The Metropolitan Water District of Southern California

Agenda

The mission of the Metropolitan Water District of Southern California is to provide its service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.

OW&S Committee
T. Quinn, Chair
S. Faessel, Vice Chair
L. Ackerman
D. Alvarez
J. Armstrong
G. Cordero
D. De Jesus
D. Erdman
L. Fong-Sakai
M. Gold
S. Goldberg
C. Kurtz
R. Lefevre
J. Lewitt
C. Miller
B. Pressman
N. Sutley

One Water and Stewardship Committee

Meeting with Board of Directors *

December 9, 2024

2:00 p.m.

Monday, December 9, 2024 Meeting Schedule
09:00 a.m. EOT
11:00 a.m. LEGAL
01:30 p.m. Break
02:00 p.m. OWS

Agendas, live streaming, meeting schedules, and other board materials are available here: https://mwdh2o.legistar.com/Calendar.aspx. Written public comments received by 5:00 p.m. the business days before the meeting is scheduled will be posted under the Submitted Items and Responses tab available here: https://mwdh2o.legistar.com/Legislation.aspx.

If you have technical difficulties with the live streaming page, a listen-only phone line is available at 1-877-853-5257; enter meeting ID: 862 4397 5848.

Members of the public may present their comments to the Board on matters within their jurisdiction as listed on the agenda via in-person or teleconference. To participate via teleconference 1-833-548-0276 and enter meeting ID: 815 2066 4276 or to join by computer click here.

MWD Headquarters Building • 700 N. Alameda Street • Los Angeles, CA 90012
Teleconference Locations:
525 Via La Selva • Redondo Beach, CA 90277
Bluffton Library • 120 Palmetto Way • Bluffton, SC 29910
8700 Beverly Boulevard, Room 342 • Los Angeles, CA 90048
3008 W. 82nd Place • Inglewood, CA 90305
Conference Room 2nd Floor • 1545 Victory Blvd 2nd FL • Glendale CA 91505

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* The Metropolitan Water District's meeting of this Committee is noticed as a joint committee meeting with the Board of Directors for the purpose of compliance with the Brown Act. Members of the Board who are not assigned to this Committee may participate as members of the Board, whether or not a quorum of the Board is present. In order to preserve the function of the committee as advisory to the Board, members of the Board who are not assigned to this Committee will not vote on matters before this Committee.

1. Opportunity for members of the public to address the committee on matters within the committee's jurisdiction (As required by Gov. Code Section 54954.3(a))

**** CONSENT CALENDAR ITEMS -- ACTION ****

2. CONSENT CALENDAR OTHER ITEMS - ACTION

A. Approval of the Minutes of the Special Joint Meeting One Water Stewardship Committee and Board of Directors Workshop for November 18, 2024 (Copies have been submitted to each Director, any additions, corrections, or omissions) **21-4031**

Attachments: 12092024 OWS 2A (11182024) Minutes

3. CONSENT CALENDAR ITEMS - ACTION

NONE

**** END OF CONSENT CALENDAR ITEMS ****

4. OTHER BOARD ITEMS - ACTION

8-3 Authorize the General Manager to enter into agreements with the U.S. Bureau of Reclamation to implement phase two of the Lower Colorado River Basin System Conservation and Efficiency Program; and adopt CEQA determination that the environmental effects of the Antelope Valley-East Kern High Desert Water Bank and the Turf Replacement Programs were previously addressed in various CEQA documents and related actions **21-4082**

Attachments: 12102024 OWS 8-3 B-L
12092024 OWS 8-3 Presentation

8-4 Review and consider the Lead Agency's certified 2023 Final Environmental Impact Report for the Delta Conveyance Project and take related CEQA actions and authorize the General Manager to enter into an amended agreement for preconstruction work planned for 2026-2027 **21-4032**

Attachments: 12102024 OWS 8-4 B-L
12092024 OWS 8-4 Presentation

5. BOARD INFORMATION ITEMS

9-2 Update on developing State Water Project water management actions to meet multiple objectives of managing dry year and wet year water supplies and generating new revenues **21-4070**

Attachments: 12102024 OWS 9-2 B-L
12092024 OWS 9-2 Presentation

6. COMMITTEE ITEMS

a. Update on Water Surplus and Drought Management **21-4033**

Attachments: 12102024 OWS 6a Report
12092024 OWS 6a Presentation

7. MANAGEMENT ANNOUNCEMENTS AND HIGHLIGHTS

a. Bay-Delta Resources activities **21-4034**
Colorado River Resources activities
Sustainability, Resilience, and Innovation activities
Water Resources Management activities

Attachments: 12092024 OWS 7a Bay-Delta Resources Activities
12092024 OWS 7a Colorado River Resources
12092024 OWS 7a Water Resources Management activities
12092024 OWS 7a Sustainability, Resilience, and Innovation activities

8. COMMITTEE REPORTS

a. Report on the Delta Conveyance Design and Construction Authority Meeting **21-4035**

b. Report on Delta Conveyance Finance Authority Meeting **21-4036**

c. Report on the Bay-Delta Ad Hoc Meeting **21-4037**

9. SUBCOMMITTEE REPORTS AND DISCUSSION

a. Discuss and provide direction to Subcommittee on Demand Management and Conservation Programs and Priorities **21-4038**

10. FOLLOW-UP ITEMS

NONE

11. FUTURE AGENDA ITEMS

12. ADJOURNMENT

NOTE: This committee reviews items and makes a recommendation for final action to the full Board of Directors. Final action will be taken by the Board of Directors. Committee agendas may be obtained on Metropolitan's Web site https://mwdh2o.legistar.com/Calendar.aspx. This committee will not take any final action that is binding on the Board, even when a quorum of the Board is present.

Writings relating to open session agenda items distributed to Directors less than 72 hours prior to a regular meeting are available for public inspection at Metropolitan's Headquarters Building and on Metropolitan's Web site https://mwdh2o.legistar.com/Calendar.aspx.

Requests for a disability-related modification or accommodation, including auxiliary aids or services, in order to attend or participate in a meeting should be made to the Board Executive Secretary in advance of the meeting to ensure availability of the requested service or accommodation.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

MINUTES

SPECIAL JOINT MEETING OF THE ONE WATER AND STEWARDSHIP COMMITTEE AND BOARD OF DIRECTORS WORKSHOP

November 19, 2024

1. CALL TO ORDER

Chair Quinn called the meeting to order at 1:06 p.m.

2. ROLL CALL

Board Secretary Fong-Sakai administered the roll call.

Committee Members present: Directors Ackerman (AB 2449 just cause), Alvarez, Armstrong, Cordero, De Jesus (AB 2449 just cause), Erdman, Faessel, Fong-Sakai, Gold (entered after roll call), Goldberg, Kurtz, Lefevre (teleconference posted location), Lewitt, Miller, Pressman (teleconference posted location), Quinn, and Sutley.

Other Board Members present: Directors, Bryant, Dennstedt, Fellow (teleconference posted location), Jung (teleconference posted location), Kassakian, Luna, McMillan, Morris, Ortega, Ramos (teleconference posted location), Seckel (AB 2449 just cause), and Smith.

Directors Absent: Camacho, Crawford, Dick, Douglas, Garza, Gray, Petersen, and Phan

Director Ackerman indicated that she was participating under AB 2449 “just cause” due to an injury. Director Ackerman appeared by audio and on camera and stated she was alone.

Director DeJesus indicated that he was participating under AB 2449 “just cause” due to a contagious illness. Director DeJesus appeared by audio and on camera and stated he was alone.

Director Seckel indicated that he was participating under AB 2449 “just cause” due to a contagious illness. Director Seckel appeared by audio and on camera and stated he was alone.

Committee Staff present: Bednarski, Crosson, Goshi, Hasencamp, Hawk, Munguia, Schlotterbeck, Upadhyay, and Wheeler.

3. DETERMINATION OF QUORUM

Board Secretary Fong-Sakai determined that a quorum was present.

4. OPPORTUNITY FOR MEMBERS OF THE PUBLIC TO ADDRESS THE COMMITTEE ON MATTERS WITHIN THE COMMITTEE'S JURISDICTION

1. Morgan Snyder, Restore the Delta, spoke in opposition to Delta Conveyance Project (DCP)
2. Osha Meserve, San Joaquin County, spoke in opposition to DCP
3. Laer Pierce, Secure Water Alliance, spoke in support of DCP funding
4. Kyle Griffith, Californians for Water Security, spoke in support of DCP funding
5. Dr. Tom Williams, Sierra Club Water Cmte., spoke in opposition to DCP funding
6. Victor Reyes, Valley Industry and Commerce Agency, spoke in support of DCP
7. Chris Wilson, Los Angeles County Business Federation, spoke in support of DCP funding
8. Caty Wagner, Sierra Club California, spoke in opposition to DCP
9. Ray Baca, United Contractors, spoke in support of DCP
10. George Boutros, Orange County Business Council, spke in support of DCP
11. Josh Taylor, Western States Carpenters, spoke in support of DCP
12. Marcie Stanich, Rebuild SoCal Partnerships, spoke in support of DCP
13. Justin Breck, LA Water Keeper, in opposition to DCP
14. Omar Gonzalez, Los Angeles Area Chamber of Commerce, spoke in support of DCP
15. Ken Coat, spoke on DCP
16. Cynthia Cortez, Restore the Delta, spoke in opposition to DCP
17. Tanesia Harris, CA / HI NAACP, spoke in support of DCP

18 Bagdaserian, San Gabriel, spoke in support of DCP

19. Rev. John Mosely, spoke in support of DCP
20. Josephn Cruz, CA State Council of Laborers, spoke in support of DCP
21. Matt, CA NV Operating Engineers, spoke in support of DCP

One Water and Stewardship Committee
CONSENT CALENDAR ITEMS -- ACTION

5. CONSENT CALENDAR OTHER ITEMS -- ACTION

A. Approval of the Minutes of the One Water and Stewardship Committee Meeting for October 7, 2024.

6. CONSENT CALENDAR ITEMS – ACTION

7-3

Subject: Authorize the General Manager to enter into Reverse-Cyclic Program agreements with participating agencies to defer deliveries of up to 50,000 acre-foot in calendar year 2024 and up to 50,000 acre-feet in calendar year 2025; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

Motion: Authorize the General Manager to enter into Reverse-Cyclic Program agreements with participating agencies to defer deliveries of up to 100,000 acre-feet total over calendar years 2024 and 2025.

Presenter: Anna M. Garcia, Associate Engineer, Water Resource Management

Mr. Goshi provided background information and introductory comments.

Ms. Garcia gave a presentation on the proposed Reverse-Cyclic Program agreements with interested member agencies based on modified terms to the existing Program and implement the Program to make up to 50,000 acre-feet available for pre-purchase in each Calendar Year (“CY”) 2024 and 2025 for deferred delivery in a future year. The Program will allow member agencies to pre-purchase supplies at the current full-service rate for deferred delivery in a future year.

The following Directors provided comments or asked questions:

1. Sutley
2. Gold
3. Seckle
4. Armstrong
5. Smith
6. Ortega
7. Erdman

Staff responded to Director's questions and comments.

Interim General Manager Upadhyay suggested that the Board consider modifying option 1 to authorize deferred deliveries of up to 100,000 acre feet for the two year period instead of the 50,000 per year suggested in the recommended option.

Director Pressman made a motion, seconded by Director Kurtz, to approve the consent calendar consisting of items 5A, and 7-3 as modified.

The vote was:

Ayes:	Directors Ackerman Alvarez, Armstrong, Cordero, De Jesus, Erdman, Faessel, Fong-Sakai, Gold, Goldberg, Kurtz, Lefevre, Lewitt, Miller, Pressman, Quinn, and Sutley.
Noes:	None.
Abstentions:	None.
Absent	None.

The motion to approve items 5A and 7-3 as modified passed by a vote of 17 ayes, 0 noes, 0 abstentions, and 0 absent.

Directors Ackerman and De Jesus both stated they were alone in the room for the vote.

Chair Quinn announced that Agenda item 7-4 was deferred but there would be a discussion of the topic on this agenda as item 9e.

7-4 Subject: Authorize the General Manager to enter into agreements with the U.S. Bureau of Reclamation to implement phase two of the Lower Colorado River Basin System Conservation and Efficiency Program; and adopt CEQA determination that the environmental effects of the Antelope Valley-East Kern High Desert Water Bank and the Turf Replacement Programs were previously addressed in various CEQA documents and related actions (OWS)

Deferred.

END OF CONSENT CALENDAR ITEMS

7. OTHER BOARD ITEMS – ACTION

NONE

8. BOARD INFORMATION ITEMS

9-2 Subject: Update on the funding request from the Department of Water Resources for Metropolitan's share of the Delta Conveyance Project planning and pre-construction costs for 2026 and 2027 and proposed amendment to existing funding agreement

Presented by: Maureen Martin, Manager, Bay-Delta Science & Regulatory Strategy

Nina Hawk, Group Manager-Bay Delta Initiatives, gave brief background information and introductory comments.

Ms. Martin presented an update presentation on the funding request from the Department of Water Resources for Metropolitan's share of the Delta Conveyance Project planning and pre-construction costs for 2026 and 2027 and proposed amendment to existing funding agreement

The following Directors provided comments or asked questions:

1. Sutley
2. Miller
3. Seckel
4. Lefevre
5. Gold
6. Quinn
7. Smith

Staff responded to Director's questions and comments.

Chair Quinn announced that there would be a reordering of the meeting agenda. Item 9d would be heard before the other Committee Items.

9. COMMITTEE ITEMS

d. Subject: Draft Climate Adaptation Master Plan for Water Policy Framework

Presented by: Liz Crosson, Chief Sustainability Resiliency & Innovation Officer

The following Directors provided comments or asked questions:

1. Smith
2. Fong-Sakai
3. Sutley
4. Ortega
5. Sutley
6. Gold

Staff responded to Director's questions and comments.

Chair Quinn announced that item 9c would be heard next.

c. Subject: Update on Basin States Discussions Regarding Post-2026 Operational Guidelines

Presented by: Shanti Rossett

Bill Hasencamp, Manager, Colorado River Resources, provided background and introductory comments.

Ms. Rossett, Special Projects Manager, gave a presentation on Basin States discussions regarding the development of Post-2026 Operational Guidelines for the management of Colorado River system reservoirs.

The following Directors provided comments or asked questions:
1. Faessel
2. Smith

Staff responded to the Directors' questions and comments.

Chair Quinn announced that items 9a and 9b would be bypassed in order to allow time for the remaining items.

a. Subject: Update on Conservation as a California Way of Life

Deferred.

b. Subject: Update on Water Surplus and Drought Management

Deferred.

e. Subject: Report on agreements with U.S. Bureau of Reclamation to implement phase two of the lower Colorado River Basin System Conservation and Efficiency Program

Presented by: Laura Lamdin, Engineer, Water Resource Management

Mr. Goshi provided background and introductory comments.

Ms. Lamdin provided an abbreviated presentation on negotiations related to agreements with U.S Bureau of Reclamation for the selected Antelope Valley East-Kern High Desert Water Bank (AVEK HDWB) and Turf Replacement projects.

She noted that under these agreements Metropolitan would be eligible for up to $82 Million in federal funding for the AVEK HDWB project and up to approximately $96 Million for the replacement of 30 million square feet of turf on commercial, industrial, and institutional properties.

Approval of these agreements is a pending action item that will be brought at the December meeting

Chair Quinn announced that in the interest of time, the remaining Agenda items would be skipped, and adjourned the One Water and Stewardship Committee Meeting.

10. MANAGEMENT ANNOUNCEMENTS AND HIGHLIGHTS

a. Subject: Bay-Delta Resources, Colorado River Resources, Sustainability, Resilience and Innovation, and Water Resource Management activities

Deferred.

11. COMMITTEE REPORTS

a. Report on the Delta Conveyance Design and Construction Authority Meeting

Deferred.

b. Report on Delta Conveyance Finance Authority Meeting

Deferred.

c. Report on Bay-Delta Ad Hoc Meeting

Deferred.

12. **SUBCOMMITTEE REPORTS AND DISCUSSION**

Deferred.

The next meeting will be held on December 9, 2024.

The One Water and Stewardship Committee meeting adjourned at 3:47 p.m.

13. ADJOURN TO BOARD WORKSHOP

SPECIAL BOARD ITEMS

a. Subject: Reconvene - Workshop on Department of Water Resources Request for Delta Conveyance Project Planning Funds

Board Chairman Ortega and One Water and Stewardship Committee Chair Quinn provided opening remarks and reviewed meeting logistics for the panelists and the subsequent roundtable discussion.

b. Subject: Panel One – Delta and Tribal Interests

Panelists: Barbara Barrigan-Parrilla, Executive Director, Restore the Delta

Max Gomberg, Water Policy Advisor to the Shingle Springs Band of Miwok Indians

Supervisor Patrick Hume, Chair, Delta Counties Coalition

Malissa Tayaba, Vice-Chairperson of the Shingle Springs Band of Miwok Indians, was invited but could not attend

Mr. Gomberg gave a presentation on the Shingle Springs Band of Miwok Indians Tribal Perspective of Metropolitan's Investment and Stewardship.

Ms. Barragan-Parrilla gave a presentation titled "Metropolitan Water District and the Delta: A Path Forward" on Restore the Delta's integrated responses to questions

for Delta representatives by Metropolitan and responses to Metropolitan staff's analysis of Delta Freshwater Pathway versus the Delta Conveyance Project (DCP).

Supervisor Hume addressed the board and spoke in opposition to the DCP planning funding and in favor of other projects throughout the state to address water supply needs.

c. Subject: Panel Two– Business and Labor

Panelists: Adrian Covert, Senior Vice President, Public Policy for the Bay Area Council

Tracy Hernandez, Chief Executive Officer, Los Angeles County Business Federation known as "BizFed"

Jon Switalski, Executive Director, Rebuild SoCal Partnership

Charley Wilson, Executive Director, Southern California Water Coalition

Mr. Covert addressed The Board and spoke in support of to the DCP planning funding.

Ms. Hernandez addressed The Board and spoke in support of the DCP planning funding.

Mr. Switalski addressed The Board and spoke in support of the DCP planning funding.

Mr. Wilson addressed The Board and spoke in support of the DCP planning funding.

d. Subject: Roundtable discussion with representatives from environmental and community organizations, tribal leadership, business and labor sectors.

The following Directors provided comments or asked questions:
1. Sutley
2. Seckle
3. Lewitt
4. Ortega
5. Quinn
6. Kurtz
7. Cordero
8. Gold

Mr. Covert, Ms. Barragan-Parrilla, Mr. Hume, Mr. Gomberg, Mr. Richard Lambros - Managing Director of the Southern California Leadership Council, Bruce Reznik - Executive Director of LA Waterkeeper, Mr. Connor Everts - Executive Director of the Southern California Watershed Alliance, Ms. Kris Muray – Association of California Cities for Orange County, and Mr. Kyle Griffith - Californians for Water Security, responded to Director's questions.

Chair Quinn provided comments and thanked all the panelists for their participation.

Interim General Manager Deven N. Upadhyay provided additional comments related to Directors' questions and roundtable discussions.

Chair Ortega provided final closing remarks.

14. FOLLOW-UP ITEMS

NONE

15. FUTURE AGENDA ITEMS

NONE

16. ADJOURNMENT

The meeting adjourned at 6:28 p.m.

LOIS FONG-SAKAI
BOARD SECRETARY

ADÁN ORTEGA, JR.
CHAIR OF THE BOARD

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

12/10/2024 Board Meeting

8-3

Subject

Authorize the General Manager to enter into agreements with the U.S. Bureau of Reclamation to implement phase two of the Lower Colorado River Basin System Conservation and Efficiency Program; and adopt CEQA determination that the environmental effects of the Antelope Valley-East Kern High Desert Water Bank and the Turf Replacement Programs were previously addressed in various CEQA documents and related actions

Executive Summary

Staff recommends that the Board authorize the General Manager to enter into two agreements with the U.S. Bureau of Reclamation (Reclamation) under its Lower Colorado Conservation and Efficiency Program (LC Conservation Program). Under these agreements, Reclamation would pay for conserved water generated from Metropolitan's Turf Replacement Program and the Antelope Valley-East Kern (AVEK) High Desert Water Bank (HDWB). These agreements are different from previous system conservation agreements under the first half of the LC Conservation Program (Bucket 1). Bucket 1 focused on short-term water savings from short-term actions. The two projects referenced in this board letter are part of the second half of the LC Conservation Program (Bucket 2) which focuses on projects that offer long-term efficiencies and result in multi-year water savings. Staff is seeking authorization to enter into the following agreements:

1. AVEK HDWB System Conservation Implementation Agreement
2. Turf Replacement System Conservation Implementation Agreement

Under the new agreements with Reclamation, Metropolitan would receive up to approximately $178 million in federal funding through 2031. Of this, staff estimates that approximately $58.3 million would offset projected expenses over the current 2-year budget cycle. The remaining funds would either be received in future budget cycles or would meet currently unbudgeted project costs (i.e., increased turf rebate and arsenic treatment costs for AVEK HDWB). In exchange, Metropolitan would implement the projects and create a total of 265,296 acre-feet of conserved water to benefit Lake Mead as system water.

Additionally, these Bucket 2 projects will yield long-term reductions in demand for Colorado River water. These demand reductions will continue after all agreement terms have been met. This allows Metropolitan to capture federal investment to decrease long-term demands for Colorado River water. Long-term reductions in demand will improve our ability to manage our water supply under post-2026 operations which could include potential supply reductions. Metropolitan and other Colorado River water users would also benefit from increased Lake Mead elevation associated with the system water creation.

Additional agreements will be necessary to implement these system conservation implementation agreements. Before Reclamation will pay Metropolitan, the California Section 5 contractors will need to forbear through the remaining period of the 2007 Interim Guidelines. New intra-state and inter-state forbearance agreements will also be needed to continue implementing these system conservation agreements post-2026. Staff will bring those agreements to the Board for consideration as needed.

Timing and Urgency

Reclamation would like to execute as many Bucket 2 System Conservation Implementation Agreements as possible prior to the end of the calendar year. This will ensure that funding under the 2022 Inflation Reduction Act (IRA) is obligated without delay. Nevertheless, funding provided by Reclamation in these agreements could be withdrawn after they are executed by future congressional action or delayed by the next Administration.

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

Staff Recommendation: Option #1

Option #1

Adopt CEQA determination that the environmental effects of the Antelope Valley-East Kern High Desert Water Bank and the Turf Replacement Programs were previously addressed in various CEQA documents and related actions, and authorize the General Manager to enter into agreements with the U.S. Bureau of Reclamation to implement phase two of the LC Conservation Program.

Fiscal Impact: Federal funding increase of up to approximately $178 million; approximately $58.3 million would offset currently budgeted expenses over the current 2-year budget cycle. The rest of the funds would be received in a future budget cycle or would meet currently unbudgeted project costs (i.e., increased turf rebate and arsenic treatment costs for AVEK HDWB).

Business Analysis: These agreements would provide federal funding for both the design and construction of Metropolitan's AVEK facilities as well as Metropolitan's Turf Replacement Program for commercial, industrial, and institutional facilities. Implementation of these projects would reduce long-term demands for Colorado River water. Reduced demands would improve our ability to manage our water supply under post-2026 operations, which could include potential future supply reductions.

Option #2

Direct the General Manager not to enter into the agreements under the proposed terms.

Fiscal Impact: None

Business Analysis: Metropolitan would forego an opportunity to leverage federal dollars to reduce Metropolitan's long-term demands on the Colorado River and improve our ability to manage our water supply under post-2026 operations which could include potential future supply reductions.

Alternatives Considered

Staff submitted six different proposals for Bucket 2 funding. These two projects were selected by Reclamation.

Applicable Policy

By Minute Item 53051 in December 2022, Metropolitan's Board adopted legislative priorities and principles to support the funding of conservation projects to enhance the resiliency of the Colorado River System to reduce the risk of Lake Mead and Lake Powell falling below critical elevations.

The General Manager's 24/25 Business Plan identified Goal 2.2 to identify and secure programmatic cost savings, organizational efficiencies, and external funding. One of the outcomes identified under this goal was to secure IRA funding that supports Colorado River water use objectives.

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

By Minute Item 53447 in November 2023, Metropolitan's Board approved forbearance for system conservation created by CVWD and IID in 2023 to be left in Lake Mead as system water under Reclamation's LC Conservation Program.

By Minute Item 53469 in December 2023, Metropolitan's Board approved a similar action for system conservation projects with the Palo Verde Irrigation District, Bard Water District, and the Quechan Tribe under Reclamation's LC Conservation Program.

By Minute Item 53752 in August 2024, Metropolitan's Board approved forbearance for system conservation created by CVWD and IID between 2024-2026 to be left in Lake Mead as system water under Reclamation's LC Conservation Program.

Summary of Outreach Completed

All LC Conservation Program projects were discussed with and received input from the Colorado River Ad-hoc Committee. The Bucket 2 proposals were also discussed with the One Water Stewardship and Planning Committee in August of 2023 when the proposals were submitted to Reclamation.

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The following programs that are subject to this action were previously evaluated by the Board, and the Board made CEQA determinations for each.

- On April 9, 2019, the Board acted as a Responsible Agency and certified that it reviewed and considered the information in the Antelope Valley-East Kern Water Agency's Mitigated Negative Declaration and authorized entering into an agreement for the High Desert Water Bank Program.
- On September 10, 2013, the Board determined that the Turf Removal Program was categorically exempt under Section 15301 of the State CEQA Guidelines and authorized implementing New Conservation Program Initiatives.

CEQA determination for Option #2:

None required

Details and Background

Background – The LC Conservation Program

The 2022 IRA provides $4 billion in funding specifically for conservation efforts in the Colorado River Basin. The Department of the Interior, through Reclamation, created the LC Conservation Program to use the IRA funding to increase system conservation and efficiency opportunities to address the drought in the Lower Colorado River Basin. Similar conservation programs are being developed in the Upper Colorado River Basin. The LC Conservation Program provides funding opportunities for voluntary participation to increase system conservation and efficiency opportunities.

These opportunities consisted of two main components. The first was for conservation projects that could be implemented in the short-term and provide short-term savings and is often called "Bucket 1". The second was for conservation projects that improve long-term efficiencies and result in multi-year system conservation and is often called "Bucket 2". These Bucket 2 projects are intended to reduce long-term demands for Colorado River water to improve the ability to manage the Colorado River system under post-2026 operations, which are likely to include future supply reductions within the Lower Basin.

Prior Board actions related to the LC Conservation Program have all fallen under Bucket 1. Metropolitan submitted six separate proposals for potential conservation projects under Bucket 2. Reclamation selected two proposals to move forward to the negotiation phase. These negotiations are reaching their conclusion, and staff seeks board authorization to enter into System Conservation Implementation Agreements for these two selected projects. Recently, Reclamation also selected Metropolitan's proposal to fund leak detection and repair in Disadvantaged Communities. Metropolitan will bring that item to the Board in the future. These Bucket 2 projects would help Metropolitan manage our water supplies in a drier future by leveraging federal funds for projects that will reduce our demands for Colorado River water post-2026.

AVEK Program Participation in the LC Conservation Program

As part of Bucket 2 of the LC Conservation Program, Reclamation will pay Metropolitan up to $82 million for the design and construction of Metropolitan's AVEK HDWB facilities. Identified activities include construction costs for onsite power, well drilling, well equipping and recovery facilities, design and construction of arsenic treatment for extracted groundwater, and other design changes that may be necessary after consultation and approval by Reclamation. Costs associated with these activities must be incurred between June 24, 2024 and September 30, 2031. In exchange, Metropolitan will create a total of 168,000 acre-feet of system conservation water within 10 years of the date of execution of the agreement. This system conservation water may be left in Lake Mead prior to the completion of project milestones. Water would be conserved through Metropolitan's existing Extraordinary Conservation Intentionally Created Surplus (EC ICS) exhibits to achieve this "predelivery" prior to 2027. A different process for creating system conservation water may be in place post-2026. Reclamation's payments will be made quarterly based on milestone completion for design components, and percent completion for construction components as documented in progress reports. Payments are also contingent on the forbearance of the California Section 5 contractors covering this agreement. Metropolitan will have until at least September 30, 2031, to complete the project, or Metropolitan will be required to reimburse Reclamation all of the provided funds. Staff has requested, and anticipates that Reclamation will agree to, a completion date of 2040. Reclamation also requires that Metropolitan comply with the domestic procurement preference of the Build America, Buy America requirements.

The material terms of the proposed agreement are summarized in **Attachment 1**.

Turf Replacement Program Participation in the LC Conservation Program

As part of Bucket 2 of the LC Conservation Program, Reclamation will pay Metropolitan up to $95.81 million for the replacement of up to 30 million square feet of turf through Metropolitan's existing Turf Replacement Program for commercial, industrial, and institutional properties. Turf replacement activities will need to be completed, consistent with program standards and rebates issued to property owners, between June 24, 2024, and September 30, 2031. To encourage an increase in program participation, under Metropolitan's proposal, Metropolitan would increase the turf rebate to $4 per square foot (sq ft) of replaced turf. Of this $4 per sq ft, Metropolitan would contribute $1 per sq ft, and Reclamation would contribute $3 per sq ft. In exchange, Metropolitan will create a total of 97,296 acre-feet of system conservation water within 10 years of the date of execution of the agreement. This system conservation water may be left in Lake Mead prior to the completion of project milestones. Water would be conserved through Metropolitan's existing EC ICS exhibits to achieve this "predelivery" prior to 2027. A different process for creating system conservation water may be in place post-2026. Reclamation's payments are to be made based on the amount of turf removed that has been verified and paid by Metropolitan and are contingent on the execution of a California forbearance agreement covering this activity. Thus, to the extent that Metropolitan advertises increased turf replacement incentives to increase program activity, Metropolitan would need to carry those increased costs until a California forbearance agreement is signed and Metropolitan can receive Reclamation funding.

The material terms of the proposed agreement are summarized in **Attachment 2**.

Future Agreements Will Be Necessary

Additional agreements will be necessary to implement these system conservation implementation agreements. Before Reclamation will pay Metropolitan, the California Section 5 contractors will need to forbear through the remaining period of the 2007 Interim Guidelines. New intra-state and inter-state forbearance agreements will also be needed to continue implementing these system conservation agreements post-2026. For additional background on the purpose and mechanics of forbearance by Metropolitan, please see the June 2024 presentation on that subject, available at:

https://mwdh2o.legistar.com/View.ashx?M=F&ID=13012478&GUID=5C7533D3-F668-4FC6-A12E-EACEF0DF52DD

Staff will bring those agreements to the Board for consideration as needed.

Summary

Metropolitan is expanding opportunities to conserve system water in a continuing effort to reduce long-term demands on Colorado River water to improve our ability to manage our water supply under post-2026 operations. Staff recommends that the Board authorize the General Manager to enter into agreements with Reclamation which will allow Metropolitan to utilize federal dollars to decrease long-term demands of Colorado River water.

The LC Conservation Program Bucket 2 agreements would provide up to $95.81 million in federal funding for Metropolitan's Turf Replacement Program for commercial, industrial, and institutional facilities and up to $82 million for the design and construction of Metropolitan's AVEK HDWB facilities. This funding would apply toward project or program expenses through September 30, 2031. In exchange, over a period of ten years, Metropolitan would create 97,296 acre-feet and 168,000 acre-feet of system conservation water, respectively. While some federal funding would go toward currently budgeted items, some funds would be received beyond the current two-year budget cycle. Additionally, some of the funds would reimburse Metropolitan for currently unbudgeted expenses related to increasing the incentive for turf replacement on commercial, industrial, and institutional properties, as well as the design of arsenic treatment at AVEK.

Based on these factors and the expected project implementation schedules, staff estimates that, over the current 2-year budget cycle, Metropolitan's expenses related to the Turf Replacement Program would be reduced by approximately $9.2 million and that $49.1 million of currently budgeted expenses related to the AVEK HDWB would be reimbursed through these agreements. Therefore, a total of $58.3 million would count toward Metropolitan's new revenue and reduced expenditure goals associated with the current 2-year budget cycle. Additionally, Metropolitan would benefit from the long-term reduction in demands for Colorado River water that will improve our ability to manage our water supply under potentially reduced supply conditions under post-2026 operations.

Project Milestones

AVEK HDWB Project Milestones

AVEK HDWB components include: Well Drilling Package #4, well equipping and recovery facilities, onsite power, and arsenic treatment facilities.

Milestones and deliverables for Well Drilling Package #4, well equipping and recovery facilities, and onsite power include the following:

Award Contract: Notice of Award

Start Construction: Notice to Proceed

Complete Construction: As-Build Drawings and Closeout Report

Milestones and deliverables for arsenic treatment facilities include the following:

Start of Design: Preliminary Design Report

Complete 60% Design: 60% Design Plans and Specifications

Complete Final Design: Final Design Plans and Specifications

Bid Opening: Notice Inviting Bids

Award Contract: Notice of Award, Notice to Proceed

Complete Construction: As-Build Drawings and Closeout Report

Turf Replacement Project Milestones

On a quarterly basis, Metropolitan will submit to Reclamation a written justification for payment and report detailing the total amount of square feet of turf replaced consistent with program standards and rebates issued to property owners in the time since Metropolitan submitted its last written justification for payment and report.

11/27/2024
Brandon J. Goshi *Date*
Interim Manager
Water Resource Management

11/27/2024
Deven N. Upadhyay *Date*
Interim General Manager

Attachment 1 – AVEK HDWB System Conservation Implementation Agreement Term Sheet

Attachment 2 – Turf Replacement System Conservation Implementation Agreement Term Sheet

Ref# wrm12697214

Term Sheet for Antelope Valley East Kern High Desert Water Bank SCIA under Federally Funded Lower Colorado River Basin System Conservation and Efficiency Program

1. Reclamation agrees to provide funding for construction of Metropolitan's AVEK High Desert Water Bank facilities.

2. Reclamation's total payment to Metropolitan shall not exceed $82,000,000.

3. Costs must be incurred prior to September 30, 2031. All costs incurred beyond September 30, 2031 are Metropolitan's responsibility of.

4. Reclamation's payment is contingent on the execution of a California Forbearance agreement covering this project.

5. Eligible costs include design and construction related costs incurred by Metropolitan's AVEK High Desert Water Bank between June 24, 2024 and September 30, 2031.

    a. Design and construction costs for arsenic treatment facilities

    b. Construction costs for onsite power, well drilling package #4, and well equipping and recovery facilities

    c. Other design changes after consultation and approval by Reclamation

6. Subject to any waivers the Secretary may authorize, Metropolitan must comply with the Buy American Domestic Procurement Preference pursuant to Public Law 117-58 for all project related activity.

7. Metropolitan will provide progress reports at the conclusion of each project milestone. Metropolitan will also provide a closeout report.

8. Payments will be made quarterly. For design costs, payments will be based upon successful completion of project milestones. For construction costs, payments will be based on percent completion as documented in progress reports.

9. Progress reports must be completed for all project milestones, even when total costs have exceeded $82M.

10. Metropolitan will have until at least September 30, 2031 to complete the project or Metropolitan will be required to reimburse Reclamation all of the provided funds.

11. Metropolitan will create a total of 168,000 acre-feet of System Conservation Water over a period of 10 years after the date of execution of this agreement.

12. System Conservation Water may be created and left in Lake Mead prior to the completion of project milestones. Such water must be created using existing Extraordinary Conservation Intentionally Created Surplus (EC ICS) exhibits prior to 2027 and an EC Certification Report must be provided. A different process for creating System Conservation Water may be in place post-2026.

13. Creation of System Conservation Water will be included in Reclamation's existing water order approval process. System Conservation Water can only be created in a year in which delivery of water is less than available supplies. Verified volumes will be reported in Reclamation's annual Water Accounting Report.

14. If Metropolitan does not create the full volume of System Conservation Water, Metropolitan must reimburse Reclamation. For example, if Metropolitan leaves 93% of the System Conservation Water in Lake Mead, then Metropolitan will reimburse Reclamation 7% of the total payments made.

15. If Metropolitan creates the full volume of System Conservation Water, but the project is not completed, all such System Conservation Water will stay in Lake Mead as system water.

Term Sheet for Turf Replacement SCIA under Federally Funded Lower Colorado River Basin System Conservation and Efficiency Program

1. Reclamation agrees to provide funding to Metropolitan's existing Turf Replacement Program for commercial, industrial, and institutional properties between June 24, 2024, and September 30, 2031.

2. Metropolitan's proposal is to increase the rebate on its Turf Replacement Program for commercial, industrial, and institutional properties to $4/square foot for all turf replacement projects completed and paid between June 24, 2024, and September 30, 2031.

3. Metropolitan's proposal is to cost-share eligible expenses. Total program costs are $4/ square foot. Reclamation costs are $3/ square foot. Metropolitan costs are $1/ square foot.

4. Eligible costs are those incurred by Metropolitan's Turf Replacement Program for commercial, industrial, and institutional properties between June 24, 2024, and September 30, 2031, for up to 30 million square feet of turf replacement on commercial, industrial, and institutional properties.

5. All costs incurred beyond September 30, 2031, are Metropolitan's responsibility.

6. Reclamation's total payment to Metropolitan shall not exceed $95,810,737. Metropolitan's administration costs for the program are eligible for payment.

7. Reclamation's payment is contingent on the execution of a California Forbearance agreement covering this project.

8. Metropolitan will provide quarterly progress reports for the duration of this agreement. Payments will be made based on the incurred eligible expenses identified in these semi-annual reports. Metropolitan will also provide a closeout report.

9. Metropolitan will create a total of 97,296 acre-feet of System Conservation Water over a period of 10 years after the date of execution of this agreement.

10. System Conservation Water may be created and left in Lake Mead prior to completion of turf removal activities. Such water must be created using existing Extraordinary Conservation Intentionally Created Surplus (EC ICS) exhibits prior to 2027, and an Extraordinary Conservation Certification Report must be provided. A different process for creating System Conservation Water may be in place post-2026.

11. If Metropolitan does not create the full volume of System Conservation Water, Metropolitan must reimburse Reclamation. For example, if Metropolitan leaves 93% of the System Conservation Water in Lake Mead, then Metropolitan will reimburse Reclamation 7% of the total payments made.

12. Creation of System Conservation Water will be included in Reclamation's existing water order approval process. System Conservation Water can only be created in a year in which delivery of

water is less than available supplies. Verified volumes will be reported in Reclamation's annual Water Accounting Report.

13. If Metropolitan does create the full volume of System Conservation Water, but less than 30 million square feet of turf is replaced under the program, all such System Conservation Water will stay in Lake Mead as system water and no changes to payment will be made.

One Water and Stewardship Committee

Colorado River System Conservation Agreements

Item 8-3

December 9, 2024

Item 8-3

Authorize Colorado River System Conservation Agreements

Subject

Authorize the General Manager to enter into agreements with the U.S. Bureau of Reclamation to implement phase two of Lower Colorado River Basin System Conservation and Efficiency Program; and adopt CEQA determination that the environmental effects of the Antelope Valley-East Kern High Desert Water Bank and the Turf Replacement Programs were previously addressed in various CEQA documents and related actions

Purpose

To obtain Board approval for agreements allowing water conserved by Metropolitan to be added to Lake Mead under Reclamation's LC Conservation Program.

Recommendation and Fiscal Impact

Authorize entering into agreements for Reclamation to provide funding for the AVEK HDWB and the Turf Replacement Program for commercial, industrial, and institutional properties and to use those programs to generation of up to 265,296 AF of conserved Colorado River system water.

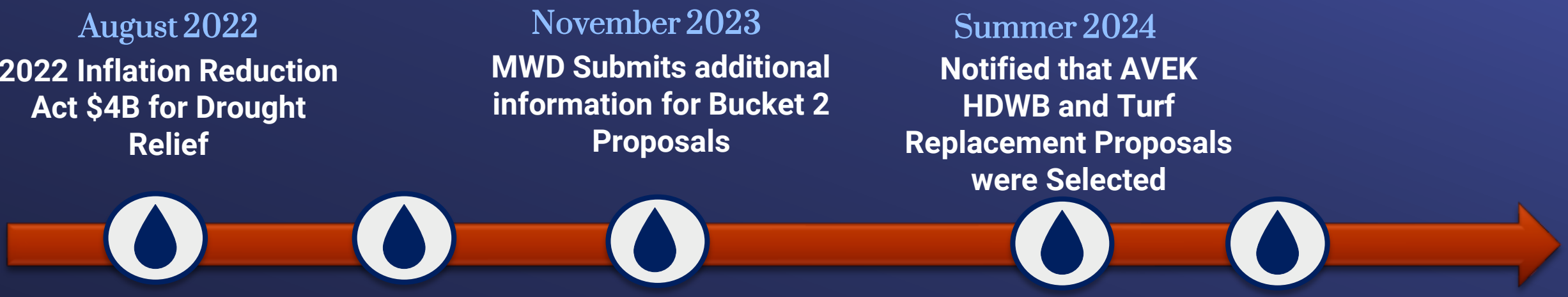
In addition to reduced budgeted expenditures, Metropolitan would receive up to $178 million in federal funding over 7 years.

Budget

Not budgeted.

Metropolitan would benefit receipt of federal funding

Background


August 2022
2022 Inflation Reduction Act $4B for Drought Relief
August 2023
MWD Submits Bucket 2 Proposals
November 2023
MWD Submits additional information for Bucket 2 Proposals
Summer 2024
Notified that AVEK HDWB and Turf Replacement Proposals were Selected
Fall 2024
Negotiation on AVEK HDWB and Turf Replacement System Conservation Implementation Agreements

AVEK HDWB System Conservation Project

AVEK High Desert Water Bank

- Project: Design and construction of groundwater storage facilities
- Funding: Up to $82 Million
- Duration: June 24, 2024 – September 30, 2031
- Volume: 168,000 acre-feet over 10 years
- Other:
  - Payment based on project activity
  - Pre-delivery through other existing conservation activities
  - Build America, Buy America

Turf Replacement System Conservation Project

Turf Replacement

- **Project:** Increase turf rebate for commercial, industrial, and institutional properties
  ($3/sqft – USBR, $1/sqft – MWD)
- **Funding:** Up to $95.81 Million
- **Duration:** June 24, 2024 – September 30, 2031
- **Volume:** 30 million square feet of turf removed
  97,296 AF system water created over 10 years
- **Other:**
  - Payment based on issued rebates
  - Pre-delivery through other existing conservation activities

Additional Items Will Be Necessary

1. California Forbearance through the 2007 Interim Guidelines

2. Post-2026 California and Inter-State Forbearance

Summary

Federal Funding

Up to $178 Million in Federal Funding

System Water Creation

Create 265,296 AF of System Water in Lake Mead

Budget Benefit

Estimated $58.3 Million to offset budgeted expenditures in current budget biennium

Next Steps, Pending Board Approval

1. Execute agreements
2. Bring forbearance and other related agreements to the Board
3. Develop additional Bucket 2 Agreement for DAC Leak Detection and Repair

Next Steps, Continued

4

Implement projects

- Turf: advertise $4/sqft incentive
- AVEK HDWB: additional Board items
  - Information on agreement term extension, update on water quality, and possible treatment options
  - Authorization for treatment costs and related agreement amendments
  - Authorization to debt finance capital costs

Board Options

- Option #1

Adopt CEQA determination that the environmental effects of the Antelope Valley-East Kern High Desert Water Bank and the Turf Replacement Programs were previously addressed in various CEQA documents and related actions, and authorize the General Manager to enter into agreements with the U.S. Bureau of Reclamation to implement phase two of the LC Conservation Program.

- Option #2

Direct the General Manager not to enter into agreements under the proposed terms.

Staff Recommendation

- Option #1


THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
1928

Benefits

1. Reducing long-term demand for Colorado River Water improves the ability to manage water post-2026 when there may be supply reductions

2. Securing federal investment in our service area

3. $58.3 Million to offset budgeted expenditures in current budget biennium

Two Separate Requests for Proposals Funded by the Inflation Reduction Act

Bucket 1

- Short-term projects with short-term benefits
- Immediate implementation
- Elevation protection

Bucket 2

- Long-term projects with multi-year benefits
- Improving system efficiency
- Reducing long-term demand

Metropolitan's Bucket 2 Proposals – Two Agreements for Board Approval

AVEK High Desert Water Bank

DAC Leak Detection and Repair

New Local Supply Program

Turf Replacement for Commercial, Industrial, and Institutional Properties

DAC Turf Replacement – Direct Install

New DAC Focused Local Supply Program

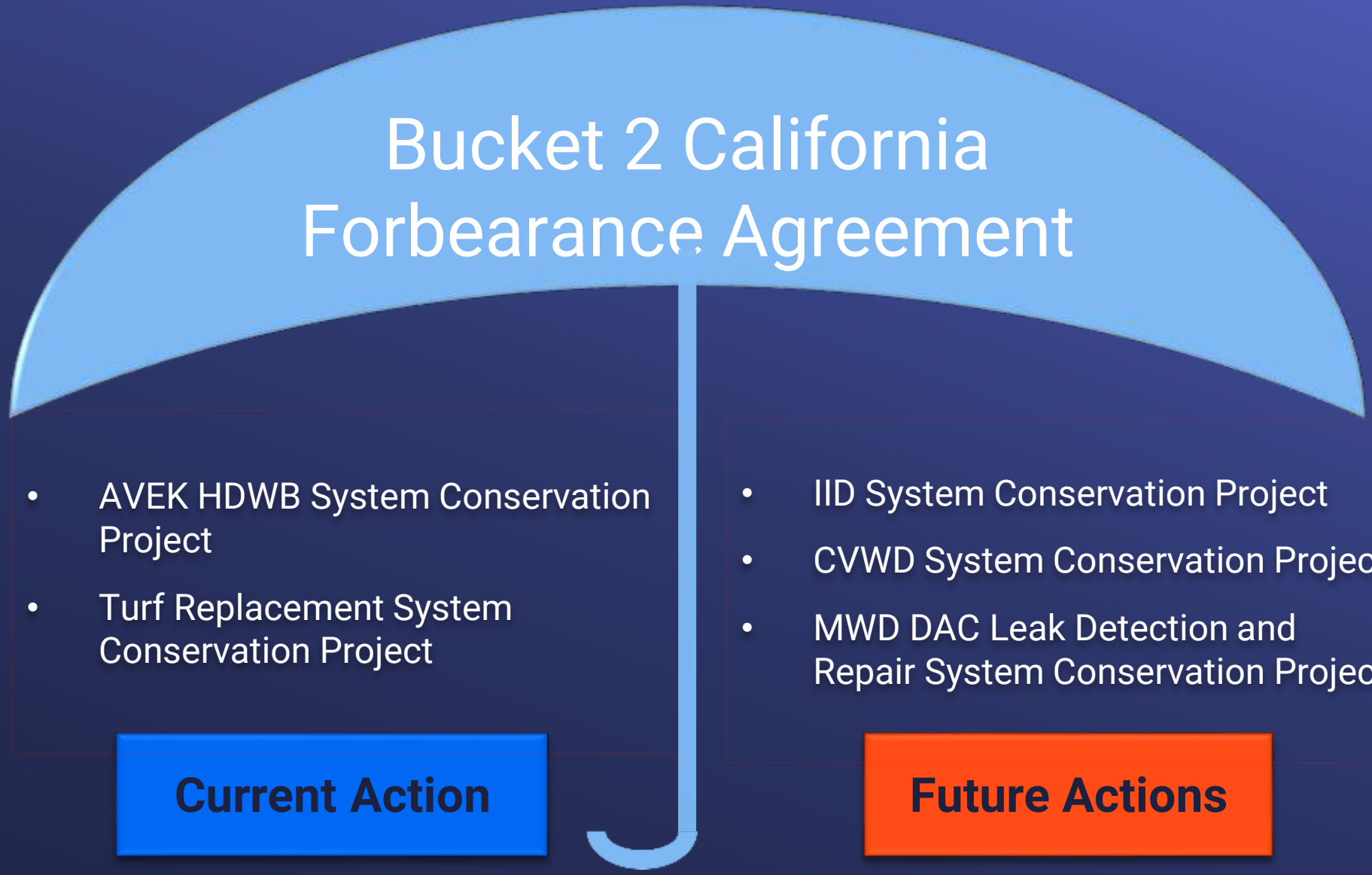
Forbearance is Necessary and More Complicated

Risks

1. Additional agreements necessary for full implementation of agreements

2. Carrying costs of increased turf replacement until a California Forbearance Agreement is signed

California Forbearance Agreement for Bucket 2 Projects

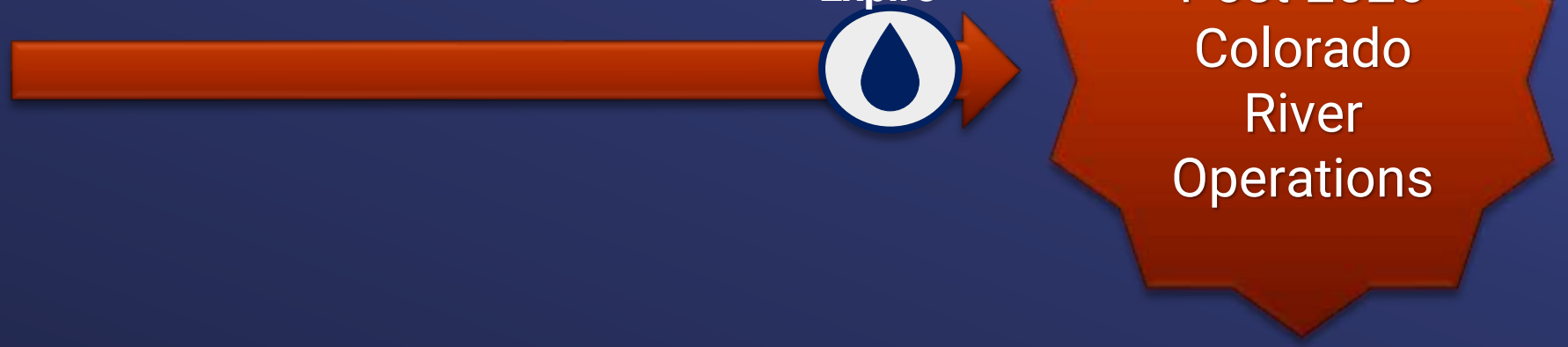


*Payments contingent on signing a California Forbearance Agreement

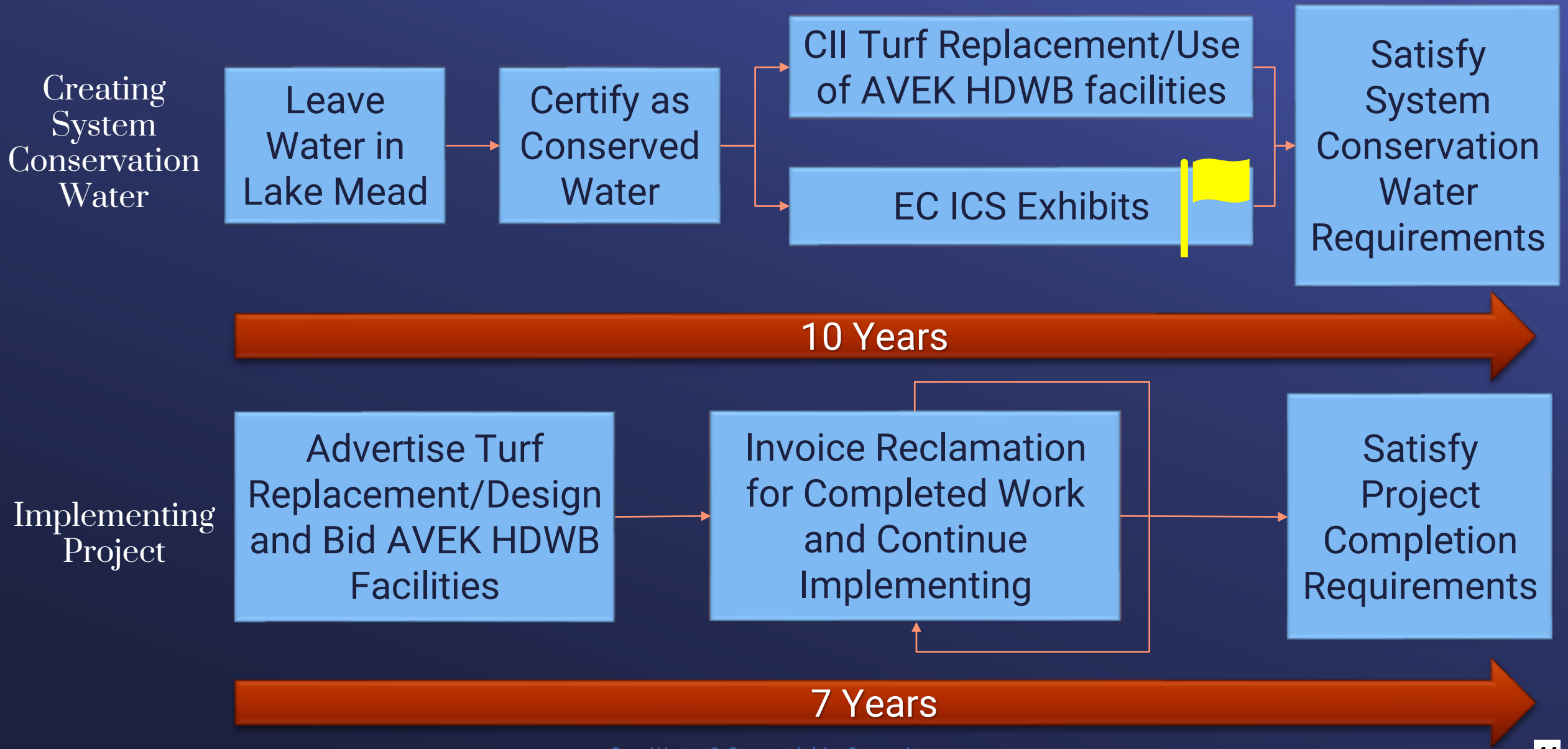
Inter-State Forbearance and EC ICS Forbearance Expiring

December 31, 2026

Inter-State Forbearance Expires & Intentionally Created Surplus Exhibits Expire



Predelivery of System Conservation Water



Title of Slide

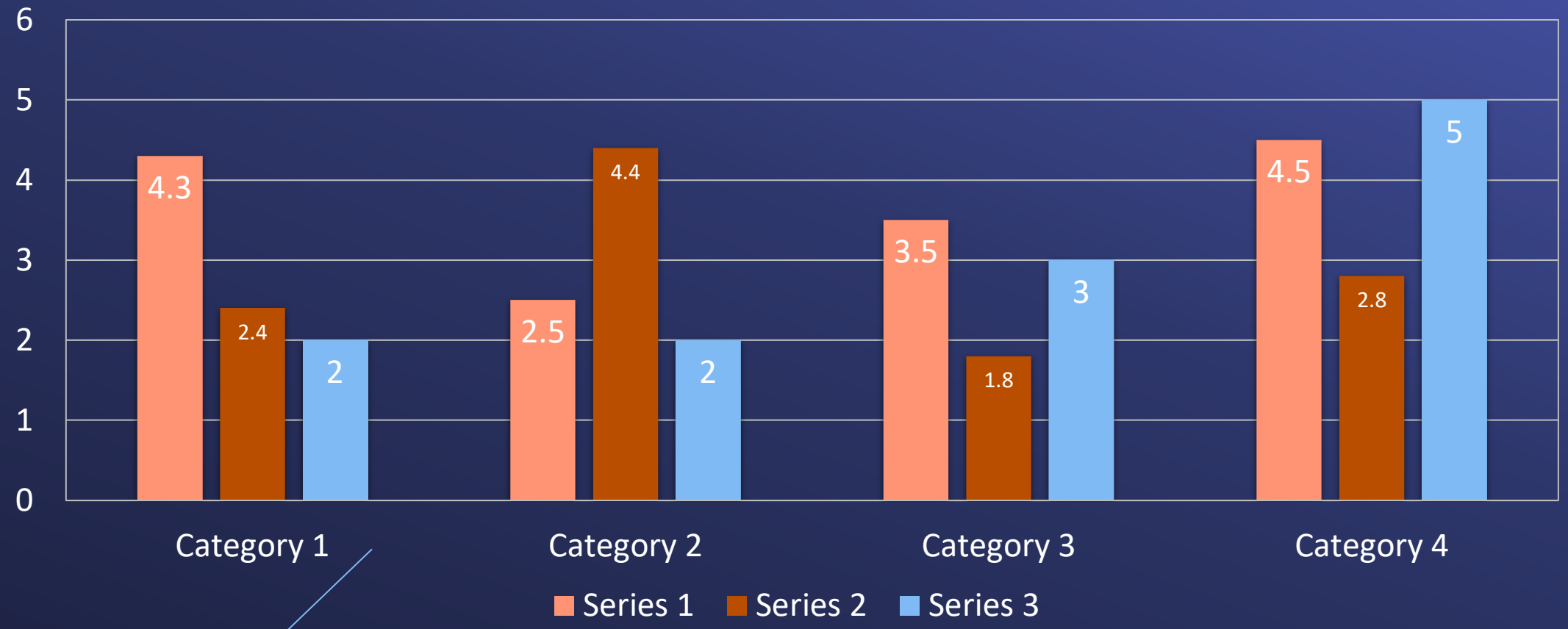
Topic Goes Here

- First Bullet
- Second Bullet
  - Secondary Bullet
    - Tertiary Bullet

California

Map Slide

Title of Bar Graph Here

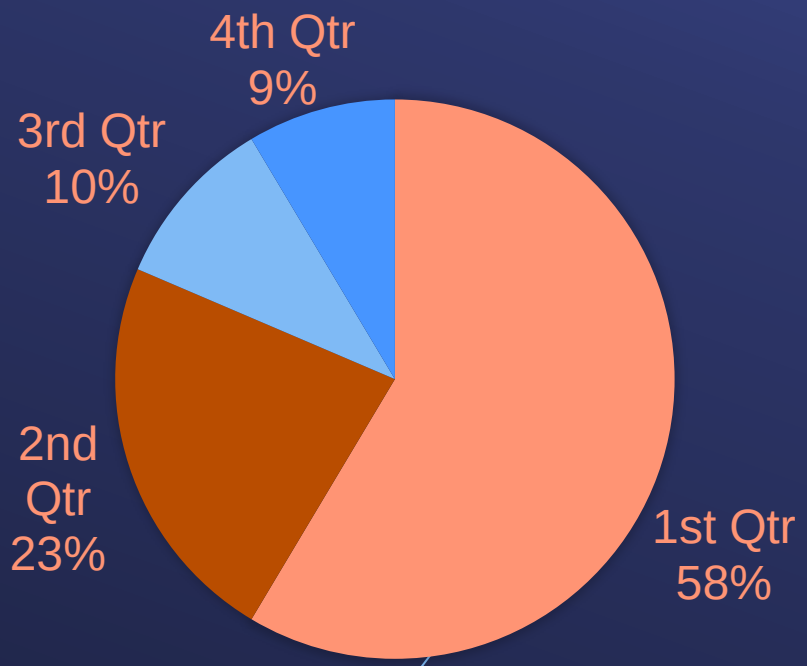


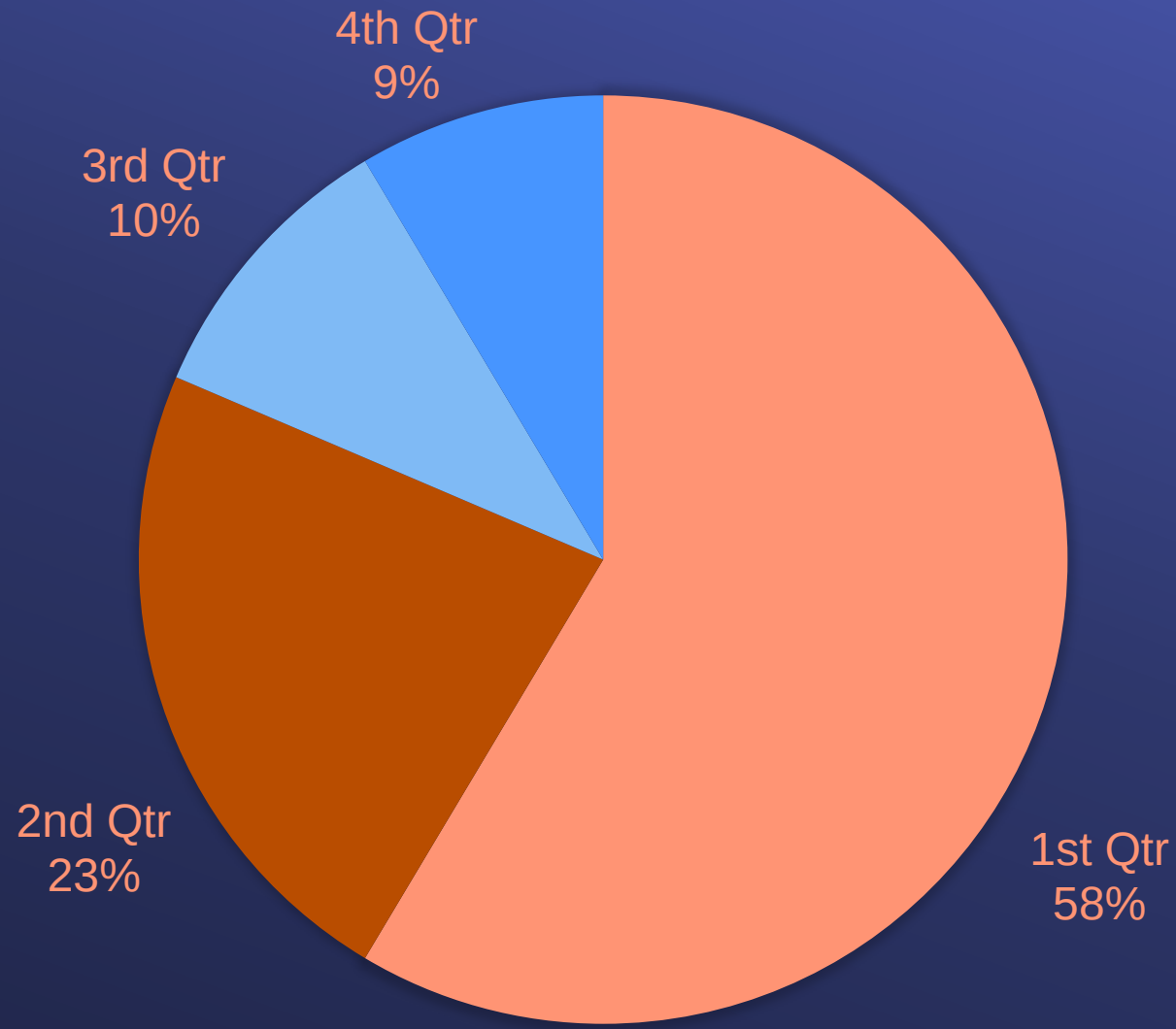
DESIGN NOTES:

Graphs & Charts

Use theme color palette.

Title of Pie Chart Here





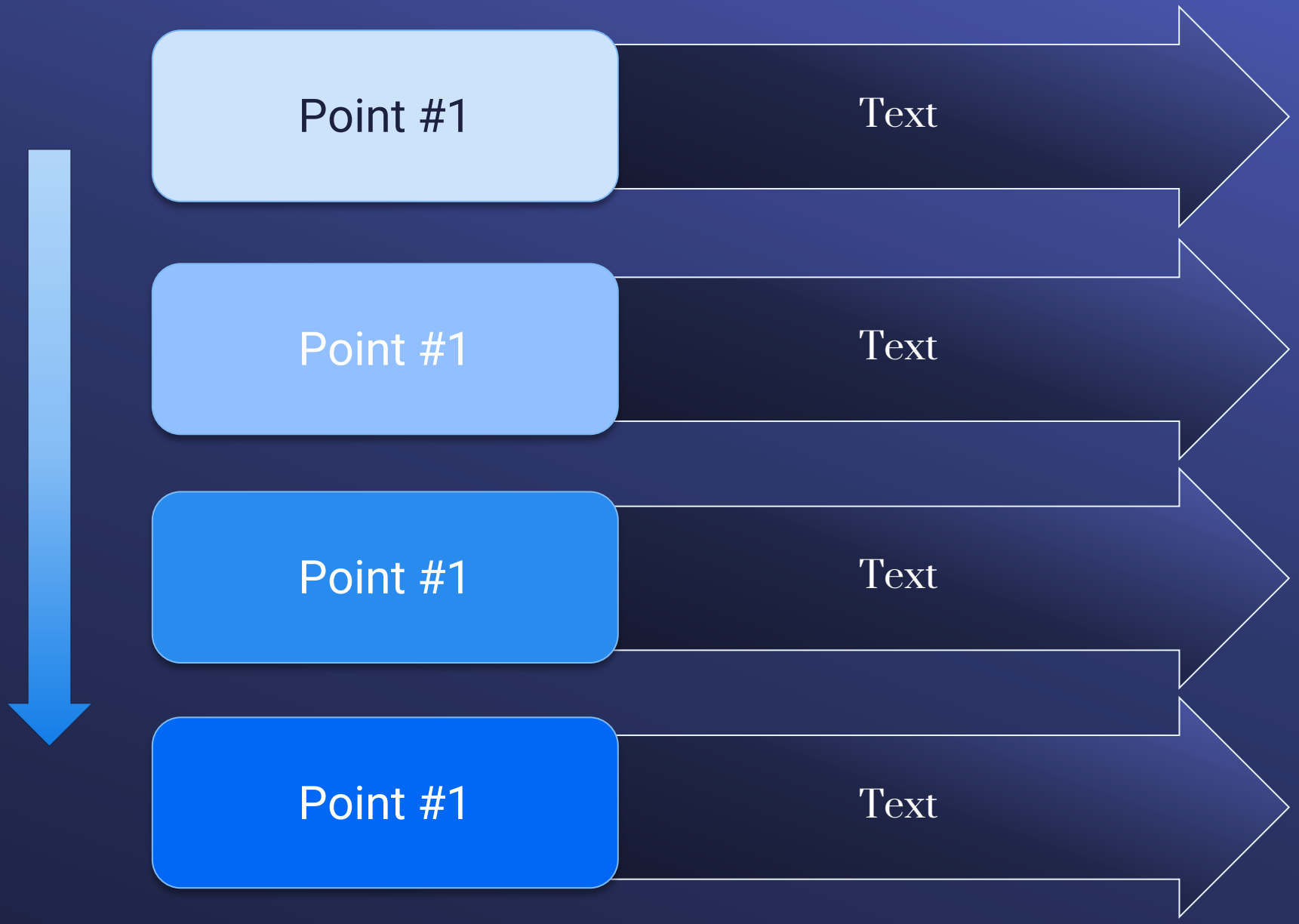
DESIGN NOTES:

Graphs & Charts

Use theme color palette.

Sample Layout

Key Points



KEY FINDINGS

87% are concerned about drought conditions in California

72% say California's current drought has had an impact on their water usage

People of color (66%) are likely to increase their water efficiency

Residents under 30 are the most likely to increase their water efficiency

survey respondents aged **18-29** believe they can do more to be water efficient

Telephone and online survey of 1,000 California residents July 15-22, 2021, conducted by Probolsky Research for State of California and ACWA

Sample Layout

Research, Findings & Key Points

Pipeline Retrofit

Board Options

- Option #1

  Authorize agreements with Acme Engineers, Inc., in an amount not-to-exceed total of $750,000 per year for a period of three years

- Option #2

  Do not proceed with these agreements at this time.

Pipeline Retrofit

Staff Recommendation

- Option #1

  Authorize agreements with Acme Engineers, Inc., in an amount not-to-exceed total of $750,000 per year for a period of three years

Title of Presentation

Photo slide

Other Text Here

Design Resources

Document Fonts.

This presentation uses two primary fonts. Both are open-source Google fonts. Find the font specifications and download locations below:

Prata

https://fonts.google.com/specimen/Prata?query=prata

Roboto

https://fonts.google.com/specimen/Roboto


PROGRAMS


PUMPING


EXCHANGES


POINTS


CONSERVATION


STRATEGY


GROUNDWATER


SUBSIDENCE


WATER RATES


PARTNERSHIP


SNOWPACK


HABITAT


WASTEWATER


EARTHQUAKE


DROUGHT


VETERAN


LOCATION


WILDLIFE


ECONOMY


INFRASTRUCTURE


STORAGE

Design Resources

Icon Suite.

Here is a complementary suite of custom icons that represent many of Metropolitan's common talking points and functions. Suggested applications are included, but feel free to use them in any context that makes sense in your presentation.

One Water & Stewardship Committee


PROGRAMS


PUMPING


EXCHANGES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STORAGE

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

12/10/2024 Board Meeting

8-4

Subject

Review and consider the Lead Agency's certified 2023 Final Environmental Impact Report for the Delta Conveyance Project and take related CEQA actions; and authorize the General Manager to enter into an amended agreement for preconstruction work planned for 2026-2027

Executive Summary

In December 2020, Metropolitan executed a funding agreement with the California Department of Water Resources (DWR), through which Metropolitan committed to its share of the Delta Conveyance Project (DCP) planning and preconstruction costs that were anticipated at that time. Funds committed in 2020 cover expenditures planned through 2025. Post 2025, DWR must complete additional planning and preconstruction activities to advance the DCP and has requested $300 million in total from all potential participants, $141.6 million of which is Metropolitan's share.

DWR and Metropolitan have exchanged several letters (**Attachment 4**) addressing key issues raised by the Board that must be resolved prior to the DCP being implemented and prior to final decisions regarding Metropolitan's participation. These letters outlined DWR's commitments to ensure proportional and complete planning funding, secure key permits and certifications by the end of 2026, develop a plan to fund and finance project implementation, resolve protest items related to Metropolitan's Statement of Charges, and improve the near-term reliability of the SWP through a suite of climate adaptation strategies. With these commitments by DWR, staff developed an updated term sheet for the proposed funding agreement amendment that includes off-ramps to Metropolitan's future payment obligations if material, adverse changes in project benefits or costs occur during the two-year term of the agreement. Staff recommends that the Board authorize the General Manager to enter into an amended funding agreement for an amount not to exceed $141.6 million for preconstruction work on the DCP planned during 2026-2027.

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

Staff Recommendation: Option #1

Option #1

Review and consider the Lead Agency's certified 2023 Final Environmental Impact Report (EIR) for the DCP, take related CEQA actions, and authorize the General Manager to enter into an amended agreement for preconstruction work on the DCP planned for 2026-2027.

Fiscal Impact: Metropolitan's 47.2 percent share of the $300 million requested by DWR for DCP planning costs is $141.6 million. Metropolitan's share of the planning costs is anticipated to be spent over the next three fiscal years (FY), including FY 2025/26 (~$25.7 million), FY 2026/27 (~$74.7 million), and FY 2027/28 (~$41.3 million). The additional requested planning funds were not included in the second year of the adopted two-year budget that includes FY 2025/26, and therefore are not included in the adopted calendar year rates for 2026. Metropolitan recently secured a commitment from DWR for a refund of $75 million in past SWP payments. Because the $75 million will be received prior to January 1, 2026,

approval of the additional planning dollars would not have an impact on Metropolitan's already approved rates through 2026. Beginning January 1, 2027, Metropolitan's overall calendar year 2027 rates would need to increase by approximately three percent to generate sufficient revenues, on a cash basis, to cover expected expenditures through June 30, 2028.

Business Analysis: This option would allow DWR to continue to advance the DCP which would ultimately improve the reliability of the SWP, a critical component of Metropolitan's water supply portfolio. This additional funding will provide the Board significant additional information regarding the benefits and costs of the DCP prior to the Board making an implementation decision in 2027.

Option #2

Do not authorize the General Manager to enter into an amended agreement for preconstruction work on the DCP planned for 2026-2027.

Fiscal Impact: None

Business Analysis: This option would forego an opportunity to advance the DCP and provide significant additional information regarding the benefits and costs of the DCP prior to the Board making an implementation decision, result in loss of design and engineering leadership and staff, result in significant cost escalation if the project subsequently moves forward and risk further reduced reliability of the SWP if it does not.

Applicable Policy

By Minute Item 53012, dated October 11, 2022, the Board adopted the revision and restatement of Bay-Delta Policies.

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

Provided the staff recommendation is approved, a future decision would come before the Board in 2027 based on further design and permitting as well as an updated cost estimate and benefits cost analysis to determine whether, and if so, at what level Metropolitan would participate in the DCP.

Summary of Outreach Completed

In addition to the outreach conducted by DWR and the Delta Conveyance Design and Construction Authority (DCA), Metropolitan staff has undertaken extensive public outreach. To inform stakeholders about the Board's planned vote in December, staff created and distributed a fact sheet to member agencies and shared information with more than 100 community groups, local officials, and associations. Interested parties were encouraged to provide written comments in advance of the Board's deliberation and action. Executive staff has also attended multiple member agency board meetings as those agencies deliberated continued funding for preconstruction activities. Additionally, a Joint Board/One Water Committee workshop was held on November 18, 2024, at which the Board had an opportunity to engage directly with a diverse array of voices. The workshop featured two panels comprising representatives from environmental organizations, Delta counties, Tribal communities, business sectors and labor interests. In addition to the panel presentations, the Board participated in a roundtable discussion with a large number of workshop attendees and heard public comment.

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

Acting as the Lead Agency, DWR certified a Final EIR on December 21, 2023, for the DCP. DWR also approved Findings of Fact, a Statement of Overriding Considerations, and a Mitigation Monitoring and Reporting Program, which DWR has exclusive responsibility to implement. The Final EIR, Mitigation Monitoring Reporting Program, and Notice of Determination are available at https://www.deltaconveyanceproject.com/planning-processes/california-environmental-quality-act/final-eir/final-eir-document. The CEQA Findings and Metropolitan's Statement of Overriding Considerations are included in **Attachment 1** and **Attachment 2**. The Board has reviewed and considered these environmental documents and adopts the attached findings of the Lead Agency and Statement of Overriding Considerations. (State CEQA Guidelines Section 15096.)

CEQA determination for Option #2:

None required

Details and Background

Background

In February 2019, in his State of the State address, Governor Newsom announced support for a single tunnel project. Consistent with the Governor's direction, in May 2019, DWR began planning for a single tunnel project. DWR is pursuing the DCP to improve the reliability and operational flexibility of the SWP given historical, emerging, and future risks from climate change, sea level rise, levee failure, and regulatory restrictions.

In April 2020, DWR and SWP Contractors agreed upon a framework, referred to as an Agreement in Principle (AIP), which would guide amendments to each SWP contract if the DCP proceeds to construction. The goals of the AIP are to provide the structure for: (1) allocating DCP costs and benefits to those SWP Contractors that decide to support construction of and participate in the DCP, and (2) protecting the existing SWP contract rights for those SWP Contractors that decide not to participate in the DCP. Decisions regarding participation are not anticipated until 2027. Staff provided information and a copy of the AIP to the Board at the October 27, 2020, Bay-Delta Committee meeting.

On December 8, 2020, the Metropolitan Board authorized the General Manager to execute a funding agreement for the recommended share of 47.2 percent (up to $160.8 million) for planning and preconstruction costs for the DCP. The money Metropolitan provided to DWR under that agreement has been used to complete the Final EIR documenting design and operational refinements under CEQA, all major permit applications and supporting documentation, preliminary design to support environmental review, a cost estimate, and a benefit-cost analysis. Part of this effort also included Tribal consultation, outreach to environmental justice communities and advocates, and stakeholder engagement to avoid and reduce community impacts and coordination with responsible and trustee state and federal agencies. Completion of these efforts verifies that the project is permittable and improves understanding of project benefits, risks and costs. Additional details regarding milestones completed and upcoming work planned are provided below.

The funding request from DWR for Metropolitan's portion of the DCP planning and preconstruction costs for 2026 and 2027, along with the proposed amendment to the existing funding agreement to pay Metropolitan's share, was presented as an informational item to the Special Joint Meeting of the One Water and Stewardship Committee and Board of Directors Workshop in November 2024**.**

Key Project Milestones

California Environmental Quality Act Compliance

On January 15, 2020, DWR initiated a CEQA review and began developing alternatives and conducting the environmental impact analysis for the proposed project. DWR's fundamental purpose in proposing to develop new diversion and conveyance facilities in the Delta is to restore and protect the reliability of SWP water deliveries and, potentially, Central Valley Project (CVP) water deliveries south of the Delta, consistent with the state's Water Resilience Portfolio in a cost-effective manner. The above-stated purpose, in turn, gives rise to several related objectives of the DCP, as follows:

- To address anticipated rising sea levels and other reasonably foreseeable consequences of climate change and extreme weather events.
- To minimize the potential for public health and safety impacts from reduced quantity and quality of SWP water deliveries, and potentially CVP water deliveries, south of the Delta resulting from a major earthquake that causes breaching of Delta levees and the inundation of brackish water into the areas in which the existing SWP and CVP pumping plants operate in the southern Delta.
- To protect the ability of the SWP, and potentially the CVP, to deliver water when hydrologic conditions result in the availability of sufficient amounts, consistent with the requirements of state and federal law, including the California and Federal Endangered Species Acts and Delta Reform Act, as well as the terms and conditions of water delivery contracts and other existing applicable agreements.

- To provide operational flexibility to improve aquatic conditions in the Delta and better manage risks of further regulatory constraints on project operations.

After CEQA scoping concluded, the Draft EIR analyzed a range of potentially feasible project alternatives ranging from a single intake with a maximum capacity to divert 3,000 cubic feet per second (cfs) to three intakes with a maximum diversion capacity of 7,500 cfs, as well as three alignment options.

During the development of the Draft EIR, DWR organized informational meetings and engaged in Tribal consultations with California Native American Tribes regarding Tribal cultural resources, in line with the AB 52 Tribal Cultural Resources requirements under CEQA and DWR's Tribal Engagement Policy.

Alongside the formal CEQA analysis requirements, DWR conducted an environmental justice survey to gather insights from disadvantaged communities in the Sacramento-San Joaquin Delta region about their experiences related to work, living, recreation, and interaction with the Delta. The survey specifically targeted historically burdened, underrepresented, and low-income communities, including people of color and Indigenous and Tribal interests. The findings from this survey were included as Appendix 29A in the Draft EIR. The results highlighted key concerns and priorities, which were incorporated into the Draft EIR analysis. Additionally, these findings helped shape the development of the Community Benefits Program.

DWR released the Draft EIR for public review on July 27, 2022, which included a 142-day public comment period in which DWR received more than 700 letters and 7,000 individual comments.

On December 21, 2023, DWR certified the Final EIR, approved the Bethany Alignment (Alternative 5), adopted Findings of Fact, a Statement of Overriding Considerations and Public Trust findings, adopted a Mitigation Monitoring and Reporting Program, and issued a Notice of Determination. In certifying the EIR and approving the project, DWR determined the environmental review complies with CEQA, and the Final EIR reflects public input and DWR's independent judgment and analysis. This is a significant milestone and serves as the foundation for the evaluation of costs, benefits, and environmental impacts of the DCP.

The Final EIR identifies the participating SWP Contractors as responsible agencies for actions related to the DCP. DWR's Final EIR, Findings, Statement of Overriding Considerations, Mitigation Monitoring Reporting Plan, and Notice of Determination can be found at the official DWR website at: https://www.deltaconveyanceproject.com/planning-processes/california-environmental-quality-act/final-eir/final-eir-document].

As a CEQA-responsible agency, prior to any approval of funding for preconstruction work, Metropolitan must consider the Final EIR, adopt DWR's CEQA findings for the DCP (**Attachment 1**) and adopt a Statement of Overriding Considerations (**Attachment 2**) regarding the preconstruction work's contributions, if any, to the DCP's potentially significant and unavoidable impacts. Note that because the Board would not be approving the DCP, just funding for 2026-2027 preconstruction work, the Statement of Overriding Considerations presented to the Board is specific to Metropolitan's continued funding of preconstruction activities and is different from DWR's Statement of Overriding Considerations for the DCP as a whole.

National Environmental Policy Act Compliance

On December 16, 2022, the U.S. Army Corps of Engineers (USACE) issued a Draft Environmental Impact Statement (EIS) for the construction of DCP. A Final EIS is anticipated by early 2025. Other federal permits (Clean Water Act Sections 404 and 401 and National Historic Preservation Act Section 106) will need to be completed prior to issuance of a Record of Decision. The issuance of the necessary federal permits and Record of Decision by the USACE would enable DCP construction activities that involve altering or modifying federally constructed levees (under the Rivers and Harbors Act Section 408 Permit) to go forward and allow for the discharge of dredged or fill materials into U.S. waters (under the Clean Water Act Section 404 & 401 Permits), among other activities.

California Endangered Species Act

On April 9, 2024, DWR submitted an Incidental Take Permit application to the California Department of Fish and Wildlife. This permit would cover the potential take of endangered species during the construction and operations of the DCP. An Incidental Take Permit is anticipated by the end of 2024. DWR is seeking permit coverage for the

proposed DCP, which addresses the potential incidental take of species listed under the California Endangered Species Act during the preconstruction, construction, maintenance, and operation of all proposed project facilities. This permit coverage will be effective from the date it is issued through the initial operations of the north Delta intakes. This is another significant milestone that will affect DCP operations and potential benefits.

Federal Endangered Species Act

The DCP has two coordinated federal processes for Federal Endangered Species Act (ESA) compliance, one to address construction and another covering operations. Federal ESA permitting for DCP operations is included as a programmatic element in the 2021 Consultation on the Coordinated Long-Term Operation of the CVP and the SWP. The U.S. Fish and Wildlife Service (USFWS) issued a Biological Opinion on November 8, 2024, and the National Marine Fisheries Service is expected to finalize a Biological Opinion for this process by the end of 2024. Federal ESA permitting for DCP construction is being led by USACE and DWR in a separate process. USACE submitted draft Biological Assessments to the federal fisheries agencies in May 2024. Final Biological Opinions for construction are expected to be complete in late 2024 or early 2025. These permits could affect project costs but would not affect operations and potential benefits.

Water Right Change Petition

On February 22, 2024, DWR submitted a change petition to the State Water Resources Control Board (SWRCB) to add the two new intake facilities as points of diversion and rediversion to the SWP water rights. Thirty-eight protests were submitted to the SWRCB. DWR has reached settlements to resolve some of the protests. The initial hearing has been scheduled for February 18, 2025.

Preliminary Design

In the initial design phase, the DCA, under the direction of DWR, formed a Stakeholder Engagement Committee (SEC) to facilitate the exchange of information and ideas aimed at minimizing project impacts on Delta communities and identifying meaningful community benefits. The SEC included Delta residents, business owners, Tribal representatives, and other interested parties. This committee convened regularly from November 2019 to December 2021. Input from the SEC enabled the design team to incorporate community-focused adjustments into the planning and conceptual design, helping to minimize or avoid potential negative impacts to communities and businesses whenever possible.

In November 2023, the DCA released updated final draft engineering project reports for the alternatives considered in the EIR. The original engineering project reports were first completed in May of 2022. The preliminary design of the approved project (Bethany Reservoir Alignment) was the basis of the updated cost estimate. In 2024, the DCA released a concept engineering report that provides comprehensive documentation of the approved project.

Community Benefits Program

The Community Benefits Program is anticipated to be a set of commitments made by project proponents in collaboration with local Delta communities to address potential community impacts that go beyond CEQA mitigation. The Community Benefits Program is intended to address challenges local communities may encounter during extended construction periods. The Project Cost Estimate released in May 2024 included $200 million to fund the Community Benefits Program (equal to approximately 1 percent of the estimated project cost). DWR continues to develop key Community Benefit Program elements, including a grant program and individual agreements with Delta communities. On October 11, 2024, DWR released a Draft Implementation Plan and Guidelines for public review: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Delta-Conveyance/Public-Information/CBP-Draft-Implementation-Plan_Final_Oct2024_Final.pdf. DWR is accepting public comments through March 1, 2025.

Delta Plan Certification of Consistency

On October 8, 2024, DWR submitted a draft certification of consistency with the Delta Stewardship Council's Delta Plan for geotechnical activities planned for 2024 through 2026. Four appeals, representing about eighteen local agencies, conservation groups, and Tribes, were filed by the appellant deadline of November 7, 2024. The Delta Stewardship Council will hold a hearing on December 19, 2024, and issue a final determination on the appeals within an additional 60 days. DWR may not initiate implementation of the geotechnical work until the Delta Stewardship Council denies all administrative appeals and the trial court where the ten coordinated CEQA cases are pending lifts the preliminary injunction.

DWR has begun preparing a certification of consistency for the DCP and anticipates filing it by late 2025. Notably, the Delta Stewardship Council does not issue a permit and is not authorized to impose conditions of approval on the DCP.

Project Cost

On May 17, 2024, the DCA released an updated cost estimate of $20.1 billion in real 2023 (undiscounted) dollars. A preliminary cost assessment conducted in 2020, early in the design process, estimated the project at $16 billion. Accounting for inflation to 2023 dollars, the two estimates are similar in cost. The 2023 cost estimate was robust and includes a 30-percent cost contingency for construction and utilizes both a bottom-up and a top-down approach – with both methods yielding similar costs. Costs will be updated again once geotechnical work and additional engineering has been completed, including the incorporation of any design and construction innovations that would reduce project costs.

Benefit-Cost Analysis

On May 16, 2024, DWR released the benefit-cost analysis for the project prepared by the Berkeley Research Group, utilizing the revised cost estimate. The project benefits were compared to future conditions consistent with the objectives of the EIR. The report calculated a benefit-cost ratio of 2.21:1, meaning that the value of the benefits would be more than double the value of the costs. A ratio greater than 1:1 generally indicates a good value for the investment. At the June and July 2024 One Water and Stewardship (OWS) Committee meetings, the Board received presentations on the DCP costs and the cost-benefit analysis.

Work Planned Through 2025

Now that the environmental review is complete and the project has been approved, DWR will take the next steps to finalize state and federal permits and necessary authorizations. DWR will also continue to develop a Community Benefits Program. DWR will advance the development of a plan of finance and contract amendments. DWR intends to submit a certification of consistency for the full project to the Delta Stewardship Council in late 2025, which will then adjudicate any appeals. The water rights hearing at the SWRCB is scheduled to begin in February 2025. The purpose of the hearing is to gather evidence to determine whether the SWRCB will approve the petitions and, if so, what specific terms and conditions should be included in the amended SWP water rights permits. This is a critical path item that may affect the operations, benefits, and the viability of the DCP.

Additional Work Requiring Funding 2026-2027

DWR currently anticipates completing the SWRCB and the Delta Stewardship Council processes by the end of 2026 and advancing to the project implementation phase in 2027. The DCA will advance the project's design from the current 5 percent up to approximately 30 percent. This phase of project design will include conducting subsurface and site investigations and surveys, providing engineering support of permit activities as requested by DWR, and developing engineering studies to evaluate conceptual design assumptions and consider refinements that will influence construction costs. The planned activities through 2027 will provide new information needed to refine benefits, risks, and costs prior to the Board making a final decision on project participation beyond the current planning phase. The updated information will be needed prior to evaluating the DCP through the CAMP4W process.

Existing/Potential Litigation

In addition to the information provided above under Milestones Completed, there is litigation that implicates the DCP: ten consolidated CEQA cases and the validation action. Information regarding current litigation was provided to the Legal and Claims Committee at its November 2024 meeting.

As the work planned for 2025, 2026, and 2027 is completed, there is a risk of additional litigation. If litigation is filed based on that completed work, staff will update the Board so the Board will be apprised of all litigation and outcomes before the Board would be asked to make a final decision regarding participation in the implementation of the DCP.

Notably, for pending and potential future litigation, the litigation does not automatically halt activities; many agencies proceed as planned unless and until a court issues an injunction. In addition, if a court finds the agency that acted committed an error, it cannot direct a change in the project; it may only direct the action agency to reconsider its action in light of the court's ruling, which often causes the agency to correct any stated deficiencies by supplementing the evidentiary record or undertaking additional process.

Funding and Financial Considerations

Approximately $300 million of additional investment has been requested to fund planning and preconstruction activities in 2026 and 2027. This additional investment includes both DWR and DCA expenditures, and would also help keep the project on schedule, reduce cost escalation, and retain key DCA functions and staff. To meet the $300 million funding request, each agency investing in the additional planning and preconstruction activities would contribute a percentage of the costs. Currently, some, but not all, agency board decisions on participation levels have occurred and will be presented at committee. Assuming Metropolitan participates at its proportional share of 47.2 percent, Metropolitan's additional obligation would be $141.6 million.

The proposed funding agreement amendment terms (**Attachment 3**) would authorize funding for work planned through 2027. The proposed funding agreement amendment would allow Metropolitan and DWR to determine the timing and collection of funds. Notably, the amended agreement will provide Metropolitan with contractual off-ramps for future payment obligations if events cause material and adverse changes in project benefits or costs. Finally, like prior agreements, the proposed funding agreement amendment would provide that funds would be reimbursed to Metropolitan if the project is approved and implemented and bonds are issued to finance the project. If the DCP did not move forward and was not implemented, DWR would not be under an obligation to issue bonds to reimburse participants for planning costs. Action to fund planning at this time does not commit Metropolitan to participate in the project in the future. At a subsequent meeting, expected in 2027, the Board would consider whether to commit Metropolitan to the project and its share of the design and construction costs.

Correspondence Between Metropolitan and DWR

On October 8, 2024, staff presented information about managing risks and water supply reliability in the Bay-Delta to the OWS Committee. At the conclusion of the committee meeting, the Interim General Manager indicated additional information would be needed from the State administration in order to support the Board's deliberation in December. On October 24, 2024, the Interim General Manager sent a letter to DWR requesting this additional information. Metropolitan received two letters in response which outlined DWR's commitment to:

- Refunding $75 million to Metropolitan no later than December 2025 as an initial step towards resolution of longstanding protest items.
- Completion of all key permitting and certification processes by the end of 2026, including water rights and Delta Plan consistency certification.
- Adherence to proportionate planning and implementation funding consistent with the beneficiary pays principle to ensure there are no subsidies among participants.
- Development of innovative new long-term financing approaches to close the funding gap.
- Evaluation and implementation of a portfolio of climate adaptations to improve near-term SWP reliability, outlined in DWR's first Climate Adaptation Strategy to be published in early 2025.

- Pausing funding or returning unspent funds should substantial permitting issues arise or if Metropolitan chooses not to fund capital construction costs.

Staff recommends that the Board authorize the General Manager to enter into an amended funding agreement for an amount not to exceed $141.6 million for planning and preconstruction work planned in 2026-2027 that is consistent with DWR's commitments that are outlined above.

11/27/2024
Nina E. Hawk *Date*
Chief of Bay-Delta Resources/Group
Manager, Bay-Delta Initiatives

11/27/2024
Deven Upadhyay *Date*
Interim General Manager

Attachment 1 – DWR's CEQA Findings

Attachment 2 – Metropolitan's Statement of Overriding Considerations

Attachment 3 – Key Terms of Funding Agreement Amendment – December 2024

Attachment 4 – Correspondence between Metropolitan and DWR

Ref# eo12699488

Exhibit A

CEQA Findings of Fact for the Project's Significant and Unavoidable Impacts, Impacts that are Less Than Significant after Mitigation and Impacts that are Less Than Significant/No Impact

Table 1: CEQA Findings of Fact for Significant and Unavoidable Project Impacts

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Adopted Mitigation Measures	Impact Conclusion After Mitigation- CEQA	Findings of Fact
Agricultural Resources				
Impact AG-1: Convert a Substantial Amount of Prime Farmland, Unique Farmland, Farmland of Local Importance, or Farmland of Statewide Importance as a Result of Construction of Water Conveyance Facilities	Significant	MM AG-1: Preserve Agricultural Land	Significant and Unavoidable	Mitigation Measure AG-1: Preserve Agricultural Land would reduce the extent of the remaining impacts that could not be avoided through careful project planning. However, these impacts would remain significant and unavoidable after implementation of the mitigation measures because conservation of agricultural farmland through acquisition of agricultural conservation easements, even at a ratio of 1:1 or greater, would not avoid a net loss of Important Farmland in the study area. Findings: Changes or alterations have been required in, or incorporated into, the project that substantially lessen, but do not avoid, the significant environmental effect as identified in the Final EIR. Impacts are therefore significant and unavoidable despite the adoption of feasible mitigation measures.
Impact AG-2: Convert a Substantial Amount of Land Subject to Williamson Act Contract or under Contract in Farmland Security Zones to a Nonagricultural Use as a Result of Construction of Water Conveyance Facilities	Significant	MM AG-1: Preserve Agricultural Land	Significant and Unavoidable	Project facilities would result in permanent conversion of around 1,100 acres of land under Williamson Act contract. There is projected to be temporary or permanent conversion of approximately 39 acres of agricultural land within a Farmland Security Zone under the Project. The permanent impacts on land under contract with Farmland Security Zone would be associated with the shaft sites and new overhead power transmission lines, while the temporary impacts would result from work associated with geotechnical exploration sites and underground installation of utility lines. DWR would comply with all applicable provisions of California Government Code Sections 51290–51295 as they pertain to acquiring lands subject to Williamson Act contract. Findings: Changes or alterations have been required in, or incorporated into, the project that substantially lessen, but do not avoid, the significant environmental effect as identified in the Final EIR. Impacts are therefore significant and unavoidable despite the adoption of feasible mitigation measures.
Aesthetics and Visual Resources				
Impact AES-1: Substantially Degrade the Existing Visual Character or Quality of Public Views (from Publicly Accessible Vantage Points) of the Construction Sites and Visible Permanent Facilities and Their Surroundings in Nonurbanized Areas	Significant	MM AES-1a: Install Visual Barriers between Construction Work Areas and Sensitive Receptors MM AES-1b: Apply Aesthetic Design Treatments to Project Structures MM AES-1c: Implement Best Management Practices in Project Landscaping Plan	Significant and Unavoidable	Construction of the Project would substantially affect the existing visual quality and character present in the study area from public roads, residences, and areas of visual effect in the vicinity of project sites. Contributing to this impact would include the long-term nature of facility construction at all of the major project sites and visibility of heavy construction equipment in the proximity to sensitive vantage points; removal of residences and agricultural buildings; removal of riparian vegetation and other mature vegetation or landscape plantings; earthmoving and grading that result in changes to topography in areas that are predominantly flat, as well as dust generation; addition of large-scale industrial-looking structures (e.g., intakes, pumping plants, discharge structures and related facilities); remaining presence of large-scale reusable tunnel material (RTM) area landscape effects; and introduction of tall lattice steel transmission towers. Because of the combined effect of multiple and concurrent

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Adopted Mitigation Measures	Impact Conclusion After Mitigation- CEQA	Findings of Fact
				construction sites on localized views, the length of time construction would occur, and the changes permanent facilities would have on multiple short- and long-range views in the study area and high viewer sensitivity, this impact is considered to be significant at several sites, as shown in Table 18- 14. This conclusion also takes into consideration the Project's visual effects in a large Delta landscape. Although in a regional context the Project would affect a relatively small portion of the Delta limited to the distinct and discrete project sites, construction and permanent facility changes in visual quality and character would be substantially reduced in a number of locations in the study area. Findings: Changes or alterations have been required in, or incorporated into, the project that substantially lessen, but do not avoid, the significant environmental effect as identified in the Final EIR. Impacts are therefore significant and unavoidable despite the adoption of feasible mitigation measures.
Impact AES-2: Substantially Damage Scenic Resources including, but Not Limited to, Trees, Rock Outcroppings, and Historic Buildings Visible from a State Scenic Highway	Significant	MM AES-1b: Apply Aesthetic Design Treatments to Project Structures MM AES-1c: Implement Best Management Practices in Project Landscaping Plan	Significant and Unavoidable	Because visual elements associated with the Project would conflict with the existing forms, patterns, colors, and textures along State Route (SR) 160; would dominate riverfront views available from SR 160; and would alter broad views and the general nature of the visual experience presently available from SR 160 (thereby permanently damaging the scenic resources along a state scenic highway), these impacts are considered significant. Mitigation Measures AES-1b: Apply Aesthetic Design Treatments to Project Structures and AES-1c: Implement Best Management Practices in Project Landscaping Plan would help reduce these impacts through the application of aesthetic design treatments to all structures, to the extent feasible. However, impacts on visual resources resulting from damage to scenic resources that may be viewed from a state scenic highway would not be reduced to a less-than-significant level because even with Mitigation Measures AES-1b and AES-1c 17 the overall view from SR 160 to the location of intakes would change from open agricultural land to a large industrial-type facility. There would be noticeable to very noticeable changes to the visual character of a state scenic highway viewshed that do not blend or are not in keeping with the existing visual environment based upon the viewer's location in the landscape relative to the visible change. Thus, overall, this impact would be significant and unavoidable. Findings: Changes or alterations have been required in, or incorporated into, the project that substantially lessen, but do not avoid, the significant environmental effect as identified in the Final EIR. Impacts are therefore significant and unavoidable despite the adoption of feasible mitigation measures.
Impact AES-3: Have Substantial Significant Impacts on Scenic Vistas	Significant	MM AES-1a: Install Visual Barriers between Construction Work Areas and Sensitive Receptors MM AES-1b: Apply Aesthetic Design Treatments to Project Structures MM AES-1c: Implement Best Management Practices in Project Landscaping Plan	Significant and Unavoidable	The Project would include some facilities or components that would result in significant and unavoidable impacts on existing visual quality and character within the study area including scenic vistas. Mitigation Measures AES-1a: Install Visual Barriers between Construction Work Areas and Sensitive Receptors, AES-1b: Apply Aesthetic Design Treatments to Project Structures, and AES-1c: Implement Best Management Practices in Project Landscaping Plan would reduce scenic vista impacts in the same way described for effects on visual quality and character. Overall, not all impacts would be reduced to a less-than-significant level because, although environmental commitments and mitigation measures would reduce some aspects of the impact on scenic vistas, these measures would only partially reduce effects for the same reasons described for Impact AES-1. Findings: Changes or alterations have been required in, or incorporated into, the project that substantially lessen, but do not avoid, the significant environmental effect as identified in the Final EIR. Impacts are therefore significant and unavoidable despite the adoption of feasible mitigation measures.

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Adopted Mitigation Measures	Impact Conclusion After Mitigation- CEQA	Findings of Fact
Cultural Resources				
Impact CUL-1: Impacts on Built-Environment Historical Resources Resulting from Construction and Operation of the Project	Significant	MM CUL-1a: Avoid Impacts on Built-Environment Historical Resources through Project Design MM CUL-1b: Prepare and Implement a Built-Environment Treatment Plan in Consultation with Interested Parties	Significant and Unavoidable	Construction of project features may require physical alteration of 7 built-environment historical resources. Construction may also result in changes to the setting of 7 built-environment historical resources. Both material alterations to the integrity of materials, design, or workmanship, as well as material alterations to the integrity of setting, feeling, or association would impact the historical resource by removing character-defining features of the resource or altering the resource's character, resulting in an impairment of the resource's ability to convey its significance. For these reasons this would be a significant impact. Mitigation Measure CUL-1a: Avoid Impacts on Built-Environment Historical Resources through Project Design and Mitigation Measure CUL-1b: Prepare and Implement a Built Environment Treatment Plan in Consultation with Interested Parties may mitigate these effects but cannot guarantee they would be entirely avoided. The scale of the Project and the constraints imposed by other environmental resources would make avoidance of all significant impacts unlikely. For these reasons, even with MM CUL-1a and MM CUL-1b, this impact would be significant and unavoidable. All mitigation will be completed under the oversight of individuals who meet the Secretary of the Interior Professional Qualifications Standards and have demonstrable experience conducting the recommended measures (MM CUL-1a and MM CUL-1b). Findings: Changes or alterations have been required in, or incorporated into, the project that substantially lessen, but do not avoid, the significant environmental effect as identified in the Final EIR. Impacts are therefore significant and unavoidable despite the adoption of feasible mitigation measures.
Impact CUL-2: Impacts on Unidentified and Unevaluated Built-Environment Historical Resources Resulting from Construction and Operation of the Project	Significant	MM CUL-2: Conduct a Survey of Inaccessible Properties to Assess Eligibility and Determine Whether These Properties Will Be Adversely Affected by the Project	Significant and Unavoidable	Construction of project facilities may require the alteration of built-environment historical resources. Construction may also result in material alterations to the integrity of feeling, setting, or association. Changes to the setting would be material alterations because they would either remove the resource or alter the resource's character, resulting in a diminishment of the resource's ability to convey its significance. For these reasons this would be a significant impact. Mitigation Measure CUL-2: Conduct a Survey of Inaccessible Properties to Assess Eligibility and Determine Whether These Properties Will Be Adversely Affected by the Project may mitigate these impacts, but cannot guarantee they would be entirely avoided. The scale of the Project and the constraints imposed by other environmental resources make avoidance of all significant impacts unlikely. For these reasons, even with MM CUL-2, this impact would be significant and unavoidable. Findings: Changes or alterations have been required in, or incorporated into, the project that substantially lessen, but do not avoid, the significant environmental effect as identified in the Final EIR. Impacts are therefore significant and unavoidable despite the adoption of feasible mitigation measures.
Impact CUL-3: Impacts on Identified Archaeological Resources Resulting from the Project	Significant	MM CUL-3a: Prepare and Implement an Archaeological Resources Management Plan MM CUL-3b: Conduct Cultural Resources Sensitivity Training MM CUL-3c: Implement Archaeological Protocols for Field Investigations	Significant and Unavoidable	Field investigations and construction of conveyance facilities would affect identified archaeological resources that occur in the footprint of the Project. This impact would be significant because construction would materially alter or destroy the spatial associations between these resources and their archaeological data, which has the potential to yield information useful in archaeological research and is the basis for the significance of these resources. Identified but currently inaccessible resources may also be significant under other California Register of Historical Resources (CRHR) criteria. Mitigation Measure CUL-3a: Prepare and Implement an Archaeological Resources Management Plan, Mitigation Measure CUL-3b: Conduct Cultural Resources Sensitivity Training, and Mitigation Measure CUL-3c: Implement Archaeological Protocols for Field Investigations would mitigate this impact by training personnel and recovering scientifically important material prior to construction through the sensitive area, but would not guarantee that all of the scientifically consequential

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Adopted Mitigation Measures	Impact Conclusion After Mitigation- CEQA	Findings of Fact
				information would be retrieved because feasible archaeological excavation typically only retrieves a sample of the deposit, and portions of the site with consequential information may remain after treatment. Construction could damage these remaining portions of the deposit. Therefore, even with mitigation, this impact would be significant and unavoidable. Findings: Changes or alterations have been required in, or incorporated into, the project that substantially lessen, but do not avoid, the significant environmental effect as identified in the Final EIR. Impacts are therefore significant and unavoidable despite the adoption of feasible mitigation measures.
Impact CUL-4: Impacts on Unidentified Archaeological Resources That May Be Encountered in the Course of the Project	Significant	MM CUL-3a: Prepare and Implement an Archaeological Resources Management Plan MM CUL-3b: Conduct Cultural Resources Sensitivity Training MM CUL-3c: Implement Archaeological Protocols for Field Investigations	Significant and Unavoidable	Construction has the potential to disturb previously unidentified archaeological resources qualifying as historical resources or unique archaeological resources. Because direct excavation, compaction, or other disturbance may disrupt the spatial associations that contain scientifically useful information, these activities would alter the potential basis for eligibility, thus materially altering the resource and resulting in a significant impact. Because these resources would not be identified prior to construction, they cannot be recorded, and impacts cannot be managed through construction treatment. Mitigation Measures CUL-3a: Prepare and Implement an Archaeological Resources Management Plan, CUL-3b: Conduct Cultural Resources Sensitivity Training, and CUL-3c: Implement Archaeological Protocols for Field Investigations would reduce the potential for this impact by implementing monitoring and discovery protocols and providing training to all personnel involved in ground-disturbing activities. However, because archaeological resources may not be identified through these measures prior to disturbance, the effect cannot be entirely avoided. Therefore, this impact would remain significant and unavoidable because resource locations and extents are unknown. Findings: Changes or alterations have been required in, or incorporated into, the project that substantially lessen, but do not avoid, the significant environmental effect as identified in the Final EIR. Impacts are therefore significant and unavoidable despite the adoption of feasible mitigation measures.
Impact CUL-5: Impacts on Buried Human Remains	Significant	MM CUL-3a: Prepare and Implement an Archaeological Resources Management Plan MM CUL-3b: Conduct Cultural Resources Sensitivity Training MM CUL-3c: Implement Archaeological Protocols for Field Investigations MM CUL-5: Follow State and Federal Law Governing Human Remains If Such Resources Are Discovered during Construction	Significant and Unavoidable	The study area is sensitive for buried human remains. Construction would require ground-disturbing work that may damage previously unidentified human remains, resulting in direct effects on these resources. Disturbance of human remains, including remains interred outside of cemeteries, is considered a significant impact in the CEQA Appendix G checklist; therefore, any disturbance of such remains would be a significant impact. Mitigation Measures CUL-3a: Prepare and Implement an Archaeological Resources Management Plan, CUL-3b: Conduct Cultural Resources Sensitivity Training, and CUL-3c: Implement Archaeological Protocols for Field Investigations would reduce the potential for this impact and its severity by implementing monitoring and discovery protocols and providing training to all personnel involved in ground-disturbing activities, but not to a less-than-significant level because they would not guarantee that buried human remains could be discovered and treated in advance of construction; the scale of construction makes it technically and economically infeasible to perform the level of sampling necessary to identify all such buried human remains prior to construction. Therefore, this impact, even with mitigation, would be significant and unavoidable. Findings: Changes or alterations have been required in, or incorporated into, the project that substantially lessen, but do not avoid, the significant environmental effect as identified in the Final EIR. Impacts are therefore significant and unavoidable despite the adoption of feasible mitigation measures.

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Adopted Mitigation Measures	Impact Conclusion After Mitigation- CEQA	Findings of Fact
Transportation				
Impact TRANS-1: Increased Average VMT Per Construction Employee versus Regional Average	Significant	MM TRANS-1: Implement Site-Specific Construction Transportation Demand Management Plan and Transportation Management Plan	Significant and Unavoidable	Construction of the Project would result in additional vehicle miles traveled (VMT) to the regional transportation system and increase the total amount of driving and distances traveled for home-based work trips when compared to the regional average of 22.5 miles per day. This increase would be a temporary but long-term and a substantial VMT impact because conveyance facility construction employee VMT would exceed the regional VMT average over the course of the construction time period for Project facilities. This level of carpool participation is a goal that may not be achieved because construction workers will be drawn from the region in a manner that may not be conducive to large-scale carpooling or vanpooling. Because of the logistics of requiring construction workers to carpool/vanpool near their place of residence to project construction sites, and the uncertainty that this goal would be achieved, Impact TRANS-1 is considered significant and unavoidable with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that substantially lessen, but do not avoid, the significant environmental effect as identified in the Final EIR. Impacts are therefore significant and unavoidable despite the adoption of feasible mitigation measures.
Air Quality and Greenhouse Gases				
Impact AQ-5: Result in Exposure of Sensitive Receptors to Substantial Localized Criteria Pollutant Emissions	Significant	MM AQ-5: Avoid Public Exposure to Localized Particulate Matter and Nitrogen Dioxide Concentrations	Significant and Unavoidable	The impact would be significant under CEQA for the Project because construction could contribute to existing violations or create new violations of the particulate matter (PM) that is 2.5 microns in diameter and smaller (PM2.5) and particulate matter that is 10 microns in diameter and smaller (PM10) standards. Construction of the Project would generate maximum 1-hour nitrogen dioxide (NO_2) concentrations above the National Ambient Air Quality Standards (NAAQS). No other violations of the ambient air quality standards would result during project construction. Likewise, off-site construction traffic would not contribute to a localized violation of the California ambient air quality standards (CAAQS) or national ambient air quality standards (NAAQS) at intersections throughout the transportation network. Emissions from long-term Operation & Maintenance activities would not cause or contribute to violations of the CAAQS and NAAQS. Environmental Commitments EC-7: Off-Road Heavy-Duty Engines through EC-13: DWR Best Management Practices to Reduce Greenhouse Gas (GHG) Emissions would minimize construction emissions through implementation of the on-site controls. However, exceedances of the significant impact levels (SILs) and ambient air quality standards would still occur, and the project would contribute a significant level of localized air pollution within the local air quality study area. Mitigation Measure AQ-5: Avoid Public Exposure to Localized Particulate Matter and Nitrogen Dioxide Concentrations is required to reduce potential public exposure to elevated ambient concentrations of PM and NO2 during construction. As discussed above, the predicted results presented in Tables 23-55 through 23-58 are conservative because they combine worst-case meteorological conditions with the highest daily and annual construction emissions estimates. Mitigation Measure AQ-5 requires additional PM and NO2 modeling to provide a more refined estimate of hourly and annual concentrations that are expected to occur during the construction period. If the refined modeling predicts an exceedance of the SIL or violation of the NO2 NAAQS, the measure requires DWR to conduct ambient air quality monitoring during

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Adopted Mitigation Measures	Impact Conclusion After Mitigation- CEQA	Findings of Fact
				construction. Results of the monitoring would be used to inform decision-making on further actions to reduce pollutant concentrations. While these actions would lower exposure to project-generated air pollution, it may not be feasible to completely eliminate all localized exceedances of the SILs and ambient air quality standards. Accordingly, this impact is determined to be significant and unavoidable. Findings: Changes or alterations have been required in, or incorporated into, the project that substantially lessen, but do not avoid, the significant environmental effect as identified in the Final EIR. Impacts are therefore significant and unavoidable despite the adoption of feasible mitigation measures.
Noise and Vibration				
Impact NOI-1: Generate a Substantial Temporary or Permanent Increase in Ambient Noise Levels in the Vicinity of the Project in Excess of Standards Established in the Local General Plan or Noise Ordinance, or Applicable Standards of Other Agencies	Significant	MM NOI-1: Develop and Implement a Noise Control Plan	Significant and Unavoidable	Construction-related noise would exceed daytime and nighttime noise level criteria at intakes, shaft sites, the Bethany Complex, and associated infrastructure under the Project. Depending on facility location relative to noise-sensitive receptors, the duration of daytime criteria exceedance would vary from 1 week to up to 14 years on a nonconsecutive basis. The duration of nighttime criteria exceedance would vary from 1 week to 5 months on a nonconsecutive basis. The exceedance of daytime and nighttime noise level criteria for these durations would result in a significant impact. Mitigation Measure NOI-1: Develop and Implement a Noise Control Plan would reduce noise levels through pre-construction actions, sound-level monitoring, best noise control practices, and installation of noise barriers. Mitigation Measure NOI-1 would reduce the severity of this impact to less-than-significant levels if property owners elect to participate in the sound insulation program to reduce noise impacts. DWR cannot ensure that property owners will voluntarily participate in the program and accept sound insulation improvements. If a property owner does not elect to participate in the sound insulation program, the impact would remain significant and unavoidable. Conservatively, the impact due to construction noise is determined to be significant and unavoidable after mitigation. However, if improvements required to avoid significant impacts are accepted by all eligible property owners, impacts would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that substantially lessen, but do not avoid, the significant environmental effect as identified in the Final EIR. Impacts are therefore significant and unavoidable despite the adoption of feasible mitigation measures.
Paleontological Resources				
Impact PALEO-2: Cause Destruction of a Unique Paleontological Resource as a Result of Tunnel Construction and Ground Improvement	Significant	No feasible mitigation is available to address this impact.	Significant and Unavoidable	Construction of water conveyance facilities could cause the destruction of unique paleontological resources because tunneling would occur in geologic units with high sensitivity for paleontological resources: the Modesto and Riverbank Formations. The Project could destroy unique paleontological resources, with varying degrees of magnitude (Table 28-11). Excavation using the tunnel boring machine (TBM) for the tunnels could destroy unique paleontological resources because tunneling would involve large-scale ground disturbance that would not be accessible to monitors and would occur in geologic units sensitive for paleontological resources. This tunneling would occur at depths greater than 100 feet and therefore the geologic units affected would not be accessible to paleontologists and any fossils would not be available for scientific study. It cannot, however, be known whether paleontological resources would be present because paleontological resources are not distributed evenly throughout a geologic unit. Nevertheless, given the volume of material excavated by tunneling (Table 28-4) that would occur in the Modesto and Riverbank Formations, which are both sensitive for paleontological resources, and the consistency of the

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Adopted Mitigation Measures	Impact Conclusion After Mitigation- CEQA	Findings of Fact
				reusable tunnel material (RTM) generated by the TBM (i.e., too fine to contain macrofossils), tunneling could result in a significant impact. No mitigation is available to address this impact. The impacts of tunneling would therefore be significant and unavoidable. Ground improvement would consist of in-situ mixing of amendments, such as cement grout, into the subsurface to improve stability. If this improvement occurs in the Modesto or Riverbank Formations and paleontological resources are present, ground improvement would damage or destroy these resources because the activity cannot be viewed or stopped by a paleontological monitor. No mitigation is available to address this impact. The impacts of ground improvement would therefore be significant and unavoidable. Findings: Impacts are significant and unavoidable and no feasible mitigation measures have been identified.
Tribal Cultural Resources				
Impact TCR-1: Impacts on the Delta Tribal Cultural Landscape Tribal Cultural Resource Resulting from Construction, Operations, and Maintenance of the Project Alternatives	Significant	MM TCR-1a: Avoidance of Impacts on Tribal Cultural Resources MM TCR-1b: Plans for the Management of Tribal Cultural Resources MM TCR-1c: Implement Measures to Restore and Enhance the Physical, Spiritual, and Ceremonial Qualities of Affected Tribal Cultural Resources MM TCR-1d: Incorporate Tribal Knowledge into Compensatory Mitigation Planning (Restoration)	Significant and Unavoidable	Project construction and operational activities would impair character-defining features that qualify the Delta Tribal Cultural Landscape (TCL) for listing in the CRHR. The Project would materially impair affiliated Tribes' ability to physically, spiritually, or ceremonially experience these character-defining features: the Delta as a holistic place that is a Tribal homeland and place of origin, terrestrial and aquatic plant and animal species habitats that are part of the Delta's ecosystem and the heritage of Tribes, ethnohistorical locations that are sacred places and historically important, archaeological sites, and views and vistas of and from the Delta that are sacred and important to the heritage of Tribes. While other chapters have identified mitigation measures to address project effects on several of the natural resources that also qualify as character-defining features for the Tribal cultural resource (such as the Compensatory Mitigation Plan) these are aimed at satisfying certain regulatory requirements for ecological conservation and may not mitigate for the impacts to Tribal cultural resources. DWR will coordinate with Tribes to incorporate Tribal values into compensatory mitigation; however, these measures may not reduce the impacts to a less-than-significant level. Because the project would materially impair character-defining features of the Delta TCL, and project commitments and mitigation measures would not fully avoid or reduce such impacts, the impact on the Delta TCL would be significant. DWR has identified four measures for mitigating this impact: Mitigation Measures TCR-1a: Avoidance of Impacts on Tribal Cultural Resources, TCR-1b: Plans for the Management of Tribal Cultural Resources, TCR-1c: Implement Measures to Restore and Enhance the Physical, Spiritual, and Ceremonial Qualities of Affected Tribal Cultural Resources, and TCR-1d: Incorporate Tribal Knowledge into Compensatory Mitigation Planning (Restoration). Application of these mitigation measures has the potential to reduce the impact on character-defining features of the Delta TCL because they could restore affiliated Tribes' ability to physically, spiritually, and ceremonially experience the materially impaired qualities of the features. However, there may be instances where even with the mitigation measures described above, the impacts would not be mitigated to a less-than-significant level. There may also be instances where the project components would permanently damage a character-defining feature of the Delta TCL, such as where ground disturbance and construction of a project feature would occur in an ethnohistoric location, disturb an archaeological site, or a facility would block an important view. Project impacts would remain significant and unavoidable after implementation of Mitigation Measures TCR-1a, TCR-1b, TCR-1c, and TCR-1d because complete avoidance or protection is unlikely and operations and maintenance of the intakes and tunnels may still materially impair the Tribal experience of the spiritual qualities of the Delta TCL even with the efforts to repair or restore the Tribal experience. DWR will continue to consult with affiliated Tribes throughout implementation of Mitigation

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Adopted Mitigation Measures	Impact Conclusion After Mitigation- CEQA	Findings of Fact
				Measures TCR-1a, TCR-1b, and TCR-1c, and TCR-1d to minimize and mitigate the project's significant impacts on the Delta TCL. Findings: Changes or alterations have been required in, or incorporated into, the project that mitigate, but *not* to a less than significant level, the significant environmental effect as identified in the Final EIR. Impacts are therefore significant and unavoidable despite the adoption of feasible mitigation measures.
Impact TCR-2: Impacts on Individual Tribal Cultural Resources Resulting from Construction, Operations, and Maintenance of the Project Alternatives	Significant	MM TCR-1a: Avoidance of Impacts on Tribal Cultural Resources MMTCR-1b: Plans for the Management of Tribal Cultural Resources MM TCR-1c: Implement Measures to Restore and Enhance the Physical, Spiritual, and Ceremonial Qualities of Affected Tribal Cultural Resources MM TCR-1d: Incorporate Tribal Knowledge into Compensatory Mitigation Planning (Restoration) MM TCR-2: Perform an Assessment of Significance, Known Attributes, and Integrity for Individual CRHR Eligibility	Significant and Unavoidable	The precise nature of the impact on an individual Tribal cultural resource is not currently known because DWR has not identified any individual Tribal cultural resources at this time; therefore, the features that make an individual resource eligible for California Register of Historical Resources (CRHR) listing, its significance, attributes and location, and integrity have not been established. In general, DWR anticipates that if an individual resource is identified, the project has the potential to materially impair an affiliated Tribes' ability to physically, ceremonially, or spiritually experience the resource. If the conclusion of implementing Mitigation Measure TCR-2: Perform an Assessment of Significance, Known Attributes, and Integrity for Individual CRHR Eligibility is that DWR finds a character-defining feature or other resource that is individually eligible, application of Mitigation Measures TCR-1a, TCR-1b, and TCR-1c, and TCR-1d could reduce the impact on any individually eligible Tribal cultural resources, because they could restore affiliated Tribes' ability to physically, spiritually, and ceremonially experience the materially impaired qualities of the features. However, there may be instances where even with the mitigation measures described above, the impacts would not be mitigated to a less-than-significant level. There may also be instances where the project components would permanently damage an individual Tribal cultural resource, such as where ground disturbance and construction of a project feature would disturb an individually eligible ethnohistoric location or a facility would block an important view that is a character-defining feature of an individual Tribal cultural resource. Project impacts on individual Tribal cultural resources would remain significant and unavoidable after implementation of Mitigation Measures TCR-1a, TCR-1b, TCR-1c, TCR-1d, and TCR-2, because complete avoidance or protection is unlikely. DWR will continue to consult with affiliated Tribes throughout implementation of mitigation measures to minimize and mitigate the project's significant impacts on the Delta Tribal Cultural Landscape, as well as refine DWR's understanding of the character-defining features, or other features, that may be individual Tribal cultural resources. Findings: Changes or alterations have been required in, or incorporated into, the project, that mitigate, but *not* to a less than significant level, the significant environmental effect as identified in the Final EIR. Impacts are therefore significant and unavoidable despite the adoption of feasible mitigation measures.

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Table 2: CEQA Findings of Fact for the Project's Less-than-Significant Impacts after Mitigation

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
Water Quality				
Impact WQ-6: Effects on Mercury Resulting from Facility Operations and Maintenance	Less Than Significant for the Project; Potentially Significant for Implementation of the CMP	MM WQ-6: Develop and Implement a Mercury Management and Monitoring Plan	Less Than Significant	The Project would not cause additional exceedance of applicable water quality criteria or objectives by frequency, magnitude, and geographic extent that would cause significant impacts on any beneficial uses of waters in the study area. Because mercury concentrations are not expected to increase substantially, no long-term water quality degradation that would result in substantially increased risk for significant impacts on beneficial uses would occur. Furthermore, changes in long-term methylmercury concentrations that may occur in study area waterbodies would not make existing CWA Section 303(d) impairments measurably worse, or increase levels of mercury by frequency, magnitude, and geographic extent to cause measurably higher body burdens of mercury in aquatic organisms, thereby substantially increasing the health risks to wildlife (including fish) or humans consuming those organisms. Thus, the impact of the Project on mercury concentrations would be less than significant. While the Project would not result in significant water quality effects associated with mercury, there could be significant impacts with the implementation of the CMP. Those impacts could be reduced to a less-than-significant level with Mitigation Measure WQ-6. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Soils				
Impact SOILS-5: Have Soils Incapable of Adequately Supporting the Use of Septic Tanks or Alternative Wastewater Disposal Systems Where Sewers Are Not Available for the Disposal of Wastewater	Significant	MM SOILS-5: Conduct Site-Specific Soil Analysis and Construct Alternative Wastewater Disposal System as Required	Less Than Significant	Potential impacts of the use of septic tanks or alternative wastewater disposal systems would occur during construction and operations and maintenance. If a conventional disposal system were to be constructed on soils with a rating of very limited for septic tank absorption fields, use of the system could contaminate surface water and groundwater and create objectionable odors during operations and maintenance. The water contamination could raise the risk of disease transmission and human exposure to pathogens. The impact would be significant. However, county planning and building departments typically require on-site soil percolation tests and other analyses to determine site suitability and type of system appropriate to the site. Along with compliance with county requirements, implementation of Mitigation Measure SOILS-5: Conduct Site-Specific Soil Analysis and Construct Alternative Wastewater Disposal System as Required, would reduce the impact to a less-than-significant level. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Fish and Aquatic Resources				
Impact AQUA-1: Effects of Construction of Water Conveyance Facilities on Fish and Aquatic Species	Significant	MM AQUA-1a: Develop and Implement an Underwater Sound Control and Abatement Plan MM AQUA-1b: Develop and Implement a Barge Operations Plan MM AQUA-1c: Develop and Implement a Fish Rescue and Salvage Plan MM WQ-6: Develop and Implement a Mercury Management and Monitoring Plan CMP-23: Tidal Perennial Habitat Restoration for Construction Impacts on Habitat for Fish and Aquatic Resources	Less Than Significant	Construction impacts on fish and aquatic species potentially would be significant because there would be the potential for spatial and temporal overlap with appreciable proportions of some of the species of management concern's populations (e.g., adult steelhead; Table 12A-9 in Appendix 12A) as well as loss of aquatic habitat. To address these impacts, the project will include Mitigation Measures AQUA-1a: Develop and Implement an Underwater Sound Control and Abatement Plan, AQUA-1b: Develop and Implement a Barge Operations Plan, AQUA-1c: Develop and Implement a Fish Rescue and Salvage Plan, and Mitigation Measure CMP: Compensatory Mitigation Plan, specifically CMP-23: Tidal Perennial Habitat Restoration for Construction Impacts on Habitat for Fish and Aquatic Resources and CMP-24: Channel Margin Habitat Restoration for Construction Impacts on Habitat for Fish and Aquatic Resources (Attachment 3F.1, Compensatory Mitigation Design Guidelines, Table 3F.1-3). Mitigation

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
		CMP-24: Channel Margin Habitat Restoration for Construction Impacts on Habitat for Fish and Aquatic Resources		Measure AQUA-1a: Develop and Implement an Underwater Sound Control and Abatement Plan includes limiting pile-driving timing consistent with EC-14 and controlling or abating underwater noise generated during impact pile driving, for example, by starting impact pile driving at lower levels of intensity to allow fish to leave the area before the intensity is increased. Construction impacts on fish and aquatic species would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact AQUA-2: Effects of Operations and Maintenance of Water Conveyance Facilities on Sacramento River Winter-Run Chinook Salmon	Significant	CMP-25: Tidal Habitat Restoration to Mitigate North Delta Hydrodynamic Effects on Chinook Salmon Juveniles CMP-26: Channel Margin Habitat Restoration for Operations Impacts on Chinook Salmon Juveniles	Less Than Significant	The available information generally indicates that diversion at the North Delta Diversion (NDD) would negatively affect winter-run Chinook salmon through flow-survival and habitat impacts. The Sacramento River is the main migration pathway through the Delta for juvenile winter-run and therefore a large proportion of the population would potentially be exposed to negative impacts. To address the significance of the impacts, Mitigation Measure CMP: Compensatory Mitigation Plan would be implemented, specifically CMP-25: Tidal Habitat Restoration to Mitigate North Delta Hydrodynamic Effects on Chinook Salmon Juveniles and CMP-26: Channel Margin Habitat Restoration or Operations Impacts on Chinook Salmon Juveniles (Attachment 3F.1, Table 3F.1-3). This mitigation would reduce negative hydrodynamic effects such as flow reversals in the Sacramento River at Georgiana Slough (CMP-25) and reduced effects from reduced inundation of riparian/wetland benches as a result of NDD operations (CMP-26). The mitigation thereby would reduce potential for negative effects on winter-run Chinook salmon through-Delta survival as a result of factors such as flow-related changes in migration speed and probability of entering the low-survival interior Delta migration pathway and restoring new bench habitat at elevations that would be inundated under reduced flows downstream of the north Delta intakes. The impact of operations and maintenance of the Project would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact AQUA-3: Effects of Operations and Maintenance of Water Conveyance Facilities on Central Valley Spring-Run Chinook Salmon	Significant	CMP-25: Tidal Habitat Restoration to Mitigate North Delta Hydrodynamic Effects on Chinook Salmon Juveniles CMP-26: Channel Margin Habitat Restoration for Operations Impacts on Chinook Salmon Juveniles	Less Than Significant	Recent research for two spring-run Chinook salmon populations in the Central Valley indicates that the majority of returning adults emigrated as yearlings (Cordoleani et al. 2021), which migrate beginning in fall and therefore have the potential to overlap periods of greater north Delta diversions with greater potential effects on through-Delta survival as shown by the Perry et al. (2018) modeling results. As a result, and although there is uncertainty in biological impacts because of the variability in flow-survival statistical relationships (see discussion for winter-run Chinook salmon), population abundance is low relative to historical values (Appendix 12A) and it is concluded that the operations and maintenance impact of the Project would be significant for spring-run Chinook salmon. Compensatory mitigation to be implemented for the winter-run Chinook salmon significant impact discussed above in Impact AQUA-2 (i.e., Mitigation Measure CMP: Compensatory Mitigation Plan, specifically CMP-25: Tidal Habitat Restoration to Mitigate North Delta Hydrodynamic Effects on Chinook Salmon Juveniles and CMP-26: Channel Margin Habitat Restoration for Operations Impacts on Chinook Salmon Juveniles [Attachment 3F.1, Table 3F.1-3]) would also be applied to spring-run Chinook salmon to mitigate hydrodynamic effects such as flow reversals in the Sacramento River at Georgiana Slough (CMP-25) and effects from reduced inundation of riparian/wetland benches

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
				as a result of North Delta Diversion operations (CMP-26). The impact would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact AQUA-5: Effects of Operations and Maintenance of Water Conveyance Facilities on Central Valley Steelhead	Significant	MM CMP: Compensatory Mitigation Plan	Less Than Significant	As discussed by National Marine Fisheries Service (2016:19), Central Valley steelhead is in danger of extinction, with very low levels of natural production. Available data and studies for steelhead are limited relative to Chinook salmon and so there is some uncertainty in potential effects. As previously noted for winter-run Chinook salmon, there is uncertainty in the biological impacts because of the variability in flow-survival statistical relationships. However, per the significance criteria (Section 12.3.2, Thresholds of Significance), the potential for negative effects of the north Delta intakes (e.g., up to 4% less through-Delta migration survival per the Perry et al. model implemented for juvenile Chinook salmon) and the population status (Appendix 12A) leads to the conclusion that the impact would be significant. Compensatory mitigation (tidal perennial habitat restoration and channel margin restoration) described in Appendix 3F, and as previously discussed for winter-run Chinook salmon would be implemented to reduce the impact to less than significant. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact AQUA-6: Effects of Operations and Maintenance of Water Conveyance Facilities on Delta Smelt	Significant	MM CMP: Compensatory Mitigation Plan CMP-27: Tidal Habitat Restoration for Operations Impacts on Delta Smelt	Less Than Significant	There is generally somewhat less Delta outflow under the Project than existing conditions during spring–fall as a result of less outflow being needed for meeting Delta salinity requirements. There is considerable uncertainty in the potential for negative effects to delta smelt food availability, predation, and recruitment as a result of these changes in Delta outflow, which are within the existing parameters of current regulations (e.g., D-1641; federal and state water project permits). Given the existing all-time low abundance indices of delta smelt (Appendix 12A), the impacts are concluded to be significant. Tidal habitat restoration of approximately 1,100 to 1,400 acres under Mitigation Measure CMP: Compensatory Mitigation Plan, specifically CMP-27 (Attachment 3F-1, Table 3F.1-3), would mitigate these impacts. Restoration would increase the extent of suitable delta smelt habitat (e.g., intertidal and subtidal habitat; California Department of Fish and Game 2011) with appropriate parameters (e.g., turbidity) providing habitat for occupancy (e.g., Sommer and Mejia 2013) or higher food availability in the vicinity (e.g., Hammock et al. 2019b). The impact would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact AQUA-7: Effects of Operations and Maintenance of Water Conveyance Facilities on Longfin Smelt	Significant	MM CMP: Compensatory Mitigation Plan CMP-28: Tidal Habitat Restoration for Operations Impacts on Longfin Smelt	Less Than Significant	In general, the analyses of the operations and maintenance impacts of the Project suggested minor impacts on longfin smelt, relative to existing conditions, including near-field effects of the north Delta intakes, south Delta entrainment, and very little potential for negative effects on food availability as a result of differences in spring Delta outflow. Any such impacts would not be significant because they are minor and would affect only a very small proportion of the longfin smelt population. The analyses of flow-related effects (differences in Delta outflow) on longfin smelt abundance suggested more potential for negative effects under the Project (i.e., mean difference of 2%–10% less depending on water year type) and a potentially significant impact given that they represent a population-level impact. There is uncertainty in the impact, however, given the appreciably greater variability of longfin smelt abundance index estimates

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
				for a given alternative relative to the difference from existing conditions. Operations of the Project would be consistent with all applicable regulations to limit the potential for negative effects on fish and aquatic resources, including the existing spring outflow measures required by the California Department of Fish and Wildlife Incidental Take Permit (ITP). Nevertheless, the uncertain negative outflow-related effect is considered significant in light of the species' California Endangered Species Act-listed status and low population abundance indices (Appendix 12A). As such, the Project would implement approximately 135.2acres of compensatory mitigation (Mitigation Measure CMP: Compensatory Mitigation Plan, specifically CMP-28: Tidal Habitat Restoration for Operations Impacts on Longfin Smelt [Attachment 3F.1, Table 3F.1-3]). Tidal habitat would expand the diversity, quantity, and quality of longfin smelt rearing and refuge habitat consistent with recent tidal habitat mitigation required for outflow impacts to the species and would therefore reduce the potential effects caused by reduced outflow. As shown by multiple recent tidal habitat restoration projects in the Delta, there are potential feasible opportunities for tidal habitat restoration directly applicable to longfin smelt, with demonstrated presence of longfin smelt. This tidal habitat restoration mitigation would reduce the impact to a less-than-significant level; therefore, the impact would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Terrestrial Biological Resources				
Impact BIO-1: Impacts of the Project on the Tidal Perennial Aquatic Natural Community	Significant	MM CMP: Compensatory Mitigation Plan	Less Than Significant	The Project would cause the removal, conversion, and temporary disturbance of tidal perennial aquatic natural community due to project construction and maintenance. The temporary disturbances of tidal perennial aquatic habitat would be reduced by Environmental Commitments EC-1: Conduct Worker Awareness Training; EC-2: Develop and Implement Hazardous Materials Management Plans; EC-3: Develop and Implement Spill Prevention, Containment, and Countermeasure Plans; and EC-14: Construction Best Management Practices for Biological Resources (Appendix 3B). Even with these environmental commitments, however, the loss of tidal perennial aquatic community from construction and potential impacts from maintenance activities would be significant. Mitigation Measure CMP: Compensatory Mitigation Plan would offset permanent and temporary loss of tidal perennial aquatic habitat. Therefore, the impacts on the tidal perennial aquatic community from the Project would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-2: Impacts of the Project on Tidal Freshwater Emergent Wetlands	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-2c: Electrical Power Line Support Placement	Less Than Significant	The Project would cause the removal, conversion, and temporary disturbance of tidal freshwater emergent wetlands due to project construction and maintenance. Temporary disturbances and indirect impacts on tidal freshwater emergent wetlands would be reduced by Environmental Commitments EC-1: Conduct Worker Awareness Training; EC-2: Develop and Implement Hazardous Materials Management Plans; EC-3: Develop and Implement Spill Prevention, Containment, and Countermeasure Plans; and EC-14: Construction Best Management Practices for Biological Resources. Even with these environmental commitments, however, the loss of tidal freshwater emergent wetlands from construction and potential impacts from maintenance activities would be significant. Mitigation Measure BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants would reduce impacts on tidal freshwater emergent wetlands during project construction. Mitigation Measure BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities would reduce impacts on tidal freshwater emergent wetland during

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
				project maintenance. Mitigation Measure BIO-2c: Electrical Power Line Support Placement would minimize impacts on tidal freshwater emergent wetlands from electric power line installation. Mitigation Measure CMP: Compensatory Mitigation Plan would offset permanent and temporary loss of tidal freshwater emergent wetland. Therefore, the impacts on tidal freshwater emergent wetland from the Project would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-3: Impacts of the Project on Valley/Foothill Riparian Habitat	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants	Less Than Significant	Constructing the Project would cause the removal, conversion, and temporary disturbance of valley/foothill riparian habitat. Maintenance activities could result in periodic temporary disturbances to valley/foothill riparian habitat. Temporary disturbances and indirect impacts on valley/foothill riparian habitat would be reduced by Environmental Commitments EC-1: Conduct Worker Awareness Training and EC-14: Construction Best Management Practices for Biological Resources. Even with these environmental commitments, however, the loss of valley/foothill riparian habitat from construction and potential impacts from maintenance activities would be significant. Mitigation Measure BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants would reduce impacts on valley/foothill riparian habitat during project construction. Mitigation Measure BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities would reduce impacts on valley/foothill riparian habitat during project maintenance. Mitigation Measure BIO-2c: Electrical Power Line Support Placement would minimize impacts on valley/foothill riparian habitat from electric power line installation. Mitigation Measure CMP: Compensatory Mitigation Plan would offset permanent and temporary loss of valley/foothill riparian habitat. Therefore, the impacts on valley/foothill riparian habitat from the Project would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-4: Impacts of the Project on the Nontidal Perennial Aquatic Natural Community	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants	Less Than Significant	Constructing the Project would cause the removal, conversion, and temporary disturbance of nontidal aquatic perennial habitat. Maintenance activities could result in periodic temporary disturbances to nontidal perennial aquatic habitat. Temporary disturbances and indirect impacts on nontidal perennial aquatic habitat would be reduced by Environmental Commitments EC-1: Conduct Worker Awareness Training; EC-2: Develop and Implement Hazardous Materials Management Plans; EC-3: Develop and Implement Spill Prevention, Containment, and Countermeasure Plans; and EC-14: Construction Best Management Practices for Biological Resources. Even with these environmental commitments, however, the loss of nontidal perennial aquatic habitat from construction and potential impacts from maintenance activities would be significant. Mitigation Measure BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants would mitigate impacts on nontidal perennial aquatic habitat by identifying locations where special-status natural communities and special-status plants would be avoided. Under Mitigation Measure CMP: Compensatory Mitigation Plan, nontidal perennial aquatic habitat would be created or acquired and permanently protected to compensate for project impacts from project construction to ensure no significant loss of nontidal perennial aquatic habitat functions and values. Therefore, the impacts on nontidal perennial aquatic habitat from the Project would be less than significant with mitigation.

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
				Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-5: Impacts of the Project on Nontidal Freshwater Perennial Emergent Wetland	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants	Less Than Significant	Constructing the Project would cause the removal, conversion, and temporary disturbance of nontidal freshwater perennial emergent wetlands. Maintenance activities could result in periodic temporary disturbances to this community. Temporary disturbances and indirect impacts on nontidal freshwater perennial emergent wetland would be reduced by Environmental Commitments EC-1: Conduct Worker Awareness Training; EC-2: Develop and Implement Hazardous Materials Management Plans; EC-3: Develop and Implement Spill Prevention, Containment, and Countermeasure Plans; and Environmental Commitment EC-14: Construction Best Management Practices for Biological Resources. Even with these environmental commitments, however, the loss of nontidal freshwater perennial emergent wetland from construction and potential impacts from maintenance activities would be significant. Mitigation Measure BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants would mitigate impacts on nontidal freshwater emergent wetlands by identifying locations where special-status natural communities and special-status plants would be avoided or where measures to minimize impact would be implemented. Under Mitigation Measure CMP: Compensatory Mitigation Plan, nontidal perennial emergent wetlands would be created or acquired and permanently protected to compensate for project impacts from project construction and ensure no significant loss of nontidal perennial aquatic habitat functions and values. Therefore, the impacts on nontidal freshwater perennial emergent wetland from the Project would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-7: Impacts of the Project on Alkaline Seasonal Wetland Complex	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-2c: Electrical Power Line Support Placement	Less Than Significant	Project construction and maintenance would remove, convert, or temporarily disturb alkaline seasonal wetland complex. Temporary disturbances and indirect impacts on alkaline seasonal wetland complex would be reduced by Environmental Commitments EC-1: Conduct Worker Awareness Training; EC-2: Develop and Implement Hazardous Materials Management Plans; EC-3: Develop and Implement Spill Prevention, Containment, and Countermeasure Plans; and EC-14: Construction Best Management Practices for Biological Resources. Even with these environmental commitments, however, the loss of alkaline seasonal wetland complex from construction and potential impacts from maintenance activities would be significant. Mitigation Measure BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants would reduce impacts on alkaline seasonal wetlands during project construction. Mitigation Measure BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities would reduce impacts on alkaline seasonal wetlands during project maintenance. Mitigation Measure BIO-2c: Electrical Power Line Support Placement would minimize impacts on alkaline seasonal wetland from electric power line installation. Under Mitigation Measure CMP: Compensatory Mitigation Plan, alkaline seasonal wetland complex would be created or acquired and permanently protected to compensate for project impacts from project construction and ensure no significant loss of nontidal perennial aquatic habitat functions and values. The total acreage to be conserved would be based on the criteria presented in the CMP. Therefore, the impacts on alkaline seasonal wetland complex from the Project would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
Impact BIO-8: Impacts of the Project on Vernal Pool Complex	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities	Less Than Significant	Constructing the Project would cause the removal, conversion, and temporary disturbance of vernal pool complex. Maintenance activities could result in periodic temporary disturbances to this community. Temporary disturbances and indirect impacts on vernal pool complex would be reduced by Environmental Commitments EC-1: Conduct Worker Awareness Training; EC-2: Develop and Implement Hazardous Materials Management Plans; EC-3: Develop and Implement Spill Prevention, Containment, and Countermeasure Plans; and EC-14: Construction Best Management Practices for Biological Resources. Even with these environmental commitments, however, the loss of vernal pool complex from construction and potential impacts from maintenance activities would be significant. Mitigation Measure BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants would reduce impacts on vernal pool complex during project construction. Mitigation Measure BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities would reduce impacts on vernal pool complex during project maintenance. As described in Appendix 3F and Attachment 3F.1, under Mitigation Measure CMP: Compensatory Mitigation Plan, vernal pool complex would be created or acquired and permanently protected to compensate for project impacts from project construction and ensure no significant loss of vernal pool complex functions and values. The total acreage to be conserved would be based on the criteria presented in the CMP. Therefore, the impacts on vernal pool complex from the Project would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-9: Impacts of the Project on Special-Status Vernal Pool Plants	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities	Less Than Significant	Temporary disturbances and indirect impacts on special-status vernal pool plants would be reduced by Environmental Commitment EC-14: Construction Best Management Practices for Biological Resources. Even with this environmental commitment, however, the effects on vernal pool plants from construction and potential impacts from maintenance activities would be significant. Mitigation Measure BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants would reduce impacts on special-status vernal pool plants during project construction. Mitigation Measure BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities would reduce impacts on special-status vernal pool plants during project maintenance. Under Mitigation Measure CMP: Compensatory Mitigation Plan, habitat for special-status vernal pool plants would be created and permanently protected or mitigation credits would be acquired to compensate for project impacts and ensure no significant loss of habitat, as described in Appendix 3F and Attachment 3F.1. Therefore, the Project's impacts on special-status vernal pool plants would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-10: Impacts of the Project on Special-Status Alkaline Seasonal Wetland Complex Plants	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities	Less Than Significant	Temporary disturbances and indirect impacts special-status alkaline seasonal wetland complex plants would be reduced by Environmental Commitment EC-14: Construction Best Management Practices for Biological Resources. Even with this environmental commitment, however, the loss of alkaline wetland plants from construction and potential impacts from maintenance activities would be significant. Mitigation Measure BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants, would reduce impacts on special-status alkaline seasonal wetland complex plants during project construction. Mitigation Measure BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities would reduce impacts on special-status alkaline seasonal wetland complex plants during project maintenance. Under Mitigation Measure CMP:

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
				Compensatory Mitigation Plan, habitat for special-status alkaline seasonal wetland plants would be created and permanently protected or mitigation credits would be acquired to compensate for project impacts and ensure no significant loss of habitat, as described in Appendix 3F and Attachment 3F.1. Therefore, the project's impacts on special-status alkaline seasonal wetland plants would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-11: Impacts of the Project on Special-Status Grassland Plants	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities	Less Than Significant	Temporary disturbances and indirect impacts on special-status grassland plants would be reduced by Environmental Commitment EC-14: Construction Best Management Practices for Biological Resources. Even with this environmental commitment, however, the loss of grassland plants from construction and potential impacts from maintenance activities would be significant. Mitigation Measure BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants would reduce impacts on special-status grassland plants during project construction. Mitigation Measure BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities would reduce impacts on special-status grassland plants during project maintenance. Under Mitigation Measure CMP: Compensatory Mitigation Plan, habitat for special-status grassland plants would be created and permanently protected or mitigation credits would be acquired to compensate for project impacts and to ensure no significant loss of habitat. Therefore, the Project's impacts on special-status grassland plants would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-12: Impacts of the Project on Tidal Freshwater Emergent Wetland Plants	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities	Less Than Significant	Temporary disturbances and indirect impacts on special-status tidal freshwater emergent wetland plants would be reduced by Environmental Commitment EC-14: Construction Best Management Practices for Biological. Even with this environmental commitment, however, the loss of tidal freshwater emergent plants from construction and potential impacts from maintenance activities would be significant. Mitigation Measure BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants would reduce impacts on special-status tidal freshwater emergent wetland species during project construction. Mitigation Measure BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities would reduce impacts on tidal freshwater emergent wetland during project maintenance. Under Mitigation Measure CMP: Compensatory Mitigation Plan (Appendix 3F, Section 3F.3.2.5; Attachment 3F.1, Table 3F.1-2, CMP-2: Tidal Freshwater Emergent Wetland, and Table 3F.1-3, CMP-9: Special-Status Plants), habitat for special-status tidal freshwater emergent wetland plants would be created or acquired and permanently protected to compensate for project impacts and ensure no significant loss of special-status tidal perennial aquatic wetland habitat functions and values. Therefore, project impacts on special-status tidal freshwater emergent wetland plants would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-13: Impacts of the Project on Special-Status Nontidal Perennial Aquatic Plants	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants	Less Than Significant	Temporary disturbances and indirect impacts of nontidal perennial aquatic habitat would be reduced by Environmental Commitment EC-14: Construction Best Management Practices for Biological Resources. Even with this environmental commitment, however, the loss nontidal

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
		MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities		perennial aquatic plants from construction and potential impacts from maintenance activities would be significant. Mitigation Measure BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants would reduce impacts on special-status nontidal perennial aquatic plants during project construction. Mitigation Measure BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities would reduce impacts on special-status nontidal perennial aquatic plants during project maintenance. Under Mitigation Measure CMP: Compensatory Mitigation Plan, habitat for special-status nontidal perennial aquatic plants would be created or acquired and permanently protected to compensate for project impacts and ensure no significant loss of special-status nontidal perennial aquatic plants or their habitat functions and values. The project impacts on these special-status nontidal perennial aquatic plants would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-14: Impacts of the Project on Vernal Pool Aquatic Invertebrates	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-14: Avoid and Minimize Impacts on Vernal Pool Aquatic Invertebrates and Critical Habitat for Vernal Pool Fairy Shrimp	Less Than Significant	The impacts on vernal pool aquatic invertebrates from the Project would be less than significant with mitigation because the measures would replace lost habitat and reduce direct effects on the species, including habitat disturbance, by avoiding and minimizing activities during construction and maintenance that could adversely affect habitat, which include establishing non-disturbance buffers around pools with construction fencing, by surveying suitable habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp, and by avoiding adverse modification of critical habitat and indirect effects on vernal pool aquatic invertebrate habitat through work area redesigns, to the extent practicable. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-16: Impacts of the Project on Vernal Pool Terrestrial Invertebrates	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-14: Avoid and Minimize Impacts on Vernal Pool Aquatic Invertebrates and Critical Habitat for Vernal Pool Fairy Shrimp	Less Than Significant	The impacts on vernal pool terrestrial invertebrates from the Project would be less than significant with mitigation because mitigation measures would replace lost habitat and reduce direct effects on the species, including habitat disturbance, by avoiding and minimizing activities during construction and maintenance that could adversely affect habitat, which include establishing non-disturbance buffers around habitat with construction fencing, and by avoiding indirect effects on vernal pool habitat to the extent practicable. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-18: Impacts of the Project on Valley Elderberry Longhorn Beetle	Significant	MM CMP: Compensatory Mitigation Plan CMP-18a: Sandhill Crane Roosting Habitat CMP-18b: Sandhill Crane Foraging Habitat CMP-19a: Swainson's Hawk Nesting Habitat CMP-19b: Swainson's Hawk Foraging Habitat CMP-22a: Tricolored Blackbird Nesting Habitat CMP-22b: Tricolored Blackbird Breeding Foraging Habitat MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities	Less Than Significant	The impacts on valley elderberry longhorn beetle from the Project would be less than significant with mitigation because these mitigation measures would replace lost habitat and reduce direct effects on the species, including habitat disturbance, by avoiding and minimizing activities that could injure or kill valley elderberry longhorn beetle, which includes establishing non-disturbance buffers around shrubs with construction fencing, limiting trimming of shrubs to stems less likely to contain larvae (<1 inch in diameter) and during periods when trimming is less likely to affect the vigor of shrubs, and avoiding work to the extent possible during the species active season when they are in flight around shrubs and dispersing. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
		MM BIO-18: Avoid and Minimize Impacts on Valley Elderberry Longhorn Beetle		
Impact BIO-20: Impacts of the Project on Curved-Foot Hygrotus Diving Beetle	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-14: Avoid and Minimize Impacts on Vernal Pool Aquatic Invertebrates and Critical Habitat for Vernal Pool Fairy Shrimp	Less Than Significant	The impacts on curved-foot hygrotus beetle from the Project would be less than significant with mitigation because these mitigation measures would reduce direct effects on the species, including habitat disturbance, by avoiding and minimizing activities during construction and maintenance that could adversely affect habitat, establishing non-disturbance buffers around aquatic habitat with construction fencing and by implementing protective measures during maintenance activities. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-21: Impacts of the Project on Crotch Bumble Bee	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-21: Avoid and Minimize Impacts on Crotch Bumble Bee	Less Than Significant	The impacts on Crotch bumble bee from the Project would be less than significant with mitigation because these mitigation measures would replace lost habitat and reduce direct effects on the species, including habitat disturbance, by identifying and avoiding potential habitat to the extent possible during maintenance and construction activities through establishing avoidance buffers, by temporarily delaying work where colonies are identified, and replanting areas of disturbed habitat with suitable foraging plants. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-22: Impacts of the Project on California Tiger Salamander	Significant	MM CMP: Compensatory Mitigation Plan MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-22a: Avoid and Minimize Impacts on California Tiger Salamander MM BIO-22b: Avoid and Minimize Operational Traffic Impacts on Wildlife	Less Than Significant	The impacts on California tiger salamander from the Project would be less than significant with mitigation because these mitigation measures would replace lost habitat and reduce direct effects on the species, including habitat disturbance, by designing lighting that avoids spillover into habitats and thus avoiding disrupting dispersal movements; by avoiding construction and maintenance activities in and adjacent to habitat to the extent possible; timing construction activities, installing exclusion fencing, conducting preconstruction surveys, and other protective measures to avoid and minimize the potential for injury and mortality; and by putting in place traffic control measures at DWR facilities during operations to minimize the potential for vehicle strikes. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-23: Impacts of the Project on Western Spadefoot Toad	Significant	MM CMP: Compensatory Mitigation Plan MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-22b: Avoid and Minimize Operational Traffic Impacts on Wildlife MM BIO-23: Avoid and Minimize Impacts on Western Spadefoot Toad	Less Than Significant	The impacts on western spadefoot toad from the Project would be less than significant with mitigation because these mitigation measures would replace lost habitat and reduce direct effects on the species, including habitat disturbance, by designing lighting that avoids spillover into habitats, thus avoiding disrupting dispersal movements; by avoiding construction and maintenance activities in and adjacent to habitat to the extent possible; timing construction activities, installing exclusion fencing, conducting preconstruction surveys, and other protective measures to avoid and minimize the potential for injury and mortality; and by putting in place traffic control measures at DWR facilities during operations to minimize the potential for vehicle strikes. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
Impact BIO-24: Impacts of the Project on California Red-Legged Frog	Significant	MM CMP: Compensatory Mitigation Plan MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-22b: Avoid and Minimize Operational Traffic Impacts on Wildlife MM BIO-24a: Avoid and Minimize Impacts on California Red-Legged Frog and Critical Habitat MM BIO-24b: Compensate for Impacts on California Red-Legged Frog Habitat Connectivity	Less Than Significant	The impacts on California red-legged frog from the Project would be less than significant with mitigation because these mitigation measures would replace lost habitat and reduce direct effects on the species, including habitat disturbance, by designing lighting that avoids spillover into habitats and thus avoiding potential increases in predation and disrupting normal behaviors; by avoiding construction and maintenance activities in and adjacent to habitat to the extent possible; timing construction activities, installing exclusion fencing, conducting preconstruction surveys, and other protective measures to avoid and minimize the potential for injury and mortality; and by putting in place traffic control measures at DWR facilities during operations to minimize the potential for vehicle strikes. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-25: Impacts of the Project on Western Pond Turtle	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-22b: Avoid and Minimize Operational Traffic Impacts on Wildlife MM BIO-25: Avoid and Minimize Impacts on Western Pond Turtle MM WQ-6 Develop and Implement a Mercury Management and Monitoring Plan	Less Than Significant	The impacts on western pond turtle from the Project would be less than significant with mitigation because these mitigation measures would replace lost habitat and reduce direct effects on the species, including habitat disturbance, by avoiding construction and maintenance activities in and adjacent to habitat to the extent possible; timing construction activities, installing exclusion fencing, conducting preconstruction surveys, and other protective measures to avoid and minimize the potential for injury and mortality; and by putting in place traffic control measures at DWR facilities during operations to minimize the potential for vehicle strikes. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-26: Impacts of the Project on Coast Horned Lizard	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-22b: Avoid and Minimize Operational Traffic Impacts on Wildlife MM BIO-26: Avoid and Minimize Impacts on Special-Status Reptiles	Less Than Significant	The impacts on coast horned lizard from the Project would be less than significant with mitigation because these mitigation measures would replace lost habitat and reduce direct effects on the species, including habitat disturbance, by avoiding construction and maintenance activities in and adjacent to habitat to the extent possible; timing construction activities, conducting preconstruction surveys, and other protective measures to avoid and minimize the potential for injury and mortality; and by putting in place traffic control measures at DWR facilities during operations to minimize the potential for vehicle strikes. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-27: Impacts of the Project on Northern California Legless Lizard	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-22b: Avoid and Minimize Operational Traffic Impacts on Wildlife MM BIO-26: Avoid and Minimize Impacts on Special-Status Reptiles	Less Than Significant	The impacts on Northern California legless lizard from the Project would be less than significant with mitigation because these mitigation measures would replace lost habitat and reduce direct effects on the species, including habitat disturbance, by avoiding construction and maintenance activities in and adjacent to habitat to the extent possible; timing construction activities, installing exclusion fencing, conducting preconstruction surveys, and other protective measures to avoid and minimize the potential for injury and mortality; and by putting in place traffic control measures at DWR facilities during operations to minimize the potential for vehicle strikes. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-28: Impacts of the Project on California Glossy Snake	Significant	MM CMP: Compensatory Mitigation Plan	Less Than Significant	The impacts on California glossy snake from the Project would be less than significant with mitigation because these mitigation measures would reduce direct effects on the species,

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
		MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-22b: Avoid and Minimize Operational Traffic Impacts on Wildlife MM BIO-26: Avoid and Minimize Impacts on Special-Status Reptiles		including habitat disturbance, by avoiding construction and maintenance activities in and adjacent to habitat to the extent possible; timing construction activities, conducting preconstruction surveys, and other protective measures to avoid and minimize the potential for injury and mortality; and by putting in place traffic control measures at DWR facilities during operations to minimize the potential for vehicle strikes. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-29: Impacts of the Project on San Joaquin Coachwhip	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-22b: Avoid and Minimize Operational Traffic Impacts on Wildlife MM BIO-26: Avoid and Minimize Impacts on Special-Status Reptiles	Less Than Significant	The impacts on San Joaquin coachwhip from the Project would be less than significant with mitigation because these mitigation measures would replace lost habitat with habitat potentially suitable and reduce direct effects on the species, including habitat disturbance, by avoiding construction and maintenance activities in and adjacent to habitat to the extent possible; timing construction activities, installing exclusion fencing, conducting preconstruction surveys, and other protective measures to avoid and minimize the potential for injury and mortality; and by putting in place traffic control measures at DWR facilities during operations to minimize the potential for vehicle strikes. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-30: Impacts of the Project on Giant Garter Snake	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-22b: Avoid and Minimize Operational Traffic Impacts on Wildlife MM BIO-30: Avoid and Minimize Impacts on Giant Garter Snake MM WQ-6 Develop and Implement a Mercury Management and Monitoring Plan	Less Than Significant	The impacts on giant garter snake from the Project would be less than significant with mitigation because these mitigation measures would replace lost habitat and reduce direct effects on the species, including habitat disturbance, by avoiding construction and maintenance activities in and adjacent to habitat to the extent possible; timing construction activities, installing exclusion fencing, conducting preconstruction surveys, and other protective measures to avoid and minimize the potential for injury and mortality; and by putting in place traffic control measures at DWR facilities during operations to minimize the potential for vehicle strikes. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-31: Impacts of the Project on Western Yellow-Billed Cuckoo	Significant	MM CMP: Compensatory Mitigation Plan MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction MM AES-4c: Install Visual Barriers along Access Routes, Where Necessary, to Prevent Light Spill from Truck Headlights toward Residences MM NOI-1: Develop and Implement a Noise Control Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-2c: Electrical Power Line Support Placement MM BIO-31: Avoid and Minimize Impacts on Western Yellow-Billed Cuckoo	Less Than Significant	The impacts on western yellow-billed cuckoo from the Project would be less than significant with mitigation because the mitigation measures would replace lost habitat and reduce direct effects on the species, including habitat, noise, and visual disturbances, by providing environmental awareness training to construction personnel, by implementing protective measures during maintenance activities, and species-specific avoidance measures during construction. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-32: Impacts of the Project on California Black Rail	Significant	MM CMP: Compensatory Mitigation Plan MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction	Less Than Significant	The impacts on California black rail from the Project would be less than significant with mitigation because the mitigation measures would replace lost habitat and reduce direct effects on the species, including habitat, noise, and visual disturbances, by providing environmental

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
		MM AES-4c: Install Visual Barriers along Access Routes, Where Necessary, to Prevent Light Spill from Truck Headlights toward Residences MM NOI-1: Develop and Implement a Noise Control Plan		awareness training to construction personnel, by implementing protective measures during maintenance activities, and species-specific avoidance measures during construction. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-33: Impacts of the Project on Greater Sandhill Crane and Lesser Sandhill Crane	Significant	MM CMP: Compensatory Mitigation Plan MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction MM AES-4c: Install Visual Barriers along Access Routes, Where Necessary, to Prevent Light Spill from Truck Headlights toward Residences MM NOI-1: Develop and Implement a Noise Control Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-2c: Electrical Power Line Support Placement MM BIO-33: Avoid and Minimize Disturbance of Sandhill Cranes	Less Than Significant	Construction, operations, and maintenance of the water conveyance facilities for the Project could result in impacts on greater sandhill crane and lesser sandhill crane through the permanent and temporary loss of known roost sites and modeled foraging habitat and the potential disruption of normal behaviors. The temporary loss of habitat and potential impacts of the disruption of normal behaviors from project construction would be reduced by Environmental Commitments EC-1: Conduct Worker Awareness Training; EC-2: Develop and Implement Hazardous Materials Management Plans; EC-3: Develop and Implement Spill Prevention, Containment, and Countermeasure Plans; EC-11: Fugitive Dust Control; and EC-14: Construction Best Management Practices for Biological Resources (Appendix 3B); however, even with these commitments, the loss of habitat from the construction of the Project, and the potential for the disruption of normal behaviors from construction, operations, and maintenance activities on greater sandhill crane and lesser sandhill crane would be significant. The CMP would be required to offset the loss of roosting and foraging habitat by creating roosting and foraging habitat and protecting agricultural foraging habitat for sandhill cranes (Appendix 3F, Attachment 3F.1, Table 3F.1-3, CMP-18a: Sandhill Crane Roosting Habitat, and CMP-18b: Sandhill Crane Foraging Habitat), which would reduce the impact associated with habitat loss to less than significant. Because the greater sandhill crane is listed as "fully protected" under the California Fish and Game Code Section 3511, activities that would result in "take" as defined by Section 86 of the Fish and Game Code (i.e., "to hunt, pursue, catch, capture, or kill, or attempt to" undertake these activities) are prohibited. The Project has been designed to avoid any activities that would result in actions considered "take" of greater sandhill crane. The Project would use existing power lines or underground conduit to the extent possible for the purpose of avoiding potential injury or direct mortality of the greater sandhill crane and all new aboveground lines would be located outside of the roost sites or foraging habitat for greater sandhill crane. Mitigation Measure BIO-2c: Electrical Power Line Support Placement, which requires that project lines installed on existing poles or towers be placed in the same vertical prism as existing lines where feasible, as determined by project engineers in coordination with utility providers, and that all project lines within 3 miles of greater sandhill crane roost sites be fitted with bird flight diverters that are visible under all conditions and based on APLIC or more current guidance (Avian Power Line Interaction Committee 2006, 2012), would minimize any additional potential collisions of greater or lesser sandhill cranes from the Project. Mitigation Measures NOI-1: Develop and Implement a Noise Control Plan (Chapter 24); BIO-2b: Avoid and Minimize Impacts on Biological Resources from Maintenance Activities; AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction; AES-4c: Install Visual Barriers along Access Routes, Where Necessary, to Prevent Light Spill from Truck Headlights toward Residences (Chapter 18); and BIO-33: Avoid and Minimize Disturbance of Sandhill Cranes would mitigate the impacts on greater sandhill crane and lesser sandhill crane to a less-than-significant level. Therefore, the project impacts on greater sandhill crane and lesser sandhill crane would be less than significant with mitigation because these measures would reduce direct impacts on these species and compensate for lost habitat. Mitigation measures would reduce direct impacts in the following ways: (1) implementing protective measures during maintenance activities, which would include assessing work areas for habitat and conducting surveys where appropriate and delaying maintenance activities (either by season or time of day); (2) designing lighting that avoids spillover into habitat; (3) reducing noise impacts through time-of-day restrictions on construction and noise-attenuating measures where feasible, as determined by the contractor;

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
				and (4) avoiding and minimizing disturbance of roosting and foraging cranes by conducting surveys and work outside of the winter crane season (September 15 through March 15). Mitigation measures would also establish roosting and foraging habitat to compensate for disturbance and displacement of sandhill cranes during construction. The feasibility of mitigation measures will be determined by the contractor in coordination with a qualified wildlife biologist. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-34: Impacts of the Project on California Least Tern	Significant	MM CMP: Compensatory Mitigation Plan MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction MM AES-4c: Install Visual Barriers along Access Routes, Where Necessary, to Prevent Light Spill from Truck Headlights toward Residences MM NOI-1: Develop and Implement a Noise Control Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-2c: Electrical Power Line Support Placement MM BIO-34: Avoid California Least Tern Nesting Colonies and Minimize Indirect Effects on Colonies	Less Than Significant	The impacts on California least tern from the Project would be less than significant with mitigation because the mitigation measures would reduce direct effects on the species, including habitat, noise, and visual disturbances, by providing environmental awareness training to construction personnel, by implementing protective measures during maintenance activities, and species-specific avoidance measures for the species during construction. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-35: Impacts of the Project on Cormorants, Herons, and Egrets	Significant	MM CMP: Compensatory Mitigation Plan MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction MM AES-4c: Install Visual Barriers along Access Routes, Where Necessary, to Prevent Light Spill from Truck Headlights toward Residences MM NOI-1: Develop and Implement a Noise Control Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-2c: Electrical Power Line Support Placement MM BIO-35: Avoid and Minimize Impacts on Cormorant, Heron, and Egret Rookeries	Less Than Significant	The impacts on cormorants, herons, and egrets from the Project would be less than significant with mitigation because the mitigation measures would replace lost habitat, reduce direct effects on the species, including habitat, noise, and visual disturbances, by providing environmental awareness training to construction personnel, by implementing protective measures during maintenance activities, and avoidance measures for cormorant, heron, or egret rookeries during construction. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-36: Impacts of the Project on Osprey, White-Tailed Kite, Cooper's Hawk, and Other Nesting Raptors	Significant	MM CMP: Compensatory Mitigation Plan MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction MM AES-4c: Install Visual Barriers along Access Routes, Where Necessary, to Prevent Light Spill from Truck Headlights toward Residences MM NOI-1: Develop and Implement a Noise Control Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-2c: Electrical Power Line Support Placement MM BIO-36a: Conduct Nesting Surveys for Special-Status and Non–Special-Status Birds and Raptors and	Less Than Significant	The impacts on special-status and non–special-status raptors from the Project would be less than significant with mitigation because the mitigation measures would replace lost habitat, reduce direct effects on the species, including habitat, noise, and visual disturbances, by providing environmental awareness training to construction personnel, by implementing protective measures during maintenance activities, and avoidance measures for raptors during construction. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
		Implement Protective Measures to Avoid Disturbance of Nesting Birds and Raptors MM BIO-36b: Conduct Preconstruction Surveys and Implement Protective Measures to Avoid Disturbance of White-Tailed Kite		
Impact BIO-37: Impacts of the Project on Golden Eagle and Ferruginous Hawk	Significant	MM CMP: Compensatory Mitigation Plan MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction MM AES-4c: Install Visual Barriers along Access Routes, Where Necessary, to Prevent Light Spill from Truck Headlights toward Residences MM NOI-1: Develop and Implement a Noise Control Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-2c: Electrical Power Line Support Placement MM BIO-37: Conduct Surveys for Golden Eagle and Avoid Disturbance of Occupied Nests	Less Than Significant	The impacts on ferruginous hawk and golden eagle from the Project would be less than significant with mitigation because the mitigation measures would replace lost habitat, reduce direct effects on the species, including habitat, noise, and visual disturbances, by providing environmental awareness training to construction personnel, by implementing protective measures during maintenance activities, and avoidance measures to avoid take of golden eagles, as defined by Section 86 of the California Fish and Game Code during construction. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-38: Impacts of the Project on Ground-Nesting Grassland Birds	Significant	MM CMP: Compensatory Mitigation Plan MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction MM AES-4c: Install Visual Barriers along Access Routes, Where Necessary, to Prevent Light Spill from Truck Headlights toward Residences MM NOI-1: Develop and Implement a Noise Control Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-2c: Electrical Power Line Support Placement MM BIO-36a: Conduct Nesting Surveys for Special-Status and Non–Special-Status Birds and Raptors and Implement Protective Measures to Avoid Disturbance of Nesting Birds and Raptors	Less Than Significant	The impacts on northern harrier, short-eared owl, California horned lark, and grasshopper sparrow from the Project would be less than significant with mitigation because the mitigation measures would reduce direct effects on the species, including habitat, noise, and visual disturbances, by providing environmental awareness training to construction personnel, by implementing protective measures during maintenance activities, and avoidance measures for nesting birds during construction. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-39: Impacts of the Project on Swainson's Hawk	Significant	MM CMP: Compensatory Mitigation Plan MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction MM AES-4c: Install Visual Barriers along Access Routes, Where Necessary, to Prevent Light Spill from Truck Headlights toward Residences MM NOI-1: Develop and Implement a Noise Control Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-2c: Electrical Power Line Support Placement MM BIO-39: Conduct Preconstruction Surveys and Implement Protective Measures to Minimize Disturbance of Swainson's Hawk	Less Than Significant	The impacts on Swainson's hawk from the Project would be less than significant with mitigation because the mitigation measure would replace lost habitat, reduce direct effects on the species, including habitat, noise, and visual disturbances, by providing environmental awareness training to construction personnel, by implementing protective measures during maintenance activities, and avoidance measures for nesting Swainson's hawk during construction. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
Impact BIO-40: Impacts of the Project on Burrowing Owl	Significant	MM CMP: Compensatory Mitigation Plan MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction MM AES-4c: Install Visual Barriers along Access Routes, Where Necessary, to Prevent Light Spill from Truck Headlights toward Residences MM NOI-1: Develop and Implement a Noise Control Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-2c: Electrical Power Line Support Placement MM BIO-22b: Avoid and Minimize Operational Traffic Impacts on Wildlife MM BIO-40: Conduct Surveys and Minimize Impacts on Burrowing Owl	Less Than Significant	The impacts on burrowing owl from the Project would be less than significant with mitigation because the mitigation measures would reduce direct effects on the species, including habitat, noise, and visual disturbances, by providing environmental awareness training to construction personnel, by implementing protective measures during maintenance activities, and avoidance measures for burrowing owl during construction. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-41: Impacts of the Project on Other Nesting Special-Status and Non–Special-Status Birds	Significant	MM CMP: Compensatory Mitigation Plan MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction MM AES-4c: Install Visual Barriers along Access Routes, Where Necessary, to Prevent Light Spill from Truck Headlights toward Residences MM NOI-1: Develop and Implement a Noise Control Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-2c: Electrical Power Line Support Placement MM BIO-36a: Conduct Nesting Surveys for Special-Status and Non–Special-Status Birds and Raptors and Implement Protective Measures to Avoid Disturbance of Nesting Birds and Raptors	Less Than Significant	The impacts on special-status and non–special-status bird species from the Project would be less than significant with mitigation because the mitigation measures would replace lost habitat, reduce direct effects on these species, including habitat, noise, and visual disturbances, by providing environmental awareness training to construction personnel, by implementing protective measures during maintenance activities, and avoidance measures for nesting birds during construction. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-42: Impacts of the Project on Least Bell's Vireo	Significant	MM CMP: Compensatory Mitigation Plan MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction MM AES-4c: Install Visual Barriers along Access Routes, Where Necessary, to Prevent Light Spill from Truck Headlights toward Residences MM NOI-1: Develop and Implement a Noise Control Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-2c: Electrical Power Line Support Placement MM BIO-42: Conduct Surveys and Minimize Impacts on Least Bell's Vireo	Less Than Significant	The impacts on least Bell's vireo from the Project would be less than significant with mitigation because the mitigation measures would replace lost habitat and reduce direct effects on the species, including habitat, noise, and visual disturbances, by providing environmental awareness training to construction personnel, by implementing protective measures during maintenance activities, and avoidance measures for least Bell's vireo during construction. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-44: Impacts of the Project on Tricolored Blackbird	Significant	MM CMP: Compensatory Mitigation Plan MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction	Less Than Significant	The impacts on tricolored blackbird from the Project would be less than significant with mitigation because the mitigation measures would replace lost habitat, reduce direct effects on the species, including habitat, noise, and visual disturbances, by providing environmental awareness training to construction personnel, by implementing protective measures during maintenance activities, and avoidance measures for tricolored blackbird during construction.

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
		MM AES-4c: Install Visual Barriers along Access Routes, Where Necessary, to Prevent Light Spill from Truck Headlights toward Residences MM NOI-1: Develop and Implement a Noise Control Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-2c: Electrical Power Line Support Placement MM BIO-44: Conduct Preconstruction Surveys and Implement Protective Measures to Avoid Disturbance of Tricolored Blackbird		Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-45: Impacts of the Project on Bats	Significant	MM CMP: Compensatory Mitigation Plan MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-45a: Compensate for the Loss of Bat Roosting Habitat on Bridges and Overpasses MM BIO-45b: Avoid and Minimize Impacts on Roosting Bats	Less Than Significant	The impacts on bats from the Project would be less than significant with mitigation because these measures would replace lost habitat and reduce direct effects on the species (including habitat modification) by (1) implementing protective measures during maintenance activities, which would include assessing work areas for habitat and conducting surveys for bats where appropriate and delaying maintenance activities where possible; (2) designing lighting that avoids spillover into habitats and choosing light sources less disruptive to wildlife and thus avoiding disrupting roost sites and foraging activity; and (3) prior to and during construction, identifying occupied roosts and implementing construction activities such that the avoid disrupting roosts, in particular maternal roosts, and establishing protective buffers around roosts. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-46: Impacts of the Project on San Joaquin Kit Fox	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-22b: Avoid and Minimize Operational Traffic Impacts on Wildlife MM BIO-46: Conduct Preconstruction Survey for San Joaquin Kit Fox and Implement Avoidance and Minimization Measures	Less Than Significant	The impacts on San Joaquin kit fox from the Project would be less than significant with mitigation because the mitigation measures would reduce direct effects on the species by (1) implementing protective measures during maintenance activities, which would include conducting den surveys where appropriate and avoiding certain activities where possible, and (2) implementing traffic controls on facility access roads during operations, which would minimize the potential for vehicle strikes if San Joaquin kit fox is present in these areas. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-47: Impacts of the Project on American Badger	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-22b: Avoid and Minimize Operational Traffic Impacts on Wildlife MM BIO-47: Conduct Preconstruction Survey for American Badger and Implement Avoidance and Minimization Measures	Less Than Significant	The impacts on American badger from the Project would be less than significant with mitigation because the mitigation measures would replace lost habitat and reduce direct effects on the species, including habitat disturbance, by (1) implementing protective measures during maintenance activities, which would include assessing work areas for habitat and conducting dens surveys where appropriate and avoiding certain activities where possible, (2) implementing traffic controls on facility access roads during operations, which would minimize the potential for vehicle strikes, and (3) implementing avoidance measures for active dens during construction. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-48: Impacts of the Project on San Joaquin Pocket Mouse	Significant	MM CMP: Compensatory Mitigation Plan	Less Than Significant	The impacts on San Joaquin pocket mouse from the Project would be less than significant with mitigation because these measures would replace lost habitat and reduce direct effects on the species, including habitat disturbance, by implementing protective measures during

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
		MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-22b: Avoid and Minimize Operational Traffic Impacts on Wildlife		maintenance activities, which would include assessing work areas for potential habitat, and by implementing traffic controls on facility access roads during operations, which would minimize the potential for vehicle strikes. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-51: Substantial Adverse Effect on State- or Federally Protected Wetlands and Other Waters through Direct Removal, Filling, Hydrological Interruption, or Other Means	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities	Less Than Significant	The impact of discharge of fill into aquatic resources would be reduced to less than significant because the mitigation measures would avoid a net loss in aquatic resources and avoid and minimize periodic, temporary discharges of fill material into aquatic resources by assessing maintenance work areas for aquatic resources, establishing non-disturbance buffers around aquatic resources, training maintenance staff on the need to avoid the discharge of fill material into aquatic resources, and having a biological monitor present, where applicable. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-53: Interfere Substantially with the Movement of Any Native Resident or Migratory Fish or Wildlife Species or with Established Native Resident or Migratory Wildlife Corridors, or Impede the Use of Native Wildlife Nursery Sites	Significant	MM CMP: Compensatory Mitigation Plan MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction MM AES-4c: Install Visual Barriers along Access Routes, Where Necessary, to Prevent Light Spill from Truck Headlights toward Residences MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-22b: Avoid and Minimize Operational Traffic Impacts on Wildlife MM BIO-53: Avoid and Minimize Impacts on Terrestrial Wildlife Connectivity and Movement	Less Than Significant	The impacts on wildlife connectivity resources, habitat connectivity, and wildlife movement from the Project would be less than significant with mitigation because the mitigation measures would compensate for impacts on wildlife habitat and avoid and minimize habitat and species impacts that potentially could disrupt species movement and habitat selection, habitat access, and wildlife behavior, resulting in impacts on wildlife connectivity. These measures would avoid and minimize habitat and species impacts that could cause potential for injury, mortality, disruption of normal behaviors and disturbances to habitat that potentially may disrupt species movement, habitat selection, habitat access, and wildlife behavior, resulting in impacts on wildlife connectivity, by training construction staff on protecting habitat and species, reporting requirements, and the ramifications for not following these measures; implementing spill prevention and containment plans that would avoid material spills that could affect habitat and wildlife; preventing erosion and sedimentation of habitats and stormwater pollution, which may affect habitat and wildlife; preventing dust emissions that may impact habitat and wildlife; implementing construction BMPs and having a biological monitor present to ensure that non disturbance buffers and associated construction fencing are intact and all other protective measures are being implemented where applicable to protect habitat and wildlife; reducing fugitive light and lighting impacts that may disrupt nocturnal wildlife behavior and habitat selection; implementing environmental review and avoidance of habitat and wildlife impacts during maintenance activities; limiting vehicle speeds and implementing traffic control measures on DWR roads during operations to reduce species movement disruptions and vehicle-related mortality; and ensuring that the project prevents impacts on and facilitates habitat connectivity and safe wildlife movement. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-54: Conflict with the Provisions of an Adopted Habitat Conservation Plan, Natural Community Conservation Plan, or Other Approved Local, Regional, or State Habitat Conservation Plan	Significant	MM CMP: Compensatory Mitigation Plan MM BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants MM BIO-14: Avoid and Minimize Impacts on Vernal Pool Aquatic Invertebrates and Critical Habitat for Vernal Pool Fairy Shrimp MM BIO-18: Avoid and	Less Than Significant	Because the Project would only remove a small proportion of available lands for conservation, and thus not obstruct the plans' conservation goals, and with the mitigation measures to avoid and minimize impacts on covered species and habitats, the impact on an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan would be less than significant with mitigation.

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
		Minimize Impacts on Valley Elderberry Longhorn Beetle MM BIO-22a: Avoid and Minimize Impacts on California Tiger Salamander MM BIO-24a: Avoid and Minimize Impacts on California Red-Legged Frog and Critical Habitat MM BIO-25: Avoid and Minimize Impacts on Western Pond Turtle MM BIO-26: Avoid and Minimize Impacts on Special-Status Reptiles MM BIO-30: Avoid and Minimize Impacts on Giant Garter Snake MM BIO-31: Avoid and Minimize Impacts on Western Yellow-Billed Cuckoo MM BIO-32: Conduct Preconstruction Surveys and Implement Protective Measures to Avoid Disturbance of California Black Rail MM BIO-33: Minimize Disturbance of Sandhill Cranes MM BIO-35: Avoid and Minimize Impacts on Cormorant, Heron, and Egret Rookeries MM BIO-36a: Conduct Nesting Surveys for Special-Status and Non–Special-Status Birds and Implement Protective Measures to Avoid Disturbance of Nesting Birds and Raptors MM BIO-36b: Conduct Preconstruction Surveys and Implement Protective Measures to Avoid Disturbance of White-Tailed Kite MM BIO-39: Conduct Preconstruction Surveys and Implement Protective Measures to Minimize Disturbance of Swainson's Hawk MM BIO-40: Conduct Surveys and Minimize Impacts on Burrowing Owl MM BIO-44: Conduct Preconstruction Surveys and Implement Protective Measures to Avoid Disturbance of Tricolored Blackbird MM BIO-47: Conduct Preconstruction Survey for American Badger and Implement Avoidance and Minimization Measures MM AG-1: Preserve Agricultural Land		Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-55: Conflict with Any Local Policies or Ordinances Protecting Biological Resources, Such as a Tree Preservation Policy or Ordinance	Significant	MM CMP: Compensatory Mitigation Plan	Less Than Significant	The temporary loss of habitats from project construction would be reduced by Environmental Commitments EC-1: Conduct Worker Awareness Training; EC-2: Develop and Implement Hazardous Materials Management Plans; EC-3: Develop and Implement Spill Prevention, Containment, and Countermeasure Plans; and EC-14: Construction Best Management Practices for Biological Resources (Appendix 3B). Even with these commitments, however, the permanent loss of habitat from the construction of the alternatives would be significant. The CMP would be required to offset the loss of wetlands, riparian, and habitat for special-status species (Appendix 3F), which would reduce impacts on these resources and thus the conflicts with local policies and ordinances to less than significant. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact BIO-56: Substantial Adverse Effects on Fish and Wildlife Resources	Significant	MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities	Less Than Significant	The impacts on rivers, streams, and lakes, and associated communities, subject to the notification requirements of California Fish and Game Code 1600 et seq. would be less than

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
Regulated under California Fish and Game Code Section 1600 et seq		MM AQUA-1a: Develop and Implement an Underwater Sound Control and Abatement Plan MM AQUA-1b: Develop and Implement a Barge Operations Plan MM AQUA-1c: Develop and Implement a Fish Rescue and Salvage Plan MM BIO-2a: Avoid or Minimize Impacts on Special-Status Natural Communities and Special-Status Plants MM BIO-2b: Avoid and Minimize Impacts on Terrestrial Biological Resources from Maintenance Activities MM BIO-18: Avoid and Minimize Impacts on Valley Elderberry Longhorn Beetle MM BIO-22a: Avoid and Minimize Impacts on California Tiger Salamander MM BIO-24a: Avoid and Minimize Impacts on California Red-Legged Frog and Critical Habitat MM BIO-25: Avoid and Minimize Impacts on Western Pond Turtle MM BIO-26: Avoid and Minimize Impacts on Special-Status Reptiles MM BIO-30: Avoid and Minimize Impacts on Giant Garter Snake MM BIO-31: Avoid and Minimize Impacts on Western Yellow-Billed Cuckoo MM BIO-32: Conduct Preconstruction Surveys and Implement Protective Measures to Avoid Disturbance of California Black Rail MM BIO-33: Minimize Disturbance of Sandhill Cranes MM BIO-35: Avoid and Minimize Impacts on Cormorant, Heron, and Egret Rookeries MM BIO-36a: Conduct Nesting Surveys for Special-Status and Non–Special-Status Birds and Implement Protective Measures to Avoid Disturbance of Nesting Birds and Raptors MM BIO-36b: Conduct Preconstruction Surveys and Implement Protective Measures to Avoid Disturbance of White-Tailed Kite MM BIO-39: Conduct Preconstruction Surveys and Implement Protective Measures to Minimize Disturbance of Swainson's Hawk MM BIO-40: Conduct Surveys and Minimize Impacts on Burrowing Owl MM BIO-44: Conduct Preconstruction Surveys and Implement Protective Measures to Avoid Disturbance of Tricolored Blackbird MM BIO-45b: Avoid and Minimize Impacts on Roosting Bats MM BIO-46: Conduct Preconstruction Survey for San Joaquin Kit Fox and Implement Avoidance and Minimization Measures MM BIO-47: Conduct Preconstruction Survey for American Badger and Implement Avoidance and Minimization Measures		significant because the mitigation measures would provide for compensatory mitigation to offset impacts on habitat that support fish and wildlife species, including rare plants, and would require steps to avoid and minimize effects on these species by establishing work windows to minimize the level of construction activities during sensitive time periods (e.g., migration, nesting), by establishing non-disturbance buffers to protect sensitive resources, by conducting preconstruction surveys to avoid occupied areas to the extent practicable, and by having biological monitors present to ensure measures are implemented and that direct effects on species are avoided and minimized. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Agricultural Resources				

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
Impact AG-3: Other Impacts on Agriculture as a Result of Constructing and Operating the Water Conveyance Facilities Prompting Conversion of Prime Farmland, Unique Farmland, Farmland of Local Importance, or Farmland of Statewide Importance	Significant	MM AG-3: Replacement or Relocation of Affected Infrastructure Supporting Agricultural Properties MM GW-1: Maintain Groundwater Supplies in Affected Areas	Less than Significant	Construction and operation of the Project's water conveyance facilities could indirectly affect agriculture within the study area through changes in groundwater elevation in localized areas affecting crop yields, disruption of agricultural infrastructure such as irrigation and drainage facilities, and operation-related changes in salinity affecting the water quality of irrigation water applied to crops. The potential for impacts resulting from changes in groundwater elevations during construction and operation would be minimized by design elements such placement of seepage cutoff wall placements around the north Delta intakes where such issues are most likely to arise. Implementation of these design elements to prevent changes in groundwater elevations that may affect neighboring properties, including farmland, would be tracked through groundwater monitoring programs. Furthermore, with Mitigation Measure GW-1: Maintain Groundwater Supplies in Affected Areas, identified in Chapter 8, the effects of temporary dewatering associated with the project are not anticipated to adversely disrupt agricultural operations in the vicinity of the intake sites that would result in conversion of Important Farmland to nonagricultural use. DWR considered how construction work for the project could affect local infrastructure supporting agricultural properties, including drainage and irrigation facilities. Such disruptions could result in the areas serviced by this infrastructure being fallowed. During project planning, known infrastructure used to serve agricultural properties were avoided to the greatest extent possible; however, the presence of additional infrastructure (e.g., buried pipelines that are not visible on aerial imagery and not identified in publicly available maps) may be revealed during future site level investigations. Although these disruptions may last only for the duration of project construction activity at a particular work area, such disruptions may persist for 7 to 15 years, depending on the facility being constructed. The effect would be permanent if the disruption to the infrastructure remains after construction is complete. This impact would be potentially significant. Mitigation Measure AG-3: Replacement or Relocation of Affected Infrastructure Supporting Agricultural Properties would require that any agricultural infrastructure that is disrupted by construction activities would be relocated or replaced to support continued agricultural activities; otherwise, the affected landowner would be fully compensated for any financial losses resulting from the disruption. Furthermore, as required under Mitigation Measure BIO-2c: Electrical Power Line Support Placement, the installation of power transition and distribution lines and necessary appurtenances within agricultural areas would require that DWR incorporate BMPs, where feasible, to minimize crop damage, reduce agricultural land impacts, and reduce the potential for interference with farm machinery. The impact would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Aesthetics and Visual Resources				
Impact AES-4: Create New Sources of Substantial Light or Glare That Would Adversely Affect Daytime or Nighttime Views of the Construction Areas or Permanent Facilities	Significant	MM AES-1b: Apply Aesthetic Design Treatments to Project Structures MM AES-1c: Implement Best Management Practices in Project Landscaping Plan MM AES-4a: Limit Construction Outside of Daylight Hours within 0.25 Mile of Residents at the Intakes MM AES-4b: Minimize Fugitive Light from Portable Sources Used for Construction	Less Than Significant	Once construction is completed and the project is in operation, the Project facilities would use limited nighttime lighting. Sources of glare would be blocked by levees, reduced by distance, or fleeting to motorists. Any building materials that would have potential to reflect glare would have a matte or nonreflective finish that would reduce or inhibit glare. Therefore, permanent, postconstruction impacts of light and glare attributable to the project would be less than significant.

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
		MM AES-4c: Install Visual Barriers along Access Routes, Where Necessary, to Prevent Light Spill from Truck Headlights toward Residences		Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Transportation				
Impact TRANS-4: Result in Inadequate Emergency Access	Significant	MM TRANS-1: Implement Site-Specific Construction Transportation Demand Management Plan and Transportation Management Plan	Less Than Significant	Construction of the Project would increase the potential for emergency access conflicts in the vicinity of construction sites at multiple locations and would increase the potential for emergency vehicle delays on roadways used to access construction sites or in the vicinity of proposed roadway improvements. Even with the roadway and access road improvements incorporated into the Project, this potential is considered to be a significant impact because (1) a substantial increase in the volume of additional construction-related vehicle trips would occur on the regional transportation system and on Delta roadways during the construction period, and (2) up to 18 access points have the potential to experience emergency vehicle access delay due to ingress and egress of construction vehicles and roadway and bridge construction for the Project. The traffic management plan (TMP) actions in Mitigation Measure TRANS-1: Implement Site-Specific Construction Transportation Demand Management Plan and Transportation Management Plan would reduce this impact to a less-than-significant level by providing specific actions and coordination with emergency responders at construction sites to maintain adequate emergency access in the vicinity of construction sites. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Air Quality and Greenhouse Gases				
Impact AQ-1: Result in Impacts on Regional Air Quality within the Sacramento Metropolitan Air Quality Management District	Significant	MM AQ-1: Offset Construction-Generated Criteria Pollutants in the Sacramento Valley Air Basin	Less Than Significant	Impacts associated with fugitive dust emissions would be minimized through a dust control plan (Environmental Commitment EC-11: Fugitive Dust Control) and BMPs at new concrete batch plants (Environmental Commitment EC-12: On-Site Concrete Batching Plants). Exhaust-related pollutants would be reduced through use of zero-emissions equipment and vehicles (where feasible), renewable diesel, Tier 4 diesel engines, newer on-road and marine engines, and other BMPs, as required by Environmental Commitments EC-7: Off-Road Heavy-Duty Engines through EC-10: Marine Vessels and EC-13: DWR Best Management Practices to Reduce GHG Emissions. These environmental commitments would minimize air quality impacts through application of on-site controls to reduce construction emissions; however, even with these commitments, exceedances of SMAQMD's thresholds would occur, and the project would contribute a significant level of regional NOX and particulate matter pollution within the SVAB. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact AQ-2: Result in Impacts on Regional Air Quality within the San Joaquin Valley Air Pollution Control District	Significant	MM AQ-2: Offset Construction-Generated Criteria Pollutants in the San Joaquin Valley Air Basin	Less Than Significant	Based on the performance of current incentive programs and reasonably foreseeable future growth, SJVAPCD has confirmed that enough emissions reduction credits would be available to offset emissions generated by the project for all years in excess of SJVAPCD's thresholds (McLaughlin pers. comm.). Because SJVAPCD's thresholds were established to prevent emissions from new projects in the SJVAB from contributing to CAAQS or NAAQS violations, mitigating emissions below the threshold levels would avoid potential conflicts with the ambient air quality plans and ensure that project construction would not contribute a significant level of air pollution such that regional air quality within the SJVAB would be degraded. Accordingly, the impact would be less than significant with mitigation.

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
				Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact AQ-3: Result in Impacts on Regional Air Quality within the Bay Area Air Quality Management District	Significant	MM AQ-3: Offset Construction-Generated Criteria Pollutants in the San Francisco Bay Area Air Basin	Less Than Significant	Based on the performance of current incentive programs and reasonably foreseeable future growth, BAAQMD has confirmed that Mitigation Measure AQ-3: Offset Construction-Generated Criteria Pollutants in the San Francisco Bay Area Air Basin is technically feasible (Kirk pers. comm.). Because BAAQMD's thresholds were established to prevent emissions from new projects in the SFBAAB from contributing to CAAQS or NAAQS violations, mitigating emissions below the threshold levels would avoid potential conflicts with the ambient air quality plans and ensure that project construction would not contribute a significant level of air pollution such that regional air quality within the SFBAAB would be degraded. Accordingly, the impact would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact AQ-9: Result in Impacts on Global Climate Change from Construction and O&M	Significant	MM AQ-9: Develop and Implement a GHG Reduction Plan to Reduce GHG Emissions from Construction and Net CVP Operational Pumping to Net Zero	Less Than Significant	The CEQA Guidelines generally offer two paths to evaluating GHG emissions impacts in CEQA documents: • Projects can tier off a plan or similar document for the reduction of GHG emissions (as defined in CEQA Guidelines § 15183.5(b)) where the plan addresses GHG emissions for a range of project types within a geographic area. • Projects can evaluate and determine significance by calculating GHG emissions and assessing their significance using a performance standard (CEQA Guidelines § 15064.4). As discussed in Section 23.3.2, Thresholds of Significance, this analysis uses both evaluation pathways to appropriately consider the planning and regulatory frameworks most applicable to the project's emissions sources. O&M and SWP pumping activities are covered by DWR's Update 2020, which was prepared by DWR to provide a departmental strategy for meeting the State's 2030 and 2045 emissions reduction goals articulated in SB 32 and EO B-55-18 (and subsequently, AB 1279), respectively. Update 2020 is a plan for the reduction of GHG emissions and as such, GHG emissions from project O&M and SWP pumping activities are eligible to tier from the environmental document (California Department of Water Resources 2020b) for Update 2020 to evaluate project-level significance. Construction of the Project is not covered by DWR's Update 2020 and, therefore, is not eligible for tiering to evaluate whether project-level GHG emissions would result in a significant impact under CEQA. Accordingly, this analysis evaluates the significance of GHG emissions resulting from construction and displaced purchases of CVP electricity against a net zero threshold. As discussed in Section 23.3.2, Thresholds of Significance, a net zero threshold was selected by DWR given the project's long-term implementation timeframe and in recognition of scientific evidence that concludes carbon neutrality must be achieved by mid-century to avoid the most severe climate change impacts. While by different mechanisms, both pathways assess the Project against the larger threshold of carbon neutrality by 2045 (or earlier), as discussed below, which is consistent with the State's long-term climate change goal and emissions reduction trajectory (AB 1279 and EO B-55-18).

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
				The Project would not affect DWR's established emissions reduction goals or baseline (1990) emissions and therefore would not result in a change in total DWR emissions that would be considered significant. The Project would not conflict with any of DWR's specific action GHG emissions reduction measures and implements all applicable project-level GHG emissions reduction measures as set forth in Update 2020. The Project is, therefore, consistent with the analysis performed in Update 2020. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact AQ-10: Result in Impacts on Global Climate Change from Land Use Change	Significant	MM CMP: Compensatory Mitigation Plan	Less Than Significant	The impact would be less than significant under CEQA for the Project because cumulative emissions from land use change are projected to decrease relative to baseline by 2070. Initial construction activities would result in GHG increases early in project implementation. The Project would achieve a yearly net negative emissions rate approximately 4 to 6 years after groundbreaking, and a cumulative net negative GHG impact 15 to 28 years later. As shown in Table 23-76, cumulative net reductions projected through 2070 are estimated to range from 16,235 to 30,150 metric tons CO2e for the Project. Because cumulative GHG emissions from land use change would not exceed net zero, the project would not result in a significant impact on GHG emissions or impede DWR's or the state's ability to achieve their GHG reduction goals. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Hazards, Hazardous Materials, and Wildfire				
Impact HAZ-2: Create a Significant Hazard to the Public or the Environment through Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment	Significant	MM HAZ-2: Perform a Phase I Environmental Site Assessment Prior to Construction Activities and Remediate	Less Than Significant	Overall, considering the potential for release of hazardous materials during construction, operations and maintenance of the Project, the potential exists for accidental spills and exposure to hazardous materials to occur. The environmental commitments could partially reduce impacts related to hazardous materials but not to a less-than-significant level because of the uncertainty that exists about the locations and nature of potential hazardous materials sites and the potential for construction worker and public exposure to hazardous materials. Implementing Mitigation Measure HAZ-2: Perform a Phase I Environmental Site Assessment Prior to Construction Activities and Remediate would include a Phase I environmental site assessment before construction, the identification and evaluation of potential sites of concern within the construction footprint, and the development of a remediation plan before construction and operations commence. This would reduce all impacts related to accidental release of hazardous materials into the environment to a less-than-significant level with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact HAZ-4: Be Located on a Site That Is Included on a List of Hazardous Materials Sites Compiled Pursuant to Government Code Section 65962.5 and, as a Result, Create a Substantial Hazard to the Public or the Environment	Significant	MM HAZ-2: Perform a Phase I Environmental Site Assessment Prior to Construction Activities and Remediate	Less Than Significant	The Project would construct facilities on or near known Cortese List sites. Ground-disturbing activities and dewatering at or near sites that have not been fully remediated could expose workers and the public to contaminated soil and/or groundwater resulting in adverse health effects. The potential for exposure during construction would be a significant impact because of the proximity of these sites to Project and the potential for hazardous materials exposure during site excavation and grading. Operations and maintenance activities of the Project would not result in employee exposure because a plan (e.g., Environmental Site Assessment) for remediating hazardous sites would be implemented prior to project operations. Mitigation Measure HAZ-2: Perform a Phase I Environmental Site Assessment Prior to Construction

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
				Activities and Remediate would reduce the potential for significant impacts to a less-than-significant level by requiring preconstruction investigations and remediation to reduce the potential for encountering contaminants and other hazardous materials at construction sites. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact HAZ-5: Result in a Safety Hazard Associated with an Airport or Private Airstrip	Significant	MM HAZ-5: Wildlife Hazards Management Plan and Wildlife Deterrents	Less Than Significant	Airspace safety hazards occur when project components, such as buildings or construction equipment, encroach on the airspace of an airport runway. The locations of airports within 2 miles of the Project are shown on Figure 25-5. Eleven airports are within 2 miles of the construction footprint. No aspect of the Project would include equipment or structures that would be taller than 200 feet. Also pursuant to the State Aeronautics Act, DWR would adhere to FAA and Caltrans recommendations and comply with the recommendations of the OE/AAA. In areas where the project intersects with the Byron Airport influence area, construction of structures more than 100 feet above ground level could cause an obstruction or hazard to air navigation. However, construction would not introduce equipment or temporary structures in locations that could obstruct an airport or conflict with airport land uses. In addition, consultation with the Contra Costa Airport Land Use Commission would ensure that potential impacts of airspace interference would be reduced. As such, impacts on airports within 2 miles of the construction footprint due to construction of the Project would be less than significant. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Impact HAZ-6: Impair Implementation of or Physically Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan	Significant	MM TRANS-1: Implement Site-Specific Construction Transportation Demand Management Plan and Transportation Management Plan	Less Than Significant	With Mitigation Measure TRANS-1, additional evaluations and discussions with local agencies would be required during the design phase to determine the most appropriate method to coordinate between project-provided emergency response services at the construction sites and integration with local agencies. Because project construction would not take place without a Transportation Demand Management Plan and good-faith coordination with local agencies on appropriate emergency response services, impacts from construction or operations and maintenance of any of the alternatives would be reduced to less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Public Health				
Impact PH-1: Increase in Vector-Borne Diseases	Significant	MM PH-1a: Avoid Creating Areas of Standing Water During Preconstruction Future Field Investigations and Project Construction MM PH-1b: Develop and Implement a Mosquito Management Plan for Compensatory Mitigation Sites on Bouldin Island and at I-5 Ponds	Less Than Significant	Operation and maintenance of the water conveyance facilities would not be expected to result in the creation of potentially suitable mosquito breeding habitat and thus would not likely increase the public's exposure to vector-borne diseases in the study area relative to existing conditions. Mitigation Measure PH-1a: Avoid Creating Areas of Standing Water During Preconstruction, Field Investigations, and Project Construction would minimize the potential for any impact on public health related to increasing suitable vector habitat within the study area during construction and reduce this impact to a less-than-significant level by reducing suitable mosquito habitat at Project facilities.

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA	Proposed Mitigation	Impact Conclusion After Mitigation- CEQA	Findings of Fact
				Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.
Paleontological Resources				
Impact PALEO-1: Cause Destruction of a Unique Paleontological Resource as a Result of Surface Ground Disturbance	Significant	MM PALEO-1a: Prepare and Implement a Monitoring and Mitigation Plan for Paleontological Resources MM PALEO-1b: Educate Construction Personnel in Recognizing Fossil Material	Less Than Significant	The potential for destruction of unique paleontological resources, as defined in Section 28.3.2, Thresholds of Significance, in those portions of the study area affected by project construction would constitute a significant impact under CEQA because excavation for project facilities would occur in locations known to be sensitive for paleontological resources and localized project excavation would be considerable. Mitigation Measures PALEO-1a: Prepare and Implement a Monitoring and Mitigation Plan for Paleontological Resources, and PALEO-1b: Educate Construction Personnel in Recognizing Fossil Material would reduce the impacts to a less-than-significant level by ensuring that a qualified professional paleontologist would develop a monitoring and mitigation plan and determine which activities would occur in units sensitive for paleontological resources; educating construction personnel in recognizing paleontological resources; and having qualified monitors in place to monitor for paleontological resources and temporarily stop construction (per the PRMMP) should paleontological resources be discovered. For excavation at the tunnel shafts where in situ monitoring cannot occur, the shaft spoils would be monitored. The level of impact for all alignment alternatives would be similar but would vary in magnitude based on the amount of excavation that would occur (Table 28-4). In summary, the impacts of surface-related ground disturbance would be less than significant with mitigation. Findings: Changes or alterations have been required in, or incorporated into, the project that avoid the significant environmental effect as identified in the Final EIR. Impacts will be less than significant with mitigation.

Table 3: Project Impacts that are Less-than-Significant/No Impact Before Mitigation

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA
Flood Protection	
Impact FP-1: Cause a Substantial Increase in Water Surface Elevations of the Sacramento River between the American River Confluence and Sutter Slough	Less than Significant
Impact FP-2: Alter the Existing Drainage Pattern of the Site or Area, including through the Alteration of the Course of a Stream or River, or Substantially Increase the Rate or Amount of Surface Runoff in a Manner That Would Result in Flooding On- or Off-Site or Impede or Redirect Flood Flows	Less than Significant
Groundwater	
Impact GW-1: Changes in Stream Gains or Losses in Various Interconnected Stream Reaches	Less than Significant
Impact GW-2: Changes in Groundwater Elevations	Less than Significant
Impact GW-3: Reduction in Groundwater Levels Affecting Supply Wells	Less than Significant
Impact GW-4: Changes to Long-Term Change in Groundwater Storage	Less than Significant
Impact GW-5: Increases in Groundwater Elevations near Project Intake Facilities Affecting Agricultural Drainage	Less than Significant
Impact GW-6: Damage to Major Conveyance Facilities Resulting from Land Subsidence	Less than Significant
Impact GW-7: Degradation of Groundwater Quality	Less than Significant
Water Quality	
Impact WQ-1: Impacts on Water Quality Resulting from Construction of the Water Conveyance Facilities	Less than Significant
Impact WQ-2: Effects on Boron Resulting from Facility Operations and Maintenance	Less than Significant
Impact WQ-3: Effects on Bromide Resulting from Facility Operations and Maintenance	Less than Significant
Impact WQ-4: Effects on Chloride Resulting from Facility Operations and Maintenance	Less than Significant
Impact WQ-5: Effects on Electrical Conductivity Resulting from Facility Operations and Maintenance	Less than Significant
Impact WQ-7: Effects on Nutrients Resulting from Facility Operations and Maintenance	Less than Significant
Impact WQ-8: Effects on Organic Carbon Resulting from Facility Operations and Maintenance	Less than Significant
Impact WQ-9: Effects on Dissolved Oxygen Resulting from Facility Operations and Maintenance	Less than Significant
Impact WQ-10: Effects on Selenium Resulting from Facility Operations and Maintenance	Less than Significant
Impact WQ-11: Effects on Pesticides Resulting from Facility Operations and Maintenance	Less than Significant
Impact WQ-12: Effects on Trace Metals Resulting from Facility Operations and Maintenance	Less than Significant
Impact WQ-13: Effects on Turbidity/Total Suspended Solids Resulting from Facility Operations and Maintenance	Less than Significant
Impact WQ-14: Effects on Cyanobacteria Harmful Algal Blooms Resulting from Facility Operations and Maintenance	Less than Significant
Impact WQ-15: Risk of Release of Pollutants from Inundation of Project Facilities	Less than Significant
Impact WQ-16: Effects on Drainage Patterns as a Result of Project Facilities	Less than Significant
Impact WQ-17: Consistency with Water Quality Control Plans	No Impact
Geology and Seismicity	
Impact GEO-1: Loss of Property, Personal Injury, or Death from Structural Failure Resulting from Rupture of a Known Earthquake Fault or Based on Other Substantial Evidence of a Known Fault	Less than Significant
Impact GEO-2: Loss of Property, Personal Injury, or Death from Strong Earthquake-Induced Ground Shaking	Less than Significant
Impact GEO-3: Loss of Property, Personal Injury, or Death from Earthquake-Induced Ground Failure, including Liquefaction and Related Ground Effects	Less than Significant

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA
Impact GEO-4: Loss of Property, Personal Injury, or Death from Ground Settlement, Slope Instability, or Other Ground Failure	Less than Significant
Impact GEO-5: Loss of Property, Personal Injury, or Death from Structural Failure Resulting from Project-Related Ground Motions	Less than Significant
Impact GEO-6: Loss of Property, Personal Injury, or Death from Seiche or Tsunami	Less than Significant
Soils	
Impact SOILS-1: Accelerated Soil Erosion Caused by Vegetation Removal and Other Disturbances as a Result of Constructing the Proposed Water Conveyance Facilities	Less than Significant
Impact SOILS-2: Loss of Topsoil from Excavation, Overcovering, and Inundation as a Result of Constructing the Proposed Water Conveyance Facilities	Less than Significant
Impact SOILS-3: Property Loss, Personal Injury, or Death from Instability, Failure, and Damage as a Result of Constructing the Proposed Water Conveyance Facilities on or in Soils Subject to Subsidence	Less than Significant
Impact SOILS-4: Risk to Life and Property as a Result of Constructing the Proposed Water Conveyance Facilities in Areas of Expansive or Corrosive Soils	Less than Significant
Fish and Aquatic Resources	
Impact AQUA-4: Effects of Operations and Maintenance of Water Conveyance Facilities on Central Valley Fall-Run/Late Fall–Run Chinook Salmon	Less than Significant
Impact AQUA-8: Effects of Operations and Maintenance of Water Conveyance Facilities on Southern DPS Green Sturgeon	Less than Significant
Impact AQUA-9: Effects of Operations and Maintenance of Water Conveyance Facilities on White Sturgeon	Less than Significant
Impact AQUA-10: Effects of Operations and Maintenance of Water Conveyance Facilities on Pacific Lamprey and River Lamprey	Less than Significant
Impact AQUA-11: Effects of Operations and Maintenance of Water Conveyance Facilities on Native Minnows (Sacramento Hitch, Sacramento Splittail, Hardhead, and Central California Roach)	Less than Significant
Impact AQUA-12: Effects of Operations and Maintenance of Water Conveyance Facilities on Starry Flounder	Less than Significant
Impact AQUA-13: Effects of Operations and Maintenance of Water Conveyance Facilities on Northern Anchovy	Less than Significant
Impact AQUA-14: Effects of Operations and Maintenance of Water Conveyance Facilities on Striped Bass	Less than Significant
Impact AQUA-15: Effects of Operations and Maintenance of Water Conveyance Facilities on American Shad	Less than Significant
Impact AQUA-16: Effects of Operations and Maintenance of Water Conveyance Facilities on Threadfin Shad	Less than Significant
Impact AQUA-17: Effects of Operations and Maintenance of Water Conveyance Facilities on Black Bass	Less than Significant
Impact AQUA-18: Effects of Operations and Maintenance of Water Conveyance Facilities on California Bay Shrimp	Less than Significant
Impact AQUA-19: Effects of Operations and Maintenance of Water Conveyance Facilities on Southern Resident Killer Whale	Less than Significant
Impact AQUA-20: Effects of Construction of Water Conveyance Facilities on California Sea Lion	Less than Significant
Terrestrial Biological Resources	
Impact BIO-6: Impacts of the Project on Nontidal Brackish Emergent Wetland	No Impact
Impact BIO-15: Impacts of the Project on Conservancy Fairy Shrimp	No Impact
Impact BIO-17: Impacts of the Project on Sacramento and Antioch Dunes Anthicid Beetles	No Impact
Impact BIO-19: Impacts of the Project on Delta Green Ground Beetle	No Impact
Impact BIO-43: Impacts of the Project on Suisun Song Sparrow and Saltmarsh Common Yellowthroat	No Impact
Impact BIO-49: Impacts of the Project on Salt Marsh Harvest Mouse	No Impact
Impact BIO-50: Impacts of the Project on Riparian Brush Rabbit	No Impact
Impact BIO-52: Impacts of Invasive Species Resulting from Project Construction and Operations on Established Vegetation	Less than Significant
Impact BIO-57: Impacts of the Project on Monarch Butterfly	Less than Significant
Land Use	
Impact LU-1: Displacement of Existing Structures and Residences and Effects on Population and Housing	Less than Significant

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA
Impact LU-2: Incompatibility with Applicable Land Use Designations, Goals, and Policies, Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect as a Result of the Project	Less than Significant
Impact LU-3: Create Physical Structures Adjacent to and through a Portion of an Existing Community that Would Physically Divide the Community as a Result of the Project	No Impact
Impact REC-1: Increase the Use of Existing Neighborhood and Regional Parks or Other Recreational Facilities Such That Substantial Physical Deterioration of the Facility Would Occur or Be Accelerated	Less than Significant
Transportation	
Impact TRANS-2: Conflict with a Program, Plan, Ordinance, or Policy Addressing the Circulation System	Less than Significant
Impact TRANS-5: Potential Effects on Marine Navigation Caused by Construction, Operation, and Maintenance of Intakes	Less than Significant
Public Services and Utilities	
Impact UT-1: Result in Substantial Physical Impacts Associated with the Provision of, or the Need for, New or Physically Altered Governmental Facilities, the Construction of Which Could Cause Significant Environmental Impacts on Public Services Including Police Protection, Fire Protection, Public Schools, and Other Public Facilities (e.g., Libraries, Hospitals)	Less than Significant
Impact UT-2: Require or Result in the Relocation or Construction of New or Expanded Service System Infrastructure, the Construction or Relocation of Which Could Cause Significant Environmental Impacts for Any Service Systems Such as Water, Wastewater Treatment, Stormwater Drainage, Electric Power Facilities, Natural Gas Facilities, and Telecommunications Facilities	Less than Significant
Impact UT-3: Exceed the Capacity of the Wastewater Treatment Provider(s) that Would Serve the Alternative's Anticipated Demand in Addition to the Provider's Existing Commitments	Less than Significant
Impact UT-4: Generate Solid Waste in Excess of Federal, State or Local Standards, or Be in Excess of the Capacity of Local Infrastructure, or Otherwise Impair the Attainment of Solid Waste Reduction Goals	Less than Significant
Energy	
Impact ENG-1: Result in Substantial Significant Environmental Impacts Due to Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources during Project Construction or Operation	Less than Significant
Impact ENG-2: Conflict with or Obstruct Any State/Local Plan, Goal, Objective, or Policy for Renewable Energy or Energy Efficiency	No Impact
Air Quality and Greenhouse Gases	
Impact AQ-4: Result in Impacts on Air Quality within the Yolo-Solano Air Quality Management District	Less than Significant
Impact AQ-6: Result in Exposure of Sensitive Receptors to Substantial Toxic Air Contaminant Emissions	Less than Significant
Impact AQ-7: Result in Exposure of Sensitive Receptors to Asbestos, Lead-Based Paint, or Fungal Spores That Cause Valley Fever	Less than Significant
Impact AQ-8: Result in Exposure of Sensitive Receptors to Substantial Odor Emissions	Less than Significant
Impact AQ-10: Result in Impacts on Global Climate Change from Land Use Change	Less than Significant
Noise and Vibration	
Impact NOI-2: Generate Excessive Groundborne Vibration or Groundborne Noise Levels	Less than Significant
Impact NOI-3: Place Project-Related Activities in the Vicinity of a Private Airstrip or an Airport Land Use Plan, or, Where Such a Plan Has Not Been Adopted, within 2 Miles of a Public Airport or Public Use Airport, Resulting in Exposure of People Residing or Working in the Project Area to Excessive Noise Levels	No Impact
Hazards, Hazardous Materials, and Wildfire	
Impact HAZ-1: Create a Substantial Hazard to the Public or the Environment through the Routine Transport, Use, or Disposal of Hazardous Materials	Less than Significant
Impact HAZ-3: Expose Sensitive Receptors at an Existing or Proposed School Located within 0.25 Mile of Project Facilities to Hazardous Materials, Substances, or Waste	No Impact
Impact HAZ-5: Result in a Safety Hazard Associated with an Airport or Private Airstrip	Less than Significant
Impact HAZ-7: Expose People or Structures, Either Directly or Indirectly, to a Substantial Risk of Loss, Injury, or Death Involving Wildland Fires	Less than Significant

Potential Project Impact	Impact Conclusions Before Mitigation- CEQA
Public Health	
Impact PH-2: Exceedance(s) of Water Quality Criteria for Constituents of Concern Such That Drinking Water Quality May Be Affected	Less than Significant
Impact PH-3: Substantial Mobilization of or Increase in Constituents Known to Bioaccumulate	Less than Significant
Impact PH-4: Adversely Affect Public Health Due to Exposing Sensitive Receptors to New Sources of EMF	Less than Significant
Impact PH-5: Impact Public Health Due to an Increase in Microcystis Bloom Formation	Less than Significant
Mineral Resources	
Impact MIN-1: Loss of Availability of Locally Important Natural Gas Wells as a Result of the Project	No Impact
Impact MIN-2: Loss of Availability of Extraction Potential from Natural Gas Fields as a Result of the Project	No Impact
Impact MIN-3: Loss of Availability of Locally Important Aggregate Resources (Mines and MRZs) as a Result of the Project	No Impact
Impact MIN-4: Loss of Availability of Locally Important Aggregate Resources as a Result of the Project	No Impact

1

Attachment 2

Statement of Overriding Considerations

California Public Resources Code section 21081, subdivision (b), and State CEQA Guidelines section 15093 provide that when a public agency's decision-making body approves a project that may have potentially significant, unavoidable environmental impacts identified in an environmental impact report, the decision-making body must state in writing why the potentially significant and unavoidable impacts are acceptable given environmental, economic, legal, social, technological, or other considerations.

The Metropolitan Water District of Southern California (Metropolitan) is considering approval of an amendment to the Agreement for the Advance or Contribution of Money to the Department of Water Resources by the Metropolitan Water District of Southern California to fund continued project planning, environmental permitting, design and engineering, and data collection and field work investigations, including ground-disturbing geotechnical work, water quality and hydrogeologic investigations, agronomic testing and the installation of monitoring equipment planned for calendar years 2026 through 2027 (collectively, preconstruction work) that will guide the ultimate design, appropriate construction methods, and monitoring programs for the Department of Water Resources' (DWR's) Delta Conveyance Project (DCP). The DCP comprises two new fish-screened water intakes, conveyance, and pumping facilities in the Sacramento-San Joaquin Delta (Delta) designed to address risks to State Water Project (SWP) supplies from climate change, sea level rise, earthquakes and regulations restricting south-Delta SWP pumping. Metropolitan is not considering approval of the DCP, nor is Metropolitan committing to a future approval of the DCP by approving the preconstruction work.

DWR prepared and certified a Final Environmental Impact Report (Final EIR) (State Clearinghouse Number 2020010227) that analyzed the potential environmental impacts of the DCP, inclusive of potential impacts associated with the preconstruction work. (Available at Final EIR document (deltaconveyanceproject.com.). DWR also adopted a Mitigation Monitoring and
Reporting Program (MMRP) to address potentially significant project impacts. (Available at 04_DCP_MMRP_ADA.pdf | Powered by Box.)

The Final EIR concluded that the DCP, inclusive of the preconstruction work, may have significant and unavoidable impacts on the environment, and these impacts are listed below and prefaced by their identification number from the Final EIR:

- Impact AG-1: Convert a Substantial Amount of Prime Farmland, Unique Farmland, Farmland of Local Importance, or Farmland of Statewide Importance as a Result of Construction of Water Conveyance Facilities
- Impact AG-2: Convert a Substantial Amount of Land Subject to Williamson Act Contract or under Contract in Farmland Security Zones to a Nonagricultural Use as a Result of Construction of Water Conveyance Facilities
- Impact AES-1: Substantially Degrade the Existing Visual Character or Quality of Public Views (from Publicly Accessible Vantage Points) of the Construction Sites and Visible Permanent Facilities and Their Surroundings in Nonurbanized Areas
- Impact AES-2: Substantially Damage Scenic Resources including, but Not Limited to,

Trees, Rock Outcroppings, and Historic Buildings Visible from a State Scenic Highway

- Impact AES-3: Have Substantial Significant Impacts on Scenic Vistas
- Impact CUL-1: Impacts on Built-Environment Historical Resources Resulting from Construction and Operation of the Project
- Impact CUL-2: Impacts on Unidentified and Unevaluated Built-Environment Historical Resources Resulting from Construction and Operation of the Project
- Impact CUL-3: Impacts on Identified Archaeological Resources Resulting from the Project
- Impact CUL-4: Impacts on Unidentified Archaeological Resources That May Be Encountered During the Project
- Impact CUL-5: Impacts on Buried Human Remains
- Impact TRANS-1: Increased Average VMT Per Construction Employee versus Regional Average
- Impact AQ-5: Result in Exposure of Sensitive Receptors to Substantial Localized Criteria Pollutant Emissions
- Impact NOI-1: Generate a Substantial Temporary or Permanent Increase in Ambient Noise Levels in the Vicinity of the Project in Excess of Standards Established in the Local General Plan or Noise Ordinance, or Applicable Standards of Other Agencies
- Impact PALEO-2: Cause Destruction of a Unique Paleontological Resource as a Result of Tunnel Construction and Ground Improvement
- Impact TCR-1: Impacts on the Delta Tribal Cultural Landscape Tribal Cultural Resource Resulting from Construction, Operations, and Maintenance of the Project Alternatives
- Impact TCR-2: Impacts on Individual Tribal Cultural Resources Resulting from Construction, Operations, and Maintenance of the Project Alternatives

In the judgment of the Board of Directors, given the benefits of the DCP[1] and the need for the preconstruction work to advance its permitting, design and engineering, each benefit of the preconstruction work, as set forth below, outweighs – both individually and collectively – the preconstruction work's contribution, if any, to each of the potentially significant and unavoidable impacts DWR identified for the DCP.

1. **The DCP, which cannot be developed without the preconstruction work, would mitigate the risk to the reliability of SWP water deliveries south of the Delta from salinity intrusion in the wake of an earthquake**. The SWP's primary purpose is to supply water to local and regional water suppliers, including Metropolitan, across California that supply water to member agencies or end users engaged in the beneficial uses of that water. Historically, thirty percent of Metropolitan's imported water supplies come from the SWP on a long-term average basis, and Metropolitan relies on the relatively low salinity of SWP

[1] "[T]he benefits that a public agency may consider in deciding whether to approve a part of a larger project as a responsible agency include the benefits of the project as a whole." (*Marina Coast Water Dist. v. County of Monterey* (2023) 96 Cal.App.5th 46, 85.)

supplies to manage salinity in its blended supplies while some members rely on it for conjunctive use of groundwater. The current SWP system relies heavily on natural channels within the Delta to convey water and is vulnerable to seismic events because most land in the central Delta has subsided well below sea level. If levees fail because of a seismic event, seawater intrusion from the western Delta could create salinity conditions that could require ceasing diversions from the SWP's current point of diversion in the south Delta. The capability of the DCP to continue operations would improve the ability of SWP Delta facilities to function after a seismic event by operating new diversion facilities on the Sacramento River in the north Delta, conveying the water to a new pumping plant in the south Delta via a tunnel, and lifting the water into the Bethany Reservoir at the beginning of the California Aqueduct. The new intakes and tunnel would be designed to withstand significant seismic events such that the DCP could provide water even if there were massive levee failures in the Delta.

2. **The DCP, which cannot be developed without the preconstruction work, would protect the reliability of SWP water deliveries south of the Delta by addressing reasonably foreseeable consequences of climate change and extreme weather events**. The DCP is part of the State of California's strategy to adapt the SWP water supply to climate change. As described in the Final EIR certified for the DCP, Volume 1, Chapter 30, *Climate Change*, projected future conditions under climate change, such as higher average temperature and more extreme variability in annual precipitation patterns, is anticipated to further diminish overall water supply and reliability of water delivery to Metropolitan. Under a 2070 climate change scenario with 1.8 feet of sea level rise at Golden Gate Bridge, DWR modeling shows a nearly 600,000 acre-foot or 22-percent decrease in long-term average SWP supplies without the DCP. (Berkeley Research Group, Benefit-Cost Analysis of the Delta Conveyance Project, Table 2, Existing Conditions and Main Scenario, available at 21-3411 - 06102024 OWS 6a - DCP Benefit-Cost Analysis (legistar.com).) The same modeling shows the DCP would mitigate about 400,000 AF of that impact on a long-term average basis. In addition, Climate change is already taking a toll on California's water supplies in the form of more frequent and more severe droughts. A warmer atmosphere would modify precipitation and runoff patterns, shifting runoff earlier in the year, and affect extreme hydrologic events like floods and droughts. It is anticipated that droughts would increase in severity and duration, resulting in periods of critical dryness, further reducing Delta inflows during these dry periods. At the same time, associated increases in the frequency and severity of flashy storms in the cool season could increase high-flow events and flood risk in the Delta. These trends point to the need for alternate methods of water diversion and conveyance to effectively respond to changing water flow regimes under future climate change. The Final EIR, DCP Benefit-Cost Analysis, and "hindcast" modeling of past water years[2] show that the DCP would increase resiliency in managing combined effects of climate change and sea level rise, including changes to timing and quantity of seasonal runoff, even in severe drought years, while meeting water quality and endangered species regulations and permits. As water demand and supply challenges continue to increase, the DCP is designed to enhance resilience to climate change impacts and ensure that safe and reliable water deliveries to Metropolitan continue far into the future.

3. **The DCP, which cannot be developed without the preconstruction work, would restore and protect the reliability of State Water Project water deliveries south of the Delta by**

[2] See DWR's Adapting to Climate Change: Catching and Moving Water from Big Storms, available at Adapting to Climate Change: Catching and Moving Water from Big Storms and slides 16-17 of staff's presentation on Item 6a at the October 7, 2024 One Water and Stewardship Committee meeting, available at 21-3876 - 10072024 OWS 6a Presentation (legistar.com).

addressing sea level rise. The DCP would protect Metropolitan's SWP water supplies by facilitating adaption to sea level rise. As sea levels rise, salinity will intrude further into the Delta, degrading water quality over the long term. As described in Final EIR, Volume 1, Appendix 6A, *Water Supply 2040 Analysis* and the Benefit-Cost Analysis of the Delta Conveyance Project, the DCP would improve SWP water supply reliability under current and future conditions, including extreme high sea level rise. As Metropolitan relies on SWP water supply, the preconstruction work, and the DCP that it would enable, would provide significant benefits to Metropolitan.

4. **The DCP, which cannot be developed without the preconstruction work, would restore and protect the reliability of State Water Project water deliveries south of the Delta by addressing regulatory constraints on south Delta water exports.** By adding two new fish-screened water intakes on the Sacramento River in the north Delta, the DCP would enable more flexible SWP operations such that if sensitive fish species trigger pumping restrictions in the south Delta, DWR could divert in the north Delta as conditions permit, thereby reducing impacts to sensitive fish species while meeting water quality and endangered species permit terms.

5. **The preconstruction work is necessary for the cost-effective design of the DCP**. The information collected from and generated by the preconstruction work would be used to develop the DCP safely, efficiently, and in a manner that minimizes impacts to the environment. For example, the information collected would be used to develop detailed design of the DCP's structure and bridge foundations, new or modified levee cross sections, and ground improvement methodology. Information from the preconstruction work would determine selection of tunnel boring machine methods, dewatering methods and quantities, below-grade construction methods (such as at the shafts and the pumping plant), need for impact pile driving, and methods to reduce ground settlement risk at all construction sites and along the tunnel alignment. The information would also determine the specific depths and widths of groundwater cutoff walls to be installed at select construction sites. Additionally, soil samples obtained during soil borings would be analyzed to determine the structural capabilities of the soil to construct tunnel shaft pads and levee improvements, among other things. Soil and water quality tests would also be conducted to determine the potential for high concentrations of metals, organic materials, or hazardous materials that would require specific treatment and/or disposal methods. Thus, the preconstruction work would generate information to guide any construction of the DCP in a manner that would minimize its potential environmental impacts and most efficiently and cost effectively achieve the DCP's objectives.

6. **The preconstruction work is necessary to obtain a more accurate estimate of benefits and costs, which will inform Metropolitan's future decision whether to participate in its construction and operation.** The ultimate benefits and costs of the DCP continue to be refined as further planning, permitting, design and engineering information is obtained. The project costs will be refined as more information is known regarding the precise construction techniques, unique localized conditions that may increase or decrease construction costs, feasibility of potential design innovations to reduce cost or environmental impacts, and potential schedule for any future construction. In addition, the preconstruction work includes obtaining a change in point of diversion to DWR's water right permits, the terms of which may affect project benefits. Metropolitan wishes to further confirm the DCP benefits and costs to allow for more informed decision making, including a more accurate assessment of impacts to rate-payers and in relation to prudent financial planning and decision making. The preconstruction work is necessary to achieve those ends.

Through this Statement of Overriding Considerations, and based on the substantial evidence in the administrative record, including the Final EIR available at Final EIR document (deltaconveyanceproject.com) and the Berkeley Research Group, Benefit-Cost Analysis of the Delta Conveyance Project, available at 21-3411 - 06102024 OWS 6a - DCP Benefit-Cost Analysis (legistar.com), as well as past and contemporaneous Metropolitan board letters and presentations on the DCP. Metropolitan has weighed the preconstruction work's benefits against its environmental impacts and finds that the preconstruction work's contributions, if any, to the potentially significant and unavoidable environmental impacts of the DCP are acceptable given the environmental, economic, legal, social, technological, or other considerations set forth above, and that each benefit of the preconstruction work outweighs, both individually and collectively, any of its contributions to the potentially significant and unavoidable environmental impacts of the DCP.

Attachment 3 Term Sheet of Amended Funding Agreement

Although the 2020 funding agreement allows for an increase in the amount of "Contributed Funds" from participating agencies by way of a simple letter, several terms of the 2020 agreement will need to be amended or supplemented (Proposed Amended Funding Agreement) to implement the next phase of work planned in 2026-2027. Most of the elements of the 2020 agreement will remain intact.

Terms for the Proposed Amended Funding Agreement that are materially similar to the 2020 agreement between DWR and Metropolitan:

- Parties are the California Department of Water Resources and the Metropolitan Water District of Southern California.
- Funding can be spent on planning and preconstruction costs incurred by DWR and DCA for the Delta Conveyance Project.
- Metropolitan's cost share would be up to 47.2 percent of the total costs.
- If the Project is implemented, Metropolitan's planning costs could be reimbursed, at the time of DWR bond issuance.
- Any unspent pay-go funds contributed under the agreement would be returned to Metropolitan if the Project were not implemented.

Terms that may require amendment to the 2020 agreement between DWR and Metropolitan:

- An update to recitals to reflect status of the Project.
- An extended term: January 1, 2025 – December 31, 2027.
- Funds may be used to support soil and geotechnical investigations only to the extent DWR has the legal authority to conduct such activities. Funds to be used for geotechnical soil investigations shall be due only once DWR has the legal authority to conduct such activities.
- DWR and Metropolitan will meet and confer if there is a condition that materially and adversely affects the DCP's benefits and costs.
- Metropolitan may offramp future payments, after meeting and conferring with DWR, to terminate financial obligations if there is a condition that materially and adversely affects the DCP's benefits and costs during term of agreement. The DCP benefits and costs could be materially affected if implementation of planned work is prohibited, if DWR fails to secure key changes to the State Water Project's water rights, if DWR fails to obtain a ruling in DWR's favor from the Delta Stewardship Council on the appeals of the Certification of Consistency with the Delta Plan, or if an update to the Bay-Delta Water Quality Control Plan is adopted that is substantially different from the Healthy Rivers & Landscape proposal that was submitted to the State Water Resources Control Board.
- Updates to the scope of work.
- Updates to payment schedule.

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY **GAVIN NEWSOM**, *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
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November 25, 2024

Deven Upadhyay
Interim General Manager
Metropolitan Water District of Southern California
700 North Alameda Street
Los Angeles, CA 90012-2944
Email: DUpadhyay@mwdh2o.com

Re: Continued Delta Conveyance Project Planning Funding

Dear Mr. Upadhyay:

Thank you for your letter of October 24, 2024, and for your agency's thoughtful and clear approach to information gathering in advance of your board's important consideration of ongoing funding of the permitting and engineering design work for the Delta Conveyance Project.

As the climate continues to change, and precipitation patterns evolve, the urgency of our collective attention to modernizing backbone infrastructure is evident. We appreciate and value our ongoing partnership in taking prudent and necessary steps to protect the vital water supplies provided by the State Water Project.

1. **Securing Key Permits and Certifications**

   Governor Newsom has made clear his expectation that the process to obtain key permits and certifications be complete by the end of his second term and he is 100% committed to providing his support toward this end. Our schedule reflects this expectation, and we are laser-focused on completing key permits and preparing the project for future implementation on this timeline.

   There were important lessons learned following our experiences during California WaterFix and we have improved our approach accordingly. We have a very clear understanding of the steps required to approve the project and enable its implementation, including completing key regulatory processes with the State Water Resources Control Board, state and federal fishery agencies, and the Delta Stewardship Council.

   Our team has engaged with early and ongoing consultation with these regulatory agencies. We understand the value of working closely to ensure a shared understanding of information needed for submittal and shared schedule expectations. We have advanced numerous settlements with several agencies prior to the end of the protest period and, as a part of the water rights process, continue to have settlement discussions with all protestants. We are currently

seeking Delta Plan Consistency compliance to advance geotechnical investigations and continue to work with the Delta Stewardship Council on early consultation for the larger Delta Conveyance Project. We expect an Incidental Take Permit from the California Department of Fish and Wildlife before the end of the year. And we expect federal biological opinions on operations through the Long-Term Operations process before the end of the year. The biological opinions on construction will be separate and completed in early 2025.

Collaboration with MWD has been instrumental in helping to advance permitting activities and shaping our approach to compliance. We greatly appreciate your team's contributions and expertise. Our staffs' collective expertise in permit compliance is a strong guard against challenges that can and do occur during any regulatory process. These challenges are anticipated and expected and are built into our schedule and planning. DWR, working with your staff, has and will continue to respond to any new issues quickly and move the project forward.

While not anticipated, if substantial issues arise during permitting in the next few years, there will be an opportunity to pause funding and resolve issues. If MWD and other participating water agencies choose not to fund the capital construction costs, any unspent planning funds earmarked for this project will be returned. DWR completed a similar effort associated with California WaterFix and returned unspent money at the close of that process.

2. Demonstrating Proportional and Complete Planning Funding

We confirm unequivocally that no State Water Contractor participating in the Delta Conveyance Project is or will be expected to increase their established proportionate share of planning or implementation funds, unless contractors identify an interest in increasing their participation.

3. Providing a Plan to Fund and Finance Delta Conveyance Project Implementation

It is correct that there is currently a 12% gap in planning funds and we have been working diligently to identify creative ways to address all the participating agencies' needs. These potential solutions will in no way involve any agency being asked or expected to cover another participating agency's established proportionate share of the planning or implementation funds.

There are potential solutions however that are promising and we will take the needed steps to fully investigate these ideas with you, your staff, and other participating water agencies. Two such ideas are:

- Explore the potential to expand the pool of beneficiaries, including the facilitation of more efficient trades and transfers of the DCP benefits.

- Explore the potential to help remedy profound needs across the state for more secure and reliable water supplies, particularly areas of the Central Valley that are facing groundwater challenges and limited access to drinking water. These regions could potentially benefit from an expanded beneficiary opportunity.

Additionally, if there are water years that an agency's supplies are more than their local needs, they may choose to transfer excess SWP water supplies and associated costs, consistent with water law and existing water supply contracts. This flexibility will allow agencies to preserve water supplies for local needs and to transfer those excess supplies—and costs—to other parts of the state, and potentially to convert DCP water supply benefits into a source of revenue.

Lastly for this section, you've raised some interest in the Validation Case process. To be very clear, and to correct some lingering misunderstanding, the ruling from the Sacramento County Superior Court in no way prohibits the use of bond financing for the Delta Conveyance Project. While the Sacramento County Superior Court concluded that the bond resolutions were too broad the court did not conclude that DWR does not have the authority to build the project it approved in December 2023 or to issue revenue bonds to pay for it. The validation action, including appeals, was built into the schedule. DWR and the joint appellants, including MWD, are pursuing an appeal in California's Third District Court of Appeal. If the Validation Case experiences unexpected setbacks, there is an opportunity to pause funding to address those setbacks.

4. Resolving Protest Items Related to Metropolitan's Statement of Charges

Please refer to the letter on this matter dated October 29, 2024. Working with your team, we have made significant progress to resolve these protest items. While the protest resolution effort is ongoing and our understanding of the exact amount owed to MWD differs, we do acknowledge that it will be at least $75 million, which as the letter states, includes other one-time credits for Metropolitan's share of the debt service reserve fund related to the Devil Canyon Powerplant and its share of the Replacement Account Fund credit. DWR is prepared to issue that amount to MWD while the rest of the protest issues are resolved.

5. Improving Near-Term State Water Project Reliability

The 2023 Delivery Capability Report makes clear the challenges faced by the State Water Project due to climate change, sea level rise, changing precipitation patterns and important regulatory constraints. DWR is working diligently to adapt to these challenges, and to address them with efficiency.

DWR is pursuing multiple actions to ameliorate the impacts of climate change on the SWP in the near future. DWR recently received an updated Incidental Take Permit on the Long-Term Operations of the SWP; the new permit has an

improved focus on adaptive management to address changing climate and biological conditions. Near-term subsidence projects along the California Aqueduct will enable the SWP to regain capacity to move water in wetter years. Additionally, DWR has started work on multiple efforts that will help protect SWP reliability, including Forecast Informed Reservoir Operations, improvements to Delta salinity barriers, SWP water contract extensions and water management tools.

These strategies notwithstanding, additional strategy development will be needed and DWR is already working on additional options involving groundwater recharge partnerships and Feather River forest management that can provide important drought protections.

DWR will publish its first Climate Adaptation Strategy in early 2025 that will evaluate several adaptation strategies and help guide executive decision-making about the needs and capabilities of the SWP.

It is clear there is a need to enhance the management of the SWP, including operations, maintenance, nature-based solutions and structural measures. The hydrology of the 21st century is not expected to be extraordinarily dry, rather the precipitation we get will come in fewer more intense bursts and will run off earlier. We are working aggressively to identify and standardize maintenance efficiencies to ensure we can capture these bursts and make investments that allow SWP to take advantage of opportunities that come with these changes. We appreciate your staff's contributions to these strategies and will continue to work collaboratively toward feasible solutions.

Your board has asked important questions. We greatly appreciate the opportunity to provide this information and hope it has provided not only clarity but also confidence in the path forward.

Sincerely,

Karla Nemeth

Karla Nemeth
Director

cc: Jennifer Pierre, GM of the State Water Contractors

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY
GAVIN NEWSOM, *Governor*

DEPARTMENT OF WATER RESOURCES
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10/29/2024

Mr. Deven Upadhyay
Interim General Manager
Metropolitan Water District
of Southern California
700 North Alameda Street
Los Angeles, California 90012-2944

Re: State Water Project Billing Claims

Dear Interim General Manager Upadhyay:

As you know, The Metropolitan Water District of Southern California (Metropolitan) and other State Water Project Contractors (Contractors) have asserted various protests related to the annual Statement of Charges (SOC) issued for the State Water Project (SWP). The Department of Water Resources (Department) has been engaged in good faith discussions with the Contractors to address these protests as expeditiously as possible, and a significant number have now been resolved.

The final debits and credits associated with these protests is still being determined and will necessitate further discussions with the Contractors. Nonetheless, the Department's preliminary analysis of these protests in combination with other one-time credits for Metropolitan's share of the debt service reserve fund related to the Devil Canyon Powerplant and its share of the Replacement Account System fund supports issuing a refund to Metropolitan of $75 million.

Although some additional work is required to confirm and process this refund, the Department is prepared to issue it to Metropolitan no later than December 1, 2025.

The Department's issuance of this initial refund represents a significant step toward resolving the various protests asserted by Metropolitan related to the annual SOCs. The Department looks forward to continuing its work with Metropolitan and the other Contractors to resolve all outstanding protests in a fair and equitable manner. Doing so will promote our shared goal of improving and enhancing of the financial management of the SWP moving forward, but also will help position the Department and Metropolitan to meet the long-term water supply challenges California is likely to face in the coming years.

Sincerely,

Karla Nemeth

Karla Nemeth
Director

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Office of the General Manager

October 24, 2024 **EMAIL**: Karla.Nemeth@water.ca.gov

Director Karla Nemeth
Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236-0001

Dear Director Nemeth:

Continued Delta Conveyance Project Planning Funding

Over the last 50 years, the Department of Water Resources (DWR), through its State Water Project (SWP), has delivered over 44 million acre-feet of water to Metropolitan and has been vital in supporting the region's development and growth. Because of the critical role SWP supplies play in our District's supply portfolio, Metropolitan has always been a strong supporter of DWR and its efforts to protect and improve the reliability of the SWP.

Most recently at the end of 2020, Metropolitan's Board of Directors showed support for DWR and the SWP by voting to advance $160.8 million dollars to fund the environmental review, planning and associated preconstruction design and engineering of the Delta Conveyance Project (DCP). This vote and Metropolitan's ongoing development of its Climate Adaptation Master Plan for Water demonstrates Metropolitan's commitment to meeting the challenges of a changing climate.

Prior to supporting the current preconstruction activities of the DCP, Metropolitan committed funds to advance planning for the California WaterFix and the Bay-Delta Conservation Plan. Including Metropolitan's own internal costs to advance said projects, Metropolitan to date has invested over $300 million dollars in planning related to Delta conveyance solutions.

At Metropolitan's October 7, 2024, One Water and Stewardship Committee, Metropolitan directors asked important questions related to the DCP. Many of those questions must be resolved for Metropolitan to better understand the DCP's path towards implementation and prior to the Metropolitan Board of Directors considering whether to commit additional funds for DWR's preconstruction activities planned for 2026-2027.

1. Secure Key Permits and Certifications

A number of key permitting milestones have been met for the DCP, including DWR certifying a Final Environmental Impact Report. However, important planning processes are outstanding, including the issuance of an incidental take permit under the State Endangered Species Act and biological opinions under the Federal Endangered Species Act, the issuance of an order by the State Water Board permitting new diversion points required for the DCP, and the determination by the Delta Stewardship Council that the DCP is consistent with the Delta Plan. Metropolitan is seeking a clearer understanding of how DWR plans to navigate the remaining permitting and certification processes, as they are foundational to determining the ultimate viability of the DCP.

2. Demonstrate Proportional and Complete Planning Funding

It is understood that some participating SWP contractors, specifically agricultural contractors, may not commit to fund preconstruction activities for the DCP up to their proportionate share. Consequently, a planning and preconstruction funding gap for 2026-2027 has been identified, and while it is estimated to be approximately twelve percent, it is uncertain what the final percentage will be. Metropolitan cannot be expected to make up this difference. It is critical that DWR ensures that Metropolitan does not pay more than 47.2% of the planning funding.

3. Provide a Plan to Fund and Finance Delta Conveyance Project Implementation

Although the above planning and preconstruction funding gap is in the millions, if it persists to construction, the gap will be billions of dollars due to the current estimated implementation costs of approximately $20.1 billion. Also, at this stage of the project, Metropolitan cannot be expected to increase its participation amount beyond its proportionate share. It is incumbent on DWR to demonstrate how it will ensure construction of the DCP will be fully financed and funded. Metropolitan is also seeking further clarification on how the initial rulings in the validation action will allow for the ability to fund the project, which should include an explanation of how the pending validation action will be resolved in a timeframe that would allow for certainty for financing and funding.

4. Resolve Protest Items Related to Metropolitan's Statement of Charges

In October 2023, Metropolitan submitted a letter to DWR detailing unresolved protest items identified more than two decades ago. These outstanding claims have a significant financial impact on Metropolitan, its member agencies, and ultimately the ratepayers. Resolution of these items is complex. Some protest items can be resolved through a direct credit back to Metropolitan while others would require DWR to recover funds through rebilling of other State Water Contractors. Understanding these dynamics, and specifically to avoid at this time DWR making decisions that could require rebilling of others, Metropolitan requests that DWR resolve those issues raised in the protest that could result in funds being directly credited to Metropolitan. Based on audit results detailed in Metropolitan's October 2023 letter, these directly refundable protest items are tied primarily to overcollection of the Water System Revenue Bond Surcharge and total approximately $180 million dollars. Metropolitan is seeking

700 N. Alameda Street, Los Angeles, California 90012 • Mailing Address: Box 54153, Los Angeles, California 90054-0153 • Telephone (213) 217-6000

resolution of this issue to offset the financial impact of DWR's request for additional preconstruction funds for the DCP, if the Metropolitan Board of Directors decides to commit to providing its share of those funds.

5. Improve Near-Term State Water Project Reliability

According to DWR's most recent Delivery Capability Report, a changing climate could reduce the reliability of the SWP by as much as 23 percent over the next two decades. Reasonable estimates do not have the DCP completed and operational until at least 20 years from now. In the near term, it is important for DWR to demonstrate what actions it proposes to take to mitigate for the changing climate and its impact on the SWP's reliability.

In closing, thank you for your understanding and consideration of these key questions raised by Metropolitan's Board of Directors. We hope that with additional clarity and resolution of some of these issues, that Metropolitan can advance its vote in 2024 in response to DWR's request for additional preconstruction funds for the DCP.

Sincerely,

Deven Upadhyay
Interim General Manager

cc: Jennifer Pierre, GM of the State Water Contractors

One Water and Stewardship Committee

Delta Conveyance Planning & Preconstruction Funding Request for 2026-2027

Item 8-4

December 9, 2024

Item 8-4
Delta Conveyance Project Planning and Pre-construction Funding

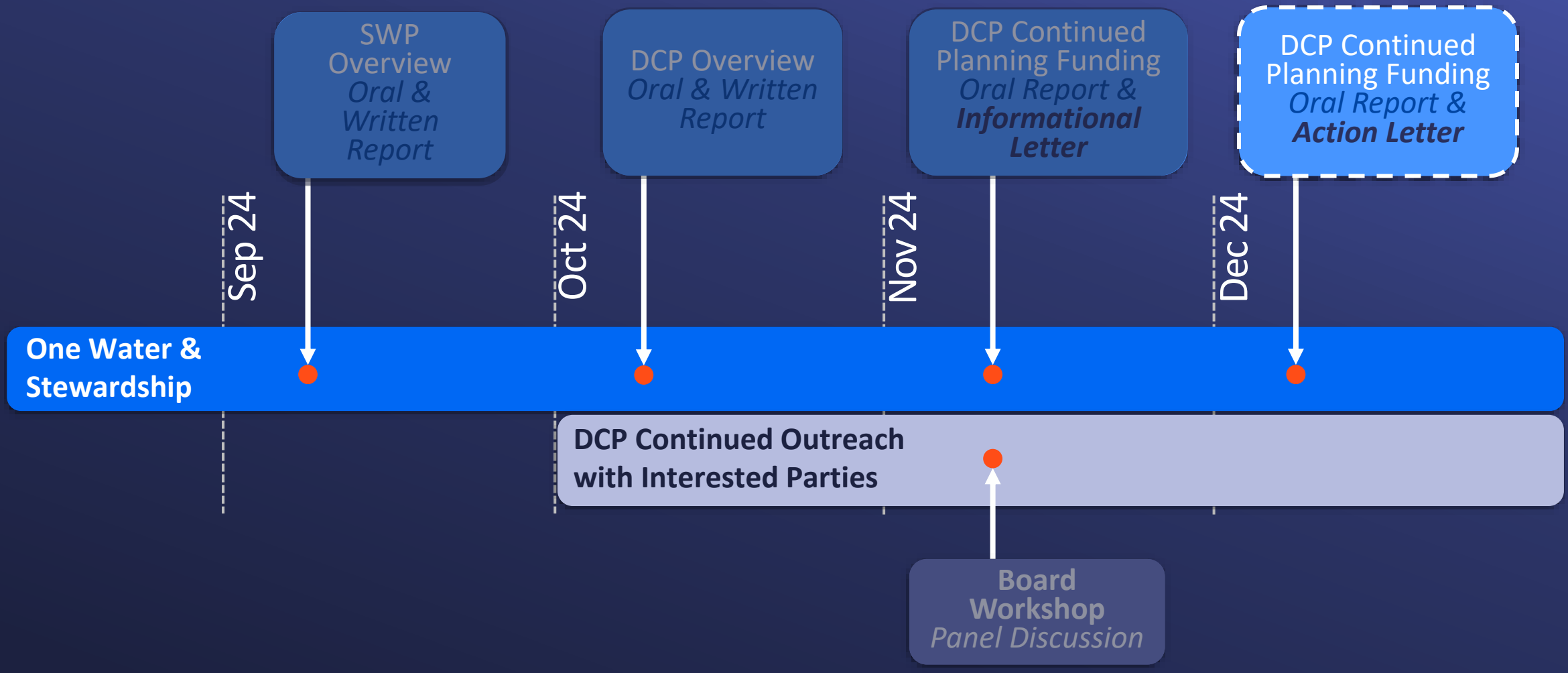
Subject
Review and consider the Lead Agency's certified 2023 Final Environmental Impact Report for the Delta Conveyance Project, take related CEQA actions, and authorize the General Manager to enter into an amended agreement for preconstruction work on the Delta Conveyance Project for 2026-2027.

Purpose
Provide additional funding for preconstruction and planning costs for the Delta Conveyance Project.

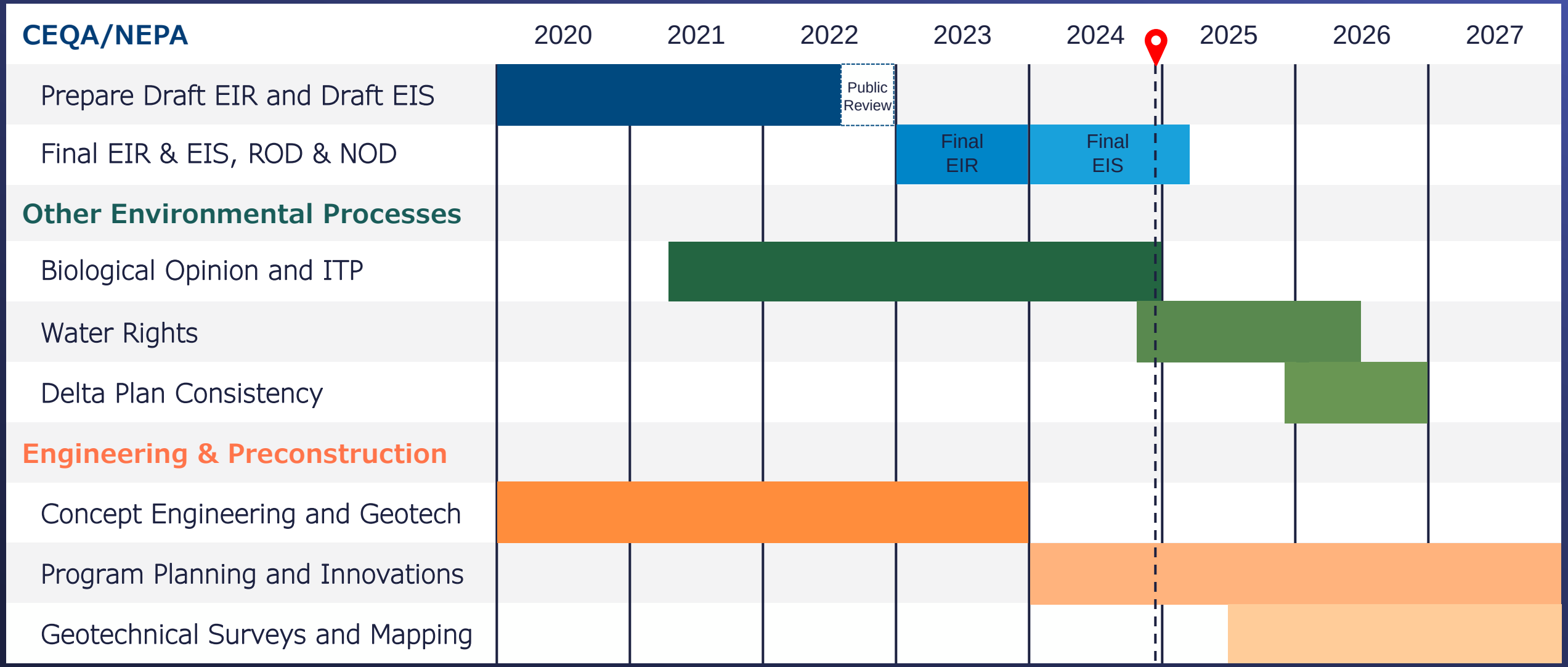
Recommendation
Authorize the General Manager to enter into an amended Delta Conveyance Project planning and preconstruction funding agreement.

Fiscal and Budget Impact
Net of DWR $75 million refund, a rate increase of 3% in 2027 would be needed to generate Metropolitan's $141.6 million share of planning costs over the next three fiscal years.

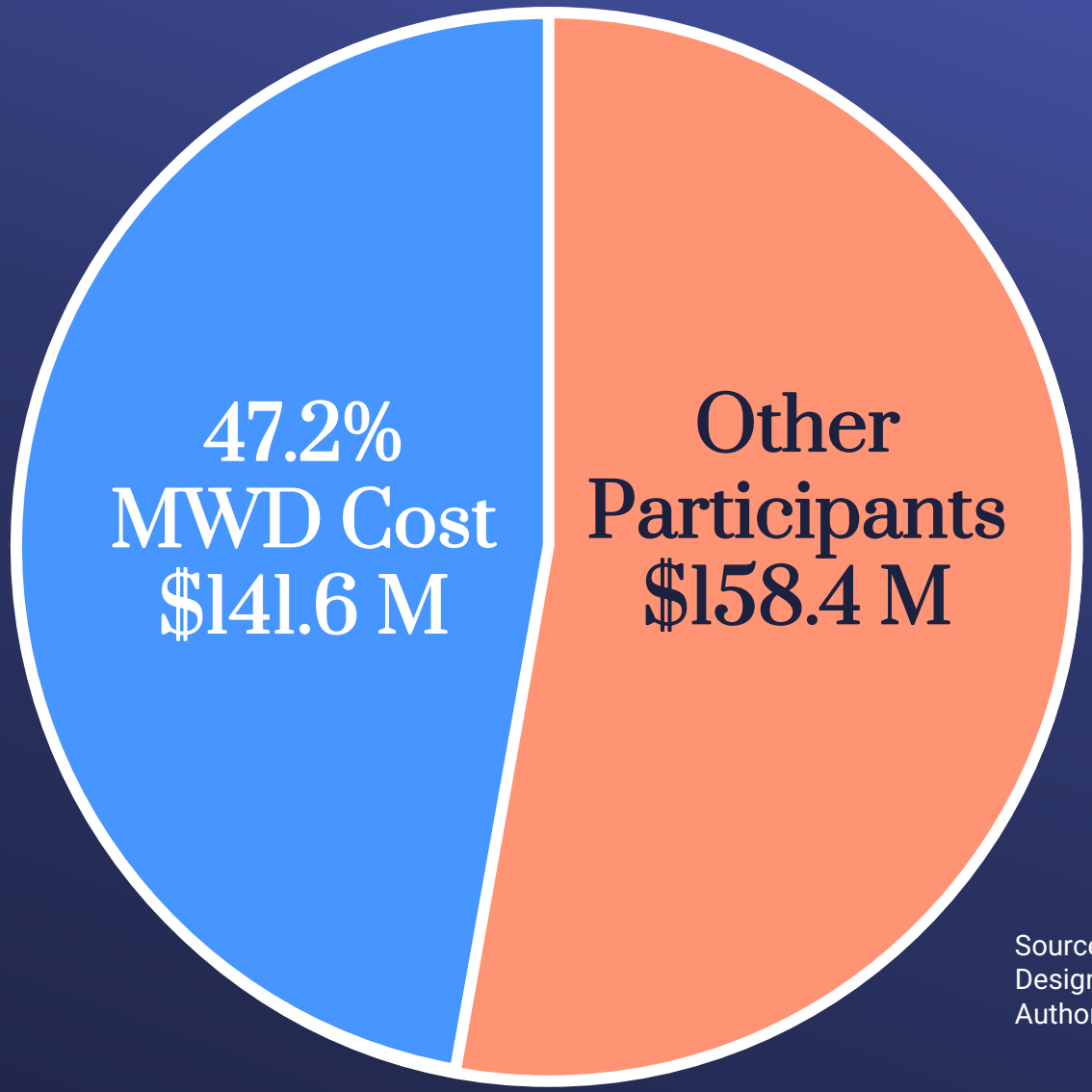
Updates and Deliberation for Continued Funding
Delta Conveyance Project Planning and Preconstruction



Delta Conveyance Planning & Preconstruction Schedule



Delta Conveyance Project Continued Planning & Preconstruction Funding



Source: Delta Conveyance Design and Construction Authority.

Planning & Preconstruction Activities Clarifications

- Permitting comprises nine percent of the total funding ask and will inform project benefits and yield
  - Operational Criteria
  - Water Rights
- Majority of funding will support geotechnical and engineering activities
  - Confirmation of ground conditions for tunneling
  - Additional engineering design innovations
  - Inform future cost estimate
- New information will be used to support future analyses and Board decision-making processes

Metropolitan's Share of DCP Planning Costs

in millions of dollars

	FY 2025/26	FY 2026/27	FY 2027/28	Total	CY 2027 Rate Impact [1]
Planning Costs – no refund offset	$25.7	$74.7	$41.3	**$141.6**	**6%**
Planning Costs net of $75M refund	$0.0	$25.3	$41.3	**$66.6**	**3%**

(1) Overall calendar year 2027 rate increase needed to generate additional revenues for DCP planning and preconstruction costs on a cash basis by June 30, 2028

DCP Participating Agencies

Note: Map not drawn to scale.

	Region	Contractors	Board Approved % Participation	
			Current	26-27
M&I	South Bay	✓Alameda County FC&WCD, Zone 7	2.2 %	2.2 %
		✓Alameda County WD	1.15 %	1.15 %
		Santa Clara Valley WD	3.23 %	
Ag	San Joaquin Valley	Dudley Ridge WD	1.02 %	
		Kern County WA	11.22 %	
M&I	Central Coastal	San Luis Obispo County FC&WCD	0.6 %	
	Southern California	Antelope Valley-East Kern WA	3.95 %	
		✓Santa Clarita Valley WA	2.6 %	2.6 %
		✓Coachella Valley WD	3.78 %	3.78 %
		✓Crestline-Lake Arrowhead WA	0.16 %	0.16 %
		✓Desert Water Agency	1.52 %	1.52 %
		Metropolitan Water District	47.2 %	
		✓Mojave Water Agency	2.45 %	2.45 %
		✓Palmdale Water District	1.06 %	1.06 %
		✓San Bernardino Valley MWD	2.8 %	2.8 %
		✓San Gabriel Valley MWD	0.79 %	0.79 %
		✓San Gorgonio Pass WA	2.0 %	2.0 %
		Ventura County WPD	0.55 %	

✓ indicates board action taken to support additional DCP planning and preconstruction activities

Member Agency Resolutions & Letters Supporting DCP

Oct 2024 - Western
Oct 2024 - Foothill
Nov 2024 - Eastern
Nov 2024 - Three Valleys
Nov 2024 - Calleguas
Nov 2024 - Las Virgenes
Nov 2024 - Upper San Gabriel
Nov 2024 - Beverly Hills
Dec 2024 - MWDOC

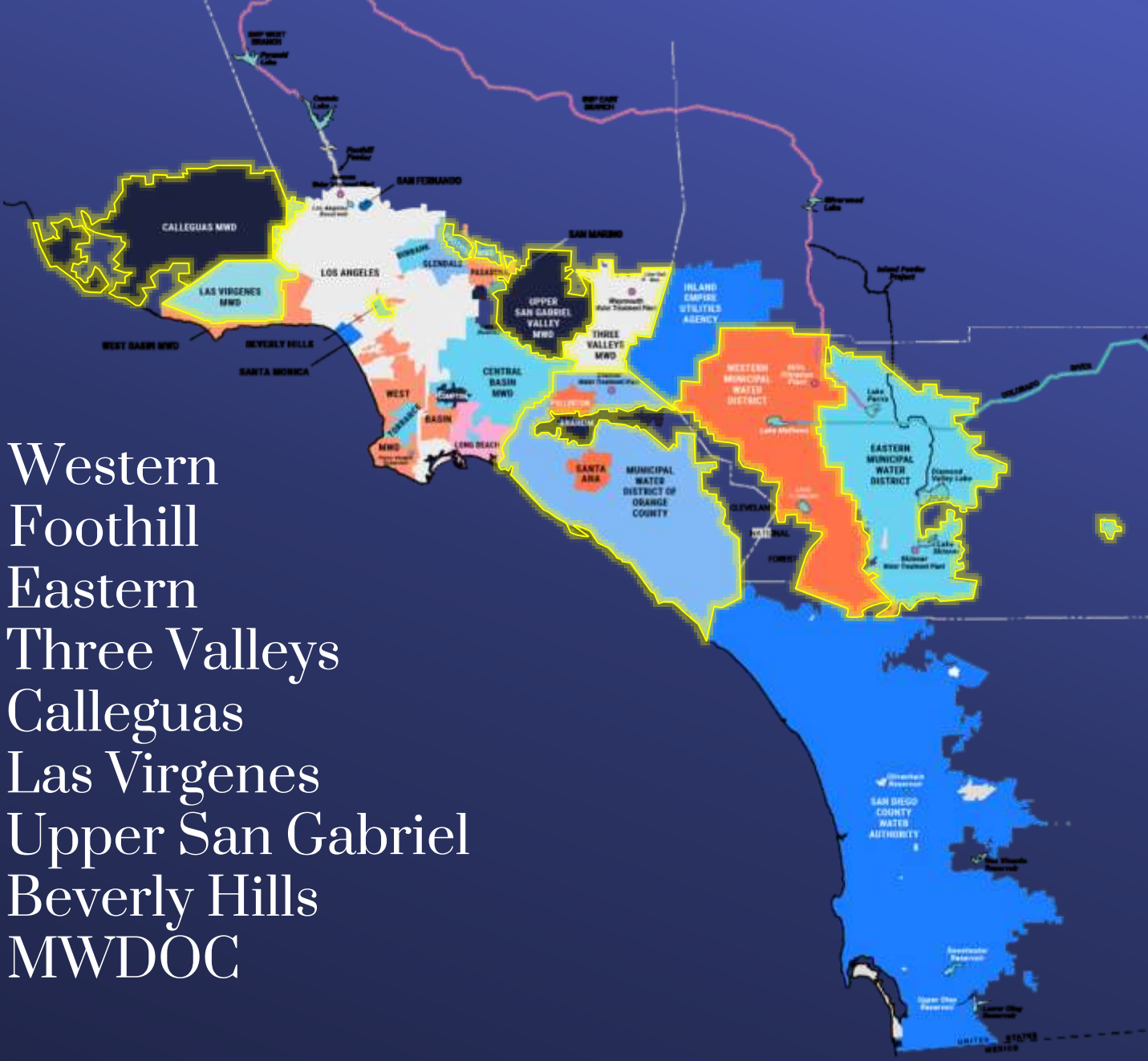



Photo Credit: DWR

Board Requested Information and Agreement Provisions

Metropolitan Letter to DWR 10/24/24 DWR Response

- Partial Resolution of MWD Protest Items
  $75 M dollar initial refund to be issued to Metropolitan no later than December 2025
- Key Permits & Certifications
  Commitment to complete all permitting and certification processes by the end of 2026.
- Proportional & Complete Planning Funding
  DWR concurrence with proportionate share and proportionate benefits.

Metropolitan Letter to DWR 10/24/24 DWR Response

- Funding & Financing for Implementation
  Innovative new long-term financing approaches to close the funding gap.
- Near Term Improvements to SWP Reliability
  Portfolio of solutions to be evaluated in DWR's first Climate Adaptation Strategy, to be released in early 2025.

Unique Funding Agreement Provisions & Offramps

- Metropolitan has the ability to terminate financial obligations if:
  - A condition is identified that materially and adversely affects the DCP's benefits and costs during term of agreement.
  - DWR fails to secure key changes to the State Water Project's water rights.
  - DWR fails to obtain a ruling in DWR's favor from the Delta Stewardship Council on the appeals of the Certification of Consistency with the Delta Plan.
  - An update to the Bay-Delta Water Quality Control Plan is adopted that is substantially different from the Healthy Rivers & Landscapes proposal that was submitted to the State Water Resources Control Board.
- Funds to be used for geotechnical soil investigations shall be due only once DWR has the legal authority to conduct such activities.

Board Options

Option 1 (amended)

- Review and consider the Lead Agency's certified 2023 Final EIR for the DCP, take related CEQA actions, and authorize the General Manager to enter into an amended agreement for preconstruction work on the DCP planned for 2026-2027. By approving Option 1, the Board is not approving the DCP, as reflected in the statement of overriding considerations, which is limited to the preconstruction funding only.

Option 2

- Do not authorize the General Manager to enter into an amended agreement for preconstruction work on the DCP planned for 2026-2027.

Item 8-4
Delta Conveyance Preconstruction & Planning Funding

Item 8-4 Delta Conveyance Preconstruction & Planning Funding

Staff Recommendation

- Option 1 (amended)

  Review and consider the Lead Agency's certified 2023 Final EIR for the DCP, take related CEQA actions, and authorize the General Manager to enter into an amended agreement for preconstruction work on the DCP planned for 2026-2027.

  By approving Option 1, the Board is not approving the DCP, as reflected in the statement of overriding considerations, which is limited to the preconstruction funding only.


THE METROPOLITAN WATER DISTRICT OF
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- **Board of Directors**
  One Water and Stewardship Committee

12/10/2024 Board Meeting

9-2

Subject

Update on developing State Water Project water management actions to meet multiple objectives of managing dry-year and wet-year water supplies and generating new revenues

Executive Summary

This report provides information on the development of potential State Water Project (SWP) water management actions to achieve multiple objectives: (1) generate new revenue through the sale and exchange of available water supplies, (2) manage annual surplus water supplies for regional benefit, and (3) manage and procure water transfers and exchanges to reduce the risk of future water supply shortages and increase regional water supply reliability. Extreme fluctuation in SWP supplies driven by variable hydrologic conditions gives rise to these two challenges: (1) wet years are typically associated with lower water sales and low revenue generation, and (2) dry years, especially multiple dry years, require storage and supplemental water purchases to maintain water supply reliability. While these goals may sometimes appear to conflict, they can also complement each other when managed strategically in a timely and holistic manner. Addressing these challenges effectively will require prompt responses to available opportunities. In the coming months, staff plans to request Board authorization for the General Manager to enter into water transactions—whether to buy or sell water—as opportunities arise so that Metropolitan can act swiftly to ensure it does not miss valuable prospects that require immediate action. Ultimately, this flexibility will help Metropolitan adapt to changing conditions, enabling it to align financial and resource goals more effectively.

Staff plans to pursue water transactions that enhance Metropolitan's financial health while protecting long-term water supply reliability. Staff have identified that authorization to sell up to 400,000 acre-feet of 2025 and 2026 SWP supplies to other SWP contractors, including their members and landowners within the SWP place of use, will help generate the estimated $120 million in unrealized annual revenue assumed in the Metropolitan budget and rates adopted in April 2024. On the other hand, if hydrologic conditions in 2025 and 2026 turn out to be dry, thus increasing the risk of shortages, staff have identified that authorization to purchase up to 100,000 acre-feet at a cost of up to $50 million from sellers that convey water via the SWP would be needed to help manage potential shortage conditions. It is envisioned that a portfolio of water transactions, with short- and longer-term purchases and sales of water, will be effective in managing the multiple objectives that Metropolitan and its member agencies face currently and into the future.

Fiscal Impact

In the current biennium: Depending on hydrologic conditions, a potential estimated revenue of up to $120 million via non-permanent transfers of Metropolitan SWP supply to other SWP contractors; or a potential cost of up to 50 million for the purchase of non-permanent SWP transfer supplies or non-project water from sellers that can convey water via the SWP.

Applicable Policy

By Minute item 52273, dated February 9, 2021, the Board reviewed and considered the Department of Water Resources' certified Final Environmental Impact Report, took related California Environmental Quality Act (CEQA) actions and approved the State Water Project Contract Amendment for Water Management.

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 (DWR).

Metropolitan Water District Administrative Code Section 4200: Water Availability

Metropolitan Water District Administrative Code Section 4203: Water Transfer Policy

Metropolitan Water District Act Section 132: Sale of Surplus Water

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

Staff plans to return to the Board in January 2025 to request that the Board authorize the General Manager to execute SWP transfer and exchange agreements with parties in the SWP place of use that generate up to $120 million in revenue in the next biennium or that secure dry-year supply at a cost of up to $50 million.

Details and Background

Background

Historically, staff has come to the Board annually and on a case-by-case basis for authorizations to buy additional supply. Staff generally makes annual requests to the Board to purchase single-year water transfers, if needed. The Board authorized single-year water transfer purchases of up to $44 million in April 2021, $60 million in April 2022, $100 million in January 2023, and $50 million in February 2024. These annual authorizations allowed for additional water purchases under existing programs, such as the Yuba Accord Water Transfer Program, that was first authorized by the Board in 2007. In recent years, the funds for these water purchases would have come from unspent Water Supply Program or SWP budgeted funds. The full requested amounts were not spent in the past four years. In the dry years of 2021 and 2022, spending was constrained by the limited availability of transfer supply. In the past two years, water supply conditions improved significantly after February such that Metropolitan did not need to purchase supplemental water.

More recently in October 2024, the Board authorized option agreements with Western Canal Water District and Richvale Irrigation District for single-year water transfers during 2025 through 2027. These agreements are being developed over more than a year of negotiations with these sellers as a new approach for providing increased SWP-dependent area reliability over multiple dry years. A major benefit of these recently approved agreements is that they offer first-right access to a relatively large quantity of limited north-of-Delta transfer supply. Going forward, staff will need to continue to develop water transfer partnerships. Metropolitan would benefit from additional partnerships, especially with parties that can offer water unconstrained by Delta conveyance capacity or with flexible call dates.

Adapting to changed conditions, staff will be seeking additional authority to sell SWP water for the first time. This flexibility is afforded by the Water Management Amendment to the SWP contract approved by the Board in February 2021. Sale of Metropolitan’s SWP supply is consistent with Metropolitan Water District Act Section 132 that allows for the sale of surplus water not needed for domestic or municipal use within the district. Administrative Code Section 4200 requires that the sale of water outside of Metropolitan’s service area be approved by the Board. Sale of Metropolitan’s SWP supply within the next two calendar years could help contribute to the estimated $120 million in unrealized annual revenue assumed in the budget and rates adopted by the Board in April 2024.

The following discussion describes the type of transactions that staff is contemplating to pursue to meet revenue and water supply goals, possible transaction parameters, key considerations and potential partners.

Potential Transactions under Surplus Conditions

Metropolitan can pursue several types of transactions to generate revenue, including non-permanent Table A transfers to other SWP contractors, transfers of SWP carryover supply, and transfers of previously stored SWP supply in banking programs outside of the service area. The 2021 Water Management Amendment provides that buyers and sellers can determine the cost compensation for these types of transfers. SWP contractors can also execute balanced or unbalanced water exchanges with cost compensation determined by the buyer and seller, and DWR views these exchanges as "Transfer Packages." An example of a potential unbalanced exchange Metropolitan would consider under surplus conditions would be transfer of Metropolitan surplus SWP supply in exchange for the future return of lesser supply, with potential cost compensation to reflect the dry-year value of water.

Pricing for Water Sales

The potential pricing for single-year SWP sales would be dependent on hydrologic conditions, time of year, and overall supply versus demand. In this past year, there were relatively few buyers and several potential sellers with above-average supplies coming off a wet 2023, and the price of Table A sales generally went down as the year progressed. Pricing in 2024 ranged from approximately $250 to $600 per acre-foot. In a wet year like 2023, there were sales at approximately $100 to $200 per acre-foot; and in a dry year like 2022, there were sales ranging from approximately $500 to $2,000 per acre-foot. Staff recommends that the price of Metropolitan SWP supply sales to other parties at least covers the Supply Rate element charged for water sales to Metropolitan member agencies (approximately $300 per acre-foot).

Protection of Water Supply Reliability

The quantity of water that Metropolitan would be willing to sell in 2025 or 2026 would be constrained by the need to maintain reliability, in particular for the SWP-dependent area. SWP-dependent area reliability could be achieved by having four years of dry-year storage in the various storage accounts that can meet SWP demands and by having a robust portfolio of potential dry-year water transfer purchases.

Additionally, staff could negotiate terms in agreements to help mitigate future dry-year risk. For example, water sale prices could be set to a schedule tied to the final SWP allocation with higher dry-year prices reflecting the higher value and replacement cost of that water. Another possible protection would be to include an option to purchase the water back in the next four years. Because of projected record high end-of-2024 storage, staff anticipates being able to sell up to 50,000 acre-feet of SWP supply in 2025 without negatively affecting SWP-dependent area reliability, even at low SWP allocations in 2025. The quantity of water for sale at SWP allocations higher than 30 percent would be less constrained, and dependent on the overall balance between Metropolitan member agency demands and SWP and Colorado River supplies. Staff recommends that the Board authorize the General Manager to sell up to 400,000 acre-feet of SWP supply in 2025 and 2026 in the event of wet conditions on the SWP to help generate revenue and minimize unmanaged SWP supplies.

Potential Partners

Potential buyers of Metropolitan SWP supply under the Water Management Amendment are other SWP contractors, including their members or landowners. Sale of water to a non-SWP contractor (e.g., a Central Valley Project (CVP) contractor) would require that DWR petition the State Water Resources Control Board (SWRCB) to allow a transfer of SWP water outside of the SWP place of use. Because of the regulatory challenges related to sale of SWP water outside of the SWP place of use, staff intends to identify potential partners for water sales within the SWP place of use. The regulatory challenges for exchanging SWP water with CVP contractors are less onerous and managed via annual petitions to the SWRCB for consolidation of the SWP and CVP place of use. As such, staff will evaluate and potentially pursue mutually beneficial exchanges with both SWP and CVP contractors and their member agencies or landowners.

Potential Transactions under Shortage Conditions

If 2025 and 2026 are dry, staff anticipates a potential need to purchase water transfer supplies in addition to those already approved for purchase by the Board. The Board has already authorized the potential purchase of surface water transfer supplies under the Yuba Accord through 2025, and the potential purchase of single-year water transfer supplies from Western Canal Water District and Richvale Irrigation District through 2027. In the future, staff plans to seek additional authority to purchase single-year water transfers from other sellers north and south of the Delta, including other SWP contractors as allowed under the Water Management Amendment. Under shortage conditions, Metropolitan may also consider unbalanced water exchanges to secure dry-year supply in exchange for the obligation to return greater quantities in wetter years, with potential cost compensation to reflect the dry-year value of water. A broad portfolio of water transfer options will help Metropolitan meet its future water supply needs in the most cost-effective manner.

The quantity of water that Metropolitan would purchase under shortage conditions in 2025 and 2026 would be dependent on the overall supply and demand balance, price, and whether Metropolitan purchases water from other sellers such as Yuba Water Agency, Western Canal Water District, and Richvale Irrigation District. To supplement these existing water purchase programs, staff recommends that the Board authorize the General Manager to buy up to 100,000 acre-feet of additional supply from willing sellers in 2025 and 2026, if needed.

Potential partners for the purchase of water by Metropolitan include public water agencies, private water utilities and companies, water rights holders, and state and federal agencies located north or south of the Delta that can move water via SWP facilities.

Administrative Requirements for Potential Transactions

For any potential SWP water sale, Metropolitan would need to enter into at least two agreements, one with the purchasing entity covering the terms of the transaction, and another with DWR, Metropolitan, and the partner SWP contractor (may also be the purchasing entity). For any transaction under the Water Management Amendment, DWR will require compliance with transparency requirements enumerated in Article 57(g) of the SWP contract (**Attachment 1**), including that Metropolitan provide relevant terms to all other contractors via the State Water Contractors organization. DWR will require CEQA documentation to process each transfer and exchange agreement requested by Metropolitan.

Purchase of SWP water from other entities will also likely require at least two agreements, one with the seller and another with DWR to convey the transfer supply. No commitment to any given transfer would be made by the General Manager unless and until all applicable CEQA requirements have been met.

Summary

In early 2025, staff will be seeking that the Board authorize the General Manager to execute water transactions that generate new revenue and/or secure needed water supplies in calendar years 2025 through 2026. This authority is needed to effectively and efficiently respond to changing hydrologic and market conditions and maximize potential benefits for Metropolitan. Staff plans to return to the Board to seek this authority and update the Board monthly on transactions secured under this authority, if granted.

11/27/2024

Brandon J. Goshi *Date*
Interim Manager,
Water Resource Management

11/27/2024

Deven Upadhyay *Date*
Interim General Manager

Attachment 1 – Article 57(g) of the SWP Contract

Ref# wrm12702675

Article 57(g) of Metropolitan's State Water Project Contract

Article 57. Provisions Applicable to Both Transfers and Exchanges of Project Water

(g). The District shall, for each transfer or exchange it participates in, confirm to the State in a resolution or other appropriate document approving the transfer or exchange, including use of Article 56(c) stored water, that:

(1) The District has complied with all applicable laws.
(2) The District has provided any required notices to public agencies and the public.
(3) The District has provided the relevant terms to all contractors and to the Water Transfers Committee of the State Water Contractors Association.
(4) The District is informed and believes that the transfer or exchange will not harm other contractors.
(5) The District is informed and believes that the transfer or exchange will not adversely impact State Water Project operations.
(6) The District is informed and believes that the transfer or exchange will not affect its ability to make all payments, including payments when due under its Contract for its share of the financing costs of the State's Central Valley Project Revenue Bonds.
(7) The District has considered the potential impacts of the transfer or exchange within its service area.

One Water & Stewardship Committee

Update on developing SWP water management actions to meet multiple objectives of managing dry year and wet year water supplies and generating new revenues

Item 9-2

December 9, 2024

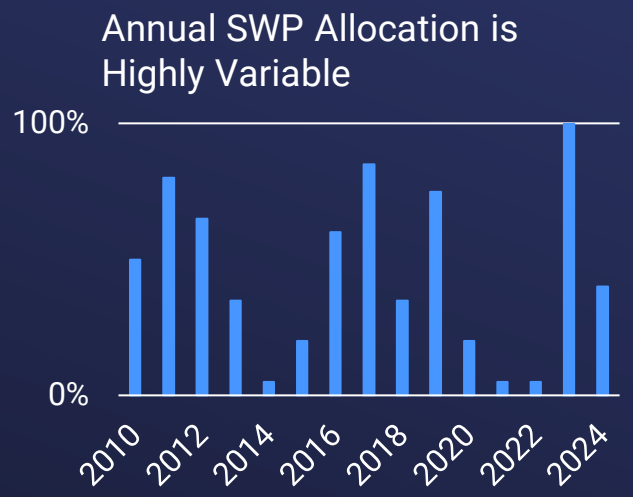
Item 9-2
Update on developing SWP water management actions

Subject
Update on developing SWP water management actions to meet multiple objectives of managing dry year and wet year water supplies and generating new revenues

Purpose
Provide information on water transactions that can generate new revenue through sale and exchange of available water supply, manage annual surplus water supplies for regional benefit, and manage and procure water transfers and exchanges to reduce the risk of future water supply shortages.

Next Steps
Staff will return to the One Water and Stewardship Committee in the future with an Action letter and oral report.

Background



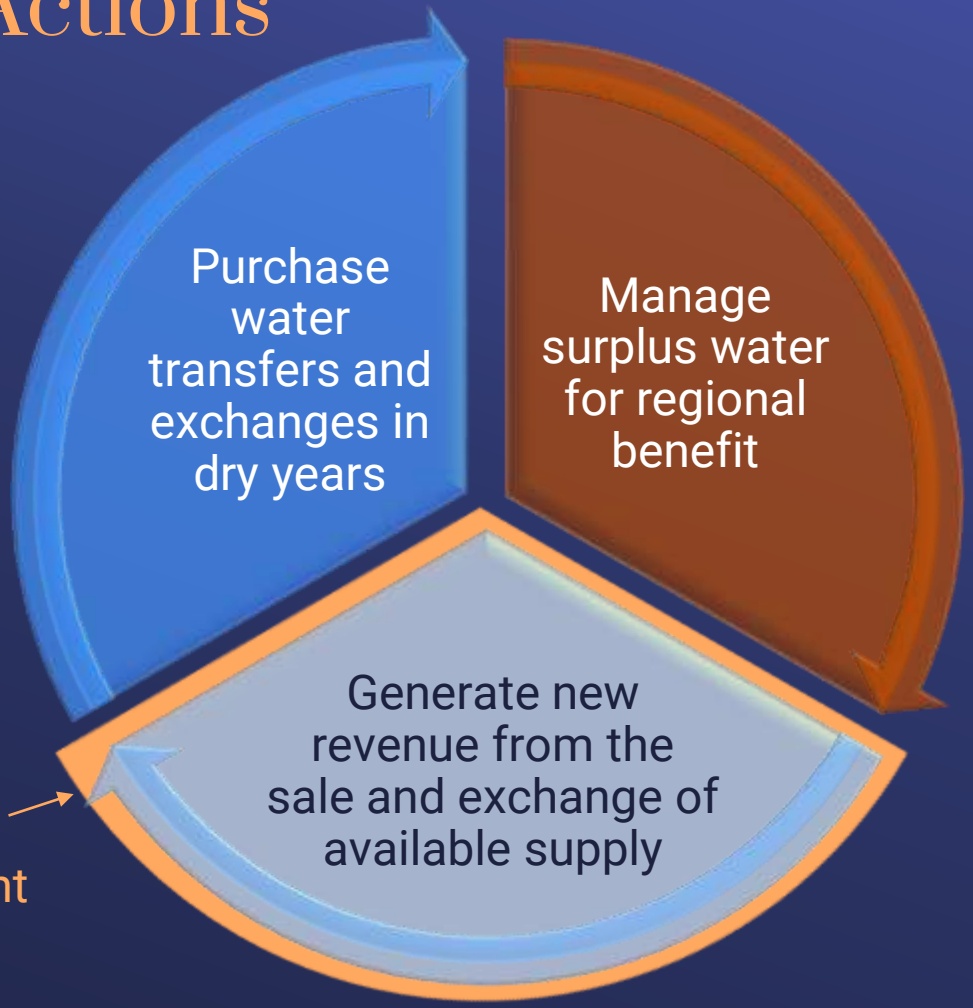
Variable SWP Supply Presents Water and Financial Management Challenges

- Dry years
  - Supplemental water needed to meet demands and preserve storage
- Wet years
  - Lower water sales and revenues
  - Potential for unmanaged SWP supply
- Timing
  - SWP supply allocation finalized in May/June
  - Need flexible tools to efficiently manage to variable hydrologic conditions

Background

Multiple Objectives for SWP Water Management Actions

- Water supply reliability
- Financial reliability



Newly Allowed Under the 2021 Water Management Amendment to the SWP Contract

Water Transfer Purchases Enhance Dry Year Water Supply Reliability

Water Management Actions

- Board annually authorizes purchases, if needed, and on a case-by-case basis
  - Options for crop-idling transfers from North-of-Delta authorized Oct. 2024
  - Yuba Accord Water Transfer Program authorized 2007
- Additional opportunities, including:
  - Flexible groundwater substitution transfers from North-of-Delta sellers
  - Water transfers from other SWP contractors

Water Management Actions

Management of Annual Water Supply Surplus for Regional Benefit

- Storage programs
- Cyclic deliveries
- Additional opportunities, including:
  - Sales and exchanges with other SWP contractors

Water Management Actions

Sale of SWP Supply to SWP Contractors to Generate New Revenue

- New tool of the Water Management Amendment to the SWP contract approved by board in February 2021
  - Allows annual water transfers with compensation determined by buyer and seller
- Opportunity to generate new revenues assumed in budget adopted by board in April 2024
- Sale of water outside of the service area requires board authorization

Proposed Parameters for SWP Supply Sales

- Sale of up to 400,000 acre-feet in calendar years 2025 and 2026 to other SWP contractors, including their members/landowners
  - Target maintaining 4-years dry year storage in SWP storage accounts
- Price of potential water sales to meet or exceed water supply rate element to Metropolitan member agencies
  - Historical single-year Table A transfer prices ranged from approximately $100/AF in a wet year like 2023 to up to $2,000/AF in a dry year like 2022
- Potential agreement terms to enhance dry-year reliability
  - Pricing to reflect value of water in dry years
  - Buy-back provisions (exchange options)

Flexible Approach

- Staff anticipates seeking board authorization to execute SWP water transactions, including
  - Sale of SWP supply outside of the service area to generate new revenue
  - Purchase of single-year water transfers if needed
- Authority provided early in the calendar year will allow for the most efficient responses to changing hydrologic and market conditions to provide maximum benefits to Metropolitan

Next Steps

- Receive board feedback
- Return to the board with an action item in January
- Negotiate agreement terms with potential partners
- Update the board monthly on potential transactions executed under the authority, if granted by the board


THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
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THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Board Report

Water Resources Management Group

- **Water Surplus and Drought Management Update Conditions as of 11/1/2024**

Summary

This report provides an accounting of water supply, demand, and storage balances for calendar year (CY) 2024, as of November 1, 2024. This report also tracks the hydrologic conditions for water year (WY) 2024-2025. Updated supply and hydrologic information will be provided during the oral report in December.

CY 2024 Highlights:

Colorado River Aqueduct Supplies

- Above normal snowpack in the Upper Colorado River Basin (115 percent of normal).
- Normal precipitation (100 percent of normal).
- Below normal inflows into Lake Powell (83 percent of normal).
- To help protect storage in Lake Mead, Metropolitan and its partners turned over several Colorado River supply programs to the United States Bureau of Reclamation under the Lower Colorado Conservation Program to keep water in Lake Mead as system water.
- In CY 2025, a Level 1 Shortage will govern the operation of Lake Mead. There are no impacts to Metropolitan at a Level 1 Shortage.
- There is no expectation of Metropolitan making Drought Contingency Plan Contributions in 2025 or 2026.
- Total System Storage in the Colorado River Basin did not change much during the year.

State Water Project Supplies

- Above normal Northern Sierra snowpack (123 percent of normal).
- Near-normal precipitation measured at the Northern Sierra 8-Station Index (91 percent of normal).
- Near-normal runoff into the Sacramento River (99 percent of normal).
- The State Water Project allocation is 40 percent of Table A.
- The presence of threatened and endangered fish species near SWP pumping facilities impacted the ability to move water from the Delta and allow for further increases to the allocation.

Demands on Metropolitan

- The projected member agency demand on Metropolitan (i.e., combined consumptive and replenishment demand) in CY 2024 is the second lowest on record, with CY 2023 being the lowest since 1979.
- Ongoing conservation efforts and a strong water use ethic are evident throughout the region.

Water Management Tools

- Pre-delivered water to local storage managed by its member agencies through the Cyclic Program.
- Reduced obligations by (1) delivering water to member agencies who deferred deliveries through the Reverse Cyclic Program, and (2) delivering water to Desert Water Agency/Coachella Valley Water District.
- Stored surplus supply in Metropolitan's dry-year storage programs. Metropolitan's dry-year storage reserves at the end of CY 2024 is projected to be approximately 3.9 million acre-feet (MAF), a record-high storage balance for Metropolitan.

Purpose

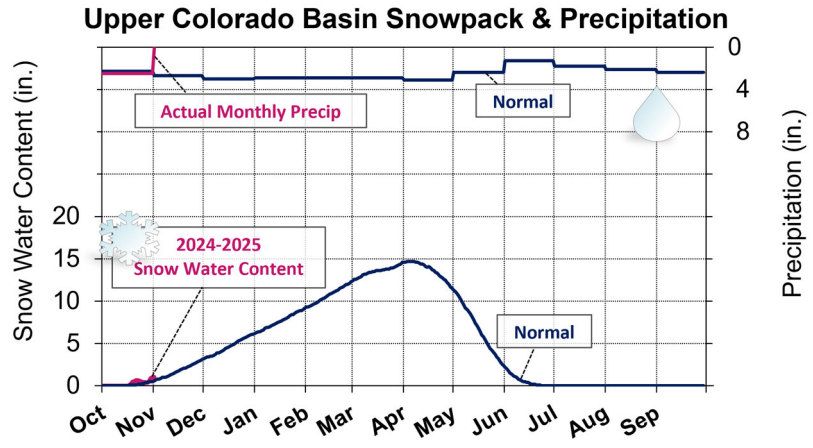
Informational

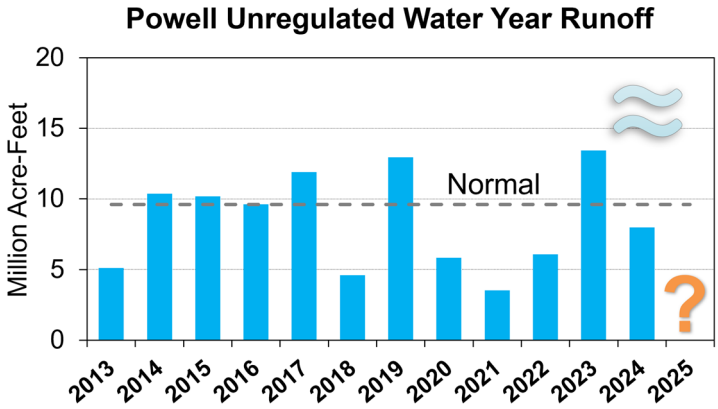
Attachments

Attachment 1: Projected 2024 WSDM Storage Detail (40 percent SWP Table A allocation)
Attachment 2: Future Contributions and Obligations and Cyclic Program
Attachment 3: Range of Future Supply and Demand Gaps

Detailed Report

This Water Surplus and Drought Management (WSDM) report provides the water supply and demand conditions for CY 2024. This report also tracks the hydrologic conditions for water year (WY) 2024-2025.



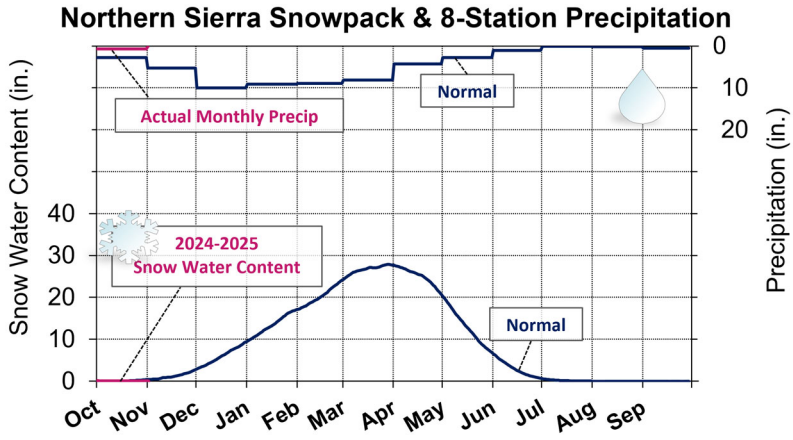


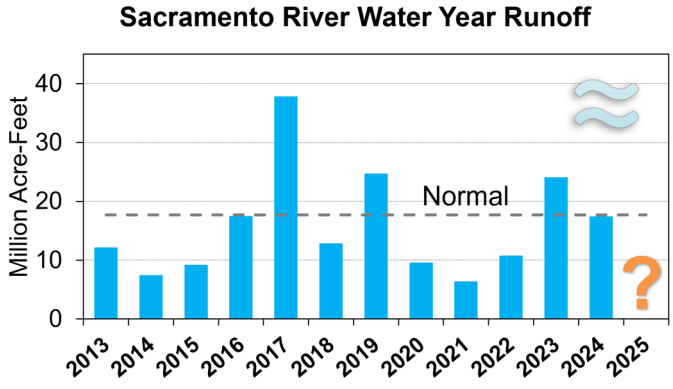
Upper Colorado River Basin

❄ Above normal snowpack water content for this date: 1.0 inch or 170% of normal. Snow data early in the season may not provide a valid measure of conditions.

💧 Above normal precipitation to date: 2.6 inches or 108% of normal.

≈ Runoff forecast for WY 2025 unavailable at the time of this report.





Sacramento River Basin

❄ No significant snow reported.

💧 Below normal precipitation to date: 0.8 inches or 26% of normal.

≈ Runoff forecast for WY 2025 unavailable at the time of this report.

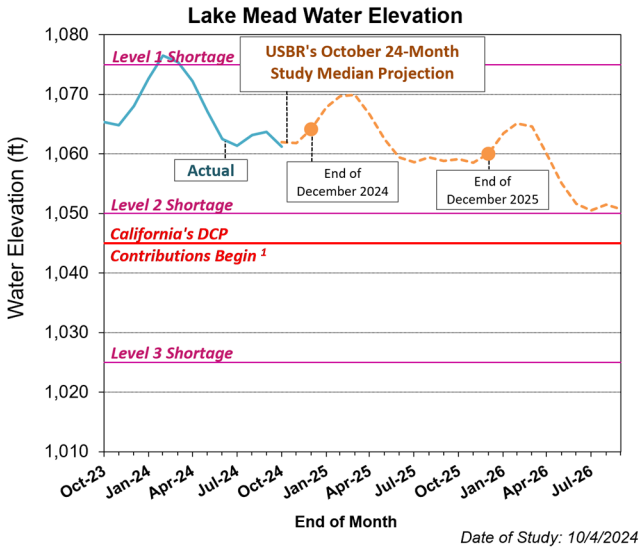
CRA Supplies	Acre-Feet
Basic Apportionment	*550,000*
IID/MWD Conservation Program	*105,000*
CVWD - 2nd Amendment, Exchange of Additional Water	*31,000*
PVID Fallowing Program [1]	*0*
Exchange w/ SDCWA (IID/Canal Lining) [2]	*228,000*
Exchange w/ USBR (San Luis Rey Tribe)	*16,000*
Lower Colorado Water Supply Project	*9,000*
Bard Seasonal Fallowing Program [1]	*0*
Quechan Diversion Forbearance [1]	*0*
Quechan Seasonal Fallowing Program [3]	*0*
Higher Priority Water Use Adjustment	*92,000*
Total CRA Supplies [4]	**1,032,000**

[1] Not a supply for Metropolitan in 2024. Water generated from these programs becomes system water as part of USBR's Lower Colorado Conservation Program to help protect Lake Mead.

[2] Reflects the agreement between Metropolitan, SDCWA, and IID to leave 50,000 AF of water, that otherwise would be transferred to SDCWA and exchanged under the Exchange Agreement, in Lake Mead as system water as part of USBR's Lower Colorado Conservation Program.

[3] Rounded to the nearest thousand. Supply estimate is 281 AF.

[4] Per USBR Forecast (10/29/2024). Total may not sum due to rounding.



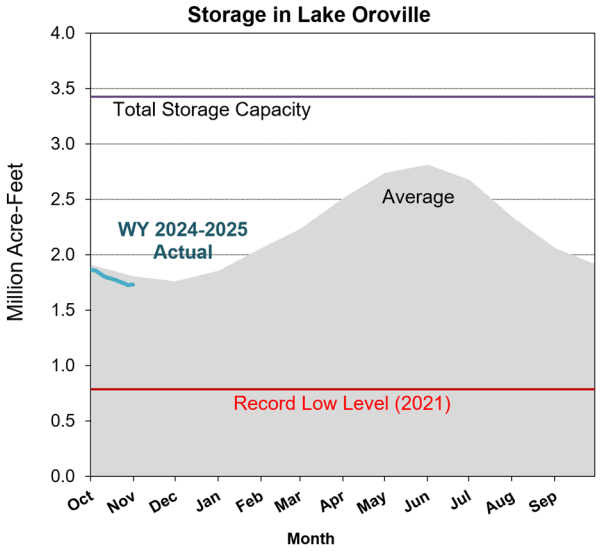
[1] Metropolitan is required to make Drought Contingency Plan (DCP) contributions in the following year if the August 24-month Study projects Lake Mead's elevation to be at or below 1,045 feet on January 1. Since the August 2024 24-month Study projected Lake Mead's elevation to be above 1,045 feet on January 1, 2025, Metropolitan is not required to make DCP contributions in 2025. This figure reflects the latest 24-month study (October 2024) available at the time of this report.

- Lake Mead storage is currently 8.5 MAF or elevation 1,061.2 feet (33 percent of total capacity).
- The Lower Basin is at a Level 1 shortage in CY 2024 and will remain in a Level 1 shortage in CY 2025. Under this level, Metropolitan's operations and water supply are not impacted.

SWP Supplies	Acre-Feet
Table A (40% SWP allocation)	*765,000*
Port Hueneme [1]	*1,000*
Total SWP Supplies [2]	**765,000**
Total Supplies (CRA + SWP) (Prior to storage actions) [2]	**1,797,000**

[1] Rounded to the nearest thousand. Supply is 740 AF.

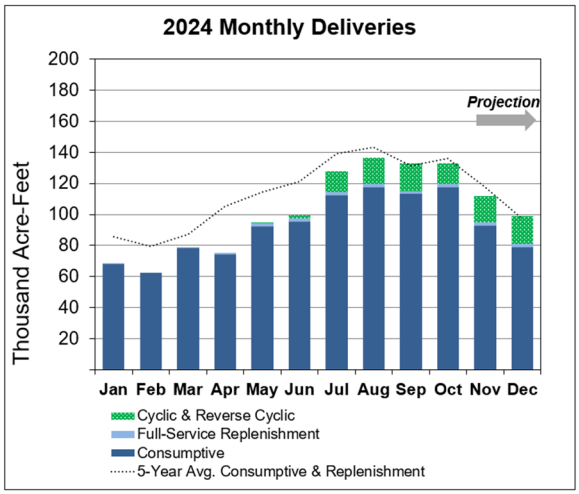
[2] Total may not sum due to rounding.



- The SWP Table A allocation for CY 2024 is 40 percent.
- Lake Oroville is currently at 1.73 MAF (50 percent of total capacity) or 96 percent of historical average, as of the date of this report.

Current Demand	Acre-Feet
Member Agency Consumptive [1]	*1,097,000*
Member Agency Replenishment	*18,000*
Coachella Valley Water District Agreement	*50,000*
Imperial Irrigation District Return [2]	*0*
Exchange w/ San Luis Rey Tribe	*16,000*
System and Storage Losses	*63,000*
Cyclic Deliveries	*94,000*
2022 Reverse Cyclic Deliveries	*5,000*
Total Demands [3]	**1,343,000**

[1] Includes exchange w/ SDCWA (IID/Canal Lining) and CUP sales.
[2] Per USBR Forecast (10/29/2024).
[3] Total may not sum due to rounding.

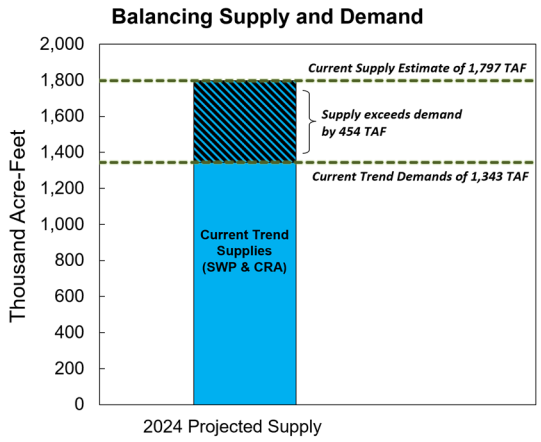


The combined consumptive and replenishment demand on Metropolitan is projected to be the second lowest on record, with last year being the lowest since 1979.

MANAGING REGIONAL SUPPLY AND DEMAND

Supply/Demand Balance	Acre-Feet
Total Supplies	*1,797,000*
Total Demands	*1,343,000*
Current Balance Estimate [1]	**454,000**

[1] Total may not sum due to rounding.



WSDM Strategies/Actions

The following summarizes the WSDM strategies/actions taken to address the estimated supply/demand balance in 2024.

- **Dry-Year Storage**: Metropolitan will manage surplus supplies by putting water into various dry-year storage accounts and will reposition stored water to maximize future drought reliability. Metropolitan is projecting to store an estimated 454 TAF of surplus supplies available in CY 2024. Metropolitan's dry-year storage reserves at the end of CY 2024 is projected to be approximately 3.9 MAF, a record-high storage balance for Metropolitan.
- **2023 Supply Reconciliation:** Metropolitan has secured scheduled supplies not delivered in CY 2023 pursuant to Articles 14 (b) and 12 (e) of the State Water Project Contract for delivery in CY 2024.
- **Cyclic and Conjunctive Use Program Deliveries:** Metropolitan is delivering water to member agencies' local storage through the Conjunctive Use Program and the Cyclic Program.
- **SWP Groundwater Banking Deliveries:** Metropolitan has delivered water to the Semitropic Storage Program and is making deliveries to the AVEK High Desert Water Bank Program.

2024 WSDM Storage Detail

WSDM Storage	1/1/2024 Estimated Storage Levels	Net Projected Storage Action Put (+) / Take (-) [1]	Projected End of Year 2024 Balance [2]	2024 Total Storage Capacity
Colorado River Aqueduct Delivery System	**1,544,000**	**67,000**	**1,611,000**	**1,622,000**
Lake Mead ICS	1,544,000 [3]	67,000	1,611,000	1,622,000 [4]
State Water Project System	**1,033,000**	**134,000**	**1,167,000**	**2,255,000**
MWD & DWCV Carryover	297,000	103,000	400,000	446,000 [5]
MWD Articles 14(b) and 12(e)	28,000 [6]	-28,000	0	0
Castaic and Perris DWR Flex Storage	219,000	0	219,000	219,000
Arvin-Edison Storage Program	100,000	0 [7]	100,000	350,000
Semitropic Storage Program	190,000	27,000	217,000	350,000
Kern Delta Storage Program	141,000	0	141,000	250,000
Mojave Storage Program	19,000	0	19,000	330,000
AVEK Storage Program	27,000	0	27,000	30,000
AVEK High Desert Water Bank Program	11,000	32,000	43,000	280,000 [8]
In-Region Supplies and WSDM Actions	**1,016,000**	**47,000**	**1,063,000**	**1,246,000**
Diamond Valley Lake	753,000	47,000	800,000	810,000
Lake Mathews and Lake Skinner	207,000	-27,000	180,000	226,000
Conjunctive Use Programs (CUP)	56,000	27,000	83,000	210,000 [9]
Other Programs	**586,000**	**206,000**	**792,000**	**1,181,000**
Other Emergency Storage	381,000	0	381,000	381,000
DWCV Advanced Delivery Account	205,000	206,000	411,000	800,000
Total	**4,180,000**	**454,000**	**4,634,000**	**6,304,000**
Emergency	750,000	0	750,000	750,000
Total WSDM Storage (AF) [10]	**3,430,000**	**454,000**	**3,884,000**	**5,554,000**

[1] Storage program losses included where applicable.

[2] Preliminary end of year balances, subject to DWR adjustments and USBR final accounting in May 2025.

[3] Reflects USBR's final accounting for 2023, released May 2024. This amount is net of the water Metropolitan stored for IID in Lake Mead in an ICS sub-account.

[4] This storage capacity is net of the water Metropolitan stored for IID in Lake Mead in an ICS sub-account.

[5] Total storage capacity varies year-to-year as the contractual annual storage limit combines with the remaining balance from the previous year. There is a potential risk that Metropolitan's stored water be converted to SWP contractor water if San Luis Reservoir approaches full capacity.

[6] Approved carryover supplies under Articles 14 (b) and 12 (e) of the State Water Project Contract for delivery in 2024.

[7] Puts are limited due to water quality considerations.

[8] This reflects the full storage capacity of the AVEK High Desert Water Bank because the construction of the recharge basins have been completed. Full recharge and recovery operation anticipated by 2027.

[9] Total of all CUP programs including IEUA/TVMWD (Chino Basin); Long Beach (Central Basin); Long Beach (Lakewood); Foothill (Raymond and Monk Hill); MWDOC (Orange County Basin); Three Valleys (Live Oak); Three Valleys (Upper Claremont); and Western.

[10] Total WSDM Storage level subject to change based on accounting adjustments. Total may not sum due to rounding.

Future Contributions and Obligations and Cyclic Programs

Table 1: Future Obligations [1]

	Beginning of Year 2024 Balance	Projected End of Year 2024 Balance
Water Stored for IID under the California ICS Agreement and its Amendment or the 2021 Settlement Agreement with IID	258,000	258,000 [2]
Storage and Interstate Release Agreement with Southern Nevada Water Authority (SNWA)	330,000	330,000 [3]
Coachella Valley Water District Agreement	105,000	70,000 [4]
2022 Reverse Cyclic	7,000	3,000 [5]
Total (AF) [6]	**700,000**	**660,000**

[1] Rounded to the nearest thousand AF. Subject to change based on accounting adjustments.

[2] Reflects final accounting under USBR's 2023 Water Accounting Report released May 15, 2024. IID can request a return in any year, conditional on agreement terms.

[3] SNWA may request up to 30,000 AF per year.

[4] Obligation must be met by the end of 2026.

[5] Deferred delivery from Calleguas Municipal Water District in 2022. Metropolitan is required to meet this obligation by 2027.

[6] Total may not sum due to rounding.

Table 2: Potential Magnitude of California's Drought Contingency Plan Contribution

	2025	2026
Likelihood of Required California Drought Contingency Plan Contribution [1]	0%	0%
Average Metropolitan DCP Contribution When Contributions Are Required (AF)	0	0

[1] Results from USBR's October 2024 Colorado River Mid-Term Modeling System (CRMMS) model run.

Table 3: Cyclic Program Activity [1]

CY	Starting Balance (AF)	CY Actions (AF)				Ending Balance (AF)
		Cyclic Pre-Delivery	Cyclic Cost-Offset Pre-Delivery	Total Pre-Delivery	Sale Out of Cyclic to Date	
2019	51,000	147,000	19,000	166,000	91,000	126,000
2020	126,000	2,000	0	2,000	50,000	79,000
2021	79,000	0	0	0	28,000	51,000
2022	51,000	0	0	0	27,000	24,000
2023	24,000	33,000	14,000	48,000	72,000	0
2024	0	46,000	0	46,000	0	46,000

[1] This table is updated with actual Cyclic Program activity on a monthly basis. Total may not sum due to rounding.

Potential Future Supply and Demand Gaps

(Estimate as of November 2024)

Metropolitan's Water Surplus and Drought Management Plan provides a framework for managing Metropolitan's resources in periods of surplus and shortage. To guide WSDM actions, Metropolitan constructs plausible scenarios with different supply and demand assumptions. The table below shows the projected range of plausible end-of-year supply and demand balances for Calendar Years 2026 and 2027. These ranges provide a bookend for the wide range of supply and demand balances that may unfold.

To reflect a reasonable range of future outcomes, the low supply projection is coupled with a high demand projection as one bookend and the high supply projection is coupled with the low demand projection for the other bookend. The resulting ranges and key assumptions are shown in the table below. For 2026, the supply and demand balances may range from a shortage of ~971 TAF to a surplus of ~1,687 TAF, and for 2026, the balances may range from a shortage of ~981 TAF to a surplus of ~1,642 TAF. Regardless of the conditions that may materialize in the future, Metropolitan will continue to adhere to the WSDM Plan to capture surplus water in normal to wet conditions and use stored water and drought actions in drought conditions.

	2026 (TAF)		2027 (TAF)	
Item	**Low Supply/ High Demand**	**High Supply/ Low Demand**	**Low Supply/ High Demand**	**High Supply/ Low Demand**
SWP [1]	116	1,914	116	1,914
Colorado River [2]	889	1,074	889	1,074
Demand on Metropolitan [3]	-1,860	-1,090	-1,870	-1,100
Other Demand on Metropolitan [4]	-116	-211	-116	-246
Supply/Demand Balance [5]	**-971**	**1,687**	**-981**	**1,642**

[1] SWP supplies are based on a low of 5% to a high of 100% of Table A.

[2] Colorado River supplies are based on estimated basic apportionment, transfers, exchanges, higher priority water use, and DCP contributions. The estimated Colorado River supplies for Calendar Year 2027 reflect current operations and do not incorporate any alternatives currently being negotiated for post-2026 Colorado River operations.

[3] Demand on Metropolitan reflects the total replenishment and consumptive demand.

[4] Includes Coachella Valley Water District exchange, San Luis Rey Agreement, system losses, and Reverse Cyclic and Cyclic Program deliveries.

[5] The supply-demand balances should not be interpreted as an absolute range as they were determined by explicit assumptions to represent reasonable outcomes.

One Water and Stewardship Committee

Update on WSDM

Item 6a
December 09, 2024

Item 6a Update on WSDM

Subject

Update on Oral Report on Water Surplus and Drought Management

Purpose

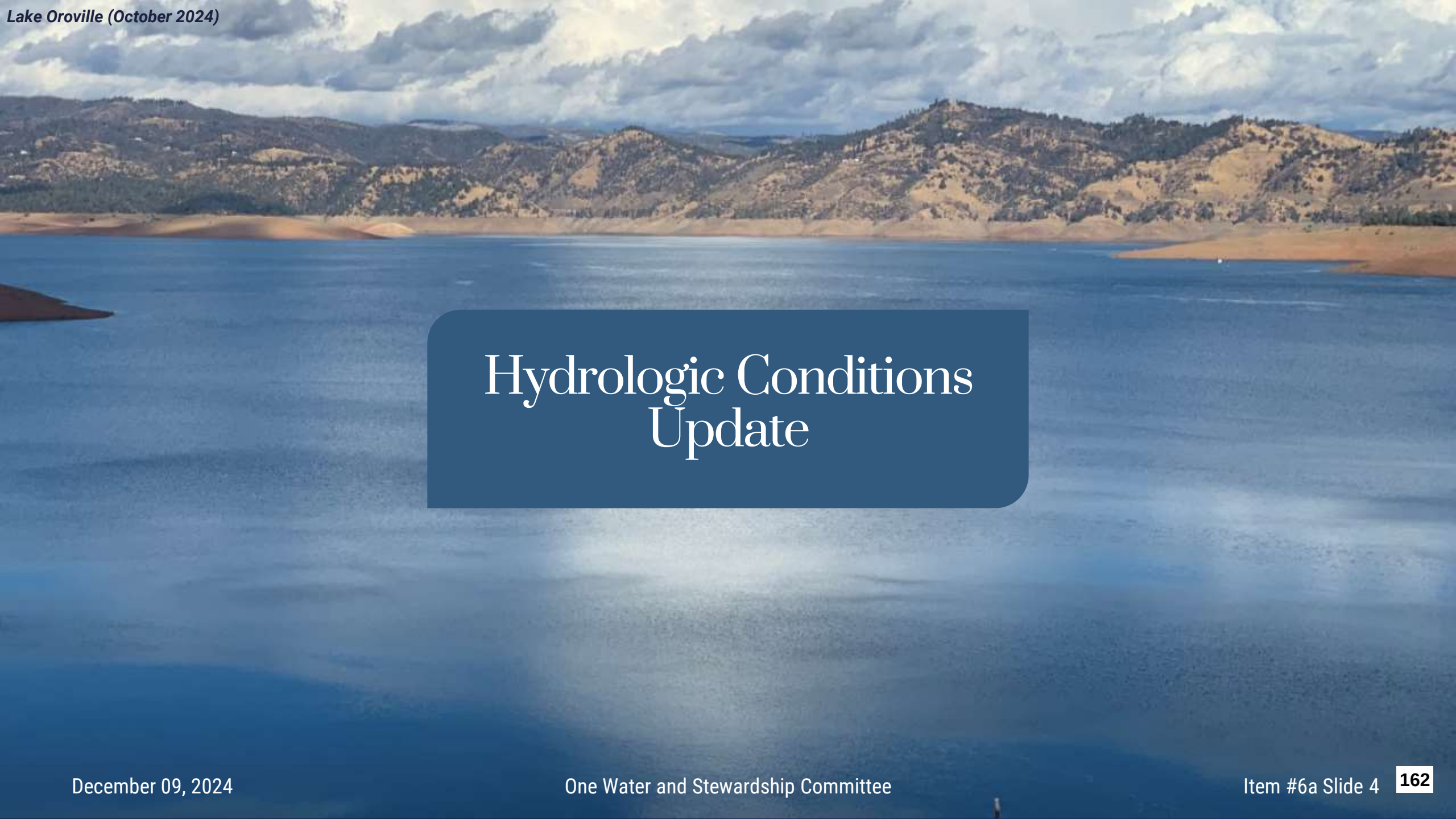
Provide updated supply and hydrologic information

Initial 2025 SWP Table A Allocation: 5%

DWR Announces Initial State Water Project Allocation for 2025

Published: Dec 02, 2024

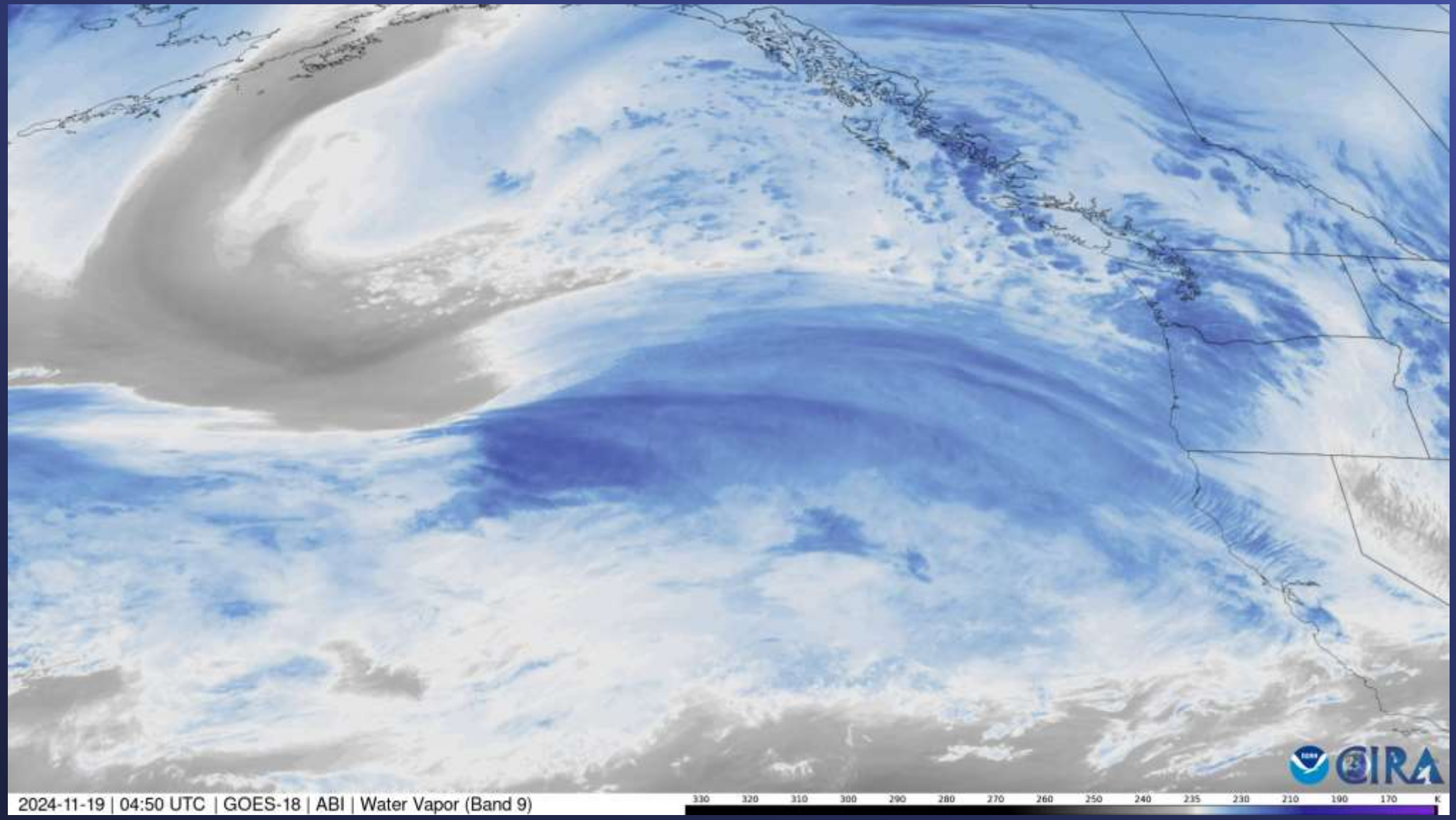
- Initial allocation includes a conservative estimate for precipitation going forward
- Current allocation study's dry and wet conditions reflect potential allocations of ~5% to 60%, respectively



Lake Oroville (October 2024)

Hydrologic Conditions Update

Late November Storm Arrives in Northern California



Hydrologic Conditions Summary

State Water Project

Northern Sierra Precipitation

14.2 in.
As of 12/05

146%
% of Normal for this Date

Northern Sierra Snowpack

7.0 in.
As of 12/05

206%
% of Normal for this Date

Lake Oroville

1.92 MAF
As of 12/04

56%
% of Total Capacity

SWP Share of San Luis Reservoir

799 TAF
As of 12/04

75%
% of Total Capacity

Colorado River

Upper Colorado River Basin Precipitation

5.6 in.
As of 12/05

103%
% of Normal for this Date

Upper Colorado River Basin Snowpack

3.7 in.
As of 12/05

107%
% of Normal for this Date

Lake Powell

8.89 MAF
As of 12/04

38%
% of Total Capacity

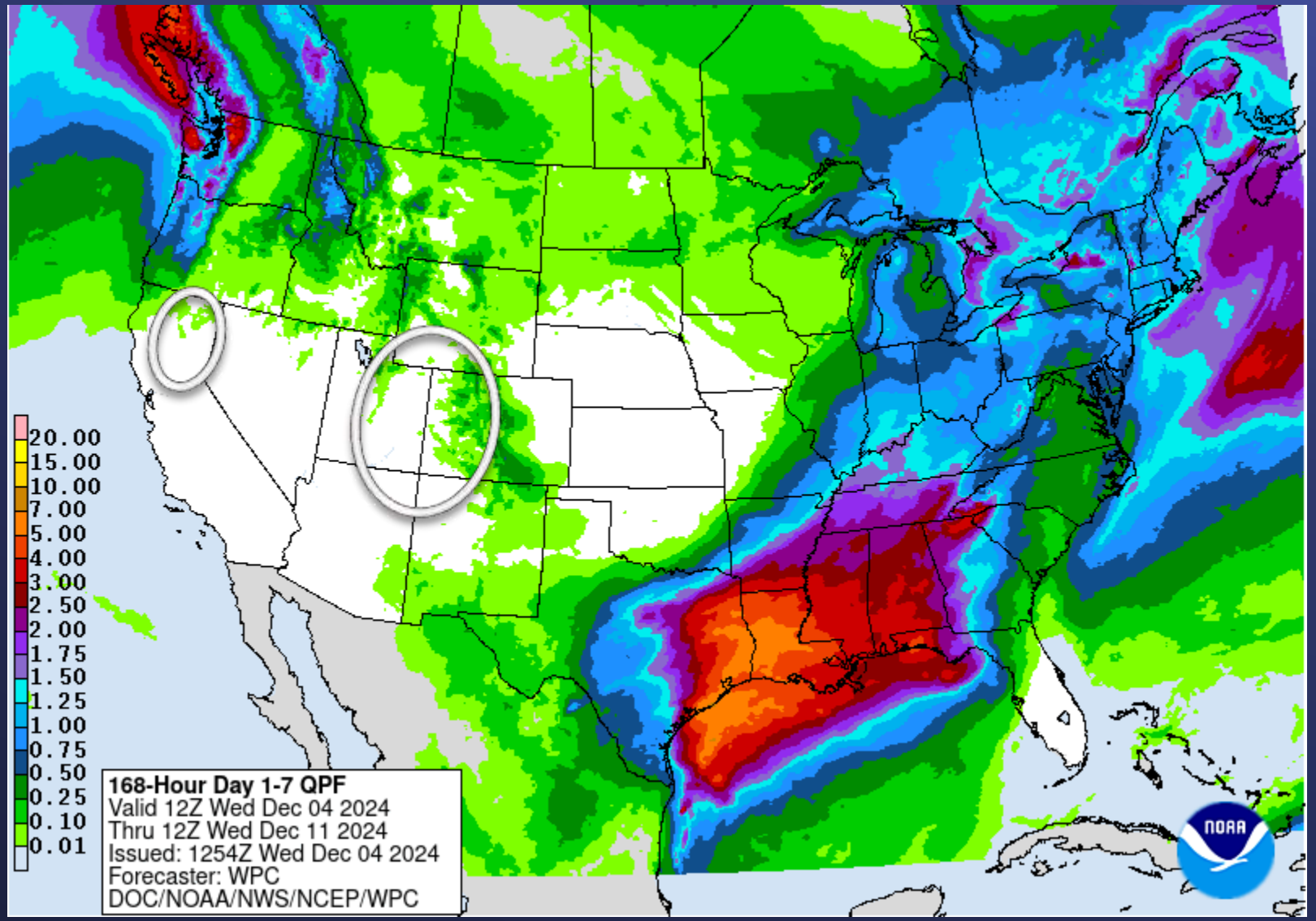
Lake Mead

8.49 MAF
As of 12/04

33%
% of Total Capacity

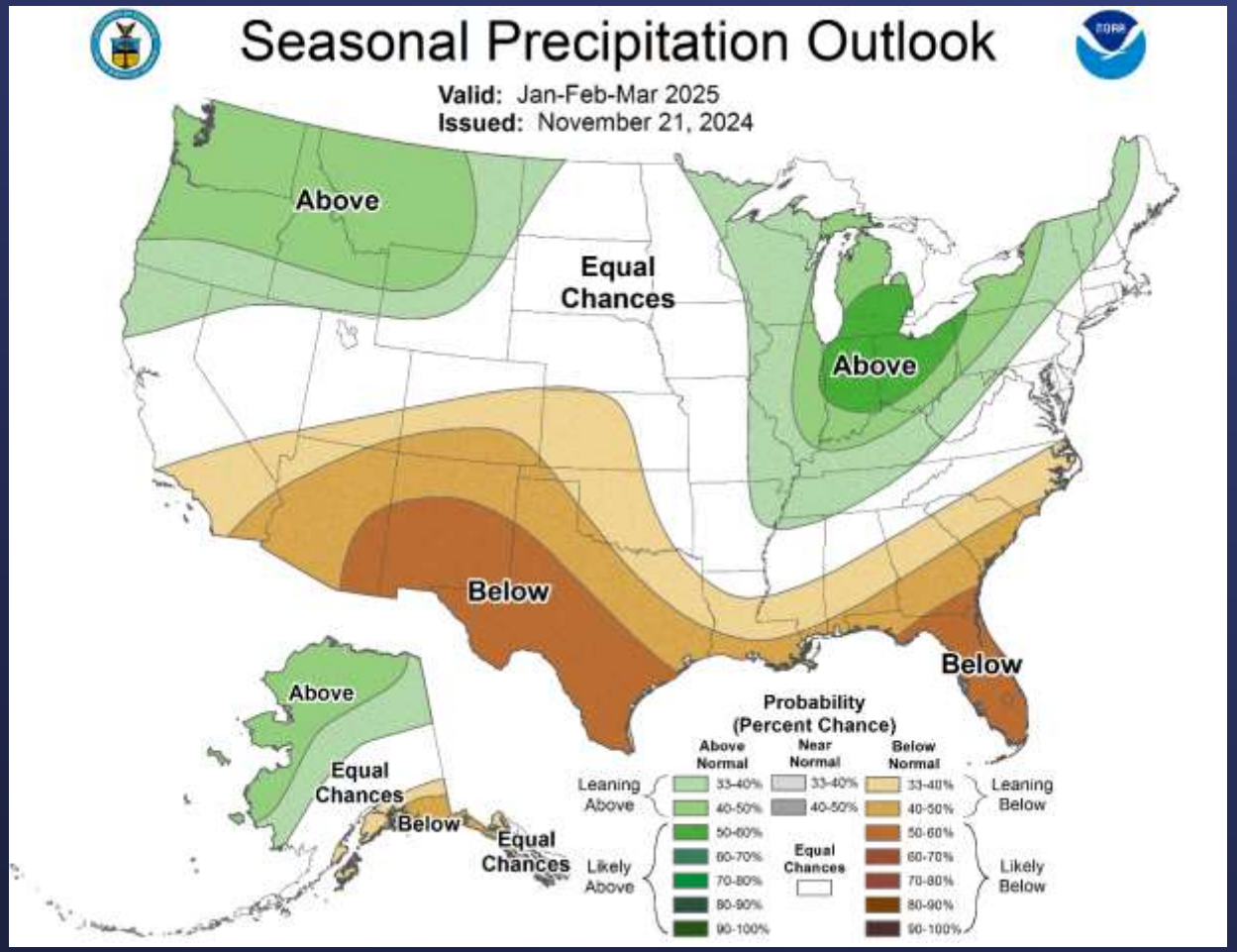
Minimal Precipitation in the Forecast

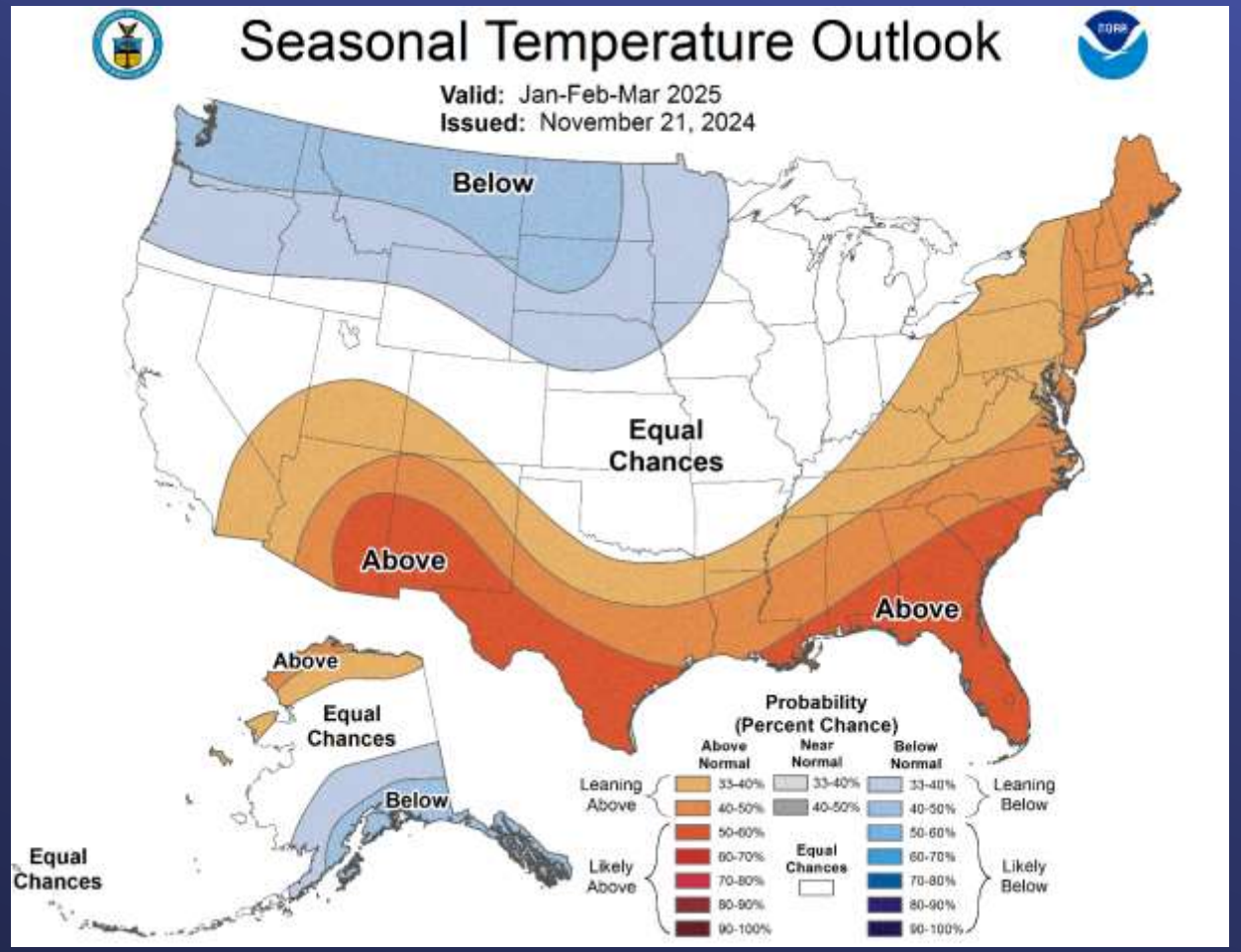
December 04– 11



Seasonal Outlook for January-March 2025

As of November 21, 2024



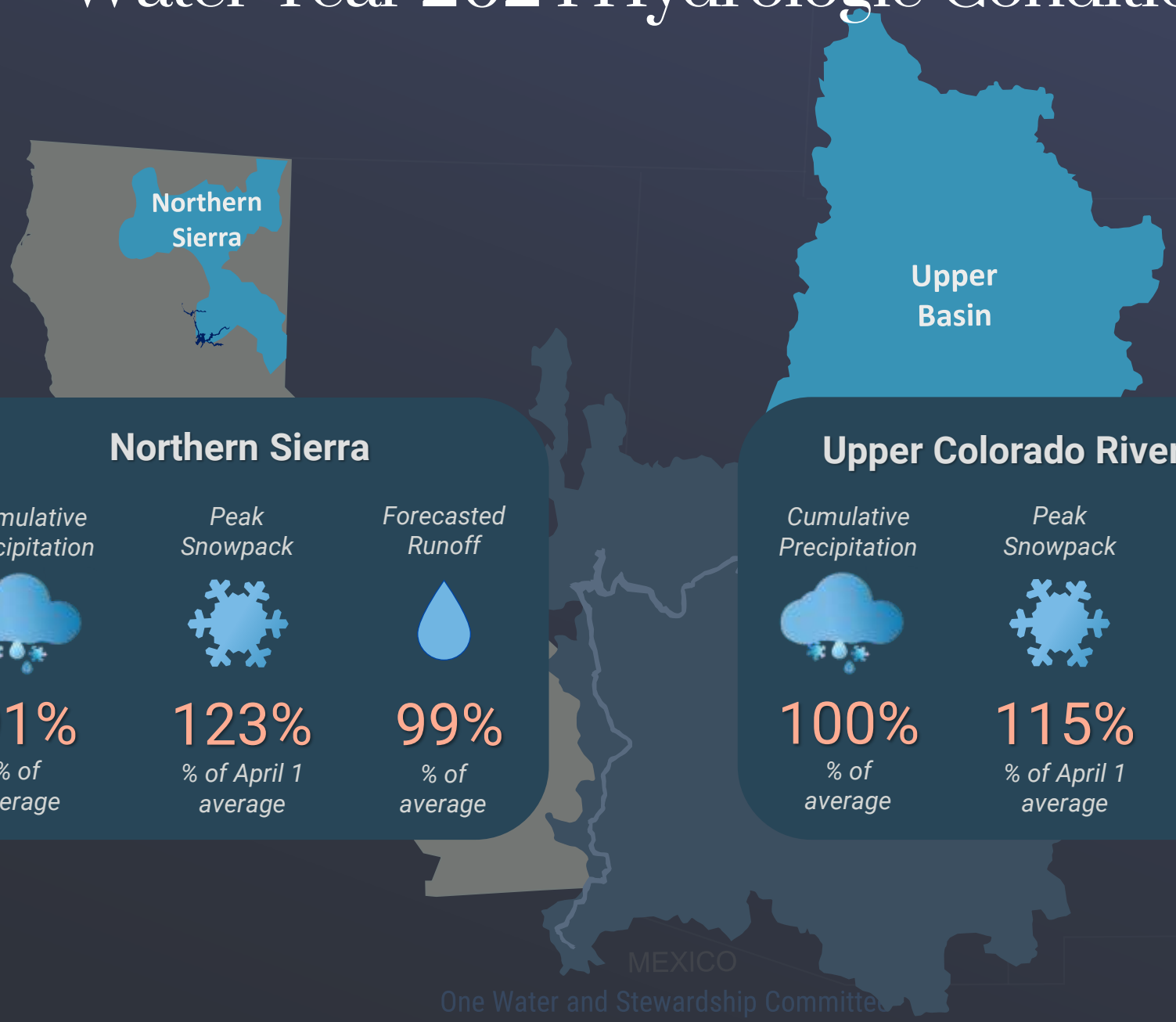


Phillips Station in the Sierra Nevada (February 2024)

2024 Highlights

Credit: DWR

Water Year 2024 Hydrologic Conditions



Northern Sierra

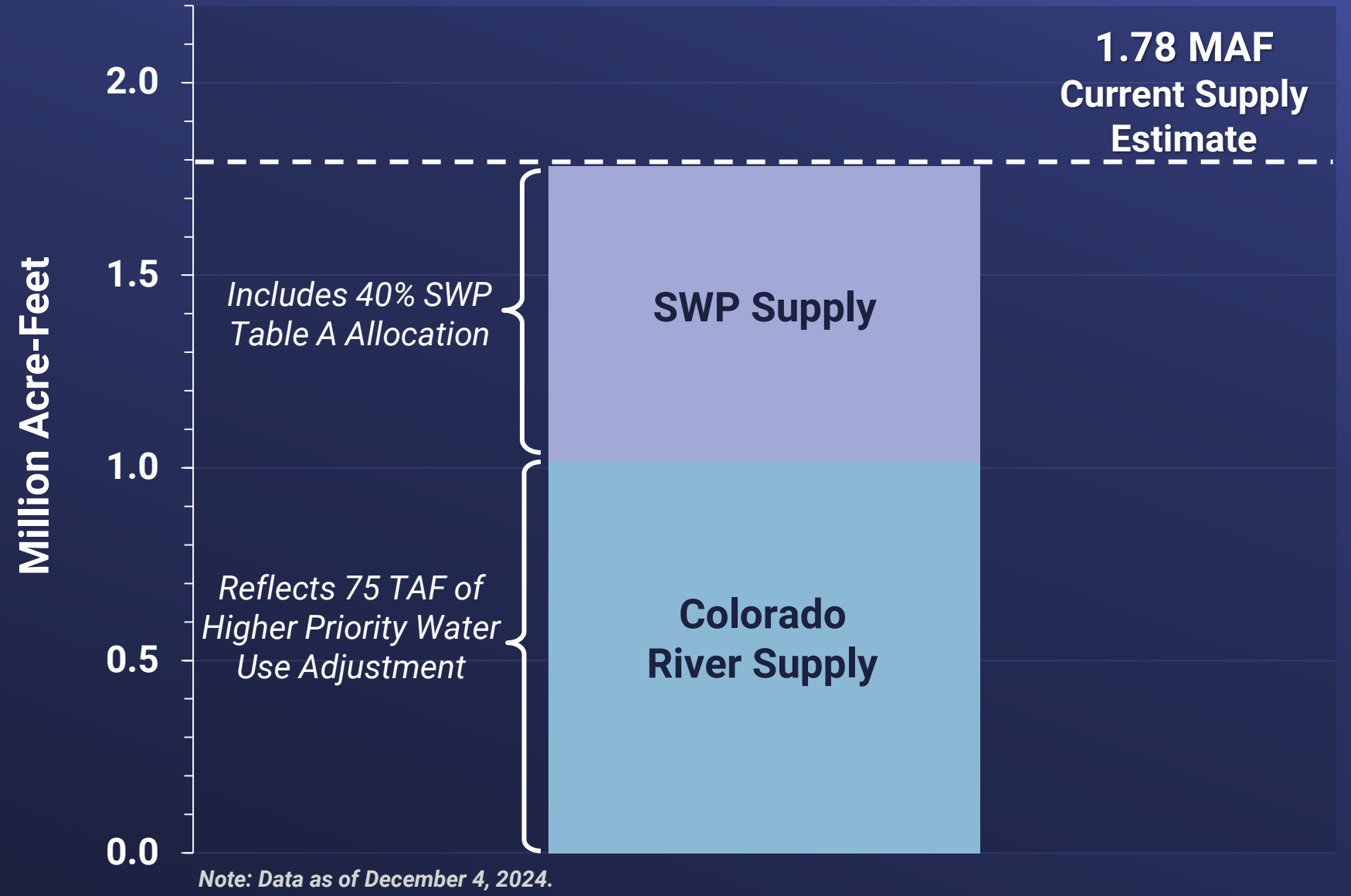
Cumulative Precipitation	Peak Snowpack	Forecasted Runoff
91%	123%	99%
% of average	% of April 1 average	% of average

Upper Colorado River Basin

Cumulative Precipitation	Peak Snowpack	Forecasted Runoff
100%	115%	83%
% of average	% of April 1 average	% of average

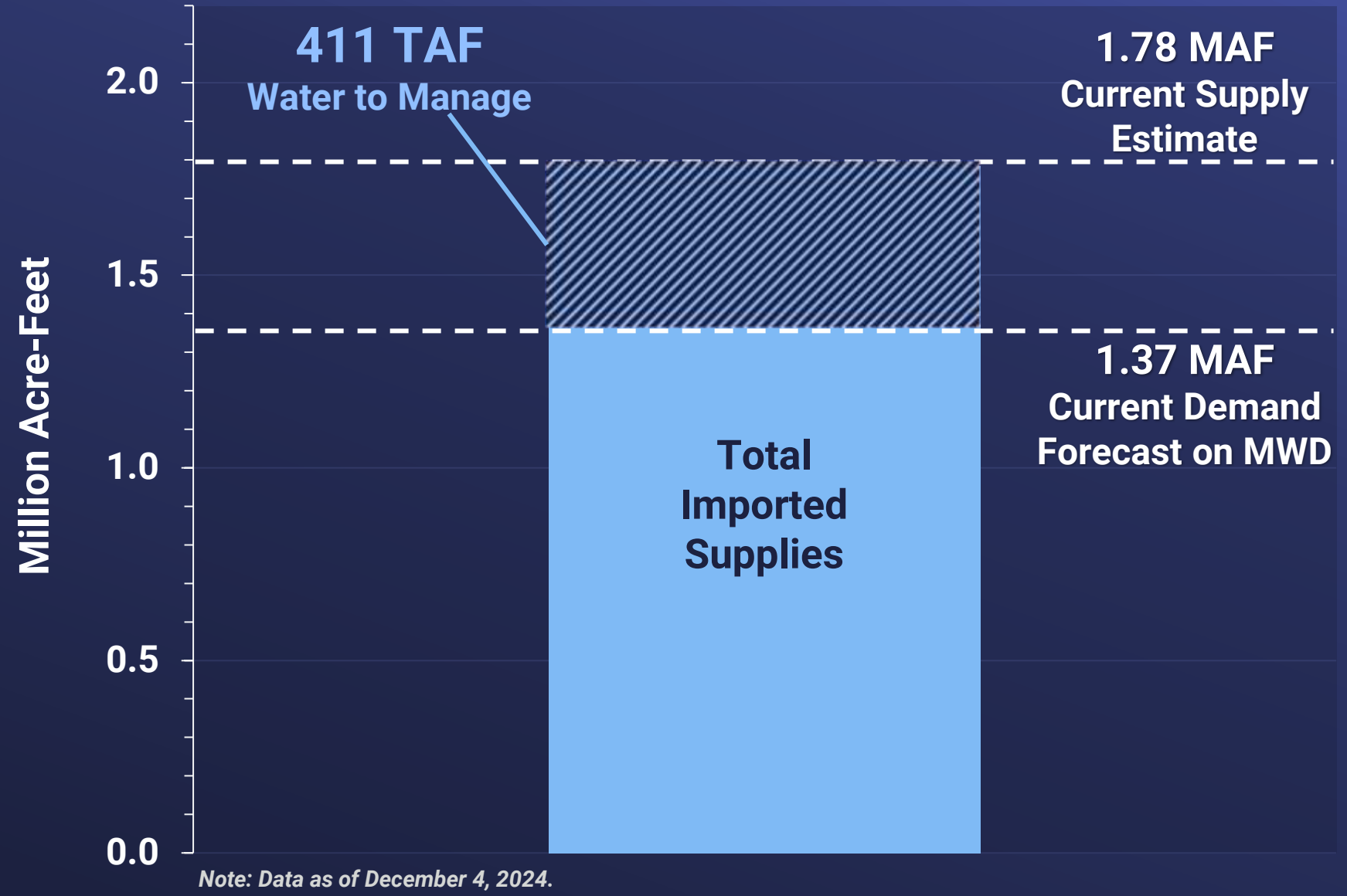
Note: Images not drawn to scale.

2024 Water Supply/Demand Balance: Regional View



Note: Data as of December 4, 2024.

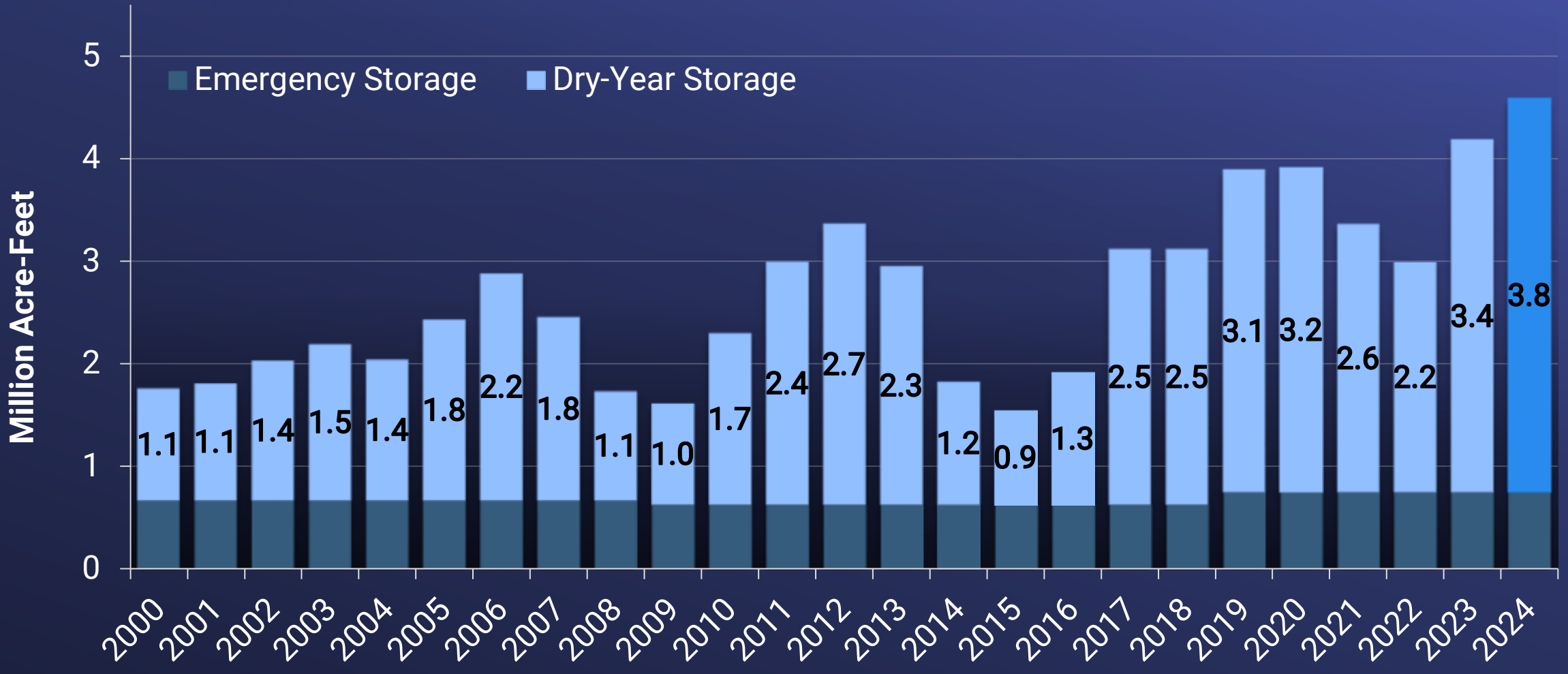
2024 Water Supply/Demand Balance: Regional View



Note: Data as of December 4, 2024.

Record-High Storage Projection for Metropolitan

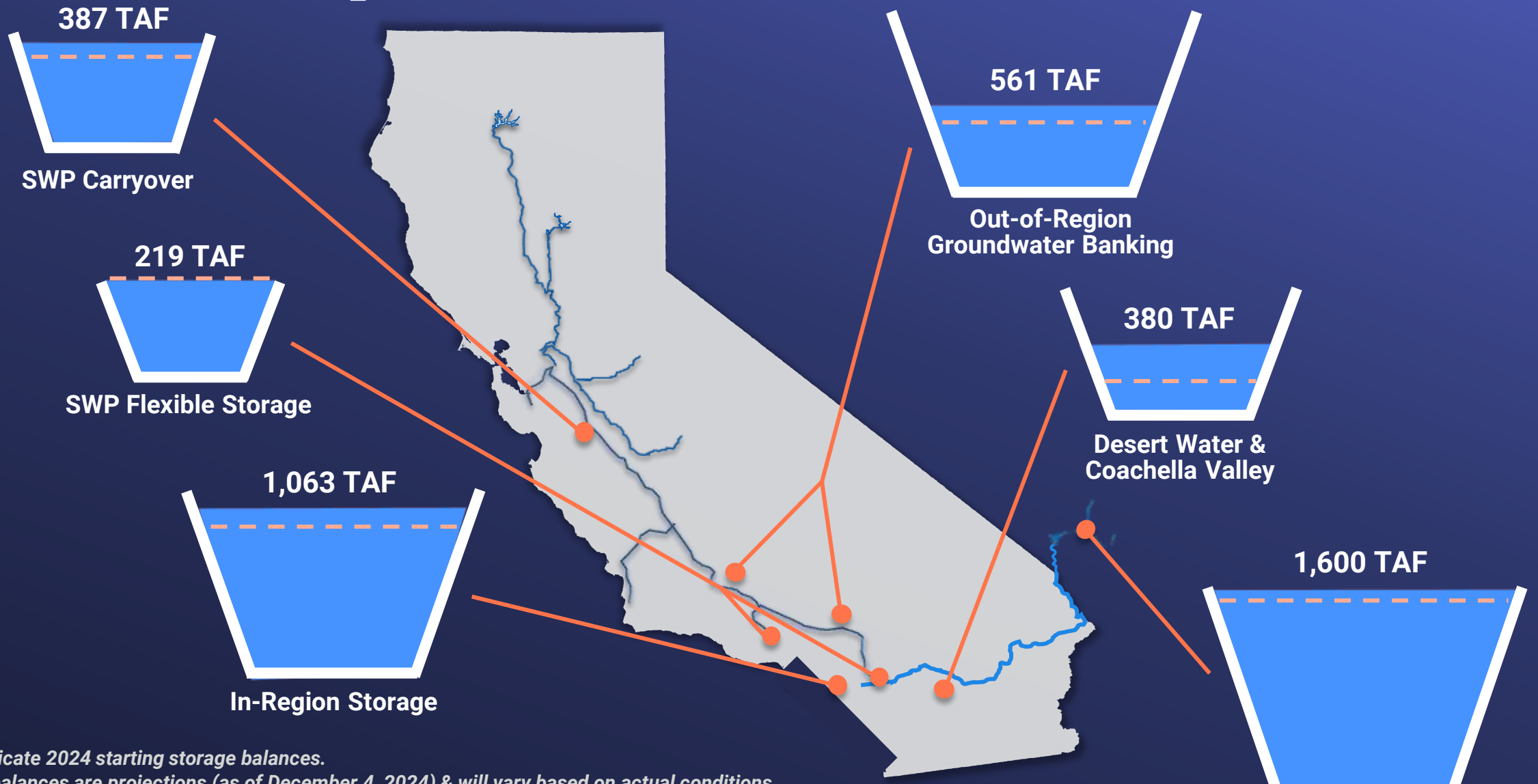
End-of-Year Balances



Note:
2024 end-of-year balance is preliminary as it is subject to DWR adjustments and USBR final accounting.


THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
1928

Metropolitan's 2024 Storage Actions



Notes:

1) *Dashed lines indicate 2024 starting storage balances.*
2) *Ending storage balances are projections (as of December 4, 2024) & will vary based on actual conditions.*
3) *In-region storage includes emergency storage.*
4) *Storage buckets and map are not drawn to scale.*

Bay-Delta Resources

- **Bay-Delta Management Report**

Summary

This report provides a summary of activities related to the Bay-Delta for November 2024.

Purpose

Informational

Detailed Report

Long-Term Delta Actions

Delta Conveyance Project

On October 8, 2024, the Department of Water Resources submitted a draft certification of consistency with the Delta Stewardship Council's Delta Plan for geotechnical activities planned for 2024 through 2026. Four appeals, representing about eighteen local agencies, conservation groups and Tribes, were filed by the appellant deadline of November 7, 2024. On November 18, 2024, Metropolitan held a joint One Water and Stewardship Committee and Board of Director's Workshop. The meeting included a workshop with two panels and a roundtable discussion on the Delta Conveyance Project. The goal of the workshop was to ensure the Board heard from a diverse range of leaders and voices ahead of the decision on additional funding for preconstruction activities related to the Delta Conveyance Project.

Sites Reservoir

On October 22, 2024, the California Department of Fish and Wildlife issued Sites Project Authority Incidental Take Permits for permits for construction and operations of the project on October 22, 2024. Issuance of these key permits allow the Sites Project Authority authorization to build and operate the project in compliance with the state's comprehensive endangered species laws.

Near-Term Delta Actions

Regulatory and Science Update

Staff presented an overview of the Healthy Rivers and Landscapes Science Plan as part of a multi-agency panel to the State Water Resources Control Board during the November 22, 2024, workshop on the draft updates to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Watershed. The Reorienting to Recovery (R2R) Project submitted a final report summarizing Phase 3 to the Delta Science Program as the final deliverable associated with their funding to support the project. Phase 3 applied a structured decision-making approach that engaged a diverse group of decision makers, interested parties, and technical experts in the Central Valley to identify a preferred recovery scenario that advances Salmonid recovery, balances other socioeconomic interests, and achieves a critical mass of support.

Delta Islands

On October 22, 2024, staff held a Webb Tract design optimization workshop. Surface elevation data was received for Webb Tract. Sixty-five percent (65%) design drawings are expected in December 2024. Staff visited several

restoration projects in the south Delta. An article highlighting Metropolitan's work on floating wetlands, and their potential benefit to the Delta, was published in Maven's Notebook.

Office of the General Manager

- **Colorado River Management Report**

Summary

This report provides a summary of activities related to management of Metropolitan's Colorado River resources for November 2024.

Purpose

Informational

Detailed Report

2024-26 California Forbearance Agreement Executed

Following board authorization on August 20, 2024, staff moved forward with executing a California Forbearance agreement that covers system conservation projects in California in 2024, 2025, and 2026. Under this forbearance agreement, Coachella Valley Water District (CVWD), Imperial Irrigation District (IID), Palo Verde Irrigation District (PVID), the City of Needles, and Metropolitan all agreed to not take delivery of water conserved pursuant to System Conservation Implementation Agreements with Reclamation and to leave that water in Lake Mead as system water. System Conservation agreements covered under this forbearance agreement include conservation activities in PVID, Bard Water District, Fort Yuma Quechan Tribe, CVWD, and IID and will cover approximately 1.1 million acre-feet (maf) of conserved water added to Lake Mead, or approximately 14 feet. This forbearance agreement was signed on November 13.

Post-2026 Operational Guidelines Alteratives

The U.S. Bureau of Reclamation (Reclamation) released four proposed action alternatives to be analyzed as part of the Post-2026 Operational Guidelines Environmental Impact Statement (EIS). The Lower Basin Alternative was not identified as one of the alternatives to be analyzed, instead Reclamation combined elements of the Lower Basin Alternative, Upper Division States Alternative, and Tribal alternatives into the Basin Hybrid Alternative. Reclamation also plans to analyze two federal alternatives and the Cooperative Conservation Alternative that incorporate elements of an alternative submitted by a group of non-governmental organizations. Lake Powell releases included in the various alternatives range from 5 - 12. maf , with Reclamation reserving the right to further reduce releases if necessary to protect Glen Canyon Dam infrastructure and make releases from specified reservoirs above Lake Powell to protect Glen Canyon Dam infrastructure. Lower Basin shortages up to 4 maf will be modeled, along with Upper Basin conservation that may serve as a contribution, although details have yet to be provided on how this would be implemented. New conservation and storage in both Lake Powell and Lake Mead will be analyzed in the Basin Hybrid Alternative. Reclamation plans to provide additional details about the alternatives at the Colorado River Water Users Association Conference in Early December 2024.

Date of Report: 12/10/2024

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Board Report

Water Resource Management Group

- **Water Resource Management November Activities**

Summary

The Water Resource Management Group November 2024 Monthly Activities

Purpose

Informational

Detailed Report

Ensure Access to Sufficient Water Supplies to Operate a Full Colorado River Aqueduct in Times of Drought

Staff attended a two-day meeting of the Colorado River Basin Salinity Control Forum (Forum) in Scottsdale, Arizona. Topics discussed included (1) progress toward federal legislation to reduce the state cost-share requirement from 30 percent to roughly 15 percent for salinity control funding from the Natural Resources Conservation Service (NRCS), which would reduce the existing Salinity Control Program (Program) funding deficit; (2) a report that seismic activity in the Paradox Valley related to the operation of the Paradox Valley Unit has returned to normal levels after increasing temporarily in March 2024; (3) preparations for the 2026 "Triennial Review," in which the Forum communicates to the U.S. Environmental Protection Agency an assessment of the sufficiency of existing water quality criteria for salinity on the Lower Colorado River; and (4) updates from key federal agencies involved in the Program, including the U.S. Bureau of Reclamation, NRCS, the Bureau of Land Management, and the U.S. Geological Survey. *Strategic Priority 3.2.1 "Advance multiple strategies toward sustainable Colorado River supplies and toward broad agreement in long-term compact negotiations."*

The Paradox Valley Unit. Photo credit: U.S. Bureau of Reclamation.

Date of Report: 12/9/2024

Staff attended the 30th Anniversary Celebration for the U.S. Department of Agriculture's (USDA) George E. Brown Jr. Salinity Laboratory on the campus of the University of California at Riverside. The celebration included brief speeches by dignitaries and a tour of the laboratory's research activities, including research on the salinity tolerance of alfalfa. *Strategic Priority 3.2.1 "Advance multiple strategies toward sustainable Colorado River supplies and toward broad agreement in long-term compact negotiations."*

Entrance to the USDA George E. Brown, Jr., Salinity Laboratory. Photo credit: Justin Neal.

Complete the Urban Water Management Plan (UMWP)

Since April 2024, staff has been participating in the development of The Department of Water Resources (DWR) 2025 UWMP Guidebook through statewide urban water agency work group meetings and one-on-one meetings with DWR. Staff continues to provide input in developing guidance and reporting tables aimed at maintaining consistency with the UWMP Act as stated in the Water Code. The DWR is scheduled to host a public meeting in January 2025 to discuss the draft guidebook. The DWR anticipates that the Final 2025 UWMP Guidebook will be released in the June-July 2025 timeframe. *Strategy Priority 5.1: "Grow and deepen collaboration and relationships among member agencies, interested parties, and leaders on the issues most important to them and toward mutual and/or regional benefits."*

Collaborate with Member Agencies, Water Agencies and Associations, and Provide Leadership for Policy Development, Advocacy, Outreach and Education

On November 14, staff gave a presentation on Southern California's current water supply and demand at the Fall 2024 California Municipal Rates Group Conference in Riverside, CA. *Strategic Priority 5.1 "Grow and deepen collaboration and relationships among member agencies, interested parties, and leaders on the issues most important to them and toward mutual and/or regional benefits."*

Implement Future Supply Actions Funding Program (FSAFP)

On November 12, 2024, Metropolitan and the Long Beach Public Utilities Department entered into a Future Supply Actions Funding Program agreement for the Groundwater Augmentation, Groundwater Collection System, and New Wells Site Study. Under this agreement, Metropolitan will provide a not-to-exceed funding of $499,802 to further develop a framework for future groundwater enhancement projects. This study will update existing groundwater and hydraulic models to evaluate potential well sites for future groundwater recharge and system improvement efforts. This agreement is the first of seven to be fully executed under the third round of the FSAFP. *Strategy Priority 5.1: "Grow and deepen collaboration and relationships among member agencies, interested parties, and leaders on the issues most important to them and toward mutual and/or regional benefits."*

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Board Report

Sustainability, Resilience, Innovation Group

- **Sustainability, Resilience, Innovation GM Monthly Report**

Summary

Sustainability Resilience Innovation Office November 2024 Monthly Activities

Purpose

Informational

Detailed Report

SRI Core Activities

SRI and the Core Planning Team for the Climate Adaptation Master Plan for Water (CAMP4W) continued work on the Evaluative Criteria element of the climate decision-making framework. Four test assessments of projects and programs were shared in a workshop with the Member Agency managers and the CAMP4W Taskforce. In addition, Working Memorandum #8 on Signposts and Time-Bound Targets and Working Memorandum #9 on Project, Program and Portfolio Assessment were provided for review. On November 13-14, Chief SRI Officer Crosson participated in the Advisory Council for Climate Adaptation Science, meeting with peers from across the United States to advance climate adaptation research.

Sustainability and Resilience

Zero Emission Vehicle (ZEV) Transition: SRI continued to work with ESG and the Fleet Services Unit to transition Metropolitan's fleet to ZEVs in order to comply with CARB's Advanced Clean Fleet regulation. Metropolitan's fleet currently has 12 ZEVs with 21 total planned by the end of this calendar year. Additional ZEV purchases are dependent on an additional funding request to the Board in February 2025. Metropolitan currently has 15 interim chargers in its service area, with a total of 35 installed by 2025 year-end. Fleet continues to coordinate with ESG for interim chargers while ESG is responsible for Metropolitan's long-term charging capital project that is now underway. In November, SRI met with the Port of Long Beach to gain valuable information on how the Port uses an extensive network of solar microgrids to charge vehicles. SRI, Fleet, and the Safety, Regulatory, and Training Section completed a user guide for employees that drive Fleet ZEVs. The user guide supplements the vehicle manufacturer's manual and is a quick reference on ZEV operations, safety do's and don'ts, and charger types and tips. A training video is being developed that will provide the driver handout information for employees to view prior to driving a Fleet ZEV.

Envision Training: On November 20, SRI coordinated Envision training at Gene Camp for 12 desert staff. This is the eighth Envision training conducted, providing staff across the district with an opportunity to learn about how sustainable infrastructure is planned, developed, and operated. Those interested can pursue certification as an ENV-SP from the Institute of Sustainable Infrastructure.

Date of Report: December 9, 2024

Envision training at Gene Camp for 12 desert staff

Centralized Grants Management Office

Nothing to report.

Innovation, Pilots, and Emerging Technologies

This month the SRI Office welcomed Patrick Atwater as Metropolitan's new Innovation Program Manager. Patrick joined Metropolitan from Crescenta Valley Water District where he served as Regulatory and Public Affairs Manager. Prior to that, Patrick worked with California Forward as a Senior Research Analyst where he developed socioeconomic mobility measurement tools. He is also one of the founders of the California Data Collaborative (CaDC) which brings together water utilities and data scientists. Patrick will work with SRI staff to build on Metropolitan's Innovation programs to advance sustainability and resilience across the district.

Environmental Planning Services

Environmental Planning Section staff continued to prepare California Environmental Quality Act (CEQA) documentation for capital projects. Staff finalized the Board letter and associated presentation for certification of the Final Environmental Impact Report (EIR) for the Garvey Reservoir Rehabilitation Project. Following certification of the Final EIR at the November Board meeting, staff prepared and filed Notices of Determination with the State Clearinghouse and Los Angeles County Clerk. Staff continued to prepare the draft EIR for the Pure Water Southern California program, including continuing internal review of first screen check draft document sections. Consultation with state and federal wildlife agencies continued for Endangered Species Act permitting for the Inland Feeder/Foothill Pump Station Intertie Project, with staff submitting the draft Biological Assessment to the U.S. Bureau of Reclamation for review. Environmental monitoring of construction activities continued for the Rialto Pipeline Rehabilitation, Perris Valley Pipeline, Prestressed Concrete Cylinder Pipe Second Lower Feeder Reach 3B, Weymouth Basins 5 to 8 Rehabilitation, and La Verne Shops Upgrades projects.

Critical operations and maintenance activities were supported by the Environmental Planning Section. Staff provided CEQA and regulatory clearances and conducted pre-construction biological resource surveys and construction monitoring for maintenance activities throughout the service area. Staff participated in Association of California Water Agencies and California Council for Environmental and Economic Balance working groups on proposed state Endangered Species Act permit streamlining. Staff reviewed 10 external project CEQA notices and prepared comment letters for proposed projects that may affect Metropolitan facilities and/or operations.

Environmental Planning Section continued oversight of reserve management activities to protect valuable natural resources and meet Metropolitan's mitigation obligations. Security patrols were conducted throughout the Lake

Mathews Multiple Species Reserve and the Southwestern Riverside County Multi-Species Reserve (MSR) to prevent trespassing, vandalism, poaching, and theft and to protect the reserves' natural and cultural resources, facilities, and equipment. Specific activities at the Lake Mathews Reserve included removal of invasive vegetation, application of herbicide at gate entrances and along reserve roads, targeted mowing to remove dense populations of invasive stinket (*Oncosiphon pilulifer*) and Russian thistle (*Salsola tragus*), and repairs to patrol roads and fencing. Activities at the MSR included removal of non-native (invasive) species for fire and habitat management, mowing of the Lake Skinner Equestrian Trail, maintenance of trees and removal of fallen limbs along roads, collection of native plant cuttings and seeds to support habitat restoration, planting of mulefat cuttings in the Tucalota Creek riparian restoration site, and invasive tree pest assessments in the Reserve's oak woodlands. Finally, the Alamos Schoolhouse interpretive center at the MSR was open on Saturdays and hosted over 130 visitors in November.

Land Management

Hemet Unified School District was issued a short-term license to allow cross-country events and other recreational activities on the recreation trail at Diamond Vally Lake (DVL). The cross-country event held on November 14th had a large turnout generating positive public exposure and supporting good community relations.

Land Management staff collaborated with WSO and the External Affairs, Education Team to facilitate a Water Education Event at the Hinds Pumping Plant campus. A facility use permit was issued to Eagle Mountain School for approximately 30 students and 12 staff members to visit the pumping plant, where multiple educational, activities for Pre-K through 8th grade level, were conducted by the Education Team.