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.

Special Jt Mtg One Water Stewardship Comm and Board of Directors Wksp - Final - Revised 3

November 18, 2024

1:00 PM

Monday, November 18, 2024 Meeting Schedule
09:00 a.m. EOT 11:00 a.m. Break 11:30 a.m. Legal 01:00 p.m. Sp Jt OWS and BOD

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: 891 1613 4145.

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.

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Teleconference Locations:
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City Hall • 303 W. Commonwealth Avenue • Fullerton, CA 92832
3008 W. 82nd Place • Inglewood, CA 90305
Cedars Sinai • 8700 Beverly Boulevard Room M313 • Los Angeles, CA 90048
3 D'Apostoli • Florence Italy
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. Call to Order

2. Roll Call

3. Determination of a Quorum

Boardroom

4. Opportunity for members of the public to address the Board limited to the items listed on the agenda. (As required by Gov. Code §54954.3(a))

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 for October 7, 2024 (Copies have been submitted to each Director, any additions, corrections, or omissions) **21-3936**

Attachments: 11182024 Jt. OWS & BOD 5A (10072024) Minutes

6. CONSENT CALENDAR ITEMS - ACTION

7-3 Authorize the General Manager to enter into Reverse-Cyclic Program agreements with participating agencies to defer deliveries of up to 50,000 acre-feet 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 **21-3957**

Attachments: 11192024 OWS 7-3 B-Lpdf
11182024 OWS 7-3 Presentation

7-4 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. [ACTION ITEM DEFERRED REPORT AT OWS ITEM 9e 11/15/2024] **21-3958**

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

7. OTHER BOARD ITEMS - ACTION

NONE

8. BOARD INFORMATION ITEMS

9-2 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 **21-3959**

Attachments: 11192024 OWS 9-2 B-L
11182024 OWS 9-2 Presentation

9. COMMITTEE ITEMS

a. Update on Conservation as a California Way of Life **21-3974**

Attachments: 11182024 OWS 9a Report

b. Update on Water Surplus and Drought Management **21-3975**

Attachments: 11202024 OWS 9b Report

c. Update on Basin States Discussions Regarding Post-2026 Operational Guidelines **21-3976**

Attachments: 11182024 OWS 9c Presentation

d. Draft Climate Adaptation Master Plan for Water Policy Framework **21-3977**

Attachments: 11182024 OWS 9d C-L
11182024 OWS 9d Presentation

e. Report on agreements with the U.S. Bureau of Reclamation to implement phase two of the Lower Colorado River Basin System Conservation and Efficiency Program. [ADDED ITEM 11/15/2024] **21-4078**

Attachments: 11182024 OWS 9e Presentation

10. MANAGEMENT ANNOUNCEMENTS AND HIGHLIGHTS

a. Bay-Delta Resources activities **21-3937**
Colorado River Resources activities
Sustainability, Resilience and Innovation activities
Water Resource Management activities

Attachments: 11192024 OWS 10a Bay-Delta Resources Activities
11192024 OWS 10a Colorado River Resources Activities
11182024 OWS 10a Sustainability, Resilience, and Innovation Activities

11. COMMITTEE REPORTS

Boardroom

a. Report on the Delta Conveyance Design and Construction Authority Meeting **21-3938**

b. Report on Delta Conveyance Finance Authority Meeting **21-3939**

c. Report on the Bay-Delta Ad Hoc Meeting **21-4017**

12. SUBCOMMITTEE REPORTS AND DISCUSSION

a. Discuss and provide direction to Subcommittee on Demand Management and Conservation Programs and Priorities **21-3941**

13. ADJOURN TO BOARD WORKSHOP

SPECIAL BOARD ITEMS

a. Reconvene - Workshop on Department of Water Resources Request for Delta Conveyance Project Planning Funds **21-4006**

b. Panel One – Delta and Tribal Interests [UPDATED SUBJECT 11/14/2024] **21-4008**

Panelist:

Barbara Barrigan-Parrilla, Executive Director, Restore the Delta

Max Gomberg, Water Policy Advisor

Supervisor Patrick Hume, Chair, Delta Counties Coalition

Malissa Tayaba, Vice-Chairperson of the Shingle Springs Band of Miwok Indians

c. Panel Two - Business and Labor. [UPDATED SUBJECT 11/14/2024] **21-4007**

Panelist:

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

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

Jon Switalski, Executive Director, Rebuild SoCal Partnership

Charley Wilson, Executive Director, Southern California Water Coalition

d. Roundtable discussion with representatives from environmental and community organizations, tribal leadership, business and labor sectors. [ADDED SUBJECT 11/14/2024] **21-4074**

14. FOLLOW-UP ITEMS

NONE

15. FUTURE AGENDA ITEMS

16. ADJOURNMENT

NOTE: Each agenda item with a committee designation will be considered and a recommendation may be made by one or more committees prior to consideration and final action by the full Board of Directors. The committee designation appears in parenthesis at the end of the description of the agenda item, e.g. (EOT). Board agendas may be obtained on Metropolitan's Web site https://mwdh2o.legistar.com/Calendar.aspx

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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

ONE WATER AND STEWARDSHIP COMMITTEE

October 7, 2024

Vice Chair Faessel called the meeting to order at 3:31 p.m.

He announced that Chair Quinn was delayed and that the Consent Calendar was being pulled momentarily in order to go directly to Committee Items starting with Item 6b.

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

Members absent: Directors Armstrong and Erdman.

Other Board Members present: Directors, Fellow, McCoy, McMillan, Morris, Ortega, Ramos (teleconference posted location), Seckel, and Smith (teleconference posted location).

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

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

1. Bryce Lundberg, Lundberg Family Farms and Western Canal Water District, spoke in support of item 7-7.
2. Emily Papalardo, Sacramento San Juaquin Delta, spoke in opposition to Item 6a.
3. Walt Myer, Richvale Irrigation District, spoke in support of Item 7-7.
4. Barbara Barragan-Parrilla, Restore the Delta, spoke in opposition to item 6a.
5. Justin Breck, L.A. Water Keeper, spoke in opposition to Item 6a.

CONSENT CALENDAR ITEMS -- ACTION

Chair Quinn and Director Gold entered the meeting. Chair Quinn took back control of the meeting.

2. CONSENT CALENDAR OTHER ITEMS -- ACTION

A. Approval of the Minutes of the One Water and Stewardship Committee Meeting for September 9, 2024.

3. CONSENT CALENDAR ITEMS – ACTION

7-4 Subject: Authorize the General Manager to enter into Reverse-Cyclic Program agreements with participating agencies to defer deliveries of purchases under various water supply conditions; 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 purchases under various water supply conditions consistent with the terms in the board letter.

Presenter: None.

Director Sutley made a motion, seconded by Director Alvarez, to defer item 7-4.

The vote was:

Ayes:	Directors Alvarez, Cordero, De Jesus, Fong-Sakai, Gold, Goldberg, Kurtz, Lefevre, Lewitt, Miller, Quinn, and Sutley.
Noes:	Director Faessel.
Abstentions:	Directors Ackerman and Pressman.
Absent	Directors Armstrong, and Erdman.

The motion to defer item 7-4 passed by a vote of 12 ayes, 1 no, 2 abstentions, and 2 absent.

Director Miller requested discussion and presentations on items 7-6 and 7-7.

7-5 Subject: Authorize resolutions to support two applications selected to receive United States Department of the Interior, Bureau of Reclamation WaterSMART; Water and Energy Efficiency Grant Program funding for Fiscal year 2024 totalling $2million; and authorize the General Manager to accept the funding and enter contract with the United States Department of the Interior, Bureau of Reclamation; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

Motion: Authorize resolutions to support two applications selected to receive for United States Department of the Interior, Bureau of Reclamation WaterSMART: Water and Energy Efficiency Grant Program funding for FY24 totaling $2 million; and authorize the General Manager to accept this funding and enter contracts with the United States Department of the Interior, Bureau of Reclamation.

Presenter: No presentation was given.

7-6 Subject: Review and consider the Lead Agency's certified 2022 Fiscal Environmental Impact Report for the Chino Basin Program and take related CEQA actions, and authorize the General Manager to enter into an exchange agreement with Inland Empire Utilities Agency to assist in the implementation of the program

Motion: Review and consider the Lead Agency's certified 2022 Final Environmental Impact Report for the Chino Basin Program and take related CEQA actions, and authorize the General Manager to enter into an exchange agreement with Inland Empire Utilities Agency to assist in the implementation of the program.

Presenter: Areeba Syed, Engineer, Water Resource Management

Mr. Brandon J. Goshi, Interim Manager, Water Resource Management provided background information and introductory comments.

Ms. Syed gave a presentation on the proposed action that would authorize the General Manager to enter into an exchange agreement with Inland Empire Utilities Agency to assist in the implementation of the Chino Basin Program, and she explained the negotiated Agreement Terms.

The following Directors provided comments or asked questions:

1. Miller
2. Fong-Sakai
3. Smith

7-7 Subject: Authorize the General Manager to enter into agreements with Western Canal Water District and Richvale Irrigation District for water transfer optioins and first rights of refusal during 2025 through 2027; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

Motion: Review and consider the Lead Agency's certified 2022 Final Environmental Impact Report for the Chino Basin Program and take related CEQA actions, and authorize the General Manager to enter into an exchange agreement with Inland Empire Utilities Agency to assist in the implementation of the program.

Presenter: No presentation was given.

The following Directors provided comments or asked questions:

1. Miller
2. Lewitt
3. Ackerman
4. Sutley
5. Ortega
6. Cordero

Staff responded to Directors' questions and comments.

Director Sutley made a motion, seconded by Director Ackerman, to approve the consent calendar consisting of items 2A, 7-5, 7-6, and 7-7.

The vote was:

Ayes:	Directors Ackerman, Alvarez, Cordero, De Jesus, Faessel, Fong-Sakai, Gold, Goldberg, Kurtz, Lefevre, Lewitt, Miller, Pressman, Quinn, and Sutley.
Noes:	None.
Abstentions:	Director Cordero Item 2A.
Absent	Directors Armstrong, and Erdman.

The motion for item 2A passed by a vote of 14 ayes, 0 noes, 1 abstentions, and 2 absent.
The motion for items 7-5, 7-6, and 7-7 passed by a vote of 15 ayes, 0 no, 0 abstentions, and 2 absent.

END OF CONSENT CALENDAR ITEMS

4. OTHER BOARD ITEMS – ACTION

None.

5. BOARD INFORMATION ITEMS

None.

6. COMMITTEE ITEMS

a. Subject: Bay-Delta and Conveyance: Managing Risks and Water Supply Reliability

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

Mss. Hawk and Martin co-presented an update on actions to address risks to the State Water Project and Bay-Delta water supply reliability. They discussed background information on Bay-Delta-related risk factors, the Delta Conveyance Project, and associated planning funding.

The following Directors provided comments or asked questions:

1. Sutley
2. Gold
3. Alvarez
4. Lefevre
5. Smith
6. Fong-Sakai
7. Miller
8. Seckel
9. Lewitt
10. Ortega
11. Quinn

Staff responded to the Directors' questions and comments.

Director Quinn left the meeting and Director Feassel took back control of the meeting. He requested that the rest of the committee items be deferred in the interests of time.

b. Subject: Update on Basin States discussions regarding post-2026 operational guidelines

Presented by: This item was deferred.

c. Subject: Update on Conservation As a California Way of Life

Presented by: This item was deferred.

d. Subject: Update on Conservation Program

Presented by: This item was deferred.

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

Presented by: This item was deferred.

7. MANAGEMENT ANNOUNCEMENTS AND HIGHLIGHTS

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

Presented by: John Bednarski, Interim Assistant General Manager

Mr. Bednarski noted that his management report was submitted in writing.

8. COMMITTEE REPORTS

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

There was none.

b. Report on Delta Conveyance Finance Authority Meeting

There was none.

c. Report on Bay-Delta Ad Hoc Meeting

Director McMillan provided a report on the Bay-Delta Ad Hoc Meeting held on September 16, 2024.

9. SUBCOMMITTEE REPORTS AND DISCUSSION

Vice Chair Faessel stated that there was no update from Subcommittee on Demand Management and Conservation Programs and Priorities since the committee has not met.

10. FOLLOW-UP ITEMS

Director Gold requested for future Colorador River updates to be scheduled where there would be adequate time for a presentation and discussion.

11. FUTURE AGENDA ITEMS

None.

12. ADJOURNMENT

The next meeting will be held on November 18, 2024.

The meeting adjourned at 5:43 p.m.

Tracy Quinn
Chair

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

11/19/2024 Board Meeting

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-feet 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

Executive Summary

Staff proposes the Board of Directors ("Board") authorize the General Manager to enter into Reverse-Cyclic Program ("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. This will generate new water sales revenues in the current biennium while allowing Metropolitan and the member agencies to defer and manage the delivery of water supply. Staff presented the potential modifications to the Program as an Information Letter to the One Water and Stewardship Committee in September 2024. Staff have since incorporated member agency and committee feedback into the recommended proposed modifications and is seeking approval and implementation of the Program. The Board previously approved and implemented a limited, one-year version of the Program in CY 2022 to help preserve Metropolitan's limited State Water Project ("SWP") stored supplies and generate water sales revenues. By initiating the Program this year, Metropolitan will benefit from generating additional revenue while allowing member agencies saturated with high local supplies the ability to pre-purchase supplies for deferred delivery in a future year when they are better able to accept Metropolitan deliveries.

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

Staff Recommendation: Option #1

Option #1

Authorize the General Manager to enter into Reverse-Cyclic Program agreements with participating agencies to defer deliveries of up to 50,000 acre-feet in calendar year 2024 and up to 50,000 acre-feet in calendar year 2025.

Fiscal Impact: The Program will generate new revenues at the full-service water rate for every acre-foot of program participation without incurring current-year costs associated with the delivery of water supply, providing positive net revenues in the current budget biennium. These new revenues will help Metropolitan to achieve the Board's approved directive to generate up to $60 million in new, one-time revenues in Fiscal Years 2024/25 and 2025/26 and manage unrestricted cash reserves in accordance with Board approved policies. Future costs of the delivery of water supply associated with the Reverse-Cyclic Program, if applicable, will be incorporated into the revenue requirements in budget and rates for the appropriate future biennium budgets. In dry years, the difference in revenues due to increases in the full-service rate between the time of purchase and the time of delivery is anticipated to be offset with savings to Metropolitan that would accrue from having to acquire water during drought years of the pre-purchase. In wet years, the Program is

implemented when Metropolitan has water in storage and would have incurred the cost to store that water regardless of the pre-sale. Metropolitan benefits from the time value of the money by receiving revenues this year for deliveries that will be made in a future year. This program balances Metropolitan's current hydrologic and financial conditions, marked by record water storage levels and low water transaction revenues.

Business Analysis: The Program will generate revenues in the current budget biennium by increasing water sales revenues from pre-purchased sales. The Program will allow member agencies and Metropolitan to be able to defer and plan for the water deliveries over a future period that ensures that adequate water supplies are available and that the member agencies can take delivery of the deferred water supply.

Option #2

None required

Fiscal Impact: Potential loss of full-service water sales revenue in the current budget biennium.

Business Analysis: Not implementing the Reverse-Cyclic Program would decrease the potential for generating new revenues in the current biennium and potentially increase costs necessary to meet demands in future dry years

Alternatives Considered

None

Applicable Policy

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

Metropolitan Water District Administrative Code Section 4209: Contracts

Metropolitan Water District Administrative Code Section 4507: Billing and Payment of Water Deliveries

By Minute Item 43514, dated April 13, 1999, the Board adopted the Water Surplus and Drought Management Plan

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

By Minute Item 52707, dated February 8, 2022, the Board authorized the General Manager to enter into Reverse-Cyclic agreements with participating agencies to preserve the availability of State Water Project supplies to Metropolitan.

Summary of Outreach Completed

Staff presented the potential modifications to the Reverse-Cyclic Program to the member agency managers meeting in August 2024.

Staff brought an informational report on the potential modifications to the Reverse-Cyclic Program to the One Water and Stewardship Committee in September 2024.

California Environmental Quality Act (CEQA)

CEQA determination(s) for Option #1:

The proposed action is exempt from CEQA because it involves entering into Reverse-Cyclic agreements for the deferred delivery of surplus water at existing public or private facilities with negligible or no expansion of use and no possibility of significantly impacting the physical environment. (State CEQA guidelines Section 15301).

CEQA determination(s) for Option #2:

None required

Details and Background

Background

Metropolitan is currently faced with the challenge of managing water supplies while also managing a new revenue requirement in the current budget biennium. Metropolitan seeks to expand its portfolio of water management actions and programs available to address those challenges. While the back-to-back wet years have allowed Metropolitan to reach record-high dry-year storage levels, Metropolitan continues to experience low demands due to the overall cooler weather and member agency constraints such as limited capacity due to refilled reservoirs and replenishment basins. The Program is one of the approaches that can help to generate additional water sales revenues in the current budget biennium and to mitigate capacity or other restricted conditions. Staff proposes authorizing the General Manager to enter into agreements with member agencies based on the proposed modified terms described in **Attachment 1** and implementing the Program to allow all member agencies to pre-purchase a combined amount of up to 50,000 acre-feet in CY 2024 and up to 50,000 acre-feet in CY 2025 for future delivery. Allowing Reverse-Cyclic purchases will generate revenue to help meet the financial requirements of the current biennial budget.

Board Approval of the 2022 Reverse-Cyclic Program

During the 2020-2022 drought, the Board took actions to mitigate historically low SWP allocations by authorizing programs to preserve limited SWP stored supplies. As a result, in February 2022, the Board approved the Program to allow member agencies to purchase water in CY 2022 for delivery in a future year. Member agencies paid the full-service rate in effect at the time of purchase, generating revenue that Metropolitan would not have received without the Program. Three SWP-Dependent member agencies participated in the 2022 Reverse-Cyclic Program and pre-purchased an aggregate amount of 24,661 acre-feet before the Program ended on December 31, 2022. To date, Metropolitan has completed a majority of the 2022 Reverse-Cyclic deliveries and currently has a Reverse-Cyclic balance of 2,661 acre-feet. Metropolitan expects to complete the remaining 2022 balance by December 2027.

Member Agency and Committee Feedback on Proposed Modifications

Staff presented potential modifications to the Program to the Member Agencies Managers Meeting ("MAMM") in August 2024. In September 2024, staff provided an introduction and overview of the proposed modifications to the One Water and Stewardship Committee. In October 2024, this item was deferred to November 2024 to provide member agencies more time to review and evaluate the Program terms. In late October, staff held a workshop with member agencies to address concerns and receive feedback on the proposed modifications. Based on the feedback received, staff has made the following changes to the proposed modifications: (1) removed the request for authorization and delegation to the General Manager for initiating the Program, (2) removed the condition for member agencies to meet a baseline prior to receiving Reverse-Cyclic deliveries, and (3) added a provision that, if member agency total interest exceeds the 100,000 acre-feet for the two authorized calendar years, staff will return to the Board to request an increase to the Reverse-Cyclic water made available for pre-purchase to meet the member agency total interest. If the demand for participation exceeds 100,000 acre-feet but the Board opts to not increase the optimization, staff will propose a methodology to distribute the authorized amount among the interested member agencies to the Board for approval.

Proposed Modifications to the Reverse-Cyclic Program and General Terms

Staff recommends that the Board authorize the General Manager to enter into Reverse-Cyclic Program agreements with participating agencies based on modified terms from the 2022 version of the Program and initiate the Program to make up to 50,000 acre-feet available for pre-purchase in CY 2024 and up to 50,000 acre-feet in CY 2025. If member agency total demand for the Program exceeds 100,000 acre-feet, staff will return to the Board to request an increase to and allocation of the amount of water made available to the member agencies for pre-purchase for deferred delivery.

General Terms

The following conditions will apply to the Program:

- Metropolitan and the participating member agencies will enter into individual agreements.
- Metropolitan will make up to 50,000 acre-feet available for pre-purchase in CY 2024 and up to 50,000 acre-feet available for pre-purchase in CY 2025 for deferred delivery.
- Metropolitan will bill the member agency at the full-service water rate in effect, plus the treatment charge, if applicable, at the time of the purchase.
- At the time of purchase, the member agency and Metropolitan agree to defer Metropolitan deliveries of Reverse-Cyclic water.
- Metropolitan will include the future member agency water deliveries under the Program as allocated supply under a Metropolitan Water Supply Allocation Plan implementation or any other allocation or shortage program that may be implemented.
- When Metropolitan determines water is available to deliver to participating agencies, Metropolitan will deliver water to reduce the balance of supplies deferred under the Program.
    - Metropolitan, at its sole discretion, shall determine when the water may be returned.
    - Deliveries will be negotiated based on the conditions for Metropolitan and the member agency but will not exceed five full calendar years from the date of purchase unless the Parties mutually agree to a different delivery schedule.
    - Metropolitan will make best efforts to prioritize deliveries to the member agency if there is a critical need; for example, the groundwater storage basin reaches low levels where wells are not operable, or the basin reaches emergency storage levels.
    - If Metropolitan is unable to deliver the pre-purchased water within five years due to the member agency's inability to receive the water, then losses shall be applied to the pre-purchased water at a rate of 20 percent per year. Metropolitan will not apply any losses to the pre-purchased water if the water is delivered within five years or if delivered after five years due to Metropolitan's inability to deliver the water within that time period.

Reporting and Billing

Metropolitan regularly reports to the Board on developing supply and demand conditions through WSDM Plan reports. Staff provides these monthly reports through the winter and spring and keeps the Board apprised of developing conditions, including the potential use of storage assets and the likelihood of storing or withdrawing supplies. Implementation of the Program will be incorporated into this regular reporting.

Under the Program, Metropolitan will bill the member agency the full-service water rate plus the treatment charge, if applicable, at the time of the purchase. Under the Program, billing will occur before delivery is made, modifying the timing of billing required under Section 4507 of the Metropolitan Administrative Code (normally required at the time of delivery); all other aspects of Section 4507 will continue to apply. Member agency purchases under the Program will be part of the member agency's Revised Base Firm Demand for the year of the purchase. Metropolitan will include purchases made under this Program to determine the member agency's Readiness-to-Serve Charge at the time of purchase but will not include the purchase or delivery in the determination of the agency's Capacity Charge because the initiation of the Program and the deliveries are at Metropolitan's discretion.

Summary

Authorizing the General Manager to enter into agreements based on the proposed modifications to the Reverse-Cyclic Program in CY 2024 and CY 2025 would help Metropolitan generate revenue at a time of low sales by allowing all interested member agencies to pre-purchase supplies this biennium for deferred delivery in a future

year. Metropolitan will bill member agencies the full-service rate and applicable treatment charge in effect at the time of purchase. In doing so, the member agency will avoid paying the projected higher service rate that would be in place when Metropolitan makes the deferred delivery.

11/7/2024

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

11/12/2024

Deven N. Upadhyay *Date*
Interim General Manager

Attachment 1 – Term Sheet Reverse-Cyclic Program

Ref# wrm12701119

Term Sheet

Reverse-Cyclic Program

Program Purpose

To allow the General Manager to enter into agreements with participating member agencies to allow the pre-purchase of water supplies and defer delivery of Metropolitan Water District of Southern California's ("Metropolitan") water.

Program Criteria

- Member agency and Metropolitan will enter into a Reverse-Cyclic Program ("Program") agreement to allow for delivery deferments of water purchased by member agencies, as provided under the Program.
- Member agency will purchase the water at the time of the deferment.
- At the time of purchase, the member agency and Metropolitan agree to defer Metropolitan deliveries of Reverse-Cyclic water.
- Metropolitan will bill the member agency at the full-service water rate in effect, plus the treatment charge if applicable, at the time of the purchase.
- Metropolitan will include member agency purchases under the Program as allocated supply under a Metropolitan Water Supply Allocation Plan implementation or any other allocation or shortage program that may be implemented.
- Water sold and delivered under the Program shall be documented and ineligible for other Metropolitan programs.

Delivery

- When Metropolitan determines water is available, Metropolitan will deliver water to the member agency to reduce the deferment balance under the Program.
    - Metropolitan, at its sole discretion, shall determine when the water may be returned.
    - Deliveries will be negotiated based on the conditions for Metropolitan and the member agency but will not exceed five full calendar years from the date of purchase unless the Parties mutually agree to a different delivery schedule.
    - Metropolitan will make best efforts to prioritize deliveries to the member agency if there is a critical need; for example, the groundwater storage basin reaches low levels where wells are not operable, or the basin reaches emergency storage levels.

- Metropolitan will not apply any losses to the pre-purchased water if the water is delivered within five years or if delivered after five years due to Metropolitan's inability to deliver the water within that time. If Metropolitan is unable to deliver the pre-purchased water within five years due to the member agency's inability to receive the water, then losses shall be applied to the pre-purchased water at a rate of 20 percent per year.

Program Costs

- Metropolitan will bill the member agency at the full-service water rate in effect, plus the treatment charge if applicable, at the time of the purchase.
- Member agency purchases under the Reverse-Cyclic Program will be considered part of the member agency's Revised Base Firm Demand for the year in which the purchases are made.
- Purchases made under this program are to be included in the determination of the member agency's Readiness-to-Serve Charge at the time of purchase.
- The deliveries will not be counted towards the determination of the member agency's Capacity Charge because the deferred delivery of water will be made at Metropolitan's discretion.

Term

- The Reverse-Cyclic Program Agreement shall terminate once Metropolitan completes the Reverse-Cyclic deliveries.

One Water & Stewardship Committee

Authorize Proposed Modifications to the Reverse-Cyclic Program

Item 7-3

November 18, 2024

Item 7-3

Reverse-Cyclic Program (RCP)

Subject

Authorize the General Manager to enter into Reverse-Cyclic Program agreements with participating agencies to defer deliveries of up to 50,000 acre-feet 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

Purpose

Allow member agencies to pre-purchase supplies at the effective full-service rate for deferred delivery in a future year to allow Metropolitan to collect revenue now.

Recommendation

Authorize the General Manager to enter into Reverse-Cyclic Program agreements with participating agencies to defer deliveries of up to 50,000 acre-feet in calendar year 2024 and up to 50,000 acre-feet in calendar year 2025

Fiscal and Budget Impact

New revenues from this program will help Metropolitan to achieve the Board's approved directive to generate up to $60 million in new, one-time, revenues in Fiscal Years 2024/25 and 2025/26 and manage unrestricted cash reserves in accordance with Board approved policies.

Potential Water Resource Management Actions to Meet New Revenue Target in FY 2024/25 and FY 2025/26

Reverse-Cyclic Program

Grants

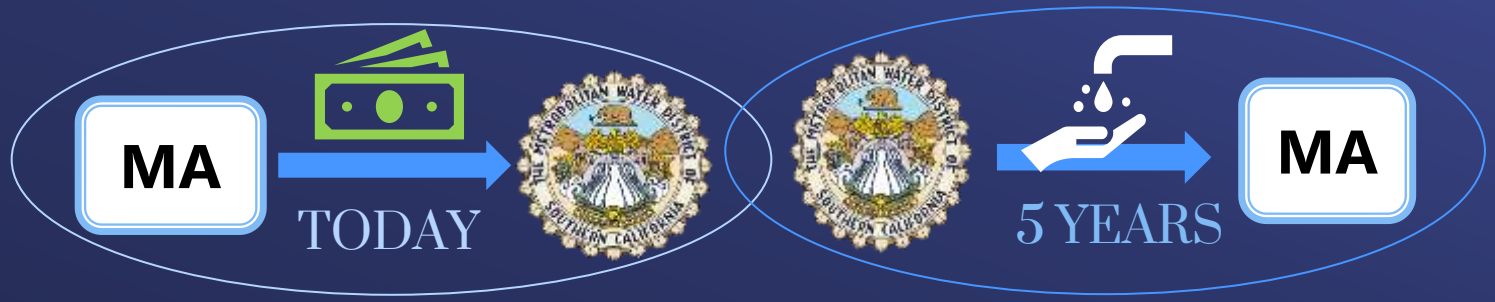
Direct sales to agencies outside the region

Extraordinary Supply Program

Supplemental Water Management Program

Reverse Cyclic Program (RCP) Overview

- RCP allows the member agencies to purchase water at the current rate that Metropolitan will deliver within five years.



  - Opposite to Cyclic Program: the member agencies purchase water at a future effective rate that Metropolitan delivers now

- Helped generate revenue while preserving limited stored supplies
  - Offered in calendar year ("CY") 2022
  - Allowed management of deliveries based on available supplies

Proposed Modifications to RCP

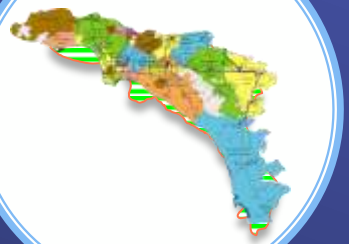
- Authorization for CY 2024 and CY 2025 only
  - Generates new revenue this biennium
- Authorization of up to 50,000 acre-feet each year
  - Member agencies enter into agreements to make a purchase
  - If interest exceeds water available, staff will return to the Board to request an increase
- Metropolitan may apply losses if member agency does not accept delivery within five years

How Would the Program Work?

Pre-Purchase

Board Authorization

Enter into Agreements



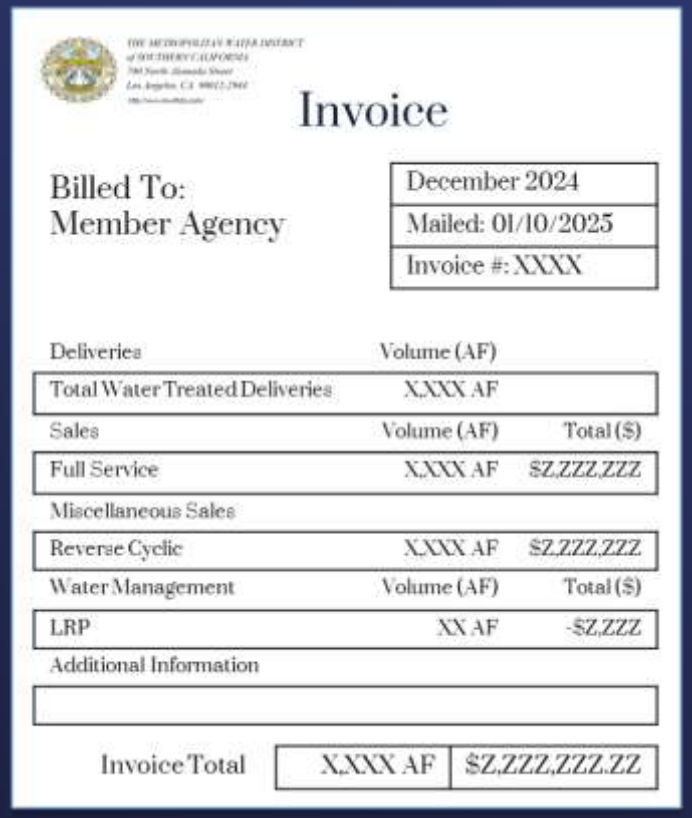
Pre-purchase and Deferral

Delivery

Metropolitan determines it has supplies

Delivery of supplies within five years

Proposed General Terms



Invoice

Billed To:
Member Agency

December 2024
Mailed: 01/10/2025
Invoice #: XXXX

Deliveries	Volume (AF)	
Total Water Treated Deliveries	X,XXX AF	
Sales	Volume (AF)	Total ($)
Full Service	X,XXX AF	$Z,ZZZ,ZZZ
Miscellaneous Sales		
Reverse Cyclic	X,XXX AF	$Z,ZZZ,ZZZ
Water Management	Volume (AF)	Total ($)
LRP	XX AF	-$Z,ZZZ
Additional Information		
Invoice Total	X,XXX AF	$Z,ZZZ,ZZZ.ZZ

- At the time of purchase, Metropolitan bills MA:
  - Full-service rate in effect
  - Metropolitan includes purchases in the:
    - Readiness to Serve Charge
    - Revised Base Firm Demand
- Deliveries will be excluded from Capacity Charge calculations since deliveries will be at Metropolitan's discretion
- Purchases to be included as allocated supply under a Metropolitan allocation or shortage program (if/when implemented)
- Metropolitan staff to certify and reconcile deferred deliveries

Summary

Modifications to the Reverse Cyclic Program would:

- Increase new revenue this biennium to help meet the $120M revenue target.
- Allow all member agencies to pre-purchase a total of up to 50,000 acre-feet in each CY 2024 and CY 2025 at the effective full-service rate for delivery in a future year.
    - Member agencies benefit by purchasing at current full-service rate

Reverse Cyclic Program Modifications

Board Options

- Option #1

  Authorize the General Manager to enter into Reverse-Cyclic Program agreements with participating agencies to defer deliveries of up to 50,000 acre-feet in calendar year 2024 and up to 50,000 acre-feet in calendar year 2025.

- Option #2

  Do not authorize the General Manager to enter into Reverse-Cyclic Program agreements with participating agencies to defer deliveries of up to 50,000 acre-feet in calendar year 2024 and up to 50,000 acre-feet in calendar year 2025.

Reverse Cyclic Program Modifications

Staff Recommendation

- Option #1

  Authorize the General Manager to enter into Reverse-Cyclic Program agreements with participating agencies to defer deliveries of up to 50,000 acre-feet in calendar year 2024 and up to 50,000 acre-feet in calendar year 2025.


THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
1928

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

11/19/2024 Board Meeting

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 preconstruction costs for 2026 and 2027 and proposed amendment to the existing funding agreement

Executive Summary

Since 2019, the California Department of Water Resources (DWR) has led the environmental review, planning and preconstruction activities for the Delta Conveyance Project (DCP), which includes two new intakes on the Sacramento River near Hood and a single main tunnel that would convey water to existing State Water Project (SWP) facilities just south of the Delta. 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 December 2020, Metropolitan executed a funding agreement with DWR, through which Metropolitan committed to its share of the DCP planning and preconstruction costs that were anticipated at that time. With funds provided by Metropolitan and other SWP Contractors, DWR completed significant planning and preconstruction activities, including certification of the Final Environmental Impact Report (Final EIR), approval of the DCP, and submission of major permit applications. Funds committed in 2020 cover expenditures planned through 2025. Post 2025, DWR must complete additional planning and preconstruction activities to advance the DCP, which will keep the project on schedule and inform a revised cost estimate. Additional funding is required from the SWP Contractors so that DWR can complete these final planning activities for DCP. The information gained from the planned work will provide the Board additional information regarding the benefits and costs of the DCP prior to making a decision regarding the implementation of the program.

Staff plans to bring an action item before the Board in December that will include: (1) reviewing and considering the Lead Agency's certified 2023 Final Environmental Impact Report for the Delta Conveyance Project and taking related California Environmental Quality Act (CEQA) actions; and (2) authorizing the General Manager to execute an amendment to the current funding agreement for an amount not to exceed $141.6 million for planning, further design, and preconstruction activities that will be performed in calendar years 2026-2027. By authorizing funding for planning, design, and preconstruction activities in calendar years 2026-2027, the Board would not be deciding whether to support construction of, or participate in, the DCP. The Board would not make a final decision regarding participation in the implementation of the DCP until 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 has recently received an assurance from DWR that they will provide a single, lump-sum advance payment of $75 million in SWP credits by December 1, 2025. Assuming the Board authorizes the use of those funds for this purpose, the 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, assuming the $75 million is applied toward Metropolitan's 47.2 percent share of planning costs.

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)

Staff plans to bring the following item for an action vote in December 2024: (1) review and consider Lead Agency's certified 2023 Final Environmental Impact Report for the Delta Conveyance Project and take related CEQA actions; and (2) authorize the General Manager to execute an amendment to the current funding agreement for an amount not to exceed $141.6 million for planning and preconstruction activities that will be performed in calendar years 2026-2027.

Details and Background

Background

In February 2019, in his State of the State address, Governor Newsom announced support for a single tunnel DCP. 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.

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.

Milestones Completed

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 is not 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 to address construction and 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 Central Valley Project and the SWP. The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service are expected to finalize Biological Opinions 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.

Preliminary Design

In the initial design phase, the Delta Conveyance Design and Construction Authority (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 the local community 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 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. Anyone may file an appeal with the Delta Stewardship Council within 30 days, after which the Council must hold a hearing within 60 days 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 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 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 anticipated to begin in the spring of 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 anticipates completing the SWRCB and the Delta Stewardship Council processes by the end of 2026. The DCA will advance design from the current 5 percent up to approximately 30 percent as it conducts subsurface and site investigations and surveys, engineering support of permit activities as requested by DWR, and 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 participation decision. 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 is being 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 through 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. 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. 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.

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. **Attachment 4** includes correspondence between Metropolitan and DWR regarding those additional needs. **Attachment 5** includes responses to questions and comments raised by directors during the committee meeting.

11/7/2024
Nina E. Hawk *Date*
Chief of Bay-Delta Resources/
Group Manager, Bay-Delta Initiatives

11/8/2024
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

Attachment 4 –Correspondence between Metropolitan and DWR

Attachment 5 – Responses to Director Comments Received During the October OW&S Committee Meeting

Ref# eo12703605

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

Attachment 2 Metropolitan's Statement of Overriding Considerations

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

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- 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

[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.)

2. on a long-term average basis, and Metropolitan relies on the relatively low salinity of SWP 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.

3. **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

[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).

4. 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.

5. **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 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.

6. **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.

7. **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.

8.

9. **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 Summary of Key Terms

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 to implement the next phase of work planned in 2026-2027. Most of the elements of the 2020 agreement will remain intact.

Terms 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 and
- Any unspent pay-go funds contributed under the agreement would be returned to Metropolitan if the Project is not implemented

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

- Updates to recitals to reflect status of the project
- Term extension: January 1, 2025 – December 31, 2027.
- Funds may be used to support soil investigations and geotechnical actives, to the extent DWR has the legal authority to conduct such activities.
- Updates to the scope of work.
- Updates to the payment schedule

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

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

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

DEPARTMENT OF WATER RESOURCES
P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

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

Attachment 5 -- Responses to Director Comments Received During the October OW&S Committee Meeting

Question	Category	Question
1	Changing Regulatory Conditions	**Q:** Based on a full suite of regulatory requirements necessary for the project, what is the timing and potential of each of these necessary permitting efforts to affect the reported benefits of the project? When will we know the full suite of regulatory requirements that the Project will operate under? Could the larger permits impact modeled operations and therefore impact reported benefits of the project? **A:** As detailed in the board letter, DWR anticipates that key permits will be completed by 2027. The State Water Resources Control Board's order approving the points of diversion that are required for the DCP and the authorizations for DCP required under the Federal and State Endangered Species Acts have the potential to affect reported water supply reliability benefits. Regulatory requirements on operations will be revisited periodically, consistent with applicable statutes. It is anticipated that new information will be incorporated into future regulatory requirements as new scientific understanding emerges, as species' statuses change over time, and as the State Board re-weighs what constitutes beneficial uses of water and what would be the reasonable protection of those uses under changed circumstances. The water supply benefits of DCP were analyzed under climate conditions centered around 2070 and a range of possible sea level rise and water management scenarios. These scenarios include combinations of the following: (1) two projections of sea level rise (1.8 feet and 3.5 feet), (2) reductions in agricultural land use, (3) changes to regulatory requirements, and (4) implementation of drought year regulatory actions. More details are available in the California Department of Water Resources (DWR) 2070 Climate Memo. Under this range of scenarios, SWP water supply benefits of DCP range from 0.44 to 0.46 million acre-feet (MAF) per year on a long-term average basis, or an MWD water supply benefit of 0.21 to 0.22 MAF/yr. This analysis indicates that the water supply benefits of DCP are resilient to the range of changes in sea level rise and regulatory conditions. It is also worth noting that some benefits of the DCP are not captured in the modeling due to limitations of the modeling platform. The majority of the DCP benefits and operations were analyzed using a monthly model, meaning operations and conditions do not change within a given month. The examples provided in the October 2024 OW&S Item 7.7a showed that the DCP could have provided benefits given real-time and short-term conditions in the Delta, such as this year's unexpected presence of large number of steelhead at the south Delta facility. This past winter, if DCP had been operational, an additional 600 TAF of water could

		have been diverted and stored in the SWP portion of San Luis Reservoir and another 300 TAF could have been available for direct delivery. If the DCP had been operational during the 2012-2015 drought, an additional 800 TAF of supplies could have been captured during the brief storms that occurred during an extended drought. The DCP will add flexibility to mitigate SWP reliability issues that Metropolitan experience now and in the future. It is also anticipated that additional benefits of the DCP might be realized if additional investments are made in storage (above and below ground) and other conveyance improvements (in-basin and in the San Joaquin Valley). **Source:** 1) DWR's 2070 Climate Memo: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Delta-Conveyance/Public-Information/DWR_DCP_2023_2070Memo_December.pdf 2) Delta Conveyance Project 2024 Theoretical Diversions: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Delta-Conveyance/Public-Information/DCP_Theoretical_Diversions_2024.pdf
2	Climate change & infrastructure	**Q:** Understanding that our groundwater banking program and surface storage, including carryover in San Luis Reservoir, were critical in getting us through drought, how much additional storage will be necessary going forward? How does the change in runoff timing impact moving water into the system? **A:** The DCP would complement existing storage infrastructure and efforts to increase storage. Staff continue to evaluate numerous storage options such as Sites, groundwater banking, off-stream storage in the San Joaquin Valley and in-basin. Final EIR/EIS modeling of 2070 conditions for the DCP indicates that 4 million acre-feet (MAF) of runoff will shift from April through July to November through March. Although runoff increases the November through March period, the ability to divert that water at the south Delta facilities would be limited by existing facility conveyance capacity and regulations. Modeling indicates that wet year average SWP exports in November through March in 2070 conditions would only increase by 3% due to the limited ability to capture the runoff.

		Long-term average SWP exports in November through March would decrease by 8%. Overall, SWP exports would decrease in all water year types, with a long-term average reduction of 18% to 28% without the DCP. The DCP water supply benefits would make-up for most of this projected reduction to exports. Similar to today's conditions, additional storage capacity could allow for greater storage of runoff in wetter periods to supplement supplies during drier periods. However, without the DCP, the ability to capture the projected increase in November through March runoff would only occur in the wettest years and the yield would only be slightly greater than the yield in wet years today. Without any additional storage, the DCP will provide operational flexibility to offset the majority of water supply impacts due to the change in runoff timing and sea level rise. Increased storage could lead to even greater benefits from the DCP. According to the 2020 IRP Regional Needs Assessment, by forecast year 2045, without additional core supply development, 500 TAF of new storage capacity would be needed in Scenario C (high climate change impacts with relatively low demands). The analysis found that no amount of new storage capacity would eliminate shortages in Scenario D (high climate change impacts coupled with high demands). Under Scenario D conditions, there isn't sufficient core supply production with existing facilities to replenish storage to satisfy anticipated demands. The 2020 IRP Regional Needs Assessment did find that development of new core supply and storage work together in tandem. The ability to put more water in storage (either improved conveyance to existing facilities or new storage capacity) reduces how much core supply is needed. More core supplies mean more water is readily available in non-dry years to accumulate in storage over time. For example, the identified need for 500 TAF of new storage capacity to eliminate shortages in Scenario C can be reduced with new core supply development. However, in Scenario D additional core supply development is needed. Even with 500 TAF of additional storage capacity, there is still a need for an additional 500 TAF of core supply by 2045 in Scenario D. **Source:** (1) Delta Conveyance Project Final EIR Appendix 4A, Table 4A-1. (2) 2020 IRP Regional Needs Assessment: https://www.mwdh2o.com/media/sgvlkith/2020_irp_needs_assessment.pdf

		(3) DWR's 2070 Climate Memo: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Delta-Conveyance/Public-Information/DWR_DCP_2023_2070Memo_December.pdf
3	Climate change & infrastructure	**Q:** With less snowmelt in the spring and more precipitation falling as rain during the highly regulated winter months, does existing DWR infrastructure have the capacity to handle this shift? **A:** The DCP would allow the SWP to operate more effectively and flexibly under anticipated changes to hydrology and sea level rise. Modeling of future climate and sea level rise conditions are indicative of the challenge faced by the SWP. Water supply performance of DWR's existing infrastructure is projected to decline with less snowpack and more precipitation falling as rain. Under a range of management and sea level rise conditions centered on 2070, it's estimated that the SWP exports would decrease by 18% to 28% without the DCP. These estimates consider a median outcome in terms of climate change. The possible range of outcomes could be significantly greater under extreme climate change scenarios (2023 DCR). The DCP would add flexibility to mitigate the issues facing the SWP as the climate changes and the sea level rises. **Source:** (1) DWR's 2070 Memo: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Delta-Conveyance/Public-Information/DWR_DCP_2023_2070Memo_December.pdf (2) DWR's 2023 DCR: https://data.cnra.ca.gov/dataset/finaldcr2023/resource/92356681-957a-48ee-97c4-529d25b9dbb2 (3) ACWA 21st Century Water Infrastructure Final Report: https://www.acwa.com/wp-content/uploads/2017/06/2017-06-05-ACWA-Integrated-Storage-Final-Report.pdf (4) ACWA 21st Century Water Infrastructure Briefing Paper: https://www.acwa.com/wp-content/uploads/2017/06/Water-Infrastructure.pdf
4	Climate change & infrastructure	**Q:** We need to better understand the impacts of sea level rise and King Tides.

		A: In late 2023, DWR conducted a study that analyzed water supply impacts under a range of sea level rise conditions for a climate centered on 2070. This study included two potential sea level rise conditions 1.8 feet and 3.5 feet, a range of potential sea level rise projections from the Ocean Protection Council's (OPC) Sea Level Rise Guidance 2018 Update. These sea level rise projections are applied onto astronomical tides. The October OW&S Committee presentation relied on the 1.8 feet sea level rise increase from DWR 2023 study. Therefore, 1.8 feet of sea level rise in combination with King Tides are considered in slide 30 of the October 2024 One Water and Stewardship Committee Item 6a presentation which states that SWP supplies, without the DCP, are projected to decrease by 22%. If 3.5 feet of sea level rise occurs by 2070, SWP supplies, without the DCP, are projected to decrease by 27%. The water supply benefits of the DCP are similar under this range of sea level rise conditions, demonstrating DCPs resilience to the expected range of sea level rise. It should be noted that the OPC recently published a Sea Level Rise Guidance 2024 Science and Policy Update. Under the 2024 Guidance, the range of intermediate to high sea level rise by 2070 is 1.4 feet to 3.0 feet. The 2018 OPC Guidance projected greater sea level rise than the 2024 OPC Guidance and the range of sea level rise in the DWR study (which leveraged 2018 OPC Guidance) is more severe relative to the latest OPC Guidance. **Source:** (1) DWR's 2070 Climate Memo: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Delta-Conveyance/Public-Information/DWR_DCP_2023_2070Memo_December.pdf (2) OPC 2018 Sea Level Rise Guidance: https://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf (3) ORC 2024 Sea Level Rise Guidance: https://opc.ca.gov/wp-content/uploads/2024/05/California-Sea-Level-Rise-Guidance-2024-508.pdf
5	Climate change & infrastructure	**Q:** Given the climate change impact shown on hydrograph, where the earlier runoff would be stored? Does the DCP have "other costs" like new storage?

		A: The figure on Slide 9 in the October 2024 OW&S Committee Item 6a presentation demonstrates unimpaired flow under existing conditions and 2070 climate conditions. With assumed regulatory requirements and sea level rise, the ability to capture the additional runoff at south Delta export facilities would be limited. Thus, with existing facilities, the earlier runoff could not readily be captured and stored. According to the 2020 IRP Regional Needs Assessment, without additional core supply development, 500 TAF of new storage would be needed in Scenario C (high climate change impacts with relatively low demands) and that no amount of new storage would eliminate shortages in Scenario D (high climate change impacts and relatively low demands). If Metropolitan's Board approves participation in the DCP, that will not obligate Metropolitan to approve new storage. However, expanded storage could be operated in conjunction with the DCP to provide even greater benefits than have been contemplated to date. As noted in Slide 30 in the October 2024 OW&S Committee Item 6a presentation, the DCP serves as one project in a portfolio of actions to preserve water supply for MWD. Staff continue to evaluate numerous options such as increased storage above and below ground, conservation and water recycling to shore up Metropolitan's reliability. **Source:** (1) October 2024 OW&S Committee Item 6a Presentation: https://mwdh2o.legistar.com/View.ashx?M=F&ID=13349445&GUID=A997325E-6E59-4E4E-92E1-BD31CD990E9C (2) 2020 IRP Regional Needs Assessment: https://www.mwdh2o.com/media/sgvlkith/2020_irp_needs_assessment.pdf
6	Climate change & infrastructure	**Q:** Need better estimates of reservoir evaporation with climate change, estimates of surface water evaporation in 2070 would be helpful. **A:** Through evaluation of DWR's 2070 modeling, the annual surface water evaporation rates increased by as much as 8%. The estimated storage in North of Delta reservoirs is projected to decrease under 2070

		conditions. The decrease in storage reduces surface area exposed to evaporation. In review of estimated evaporative losses at Lake Oroville, annual average evaporative losses are 54 TAF/year under current climate and are 52 TAF/year under 2070 climate conditions. Although there's an increase in evaporation rate, the significant reduction to exposed surface area results in a net reduction in evaporative losses. As climate changes, wetter years are likely to get wetter and drier years are likely to become more severe (Scripps FAQ). Although surface water evaporation rates are likely to increase, evaporative losses are a necessary cost for storage that would carry us through periods of extreme drought. **Source:** Scripps FAQ: https://scripps.ucsd.edu/research/climate-change-resources/faq-climate-change-california
7	Funding	**Q:** What project participants have approved the additional planning funds requested by DWR to date, will we know everyone else's vote in December? What funding amounts have been approved to date? **A:** As of October 18th, 2024, DCP participating agencies that have approved the additional planning funds include San Gorgonio Pass Water Agency, Crestline-Lake Arrowhead Water Agency, San Bernardino Valley Municipal Water District, San Gabriel Valley Municipal Water District, Alameda County Flood Control and Water Conservation District, Zone 7, and Santa Clarita Valley Water Agency. The amount of additional planning funding approved by these agencies totals $43 Million, or 14% of the total $300 million ask from DWR. We anticipate that Metropolitan will be one of the last to vote on continued funding.
8	Funding	**Q:** How does the SWP protest payment work relate to this DWR funding request? How does Metropolitan plan on paying this funding request? **A:** Please see Attachment 4 which documents correspondence between Metropolitan and DWR. The fiscal impact statement of the information item includes a consideration of the potential credit.

9	Funding	**Q:** Have any agencies opted out of the funding request? How will the funding gap be addressed? **A:** There are currently no DCP participating agencies that have opted out of the upcoming 2026-2027 funding request (see answer to question above). The state is working cooperatively with the State Water Contractors to evaluate different approaches for closing the current 12% gap in funding for construction and operation. The gap will need to be fully addressed before Metropolitan's Board considers participation in the Project in 2027.
10	Funding	**Q:** When will the funding requests end, particularly for permitting? **A:** The additional funding is intended to allow DWR to finalize key preconstruction efforts, such as the water rights hearing, Delta Plan consistency certification, geotechnical investigations, and advancement of preliminary design. The outcome and information from these key preconstruction activities will be used to update the cost estimate and project benefits prior to the Board's final decision in 2027. DWR is working to develop a plan of finance that may include additional pay-go contributions in the near term and other sources of funding such as bridge financing and bond issuance. Should the DCP be implemented, there would be ongoing expenditures and payments required for the life of the project. Various types of work occur at different stages of the program, planning, permitting, design, construction, and post-construction handover. The necessary permits—designed to protect fish and wildlife, ensure water quality and flows, and safeguard other environmental resources—must align with the project description as it is implemented throughout the design, engineering, construction, and operational phases.
11	Funding	**Q:** Was the previous funding for planning in 2020 was intended to cover the entire permitting process? **A:** In 2020, Metropolitan authorized funding for planning and preconstruction activities. The funding agreement does not include a commitment from DWR to complete planning and permitting process with the funds committed in 2020. Key planning and permitting is scheduled through 2027 ahead of DWR request for final decision regarding participation and implementation. It should be noted that a plan of finance has not

		been finalized and a variety of funding options are being considered post 2027, including additional pay-go funding from participants, bridge financing, and bond issuance. **Source:** December 7, 2020, Meeting Minutes for Bay-Delta Committee, https://bda.mwdh2o.com/Board%20Archives/2021/01-January/Minutes/Bay-Delta%20Dec%207%20approved%20minutes.pdf#search=delta%20conveyance%20project
12	Funding	**Q:** Were the bonds meant to cover the remaining costs of the planning process? **A:** Long-term financing, like bonds, are typically not issued during the planning phase of large capital projects. Bond financing is typically used to support construction costs and DWR anticipates bond financing to begin after final participation is secured and before construction begins. The funding agreement includes a provision that if a Delta conveyance project is approved by DWR and is implemented it is the intent of the of the Parties that the contributed funds be reimbursed or credited to participants relative to the amount each participant paid upon issuance and sale of revenue bonds by either DWR or the JPA. The funding agreement also states that DWR is not obligated to issue bonds until the Parties have negotiated final agreements and DWR has determined that issuance of bonds is compliant with all applicable legal requirements.
13	Funding	**Q:** Can the in-Delta opponents to the DCP develop a Flood Control Plan and analyze how much it would cost and what risks would be associated for not constructing the DCP? Specifically, could they develop and evaluate a levee strategy that provides equal benefits to DCP? **A:** A Joint Board/One Water Committee Workshop with panels representing stakeholder perspectives, including in-Delta, is planned on the afternoon of November 18, 2024, with an estimated start time of 2:30 – 3:00 pm. This Workshop provides a platform for discussing these issues ahead of the Board decision in December.
14	Funding & Project Preference	**Q:** Would the planning money be better used to improve the Delta levees?

		A: Improvement to Delta levees would reduce the risk of levee failure, one issue affecting water supply. Metropolitan has received $50.8 million in funding for levee improvement and maintenance projects since purchasing the Delta Islands in 2016. Levees will continue to require ongoing maintenance and funding. If Proposition 4 is approved by voters this November, it provides that "(a)$150 million will be available for projects in the Sacrament-San Joaquin Delta to improve existing levees to increase flood protection and improve climate resiliency. (b) $150 million shall be available for projects that implement the Flood Control Subventions Program. (c) $250 million shall be available for projects related to the systemwide evaluation, repair, rehabilitation, reconstruction, expansion, or replacement of levees, weirs, bypasses, and facilities of the State Plan of Flood Control." Climate change, sea level rise and regulatory conditions will continue to affect the ability for the SWP to deliver water to MWD. Without considering the risk of levee failures or other emergencies in the Delta, SWP project deliveries are expected to decrease by 18% to 28% in 2070 without the DCP. The DCP will add flexibility to offset the projected SWP reliability issues. **Source:** (1) DWR's 2070 Climate Memo: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Delta-Conveyance/Public-Information/DWR_DCP_2023_2070Memo_December.pdf (2) SB-867 Safe Drinking Water, Wildfire Prevention, Drought Preparedness, and Clean Air Bond Act of 2024: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202320240SB867#93CHP
15	Misc.	**Q:** What are our projected demands? Would we need this water if Pure Water is operational? **A:** The IRP Needs Assessment projects demands through 2045. At 2045, IRP scenarios estimate that wholesale demands on Metropolitan would range from a decrease of 0.11 million acre-feet per year (MAF/yr) to an increase of 0.71 MAF/yr compared with 2019. Demand projections beyond 2045 are not available. If constructed, the Pure Water Southern California (PWSC) program could provide up to 150 MGD (or 0.17 MAF/yr). It should be noted that PWSC requires a stable SWP supply to meet in the water quality constraints for influent to recycled water treatment plants. The DCP protects our SWP supply, a major contributor to our total supply, and complements our existing resources by optimizing our existing storage portfolio. Whereas, the PWSC would not rely on our existing storage portfolio, operating independently from our existing resources.

		Source: (1) 2020 IRP Needs Assessment, Figure 3-5: https://www.mwdh2o.com/media/scsbwxv3/2020_irp_needs_assessment.pdf (2) Pure Water Southern California Fact Sheet: https://www.mwdh2o.com/media/wrfpnkwl/purewater_programbenefits_01242024-web.pdf (3) Sep 9, 2024 OW&S Committee, Item 6d Report: https://mwdh2o.legistar.com/View.ashx?M=F&ID=13286641&GUID=5ABDB8EF-5071-426E-8BDF-1A744736E842v
16	Near-term issues	**Q:** With a 72% chance of an earthquake of a magnitude 6.7 or greater by 2043, what happens if this earthquake happens before the DCP is operational? How much will it cost and how long will it take to repair levees? **A:** The DCP Benefit Cost Analysis assumed a 20-island/50-breach event simulated via the Delta Emergency Response Tool. Results showed that during such an event before the DCP is operational, saline ocean water would disrupt State Water Project exports for an average of seven months. Restoration of exports through the emergency freshwater pathway via the Middle River corridor could cost approximately $1.5 billion dollars. It is important to note that this does not include the costs to repair other levee breaches in the Delta outside of the Middle River corridor and that during a long-term export disruption, the avoided water supply disruption benefits of the DCP could range at upwards of $50 billion dollars. Construction of the emergency freshwater pathway requires installation of rock barriers at multiple locations to prevent saltwater intrusion, but these barriers will also impede fish migration. According to a 2020 Research Management Associates study, repair of a single island failure could cost approximately $40-70 million dollars. Of course, any actual emergency response to a levee failure would depend on the nature of the emergency. **Source:** (1) Benefit-Cost Analysis of the Delta Conveyance Project: https://water.ca.gov/-/media/DWR%20Website/Web%20Pages/Programs/Delta%20Conveyance/Public%20Information/DCP%20Benefit-Cost%20Analysis%202024-05-13__ADA.pdf

		(2) Delta Islands Strategic, Fiscal, and Risk Analysis: https://mwdh2o.legistar.com/View.ashx?M=F&ID=12643424&GUID=4564B343-8513-4C05-882A-51476E50B969
17	Near-term issues	**Q:** What plans are in place to procure materials and contractors to establish a fresh-water channel to convey State Project water through the Delta? What are DWR's and MWD's responsibilities? **A:** The State's Delta Flood Emergency Management Plan (DFEMP) contains technical decision-making tools and mechanisms to execute emergency contracts within hours. Like most emergency plans, the DFEMP is not publicly available. Pre-positioned rock (500,000 tons), sheet piles, and additional emergency flood fighting materials at Rio Vista and Stockton yards secured in advance through various State grants (approximately $20 million) are available to cover several major breaches along the Old & Middle River corridors. DWR has also funded grants that have secured additional rock, moveable barriers, and emergency response materials in several regional emergency depots throughout the Delta. While DWR's responsibility would be to coordinate the overall larger response, Metropolitan's responsibilities during flood emergencies are limited to conditions on its own islands – Bouldin Island, Bacon Island, Webb Tract, and Holland Tract. All of Metropolitan's Delta Islands levees are maintained by each reclamation district and district personnel participate in a Delta Islands Levee Emergency Response Team (DILERT) that meets regularly to coordinate regular and emergency activities due to levee related activities. The DILERT is responsible for ensuring materials are available for placement and use of pre-positioned rock stockpiles and coordinating emergency events such as high river stage periods that typically occur during the winter months. Metropolitan contributes about $2.3 million dollars annually to its islands' reclamation districts. **Source:** (1) Delta Islands Strategic, Fiscal, and Risk Analysis: https://mwdh2o.legistar.com/View.ashx?M=F&ID=12643424&GUID=4564B343-8513-4C05-882A-51476E50B969%23

18	Operations	**Q:** Would water provided by a constructed DCP truly be available to the Metropolitan service area given 80 percent through Delta, 20 percent North Delta operational split? **A:** Although there is a preference for south Delta diversion in the modeling, the 80 percent through Delta – 20 percent North Delta proportion is a modeled long-term annual average. The 80-20 split is not an operational criterion for the DCP.The DCP can make up a much larger portion of the total Delta diversions when the south Delta facilities are constrained. During winter months, when the DCP is anticipated to be used frequently, the DCP diversions make up 40% of the SWP exports on average.
19	Operations	**Q:** Are the 'without' DCP modeling overestimated deliveries because modeling doesn't capture the extent fishery protections impact deliveries and allocations? Is there any strategy being developed to mitigate this regulatory "quagmire" going forward? **A:** As noted above, most of the operations, with and without DCP, were analyzed using a monthly model, meaning operations and conditions do not change within a given month. The modeling does not capture short-term events like large fish salvage events that trigger export restrictions. Staff are engaged in numerous activities (permitting, regulations, legislation, etc.) to reduce risks to water supply reliability. Metropolitan has invested in science, government relations, stakeholder outreach, and legal services to secure the best possible outcomes.
20	Participant Coordination	**Q:** How are Desert Water Agency and Coachella Valley Water District participating in the Project if they can't physically take the water? **A:** Metropolitan currently exchanges SWP supplies and other supplies from the Delta for deliveries of Colorado River Water with these agencies through the Desert Water Agency/Coachella Valley Water District/Metropolitan Water Exchange and Advance Delivery Program. Metropolitan is working with Desert Water Agency and Coachella Valley Water District to develop an approach for the exchange of DCP supplies as a part of the process to extend the current agreement beyond 2035.

21	Project Preference	**Q:** How does this funding request for planning relate to CAMP4W and the four IRP scenarios? What is our need for the water shown in the year-type analysis under each of the four IRP scenarios? How does DCP relate to other proposed projects in consideration of the Board? **A:** The CAMP4W process in not yet complete. The Climate Decision-Making Framework establishes the process by which projects and programs will be evaluated through CAMP4W to inform the Board's investment decisions. The CAMP4W process should be developed in 2025 and would be used to evaluate DCP once the process and framework have been completed. This evaluation of the DCP would come before the Board was asked to make a final decision regarding participation in 2027. The CAMP4W year one progress report used the 2020 IRP Needs Assessment as a basis for ascertaining need for water supply development under various planning scenarios. The IRP Needs Assessment estimated additional core supply needs in 2045 under four scenarios. Without investment in additional storage and with up to 100 thousand acre-feet (TAF) of new flexible supply available in any given year, new core supply needs could be as low as 0 TAF under Scenario A (low climate change impacts with relatively low demands) up to 650 TAF under Scenario D (high climate change impacts coupled with high demands). The IRP Needs Assessment projections did not extend beyond 2045. The DCP is projected to provide MWD with a water supply benefit of 210 to 220 TAF per year on a long-term average basis. The additional water supply from DCP would offset projected decreases in SWP water supply and complement MWD's existing storage infrastructure, optimizing our available resources. Staff continue to evaluate numerous options to improve Metropolitan's water supply and reliability including additional storage, transfers and exchanges, regional partnerships, water recycling, other conveyance improvements, and conservation. The CAMP4W process and framework would allow the Board to evaluate potential projects in a forum that is standardized such that projects could be directly compared. **Sources:** (1) 2020 IRP Needs Assessment, Figure 3-5: https://www.mwdh2o.com/media/scsbwxv3/2020_irp_needs_assessment.pdf (2) PWSC Unit Cost: Slide 19 of Nov 23 PWSC and Regional Conveyance Update: https://www.mwdh2o.com/media/jupblcl5/pwscrc-3b-presentation.pdf

		(3) Sites Participation and Unit Cost: Slides 22 and 13 of May 24 Sites Project Overview: https://sitesproject.org/wp-content/uploads/2024/05/Sites-Overview-English.pdf. Note that Sites costs are presented in 2021 dollars. These were converted to 2023 dollars with the Bureau of Labor Statistics CPI Inflation Calculator.

Special Joint One Water and Stewardship and Board of Directors Workshop

Update on Delta Conveyance Planning & Preconstruction Funding Request for 2026-2027

Item 9-2

November 18, 2024

Item 9-2
Delta Conveyance Project Planning and Pre-construction Funding

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

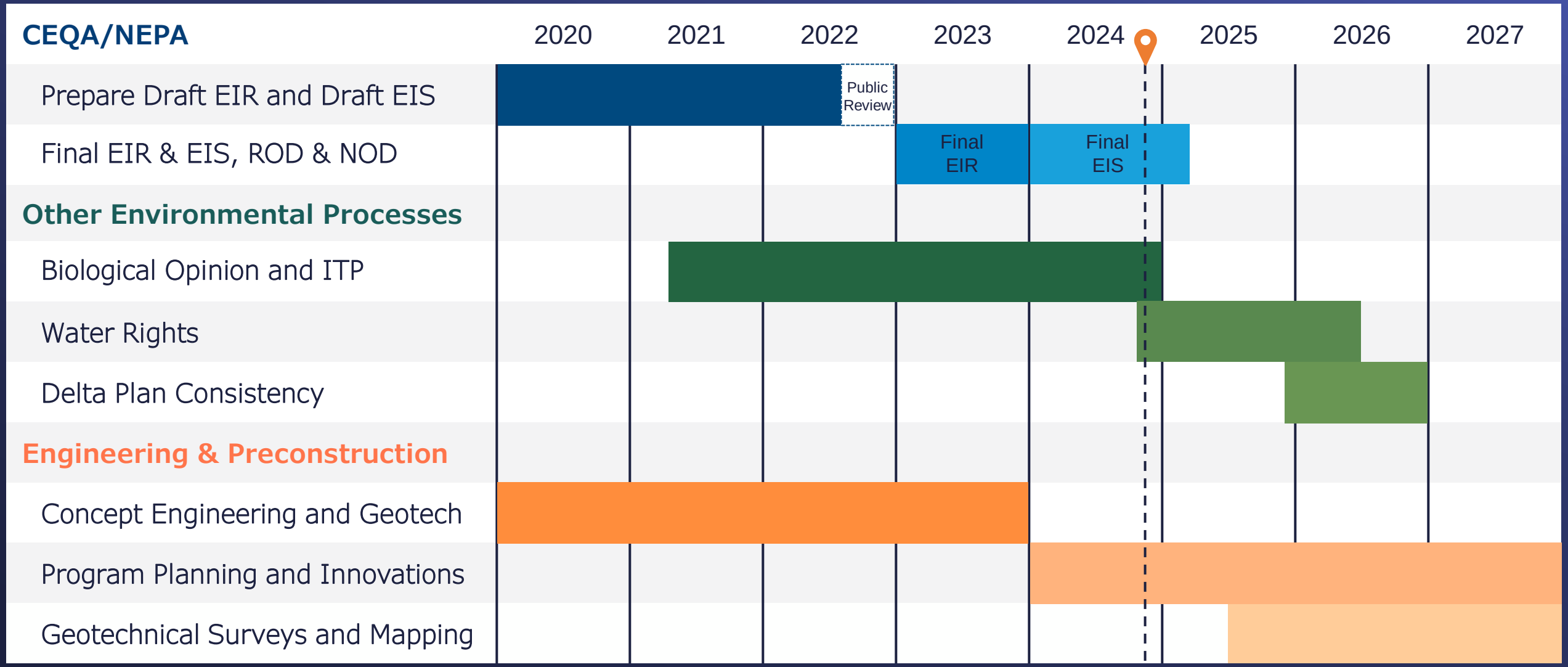
Purpose

Provide additional information on Metropolitan's preconstruction and planning costs for the Delta Conveyance Project and related fiscal impacts.

Photo Credit: DWR

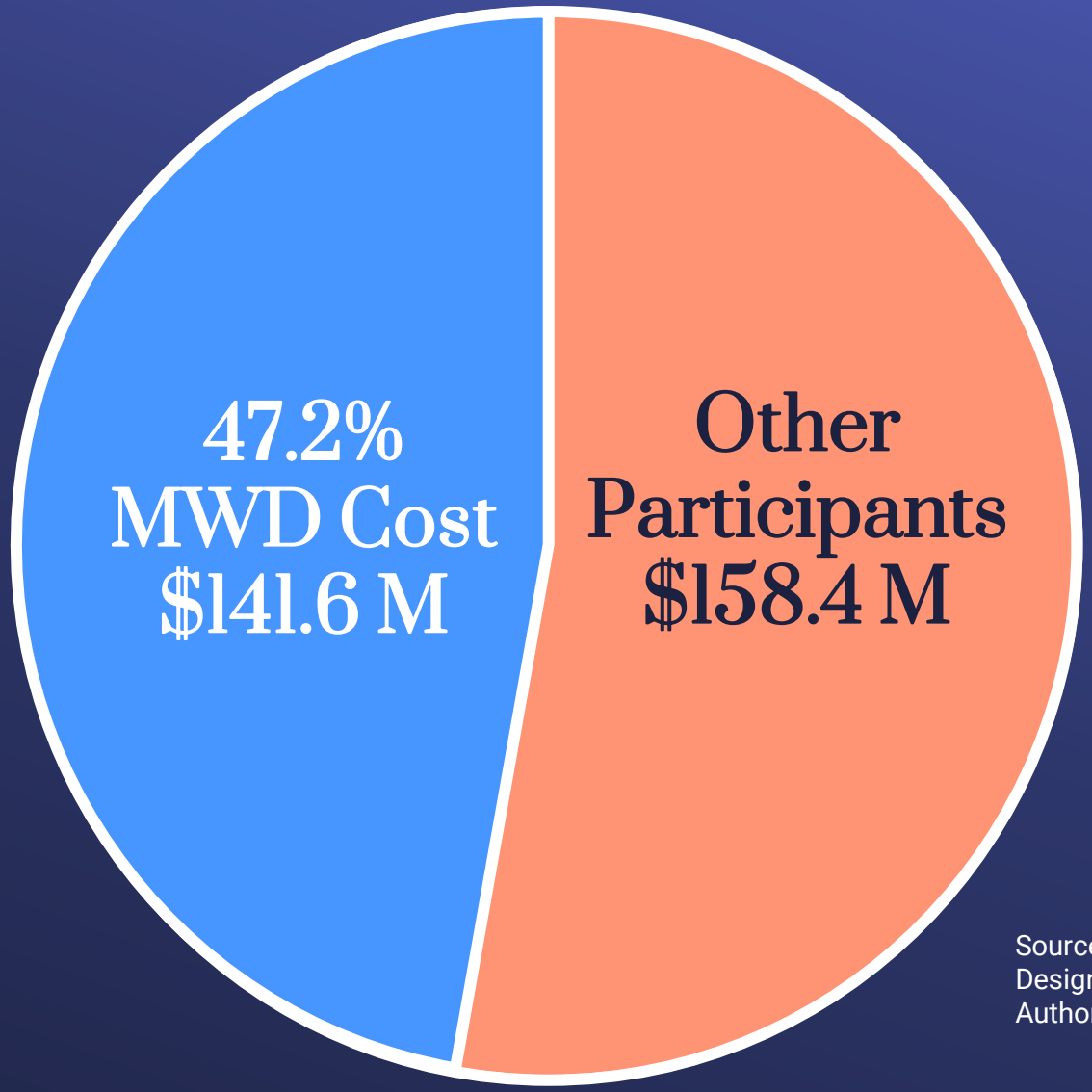
Delta Conveyance
Planning and Preconstruction

Delta Conveyance Planning & Preconstruction Schedule



DWR Requested Planning & Preconstruction Dollars (2026-2027)

Delta Conveyance Project Continued Planning & Preconstruction Funding

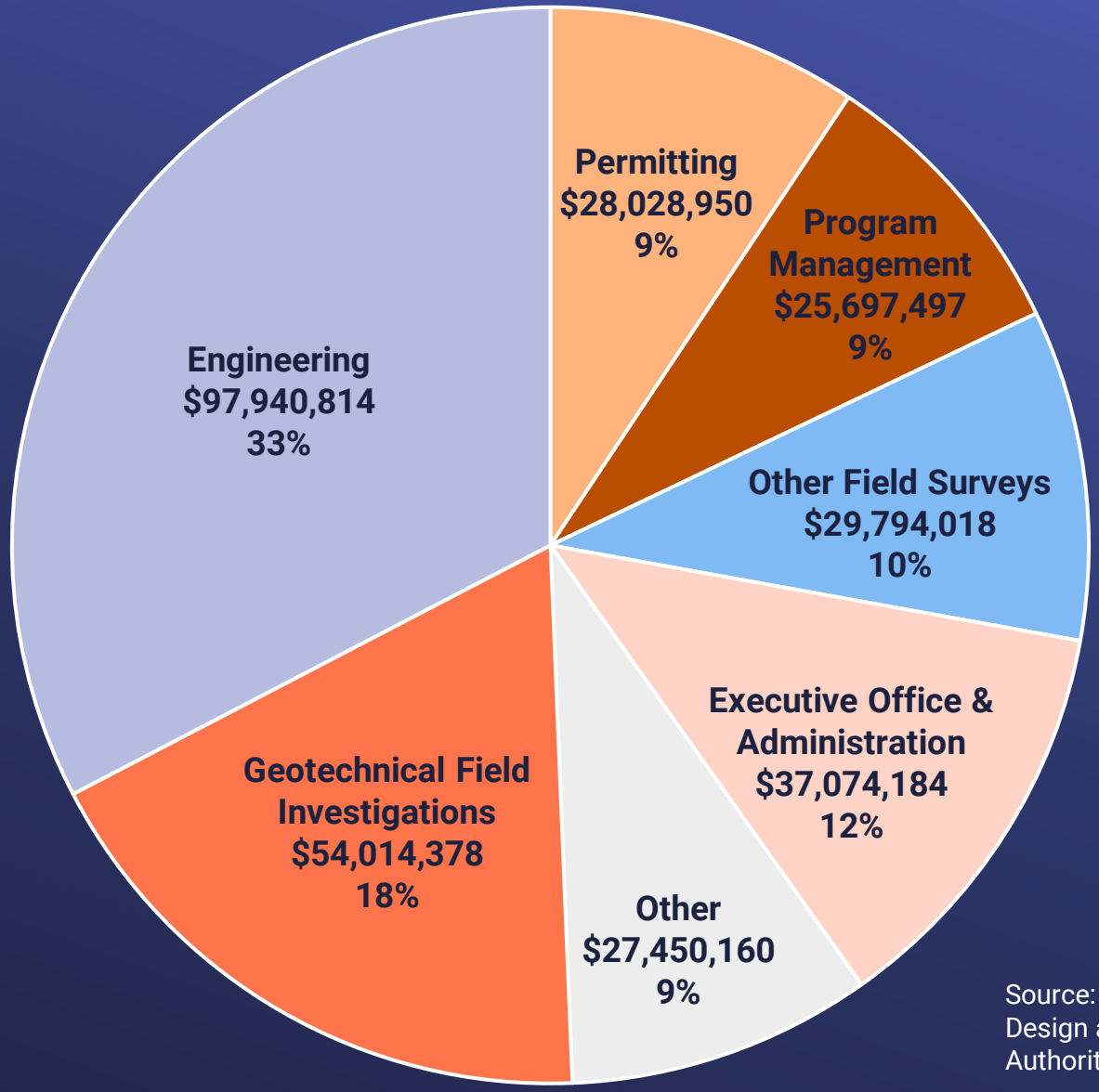


Source: Delta Conveyance Design and Construction Authority.

Metropolitan Costs (Fiscal Year)

FY 25-26	FY 26-27	FY 27-28	Total
$25.7 M	$74.7 M	$41.3 M	$141.6 M

Delta Conveyance Project
Continued Planning & Preconstruction Funding



Source: Delta Conveyance Design and Construction Authority.

Note: Category "Other" includes Property and Easements ($13M), Community Engagement/Outreach ($7M), and Mitigation ($7M).

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 %	
		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 %	
		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


Photo Credit: DWR

Additional Information Requested from DWR

Metropolitan Letter to DWR 10/24/24 Five Specific Requests

- Key Permits & Certifications
- Proportional & Complete Planning Funding
- Funding & Financing for Implementation
- Near Term Improvements to SWP Reliability
- Resolution of Metropolitan Protest Items
  $75 M dollar initial refund to be issued to Metropolitan no later than December 2025

Delta Conveyance Planning
Rate Impacts

Metropolitan's Share of DCP Planning Costs

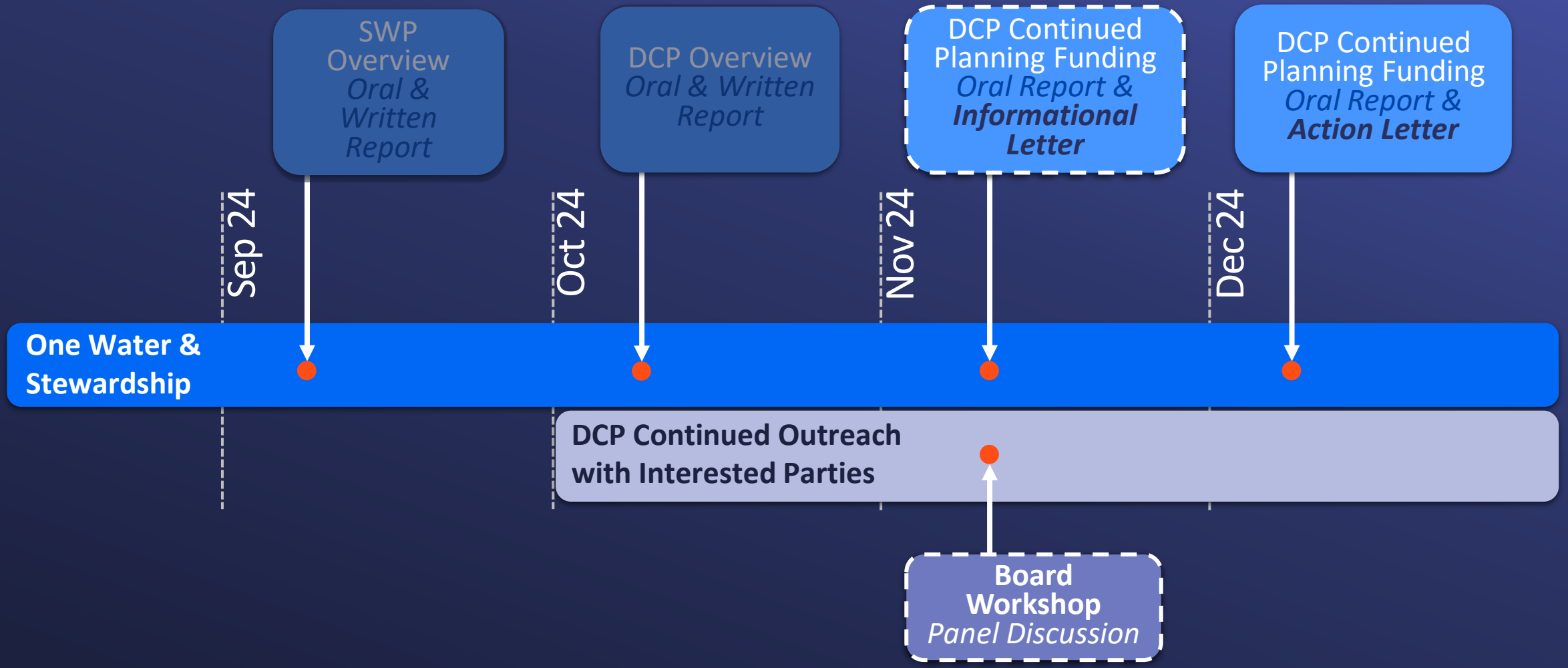
in millions of dollars

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

Next Steps: Conveyance for the SWP

Delta Conveyance Project – MWD Updates and Deliberation for Continued Planning Efforts




THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
1928

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Board Report

Water Resource Management Group

- **Report on Conservation as a California Way of Life**

Summary

This report summarizes the final adoption of the Conservation as a California Way of Life regulation.

Purpose

Informational

Detailed Report

Background

In 2018, the California Legislature passed SB606 and AB1668, which tasked Department of Water and Resources (DWR) and the State Water Resources Control Board (SWRCB) with developing the Conservation as a California Way of Life regulation. This regulation aimed to create water efficiency standards for all retail water agencies throughout California. The regulation sets an urban water use objective for each agency that must be met with specific adjustments and goalposts from 2030-2040. DWR convened working groups, researched conservation standards, and submitted their recommendations to the SWRCB on September 29, 2022. From 2022 to 2024, the SWRCB convened interested party working groups and pre-rulemaking workshops. Several draft regulations were released during this time for public review and comment. Metropolitan staff participated in the working group and workshop meetings and submitted six comment letters during the rule-making process.

Adopted Regulation

The final regulation was adopted on July 3, 2024 **(Attachment 1)**. Notable changes from earlier drafts of the regulation include:

1. The date of the adjustment on the outdoor standard from 0.67 landscape efficiency factor (LEF) to 0.55 LEF for residential and 0.45 LEF for commercial was changed from 2035 to 2040. Retail water agencies have five additional years to achieve the outdoor water savings needed to meet the outdoor standard.
2. A tree variance was added to the residential and commercial outdoor standard, providing additional water for existing trees after 2040.
3. An alternative compliance pathway was added for disadvantaged community retail water agencies facing a greater than 20 percent reduction in water use.

Next Steps

Metropolitan staff will be participating in the DWR Indoor Residential End Use Studies Technical Advisory Panel and will continue to look for grant funding opportunities to expand or develop new programs to meet regulation requirements. Metropolitan supports retail water agencies through the Member Agency Administered Program, the Water Savings Incentive Program, the regional rebate program, and the Planetscape AI turf dashboard.

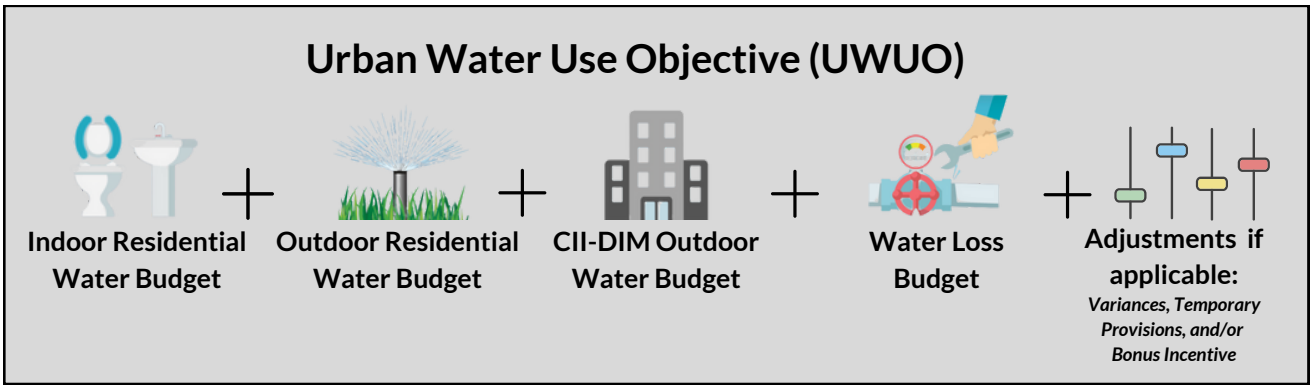
Date of Report: November 18, 2024

CALIFORNIA WATER EFFICIENCY PARTNERSHIP

Making Conservation a California Way of Life

Overview

SB 606 and AB 1668, signed in 2018 are intended to "Make Water Conservation a California Way of Life." In total, three water use standards (indoor residential, outdoor residential, and outdoor commercial, industrial and institutional (CII-DIM)), one water loss standard, and a variety of adjustments are used to calculate each urban water supplier's overall budget. The sum of these is known as an **Urban Water Use Objective (UWUO).**

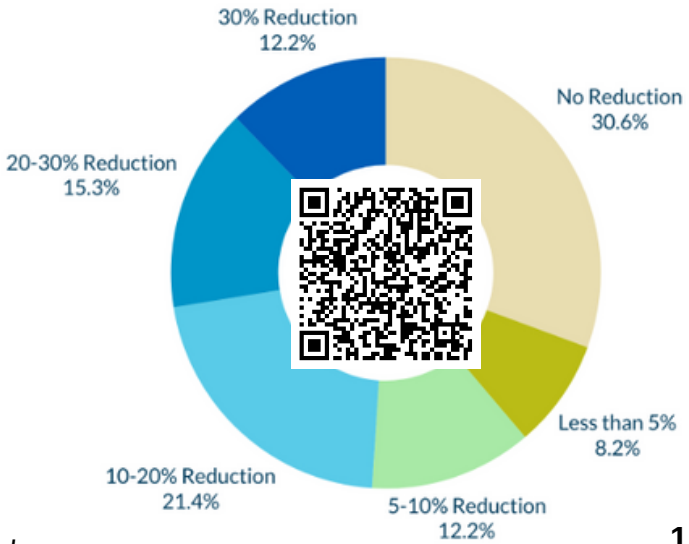


Adjustments to an UWUO can be made via variances, temporary provisions, and/or a bonus incentive for potable reuse, where applicable per supplier. A variance or temporary provision must receive prior approval by submitting a request to the State Water Board.

In addition to the UWUO, every urban supplier will need to comply with a set of CII performance measures. These performance measures are intended to enable water-usage benchmarking per CII classification category as well as establish BMPs for indoor and outdoor CII water use regardless of CII-DIM status. Even if an agency meets its UWUO, it will still need comply with the CII Performance Measures.

Provisional Data

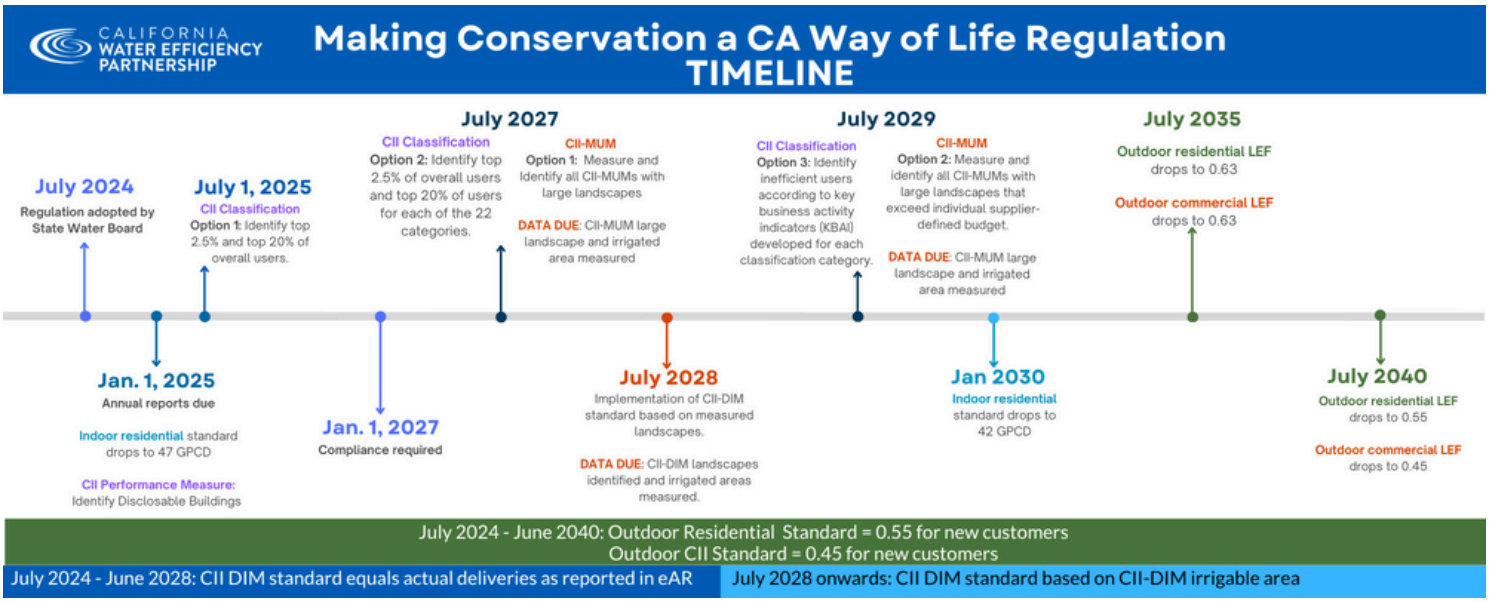
In March 2024, the State Water Board released updated provisional data for every urban water supplier in the state used for their Water Use Objective Exploration Tool. The chart to the right shows projections for reductions needed by water suppliers in 2040 based on the State's provisional data. (**Note the provisional data does not include potential variances that suppliers may be able to utilize to adjust their UWUO**.)



Use the QR code to go to the Water Use Objective Exploration Tool.

CALIFORNIA WATER EFFICIENCY PARTNERSHIP

Timeline for Implementation and Reporting

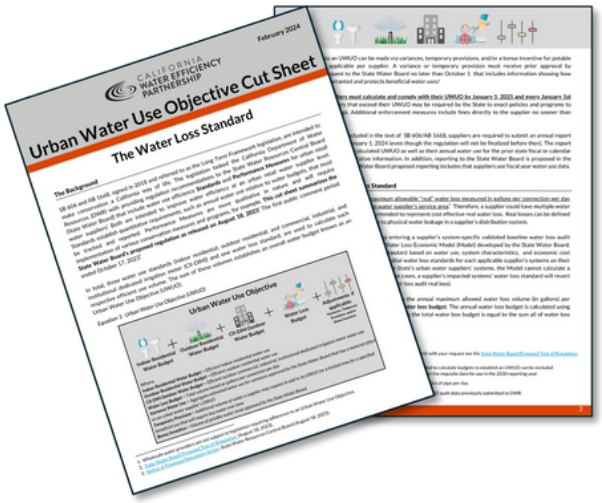


CalWEP is your implementation partner.

CalWEP has been making conservation a california way of life since 1991. We are uniquely suited to help water agencies meet and exceed their urban water use objective, and comply with CII performance measures.

AVAILABLE NOW:

- Cut sheets
- Framework 101 slide deck
- NAICS to ESPM Crosswalk
- Disclosable Buildings Toolkit



IN DEVELOPMENT:

- CII Classification Guidance Document
- CII DIM Identification Guidebook
- RFP Guidance and Template RFP
- Priority Matrix
- CalWEP LAM Viewer Powered by WaterView
- CalWEP Implementation Center
- Qualified Vendors List

CALIFORNIA WATER EFFICIENCY PARTNERSHIP

Making Conservation a California Way of Life

DIVE INTO THE DETAILS

Indoor Residential Water Budget

Indoor Residential Water Budget (gal/yr) = Indoor Residential Standard x Population x 365 days

The **Indoor Residential Standard** is the maximum allowed indoor water use measured in gallons per capita per day (GPCD). It is intended to represent efficient use. The Indoor Residential Standard will decrease over time.

Indoor Residential Standard by year

Compliance Year	Allowable GPCD
2020-2024	55
2025-2029	47
2030 onward	42

Outdoor Residential Water Budget

In the most general terms, the outdoor water budget consists of a supplier's residential landscape area, multiplied by an efficiency standard and a climate factor that's reflective of a supplier's unique service area conditions.

The annual outdoor water budget is calculated as follows:

Outdoor Residential Water Budget (gal/yr) = LAM x LEF x (ETo-Peff) x 0.62

Factor	Definition
LAM	Landscape Area Measurement includes the following landscape types: ◦ Irrigable-Irrigated (II), ◦ Irrigable-Not-Irrigated (INI) – up to 20% until LAM data is updated, ◦ Special Landscape Areas (SLA), and ◦ New Construction Aggregate data provided by DWR for all designations except for new landscapes installed beginning 1/1/2019.
LEF	Outdoor Residential Standard or landscape efficiency factor (unitless).
ETo	Reference Evapotranspiration (inches per year). Provided annually by DWR.
Peff	Effective Precipitation (inches per year). Capped at 25% of total precipitation or a lower value generated by the Cal-SIMETAW model. Provided by DWR.
0.62	Conversion Factor to generate units in gallons per year.

Outdoor Residential Water Budget (cont.)

The LEF is an efficiency factor determined by the State Water Board. It is proposed to decrease overtime as presented in the table below.

Compliance Start Date	Irrigable-Irrigated (II)	Irrigable-Not - Irrigated (INI)	Special Landscape Areas (SLA)	New Construction (post 1/1/2019)*
July 1, 2025	0.80	0.80 until LAM data updated	1.0	0.55
July 1, 2035	0.63	N/A assumes LAM data updated	1.0	0.55
July 1, 2040	0.55	N/A assumes LAM data updated	1.0	0.55

**For new homes built after the DWR Landscape Area Measurement (LAM) data was generated, the water budgets should be calculated with an LEF of 0.55.*

Example landscape types with associated LEFs from least efficient to most efficient.

Source: Adapted from State Water Resources Control Board Public Workshop October 4, 2023

Outdoor Commercial, Industrial, and Institutional Water Budget

CII Residential Water Budget (gal/yr) = ((DIM LA - DIM SLA) x LEF) + (DIM SLA x 1.0) x (ETo-Peff)x 0.62

Factor	Definition
DIM LA	Landscape Area Measurement includes the following landscape types: ◦ Irrigable-Irrigated (II) of connections served by dedicated irrigation meters (DIM)
DIM SLA	Landscape Area Measurement for **CII Special Landscape Area includes the following landscape:** ◦ Edible plants ◦ Recreation ◦ Recycled water
	◦ Slopes with live vegetation ◦ Ponds or lakes for sustaining wildlife ◦ Plant collections, botanical gardens, and arboretums ◦ Public pools ◦ Cemeteries (build before 2015)

Outdoor Commercial, Industrial, and Institutional (CII) Water Budget (cont.)

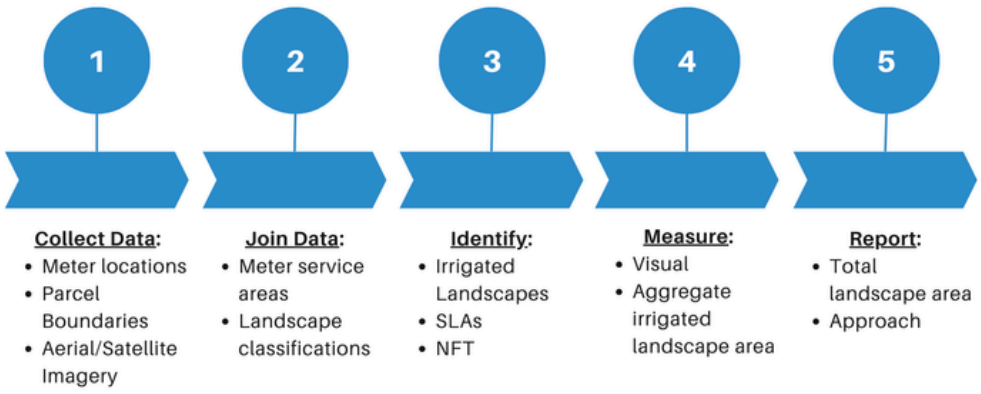
Factor	Definition
LEF	Outdoor CII Standard or landscape efficiency factor (unitless).
ETo	Reference Evapotranspiration (inches per year). Provided annually by DWR.
Peff	Effective Precipitation (inches per year). Capped at 25% of total precipitation or a lower value generated by the Cal-SIMETAW model. Provided by DWR.
0.62	Conversion Factor to generate units in gallons per year.

Starting July 1st 2028, suppliers will use total Irrigated Irrigable (II) square footage for all DIMs. The CII-DIM LEF is proposed to decrease overtime as presented in the table below

Compliance Start Date	Irrigable-Irrigated (II)	Special Landscape Areas (SLA)	New Construction (post 1/1/2019)*
July 1, 2028	0.80	1.0	0.45
July 1, 2035	0.63	1.0	0.45
July 1, 2040	0.45	1.0	0.45

**Applies to CII-DIM accounts subject to MWELO. See 23 CCR Section 495 (b)(6)*

DWR is currently mapping water agencies CII landscape area. This project is expected to be completed over the next few years. **Agencies can choose to generate their own CII landscape area measurements or wait and utilize the dataset provided by DWR as a technical resource for measuring their CII landscape area. Suppliers must distinguish CII-MUM area from CII-DIM area.** Below are simplified steps to identify and measure CII-DIM landscape area. CalWEP and the California Data Collaborative have a comprehensive guidebook for measuring DIMs available for members.



Water Loss Budget

The **water loss standard** is the maximum allowable "real" water loss measured in gallons per connection per day for each supply system in an urban water supplier's service area. Therefore, a supplier could have multiple water loss standards. The standards are intended to represent cost effective real water loss. Real losses can be defined as the volume of annual leakage due to physical water leakage in a supplier's distribution system.

The water loss standard is derived by entering a supplier's system-specific validated baseline water loss audit data and other related data into the Water Loss Economic Model (Model) developed by the State Water Board. The Model calculates the water loss standard based on water use, system characteristics, and economic cost data. The State Water Board provides initial water loss standards for each applicable supplier's systems on their water loss website. For about half of the State's urban water suppliers' systems, the Model cannot calculate a cost-effective water loss standard. In these cases, a supplier's impacted systems' water loss standard will revert to baseline loss (average of 2017-2020 water loss audit real loss).

The water loss standard is used to calculate the annual maximum allowed water loss volume (in gallons) per system. This maximum is referred to as the **water loss budget**. The annual water loss budget is calculated using Equation 2. For suppliers with multiple systems the total water loss budget is equal to the sum all of water loss budgets per system.

Equation 2: Annual Water Loss Budget

Water Loss Budget (gal/yr) = Water Loss Standard x (C or M) x days in the year

Where,
C = Number of total service connections
M = Length of the distribution system in miles

It is important to note the following as it relates to the water loss standard:

- The water loss standard is unique in that it was originally regulated under prior and independent 2015 legislation – Senate Bill 555 (Wolk, Chapter 679, Statues of 2015). Therefore, compliance can be enforced individually for water loss , unlike other standards within the Framework legislation.

- Water loss standards apply to systems with more than 200 connections. Systems with under 200 connections are not subject to a water loss standard if conditions in Water Code Section 980 (ddd) are met.

- The State Water Board cannot issue a notice or order to a supplier under the Framework legislation for exceeding the UWUO due solely to water loss budget overages if the State is already taking enforcement action under SB 555. The water loss standard guidelines and requirements are complex with many caveats not covered in this cut sheet. Therefore, it is recommended that a supplier review the entire regulation text for a complete understanding.

Commercial, Industrial, and Institutional (CII) Performance Measures

All urban water suppliers will also be required to meet a list of performance measures. These performance measures are intended to enable water-usage benchmarking per CII classification category as well as establish BMPs for indoor and outdoor CII water use regardless of CII-DIM status. A simplified rundown of the CII Performance Measures are as follows:

Action	Compliance Date	Ongoing Activities
Identify buildings that meet "disclosable buildings" threshold according to CEC and supply building owners information by request.	January 1, 2025	
Classification of CII properties with ENERGY STAR Portfolio Manager's broad categories plus 4 additional categories	July 1, 2027	Maintain 95%, assessed annually
BMP Choose Your Own Adventure PART I **Track 1:** ID top 2.5% CII Users & Top 20% CII Users **Track 2:** ID top 2.5% CII Users & Top 20% CII Users in each classification category **Track 3:** ID CII Users based on Supplier Defined Thresholds	Track 1: 06/2025 Track 2: 06/2027 Track 3: 06/2029	Maintain 95%, assessed on annual basis
BMP Choose Your Own Adventure PART II **Track 1 and 2:** Top 2.5% CII Users design implement 2 BMPs from each category **Track 1 and 2**: Top 20% CII Users design and implement 1 BMP from each category **Track 3:** Design and implement 1 BMP from each category	All Tracks: June 30, 2039	Maintain programs
Identify CII mixed-use meters (MUMs) associated with large landscapes *(large landscape threshold = ½ acre)*	**Option 1:** Identify all CII MUMs with large landscapes: July 1, 2027 **Option 2:** Identify all CII large landscapes that exceed their outdoor water budget by July 1, 2029	
DIM installation or in-lieu technology plus 2 BMPs on large landscapes *(large landscape threshold = ½ acre)*	July 1, 2039	Maintain 95%, assessed on annual basis

Water Resources Management Group

- **Water Surplus and Drought Management Update**
  Conditions as of 10/17/2024

Summary

This report provides highlights for water year (WY) 2023-2024 hydrologic conditions, and an accounting of water supply, demand, and storage balance projections for calendar year (CY) 2024, as of October 17, 2024. Updated supply and hydrologic information will be provided during the oral report in November.

2024 Highlights:

Following the wet conditions of Water Year 2022-2023, the Western United States experienced a return to average hydrologic conditions in Water Year 2023-2024. The following are notable highlights for the year:

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 2025, a Level 1 Shortage will govern the operation of Lake Mead. There are no impacts to Metropolitan at a Level 1 Shortage.
- Due to improved hydrologic conditions and conservation efforts, there is no expectation of Metropolitan making Drought Contingency Plan Contributions in 2025 or 2026.

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

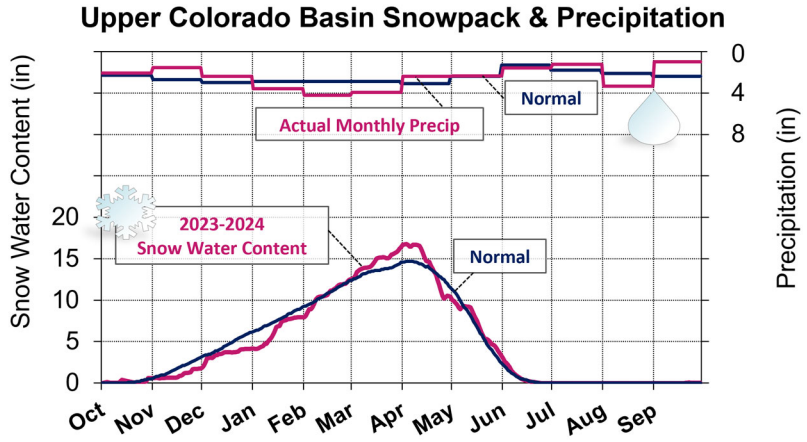
Informational

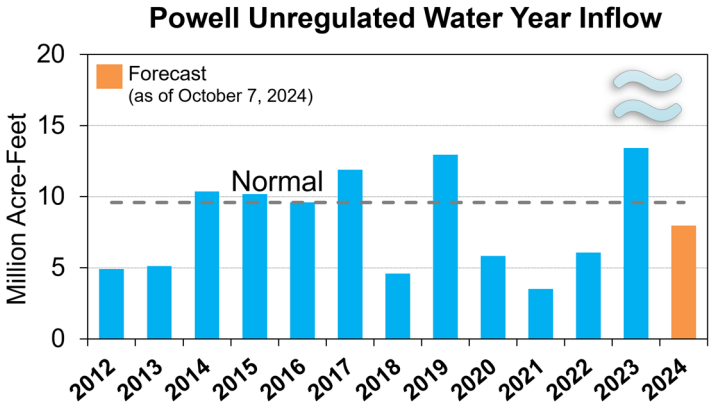
Attachments

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 summarizes the hydrologic conditions for WY 2023-2024 and provides the water supply and demand conditions for CY 2024 as of October 17, 2024.



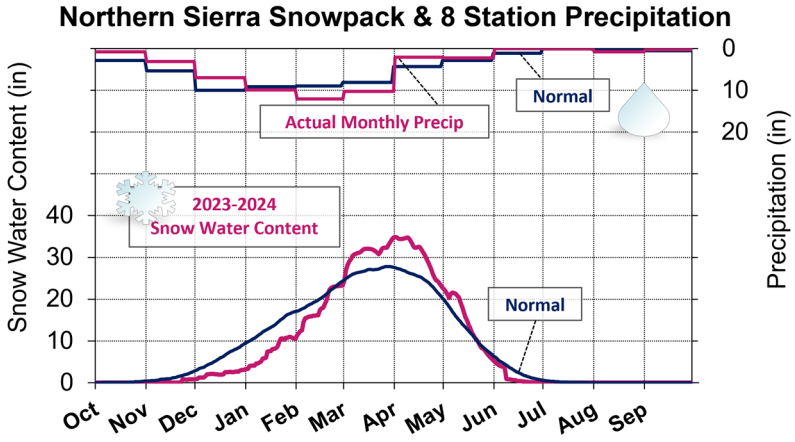


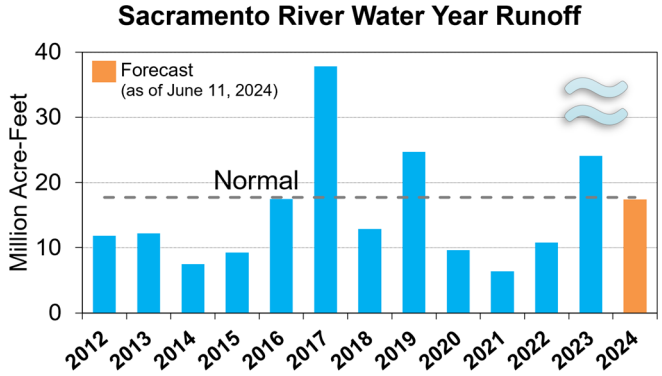
Upper Colorado River Basin

❄ Above normal peak snowpack water content: 16.7 inches or 115% of April 1 normal.

💧 Normal precipitation: 29.7 inches or 100% of normal.

≈ Below normal runoff into Lake Powell: 7.9 MAF or 83% of normal.





Sacramento River Basin

❄ Above normal peak snowpack water content: 34.8 inches or 123% of April 1 normal.

💧 Near normal precipitation: 48.2 inches or 91% of normal.

≈ Near normal runoff into the Sacramento River: 17.4 MAF or 99% of normal.

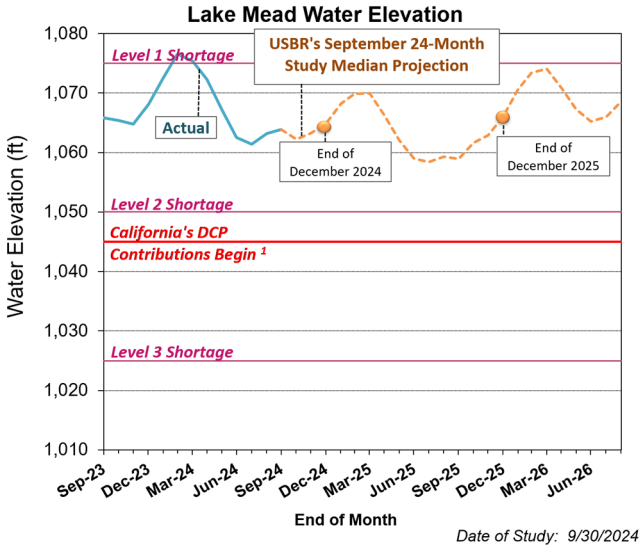
CRA Supplies	Acre-Feet
Basic Apportionment	*550,000*
IID/MWD Conservation Program	*105,000*
CVWD - 2nd Amendment, Exchange of Additional Water	*26,000*
PVID Fallowing Program [1]	*0*
Exchange w/ SDCWA (IID/Canal Lining) [2]	*228,000*
Exchange w/ USBR (San Luis Rey Tribe)	*16,000*
Lower Colorado Water 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	*99,000*
Total CRA Supplies [4]	**1,033,000**

[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] Reduced by 50,000 AF to reflect 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 (10/15/2024). Total may not sum due to rounding.



Date of Study: 9/30/2024

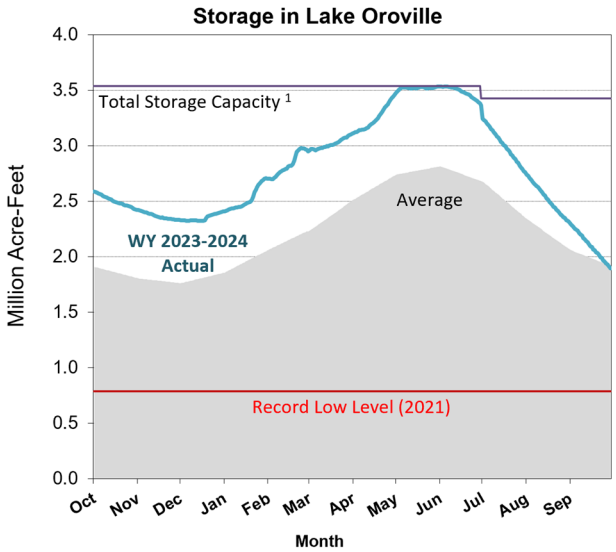
[1] Metropolitan is required to make Drought Contingency Plan (DCP) contributions in the following year if the August 24-month Study projects Lake Mead's elevation to be at or below 1,045 feet on January 1. Since the August 2024 24-month Study projected Lake Mead's elevation to be above 1,045 feet on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

- Lake Mead began the water year with 8.87 MAF of water in storage (34 percent of total capacity) and ended the water year with 8.71 MAF in storage (33 percent of capacity).
- The Lower Basin is at a Level 1 shortage in CY 2024. 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]	**1,798,000**

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

[2] Total may not sum due to rounding.

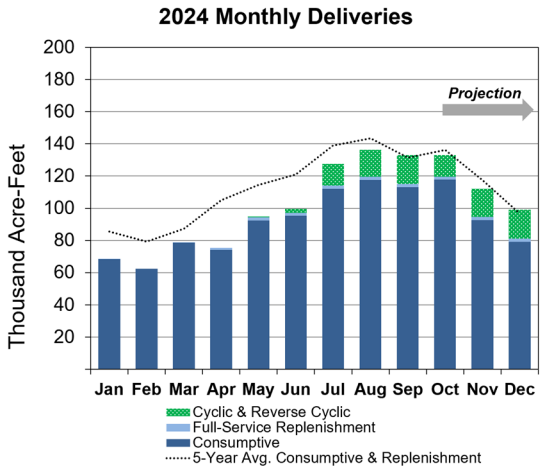


[1] In 2024, DWR began using a new storage capacity for Lake Oroville. DWR reduced the capacity by 3 percent to account for rock and silt settling on the bottom of the lake. Still, Lake Oroville remains the largest reservoir within the SWP.

- The SWP Table A allocation for CY 2024 is 40 percent.
- Lake Oroville started the water year with 2.59 MAF in storage (76 percent of total capacity based on the updated capacity or 136 percent of the historical average). By the summer, Lake Oroville reached full capacity. Lake Oroville ended the water year with 1.89 MAF (55 percent of capacity or 99 percent of the historical average).

Current Demand	Acre-Feet
Member Agency Consumptive [1]	*1,104,000*
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	*64,000*
Cyclic Deliveries	*95,000*
2022 Reverse Cyclic Deliveries	*5,000*
Total Demands [3]	**1,350,000**

[1] Includes exchange w/ SDCWA (IID/Canal Lining) and CUP sales.
[2] Per USBR Forecast (10/15/2024).
[3] Total may not sum due to rounding.

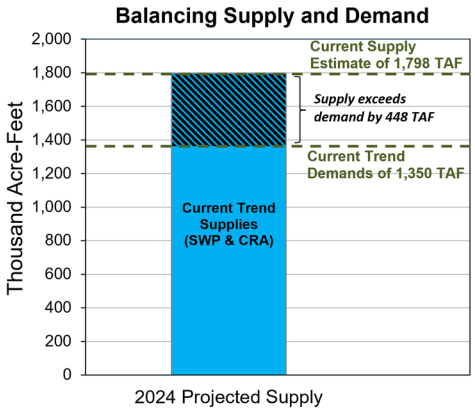


The combined consumptive and replenishment demand on Metropolitan is projected to be the second lowest on record, with last year being the lowest since 1979.

MANAGING REGIONAL SUPPLY AND DEMAND

Supply/Demand Balance	Acre-Feet
Total Supplies	*1,798,000*
Total Demands	*1,350,000*
Current Balance Estimate [1]	**448,000**

[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 448 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**	**69,000**	**1,614,000**	**1,622,000**
Lake Mead ICS	1,544,000 [3]	69,000	1,614,000	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**	**38,000**	**1,054,000**	**1,246,000**
Diamond Valley Lake	753,000	47,000	800,000	810,000
Lake Mathews and Lake Skinner	207,000	-36,000	171,000	226,000
Conjunctive Use Programs (CUP)	56,000	27,000	83,000	210,000 [9]
Other Programs	**586,000**	**207,000**	**793,000**	**1,181,000**
Other Emergency Storage	381,000	0	381,000	381,000
DWCV Advanced Delivery Account	205,000	207,000	412,000	800,000
Total	**4,180,000**	**448,000**	**4,628,000**	**6,304,000**
Emergency	750,000	0	750,000	750,000
Total WSDM Storage (AF) [10]	**3,430,000**	**448,000**	**3,878,000**	**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 September 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 2023)

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 2025 and 2026. 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 2025, the supply and demand balances may range from a shortage of ~1,011 TAF to a surplus of ~1,642 TAF, and for 2026, the balances may range from a shortage of ~1,032 TAF to a surplus of ~1,660 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.

	2025 (TAF)		2026 (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	853	1,077
Demand on Metropolitan [3]	-1,900	-1,100	-1,900	-1,100
Other Demand on Metropolitan [4]	-116	-246	-101	-231
Supply/Demand Balance [5]	**-1,011**	**1,642**	**-1,032**	**1,660**

[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.

[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.

Special Joint One Water Stewardship and Board of Directors Workshop

Basin States Discussions Regarding Post-2026 Operational Guidelines

Item 9c

November 18, 2024

Item 9c
Update on Basin States Discussions Regarding Post-2026 Operational Guidelines

Subject
Basin States discussions regarding development of Post-2026 Operational Guidelines for management of Colorado River system reservoirs

Purpose
Provide update on recent discussions in the development of the Post-2026 Operational Guidelines

Next Steps
Continue discussions with Federal, Basin State and California partners in development of Post-2026 Operational Guidelines and implementing agreements

Colorado River Reservoir Management

Reclamation's adoption of new operational guidelines constitutes a major federal action that requires an environmental analysis, in this case an Environmental impact Statement (EIS)

- The U.S. Bureau of Reclamation (Reclamation) is developing the Post-2026 Operational Guidelines for management of Colorado River system reservoirs
- The guidelines determine:
  - releases from Lake Powell
  - water uses/shortages in the Lower Basin
  - storage of conserved water (like Intentionally Created Surplus)

EIS Timeline To Date

Reclamation's Preliminary Comparison of Proposed Alternatives

Preliminary modeling analyzed Proposed Alternatives Impacts in wet, dry and average conditions on:

Lake Powell elevation

- Lake Powell below 3,500 feet

Lake Mead elevation

- Lake Mead below 1,000 feet
- Lake Mead below Deadpool

Volumes of Lower Basin Reductions

Volumes of Upper Basin Reductions

Alternatives Submitted for Modeling

Lower Basin States Alternative

Upper Division States Alternative

Gila River Indian Community Alternative

Other alternatives: No Action, Continued Current Strategies, other federal alternatives

NGO Alternative

Modeling Assumptions that Affected Results

Hydrology – Reclamation used five hydrology sets that include very dry, wet and average (for the past 30 years) conditions

Reductions – Reclamation only assumed Upper Basin reductions in the Lower Division States Alternative, all other reductions are in the Lower Basin

Demands – Reclamation assumed that Upper Basin demands will increase from the current use of ~4.0 – 4.5 million acre-feet annually (mafy) to 6.0 mafy, while assuming steady demands in the Lower Basin and Mexico

Reclamation's Preliminary Modeling Results

Upper Division States Alternative - keeps Lake Powell higher (sometimes much higher) under all flow conditions due to lower Lake Powell releases

Lower Division States Alternative - keeps Lake Mead above 1,000 feet in nearly 90% of years, even under the driest conditions, whereas Lake Powell is below 3,500 feet in over 50% of years

- Releases from Lake Powell
- Shortages/water use reductions in Lower Basin
- Whether the Upper Basin will take reductions in lowest system conditions

7-State Consensus Not Yet Reached

The Upper and Lower Basin States submitted separate alternatives, and while the Governors' representatives continue to meet, consensus has not yet been reached on these issues.

Post-2026 Guidelines EIS Next Steps

Dec. 2024
Identification of NEPA Alternatives

Jan. 2025
Changes in Presidential Administration and Interior Dept. leadership

2025
Development of implementation agreements

Spring 2025
Comment Period on Draft EIS

Spring 2026
Final EIS and Record of Decision


THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
1928

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Committee Item
INFORMATION

One Water and Stewardship Committee

11/18/2024 Committee Meeting

9d

Subject

Draft Climate Adaptation Master Plan for Water Policy Framework

Executive Summary

In February 2023, the Board directed staff to integrate water resources, climate, and financial planning into a Climate Adaptation Master Plan for Water (CAMP4W) and in October 2023, chartered a Joint Task Force of Board Members and Member Agency Managers to facilitate the development of CAMP4W in a timely and transparent process. CAMP4W includes: (1) Climate and Growth Scenarios, (2) Time-Bound Targets, (3) A Framework for Climate Decision-Making and Reporting, (4) Policies, Initiatives, and Partnerships, and (5) Business Models and Funding Strategies. CAMP4W will increase Metropolitan's understanding of the climate risks to water supplies, infrastructure, operations, workforce, and business model. CAMP4W will also provide decision-making tools and long-term planning guidance for adapting to climate change in order to strengthen Metropolitan's ability to fulfill its mission.

This item is the first step in addressing the fourth component of the Task Force Charter: Policies, Initiatives, and Partnerships. Staff seeks the Committee's input on developing high-level Climate Adaptation Policy Statements to guide future implementation of the Climate Adaptation Master Plan for Water in the Board-identified priority areas: Reliability, Resilience, Financial Sustainability, Affordability and Equity.

Much of the Board's deliberations related to CAMP4W to date have focused on the development of the Climate Decision-Making Framework, which includes the Evaluative Criteria, resource and policy-based Time-Bound Targets and Signposts for tracking real-world conditions over time. As Metropolitan moves into the implementation phase of CAMP4W, staff seeks Board policy direction to guide efforts to institutionalize climate adaptation across the agency. Adopting Climate Adaptation policies has at least three objectives:

1) Systemically integrate climate adaptation to increase climate preparedness and improve climate hazard response.
2) Update existing and set new policies to strengthen the role of adaptive management and climate adaptation in Metropolitan's initiatives and decision-making.
3) Underscore the value of the Metropolitan Member Agency cooperative and other partnerships in achieving regional climate resilience.

Building on the climate adaptation priorities articulated in Working Memorandum #2, which presents the Board-developed Themes and priorities, the CAMP4W Planning Team developed five high-level draft policy statements for Board input at today's Committee. These policy statements are intended to guide future specific implementation actions for advancing climate adaptation, including future policies, programs, studies, research and partnerships. These future actions remain subject to Board deliberation and approval, wherever appropriate. This effort is linked to the next steps enumerated in the CAMP4W Year One Progress Report.

Fiscal Impact

Not applicable

Applicable Policy

By Minute Item 52776, dated April 12, 2022, the Board adopted the 2020 Integrated Water Resources Plan Needs Assessment.

By Minute Item 52946, dated August 15, 2022, the Board adopted a resolution affirming Metropolitan's call to action and commitment to regional reliability for all member agencies.

By Minute Item 53381, dated September 12, 2023, the Board approved the use of Representative Concentration Pathway (RCP) 8.5 for planning purposes in the Climate Adaptation Master Plan for Water.

By Minute Item 53630, dated May 14, 2024, the Board concurred with the CAMP4W: Draft Year One Progress Report and Next Steps, with the understanding that staff would provide the Board updated data and other information before consideration and approval of any CAMP4W projects.

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

The five high-level Climate Adaptation Policy Statements in the Board-identified priority areas of Reliability, Resilience, Financial Sustainability, Affordability and Equity will be included in the Draft Master Plan anticipated for early 2025.

Background

Background

This item is the first step in addressing the fourth component of the Task Force Charter: Policies, Initiatives, and Partnerships. Staff seeks the Committee's input on developing high-level Climate Adaptation Policy Statements to guide future implementation of the Climate Adaptation Master Plan for Water in the Board-identified priority areas: Reliability, Resilience, Financial Sustainability, Affordability and Equity.

Much of the Board's deliberations related to CAMP4W to date have focused on the development of the Climate-Decision Making Framework, which includes the Evaluative Criteria, resource and policy-based Time-Bound Targets and Signposts for tracking real-world conditions over time. As Metropolitan moves into the implementation phase of CAMP4W, staff seeks Board policy direction to guide efforts to institutionalize climate adaptation across the agency. Adopting Climate Adaptation policies has at least three objectives:

1) Systemically integrate climate adaptation to increase climate preparedness and improve climate hazard response.
2) Update existing and set new policies to strengthen the role of adaptive management and climate adaptation in Metropolitan's initiatives and decision-making.
3) Underscore the value of the Metropolitan Member Agency cooperative and other partnerships in achieving regional climate resilience.

This effort is linked to the next steps enumerated in Section 5 of the CAMP4W Year One Progress Report to develop policies and initiatives for achieving resource development goals, establish new or enhance existing initiatives and programs, lead further study or research, or other actions that further Metropolitan's climate adaptation goals. Specifically, the Year One Report anticipated efforts to (1) Develop and consider policies and initiatives, (2) Explore Metropolitan and Member Agency partnership opportunities, (3) Pursue external partnership and collaboration opportunities, and (4) Continue community engagement.

Draft Climate Adaptation Policy Statements

Building on the climate adaptation priorities articulated in Working Memorandum #2, which presents the Board-developed Themes and priorities, the CAMP4W Planning Team developed five high-level draft policy statements for Board input at today's Committee meeting. Policy Statements for each of the CAMP4W Themes focus on

integrating climate adaptation into each of the five focus areas. In general, the policy statements will achieve the following:

- Reliability: Policy Statement to integrate climate adaptation into water supply reliability efforts
- Resilience: Policy Statement to achieve climate resilience of resources and infrastructure
- Financial Sustainability: Policy Statement to account for financial risks associated with climate change
- Affordability: Policy Statement to consider cost impacts of climate adaptation planning and implementation
- Equity: Policy Statement acknowledging the role and importance of communities in climate adaptation

Based on these goals, staff drafted the following overarching Climate Adaptation Policy Statements for Board input. These policy statements are intended to guide future specific implementation actions for advancing climate adaptation, including future policies, programs, studies, research and partnerships.

Themes	Policy Statements (DRAFTS)
Reliability	Long-term regional water supply reliability requires ongoing consideration of climate risks and integration of climate adaptation strategies into Metropolitan programs, policies, planning, workforce development, budgeting, land management, purchasing, and operations.
Resilience	Metropolitan will integrate climate risk and vulnerability assessments for climate-related hazards, including drought, extreme heat and precipitation, sea level rise, flooding, and wildfire, using the best available climate science and climate change information into planning, implementation and operations.
Financial Sustainability	Metropolitan will reduce short-term and long-term climate-related financial risks through its reserve policy, efforts to increase fixed revenues, active monitoring and managing of financial conditions, and by maintaining flexible financing alternatives.
Affordability	Metropolitan will continue to support retail user affordability efforts by pursuing cost-effective investments, new non-rate-dependent revenue sources and other financial tools that support our mission to provide regional wholesale water service in the most economically responsible way.
Equity	Metropolitan will engage with the diverse communities we serve to listen, communicate transparently, and co-create solutions for greater equity in climate adaptation planning and implementation.

Timing and Urgency

Climate Adaptation Policy Statements will be included in the Climate Adaptation Master Plan for Water, seeking approval in early 2025.

Project Milestones

CAMP4W Upcoming Milestones:

November 20, 2024: CAMP4W Task Force review of Example Assessments / Testing of Criteria

December 2024: (No Task Force) Distribute DRAFT Annual CAMP4W Report, including Signposts, Time-Bound Targets for Review and Comment

January 22, 2025: CAMP4W Task Force: Discuss Draft Annual Report and Climate Adaptation Policies

February 26, 2025: CAMP4W Task Force: Finalize Annual Report and Seek Board Input on Draft Master Plan

March 26, 2025: CAMP4W Task Force: Seek Board Approval of Climate Adaptation Master Plan

11/12/2024

Elizabeth Crosson *Date*
Chief Sustainability, Resilience and Innovation Officer

11/12/2024

Deven Upadhyay *Date*
Interim General Manager

Ref# sri12698338

One Water and Stewardship Committee

Draft Climate Adaptation Master Plan for Water Policy Framework

Item 9d

November 18, 2024

Item 9d

CAMP4W Draft Policy Framework Discussion

Subject

Discuss the development of a Climate Adaptation Policy Framework for Board Approval in early 2025

Purpose

Seek input from the One Water and Stewardship Committee on the value of developing a Climate Adaptation Policy Framework that translates CAMP4W thematic priorities into Policies, Initiatives and Partnerships

Next Steps

Jan/Feb – Present Climate Adaptation Policy Framework as a component of the Draft CAMP4W Master Plan

CAMP4W
Climate Adaptation Master Plan for Water

CAMP4W Task Force

CAMP4W Task Force Charter

Joint Task Force of Board Members and Member Agencies has been chartered to produce a regional plan (CAMP4W) that will develop and establish a master plan that includes:

- Climate and Growth Scenarios
- Time-bound Targets
- Framework for Climate Decision-Making and Reporting
- Policies, Initiatives, and Partnerships
- Business Models and Funding Strategies

CAMP4W
Climate Adaptation Master Plan for Water

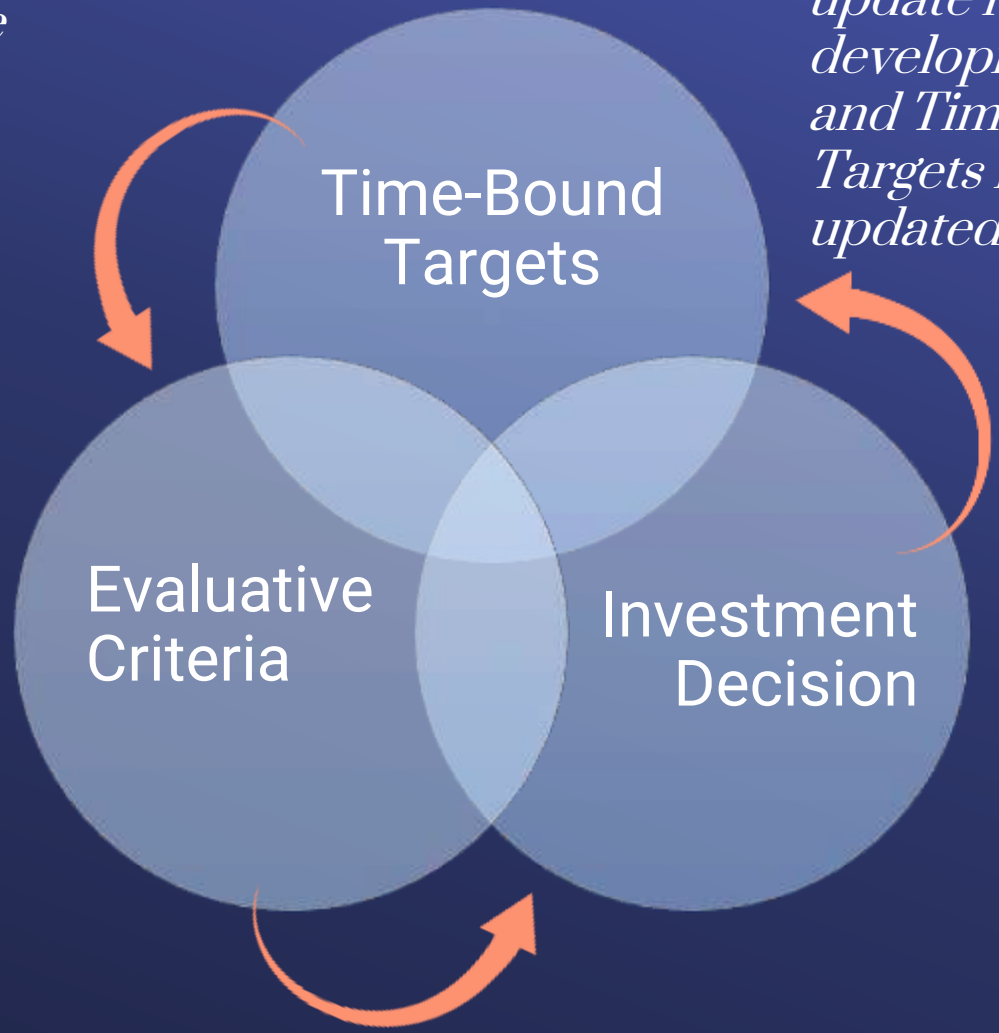
Climate Decision-Making Framework focused on Projects and Programs

Integrated Elements:

Time-Bound Targets, Evaluative Criteria and Investment Decisions function together

Time-Bound Targets guide project development and inform scoring of projects

Adaptive Management: update resource development needs and Time-Bound Targets based on updated projections



Assessments and Time-Bound Targets inform decision-making

CAMP4W Climate Adaptation Master Plan for Water

A Policy Framework to systemically integrate Climate Adaptation

Policy Framework Objectives

1. Systemically integrate climate adaptation to increase preparedness and improve response

2. Update existing and set new policies to strengthen the role of adaptive management and climate adaptation in Metropolitan's initiatives and decision making

3. Underscore the value of the Metropolitan Member Agency cooperative and other partnerships in achieving regional climate resilience

CAMP4W
Climate Adaptation Master Plan for Water

Existing Climate-Related Policies

A Policy Framework to systemically integrate Climate Adaptation

1. Board Legislative Priorities reviewed annually to address emerging and applicable issues related to climate action and adaptation

2. Existing Board Adopted Policy Principles include limited climate-specific policies:

   - 2022 Bay-Delta Policy Framework addresses climate risks and resilience in Bay-Delta
   - 2016 Policy on incorporating climate adaptation into Watershed Management Plans
   - 2002 Policy on incorporating climate into water resources planning

CAMP4W
Climate Adaptation Master Plan for Water

DRAFT Climate Adaptation Policy Framework Structure

CAMP4W Themes				
Reliability	Resilience	Financial Sustainability	Affordability	Equity
Board Policy Statements (Overarching Direction) - 2024				
Policy Statement to integrate climate adaptation into water supply reliability efforts	Policy Statement to achieve climate resilience of resources and infrastructure	Policy Statement to account for financial risks associated with climate change	Policy Statement to consider cost impacts of climate adaptation planning and implementation	Policy Statement acknowledging the role and importance of communities in climate adaptation
Initiatives (Specific Implementation Actions) – 2025				
Policies, Programs, Actions, Studies, Research, Partnerships etc. to implement Climate Adaptation Policies				

CAMP4W Themes Inform Policy Framework and Initiatives

Themes	Policy Statements (DRAFTS)
Reliability	➢ Long-term regional water supply reliability requires ongoing consideration of climate risks and integration of climate adaptation strategies into Metropolitan programs, policies, planning, workforce development, budgeting, land management, purchasing, and operations
Resilience	➢ Metropolitan will integrate climate risk and vulnerability assessments for climate-related hazards including drought, extreme heat and precipitation, sea level rise, flooding, and wildfire using the best available climate science and climate change information into planning, implementation and operations
Financial Sustainability	➢ Metropolitan will reduce short-term and long-term climate-related financial risks through its reserve policy, efforts to increase fixed revenues, active monitoring and managing of financial conditions, and by maintaining flexible financing alternatives
Affordability	➢ Metropolitan will continue to support retail user affordability efforts by pursuing cost-effective investments, new non-rate dependent revenue sources and other financial tools that support our mission to provide regional wholesale water service in the most economically responsible way
Equity	➢ Metropolitan will engage with the diverse communities we serve to listen, communicate transparently, and co-create solutions for greater equity in climate adaptation planning and implementation

CAMP4W Themes Inform Policy Framework and Initiatives

Themes	Policy Statements (DRAFTS)
Reliability	➢ Long-term regional water supply reliability requires ongoing consideration of climate risks and integration of climate adaptation strategies into Metropolitan programs, policies, planning, workforce development, budgeting, land management, purchasing, and operations

Example Initiatives:

Revise design standards to address climate risks

Strengthen local/regional water and climate resilience programs

Strengthen imported supplies

Partner with Member Agencies

CAMP4W Themes Inform Policy Framework and Initiatives

Themes	Policy Statements (DRAFTS)
Resilience	➢ Metropolitan will integrate climate risk and vulnerability assessments for climate-related hazards including drought, extreme heat and precipitation, sea level rise, flooding, and wildfire using the best available climate science and climate change information into planning, implementation and operations

Example Initiatives:

Manage vulnerabilities to power infrastructure

Collect and track latest climate data

Review workforce safety measures for climate risks

Maintain updated fire management plans for critical facilities

CAMP4W Themes Inform Policy Framework and Initiatives

Themes	Policy Statements (DRAFTS)
Financial Sustainability	➢ Metropolitan will reduce short-term and long-term climate-related financial risks through its reserve policy, efforts to increase fixed revenues, active monitoring and managing of financial conditions, and by maintaining flexible financing alternatives

Example Initiatives:

Identify partnership opportunities to share costs and benefits of adaptation strategies

CAMP4W Themes Inform Policy Framework and Initiatives

Themes	Policy Statements (DRAFTS)
Affordability	➢ Metropolitan will continue to support retail user affordability efforts by pursuing cost-effective investments, new non-rate dependent revenue sources and other financial tools that support our mission to provide regional wholesale waters service in the most economically responsible way

Example Initiatives:

Develop water conservation rebates and incentives to reduce financial impacts of climate adaptation efforts on retail water users, including in DACs

Work with Member Agencies to identify funds for statewide low-income rate assistance

CAMP4W Themes Inform Policy Framework and Initiatives

Themes	Policy Statements (DRAFTS)
Equity	➢ Metropolitan will engage with the diverse communities we serve to listen, communicate transparently, and co-create solutions for greater equity in climate adaptation planning and implementation

Example Initiatives:

Develop environmental justice and community benefits policy

Develop community engagement standards

2024-25 Schedule of CAMP4W Discussions

- June: Integrating climate in Met processes
- July: Signposts / Annual Report Template; Community Engagement
- Aug: Eval. Criteria / Project Scoring; Policies / Initiatives
- Sept: Adaptive Mngmnt; Programs /Partners
- Oct: Eval. Criteria; Assessments; Community Engagement
- Nov: First Annual CAMP4W Report; Signposts / Adaptive Mangmnt
- Dec: Finalize CAMP4W Decision-Making Framework and Policy Direction
- Jan: Draft Master Plan

Review, Prioritize and Evaluate Business Model Alternatives


THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
1928

One Water and Stewardship Committee

Report on Colorado River System Conservation Agreements

Item 9e

November 18, 2024

Inflation Reduction Act Made Funding Available

AUGUST 8, 2022

ICYMI: Governor Newsom, CA Leaders Applaud Feinstein, Padilla Efforts to Secure Critical Funding for Drought Resiliency in Inflation Reduction Act OBJ

CALIFORNIA — Governor Gavin Newsom and local leaders and advocates across California applauded the historic $4 billion dollars for drought resiliency included in the Inflation Reduction Act that passed the Senate:

"This funding is critical to stabilize the Colorado River system and accelerate projects at the Salton Sea to protect public health and the environment. Thanks to our California Senators for working with us on this priority and helping to lead the charge on this essential investment," **said Governor Newsom**.

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

Summary of System Conservation Implementation Agreements

AVEK HDWB

Turf Replacement

	AVEK HDWB	Turf Replacement
Federal Funding	Up to $82 Million	Up to $95.81 Million
System Water Creation	168,000 Acre-feet	97,296 Acre-feet

Next Steps

1. Finalize agreement terms and language
2. Bring action item to the Board in December


THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
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Bay-Delta Resources

- **Bay-Delta Management Report**

Summary

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

Purpose

Informational

Detailed Report

Long-Term Delta Actions

Delta Conveyance related Joint Powers Authority

At the October 17 Delta Conveyance Design and Construction Authority (DCA) Board of Directors meeting, the DCA Board was presented findings of the Independent Technical Review (ITR) Committee. The ITR Committee was convened by the California Department of Water Resources (DWR) to review early technical materials developed by the DCA related to potential innovations for the Delta Conveyance Project. In a workshop environment, the ITR Committee discussed, debated, and ultimately came to agreement and recommendations on the eight innovations reviewed.

At the October 17 regularly scheduled Delta Conveyance Finance Authority (DCFA) Board of Directors meeting, the DCFA Board received and filed the fiscal year 2023/24 audit demonstrating that the financial controls of the DCFA are strong. The DCFA Board also approved the one-year extension of the contract with Brian G. Thomas Consulting, LLC to provide executive director services.

Near-Term Delta Actions

Regulatory and Science Update

Staff attended and presented at the Bay Delta Science Conference 2024. Staff participated in a kick-off meeting for the first White Sturgeon Technical Team (WSTT). White Sturgeon has recently been petitioned for state and federal listing. The WSTT is tasked with developing and implementing science and a monitoring plan to determine the effects of the State Water Project on White Sturgeon.

The Reorienting to Recovery (R2R) Project held workshop #4 in October with the R2R Structured Decision-Making Workgroup to review the most recent round of balanced recovery scenarios. The purpose of the R2R Project is to identify preferred, broadly supported management scenarios that support salmonid recovery in the Central Valley. Final recommendations will be documented in a report that will be available at the end of 2024.

Delta Islands

On October 15 and October 16, staff from the Watershap Hollandse Delta, based in the Netherlands, traveled to Northern California for a peer-to-peer workshop and tour. The workshop facilitated an exchange of information and approaches related to levee safety, real-time levee monitoring, nature-based solutions, innovation, and stakeholder engagement. On October 16, staff provided a tour of Metropolitan’s Delta Islands to the group from the Netherlands. Staff will continue to exchange information and gain international perspectives to discover novel solutions to shared challenges.

Date of Report: 11/19/2024

Metropolitan Bay Delta Conservation Plan/California WaterFix and EcoRestore/Delta Conveyance Project (BDCP/CWF-CER/DCP) Expenditures

The following is a summary of Metropolitan's cumulative BDCP/CWF-CER/DCP expenditures updated for the quarter ending September 2024. This report includes the total internal costs related to the BDCP, the CWF-CER and the subsequent DCP efforts with the state administration.

Staff will continue to provide this report on a quarterly basis in the Bay Delta Management Report.

Total (July 2005 – September 2024)

BDCP/CWF-CER/DCP Internal MWD	**Total Costs (19.25 yrs.)**
Labor & Benefits [1]	$ 38.78M
Professional Services	$ 7.20M
Travel	$ 1.80M
Other [2]	$ 0.21M
SUBTOTAL	**$ 47.88M**
Administrative Overhead	$ 14.07M
TOTAL	**$ 62.06M**

[1] Labor costs include salary, leave and non-leave benefits
[2] Other includes charges for materials and supplies, trainings & seminars, conferences & meetings, reprographics, and other incidental expenses

Quarterly Summary (Oct 2023 – Sep 2024)

	FY23-24 Q2 Oct-Dec 2023	**FY23-24 Q3 Jan-Mar 2024**	**FY23-24 Q4 Apr-Jun 2024**	**FY24-25 Q1 Jul-Sep 2024**
Labor	0.152M	0.249M	0.253M	0.221M
Professional Services	0.006M	0.004M	0.002M	0.001M
Travel	0.001M	0.004M	0.000M	0.000M
Other	0.000M	0.000M	0.000M	0.000M
SUB-TOTAL	**0.159M**	**0.257M**	**0.184M**	**0.222M**
Admin. Overhead	0.046M	0.048M	0.038M	0.062M
TOTAL	**0.205M**	**0.305M**	**0.223M**	**0.284M**

The following is a summary of the DCFA costs for member's share of administrative expenses:

Quarterly Summary (Oct 2023 – Sep 2024)

	FY23-24 Q2 Oct-Dec 2023	**FY23-24 Q3 Jan-Mar 2024**	**FY23-24 Q4 Apr-Jun 2024**	**FY23-24 Q1 Jul-Sep 2024**
TOTAL	**0.002M**	**0.001M**	**0.002M**	**0.002M**

Colorado River Management Group

- **Colorado River Management Report**

Summary

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

Purpose

Informational

Detailed Report

Development of Post-2026 Operational Guidelines

The U.S. Bureau of Reclamation (Reclamation) hosted a public webinar to provide information on the preliminary modeling results of the proposed alternatives and status of the Post-2026 Operational Guidelines development. Past post-2026 development timelines showed that a draft environmental impact statement (EIS) would be released in December 2024. Instead, in this webinar, Reclamation stated that a 'range of alternatives' would be identified in December 2024. The webinar stressed that Reclamation's goal is to develop a reasonable and broad range of alternatives through collaboration with key partners and that while Reclamation has not made a final determination of the alternatives that will be carried forward for consideration in the draft EIS, Reclamation anticipates identifying the range of alternatives in December 2024. The webinar showed some early modeling results on performance of the Lower Division States alternative, Upper Division States Alternative, Gila River Indian Community's Alternative, and an alternative submitted by conservation organizations. The results of the Lower Division States alternative found Lake Powell falling below 3,500 feet in over 50 percent of years even while imposing Upper Basin policy reductions (a median reduction around 350,000), while Lake Mead stays above 1,000' in almost 90 percent of years, even under the driest conditions. However, this result is due in part to the assumption that Upper Basin demands increase by over one million acre-feet would reduce the volume of water flowing into Lake Powell. The Upper Division States alternative and conservation organizations' alternative showed fewer occurrences of Lake Powell declining below elevation 3,500 feet due to larger and more frequent water use reductions in the Lower Basin. Reclamation anticipates that the draft EIS will be released in the spring of 2025.

Salinity Control Forum Meeting

The Colorado River Basin Salinity Control Forum (Forum) conducted its semi-annual meeting in Scottsdale, Arizona on October 22-23. The Forum, which is comprised of representatives from the seven Colorado River Basin states, works with Reclamation to provide recommendations and assistance in implementing the Colorado River Salinity Control Program (Program). During the meeting Reclamation provided a report highlighting a reversing trend of seismic activity in the Paradox Valley, which is good news for the continued operation of the well that captures brine and disposes it two miles below the surface. Earlier this year, seismic trends were worrisome, leading Reclamation to consider limiting well operations, but more recent data indicates continued operation of the well is safe for at least the next few years. The Forum also received a report on the proposed legislation to help stabilize the finances of the Program; the legislation has currently stalled but additional options for its passage are being pursued. Finally, Reclamation provided an update on revised salinity modeling in the

Colorado River, which had been predicting increased salinity at Metropolitan's intake in the next few years, but now show that salinity levels are forecast to be mostly stable even with the drier hydrology of the last two decades.

Sustainability, Resilience, Innovation Group

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

Summary

Sustainability¸Resilence, and Innovation Office October 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) are preparing key deliverables for the end of the year and early 2025. The team focused on refinements to the evaluative criteria, testing assessments of four projects and programs to improve the quality of the information that can be provided as CAMP4W is implemented. The team is also finalizing technical working memos on the integration of climate adaptation planning into Metropolitan's planning processes and a climate adaptation policy framework. A Climate Decision-Making Framework dashboard is being developed and staff is beginning preparation of the Annual Report. On October 15, 2024, Engineering and SRI managers presented to over 100 staff members in a "CAMP4W Convo," a hybrid lunch and learn to build understanding of CAMP4W and how it will be used in decision-making and planning. On October 15, Chief SRI Officer Crosson presented at the Water (R)evolution Water Reuse Symposium hosted by the Council for Watershed Health, and on October 28, she shared her career path and key efforts in advancing sustainability and climate adaptation with Women at Metropolitan, an employee group focused on professional growth and development.

Sustainability and Resilience

Zero Emission Vehicle (ZEV) Executive Task Force—The Task Force met on October 16, 2024, to discuss progress on Metropolitan's transition from fossil-fueled to zero emission vehicles and equipment. Staff provided updates to cross-organizational management on upcoming board presentations on the ZEV transition and funding plan, CARB Amendments to the Advanced Clean Fleets Regulation, ZEV procurement, interim and long-term charging infrastructure, and a new "how to" handout and proposed training for employees who drive Fleet ZEVs. California Clean Air Day—SRI, Fleet, and External Affairs organized activities to engage staff in California's Clean Air Day on October 2, 2024. Clean Air Day is a statewide annual event for employers and individuals to pledge to take action to improve air quality, such as walking, biking, carpooling, or riding public transit to improve air quality. Employees were able to test drive one of Metropolitan's zero emission vehicles, an electric Ford Lightning, receive information on ZEVs and water-saving tree options, and choose from a specially prepared vegan menu option at Union Station Headquarter's Courtyard Cafe.

Date of Report: November 18, 2024

Test Drives of Fleet Ford Lighting

Informational Table

Vegan Menu Options at Courtyard Cafe

Innovation, Pilots, and Emerging Technologies

This month SRI promoted innovation and explored emerging technologies through a series of engagements. Staff attended the Western US Water Combined Technical Advisory Group (TAG) 2024 Meeting which included a tour of Denver Water's new Northwater Treatment Plant is a state-of-the-art 75 mgd drinking water treatment facility, which uss UV treatment methods and is powered by hydroelectric energy from the raw water supply. Denver Water's Northwater Treatment Plant was awarded an Envision Gold certification from the International Institute for Sustainable Infrastructure and can inform future Metropolitan projects. Staff also spoke at the Caltech Entrepreneurs Forum's The Future Energy Grid: From Solar to Nuclear to Novel Chemistry. Discussions included materials improvements in transmission cable technologies, space-based solar power, and the interdependence of water and energy.

Environmental Planning Services

Environmental Planning Section staff prepared California Environmental Quality Act (CEQA) documentation for capital projects, including completing the addendum to the Mitigated Negative Declaration for the Lakeview Pipeline Repair Project and completing the Final Environmental Impact Report (EIR) for the Garvey Reservoir Rehabilitation Project before the November board action to certify the document. Staff continued to prepare the draft PEIR for the Pure Water Southern California program, including completion of technical reports and draft resource sections. Consultation with state and federal wildlife agencies was initiated for Endangered Species Act permitting for the Inland Feeder/Foothill Pump Station Intertie Project. Environmental monitoring of construction activities was started on the Rialto Pipeline Rehabilitation and continued on the Perris Valley Pipeline projects.

Critical operations and maintenance activities were supported by the Environmental Planning Section staff. Staff provided CEQA and regulatory clearances and conducted pre-construction biological resource surveys and construction monitoring for maintenance activities and shutdowns throughout the service area. Staff participated in an Association of California Water Agencies working group on proposed California Endangered Species Act permit streamlining and attended the annual planning meeting for the California Council for Environmental and Economic Balance (CCEEB) Natural Resources Task Force to collaborate with other task force members and set priorities for the upcoming year. Staff reviewed 16 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. Activities included herbicide treatment and removal of non-native (invasive) vegetation for fire and habitat management, patrol road and fencing repairs, and collection of native plant cuttings and seeds to support habitat restoration. Finally, the Alamos Schoolhouse interpretive center at the MSR was open and hosted visitors on Saturdays.

Mule Deer at the Alamos Schoolhouse at the Southwestern Riverside County Multi-Species Reserve

Land Management

The County of Riverside has been granted a permanent easement comprising 0.649 acres for public road purposes and dedication of Elm Street in the unincorporated area of Cabazon. The easement is needed to provide the County with appropriate property rights for the road outlined on parcel maps, but lacking formal dedication and acceptance.

Staff processed a new license agreement for Metropolitan's continued operation of a telecommunication site at Johnstone Peak near San Dimas. This new, five-year license agreement will replace the expired license agreement for the same site. Johnstone Peak is essential to Metropolitan's emergency telecommunications network.

A new, ten-year license agreement has been issued to Crown Castle/AT&T for the replacement of an expired lease near the Sepulveda Canyon Control Facility in West Los Angeles. The license allows Crown Castle/AT&T to continue using the premises as a commercial cellular communication site that has existed at the subject location since 1990.

Fire Management Plan

Staff presented progress on priority ratings for district facilities/campuses at the second FMP Technical Advisory Committee meeting held on October 2, 2024.