



Engineering, Operations, & Technology Committee

State Water Project Invasive Mussel Mitigation and Control Update

Item 6a

March 9, 2026

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Item 6a

State Water Project Invasive Mussel Mitigation & Control Update

Subject

State Water Project Invasive Mussel Mitigation and Control Update

Purpose

Provide an update on the SWP Invasive Mussel Mitigation and Control Program

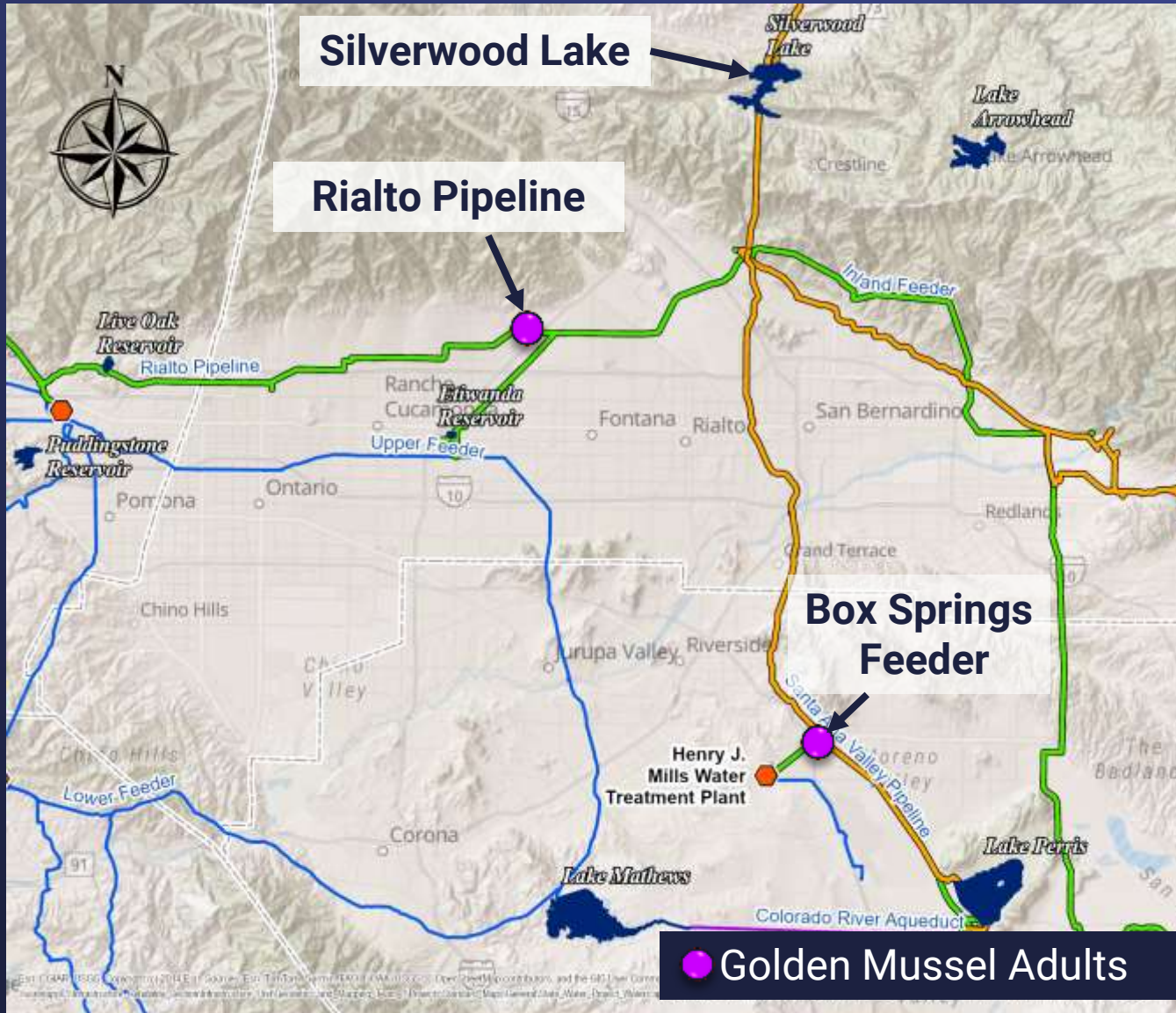
Next Steps

Continue monitoring Metropolitan's system to assess the spread of invasive mussels, researching appropriate control measures, developing control plans and permit applications, and expediting projects to install infrastructure protection measures and facilities to support comprehensive mussel control solutions

Quagga Mussel Infested Areas in the State Water Project



Golden Mussels in Metropolitan's Local Waters



Adult Mussels
Box Springs Feeder, Dec. 2025



Photo: CVWD

Adult Mussels
Rialto Pipeline Connection, Jan. 2026

Impacts of Invasive Mussels

- Safety of drinking water not affected
- Colonize intakes and raw water conveyance facilities
- Reservoirs and lakes
- Small pipelines at water treatment plants
- Raw water deliveries and releases



Golden Mussels at O'Neill Forebay
(Photo Credit: DWR)



After Golden Mussel
Removal



Photo Credit: DWR

Considerations for SWP Invasive Mussel Control

Water Quality (Increased THM Formation Potential)

Complex Conveyance Facilities

Many Member Agencies Impacted

Regulatory Requirements for Raw Water Releases

Control Measure for B-06 Deliveries

- Mobile unit installed December 2025
- Procurement of equipment ongoing
 - Pump skid, sample pump
- Temporary control operational by April 2026, pending permit approval
- Design of Phase 1 and Phase 2 systems in progress



Mobile Unit

Control Measure for USG-03 Deliveries

- Supporting San Gabriel Valley agencies and Watermaster in developing control plan and coordinating with LA County
- Ongoing design of near-term and long-term systems in progress
- Project considerations
 - System operations
 - Chemical deliveries
 - Environmental factors
 - Fire department
 - Division of Safety of Dams



Protection for Ozone Cooling Water System

- Sodium hypochlorite injection
- Factory acceptance testing March 2026
- Complete construction by April 2026

Jensen Water Treatment Plant



Ozone Cooling System
Heat Exchanger



Example of
Pump Skid

Additional Potential Control Locations



Foothill Feeder PCS



Diamond Valley Lake I/O Tower



Inland Feeder & Rialto Pipeline
Interconnection



Perris PCS Effluent

Aquatic Animal Invasive Species Control Permit

- Groundwater replenishment deliveries meet provisions of Aquatic Animal Invasive Species Control Permit
 - Permit application submitted
- Only products registered as pesticides with California Department of Pesticide Regulation
- Project design needs to comply with brand and concentration of registered products

STATE WATER RESOURCES CONTROL BOARD

1001 I Street, Sacramento, California 95814

[National Pollutant Discharge Elimination System \(NPDES\)](#)

[Aquatic Animal Invasive Species Control](#)

(http://www.waterboards.ca.gov/water_issues/programs/npdes/aquatic.shtml)

WATER QUALITY ORDER 2016-XXXX-DWQ

GENERAL PERMIT CAG 990006

STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR BIOLOGICAL PESTICIDES AND RESIDUAL CHEMICAL PESTICIDE DISCHARGES TO WATERS OF THE UNITED STATES FROM AQUATIC ANIMAL INVASIVE SPECIES CONTROL APPLICATIONS

Site-Specific Control Plans



Diamond Valley Lake

Diamond Valley Lake

- No CRA water added since 2005
- No operational need to fill with SWP supplies since February 2025
- SWP-interconnected waterbody
- No mussels detected yet; filling of DVL can proceed without a control plan
- If mussels detected, control plan will be needed for water leaving DVL
 - Assessing potentially impacted releases & deliveries
 - Service connection controls may include containment, percolation, or chlorination



Regional and State Collaboration

- Participating in various workgroups of State Golden Mussel Task Force
- Participating in Water Agency Task Force organized by State Water Contractors
- Regular communication with CDFW
- Collaborating with DWR in studying feasibility of centralized control on WB-SWP and EB-SWP
- Coordination with impacted Member Agencies
- Meetings and discussions with other agencies impacted by golden mussels

DWR Mussel Control Feasibility Study

- Evaluate feasibility of installing control measures at Devil Canyon on East Branch and near Castaic Lake on West Branch of SWP
- Evaluate chemical and physical control methods
 - Hypochlorite, chloramines, copper molluscicides, UV, filtration
- Consider impacts on other SWCs
- Identify potential locations, cost, O&M, schedule
- Kickoff meeting in December 2025
- Expedited study expected to be completed summer 2026



Devil Canyon Site Visit, Feb. 2026

Invasive Mussels in State Water Project



Next Steps

- Continue monitoring and assessing system impacts
- Design and install control measures
- Continue site inspections and assessments
- Update overall invasive mussel control plan and complete site-specific plans
- Continue multi-agency coordination
- Planning for Member Agency Water Quality Managers workshop in late April 2026

