and implementing chemical control for groundwater replenishment deliveries at multiple locations. Control plans are being developed in coordination with member agencies and other partner agencies, such as the Los Angeles County Public Works and the California Department of Fish and Wildlife. In addition, operating equipment is currently being procured to support surveillance, detection, and control of invasive mussels at Metropolitan's facilities that receive SWP supplies.

Staff is also coordinating with the Department of Water Resources to investigate potential upstream control strategies along the west and east branches of the SWP and is working with member agencies on mitigation approaches and plans for localized deliveries of raw SWP supplies. In February 2026, Metropolitan applied for an aquatic invasive species control permit under the National Pollutant Discharge Elimination System, which is required for discharging chemically treated water into waters of the state.

Next Steps

Staff is continuing to monitor Metropolitan's system to assess the spread of invasive mussels, researching appropriate control measures, and developing control plans and permit applications that will be submitted to regulatory authorities. Staff also continues to closely coordinate with member and partner agencies to implement invasive mussel control strategies and projects, including resuming groundwater replenishment operations as soon as possible. Staff is expediting projects to install infrastructure protection measures and facilities to support comprehensive mussel control solutions. Continued updates will be provided to the Board and member agencies on the progress of the SWP Invasive Mussel Mitigation and Control Program.

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