

# 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.

## Board of Directors - Final - Revised 1

June 13, 2023

1:00 PM

Tuesday, June 13, 2023  
Meeting Schedule

08:30 a.m. FAIRP  
10:30 a.m. EOP  
12:30 p.m. Break  
01:00 p.m. BOD

Agendas, live streaming, meeting schedules, and other board materials are available here: <https://mwdh2o.legistar.com/Calendar.aspx>. 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 click <https://us06web.zoom.us/j/81520664276pwd=a1RTQWh6V3h3ckFhNmDsUWpKR1c2Zz09>

MWD Headquarters Building • 700 N. Alameda Street • Los Angeles, CA 90012

Teleconference Locations:

3008 W. 82nd Place • Inglewood, CA 90305

2680 W. Segerstrom Avenue Unit I, • Santa Ana CA 92704

## 1. Call to Order

- a. Invocation: Director Tana McCoy, City of Compton
- b. Pledge of Allegiance: Director Anthony Fellow, Upper San Gabriel Valley Municipal Water District

## 2. Roll Call

## 3. Determination of a Quorum

## 4. COMMUNITY REFLECTIONS

- a. Frank Montes, Hispanic Coalition of Small Businesses

[21-2278](#)

## 5. Opportunity for members of the public to address the Board on matters within the Board's jurisdiction. (As required by Gov. Code §54954.3(a))

## 6. OTHER MATTERS AND REPORTS

- A. Report on Directors' Events Attended at Metropolitan's Expense [21-2199](#)  
**Attachments:** [06132023 BOD 6A Report](#)
- B. Chair's Monthly Activity Report [21-2200](#)  
**Attachments:** [06132023 BOD 6B Report](#)
- C. General Manager's summary of activities [21-2201](#)  
**Attachments:** [06132023 BOD 6C Report](#)
- D. General Counsel's summary of activities [21-2202](#)  
**Attachments:** [06132023 BOD 6D Report](#)
- E. General Auditor's summary of activities [21-2203](#)  
**Attachments:** [06132023 BOD 6E Report](#)
- F. Ethics Officer's summary of activities [21-2204](#)  
**Attachments:** [06132023 BOD 6F Report](#)

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

**7. CONSENT CALENDAR OTHER ITEMS - ACTION**

- A. Approval of the Minutes of the Board of Directors Meeting for May 9, 2023 (Copies have been submitted to each Director, any additions, corrections, or omissions) [21-2198](#)  
**Attachments:** [06132023 BOD 7A Minutes](#)

- B. Approve Committee Assignments

**8. CONSENT CALENDAR ITEMS - ACTION**



- 7-1** Authorize agreements with AECOM Technical Services, Inc. and CDM Smith Inc., each in an amount not to exceed \$800,000, for water desalination studies in Metropolitan's service area; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA (EOT) **21-2277**

**Attachments:** [06132023 EOT 7-1 B-L](#)  
[06122023 EOT 7-1 Presentation](#)

- 7-2** Amend the Capital Investment Plan for fiscal years 2022/2023 and 2023/2024 to include three projects: (1) Jensen Administration Building column panel replacement; (2) Skinner chemical storage tanks replacement; and (3) Auld Valley and Red Mountain Control Structures upgrade; and award a \$281,900 contract to MMJ Contracting Inc. to replace the existing entrance column panels at the Jensen Administration Building; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA (EOT) **21-2281**

**Attachments:** [06132023 EOT 7-2 B-L](#)  
[06122023 EOT 7-2 Presentation](#)

- 7-3** Approve up to \$1.894 million to purchase insurance coverage for Metropolitan's Property and Casualty Insurance Program for fiscal year 2023/24; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA. [SUBJECT UPDATED 6/2/23] (FAIRP) **21-2287**

**Attachments:** [06132023 FAIRP 7-3 B-L](#)  
[06132023 FAIRP 7-3 Presentation](#)

- 7-4** Approve Metropolitan's Statement of Investment Policy for fiscal year 2023/2024, delegate authority to the Treasurer to invest Metropolitan's funds for fiscal year 2023/2024; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA (FAIRP) **21-2288**

**Attachments:** [06132023 FAIRP 7-4 B-L](#)  
[06132023 FAIRP 7-4 Presentation](#)

- 7-5** Authorize the General Manager to execute six lease/license amendments and two new license agreements for the installation and upgrade of telecommunication equipment and changes in the terms at existing telecommunication sites known as Edom Hill, Vidal Junction, Crossman Peak, Las Vegas Junction, Searchlight, Christmas Tree, and Black Peak, and to commence occupying a new site known as Super Nap, in Southern California, Southern Nevada, and Southern Arizona, as part of Metropolitan's Desert Microwave Project; the proposed action is in furtherance of a project that was previously determined to be exempt from CEQA **21-2290**

(Riverside County Assessor Parcel No. 659-260-030, San Bernardino County Assessor Parcel No. 0647-321-20-0000, Mohave County Parcel No. 113-02-003, Clark County Parcel Nos. 190-15-000-001; 243-34-501-019; 259-00-001-001; 176-01-801-043, and La Paz County Parcel No. 311-01-006) (FAIRP)

**Attachments:** [06132023 FAIRP 7-5 B-L](#)  
[06132023 FAIRP 7-5 Presentation](#)

- 7-6** Authorize the General Manager to grant a permanent easement to Eastern Municipal Water District for the construction and operation of a pipeline northeast of Diamond Valley Lake in the city of Hemet within Assessor Parcel Numbers 464-250-002, 464-250-003, 454-270-020 and 454-270-032; the General Manager has determined that the proposed action is exempt and not subject to CEQA (FAIRP) **21-2291**

**Attachments:** [06132023 FAIRP 7-6 B-L](#)  
[06132023 FAIRP 7-6 Presentation](#)

- 7-7** By a two-thirds vote, authorize payment of up to \$932,800 for support of the Colorado River Board and Six Agency Committee for fiscal year 2023/24; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA (OWS) **21-2284**

**Attachments:** [06132023 OWS 7-7 BL](#)  
[06122023 OWS 7-7 Presentation](#)

- 7-8** Adopt Mitigated Negative Declaration for the Delta Smelt and Native Species Preservation Project and take related CEQA actions (OWS) **[21-2286](#)**

**Attachments:** [06132023 OWS 7-8 B-L](#)  
[06122023 OWS 7-8 Presentation](#)

- 7-9** Authorize adding a \$500,000 line item to the fiscal year 2023/2024 Equal Employment Opportunity Office budget to cover outside legal services; and authorize an agreement with Meyers Nave in an amount not to exceed \$500,000 for ongoing legal advice in support of Equal Employment Opportunity Office activities and Equal Employment Opportunity related personnel and compliance matters; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA. [ADDED SUBJECT 6/2/23] (EOP) **[21-2398](#)**

**Attachments:** [06132023 EOP 7-9 B-L](#)

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

**9. OTHER BOARD ITEMS - ACTION**

- 8-1** Authorize on-call agreements with Kennedy Jenks Consultants Inc., Lee & Ro Inc., and Stantec Consulting Services Inc., in amounts not to exceed \$10 million each, for a maximum of five years for engineering services; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA (EOT) **[21-2279](#)**

**Attachments:** [06132023 EOT 8-1 B-L](#)  
[06122023 EOT 8-1 Presentation](#)

- 8-2** Award a \$16,490,000 contract to J. F. Shea Construction, Inc. to replace equipment storage buildings at three Colorado River Aqueduct pumping plants; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA (EOT) **[21-2280](#)**

**Attachments:** [06132023 EOT 8-2 B-L](#)  
[06122023 EOT 8-2 Presentation](#)

- 8-3** Express support, if amended, on two legislative bond proposals, Assembly Bill 1567 (Garcia) and Senate Bill 867 (Allen), to provide funding for water projects to address climate change impacts; the General Manager has determined that the action is exempt. [REVISED LETTER 6/6/2023] (LRAC) **21-2292**

**Attachments:** [06132023 LRAC 8-3 B-L Revised](#)  
[06122023 LRAC 8-3 Presentation](#)

- 8-4** Approve entering into fiscal years 2022-2026 Memorandum of Understanding between The Metropolitan Water District of Southern California and The Supervisors Association of The Metropolitan Water District of Southern California; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA [Conference with Labor Negotiators; to be heard in closed session pursuant to Gov. Code 54957.6. Metropolitan representatives: Katano Kasaine, Assistant General Manager, Chief Financial Officer and Gifty J. Beets, Human Resources Section Manager of Labor Relations. Employee organization: The Supervisors Association of The Metropolitan Water District of Southern California] (EOP) **21-2302**

**Attachments:** [06132023 EOP 8-4 B-L](#)  
[06132023 EOP 8-4 Tentative Agreement](#)  
[06132023 BOD 8-4 Non-Interest Disclosure Notice](#)  
[06132023 EOP 8-4 Non-Interest Disclosure Notice](#)

## **10. BOARD INFORMATION ITEMS**

- 9-1** Conservation Program Board Report **21-2197**

**Attachments:** [06132023 BOD 9-1 Report](#)

- 9-2** Introduction of Ordinance No. 152: Determining that the Interests of Metropolitan Require the Use of Revenue Bonds in the Aggregate Principal Amount of \$500 Million to Finance a Portion of Capital Expenditures (FAIRP) **21-2289**

**Attachments:** [06132023 FAIRP 9-2 B-L](#)

## **11. OTHER MATTERS**

NONE

## **12. FOLLOW-UP ITEMS**

NONE

## **13. FUTURE AGENDA ITEMS**

## **14. 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>

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

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

## June 13, 2023 Board Meeting

### Item 6A



### Metropolitan Water District of Southern California Summary of Events

#### Attended by Directors at Metropolitan's Expense in May 2023

Date(s)	Location	Meeting Hosted by:	Participating Director(s)
May 9-11	Monterey, CA	ACWA 2023 Spring Conference & Expo	Linda Ackerman Richard Atwater David DeJesus Dennis Erdman Cynthia Kurtz Adán Ortega Glen Peterson Karl Seckel
May 18-19	Scottsdale, AZ	23 <sup>rd</sup> Annual Law of the Colorado River Conference	Gloria Cordero Brenda Dennstedt Cynthia Kurtz Miguel Luna Barry Pressman



● Chair of the Board Adán Ortega Jr.'s Monthly Activity Report – May 2023

## Summary

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This report highlights my activities as Chair of the Board during the month of May 2023 on matters relating to The Metropolitan Water District of Southern California's business.

## Monthly Activities

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### Key Activities

- Participated in a special tour with Congressmember Sydney Kamlager-Dove (California) of Metropolitan's Pure Water Facility in Carson. I thanked Representative Kamlager-Dove for her help in securing \$80 million for the project in last year's state budget. Noting that Metropolitan is using the funds to advance the planning and design of the full-scale facility. In addition, we discussed Metropolitan's interest in pursuing Federal infrastructure funding to help advance the Pure Water project. Director John Morris, Vice Chair of the Subcommittee on Pure Water Southern California and Regional Conveyance, and John Bednarski, Group Manager Engineering Services, joined me.



- Held a reception recognizing the Board Chair's conference Room designation as the San Fernando Room during my term in office. Certificates of recognition were presented by the offices of Congressmember Tony Cardenas, Senator Caroline Menjivar, and Assemblymember Luz Rivas. In addition, a public art photo exhibition from the archives of Liquid Art was displayed featuring member agency artwork from Metropolitan's six counties which was commissioned and photographed by internationally acclaimed photographer Tom Bonner and featured at galleries throughout California. I was joined by the City of San Fernando Mayor Celeste Rodriguez, Vice Mayor Mary Mendoza, City Council Member Joel Fajardo, and City Manager Nick Kimball. Also in attendance were past Metropolitan Directors representing the City of San Fernando, including Sylvia Ballin, Hugo Mejia, and Sergio Rascon, who spoke about and reflected on their experiences serving on the Board. Board Vice Chair Heather Repenning, and Board Members Marsha Ramos, Miguel Luna, and Juan Garza were in attendance.





- Board Vice Chair Michael Camacho, Director Linda Ackerman, and I attended the State Water Contractors Policy Breakfast in Monterey, California.
- Addressed the Colorado River Board of California at its monthly meeting held this month in Monterey, California, to discuss Metropolitan's commitment to working together to solve Colorado River issues and challenges. I was joined by Directors Gloria Cordero and David DeJesus.



- Attended Metropolitan's One Water Awards Ceremony with General Manager Adel Hagekhalil, where six businesses and municipalities throughout Southern California were recognized for participating in Metropolitan's Water Savings Incentives Program to improve their water management operations and equipment. These investments together will save more than 1 billion gallons of water over the next decade. Board Vice Chair for Climate Action Heather Repenning provided remarks on behalf of the board. In addition, Vice Chair Gail Goldberg and Directors Jacque McMillan, Tony Fellow, and Karl Seckel, were also in attendance and provided awards to the recipients.





- Participated in a special tour of Las Virgenes Municipal Water District to learn more about their water system and recycling facility, strategic priorities, and matters of common interest. We also discussed ensuring imported water supply reliability, protecting water quality, local water supply development, and maintaining incentives for conservation. I was joined by Metropolitan Directors Miguel Luna and Glen Peterson, along with Las Virgenes Municipal Water District Board President Jay Lewitt, Director Andy Coradeschi, General Manager David Pederson, Director of Engineering Joe McDermott, and Director of Facilities and Operations John Zhao.



- Director Miguel Luna and I traveled to Los Banos, California, to participate in a roundtable discussion with stakeholders from the environmental and agricultural community.

### Speaking Engagements/Events

- I joined State Water Resources Control Board Vice Chair Dorene D'Adamo as a morning speaker at the University of California Riverside School of Public Policy Water Affordability Symposium, where I emphasized the need for continued efforts to develop solutions for the future to address climate change impacts and vulnerabilities facing the region's water system and the communities' Metropolitan serves. I also participated in a robust question-and-answer session addressing climate change impacts, service costs, water quality, and Delta conveyance. Attendees included Eastern Municipal Water District General Manager Joe Mouawad, Western Water General Manager Craig Miller, water providers, policymakers, students, and community-based organizations.



- Provided congratulatory remarks at a reception honoring Maria Mehranian for her reappointment to the Delta Stewardship Council. We were joined by Lt. Governor Eleni Kounalakis, Los Angeles County Supervisor Kathryn Barger, Board Vice Chair for Climate Action Heather Repenning, Director Miguel Luna; Nina Hawk, Group Manager Bay-Delta Initiatives; as well as former Metropolitan Board Members Lorraine Paskett, Hugo Mejia, and California State Assemblymember Laura Friedman.



- I was invited to present at the City of San Fernando's Council meeting to discuss current water supply conditions and Metropolitan's turf rebate program. The City of San Fernando adopted a 45-day moratorium on installing artificial turf while they study regulations to limit the installation of artificial turf on residential lawns.
- Met with Congressman Jared Huffman over Zoom to discuss Metropolitan priorities and regional investments and agreed to schedule a future briefing.
- Spoke over the telephone with Congresswoman Grace Napolitano about progress on Colorado River milestones.

### Interviews & Correspondence

- Took part in an interview with the Los Angeles Times regarding the California Water Impact Network report on the Delta Conveyance Project. I discussed Metropolitan's Climate Adaptation Plan, which will inform Metropolitan's Capital Investment Plan, regional and local water project development, and long-term financial planning to ensure we are developing the best possible future for the communities we serve.
- Participated in an interview with Spanish language Univision to discuss the historic Colorado River agreement reached by California, Nevada, and Arizona to conserve at least 3 million-acre-feet of water through the end of 2026.
- In coordination with General Manager Adel Hagekhalil, I signed a Board approved resolution supporting the nomination of Cathy Green as a candidate for the position of Board President for the Association of California Water Agencies.

### Delegation of Activities

- I asked Board Vice Chair for Finance, Audit, and Planning Gail Goldberg to serve as the introductory speaker for the VerdeXchange water resources planning charrette in my place.
- Board Vice Chair for Strategic Communications and Stakeholder Policy Michael Camacho joined Assembly Member Josh Lowenthal from Long Beach on a tour of the Los Angeles Sanitation District's Joint Water Control Plant and a visit to Metropolitan's Pure Water Southern California demonstration facility in Carson.
- On the board's behalf, I asked Board Vice Chair Michael Camacho to provide remarks at the 2023 Spring Service Awards Luncheon, paying tribute to employees for their years of service and dedication to the organization, which was also attended by Director Juan Garza.



**Regularly Scheduled/Ongoing Meetings**

I was informed that Metropolitan Board staff has been involved in facilitating notices and logistics for the Northern Member Agency Caucus, which meets at Metropolitan headquarters given its central location. To my knowledge, Metropolitan staff is not involved in facilitating any other member agency caucus. I feel that such activities may blur the prerogative of member agencies to independently convene and inform their own representatives and delegations. While there is no issue with Northern Caucus meetings being held at Metropolitan if space is available, I asked Northern Caucus leaders to handle their own notices and logistics and for Metropolitan staff to assist in the transition by July 2023. This in no way impacts briefings from Metropolitan subject-experts and executive leadership, as is commonly requested by all member agency caucuses.

I continue to meet regularly to review issues and coordinate activities with the Board Vice Chairs, Department heads, and Directors.





# General Manager's Monthly Report



Activities for the Month of May 2023



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# Message from the General Manager

One billion gallons of water.

That's how much water will be saved over the next decade thanks to six large scale water efficiency projects that Metropolitan honored at the first One Water Awards ceremony in May.

Named for our approach to water management that acknowledges all water resources are connected, the One Water Awards program honored six projects that used funding from Metropolitan's Water Savings Incentives Program to make major improvements to their water management operations and equipment.

These innovative projects are:

- Soil moisture sensor systems at all city parks in the City of Chino;
- Efficient irrigation to maintain California native plant collections at Los Angeles Arboretum & Botanic Garden;
- A recirculation system to save water during routine fire hydrant flushing in the City of Huntington Beach;
- Improved irrigation and high-density planting to save water at the Rice Canyon Ranch avocado orchard in Fallbrook;
- A mobile water recirculating system that cuts water waste during firefighting training exercises in the Ventura County Fire Department; and
- A wireless soil moisture sensor system for common areas throughout the Victoria Village Homeowner Association in Riverside.

I was proud to join with the award recipients and representatives of our member agencies to showcase these innovative solutions that will help ensure a more resilient water supply for our region. To learn more, you can [read about these projects](#) or [watch the awards videos](#).

Coming together to find new ways to do everyday tasks, these agencies and Metropolitan are making a huge impact.

I am so grateful to the Metropolitan staff who take a holistic, innovative and collaborative approach to their work. As we celebrate Juneteenth and Pride Month, we are reminded that the commitment to diversity, equity, and inclusion strengthens our workplace community and, as evidenced by the One Water Awards, delivers big results.

We are one,  
Adel



**“The value of an idea lies  
in the using of it.”**

**- Thomas Edison,  
Inventor**



# Strategic Priorities Update

The General Manager's Strategic Priorities guide actions in key areas of focus, investment, and transformation for Metropolitan.

## Empower the workforce and promote diversity, equity, and inclusion

Build a safe, inclusive, and accountable workplace where all employees feel valued, respected, and able to meaningfully contribute to decisions about their work.

Organizational Development & Training is updating content for the Management University (June launch) and Leadership Academy (November target launch). This will be the first opportunity to incorporate the Diversity, Equity & Inclusion (DE&I) and Sustainability, Resiliency, and Innovation (SRI) offices into the Leadership Academy.

The new agreement with the National Safety Council was executed this month, which enables their support for implementation of recommendations from its assessment of Metropolitan safety programs. National Safety Month events are planned for all major facilities in June. This year's theme is "Safety Is for Everyone" to encourage all employees to take an active role in their own safety and to speak up about safety concerns.

Prepare and support the workforce by expanding training and skill development and updating strategies to recruit and retain diverse talent at a time when Metropolitan's needs are evolving and employee expectations about the workplace are changing.

While the search for a permanent replacement for the HR Group Manager is underway, interim leadership is identifying strategies to reduce the time it takes to fill vacant positions across the organization, with an initial aim to expedite recruitment time by half.

## Sustain Metropolitan's mission with a strengthened business model

Conduct a careful, deliberative and inclusive review of the rate structure to ensure the business model can adapt to changing needs of the member agencies and support sustainable local and imported supplies.

The Climate Adaptation Master Plan for Water progressed with a Board Workshop around the terminology of reliability, resilience, financial sustainability, and affordability.

Manage rate pressure on member agencies through attention to programmatic costs, organizational efficiencies and efforts to secure external funding for projects with broad and multi-purpose benefits.

With last month's award of \$5M for turf replacement and the \$21M award this month from the Delta Conservancy (discussed below), Metropolitan is exceeding \$150M in new, external funding awarded in the current fiscal year.

Staff is pursuing funding from the Inflation Reduction Act to provide compensation for identified conservation strategies that reduce use of Colorado River water, which would benefit both Metropolitan and federal efforts to shore up near-term water supplies while the Colorado River compact is being renegotiated.

## Adapt to changing climate and water resources

Provide each member agency access to an equivalent level of water supply reliability through necessary adaptive implementation of the IRP findings.

The United States Bureau of Reclamation agreed to analyze a proposal put forth by the Lower Basin states to reduce use of Colorado River water through 2026, effectively doubling the reductions already anticipated by shortage requirements alone. Metropolitan views this proposal as much more viable and achievable than those in the federal SEIS recently released, and now, while federal analysis is underway, the states must finalize detailed agreements this summer to implement the proposed conservation measures so that savings can be realized as proposed.

Design is complete for the Inland Feeder Rialto Pipeline Intertie, and contract documents are routing for approval, as one of our key gap closure projects identified in response to the recent drought emergency.

Metropolitan pursued amendments toward two pieces of state legislation in support of turf replacement. With the author's agreement to technical recommendations and a multiyear staggering of the native plant requirements, Metropolitan was able to achieve a support position for AB1573 (Friedman), which would establish landscape design



standards that emphasize native plants to achieve water conservation. Negotiations continue, but progress is being made on AB1572 (Friedman), which would greatly restrict nonfunctional turf.

Metropolitan is supporting a pilot study along with Central Arizona Water Conservation District and others to evaluate the efficacy of specific drip irrigation technology known as “N-Drip,” installed on farmland in the Colorado River Indian Tribes (CRIT) reservation and the Harquahala Valley, both in Arizona. N-Drip’s technology is innovative in that it does not require the substantial power infrastructure and resources that traditional drip irrigation typically does and is therefore substantially less expensive to implement. Preliminary results indicate up to 40 percent less applied water than in fields irrigated using furrow/flood methods. For off-river lands, this applied water savings translates directly into savings in consumptive use. In the latter half of 2023, we expect to receive final reporting on the results of the pilot study, including water savings data.

Advance the long-term reliability and resilience of the region’s water sources through a One Water approach that recognizes the interconnected nature of imported and local supplies, meets both community and ecosystem needs, and adapts to a changing climate.

Metropolitan was awarded a \$20.9 million state grant to restore habitat and sustainability to an entire island in the Sacramento-San Joaquin Delta, an unprecedented effort that will support the area’s delicate ecosystem and help protect the ability to deliver critical water supplies. The funding from the state’s Sacramento-San Joaquin Delta Conservancy will allow Metropolitan to improve the nearly 5,500-acre Webb Tract from current agricultural practices to wetlands and rice farming. The project is a collaboration among Metropolitan, local interests, and the Delta Conservancy, and it intends to be a model for addressing challenges that face many Delta islands: slowing or reversing land subsidence, reducing greenhouse gas emissions, promoting sustainable agriculture, and creating habitat to bolster the local ecosystem. The grant will fund design, environmental documentation, permitting, and construction of wetlands and rice fields on Webb Tract over a three-year period, with planning slated for the fall and construction starting in spring 2025 after board approval of the environmental documentation. The grant funding will also help Metropolitan quantify the greenhouse gas emission reductions realized from the project, which supports the district’s Climate Action Plan goals.

The Sites Authority Board and Reservoir Committee discussed and approved preliminary final allocations of available storage, the proportionate shares of diverted water for storage partners, and the transition from yield-based to storage-based participation. Sites project planning and analysis are ongoing.

## Protect public health, the regional economy, and Metropolitan’s assets

Proactively identify, assess, and reduce potential vulnerabilities to Metropolitan’s system, operations, and infrastructure.

Staff advanced dam emergency action plans this month. Plans for DVL, Cajalco Creek near Lake Mathews, and Diemer have been approved, and plans for Gene Wash and Copper Basin are ready for review by the California Governor’s Office of Emergency Services (CALOES).

## Partner with interested parties and the communities we serve

Grow and deepen collaboration and relationships among member agencies, interested parties, and leaders on the issues most important to them and toward mutual and/or regional benefits.

Metropolitan hosted the One Water Awards, joining respective member agencies to recognize six businesses and municipalities from throughout Southern California for their investments in large-scale water-efficiency projects. This first-ever event can become a vehicle to promote model technologies and best practices to other interested parties.

Reach underserved communities and non-traditional interested parties to better understand their needs and ensure their inclusion in decision making.

Metropolitan now has formal partnerships with three community-based organizations to help feed into apprenticeship/workforce development programs: California Conservation Corps, Homeboy Industries, and IE Works. Additional partnerships are being explored.

# Executive Summary

*This executive summary is added to this report to provide a high-level snapshot of a key accomplishment from each area of the organization. Detailed information is reported in the pages following this summary.*

## **Administrative Services**

EForms Management and Records Management and Imaging Services (RMIS) participated in the Sustainability Expo. The EForms Management Team is helping Metropolitan be more sustainable by saving paper, improving efficiencies, and integrating workflows. In the last 90-day period, 77,000 requests were submitted using EForms, greatly reducing the need to print paper. To raise awareness, the EForms Management Team raffled off a \$15 Starbucks card. Congratulations, Christine Kitchenmaster (Office of the GM) for being the lucky winner! Imaging Services displayed samples of the high-quality products it can produce in-house. In support of sustainability, Imaging Services hopes to eliminate the outsourcing of print jobs, which in turn leads to reduced emissions and less traffic congestion from vehicles making job deliveries to Metropolitan. Additionally, through innovative thinking, items such as custom notebooks and scratch pads can be made from recycled paper, further reducing waste.

## **Bay-Delta Initiatives**

On May 24, Metropolitan was awarded a \$20.9 million state grant by the Delta Conservancy to restore habitat and sustainability to an entire island in the Sacramento-San Joaquin Delta. The funding from the Delta Conservancy will allow Metropolitan to improve the nearly 5,500-acre Webb Tract from current agricultural practices to wetlands and rice farming. The project is a collaboration among Metropolitan, local interests, and the Delta Conservancy, and it will address challenges that many islands in the Delta face by slowing or reversing land subsidence, reducing greenhouse gas emissions, promoting sustainable agriculture, and creating habitat to bolster the local ecosystem. The grant will fund design, environmental documentation, permitting, and construction of wetlands and rice fields on Webb Tract over a three-year period.

## **Chief Financial Officer**

For April 2023, the Treasury and Debt Management staff and financing team continued to finalize disclosure documents for the pricing of the 2023 Series A Water Revenue and Refunding Bonds, expected to price the week of June 5, 2023.

## **Colorado River**

On May 22, representatives from California, Nevada, and Arizona submitted a plan to Reclamation to conserve 3 million-acre feet of Colorado River water, in addition to the existing shortage and Drought Contingency Plan commitments. In response to the submittal, Reclamation paused the Draft Supplemental Environmental Impact Statement (SEIS) for amending the 2007 Interim Colorado River Guidelines to provide time to analyze the new proposal. The proposal is in stark contrast with the alternatives in the SEIS, because it represents a consensus-based plan for reducing Colorado River diversions through 2026.

## **Diversity, Equity & Inclusion**

The DEI and WSO team held its inaugural “Indigenous Pathways” career event with the Colorado River Indian Tribes (CRIT). The event consisted of a Job Tour Review (JTR) where 15 students from the Parker High School, located in the CRIT reservation, were given a tour of the Metropolitan Gene Intake Plant to learn how Metropolitan water systems work. Students were also able to interact with staff from different career fields to learn about various aspects of their jobs and the requirements to get hired. As a result, two students who attended the JTR have expressed their interest in joining the Metropolitan apprenticeship program.

## **Engineering Services**

During the 2022–2023 shutdown season, Metropolitan inspected 18 miles of the Sepulveda and Yorba Linda Feeders as part of the ongoing effort to assess the condition of its prestressed concrete cylinder pipe (PCCP). New wire breaks were identified at three locations along the Sepulveda Feeder. Staff is expediting design to refurbish the pipe at these locations using carbon fiber lining during the next shutdown season.

## External Affairs

Metropolitan hosted the One Water Awards, where Metropolitan recognized six businesses and municipalities from throughout Southern California for their investments in large-scale water-efficiency projects. GM Hagekhalil, Chair Ortega, Vice Chair Repenning, and Directors Fellow, Goldberg, McMillan, and Seckel attended. (May 22)

## Human Resources

The Organizational Development & Training Unit (OD&T) hosted in-person workshops for Franklin Covey's 7 Habits and Project Management.

## Information Technology

The Information Technology Group completed our VPN upgrade to strengthen our cybersecurity posture. Decommissioning additional remaining legacy VPN appliances will be completed by the end of summer.

## Real Property

Real Property attended IRWA's 31<sup>st</sup> Annual Valuation Seminar in which a broad range of topics related to public agency valuation considerations, valuation of special use properties, eminent domain, appraisal expert witness testimony, and environmental contamination issues were presented. This training enables staff appraisers to deepen their understanding of issues affecting the valuation process in order to properly conduct valuation assessments.

## Security Management

Security specialists continue to work closely with WSO Western Region Conveyance & Distribution (C&D) staff to comprehensively reinforce substructure lids along pressurized pipelines that experience either historically high occurrences of vandalism or possess additional exposures identified in recent vulnerability assessments by Los Angeles, Valley, and La Verne C&D Teams.

## Sustainability, Resilience and Innovation

SRI presented at VerdeExchange, the Special Districts Legislative Days in Sacramento and the Climate Change Preparedness Conference in D.C. The team also led the Board Workshop on the Climate Adaptation Master Plan and is working with an interagency team on planning for the next one and developing a public engagement strategy. The team also initiated a ZEV transition roadmap with groups across Metropolitan and is pursuing grant funds for charging infrastructure installation. The team also attended several innovation-focused events that exposed the team to new technologies and tools relevant to Metropolitan's core mission.

## Water Resource Management

When Metropolitan transitioned from drought to water surplus conditions, Water Resource Management's focus also transitioned. Staff is now evaluating existing and potential future groundwater programs. Because water use efficiency remains a priority either in dry or wet years, the staff is also pursuing funding and developing new programs.

## Water System Operations

This month saw the 2022–23 shutdown season nearing its end. Throughout the season, a total of 48 shutdowns took place, including 27 for pipelines and treatment plants, 14 for hydroelectric plants, and 7 in support of shutdowns for the Department of Water Resources and member agencies. During a May shutdown, staff removed bulkheads installed in 2021 at the Perris facilities to facilitate the DVL-to-Mills drought operation. These same pipelines are now required without the bulkheads to effectively manage the abundant SWP supply this year. The critical work carried out during the shutdown season plays a vital role in ensuring the ongoing reliability of Metropolitan's infrastructure.





# Water Resources and Engineering



## Water Resource Management

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

Staff attended several meetings with other agencies on Colorado River matters, including meetings for the Colorado River Technical Education Work Group (CRTEWG), Lower Colorado River Multi-Species Conservation Program (LCR MSCP), and the Law of the River Conference. The CRTEWG meeting was led by the U.S. Bureau of Reclamation (USBR) at the Federal Center in Denver, Colorado. The purpose of the CRTEWG is to help those who will partner with USBR in developing post-2026 Colorado River reservoir operation guidelines—including Metropolitan—to improve their technical knowledge of the tools and approaches to be used in that development process. At the meeting, USBR gave presentations on the Colorado River Simulation System (CRSS), the primary tool to be used in guideline development.

The LCR MSCP is the means by which water and power contractors on the Colorado River—including Metropolitan—comply with the requirements of the federal Endangered Species Act (ESA) and the California ESA while carrying out ordinary operations on the river. Staff regularly participate in the Technical Work Group meetings. This meeting focused on a review of the comprehensive annual report prepared by USBR documenting the accomplishments of the program in 2022, program implementation to date, and the work plan and budget for 2024.

Staff also attended and made presentations at the 2023 Law of the Colorado River Conference. The annual conference is partially organized by Metropolitan staff and is attended by influential people working on Colorado River issues. Metropolitan staff presented an overview of recent developments in the law of the Colorado River and a review of Metropolitan's transfer and exchange programs on the river.

### Implement Regional Conservation Program

Metropolitan partnered with SoCal Gas on a virtual landscaping class on water budgeting for 40 landscape professionals as part of the conservation outreach this month. Staff also participated in a webinar panel discussion hosted by the Los Angeles Better Buildings Challenge (LA-BBC). The panel discussed strategies to achieve higher water efficiency in multi-family housing, and other panelists represented LADWP and the Pacific Institute. More information can be found here: <https://www.la-bbc.com/events-calendar/water-efficiency-fl6lp>

Metropolitan was awarded \$5 million to provide supplemental funding for the Turf Replacement Program through USBR's WaterSMART: Water and Energy Efficiency Grant Program with funding available through the Bipartisan Infrastructure Law (BIL). The Turf Replacement Program assists homeowners with replacing existing grass with organic, drought-tolerant landscaping to support regional water conservation.

Metropolitan's One Water Awards ceremony was held at the California Endowment in downtown Los Angeles on May 22, and honored organizations that used funding from Metropolitan's Water Savings Incentive Program to make major improvements to their water management operations and equipment, such as installing smart irrigation technology, water recirculation systems, and soil moisture sensors. The press release can be accessed through this link: <https://www.mwdh2o.com/press-releases/metropolitan-honors-six-organizations-for-innovative-water-saving-projects/>

## **Implement Stormwater Pilot Program.**

Staff met with representatives from CalTrans to explore opportunities for partnering on regional stormwater recharge projects. CalTrans manages freeway-adjacent properties for flood control and stormwater management. Staff plans to collaborate with CalTrans to identify areas with groundwater recharge potential.

## **Position Metropolitan as a leader in Open Water Data.**

Staff continues to serve on several monthly committees and workgroups for the California Data Collaborative (CaDC) to improve the posting and use of open water data. In the last month, staff represented Metropolitan at CaDC's Steering Committee and workgroups covering California's Water Use Objective and Wholesaler workgroup. Staff also continue to represent Metropolitan as a co-lead for the CA Water Data Consortium's (CWDC) Urban Water Reporting Project and presented a project update at the CWDC's May Steering Committee Meeting.

Staff will be hosting a California Water Data Consortium (CWDC) Board meeting at Union Station on June 22. In May, staff participated in the CWDC committee and planning meetings. The CWDC also announced the seating of three new board members. The new board members include Ashley Boren with Sustainable Conservation, Kristine Johnson with the Kingfisher Foundation, and Mitra Rogers with Amazon Web Services.

## **Promote Metropolitan's technical capabilities and innovation efforts to advance the understanding of water resources management.**

Staff held a milestone meeting with consultants working to upgrade Metropolitan's Palo Verde Irrigation District (PVID) evapotranspiration (ET) model. Metropolitan's PVID ET model generates daily parcel-level ET values, which staff accesses via a web portal. Staff routinely uses this ET data for various analyses on crop water use, irrigation efficiency, and the drivers of water use in PVID.

Staff received data identifying the crop planted on every field in PVID between January and March 2023 from Metropolitan's consultant. Since 2019, Metropolitan has collected field-level cropping data for the entirety of PVID to support water use studies and verification of lessee crop plans. Crops are classified once per quarter from multiple sources of satellite imagery. In addition to this regular data deliverable, staff received 2022 crop initiation and end dates for all annual crops in PVID.

Staff participated in a Peer-2-Peer (P2P) meeting with Anglian Water on "Smart Water Utilities" and operations through Metropolitan's P2P agreement with Booky Oren GWT (BOGWT). The information exchange featured a presentation on Metropolitan's operational decision models and Anglian's approach to creating a unified system of models coupled with AI for optimizing its entire system in real-time. Through BOGWT, staff will meet with representatives from New York City's Department of Environmental Protection in June to discuss watershed planning and reservoir water quality, and with Mekorot, Israel's national water wholesaler, in July.

Additional P2P innovation activities in May included a meeting with representatives from the Netherlands to share strategies on managing delta islands. Staff also participated in innovation workshops on (1) asset condition assessment, (2) net zero carbon and (3) workforce development organized by ISLE Utilities.

# Water Resources and Engineering

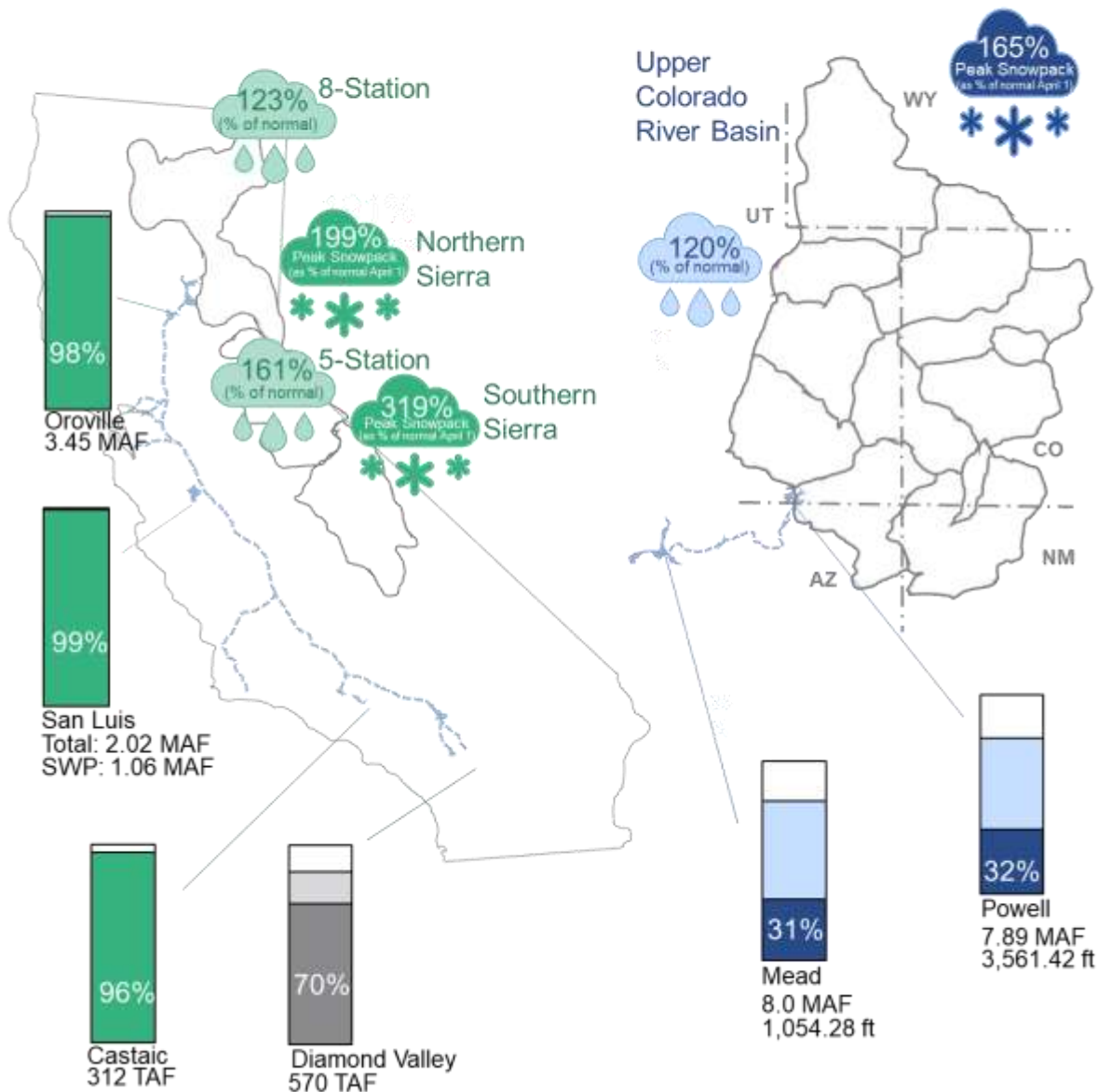
(continued)

## State Water Project Resources

SWP Table A – 100% - 1,911,500 AF

## Colorado River Resources

Projected CRA Diversions – 832,000 AF



Extended Report:  
<https://www.mwdh2o.com/WSCR>

As of May 31, 2023

## Bay-Delta Initiatives

### Core Functions

#### Delta Conveyance

The California Department of Water Resources (DWR) released a draft Environmental Impact Report (EIR) to comply with the California Environmental Quality Act for a public review that ended on December 16, 2022. DWR received more than 700 unique comment letters with over 6,000 individual comments. DWR is currently working to organize the comments and begin developing responses. The Final EIR is expected at the end of 2023. It will include responses to all substantive comments on the Draft EIR and edits to the Draft EIR, as appropriate, to respond to the comments.

The U.S. Army Corps of Engineers (USACE), as part of its permitting review under the Clean Water Act and Rivers and Harbors Act, released a draft Environmental Impact Statement (EIS) to comply with the National Environmental Policy Act for a public review that ended on March 16, 2023. USACE is starting the initial organization of the comments received.

#### Delta Conveyance related Joint Powers Authorities

On May 18, the Delta Conveyance Design and Construction Authority (DCA) Board of Directors participated in a discussion regarding the proposed draft budget for fiscal year 2023/24, which is \$39.9 million. DCA staff will present the final budget for DCA board approval at the June Meeting. The DCA board also acted on multiple resolutions regarding various agreement amendments. The amendment to the Baker Tilly US, LLP Agreement for Executive Director services included changing the Agreement Administrator from Shane Chapman, Metropolitan Assistant General Manager/Chief Administrative Officer to Nina Hawk, Metropolitan Chief of Bay-Delta Resources/Group Manager Bay-Delta Initiatives. The amendment also modified the insurance cancellation language to ensure consistency with other similar agreements, and increased compensation to the Executive Director. The resolutions regarding amendments to the Jacobs Engineering Group Inc. Agreement and the Parsons Transportation Group Inc. Agreement were also approved to extend the term of the Agreements for an additional five-year term, through June 30, 2029.

The Delta Conveyance Finance Authority (DCFA) Board of Directors approved two resolutions recognizing the contribution of former DCFA Director Gary Kremen and former DCFA Director Randy Record during the May 18 DCFA Board of Directors meeting. The DCFA board also approved the Fiscal Year 2023/24 Operating Budget totaling \$188,350 to be funded with \$182,350 of reserves and \$6,000 in interest earnings.

#### Sites Reservoir

At the May 19 Joint Sites Reservoir Committee and Authority Board meeting, the Authority Board and Reservoir Committee approved a new Investment Policy that describes the parameters for investing Authority funds.

The Authority Board and Reservoir Committee also discussed and approved preliminary final allocations of available storage, the proportionate shares of diverted water for storage partners, and the transition from yield-based to storage-based participation. The transition to storage-based participation is necessary for the contracting of benefits and obligations in the Sites Reservoir as cost allocation needs to be based on physical capacity attributes of the facilities and will be reflected in the future negotiated Benefits and Obligations Contracts. Based on the most current



surveying data, the current assumption of the total storage space available in Sites Reservoir is 1,470,000 acre-feet. Of this total storage amount, the allocation of deadpool is 60,000 acre-feet. Given the methodology for allocating storage space in Sites Reservoir to local storage partners using the approach of one acre-foot participation to 6.234 acre-feet of storage space, Metropolitan's Amendment 3 participation level of 50,000 acre-feet of participation equates to 311,700 acre-feet of storage allocation which is 22.1 percent of storage.

## **Regulatory Activities**

Staff continued to participate in the collaborative science groups established to inform implementation of the 2019 Biological Opinions for the State Water Project (SWP) and Central Valley Project, and the 2020 Incidental Take Permit (ITP) for long-term operation of the SWP. In May, staff participated in Delta Coordination Group meetings with state and federal water contractors, resource agencies, and fisheries agencies to inform the Summer Fall Habitat Action for 2023. The water year type for 2023 is designated as a Wet Year, and the ITP actions to be implemented this year include operation of Fall X2 at 80 km and the use of 100,000 acre-feet of water supply to support Delta smelt.

## **Science Activities**

Staff worked with researchers from UC Davis and the U.S. Geological Survey to conclude the second deployment of the Delta Smelt Pilot Propagation Study on Bouldin Island. The purpose of the study is to evaluate whether the impoundments on Metropolitan's islands can be leveraged to conduct Delta smelt supplementation research. The first deployment from November 21, 2022, to January 5, 2023, successfully demonstrated that it is possible. The second deployment was initiated in February to repeat and verify the results and test conditions during the warmer period of March 2023. The second deployment of Delta smelt was ended in early May. Results show that survival was very good with the deployed Delta smelt, successfully validating that the impoundments can be used to culture Delta smelt. The second deployment also verified that Delta smelt can survive in warmer temperatures. The researchers at UC Davis will continue to evaluate the results and will provide a report by the end of the year.

On May 17, staff gave an informational presentation on the basics of structured decision making to the State Water Contractors at their monthly board meeting.

## **Delta Island Activities**

On May 24, Metropolitan was awarded a \$20.9 million state grant to restore habitat and sustainability to an entire island in the Sacramento-San Joaquin Delta, an unprecedented effort that will support the area's delicate ecosystem and help protect the ability to deliver critical water supplies throughout California. The funding from the state's Sacramento-San Joaquin Delta Conservancy will allow Metropolitan to improve the nearly 5,500-acre Webb Tract from current agricultural practices to wetlands and rice farming. The project is a collaboration among Metropolitan, local interests, and the Delta Conservancy, and it will address challenges that many islands in the Delta face by slowing or reversing land subsidence, reducing greenhouse gas emissions, promoting sustainable agriculture, and creating habitat to bolster the local ecosystem. The grant will fund design, environmental documentation, permitting and construction of wetlands and rice fields on Webb Tract over a three-year period, with planning slated for the fall and construction starting in spring 2025 after board approval of the environmental documentation. The grant funding will also help Metropolitan quantify the greenhouse gas emission reductions realized from the project, which supports Metropolitan's [Climate Action Plan](#) goals.

## Colorado River

### **Lower Basin States Submit Water Conservation Plan to Reclamation**

In late 2022, the Bureau of Reclamation (Reclamation) began a process to modify the 2007 Interim Colorado River Guidelines by developing a Supplemental Environmental Impact Statement (SEIS). Reclamation stated that it needed to be able to implement additional actions to protect critical infrastructure at Hoover Dam and Glen Canyon Dam if critically dry conditions continued. The SEIS was to consider additional Lower Basin Shortages and modified Lake Powell operations and allowed a seven-state consensus alternative to be included in the analysis. The seven states worked to meet the January 31 deadline but were unable to reach a seven-state consensus.

On April 14, 2023, the Draft SEIS was released for public comment, with two action alternatives included in it. Comments were due on the Draft SEIS by May 30. Metropolitan worked with the Lower Basin States to see whether a consensus approach could be developed, and on May 22 the Lower Basin states submitted the Lower Basin consensus proposal to Reclamation. The Upper Basin was not part of the proposal, but it did send in a letter requesting Reclamation analyze the Lower Basin Proposal. The Lower Basin Proposal includes 3 million acre-feet of new conservation to be added to Lake Mead, in addition to existing shortage and Drought Contingency Plan commitments, through 2026. Most of that conservation will be from programs funded by Reclamation through the Inflation Reduction Act. It also states that Intentionally Created Surplus water added to Lake Mead also counts toward that goal, provided that any new water remains stored through 2027.

In response to the request from the Basin States, Reclamation paused the development of the SEIS and cancelled the May 30 comment deadline. Instead, Reclamation is working with the Basin States to model the Lower Basin Proposal and include it in a follow-up analysis in the SEIS process. Ultimately, if Reclamation chooses the Lower Basin Proposal as a preferred alternative, approval of the governing boards of the implementing parties, including Metropolitan, will be needed. Additionally, the Lower Basin states urged Reclamation to begin the scoping process for the post-2026 Guidelines within the next few months. The draft EIS for the post-2026 Guidelines is scheduled to be completed by the end of 2024.

## Engineering

### Core Business Function – Execute Capital Investment Plan Projects

Engineering Services manages and executes projects within the Capital Investment Plan (CIP) to maintain infrastructure resiliency, ensure regulatory compliance, enhance sustainability, and provide flexibility in system operations to address uncertain water supply conditions.

#### Distribution System Reliability Program

This program maintains reliable water deliveries through specific rehabilitation and upgrade projects on Metropolitan's pipelines, reservoirs, and control structures. Recent activities include the following:

- **Casa Loma Siphon Seismic Upgrades**—This project mitigates leaks associated with long-term ground subsidence and will improve seismic resilience of the siphon as it crosses the Casa Loma Fault. This project replaced approximately 1,200 feet of the Casa Loma Siphon Barrel No. 1 at a fault crossing, using earthquake resistant ductile iron pipe (ERDIP) and welded steel pipe. The final tie-in was completed in February 2023 during the annual CRA shutdown, and the siphon was placed into service at the conclusion of the shutdown. Overall construction was completed in May 2023.
- **Etiwanda Pipeline Relining**—This project removes damaged mortar lining in 5.5 miles of pipeline and replaces it with polyurethane lining. Stages 1 and 2, which relined 3 miles of the pipeline, have already been completed. Stage 3 relines the remaining 2.5 miles of pipeline and is currently under construction. The contractor has removed all mortar lining and is currently applying the polyurethane lining. Stage 3 construction is 74 percent complete and is scheduled to be complete by October 2023.
- **Sepulveda Feeder Electrical Improvements**—This project replaces deteriorated electrical components, makes other upgrades at three Sepulveda Feeder underground structures, and installs two blind flanges after removing a spool on the West Valley Feeder No. 1. The contractor continues electrical work in the West Valley Feeder No. 1 vault. Construction is 70 percent complete and is scheduled to be complete by August 2023.
- **Garvey Reservoir Rehabilitation**—This project will replace the aging reservoir floating cover and liner, structurally strengthen the inlet/outlet tower, upgrade the on-site water quality laboratory building, rehabilitate the junction structure, and replace the existing standby generator and a portion of the security perimeter fence. Metropolitan's Board authorized an amendment to a consultant agreement in April 2023 for final design. Final design is approximately 6 percent complete and is scheduled to be complete in December 2024.
- **Foothill Hydroelectric Plant and Control Building Seismic Upgrade**—This project rehabilitates and strengthens the Foothill Hydroelectric Plant and Control Building to withstand a major earthquake and retain its functionality as an essential facility. A construction contract was awarded in April 2023. The contractor has started mobilizing to the facility site and is currently preparing construction submittals. Construction is 3 percent complete and is scheduled to be completed by December 2024.

# Water Resources and Engineering

(continued)



**Etiwanda Pipeline Relining—Applying Polyurethane Coating Lining**



**Etiwanda Pipeline Relining—Welding Steel Pipe Reducers**

## **Prestressed Concrete Cylinder Pipe (PCCP) Reliability Program**

This program was established to enhance the reliability of Metropolitan's water distribution system and to reduce the risk of costly emergency repairs of PCCP. The priority pipelines included in the program are the Second Lower Feeder, Sepulveda Feeder, Calabazas Feeder, Rialto Pipeline, and the Allen-McColloch Pipeline. A total of 100 miles of PCCP pipelines will eventually be relined with new steel pipe liners under this 20-year program. Recent activities include the following:

- **Second Lower Feeder PCCP Rehabilitation Reach 3A**—This project rehabilitated 6,500 feet of PCCP portions of the Second Lower Feeder within the city of Rolling Hills Estates. Metropolitan's Board awarded a construction contract in May 2022. The contractor has completed all relining and shutdown work and returned the pipeline to service in May 2023.
- **Second Lower Feeder PCCP Rehabilitation Reach 3B**—This project installs steel lining along a 3.7-mile-long portion of the Second Lower Feeder that traverses the cities of Lomita, Los Angeles, and Torrance. A contract was awarded by Metropolitan's Board in January 2023. The contractor is currently forwarding contract submittals for review and obtaining permits. The contractor performed utility potholing work in May 2023. Major construction activities will commence in July 2023 with site work related to constructing the temporary bypass line around the Palos Verdes Reservoir. This bypass line will ensure that member agency service connections on this portion of the feeder remain in service during the construction contract. Site preparation for pipe relining access shafts is expected to begin in November 2023. Construction is 12 percent complete and is scheduled to be complete in September 2025.
- **Sepulveda Feeder PCCP Rehabilitation Reach 1**—This project rehabilitates PCCP segments of the Sepulveda Feeder. Reach 1 of the Sepulveda Feeder spans 4.7 miles through several cities, including the cities of Hawthorne, Inglewood, and Los Angeles. Final design is approximately 73 percent complete and is scheduled to be complete in August 2023.
- **PCCP Valve Warehouse**—This project constructs a 18,160 square-foot pre-engineered metal building on a reinforced concrete slab at Lake Mathews for valve and equipment storage related to the PCCP relining program. The contractor has finished erecting the steel building structure and the electrical tie-ins for the building. The contractor is currently performing site work for the building's concrete approach ramps. Construction is 80 percent complete and is scheduled to be complete in September 2023.
- **Electromagnetic Inspection**—Regular inspections of the PCCP feeders, a critical step in evaluating the condition of each pipeline, assist staff in prioritizing the relining work on each feeder. This project conducts the fifth cycle of electromagnetic and visual inspections of Metropolitan's approximately 146.4 miles of PCCP pipelines. Portions of the Sepulveda Feeder and Yorba Linda Feeder totaling 18 miles were inspected during the 2022/2023 shutdown season. Inspections of the Allen-McColloch Pipeline, West Valley Feeder No. 2, and Calabazas Feeder are scheduled for October 2023 and January 2024.
- **Sepulveda Feeder Urgent Carbon Fiber Lining**—During a February 2023 pipeline inspection, staff identified new wire breaks at three locations along the Sepulveda Feeder. This project will rehabilitate PCCP at these three locations using carbon fiber lining. The use of the carbon fiber lining approach will allow the affected pipe sections in the feeder to be strengthened in a timely manner to ensure that interruptions to deliveries of State Water Project supplies on the feeder are minimized. Staff is currently prequalifying carbon fiber lining manufacturers/installers. Final design is underway, and award of a construction contract is planned for August 2023.





Second Lower Feeder PCCP Rehabilitation Reach 3A—Street Restoration

## Colorado River Aqueduct (CRA) Reliability Program

This program maintains the reliability of Metropolitan’s CRA conveyance system. Recent activities include the following:

- **CRA Pumping Plants Overhead Crane Replacement**—This project consists of replacing five overhead bridge cranes and retrofitting the support structures within the pump bays located at all five of Metropolitan’s Colorado River Aqueduct pumping plants. The contractor has completed the installation of the new crane at the Gene Pumping Plant and began work at Iron Mountain Pumping Plant in May. Construction is 37 percent complete and scheduled to be complete at this site by October 2023.
- **Copper Basin Discharge Valve Replacement**—This project rehabilitates emergency dewatering facilities at Copper Basin Reservoir by replacing a 54-inch fixed cone valve and actuator, refurbishing the existing valve house and a slide gate, as well as improving the access road and ladders to the discharge valve structure. Final design is 90 percent complete and is scheduled to be complete in December 2023.
- **Mile 12 Flow Monitoring Station**—This project will replace the CRA Mile 12 flow meter and upgrades the appurtenant facilities at the monitoring station. The contractor is completing the final terminations and testing of the electrical equipment. Construction is 99 percent complete.
- **Flow Level Monitoring Stations**—This project will install 12 flow monitoring stations at remote locations along the Colorado River Aqueduct. A construction contract was awarded by the Board in May 2023.
- **Erosion Control**—This project will install erosion control features at 19 conduit locations along the CRA which are vulnerable to erosion during storm events. Preliminary design is 70 percent complete and is scheduled to be complete by November 2023.

## System Flexibility/Supply Reliability

Projects under this program will enhance the flexibility and/or increase the capacity of Metropolitan's water supply and delivery infrastructure to meet current and projected service demands. Projects under this program address climate change affecting water supply, regional drought, and alternative water sources for areas dependent on State Project water.

- **Perris Valley Pipeline**—This project will complete construction of the Perris Valley Pipeline and provide service connections to Eastern and Western Municipal Water Districts. This project installs 3,000 linear feet of tunnel, which crosses the Interstate 215 freeway. The contractor has mobilized its trailer and equipment on the site, is preparing contract submittals for review and approval, and is installing the water treatment system. Construction is 8 percent complete and is scheduled to be complete in early 2025.
- **Wadsworth Pumping Plant Bypass**—In conjunction with three other projects, this project enhances water supply reliability in the Rialto Pipeline service area by enabling water to be pumped from the Wadsworth Pumping Plant forebay to Rialto Pipeline by way of the Inland Feeder. This project will install a bypass pipeline and an isolation valve to interconnect the Wadsworth Pumping Plant with the Eastside Pipeline. The contractor is currently preparing submittals for review and approval. Construction is 3 percent complete and is anticipated to be complete by February 2024.
- **Sepulveda Feeder Pumping Stations**—This project will install new pump stations at the existing Venice and Sepulveda Canyon Pressure Control Facilities, providing the ability to reverse flow in the Sepulveda Feeder and deliver water from the Central Pool to portions of the Jensen plant exclusive area. This project will use progressive design-build (PDB) for delivery. Statements of Qualifications (SOQs) from potential design-build entities were received in May. Staff is currently evaluating the SOQs for selection of the design-builder. Board award of the Phase 1 agreement for preconstruction services under the PDB contract is planned for September 2023.
- **Foothill Pump Station Intertie**—In conjunction with three other projects, this project enhances water supply reliability in the Rialto Pipeline service area by enabling water to be pumped from the Wadsworth Pumping Plant forebay to Rialto Pipeline by way of the Inland Feeder. This project will connect San Bernardino Valley Municipal Water District's (SBVMWD) Foothill Pump Station with the Inland Feeder to provide the needed hydraulic lift to deliver water from DVL to Rialto service area upon completion. Final design is 90 percent complete and is scheduled to be complete by June 2023. A procurement contract for two long-lead valves was awarded in May 2023. A separate procurement contract for a large-diameter valve with different requirements is scheduled to be advertised in June 2023.

## Treatment Plant Reliability Program

This program was initiated to maintain reliability and improve the operating efficiency of Metropolitan's water treatment plants through specific improvement projects. Recent activities include the following:

- **Weymouth Basins 5–8 and Filter Building No. 2 Rehabilitation**—This project rehabilitates major mechanical and structural components including the flocculation/sedimentation equipment, sludge pumps, baffle boards and walls, launders, inlet gates, and outlet drop gates at the Weymouth plant. Other improvements included in this contract are seismic upgrades of basin walls and inlet channel, hazardous material abatement, and replacement of filter valves and actuators in Filter Building No. 2. The contractor began demolition of filter valves and piping in Filter Building No. 2 and continued other work under the first quarter-plant outage, including new concrete construction and installation of new electrical conduits. Construction is 30 percent complete and is scheduled to be complete by May 2025.

- **Mills Ozonation System PLC Upgrade**—This project replaces the outdated generator control system at the Mills plant with new programmable logic controller equipment along with upgraded software. Installation of the new software and commissioning was completed in April 2023. The ozone will be returned to service as the primary disinfectant in June 2023.
- **Mills Electrical Upgrades**—This project upgrades the electrical system with dual-power feeds to key process equipment to comply with current codes and industry practices, improve plant reliability, and enhance worker safety. Stage 1 construction is complete. Stage 2 improvements will add a second incoming 12 kV service from Riverside Public Utilities, reconfigure the existing 4160-volt switchgear, and replace the standby generator switchgear and the emergency generator programmable logic controller. Metropolitan’s Board awarded a construction contract for Stage 2 improvements in November 2021. The contractor continued the Riverside Public Utility switchyard installation work and is preparing for demolition of the west wall at the ORP switchgear building. Construction is 25 percent complete and is scheduled to be complete by February 2025.
- **Jensen Ozone PSUs Replacement**—This project rehabilitates the ozone generation system at the Jensen plant by replacing four existing ozone power supply units (PSUs) and four sets of generator dielectrics. The project also makes required modifications to the associated electrical, control, and cooling water systems. Metropolitan’s Board awarded a construction contract in June 2022. All PSUs and dielectrics have been manufactured and delivered. Installation of two PSUs is complete and dielectrics for two ozone generators have been replaced. The contractor is preparing a coordination study for start-up testing of the two newly installed PSUs and has initiated pipe and valve procurement to implement modifications to the cooling water system. Construction is 40 percent complete and is scheduled to be complete by December 2023.



**Jensen Ozone PSUs Replacement**—Installed Generators 2 and 3 with High Voltage DC Cable



## System Reliability Program

The System Reliability Program consists of projects to improve or modify facilities located throughout Metropolitan's service area to use new processes and/or technologies and improve facility safety and overall reliability. Recent activities include the following:

- **Headquarters Physical Security Upgrades**—This project implements comprehensive security upgrades for Metropolitan's Headquarters Building. These upgrades are consistent with federally recommended best practices for government buildings. This work has been prioritized and staged to minimize rework and impacts on day-to-day operations within the building. Stage 1 work is complete and provides enhanced security related to perimeter windows and doors. Stage 2 work is complete and provides security system upgrades inside the building with a focus on the main entry rotunda area, boardroom, executive dining lounge, and security control room. Stage 3 improvements will provide security system upgrades around the perimeter of the building. Metropolitan's Board awarded the stage 3 construction contract in December 2022. The contractor began demolition of the sidewalk around the building and is preparing for installation of the safety bollards. Construction is 15 percent complete and is scheduled to be complete by January 2024.
- **SCADA System Upgrades**—This project will upgrade Metropolitan's entire control system in incremental stages, spanning the Colorado River Aqueduct, the five water treatment plants, and the conveyance and distribution system. The first stage of this project replaces the control system at the Mills plant, starting with a pilot effort on one of the plant's remote terminal units. The pilot effort will demonstrate the proposed technology and the consultant's approach for the plant and the overall project. The consultant continued providing submittals, performing equipment verification, and developing control narratives and a training plan. The pilot phase is 25 percent complete and is scheduled to be complete by September 2023. The system upgrades at the Mills plant are scheduled to be complete by April 2026.

## Protecting the Public and Metropolitan's Assets

Engineering Services continued to develop state-mandated Emergency Action Plans (EAPs) for Metropolitan's state-regulated dams to help ensure long-term public safety. In May, the Diemer Treatment Plant EAP was formally approved by the California Office of Emergency Services (Cal OES). Staff submitted the Mills EAP to Cal OES and formal approval is expected. The EAPs for the Gene Wash and Copper Basin Dams are currently under review by the Cal OES. Staff has completed internal work on the EAPs for Lake Mathews, Lake Skinner, and Skinner Finished Water Reservoir, and outreach to the local emergency management organizations and first responders is currently underway before submitting the EAPs to Cal OES for approval.

## Partnering with the Communities We Serve

Business Outreach and Engineering staff conducted the seventh quarterly MetWorks event to provide consultants and contractors with information on upcoming contracting opportunities. Three member agencies (Calleguas Municipal Water District, Long Beach, and Los Angeles Department of Water and Power) and Metropolitan presented some of their upcoming projects. Over 150 contractors, subcontractors, and professional service providers attended this virtual event. The next quarterly MetWorks event will be held in-person in Moreno Valley and will highlight projects on the eastern side of Metropolitan's service area.



## Water System Operations

### Core Business Objectives

#### Prepare Employees for New Opportunities

The Water System Operations Apprentice and Technical Training Programs develop and train personnel to become qualified mechanics and electricians responsible for maintaining Metropolitan's water treatment and distribution systems. This month, the Class of 2023 electrical and mechanical apprentices completed the academic portion of their apprenticeship training. Apprentices complete four years of classroom instruction and on-the-job training. They are required to complete a demonstrated proficiency assessment: a final hands-on practical test before achieving journey certification. Demonstrated proficiency assessments will take place next month. Congratulations Class of 2023.



Class of 2023 electricians and mechanics

#### Manage Vacancies

WSO filled five vacancies and 11 new apprentice positions in April 2023.

#### Provide Reliable Water Deliveries

Metropolitan member agency water deliveries were 89,000 acre-feet (AF) for May with an average of 2,900 AF per day, which was 600 AF per day higher than in April. Treated water deliveries increased by 6,000 AF from April for a total of 48,600 AF, or 55 percent of total deliveries for the month. The Colorado River Aqueduct (CRA) pumped a total of 68,000 AF in May. State Water Project (SWP) imports averaged 3,500 AF per day, totaling about 107,200 AF for the month. The target SWP blend decreased to 80 percent for the Weymouth and Diemer plants and to approximately 20 percent for the Skinner plant. The SWP blend for the Skinner plant will continue to increase to about 70 percent as more SWP is delivered to Lake Skinner.

#### Manage Water Reserves

The 100 percent SWP allocation, when combined with Colorado River supplies, provides the region with more water than normal demands. Water continues to be managed according to Water Surplus and Drought Management

(WSDM) principles and operational objectives with an emphasis to position SWP supplies to meet future demands in the SWP-dependent area. Metropolitan continued deliveries to Desert Water Agency and Coachella Valley Water District to meet Metropolitan's exchange obligation. With the higher SWP allocation and low regional demands, Metropolitan is working to maximize its use of Table A supplies this year. Staff is working with member agencies to manage supplies through the Cyclic and Cyclic Cost Offset Program. Because of increasing snowmelt runoff, the alkalinity of SWP supplies has been rapidly decreasing. To address the low alkalinity, Metropolitan coordinated with the California Department of Water Resources to blend water from Lake Perris and Silverwood Lake for delivery to the Mills plant.

## **Support Imported Supply Reliability**

The La Verne Shops received a request from the Department of Water Resources (DWR) to refurbish two large siphon breakers for its Dos Amigos Pumping Plant. The siphon breakers were refurbished to an as-new condition and were successfully functionally tested by staff.



**Conducting as-found dimensional check of blasted siphon breaker body for DWR's Dos Amigos Pumping Plant**



**Surface preparation of siphon breaker for coating (left) and curing of applied coating (right) for DWR's Dos Amigos Pumping Plant**



**Fully assembled & tested siphon breakers (left) and application of finished coating (right) for DWR's Dos Amigos Pumping Plant**

## **Support the Pure Water Southern California Program**

Following feedback from the Independent Science Advisory Panel and regulators during Workshop No. 6 in March, staff continued secondary membrane bioreactor operations and testing at the Pure Water Southern California demonstration plant with intentionally compromised membranes. Microbial samples and reverse osmosis concentrate samples were collected for analysis during May. Staff continued developing in-house analytical methods for key constituents, including nitrosamines, 1,4-dioxane, and formaldehyde. Additionally, staff completed spiking studies on the ultraviolet light/advanced oxidation process using free chlorine or hydrogen peroxide as the oxidant, leveraging the in-house laboratory capability to analyze over 200 samples for nitrosamines and 1,4-dioxane.



Staff supported sampling by the Los Angeles County Sanitation Districts (LACSD) to measure air emissions from the bioreactor to help address Metropolitan's and LACSD's environmental planning efforts for the full-scale plant by assessing potential long-term climate impacts.

## **Manage Power Resources and Energy Use in a Sustainable Manner**

Energy markets in May 2023 continued to exhibit reduced price volatility, and electricity prices in the California ISO market were generally within seasonal norms. Notably, natural gas prices at the end of May dropped to the \$2/MMBtu (Metric Million British thermal unit) range. CRA energy costs for May 2023 were about \$4 million; the total energy costs to operate the CRA for fiscal year 2022-2023 is forecast to be around \$139 million.

Because system operating conditions are focused on refilling water storage and low demands, daily generation output from Metropolitan's hydroelectric plants averaged less than 10 MW during the month of May. However, hydroelectric plant output is forecast to trend upwards later in 2023 as demands increase and Metropolitan receives deliveries from the 100 percent SWP allocation. Metropolitan's solar facilities totaling 5.4 megawatts of capacity generated approximately 1,000 megawatt-hours in April 2023.

## **Ensure Water Quality Compliance, Worker Safety, and Environmental Protection**

Metropolitan complied with all water quality regulations and primary drinking water standards during April 2023.

Water Quality staff trained staff at the desert facilities on proper drinking water sampling procedures and requirements, particularly for the Lead and Copper Rule, ensuring continued regulatory compliance for the drinking water supplied at the desert facilities.

On May 17, the Water Quality Laboratory in La Verne was audited under the state's laboratory accreditation program to allow use of an alternative test method to monitor for haloacetic acids under the Disinfectants and Disinfection Byproduct Rules. The audit concluded successfully with no technical findings and no recommendations for improvements, equaling a perfect score.

On May 23, Metropolitan hosted its regular quarterly meeting with the State Water Resources Control Board's Division of Drinking Water. Discussion topics included regulatory updates, capital projects, drought and conservation reporting, and a description of the backup disinfection automatic process control at the Jensen plant.

The Mills plant hosted the Department of Transportation's (DOT) Packager/Repair/Inspection triennial training with Operations and Engineering staff in attendance. This one-day training was for registered inspectors and design-qualified engineers to review any updates to the hydrostatic testing of DOT cargo tanks and for certification/renewal of personnel performing maintenance on chlorine trailers. One of the requirements to become a Registered Inspector is to work alongside a current inspector for three years performing various inspections and tests, including external visual and hydrostatic pressure.





**DOT training being held in the Demo Room at the Mills plant**

Staff performed monthly regulatory inspections of the fire extinguishers at the Diemer plant to ensure their proper working condition in the event of a fire. The inspection consisted of verifying that the fire extinguishers were properly charged, the discharge hoses were in good condition, and that the extinguishers are ready for use when necessary.



**Staff performing inspection of a fire extinguisher at the Diemer plant**

Staff installed new sample lines via a hot-tap installation at the Palos Verdes Feeder LA-21 service connection structure. These hot taps were necessary to provide sample points for water quality compliance within Metropolitan's structure.



**Staff performing hot tap at the LA-21 service connection**

This month, staff published and posted the 2023 Metropolitan *Talk Safety With Me* book on the IntraMet to inform and promote employee safety during on-the-job activities. Hard copies are being distributed to field locations. The book contains 52 safety talks on a variety of safety topics related to employee work activities.



**The 2023 Talk Safety With Me book**

Staff attended the Advanced Clean Truck (ACT) Expo, which showcased more than twice the number of exhibitors than previous years. Several public agencies attended, including the Los Angeles Department of Water and Power (LADWP), the Los Angeles County Sanitation Districts (LACSD), and the San Diego County Water Authority (SDCWA). They shared Metropolitan's concerns about the lack of zero-emission vocational trucks in the marketplace. Staff took the opportunity to talk with charging equipment suppliers to learn more about the technology in preparation for pilot programs to install vehicle charging stations at the Weymouth plant and Union Station.



**Electric utility truck (left) and charging station (right) at the ACT Expo**

Staff submitted the nine Annual Emission Reports (AERs) to the South Coast Air Quality Management District (SCAQMD). The reports included calendar year 2022 operational data for over 180 different equipment/processes throughout Metropolitan. Total fees paid were approximately \$27,000.

Staff participated in the Western Utility Environmental Forum's quarterly meeting hosted by LADWP. Other utilities attending included Pacific Gas and Electric, San Diego Gas and Electric, Sacramento Municipal Utility District, Southern California Edison, and SoCal Gas. Various topics discussed included Challenges with Photovoltaic Panel Disposal, Stormwater Management, Wastewater Industrial Permits, and updates on PFAS regulations.

Staff participated in the Phylmar Regulatory Roundtable (PRR) semi-annual meeting hosted by Southern California Edison. Other participant organizations included Abbott Labs, Boeing, East Bay MUD, LADWP, San Diego Gas and Electric, and SoCal Gas. Various topics discussed included Safety Culture Change Initiative, COVID-19 Return to Work Policies & Challenges, Emerging Industrial Hygiene Challenges, and regulatory updates.

SCAQMD engineers visited the Pure Water Southern California (PWSC) demonstration plant to witness the formal source emission testing of the facility to ensure compliance with the permit issued to Metropolitan. Compliance was successfully demonstrated to meet the permit requirements. The results will also provide LACSD and Metropolitan with air emissions data for the full-scale PWSC plant planning.





**SCAQMD permitting engineers witnessing source testing at the demonstration plant**

Staff attended a March Air Reserve Base Restoration Advisory Board Site Tour site tour with representatives from Eastern and Western Municipal Water Districts and other members of the community. The tour included observing the Base's Enhanced Groundwater Extraction and Treatment System (EGETS) and extraction wells. Staff received updates on the ongoing PFAS remedial efforts.



**Enhanced Groundwater Extraction and Treatment System (left) and extraction well (right) at March Airforce Base**

## **Optimize Maintenance**

Staff continue to excavate and grade for the Iron Mountain switch rack rehabilitation project. During excavation, staff ran into an unexpected amount of rock, which presented a challenge and has required weeks of hammering. Iron Mountain is a deserving name.



**Staff hammering through rock and excavating at Iron Mountain pumping plant for the switch rack rehabilitation project**

When CRA pumps start, they do so against a closed discharge valve, which allows the motor to spin up to speed without excessive load. A bypass system consisting of a control valve and a gate valve allows water to pass around the discharge valve during the starting sequence. Staff rebuilt the bypass valve system at the Eagle Mountain pumping plant.



**Staff installing rebuilt discharge valve bypass system components at a Desert facility**



This month, staff completed the last scheduled pipeline shutdown of the 2023 season, except for two major relining projects for the Etiwanda Pipeline and Orange County Feeder that will extend into the summer. There are also two minor shutdowns of hydroelectric plants for routine maintenance scheduled in June. All together the shutdown season, which began last July, included 48 shutdowns; 27 for pipelines and treatment plants, 14 for hydroelectric plants, and 7 to support shutdowns for the Department of Water Resources and member agencies. The purpose of the May pipeline shutdown was to remove internal bulkheads that were installed to protect Perris facilities from increased pressure that was introduced to the system during the DVL-to-Mills flow operation. With the increased SWP allocation, the bulkheads were removed to allow the Perris facilities to operate in a traditional manner, bringing State Project water supplies into Metropolitan's system.



**Staff torch cutting the remaining pieces of the large bulkhead installed at Perris PCS**

Staff recently returned a portion of the Second Lower Feeder to service where a contractor steel-lined 6,500 feet of the pre-stressed concrete cylinder pipe from Oak Street PCS to Palos Verdes Reservoir. During this outage, staff performed upgrades at Oak Street PCS, rebuilding a pilot valve control rack that regulates flow, and installed three refurbished hydraulic globe valves.



**Before (left) and after (right) rehabilitation of the pilot rack at Oak Street PCS**



**Leaking globe valve before (left) and after (right) refurbishment at Oak Street PCS**

Staff worked to finalize upgrades to the mechanical team's workshop and breakroom by installing a new epoxy coating to the floor at the Skinner plant. This coating will help improve cleanliness throughout the building, while the opportunity to alter the layout of the machines, workstations, and storage cabinets throughout the building will improve ergonomics and workflow efficiency.



**Staff pressure wash and prepare the workshop floor to receive epoxy coating at the Skinner plant**

Weymouth plant electrical staff is responsible for the electrical support of the entire La Verne facility, which includes various emergency power and back-up systems, such as Uninterruptible Power Supplies (UPS). Recently, staff responded to two separate UPS failures within hours of each other. The failures included the Voice over Internet Protocol (VoIP) and Business Server UPS and the emergency and egress system UPS. Staff responded to the calls, analyzed the issues, and quickly restored service to the equipment.



**Staff diagnosing UPS in Building 40 at the Weymouth plant**





**Staff testing UPS components in Building 4 at the Weymouth plant**

Staff replaced a bad power supply in one of the Remote Terminal Units (RTU) at the Weymouth plant. RTUs provide real time control and indication for various processes within the treatment plant. The RTUs are equipped with redundant power supplies. In the event of a single power supply failure, the RTU will remain functional, preventing any operational impacts to the plant or the treatment processes from occurring. Having adequately trained staff with appropriate spare parts ensures that the treatment process stays in compliance with no disruptions due to unforeseen equipment failures.



**Staff replacing a bad power supply unit in an RTU at the Weymouth plant**

Staff completed erosion repairs along San Diego Pipelines #4 and #5 in the city of Temecula. The recent heavy rains caused erosion along our right-of-way. Staff imported 300 tons of clean fill material needed to backfill the erosions. Metropolitan's soils technicians assisted with compaction density testing of the fill material.



**Staff using an excavator to compact fill material (left) and a completed section of road (right) along San Diego pipelines**

Staff performed corrective maintenance to bring a unit at Foothill Hydroelectric Plant (HEP) online. Because of low Castaic Lake elevations and low State Project water supply in 2021 and 2022, this unit has been offline for an extended period, which required additional effort to prepare the unit for operation. These preparations included servicing of high-voltage disconnect switches, cleaning and flushing of the cooling water system, and cleaning and lubricating the wicket gates, which control the flow of water through the turbine.



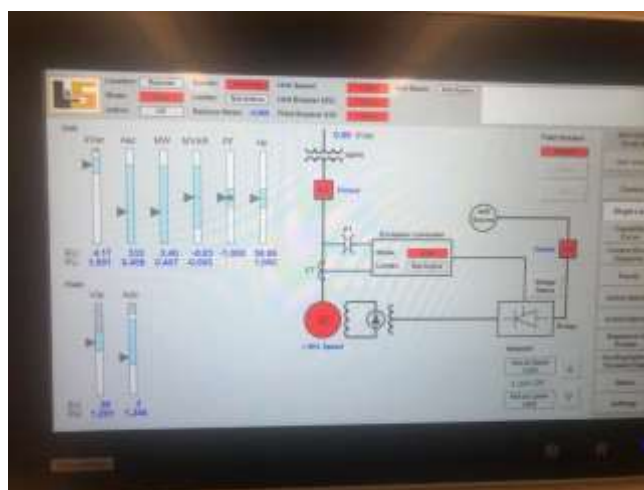
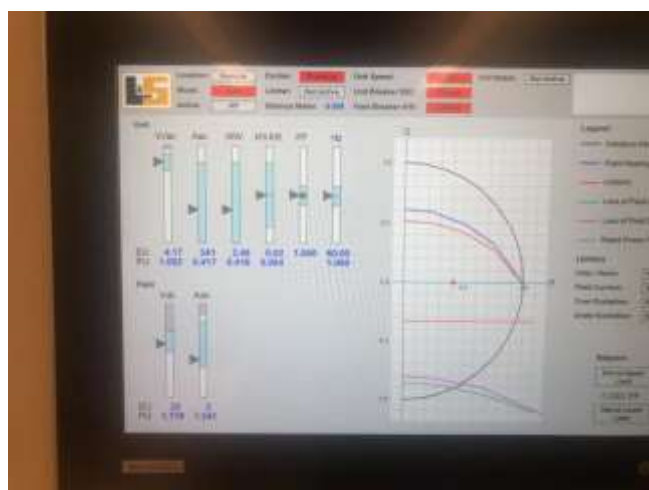
**Staff performing switchyard maintenance at Foothill HEP**



Staff replaced the automatic voltage regulator (AVR) at Red Mountain HEP during the Pipeline 5 shutdown. Voltage regulators are electronic devices that adjust and control the output voltage of the generator to match the transmission power system and are required to generate power. The existing AVR was composed of 30-year-old legacy components that were well beyond support life and starting to fail.



**Staff performing AVR commissioning at Red Mountain HEP**



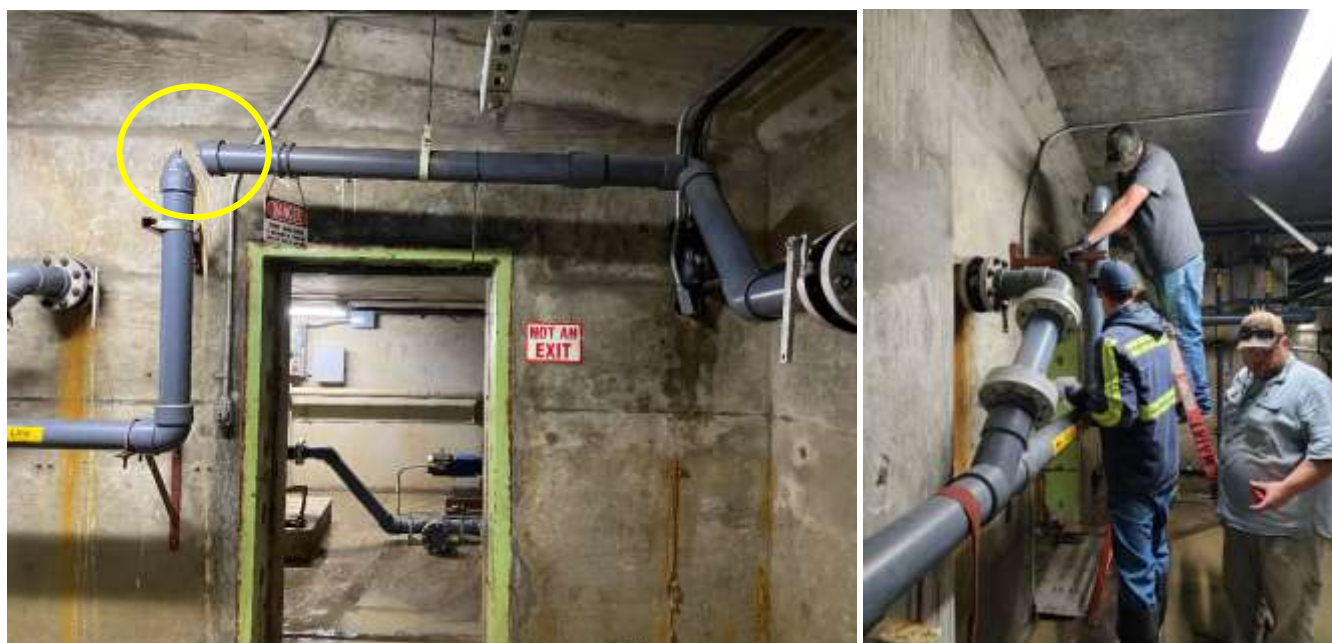
**Upgraded AVR control screenshots at Red Mountain HEP**

## Optimize Water Treatment and Distribution

Because of decreasing alkalinity in Silverwood Lake, the State Water Project (SWP) target blend entering the Weymouth and Diemer plants was lowered from 100 to 80 percent in mid-May. The Mills plant's source water was transitioned from solely Silverwood Lake to a blend of Silverwood Lake (75 percent) and Lake Perris (25 percent) in late May. The SWP target entering Lake Skinner fluctuates to accommodate multiple operational needs and to maximize the delivery of water from the SWP. The SWP blend leaving the lake has been increasing during May and is expected to reach 50–75 percent within a few weeks. Chemical dosages were adjusted at Weymouth, Diemer, Mills, and Skinner plants to ensure that water quality objectives continue to be achieved following the blend changes.

Flow-weighted running annual averages for total dissolved solids from March 2022 through February 2023 for Metropolitan's treatment plants capable of receiving a blend of supplies from the SWP and the Colorado River Aqueduct were 605, 609, and 608 mg/L for the Weymouth, Diemer, and Skinner plants, respectively.

Staff performed emergency repairs to a damaged sludge line at the Weymouth plant. The sludge line carries solids removed from the treatment process to the Solids Handling facility for processing and removal from the plant. Repairs were quickly completed, and the sludge line was reinforced. Because of the immediate repairs performed by staff, the treatment process was not interrupted.



**Broken pipe fitting (left) and staff making repairs (right) at the Weymouth plant**

## Improve Emergency Preparedness and Response

Staff participated in multiple joint planning efforts to prepare for future emergencies. On April 24, staff joined representatives from other utilities, including the San Diego County Water Authority, to participate in the California Regional Resilience Workshop at the US Naval Base at Point Loma. The two-day workshop focused on developing ways for the Navy and local infrastructure to support each other during emergencies.

Staff attended a two-day training course given by the Governor's Office of Emergency Services on integrating access and functional needs into emergency planning. Lessons from this course will be used in future emergency planning at Metropolitan.

On May 19, staff participated in an interview with Department of Water Resources personnel on ways Metropolitan uses GIS and other technologies to enhance our emergency response capabilities.

## **Actively Engage in Capital Project Planning and Execution**

Staff completed work replacing two filter surface wash valves as part of a capital project at the Jensen plant. The valves deteriorated because of age and were leaking, causing an impact to operation of 10 of the 40 filters at the plant. An impact of these leaky valves was the accumulation of algae within the filters. Staff completed removal of this filamentous algae while the filters were out of service for valve replacements. This project was completed before the increase in flow as a result of the high SWP allocation, ensuring reliable plant operations at higher flows.



**Filter and wash water trough before cleaning at the Jensen plant**



**Staff finishing filter cleaning at the Jensen plant**



Staff is progressing on a capital project to replace breaker panels that have outdated grounding at the Diemer plant. The new circuit breaker panels will improve employee safety during maintenance work.



**Staff preparing a new breaker panel for installation at the Diemer plant**

## **Examine and Mitigate Adverse Water Quality Outcomes**

On May 20, at the request of the Kern River Watermaster, the Department of Water Resources opened the Kern River Intertie to redirect flood flows from the Kern River into the California Aqueduct. Although it is not anticipated that introduction of this water will significantly affect water quality in the aqueduct, water quality conditions will be closely monitored for the duration of the operation.

## **Manage the Power System**

Energy costs for the CRA for the 2022–2023 fiscal year are currently projected to be higher than budgeted. Current estimates on the total CRA energy cost range from \$135-140 million, compared with an original budget of \$102.5 million.

On May 9, staff attended the annual meeting of the Arizona Electric Power Co-Operative (AEP CO) in Tucson, AZ. Metropolitan is a Class D member of AEP CO.

On May 23, Metropolitan staff participated in the annual CAISO/RC West Summer Outlook and Emergency Communications program. The RC West staff discussed the events of summer 2022 and looked ahead to summer 2023, discussing the most recent long-range weather forecasts, load projections, and assessment of available generation resources. Of note, CAISO noted that approximately 3,000 MW of additional energy storage capability is expected to be online by peak load season. This is a significant capacity addition to the CAISO system and is about 6 percent of the all-time maximum CAISO demand of 52,061 MW that occurred on September 6, 2022. CAISO staff also

noted the importance of providing advanced notice of potential curtailments to water utilities such as Metropolitan and the California Department of Water Resources to allow for adjustment to pumping schedules.

## **Prepare for Future Legislation and Regulation**

On April 28, the California Air Resources Board unanimously voted to adopt the Advanced Clean Fleets (ACF) Regulation. The ACF includes a 50 percent zero-emission vehicle (ZEV) purchase mandate for medium to heavy-duty vehicles weighing more than 8,500 pounds starting in 2024, and 100 percent by 2027. The ACF will affect more than 500 Metropolitan vehicles, though it includes several exemptions that would allow Metropolitan to delay the purchase of ZEVs under certain conditions. Staff is currently working with Metropolitan's ZEV Executive Task Force to implement the rule.

On May 8, the Environmental Protection Agency (EPA) sent to the Office of Management and Budget (OMB) its **proposal** to list four PFAS chemicals (PFOA, PFOS, PFBS, and GenX chemicals) as "hazardous constituents" under the Resource Conservation Recovery Act (RCRA). After OMB's review, the EPA will publish the rule in the Federal Register for public comment. If finalized, this listing would require investigation and cleanup of these PFAS chemicals if released from an RCRA facility. Staff will track this rule as it relates to the issue of CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) liability for water agencies.

On May 9, a U.S. Court of Appeals overruled EPA's July 21, 2020 decision not to regulate perchlorate in drinking water. The decision stems from a Natural Resources Defense Council lawsuit stating that the EPA had no authority to withdraw from a 2011 determination that perchlorate should be regulated. The Court's ruling is consistent with Metropolitan's previous comments that the EPA's decision not to regulate perchlorate was in error and that a perchlorate standard should be established that is protective of human health and the Colorado River.

On May 9, staff gave a presentation on Constituents of Emerging Concern (CECs) to the Board's Engineering, Operations & Technology Committee, providing a general overview on the regulatory process for CECs and focusing on Metropolitan's preparation and engagement on microplastics and PFAS regulatory monitoring.

On May 11, the EPA released a prepublication copy of proposed new greenhouse gas (GHG) emission standards for new, existing, and retrofitted fossil fuel-fired electric generating units. The standards include the use of carbon capture and sequestration/storage (CCS) and co-firing with lower-GHG fuels. Under the proposed rule, nearly all of the United States' coal and large gas plants would have to reduce or capture 90 percent of their carbon dioxide emissions by 2038 or be forced to retire. The EPA is simultaneously proposing to repeal the Trump-era Affordable Clean Energy (ACE) Rule because the rule is inconsistent with section 111 of the Clean Air Act. If promulgated, the rule would help to "green" the grid, but the costs are uncertain at this time.

Staff attended several webinars on microplastics and per- and polyfluoroalkyl substances (PFAS) to prepare for upcoming regulation and monitoring of these two groups of constituents. Metropolitan's participation included providing a presentation on developing sampling plans during a May 22 SWRCB workshop on microplastics sampling.

On May 30, Metropolitan submitted a comment letter to the U.S. Environmental Protection Agency in response to the agency's proposed regulations for six PFAS in drinking water (PFOA, PFOS, PFHxS, PFNA, PFBS, and GenX chemicals). Metropolitan's comments focused on whether regulation of some PFAS may be premature based on the current state of the science and occurrence data, sensitivity of analytical methods and laboratory capacity, economic feasibility, and potential liability for water utilities if PFAS are designated as hazardous substances under CERCLA.



## **Enhance Support Infrastructure at the Desert Facilities**

Much of the aging infrastructure in the Desert was built from concrete, which is a strong, long-lasting material, but still requires maintenance and repairs to prevent cracking. This month, staff repaired the concrete corners of the Copper Basin Dam discharge valve structure to prevent future damage.



**Concrete repair of Copper Basin discharge valve structure**

## **Ensure Accurate Billing Infrastructure**

Staff completed the repair to the CenB-49 service connection metering station located on the Second Lower Feeder. The repair included repairing damaged concrete, replacing the electric meter pedestal, installing two new vent stacks, and placing a new AMR cabinet.



**The repaired CenB-49 metering station**

## **Advance Education and Outreach Initiatives**

During this month, staff provided tours of the Water Quality Laboratory for the City of Santa Ana Public Works and Drinking Water Department, Metropolitan's CIP Committee, new employees at the Weymouth plant, and Directors Seckel and McMillan and their guests.

Monthly Update as of:

5/31/2023

<u>Reservoir</u>	<u>Current Storage</u>	<u>Percent of Capacity</u>
<b><i>Colorado River Basin</i></b>		
Lake Powell	7,802,000	32%
Lake Mead	7,984,000	31%
<b><i>DWR</i></b>		
Lake Oroville	3,454,363	97%
Shasta Lake	4,457,686	98%
San Luis Total	2,018,313	100%
San Luis CDWR	1,061,348	100%
Castaic Lake	311,761	96%
Silverwood Lake	70,205	94%
Lake Perris	121,182	92%
<b><i>MWD</i></b>		
DVL	569,117	70%
Lake Mathews	169,694	93%
Lake Skinner	38,001	86%



Hoover Dam

## Information Technology

### Project Highlights

#### Quality Assurance/Quality Control Automation

The Information Technology group has been making rapid progress with designing and implementing an integrated Quality Assurance/Quality Control (QA/QC) framework that will be used to manage the IT QA/QCs team's functional and non-functional testing requirements. Essential components of the integrated framework include a new test case management system (TestLink), upgraded defect management system (Redmine), an automated scripting platform (Ruby-based Selenium), and an environment for Continuous Integration/Continuous Development (Jenkins). The introduction of automated testing is expected to provide a means for QA/QC staff to script, maintain, and execute predefined regression tests on a scheduled basis, thus greatly reducing the need for manual regression testing. An example where this has occurred is with the testing of Microsoft security patches that are delivered monthly by the Microsoft Corporation. The manual testing process, which requires a dedicated employee to perform 2–3 days of manual testing, can now be completed within a day and does not require a dedicated employee to perform the testing. The introduction of automated testing is also intended to reduce the IT group's dependency on business users for manual testing and can be leveraged to meet the non-functional testing requirements for IT-led maintenance projects (e.g. performance testing, load testing). Currently, the framework is establishing test coverage for several key Metropolitan applications, including Oracle Enterprise Business Suite, WINS, WorkTech, Labsheet, IESWTR, and FEA.

#### Physical Security Camera Replacement Project

The Information Technology Group is in the process of conducting site assessments among 60 sites across Metropolitan's service area to evaluate upgrades and requirements needed to support Physical Security Camera Replacement. The assessment covering the Eastern and Western region is estimated to be completed in the first quarter of next fiscal year.



## Real Property

### Highlights

#### **Foster staff training and development.**

Attended IRWA's 31<sup>st</sup> Annual Valuation Seminar in which a broad range of topics related to public agency valuation considerations, valuation of special use properties, eminent domain, appraisal expert witness testimony, and environmental contamination issues were presented. This training enables staff appraisers to deepen their understanding of issues affecting the valuation process in order to properly conduct valuation assessments.

#### **Provide right-of-way planning, valuation, and real property acquisition support services for the sustainability and reliability of both imported and regional water supplies, and protection of water rights.**

Acquired three six-month permits from Southern California Edison (SCE) to enter SCE property in the City of Industry, Whittier, and Pico Rivera, respectively. The entry permits were obtained for the purpose of conducting non-invasive site walks and observational studies to gather information for environmental surveys in connection with preparing Pure Water Southern California's Environmental Impact Report.

### **Core Business: Real Property Acquisition, Management, and Revenue Enhancement**

#### **Provide valuation, land management, and real property disposition support services for the maximum return or use of Metropolitan-owned land and facilities.**

Entry permits were issued to the United States Geological Survey (USGS) and Andy Domenigoni for the replacement of seismic sensors and a one-day equestrian event, respectively. USGS is prepared to upgrade its existing earthquake early warning station within the Southwestern Riverside County Multi-Species Reserve.

#### **District Housing Maintenance and Management.**

Pre-occupancy repairs on one district house were completed this reporting period. Repairs to this house consisted of paint touchups, minor repairs, and cleaning. Desert housing maintenance staff also completed tenant-requested work orders consisting of installing security screens, replacement weatherstripping, new window blinds, installation of dog doors, air conditioning unit repairs, and irrigation repairs.

Desert Housing and Recreation Interim Action Plan (DHRIAP) has been implemented and work continues on several projects.

Carport installation efforts have now transitioned to Iron Mountain and Hinds, in which excavations for concrete footings have been completed.

The renovation of house 25-I at Iron Mountain is progressing. Already installed are a new air conditioning unit and all new duct work, new plumbing, insulation, and drywall. All new kitchen and bathroom cabinetry is in the process of being installed.

Work on the Iron Mountain Wellness Center is now complete. The new flooring has been installed, and the fitness equipment has been transferred to the new location.





**New Iron Mountain Wellness Center**

The installation of fencing privacy slats for four houses at Iron Mountain has been completed. Privacy slats were installed on all houses that had existing chain link fencing.



**Fencing Privacy Slat Installation at Iron**

Repairs to in-town housing continue with the replacement of the front concrete walkway at the Wicklow property in Riverside. The old walkway posed a tripping hazard because of age and water infiltration. In addition, repairs to the block retaining wall were completed. New supports and stone caps were installed to stabilize the structure.





## Security

### Project Highlights

#### Security and Emergency Response

Recent vulnerability assessments by Los Angeles, San Fernando Valley, and La Verne Conveyance & Distribution (C&D) teams found that some pipelines have experienced either historically high occurrences of vandalism or possess additional exposures. Security specialists responded to a report of possible vandalism or potential intrusion into a Metropolitan substructure in Etiwanda. The structure was inspected and found secure, although attempts had been made to attack the lock shroud housing that protects the Metropolitan padlock and lid. Security staff requested several adults found there to relocate their personal belongings and three dogs from atop the structure, and they were cooperative.

Security specialists and Water System Operations Western Region C&D staff are working closely to comprehensively reinforce substructure lids along pressurized pipelines. For the most critical areas, stainless-steel reinforced lid systems are specially fabricated, craned into place, and then bolted to the inside of the structure entrance, guaranteeing the integrity of our drinking water system from human malfeasance. Security specialists will be conducting vulnerability assessments of Eastern Region C&D pipeline substructures beginning this month.



Security specialists and Western Region C&D staff partner to reinforce substructure lids along pipelines.

## **Employee Readiness for All Hazards and Emergencies**

Information sharing among member agencies is an excellent opportunity for staff to learn innovative new security tradecraft and develop professional networking opportunities with other drinking water security practitioners. Metropolitan Security staff often collaborate with member agencies to provide:

- Lessons learned
- Physical security equipment feedback
- Security vendor experiences
- Crime prevention techniques
- Contract security industry standards
- Training

Security management and specialists met with staff from Calleguas Municipal Water District to give a tour of Metropolitan Headquarters at Union Station and share best practices in the areas of:

- Crime Prevention Through Environmental Design (CPTED)
- Video Surveillance and Access Control systems
- Bleeding Control
- Physical security measures

A follow-up reciprocal visit is scheduled for this summer.



**Security Management provided Calleguas staff a tour of Metropolitan Headquarters at Union Station and shared security best practices.**

## **Security and Emergency Response**

Effective communication among different agencies is crucial, particularly during times of crisis. In such situations, collaboration and coordination become paramount for a successful response. Metropolitan's Security Management Unit (SMU) staff recognizes the significance of fostering strong relationships and seamless information sharing among various stakeholders, including those at the Union Station campus.

To enhance their preparedness, the SMU actively engaged in a series of communication exercises during the past month with these stakeholders. The exercises provided an invaluable opportunity to test and refine communication protocols, identify potential gaps, and strengthen its ability to respond swiftly and effectively in crisis scenarios. By prioritizing communication and working closely with other agencies, Metropolitan ensures a unified and coordinated response that maximizes the safety and well-being of everyone involved.

# Finance and Administration

## Finance

### Maintain Strong Financial Position

**Provide timely and discerning financial analyses, planning, and management to ensure that forecasted revenues are sufficient to meet planned expenses and provide a prudent level of reserves consistent with board policy.**

**Manage risk to protect Metropolitan's assets against exposure to loss.**

The Risk Management Unit completed 50 incident reports communicating instances of Metropolitan property damage, liability, workplace injuries, regulatory visits, and spills.

Risk Management completed 57 risk assessments on contracts, including professional service agreements, construction contracts, entry permits, special events, and film permits.

### Business Continuity

**Facilitate district-wide planning and training to prepare employees and managers to effectively carry out critical roles and recover mission essential functions thus ensuring continuity of operations and resiliency in the event of a disaster.**

**Manage the Business Continuity Management Program in accordance with Operating Policy A-06.**

- Facilitated the quarterly business continuity steering committee meeting. Good discussion about how to increase awareness about resiliency across the district.
- Continued facilitation of meetings between Payroll and Information Technology to develop payroll resiliency strategies during an extended system or computer outage to continue paying employees.
- Continued collaboration with IT and Cybersecurity to develop cyber resiliency plans for the district to continue working in the event of a cyber-attack rendering systems and computers unavailable.
- Continued working with the Fusion software vendor to make updates to the guided workflows used by planning coordinators to update their business continuity plans.

### Financial Management

**Manage Metropolitan's finances in an ethical and transparent manner and provide consistent, clear, and timely financial reporting. Update Metropolitan's capital financing plans and work with rating agencies and investors to communicate Metropolitan's financial needs, strategies, and capabilities, thus ensuring that Metropolitan has cost effective access to capital markets and the ability to finance ongoing future needs. In addition, actively manage Metropolitan's short-term investment portfolio to meet ongoing liquidity needs and changing economic environments.**

**Record and report the financial activities of Metropolitan in a timely, accurate, and transparent manner to the Board, executive management, member agencies, and the financial community.**

- Water Transactions for April 2023 (for water delivered in February 2023) totaled 59.5 thousand acre-feet (TAF), which was 31.6 TAF lower than the budget of 91.1 TAF and translates to \$59.7 million in receipts for April 2023, which were \$26.0 million lower than the budget of \$85.7 million.
- Year-to-date water transactions through April 2023 (for water delivered in May 2022 through February 2023) were 1,248.9 TAF, which was 123.0 TAF lower than the budget of 1,371.9 TAF.



# Finance and Administration

(continued)

- Year-to-date water receipts through April 2023 were \$1,188.0 million, which was \$106.1 million lower than the budget of \$1,294.1 million. This amount includes \$21.0 million of revenues from the Reverse Cyclic program for which Metropolitan has 5 years to deliver the water.
- In April 2023, Accounts Payable processed approximately 3,000 vendor invoices for payment and took advantage of about \$1,800 in discounts.

**Update capital financing plans and work with rating agencies and investors to communicate financial needs and capabilities, ensure cost-effective access to capital markets, and maintain long-term bond ratings of AA or better.**

For April 2023, the Treasury and Debt Management staff and financing team continued to finalize disclosure documents for the pricing of the 2023 Series A Water Revenue and Refunding Bonds, expected to price the week of June 5, 2023. Treasury and Debt Management staff worked with Legal on coordinating and developing responses to the questions submitted by the San Diego County Water Authority regarding Appendix A.

**Prudently manage the investment of Metropolitan's funds in accordance with policy guidelines and liquidity considerations.**

As of April 30, 2023, Metropolitan's investment portfolio balance was \$1.3 billion; in April 2023, Metropolitan's portfolio managers executed 23 trades.

In April 2023, Treasury staff processed 920 disbursements by check, 19 disbursements by Automated Clearing House (ACH), and 110 disbursements by wire transfer. Treasury staff also processed 87 receipts by check, 26 receipts by ACH, and 43 receipts by incoming wires and bank transfers.

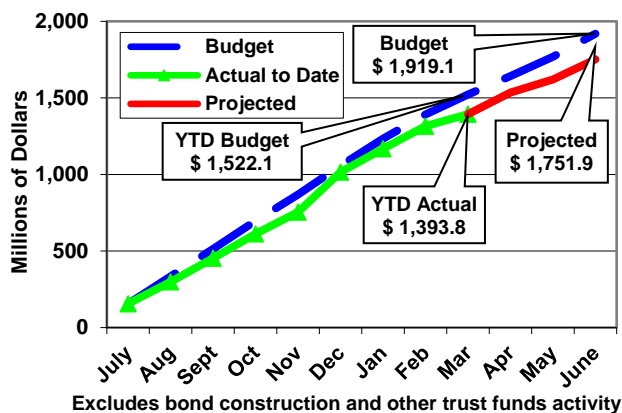
In addition, there were 8,785 P-One Card transactions, totaling \$1.2 million, recorded in the April bank statement.



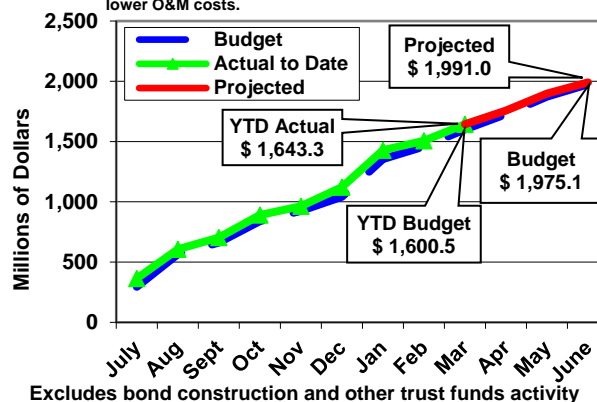
# Finance and Administration

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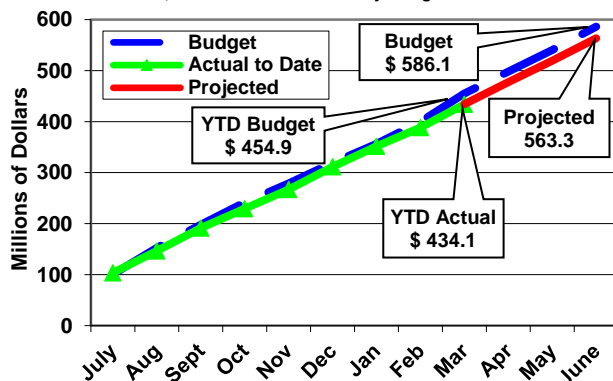
Revenues are expected to be \$167M below budget at year end, primarily due to \$192M lower water revenues partially offset by \$20M and \$12M higher taxes and interest receipts, respectively.



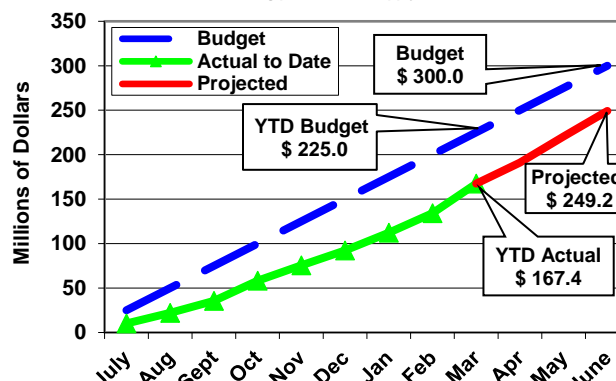
Expenses are expected to be \$16M above budget at year end, which includes \$61M, \$40M, and \$8M higher than budgeted Supply Programs, CRA power, and debt service costs, respectively, partially offset by lower State Water Contract of \$74M and \$23M of lower O&M costs.



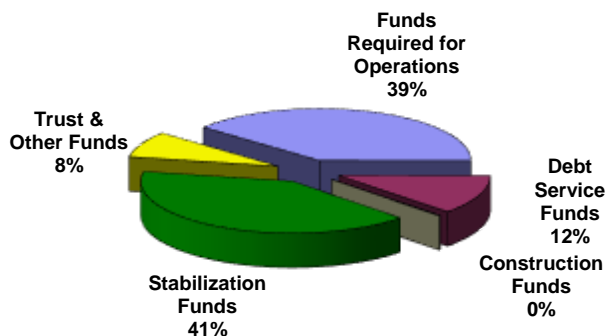
O&M expenses are expected to be \$23M below budget at year end, primarily due to lower than budgeted labor costs, professional services, insurance claims and utility charges.



Capital Program expenses are expected to be \$51M below budget at year end due to the concerted effort during the last quarter of FY2022 to accelerate the work that was planned for the early part of FY2023, shift in timing of the contract awards, difficulties in obtaining permits, and supply chain issues.



## Cash and Investments at Fair Value \$ 1,242.4 million



## Summary Financial Statistics

		Target	Year-End Projected
Fixed Charge Coverage	≥	1.20 x	1.50
Revenue Bond Coverage	>	2.00 x	1.50
Revenue Bond Debt / Equity Ratio	<	100.0%	51.6%

### Senior Lien Revenue Bond Credit Ratings

	Target	Current
- Moody's Investors Service	Aa2	Aa1
- Fitch Ratings	AA	AA+
- Standard & Poor's	AA	AAA

## Administrative Services

### Accomplishments

#### EForms Management & RMIS Sustainability

EForms Management and Records Management and Imaging Services (RMIS) participated in the Sustainability Expo. The EForms Management Team is helping Metropolitan be more sustainable by saving paper, improving efficiencies, and integrating workflows. In the last 90-day period, 77,000 requests were submitted using EForms, greatly reducing the need to print paper. To raise awareness, the EForms Management Team raffled off a \$15 Starbucks card. Congratulations, Christine Kitchenmaster (Office of the GM) for being the lucky winner! Imaging Services displayed samples of the high-quality products it can produce in-house. In support of sustainability, Imaging Services hopes to eliminate the outsourcing of print jobs, which in turn leads to reduced emissions and less traffic congestion from vehicles making job deliveries to Metropolitan. Additionally, through innovative thinking, items such as custom notebooks and scratch pads can be made from recycled paper, further reducing waste.



## Use Rideshare to Reduce Your Carbon Footprint

The Rideshare Program proudly participated in the Sustainability Expo held on April 25, 2023. The entire Rideshare Team was present to answer program questions and encourage participation district-wide; fewer cars on the road helps reduce air pollutant emissions and conserve non-renewable energy sources. Enterprise, our Vanpool partner, also attended to promote their Commute with Enterprise program. In addition to providing free Rideshare giveaways such as lanyard holders, pens, and paper pads, the Team raffled off two Rideshare goody bags. Thanks to our raffle winners, Alice Tseng (Engineering Services) and Erick Villalta (Water System Operations), and all the employees who stopped by the Rideshare booth to connect! Please stay in the loop by visiting our Rideshare SharePoint webpage for all things Rideshare.



## Contracting Services Unit, Professional Services Contracting Team

The Professional Services Contracting Team (PSCT) completed RFP 1327 for Desalination Research. RFP 1327 will help Metropolitan further increase its knowledge of desalination and treatment of brackish water and seawater to develop additional potable water supplies in the Southern California region. This effort will enhance Metropolitan's role as a sustainable, resilient, and innovative water supplier.

## Human Resources

### HR Priorities

**Partner with Metropolitan leadership to support learning, development, and adaptive workforce planning initiatives.**

In May, 360 Metropolitan employees attended virtually facilitated classes, including Presentation Skills, Resume Writing, Time Management, Organization Skills, MS Project, and Everyday Business Writing.

LinkedIn Learning, Metropolitan's online e-learning content platform, was accessed for such topics as Presenting and Staying on Point, Resolving Conflicts, Leading with Emotional Intelligence, and Writing with Impact.

The Organizational Development & Training Unit (OD&T) hosted in-person workshops for Franklin Covey's 7 Habits and Project Management.

**Seek diverse, high-quality talent, and establish partnerships to discover additional outreach opportunities that aid in staffing positions.**

Recruitment successfully filled 33 positions for May. Recruitment received new staffing requisitions for 47 positions, resulting in 221 positions currently in recruitment.

### HR Core Business: Comply with Employment Laws and Regulations

**Effectively administer all Human Resources policies, programs, and practices in compliance with applicable federal and state laws and Metropolitan's Administrative Code, Operating Policies, and Memorandum of Understanding.**

In May, 12 new workers' compensation claims were received. Six employees are currently off work because of an industrial injury or illness, and one employee has returned to work. This reflects Metropolitan's effort to accommodate injured workers, while enabling them to be productive and on the job. Staff continues to address four accommodations both in-house and with Shaw HR Consulting.

In addition, staff added one more industrial medicine provider to the roster to increase the number of options for Metropolitan employees. Staff continues to work closely with our Workers' Compensation third-party administrator, TRISTAR Risk Management.

Activities of the Medical Screening Unit are summarized as follows for May:

- Rescheduled Medvan to individual clinic appointments because of a facility shutdown.
- Facilitated return-to-work from leave for four employees.
- Addressed 45 accommodation issues, including referrals and follow ups with Shaw HR Consulting.

HR Metrics	June 2022	May 2023	Prior Month April 2023
<b>Headcount</b>			
Regular Employees	1,762	1770	1,766
Temporary Employees	37	17	14
Interns	2	0	0
Recurrents	18	18	18
Annuitants	19	24	24



# Finance and Administration

(continued)

	May 2023	April 2023
<b>Number of Recruitments in Progress (Includes Temps and Intern positions)</b>	<b>221</b>	<b>207</b>
<b>Number of New Staffing Requisitions</b>	<b>47</b>	<b>17</b>
	May 2023	April 2023
<b>Number of Job Audit Requests in Progress</b>	<b>7</b>	<b>9</b>
<b>Number of Completed/Closed Job Audits</b>	<b>2</b>	<b>2</b>
<b>Number of New Job Audit Requests</b>	<b>0</b>	<b>1</b>

Transactions Current Month and Fiscal YTD (includes current month)			
<b>External Hires</b>	<b>FY 21/22 Totals</b>	<b>May 2023</b>	<b>FISCAL YTD</b>
Regular Employees	82	9	102
Temporary Employees	36	5	22
Interns	4	0	0
<b>Internal Promotions</b>	<b>70</b>	<b>17</b>	<b>67</b>
<b>Management Requested Promotions</b>	<b>152</b>	<b>25</b>	<b>142</b>
<b>Retirements/Separations (regular employees)</b>	<b>127</b>	<b>5</b>	<b>93</b>
<b>Employee-Requested Transfers</b>	<b>15</b>	<b>2</b>	<b>15</b>

## Departures

Last	First Name	Classification	Eff Date	Reason	Group
Castellanos	Arnold	Sr Designer	3/8/2023	Retirement—Service	Engineering Services
Hanley	Katrin	Team Mgr—Laboratory Support	3/22/2023	Retirement—Service	Water System Operations
Crawford	Dane	Pump Plant Specialist	4/13/2023	Retirement—Service	Water System Operations
Narvaiz	John	Pr Engineer	4/4/2023	Retirement—Service	Engineering Services
Chiang	Edwin	Assoc Engineer	4/14/2023	Resign—Accepted Other Employment	Water System Operations

## Diversity, Equity and Inclusion

### Tribal Outreach & Engagement

The DEI and WSO team held its inaugural “Indigenous Pathways” career event with the Colorado River Indian Tribes (CRIT). The event consisted of a Job Tour Review (JTR) where 15 students from the Parker High School, located in the CRIT reservation, were given a tour of the Metropolitan Gene Intake Plant to learn how Metropolitan water systems work. Students were also able to interact with staff from different career fields to learn about various aspects of their jobs and the requirements to get hired. As a result, two students who attended the JTR have expressed their interest in joining the Metropolitan apprenticeship program.



### Business Outreach & Community Engagement



On May 4, the Business Outreach Team attended The Business Equality Contracting event hosted by Minorea. Advocating opportunities for inclusion of qualified businesses that are considered disadvantaged, small businesses, or owned by minorities (women, LGBTQ+, veterans, African Americans, Asians), concentrating their mission on creating contracting opportunities, education, and development of capacity building for these businesses, so that they can take the next step on the long path to becoming entrepreneurs.

# Finance and Administration

(continued)



On May 9, the Business Outreach Team attended The Burns & McDonnell Community of Inclusion & Equity Symposium. The community is committed to taking supplier diversity, equity, and inclusion to the next level. The conversation concerned how engineering, construction, consulting, and environmental work can be built upon a proactive approach to inclusion.



On May 12, the Business Outreach Team attended National Latina Business Women Association-IE (LEILA Awards). The awards celebrate and advocate for Disadvantaged and Women-Owned Businesses. The Business Outreach Team was joined by members from Metropolitan's Employee Resource Groups; this included Carlos Carrillo, Ivonne Castillo, Monica Castillo, Jolene Ditmar, Anna Garcia, and Phyvin Mok.



In celebration of Small Business Month, from May 12 to May 14, Metropolitan was one of the co-sponsors of the National Association of Women Business Owners—California Small Business Conference. Ken Ashford, Pr. Public Affairs Representative from the Business Outreach Team, presented in a panel presentation on "Doing Business with Utilities and Water Agencies."

# Finance and Administration

(continued)

On May 18, the Business Outreach Team attended MyGBCE. MyGBCE (formerly known as Green Building Council Expo) is the largest and longest-running gathering of green building and sustainability professionals who advocate in Southern California for DBE inclusion in a sustainable economy.

On May 18, the Business Outreach Team attended LA Owners Present Small Business & Disadvantage-Business Goals. The Construction Management Association of America (CMAA) hosted its first-ever LA Owners Round Table.



# External Affairs



## External Affairs

### Highlights

Media and public interest in Colorado River issues remained high, and the announcement of a proposed agreement by the Lower Basin States to voluntarily reduce water use generated interviews with GM Hagekhalil and Colorado River Resources Manager Hasencamp and the New York Times, LA Times, Associated Press, Arizona Daily Star, KABC-TV Channel 7, KNBC-TV Channel 4, KTLA-TV Channel 5, KCBS-TV Channel 2/KCAL-TV Channel 9, Spectrum News, KNX-AM 1070, KPCC-FM 89.9/LAist, and Cal Matters. Chair Ortega was interviewed by Telemundo 52.

Chair Ortega, GM Hagekhalil, and Chief SRI Officer Crosson spoke at the VerdeXchange on efforts being taken to reduce the district's carbon footprint and adapt to immediate climate change impacts. (May 1)



*The Colorado River Board of California honored outgoing member Director Glen Peterson for his years of service on the board.*

attended by Directors Glen Peterson and Cordero. Director Peterson was recognized for serving as Metropolitan's representative from 2011 to 2023. (May 11)

Directors Cordero, Dennstedt, Kurtz, Luna, and Pressman attended the Law of the Colorado River conference with other river experts. Colorado River Resources Manager Hasencamp and WRM Engineer Lamdin were speakers on the next generation of water policy. (May 18)



*The One Water Awards event honored six agencies for innovative water-saving that were partially funded by Metropolitan's Water Savings Investment Program*



GM Hagekhalil attended the Global Water Summit 2023 in Berlin, Germany, and spoke on the many ways California is using innovation to build greater resiliency amid climate change. (May 9)

Chair Ortega, Directors Ackerman, Atwater, Cordero, DeJesus, Erdman, Fellow, Kurtz, Peterson, and Seckel, EO/AGM Upadhyay, and Metropolitan staff attended the ACWA Spring Conference in Monterey. (May 9-11)

Chair Ortega addressed the Colorado River Board of California at its monthly meeting, which was

Metropolitan hosted the One Water Awards, where it recognized six businesses and municipalities from throughout Southern California for their investments in large-scale water-efficiency projects. GM Hagekhalil, Chair Ortega, Vice Chair Repenning, and Directors Fellow, Goldberg, McMillan, and Seckel attended. (May 22)

## Legislative Services

### Federal

Metropolitan staff briefed Congressional offices on the Lower Basin states plan to conserve an additional 3 million acre-feet of Colorado River water through 2026. Staff emphasized the important role the Inflation Reduction Act funding played in the agreement and the need to invest the remaining IRA funding in long-term water conservation measures such as removal of non-functional turf.

### State

GM Hagekhalil joined with Natural Resources Secretary Crowfoot and other officials to testify at the Assembly Water, Parks and Wildlife Committee hearing, Update on the Status of the Colorado River. (May 2)

Staff worked to secure support from the Los Angeles legislative delegation for Metropolitan's \$50 million budget request to accelerate the construction of water infrastructure projects.

Discussions continued with co-sponsors, legislative staff, and other organizations on several priority bills including AB 1572 to ban watering of non-functional turf on some properties, AB 1573 to establish new landscape requirements for new construction, proposed climate, and water bond measures, and bills that would expand design-build, change water rights, and promote groundwater recharge.

### Local

Group Manager Bednarski served as the Metropolitan speaker for the West Basin MWD Elected Official Forum with elected leaders from West Basin's service territory to speak about current and proposed initiatives. (May 5)

Metropolitan sponsored the UC Riverside School of Public Policy Water Affordability Symposium. Chair Ortega and Assembly Majority Leader Gómez Reyes served as event speakers. (May 18)

Director Sutley attended and Metropolitan sponsored the Central City Association's Treasures of Los Angeles luncheon. (May 18)

Metropolitan sponsored the Chino Valley Chamber of Commerce State of the City event. (May 31)

Metropolitan staff presented, monitored, and/or participated in 67 webinars, virtual meetings, and events this month with community organizations, trade associations, and local officials on water-specific topics.

## Media and Communications

- Arranged an interview with France Public Radio reporter Loic Pialat and WRM's Polyzos regarding winter storms and water supply in California
- Set up an interview with SRI Chief Crosson and Southern California News Group's Inland Empire and Orange County newspapers, regarding Climate Adaptation Master Plan
- Produced videos for One Water Awards and water conservation campaign
- Arranged an interview with Weather Channel and WRM's Resource Specialist Guerrero on turf replacement



*A new series of digital posts honored Mother's Day and water use information directed more Southern Californians to bewaterwise.com for tips and rebates*

## Press Releases

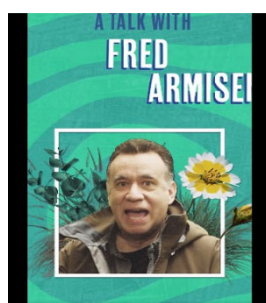
- GM statement on the submission of a consensus Lower Basin Plan for the Colorado River
- One Water Awards, recognizing six businesses and municipalities for their investments in large-scale water-efficiency projects

## Website

Received more than 77,000 views on mwdh2o.com, with careers, job listings, and Diamond Valley Lake being the most trafficked. Maintained a strong presence on bewaterwise.com, with nearly 121,000 views.

Completed new set of historical CRA vignettes for inspection trip tours, website, and airing in HQ rotunda.

## Social Media



*Among the most popular social media posts were those that highlighted Memorial Day and MVets; actor Fred Armisen on water conservation; and the graduating class of Metropolitan's apprentice program.*

Earned nearly 30 million impressions since July on social media platforms for the district's conservation advertising campaign, which generated nearly 200,000 clicks.

Highlighted Infrastructure Week; featured Metropolitan employees in posts to commemorate Asian American & Pacific Islander Month, Administrative Professionals Day, and Memorial Day; and celebrated recent graduates of the apprentice program.

Posted interview with EO/AGM Upadhyay and PPIC on this year's water conditions and planning for the future.

## Public Outreach and Member Services

### Pure Water Southern California

Provided presentations and briefings for the West Basin Elected Officials Forum (May 5); Los Angeles Environmental Justice Network/Del Amo Action Committee (May 16); Alameda Corridor Transportation Authority (May 16); and Caltrans staff. (May 24)

Held tours for Congresswoman Kamlager-Dove (May 5) and attended by Director Morris; Integrated Regional Water Management WaterTalks for LA County agencies and elected officials (May 11); CORO Fellows (May 15); Assembly member Josh Lowenthal (D-Long Beach) (May 19); East Yard Communities for Environmental Justice (May 20); and AECOM (May 24)



*Representative Kamlager-Dove and staff visit Pure Water Southern California demonstration facility*



## Other Outreach Activities

- Notified Sierra Madre residents of upcoming construction activities on Upper Feeder (May 4)
- Colorado River update for South Bay Council of Govts (May 10)
- Tour of Weymouth Treatment Plant, Shops, and Water Quality Lab for the city of Santa Ana Public Works Department (May 11)
- Presentation on Metropolitan and Colorado River issues to the CORO Fellows (May 15)
- Reminded residents in the communities of Winchester, Murrieta, and Temecula about the dangers of trespassing in the San Diego Canal (May 23)
- Provided four director inspection trips to Hoover Dam and the Colorado River, State Water Project, Pure Water Southern California, and regional infrastructure; led tours to Hoover Dam for Ducks Unlimited

## Education and Community Relations

Interacted with nearly 5,100 teachers, students, and adults through in-person and online field trips, community events, meetings, and online class presentations.

Hosted a water education booth at the Water Replenishment District's Groundwater Festival; Ignite22; Schools' Agriculture and Nutrition Program at the L.A. County Fair; and the Los Angeles U.S. Green Building Conference.

### Community Partnering and Sponsorship Program

Sponsored and hosted an exhibit booth and workshop at the 2023 L.A. Neighborhood Initiative (LANI) Forum that provided informational resources about programs, water conservation, and water supply updates. (May 3)

Directors Abdo, Camacho, M. Petersen, G. Peterson, Quinn, and Sutley, GM Hagekhalil, EO/AGM Upadhyay, and AGM/CFO Kasaine and staff attended, and Metropolitan sponsored, the Heal the Bay event. (May 18)

Director Cordero and staff attended and Metropolitan sponsored the Cottonwood Awards Event at Rancho Los Alamitos. (May 26)

Metropolitan also sponsored the Water Replenishment District Groundwater Festival and Western Municipal Water District's Annual Open House.



MWD of SoCal @mwdh2o · 23h

This [#TeacherAppreciationWeek](#), we thank our teachers who have come with their classes this school year to DVL and Pure Water SoCal to learn about where their water comes from. Pictured are 4th-6th grade classes from San Jacinto, Rosa Parks and French Valley elementary schools.





# Sustainability, Resilience and Innovation



## Sustainability, Resilience, Innovation and Environmental Planning

### SRI Core Activities

#### Climate Adaptation Master Plan for Water (CAMP4W): Terminology and Interests Board Workshop

The Chief of Sustainability, Resilience and Innovation (SRI) Officer helped lead and present at the CAMP4W Board Workshop. The following terms were discussed with the Board and water member agencies: reliability, resilience, affordability, and financial sustainability. Following the Workshop, the planning team will develop draft guiding principles and preliminary evaluative criteria for board consideration.

#### VerdeXchange

The Chief SRI Officer participated on two panels on stormwater capture and recycled water strategies at the *VerdeXchange VX2023*. She and others from Met also participated in a Water Charrette, focused on climate adaptation and resilience strategies. *VerdeXchange* gathered accomplished clean, green, and blue tech entrepreneurs, energy and water companies, advanced vehicle manufacturers, public policymakers as well as: procurers, innovative financiers, and environmental stewards “under-one-roof” to assess what's in-market, about to be in-market, and what's needed in market to propel the global, multi-trillion-dollar verde economy.



The Chief SRI Office Presenting at the VerdeXchange in Los Angeles

#### Special Districts Legislative Days in Sacramento

The Chief SRI Officer participated on a panel at the Special Districts Legislative Days in Sacramento discussing infrastructure and water supply challenges in a changing climate.

# Sustainability, Resilience and Innovation

(continued)

## Climate Change Preparedness Conference in Washington D.C.

The Chief SRI Officer also participated at the Climate Change Preparedness Conference in Washington, D.C. The conference united climate experts, government officials and policymakers, community organizers, and environmental professionals to focus on adaptive solutions to foster climate resilience.

## SRI Council Meeting

This month's SRI Council Meeting focused on Metropolitan's Capital Investment Program (CIP) and opportunities to promote sustainability in existing and new projects. SRI Council members identified and discussed projects that mitigate the causes of climate change through reductions in greenhouse gases as well as proposals that adapt to the effects of climate change by improving Metropolitan's ability to deliver water during extreme climate events.

## 2022 Climate Action Plan Implementation Progress Report

Metropolitan released its inaugural [Climate Action Plan report](#), detailing its progress over the past year on a suite of measures designed to help the district achieve carbon neutrality by 2045. The report highlights achievements on these measures from May through December 2022, including the total amount of non-functional turf removed, progress switching to cleaner electricity purchases, and development of a plan to replace fossil-fuel vehicles.

## Zero Emissions Fleet (ZEV) Transition

SRI continued to work with Metropolitan-wide work groups that are charged with activities related to the transition to ZEVs including Water System Operation's (WSO) fleet replacement strategy, regulatory compliance, design and build out of the infrastructure plan, vehicle procurement, grants, incentives, rebates, and lastly, financing options for the chosen vehicle replacement strategy. SRI and signed an agreement with Jacobs Engineering and Gladstein, Neondross, and Associates (GNA) to develop a roadmap to assist Metropolitan's implementation of the transition.

SRI and WSO attended the annual Advanced Clean Transportation (ACT) Expo in Anaheim May 1–4 to learn about emerging technology for zero emission vehicles, chargers, and infrastructure. Participants attended workshops on application and eligibility for ZEV grants, incentives, and other funding opportunities, how to partner with other utilities for successful ZEV procurement, and how to navigate fleet regulations. Employees were also able to meet with vehicle manufacturers and discuss market availability, as well as test drive both electric and hydrogen-fueled vehicles.



Annual Advanced Clean Transportation (ACT) Expo in Anaheim

# Sustainability, Resilience and Innovation

(continued)

## **ZEV Charger Selection**

SRI, WSO, and Engineering Services (ESG) Groups began evaluating manufacturers of ZEV chargers for the pilot of Fleet chargers at Union Station and Weymouth; these chargers will be used exclusively for electric fleet vehicles. Staff visited the Shell Recharge Solutions headquarters in downtown Los Angeles on May 22 to learn about Shell's efforts in developing both charging equipment and integrated software for fleets. Staff also obtained quotes for charging equipment and installation from vendor contacts made at the ACT Expo. The two pilots are expected to begin by the end of 2023.



**Staff visiting Shell Recharge facility in downtown Los Angeles**

## **Green Procurement**

SRI and Administrative Services met with the Diversity, Equity and Inclusion (DEI) Office to discuss how their mission and responsibilities may pertain Metropolitan's venture into new sustainable procurement practices.

## **Innovation**

### **IGNITE22 at AltaSea – May 4 – AltaSea at the Port of Los Angeles**

SRI's Innovation Team, Engineering, Operations, Water Resource Management (WRM), Survey, and External Affairs Teams sponsored and exhibited at Braid Theory's IGNITE22 at AltaSea on May 4 at the Port of Los Angeles. SRI's Innovation Team discovered six potential technologies at IGNITE22 to introduce to Metropolitan's Internal Teams. Two of the companies exhibiting at the event were discovered last year at IGNITE22 and have pilots at Metropolitan. The event had over 600 participants. Metropolitan's Innovation Team has been a partner with Braid Theory for many years, and Metropolitan and our member agencies have been on panels and have been keynote speakers at IGNITE22 and have had workshops, demos, presentations, and many more partnering opportunities with Braid Theory.

### **LADWP's Women's Career and Wellness Fair—May 6—LADWP Training Center Truesdale in Sun Valley**

SRI's Innovation Team was invited by LADWP's Water Innovation Team (WIT) to participate in the first-ever LADWP Women's Career and Wellness Expo on May 6, at the Truesdale Training Center in Sun Valley. Over 2,000 people attended the event. Many attendees at the event were families with young children, teens looking for alternate

# Sustainability, Resilience and Innovation

(continued)

careers, and people excited about the opportunity for careers in water. The event highlighted employment opportunities for women in engineering, IT, water quality, and many other areas including non-traditional areas. The Fair had many demonstrations to highlight what employees do at LADWP. The Fair also included a wellness center, EV's, large equipment used at LADWP, including a helicopter, and many ways to interact with LADWP employees and discover career opportunities. The Fair provided an inspirational way to engage with LADWP workers and encourage interest in careers in the water industry <http://LADWPCommission.com/Womens-Expo>.



**LADWP's Women's Career and Wellness Fair**

## **Octane's Innovation Week in Orange County**

SRI's Innovation Team, Engineering, Operations, and WRM Teams Sponsored and participated in Octane's Innovation week on May 9–11 in Orange County. SRI's Innovation Team discovered four potential technologies in the Fast Pitch Competition to engage and possibly pilot at Metropolitan. One of the companies pitching at the event is already in two pilot projects at Metropolitan. The event had over 600 participants. Metropolitan has been a sponsor of Octane for many years, and our member agencies have been on panels and have been keynote speakers at Octane's Technology Innovation Forum.

Octane's Fast Pitch and Tech Innovation Forum took center stage, fueling innovation in Orange County and uniting a dynamic mix of content, inspiring speakers, startups, and visionary individuals shaping the future of SoCal. OC Innovation Week was an exciting event showcasing the vibrant entrepreneurial ecosystem of Orange County. Two key highlights of the week were the Fast Pitch event at UCI Beall Applied Innovation and Octane's Tech Innovation Forum, both of which brought together industry leaders, innovators, and investors. Fast Pitch, held on Tuesday, May 9 at the Cove at UCI Beall Applied Innovation, was a platform for 29 companies to present their groundbreaking ideas and technologies.

Following Fast Pitch, the 2023 Tech Innovation Forum kicked off at AV Irvine, featuring a fireside chat with Marc Bell, Co-Founder, Chairman, and CEO of Terran Orbital. Marc Bell's insights and experiences captivated the audience as he shared his journey in the world of technology innovation. The fireside chat provided valuable perspectives on the challenges and opportunities that arise in the pursuit of groundbreaking ideas.

The Women Leaders of Octane played a crucial role in OC Innovation Week by hosting a kick-off breakfast and organizing a female-led panel titled *"Finding the Innovator or Founder in You!"* The panel featured accomplished women tech innovators and founders who shared their experiences, inspirations, challenges, and recommendations. Their insights and stories served as a source of inspiration for aspiring entrepreneurs, especially women looking to make their mark in the tech industry.

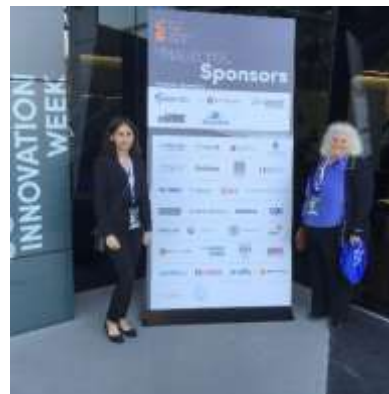


# Sustainability, Resilience and Innovation

(continued)

Additionally, the Irvine Ecosystem Accelerating Electrification of 2-Wheel Mobility panel brought together key influencers to discuss the importance of clean and sustainable communities, innovative technology and infrastructure, and policy development. Panelists shared their perspectives on the role of their respective organizations within the rapidly growing 2-wheel mobility segment and its implications for building sustainable communities.

Another topic was Intrapreneurship in Orange County. This panel delved into the concept of intrapreneurship, which evolved around the strategies and initiatives implemented by companies to encourage intrapreneurship and foster an entrepreneurial mindset among employees. They discussed the importance of creating an environment that supports risk-taking, experimentation, and creativity within a corporate setting. The panel brought together industry experts who have played key roles in driving innovation within their respective companies.



Octane's Innovation Week in Orange County

## Environmental Planning Section

**Core Business: Environmental Planning and Regulatory Compliance Support**

### Bay Delta Initiatives

#### **Delta Smelt and Native Species Preservation Project**

- Prepared responses to comments on the Mitigated Negative Declaration (MND), prepared the Mitigation Monitoring and Reporting Program (MMRP), and finalized all documents in support of the June board action to adopt the MND.
- Conducted site visit of Bouldin Island with Bay Delta Initiatives staff to support permitting efforts for the project (see photos).

#### **Delta Conveyance Project**

- Continued supporting preparation of the responses to comments for the draft Environmental Impact Report (EIR) for cultural resources and tribal cultural resources impact categories on behalf of public water agencies.
- Continued coordination meetings with Department of Water Resources staff and regulatory permitting agencies.

# Sustainability, Resilience and Innovation

(continued)



**Bouldin Island Site Visit**



**Bouldin Island Site Visit**



**Proposed site for research ponds on Bouldin Island**



**Proposed tule harvesting site to supply vegetation for research ponds**

## Engineering Services Group

### **Etiwanda Pipeline Relining Project**

- Continued oversight of project construction monitoring and mitigation compliance.

### **Perris Valley Pipeline**

- Conducted on-site kick-off meeting to initiate construction monitoring and mitigation compliance.

# Sustainability, Resilience and Innovation

(continued)

## **Prestressed Concrete Cylinder Pipe (PCCP) Rehabilitation Program**

- Continued construction monitoring and mitigation compliance for Lake Mathews Valve Storage Project and Second Lower Feeder Reaches 3A and 3B projects.
- Provided support for the Sepulveda Feeder Urgent Carbon Fiber Rehabilitation Project.

## **Pure Water Southern California**

- Continued tribal cultural resources consultation with the Gabrieleno Band of Mission Indians-Kizh Nation.
- Prepared draft cultural resources and hazardous materials technical reports.
- Developed uniform noise thresholds for the entire program.
- Conducted biological surveys to capture alignment modifications.

## **Weymouth Water Treatment Plant and La Verne Site Improvements Program**

- Continued preparation of the Administrative Draft Program EIR and the health risk analysis, noise, traffic, and site access technical reports.

## **Construction Monitoring**

- Continued construction monitoring for the Orange County Feeder Relining Reach 3, Weymouth Basins 5–8 Rehabilitation, La Verne Shops Upgrades, and Weymouth Battery Energy Storage System projects.

## **External Affairs Group**

- Participated in California Council for Environmental and Economic Balance (CCEEB) Natural Resources Task Force (NRTF) monthly meeting.

## **Sustainability, Resilience and Innovation Office**

## **Climate Action Plan (CAP) Monitoring and Reporting**

- Finalized the natural gas equipment inventory usage survey and continued coordination of data gathering related to employee commute survey, net zero waste policies, and LED lighting inventory measures.

## **Tribal Outreach**

- Met with the Assistant Director of Chemeheuvi Museum in Joshua Tree to discuss partnership on tribal nursery/greenhouse renovation and functional expansion of demonstration garden.

## **Water System Operations Group**

- Provided environmental clearance for over 30 miles of road grading for the Rialto Pipeline.
- Received a Notice of Complete Application from California Department of Fish and Wildlife in support of the Holland Road Drainage Ditch Routine Maintenance Streambed Alteration Agreement.

# Sustainability, Resilience and Innovation

(continued)

## Reserve Management

### **Lake Mathews Multiple Species Reserve**

- Initiated preparation of planned prescribed burns to be conducted in June. Preparation includes conducting vegetation surveys, establishing control lines, and removing fuels around native vegetation communities.
- Installed fencing to prevent trespassing on the reserve.
- Mowed grassland habitat for fire and habitat management in the western portion of the reserve.
- Conducted California gnatcatcher surveys south of Cajalco Road; several individuals were observed.
- Conducted invasive species control and thatch reduction as a component of native habitat restoration.

### **Southwestern Riverside County Multi-Species Reserve**

- Coordinated with researchers surveying for white-tailed kite, Quino checkerspot butterfly, cactus wren, Stephens' kangaroo rat, and riparian bird surveys.
- Reserve interpreter conducted outreach on the Diamond Valley Lake (DVL) Wildflower Trail and opened the Alamos Schoolhouse interpretive center at Lake Skinner on Saturday afternoons.
- Deployed brown-headed cowbird traps for the 2023 season.
- Conducted invasive plant species removal, including Sahara mustard and stinknet.
- Conducted rare plant surveys along the DVL east and west dams and in the DVL North Hills, where hundreds of state-listed threatened and federally-listed endangered Munz's onion (*Allium munzii*) were observed (see photo).



**State-listed threatened and federally-listed endangered Munz's onion (*Allium munzii*)**

### **External Document Reviews**

- Reviewed 15 CEQA notices for external projects and prepared comment letters for those that may affect Metropolitan facilities and/or operations.

### **Real Property Support**

- Provided environmental analysis and CEQA determinations in support of three real property agreements.





Metropolitan's Mission 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.

700 N. Alameda Street, Los Angeles, CA 90012  
General Information (213) 217-6000  
[www.mwdh2o.com](http://www.mwdh2o.com) [www.bewaterwise.com](http://www.bewaterwise.com)

General Manager: Adel Hagekhail  
Office of the GM (213) 217-6139  
[OfficeoftheGeneralManager@mwdh2o.com](mailto:OfficeoftheGeneralManager@mwdh2o.com)

**Matters Impacting Metropolitan****U.S. Supreme Court Limits Clean Water Act Jurisdiction for Wetlands**

On May 25, 2023, the U.S. Supreme Court ruled in *Sackett v. EPA* regarding the scope of the Clean Water Act (CWA) as it relates to wetlands. In a 5-4 decision, the Court held that the CWA applies only to wetlands “with a continuous surface connection to [water] bodies that are ‘waters of the United States’ in their own right, so that they are ‘indistinguishable’ from those waters.” The Court acknowledged two exceptions to this rule. The exceptions that the court included in the definition and will be subject to federal jurisdiction are wetlands that either: (1) experience temporary interruptions in surface connection due to phenomena such as low tides or dry spells; or (2) are separated from a water by an illegally constructed artificial barrier.

As part of its ruling, the Supreme Court also rejected the “significant nexus test,” the standard

previously set forth in a plurality decision (4-4-1) in *Rapanos v. United States*. The significant nexus test allowed the U.S. Environmental Protection Agency and U.S. Army Corps of Engineers (together, the Agencies) to regulate water bodies with a “significant nexus” to a traditional navigable water. The “significant nexus” standard was incorporated into the recent regulations adopted by the Agencies defining the phrase “waters of the United States” (WOTUS) that took effect in March 2023. In that definition, the Agencies determined that ephemeral water features with a “significant nexus” to traditional navigable waters were subject to regulation under the CWA. Therefore, this decision will also limit the authority of the federal government to regulate these features.

As a result of this decision, the Agencies will likely be required to revise the regulations defining WOTUS. Metropolitan staff will continue to track any future rulemakings or other actions by the Agencies affecting the definition of WOTUS.

**Matters Received**

<u>Category</u>	<u>Received</u>	<u>Description</u>	
Government Code Claims	2	Claims relating to: (1) damage to residence property due to storm water runoff; and (2) employment issues	
Requests Pursuant to the Public Records Act	15	<u>Requestor</u>	<u>Documents Requested</u>
		2UrbanGirls.com Editor	Voting record for Director Gloria Gray at the May 8 and 9, 2023 board and committee meetings
		ABC Liovin Drilling	Bids and bid results for the Request for Quotation for Geotechnical and Dam Safety Engineering Consulting Services
		Deltek	Specifications and any other documents relating to the Request for Proposal for Landscape Maintenance Services
		Jacobs	Proposals submitted for the Request for Proposal for Program Management Support Services
		Kimley-Horn & Associates	Documents showing any MWD facilities within the Metrolink project known as the Balboa Double Track Extension along the Antelope Valley Line Corridor



<u>Requestor</u>	<u>Documents Requested</u>
Los Angeles Department of Water and Power	Documents that show MWD's rights to place pipelines under Rinaldi Street, west of Variel Avenue in the San Fernando Valley
Mazel Equities National Associates	List of unclaimed or outstanding checks and unclaimed bonds
Oracle Consulting	Proposal and contract documents for the Request for Proposal for Peoplesoft HCM Modules Implementation Services
Private Citizens (2 requests)	(1) All submissions for the Request for Proposal for Regional Recycled Water Program - Environmental Planning Support, and (2) water quality data for the past 10 years for State Water Project water treated at the Jensen Treatment Plant
SmartProcure	Purchase order data including purchase order number, purchase order date, line item details, line item quantity, line item price, vendor information from February 17, 2023 to current
Scripps Institution of Oceanography Student	Records of water deliveries and transfers from 1980-2021
Unisource Discovery	Any and all documents relating to the proposal submitted by George Hills Company, Inc. for the Request for Proposal for Third-Party Administration for Liability/Property Claims
The Washington Post Reporter	All communications between Jeffrey Kightlinger and persons at Water Assessment Management, Greenstone, Gammage & Burnham PLC, or Copper State Consulting Group between January 1, 2019 and December 1, 2021
With Intelligence	Fund and manager presentations, consultant summaries, and quarterly consultant reports on MWD's Deferred Compensation Plans

#### PLEASE NOTE

- ADDITIONS ONLY IN THE FOLLOWING TWO TABLES WILL BE SHOWN IN RED.
- ANY CHANGE TO THE *OUTSIDE COUNSEL AGREEMENTS* TABLE WILL BE SHOWN IN REDLINE FORM (I.E., ADDITIONS, REVISIONS, DELETIONS).



## Bay-Delta and SWP Litigation

### Consolidated DCP Revenue Bond Validation Action and CEQA Case

*Sierra Club, et al. v. California Department of Water Resources* (CEQA, designated as lead case)

*DWR v. All Persons Interested* (Validation)

Sacramento County Superior Ct.  
(Judge Kenneth C. Mennemeier)

#### • Validation Action

- Metropolitan, Mojave Water Agency, Coachella Valley Water District, and Santa Clarita Valley Water Agency have filed answers in support
- Kern County Water Agency, Tulare Lake Basin Water Storage District, Oak Flat Water District, County of Kings, Kern Member Units & Dudley Ridge Water District, and City of Yuba City filed answers in opposition
- North Coast Rivers Alliance et al., Howard Jarvis Taxpayers Association, Sierra Club et al., County of Sacramento & Sacramento County Water Agency, CWIN et al., Clarksburg Fire Protection District, Delta Legacy Communities, Inc, and South Delta Water Agency & Central Delta Water Agency have filed answers in opposition
- Case ordered consolidated with the DCP Revenue Bond CEQA Case for pre-trial and trial purposes and assigned to Judge Earl for all purposes
- DWR's motions for summary judgment re CEQA affirmative defenses granted; cross-motions by opponents denied
- Dec. 9, 2022 DWR's motion for summary adjudication of Delta Reform Act and public trust doctrine affirmative defenses granted; NCRA's motion for summary judgment re same denied

- [Trial on the merits held May 15-18, 2023](#)
- [Supplemental briefing ordered on two issues with opening briefs due June 2 and responses due June 16, 2023](#)

#### • CEQA Case

- Sierra Club, Center for Biological Diversity, Planning and Conservation League, Restore the Delta, and Friends of Stone Lakes National Wildlife Refuge filed a standalone CEQA lawsuit challenging DWR's adoption of the bond resolutions
- Alleges DWR violated CEQA by adopting bond resolutions before certifying a Final EIR for the Delta Conveyance Project
- Cases ordered consolidated for all purposes





	<ul style="list-style-type: none"> <li>DWR's motion for summary judgment granted; Sierra Club's motion denied</li> </ul>
Subject	Status
<p><b>SWP-CVP 2019 BiOp Cases</b></p> <p><i>Pacific Coast Fed'n of Fishermen's Ass'ns, et al. v. Raimondo, et al. (PCFFA)</i></p> <p><i>Calif. Natural Resources Agency, et al. v. Raimondo, et al. (CNRA)</i></p> <p>Federal District Court, Eastern Dist. of California, Fresno Division (Judge Thurston)</p>	<ul style="list-style-type: none"> <li>SWC intervened in both <i>PCFFA</i> and <i>CNRA</i> cases</li> <li>Federal defendants reinitiated consultation on Oct 1, 2021</li> <li>February 24, 2023 court approved the 2023 Interim Operations Plan proposed by federal defendants and state plaintiffs, denied all alternative proposed operations and extended the stay until December 31, 2023</li> </ul>
<p><b>CESA Incidental Take Permit Cases</b></p> <p><b>Coordinated Case Name <i>CDWR Water Operations Cases, JCCP 5117</i> (Coordination Trial Judge Gevercer)</b></p> <p><i>Metropolitan &amp; Mojave Water Agency v. Calif. Dept. of Fish &amp; Wildlife, et al. (CESA/CEQA/Breach of Contract)</i></p> <p><i>State Water Contractors &amp; Kern County Water Agency v. Calif. Dept. of Fish &amp; Wildlife, et al. (CESA/CEQA)</i></p> <p><i>Tehama-Colusa Canal Auth., et al. v. Calif. Dept. of Water Resources (CEQA)</i></p> <p><i>San Bernardino Valley Municipal Water Dist. v. Calif. Dept. of Water Resources, et al. (CEQA/CESA/ Breach of Contract/Takings)</i></p> <p><i>Sierra Club, et al. v. Calif. Dept. of Water Resources (CEQA/Delta Reform Act/Public Trust)</i></p> <p><i>North Coast Rivers Alliance, et al. v. Calif. Dept. of Water Resources (CEQA/Delta Reform Act/Public Trust)</i></p> <p><i>Central Delta Water Agency, et. al. v. Calif. Dept. of Water Resources (CEQA/Delta Reform Act/Public Trust/ Delta Protection Acts/Area of Origin)</i></p> <p><i>San Francisco Baykeeper, et al. v. Calif. Dept. of Water Resources, et al. (CEQA/CESA)</i></p>	<ul style="list-style-type: none"> <li>All 8 cases ordered coordinated in Sacramento County Superior Court</li> <li>Stay on discovery issued until coordination trial judge orders otherwise</li> <li>All four Fresno cases transferred to Sacramento to be heard with the four other coordinated cases</li> <li>Certified administrative records lodged March 4, 2022</li> <li>State Water Contractors et al. granted leave to intervene in Sierra Club, North Coast Rivers Alliance, Central Delta Water Agency, and San Francisco Baykeeper cases by stipulation</li> <li>SWC, et al. granted leave to intervene as respondents in <i>Tehama-Colusa Canal Auth., et al. v. Calif. Dept. of Water Resources</i> CEQA case</li> <li>SWC's renewed motion to augment the administrative records granted in part; a court-appointed referee will review withheld records to determine if the deliberative process privilege applies</li> </ul>



<p><b>CDWR Environmental Impact Cases</b> <b>Sacramento Superior Ct. Case No. JCCP 4942,</b> <b>3d DCA Case No. C091771</b> <b>(20 Coordinated Cases)</b></p> <p>Validation Action <i>DWR v. All Persons Interested</i></p> <p>CEQA 17 cases</p> <p>CESA/Incidental Take Permit 2 cases</p> <p>(Judge Arguelles)</p>	<ul style="list-style-type: none"> <li>• Cases dismissed after DWR rescinded project approval, bond resolutions, decertified the EIR, and CDFW rescinded the CESA incidental take permit</li> <li>• January 10, 2020 – Nine motions for attorneys’ fees and costs denied in their entirety</li> <li>• Parties have appealed attorneys’ fees and costs rulings</li> <li>• May 11, 2022, court of appeal reversed the trial court’s denial of attorney fees and costs in an unpublished opinion</li> <li>• Opinion ordered published</li> <li>• Coordinated cases remitted to trial court for re-hearing of fee motions consistent with the court of appeal’s opinion</li> <li>• Sept.15, 2023 re-hearing on fee motions</li> </ul>
<p><b>COA Addendum/ No-Harm Agreement</b></p> <p><i>North Coast Rivers Alliance v. DWR</i> Sacramento County Superior Ct. (Judge Rockwell)</p>	<ul style="list-style-type: none"> <li>• Plaintiffs allege violations of CEQA, Delta Reform Act &amp; public trust doctrine</li> <li>• USBR Statement of Non-Waiver of Sovereign Immunity filed September 2019</li> <li>• Westlands Water District and North Delta Water Agency granted leave to intervene</li> <li>• Metropolitan &amp; SWC monitoring</li> <li>• Deadline to prepare administrative record extended to Nov. 18, 2022</li> </ul>
<p><b>Delta Plan Amendments and Program EIR</b> 1 of 4 Consolidated Cases Sacramento County Superior Ct. remaining on appeal Court of Appeal for the Third App. Dist. Case No. C097948 <i>North Coast Rivers Alliance, et al. v. Delta Stewardship Council</i></p>	<ul style="list-style-type: none"> <li>• Cases challenge, among other things, the Delta Plan Updates recommending dual conveyance as the best means to update the SWP Delta conveyance infrastructure to further the coequal goals</li> <li>• Allegations relating to “Delta pool” water rights theory and public trust doctrine raise concerns for SWP and CVP water supplies</li> <li>• Cases consolidated for pre-trial and trial under <i>North Coast Rivers Alliance v. Delta Stewardship Council</i></li> <li>• SWC granted leave to intervene</li> <li>• Metropolitan supports SWC</li> <li>• Nov. 7, 2022 court ruled in favor of Delta Stewardship Council on all claims</li> <li>• Orders denying all claims and final judgments entered Nov. 22, 2022</li> <li>• Notice of appeal filed in <i>North Coast Rivers Alliance, et al.</i> case</li> </ul>



	<ul style="list-style-type: none"><li>Parties in the other three cases settled with the Delta Stewardship Council</li></ul>
<p><b>SWP Contract Extension Validation Action</b> Court of Appeal for the Third App. Dist. Case No. C096316 <i>DWR v. All Persons Interested in the Matter, etc.</i></p>	<ul style="list-style-type: none"><li>DWR seeks a judgment that the Contract Extension amendments to the State Water Contracts are lawful</li><li>Metropolitan and 7 other SWCs filed answers in support of validity to become parties</li><li>Jan. 5-7, 2022 Hearing on the merits held with CEQA cases, below</li><li>Final statement of decision in DWR's favor filed March 9, 2022</li><li>Final judgment entered and served</li><li>C-WIN et al., County of San Joaquin et al. and North Coast Rivers Alliance et al. filed notices of appeal</li><li>Validation and CEQA cases consolidated on appeal</li><li><u>Briefing completed May 30, 2023</u></li></ul>
<p><b>SWP Contract Extension CEQA Cases</b> Court of Appeal for the Third App. Dist. Case Nos. C096384 &amp; C096304 <i>North Coast Rivers Alliance, et al. v. DWR</i> <i>Planning &amp; Conservation League, et al. v. DWR</i></p>	<ul style="list-style-type: none"><li>Petitions for writ of mandate alleging CEQA and Delta Reform Act violations filed on January 8 &amp; 10, 2019</li><li>Deemed related to DWR's Contract Extension Validation Action and assigned to Judge Culhane</li><li>Administrative Record completed</li><li>DWR filed its answers on September 28, 2020</li><li>Metropolitan, Kern County Water Agency and Coachella Valley Water District have intervened and filed answers in the two CEQA cases</li><li>Final statement of decision in DWR's favor denying the writs of mandate filed March 9, 2022</li><li>Final judgments entered and served</li><li>North Coast Rivers Alliance et al. and PCL et al. filed notices of appeal</li><li>Appeals consolidated with the validation action above</li></ul>



<p><b>Delta Conveyance Project Soil Exploration Cases</b></p> <p><i>Central Delta Water Agency, et al. v. DWR</i> Sacramento County Superior Ct. (Judge Chang)</p> <p><i>Central Delta Water Agency, et al. v. DWR (II)</i>, Sacramento County Super. Ct. (Judge Acquisto)</p>	<ul style="list-style-type: none"> <li>• Original case filed August 10, 2020; new case challenging the second addendum to the CEQA document filed Aug. 1, 2022</li> <li>• Plaintiffs Central Delta Water Agency, South Delta Water Agency and Local Agencies of the North Delta</li> <li>• One cause of action alleging that DWR's adoption of an Initial Study/Mitigated Negative Declaration (IS/MND) for soil explorations needed for the Delta Conveyance Project violates CEQA</li> <li>• March 24, 2021 Second Amended Petition filed to add allegation that DWR's addendum re changes in locations and depths of certain borings violates CEQA</li> <li>• DWR's petition to add the 2020 CEQA case to the <i>Department of Water Resources Cases</i>, JCCP 4594, San Joaquin County Superior Court denied</li> <li>• Hearing on the merits held Oct.13, 2022</li> <li>• Dec. 2, 2022 ruling on the merits granting the petition with respect to two mitigation measures and denying on all other grounds</li> <li>• Dec. 23, 2022 court order directing DWR to address the two mitigation measures within 60 days while declining to order DWR to vacate the IS/MND</li> <li>• March 27, 2023 court entered judgment and issued a writ after ordering and considering supplemental briefing</li> <li>• <u>May 5, 2023 court granted DWR's motion to discharge the writ and dismiss the case</u></li> </ul>
<p><b>Water Management Tools Contract Amendment</b></p> <p><i>California Water Impact Network et al. v. DWR</i> Sacramento County Superior Ct. (Judge Aquisto)</p> <p><i>North Coast Rivers Alliance, et al. v. DWR</i> Sacramento County Super. Ct. (Judge Aquisto)</p>	<ul style="list-style-type: none"> <li>• Filed September 28, 2020</li> <li>• CWIN and Aqualliance allege one cause of action for violation of CEQA</li> <li>• NCRA et al. allege four causes of action for violations of CEQA, the Delta Reform Act, Public Trust Doctrine and seeking declaratory relief</li> <li>• SWC motion to intervene in both cases granted</li> <li>• Dec. 20, 2022 DWR filed notice of certification of the administrative record and filed answers in both cases</li> </ul>





### San Diego County Water Authority v. Metropolitan, et al.

Cases	Date	Status
<b>2010, 2012</b>	Aug. 13-14, 2020	Final judgment and writ issued. Transmitted to the Board on August 17.
	Sept. 11	Metropolitan filed notice of appeal of judgment and writ.
	Jan. 13, 2021	Court issued order finding SDCWA is the prevailing party on the Exchange Agreement, entitled to attorneys' fees and costs under the contract.
	Feb. 10	Court issued order awarding SDCWA statutory costs, granting SDCWA's and denying Metropolitan's related motions.
	Feb. 16	Per SDCWA's request, Metropolitan paid contract damages in 2010-2012 cases judgment and interest. Metropolitan made same payment in Feb. 2019, which SDCWA rejected.
	Feb. 25	Metropolitan filed notice of appeal of Jan. 13 (prevailing party on Exchange Agreement) and Feb. 10 (statutory costs) orders.
	Sept. 21	Court of Appeal issued opinion on Metropolitan's appeal regarding final judgment and writ, holding: (1) the court's 2017 decision invalidating allocation of Water Stewardship Rate costs to transportation in the Exchange Agreement price and wheeling rate applied not only to 2011-2014, but also 2015 forward; (2) no relief is required to cure the judgment's omission of the court's 2017 decision that allocation of State Water Project costs to transportation is lawful; and (3) the writ is proper and applies to 2015 forward.
	Mar. 17, 2022	Court of Appeal unpublished decision affirming orders determining SDCWA is the prevailing party in the Exchange Agreement and statutory costs.
	Mar. 21	Metropolitan paid SDCWA \$14,296,864.99 for attorneys' fees and \$352,247.79 for costs, including interest.
	July 27	Metropolitan paid SDCWA \$411,888.36 for attorneys' fees on appeals of post-remand orders.
<b>2014, 2016</b>	Aug. 28, 2020	SDCWA served first amended (2014) and second amended (2016) petitions/complaints.
	Sept. 28	Metropolitan filed demurrers and motions to strike portions of the amended petitions/complaints.



Cases	Date	Status
<b>2014, 2016 (cont.)</b>	Sept. 28-29	Member agencies City of Torrance, Eastern Municipal Water District, Foothill Municipal Water District, Las Virgenes Municipal Water District, Three Valleys Municipal Water District, Municipal Water District of Orange County, West Basin Municipal Water District, and Western Municipal Water District filed joinders to the demurrers and motions to strike.
	Feb. 16, 2021	Court issued order denying Metropolitan's demurrers and motions to strike, allowing SDCWA to retain contested allegations in amended petitions/complaints.
	March 22	Metropolitan filed answers to the amended petitions/complaints and cross-complaints against SDCWA for declaratory relief and reformation, in the 2014, 2016 cases.
	March 22-23	Member agencies City of Torrance, Eastern Municipal Water District, Foothill Municipal Water District, Las Virgenes Municipal Water District, Three Valleys Municipal Water District, Municipal Water District of Orange County, West Basin Municipal Water District, and Western Municipal Water District filed answers to the amended petitions/complaints in the 2014, 2016 cases.
	April 23	SDCWA filed answers to Metropolitan's cross-complaints.
	Sept. 30	Based on the Court of Appeal's Sept. 21 opinion (described above), and the Board's Sept. 28 authorization, Metropolitan paid \$35,871,153.70 to SDCWA for 2015-2017 Water Stewardship Rate charges under the Exchange Agreement and statutory interest.
<b>2017</b>	July 23, 2020	Dismissal without prejudice entered.
<b>2018</b>	July 28, 2020	Parties filed a stipulation and application to designate the case complex and related to the 2010-2017 cases, and to assign the case to Judge Massullo's court.
	Nov. 13	Court ordered case complex and assigned to Judge Massullo's court.
	April 21, 2021	SDCWA filed second amended petition/complaint.
	May 25	Metropolitan filed motion to strike portions of the second amended petition/complaint.
	May 25-26	Member agencies City of Torrance, Eastern Municipal Water District, Foothill Municipal Water District, Las Virgenes Municipal Water District, Three Valleys Municipal Water District, Municipal Water District of Orange County, West Basin Municipal Water District, and Western Municipal Water District filed joinders to the motion to strike.



Cases	Date	Status
<b>2018 (cont.)</b>	July 19	Court issued order denying Metropolitan's motion to strike portions of the second amended petition/complaint.
	July 29	Metropolitan filed answer to the second amended petition/complaint and cross-complaint against SDCWA for declaratory relief and reformation.
	July 29	Member agencies City of Torrance, Eastern Municipal Water District, Foothill Municipal Water District, Las Virgenes Municipal Water District, Three Valleys Municipal Water District, Municipal Water District of Orange County, West Basin Municipal Water District, and Western Municipal Water District filed answers to the second amended petition/complaint.
	Aug. 31	SDCWA filed answer to Metropolitan's cross-complaint.
	April 11, 2022	Court entered order of voluntary dismissal of parties' WaterFix claims and cross-claims.
<b>2014, 2016, 2018</b>	June 11, 2021	Deposition of non-party witness.
	Aug. 25	Hearing on Metropolitan's motion for further protective order regarding deposition of non-party witness.
	Aug. 25	Court issued order consolidating the 2014, 2016, and 2018 cases for all purposes, including trial.
	Aug. 30	Court issued order granting Metropolitan's motion for a further protective order regarding deposition of non-party witness.
	Aug. 31	SDCWA filed consolidated answer to Metropolitan's cross-complaints in the 2014, 2016, and 2018 cases.
	Oct. 27	Parties submitted to the court a joint stipulation and proposed order staying discovery through Dec. 8 and resetting pre-trial deadlines.
	Oct. 29	Court issued order staying discovery through Dec. 8 and resetting pre-trial deadlines, while the parties discuss the prospect of settling some or all remaining claims and crossclaims.
	Jan. 12, 2022	Case Management Conference. Court ordered a 35-day case stay to allow the parties to focus on settlement negotiations, with weekly written check-ins with the court; and directed the parties to meet and confer regarding discovery and deadlines.
	Feb. 22	Court issued order resetting pre-trial deadlines as proposed by the parties.
	Feb. 22	Metropolitan and SDCWA each filed motions for summary adjudication.



Cases	Date	Status
<b>2014, 2016, 2018 (cont.)</b>	April 13	Hearing on Metropolitan's and SDCWA's motions for summary adjudication.
	April 18	Parties filed supplemental briefs regarding their respective motions for summary adjudication, as directed by the court.
	April 18	Court issued order resetting pre-trial deadlines as proposed by the parties.
	April 29	Parties filed pre-trial briefs.
	April 29	Metropolitan filed motions in limine.
	May 4	Court issued order granting Metropolitan's motion for summary adjudication on cross-claim for declaratory relief that the conveyance facility owner, Metropolitan, determines fair compensation, including any offsetting benefits; and denying its motion on certain other cross-claims and an affirmative defense.
	May 11	Court issued order granting SDCWA's motion for summary adjudication on cross-claim for declaratory relief in the 2018 case regarding lawfulness of the Water Stewardship Rate's inclusion in the wheeling rate and transportation rates in 2019-2020; certain cross-claims and affirmative defenses on the ground that Metropolitan has a duty to charge no more than fair compensation, which includes reasonable credit for any offsetting benefits, with the court also stating that whether that duty arose and whether Metropolitan breached that duty are issues to be resolved at trial; affirmative defenses that SDCWA's claims are untimely and SDCWA has not satisfied claims presentation requirements; affirmative defense in the 2018 case that SDCWA has not satisfied contract dispute resolution requirements; claim, cross-claims, and affirmative defenses regarding applicability of Proposition 26, finding that Proposition 26 applies to Metropolitan's rates and charges, with the court also stating that whether Metropolitan violated Proposition 26 is a separate issue; and cross-claims and affirmative defenses regarding applicability of Government Code section 54999.7, finding that section 54999.7 applies to Metropolitan's rates. Court denied SDCWA's motion on certain other cross-claims and affirmative defenses.
	May 13	Pre-trial conference; court denied Metropolitan's motions in limine.
	May 16	Court issued order setting post-trial brief deadline and closing arguments.
	May 16-27	Trial occurred but did not conclude.
	May 23, June 21	SDCWA filed motions in limine.





Cases	Date	Status
<b>2014, 2016, 2018 (cont.)</b>	May 26, June 24	Court denied SDCWA's motions in limine.
	June 3, June 24, July 1	Trial continued, concluding on July 1.
	June 24	SDCWA filed motion for partial judgment.
	July 15	Metropolitan filed opposition to motion for partial judgment.
	Aug. 19	Post-trial briefs filed.
	Sept. 14	Court issued order granting in part and denying in part SDCWA's motion for partial judgment (granting motion as to Metropolitan's dispute resolution, waiver, and consent defenses; denying motion as to Metropolitan's reformation cross-claims and mistake of fact and law defenses; and deferring ruling on Metropolitan's cost causation cross-claim).
	Sept. 21	Metropolitan filed response to order granting in part and denying in part SDCWA's motion for partial judgment (requesting deletion of Background section portion relying on pleading allegations).
	Sept. 22	SDCWA filed objection to Metropolitan's response to order granting in part and denying in part SDCWA's motion for partial judgment.
	Sept. 27	Post-trial closing arguments.
	Oct. 20	Court issued order that it will rule on SDCWA's motion for partial judgment as to Metropolitan's cost causation cross-claim simultaneously with the trial statement of decision.
	Dec. 16	The parties' filed proposed trial statements of decision.
	Dec. 21	SDCWA filed the parties' stipulation and proposed order for judgment on Water Stewardship Rate claims for 2015-2020.
	Dec. 27	Court entered order for judgment on Water Stewardship Rate claims for 2015-2020 as proposed by the parties.
	March 14, 2023	Court issued tentative statement of decision (tentatively ruling in Metropolitan's favor on all claims litigated at trial, except for those ruled to be moot based on the rulings in Metropolitan's favor)
	March 14	Court issued amended order granting in part and denying in part SDCWA's motion for partial judgment (ruling that Metropolitan's claims for declaratory relief regarding cost causation are not subject to court review).
	March 29	SDCWA filed objections to tentative statement of decision



	April 3	Metropolitan filed response to amended order granting in part and denying in part SDCWA's motion for partial judgment (requesting deletion of Background section portion relying on pleading allegations).
	April 25	Court issued statement of decision (ruling in Metropolitan's favor on all claims litigated at trial, except for those ruled to be moot based on the rulings in Metropolitan's favor)
<b>All Cases</b>	April 15, 2021	Case Management Conference on 2010-2018 cases. Court set trial in 2014, 2016, and 2018 cases on May 16-27, 2022.
	April 27	SDCWA served notice of deposition of non-party witness.
	May 13-14	Metropolitan filed motions to quash and for protective order regarding deposition of non-party witness.
	June 4	Ruling on motions to quash and for protective order.



Outside Counsel Agreements				
Firm Name	Matter Name	Agreement No.	Effective Date	Contract Maximum
<u>Albright, Yee &amp; Schmit, APC</u>	<u>Employment Matter</u>	<u>211923</u>	<u>05/23</u>	<u>\$60,000</u>
Andrade Gonzalez LLP	MWD v. DWR, CDFW and CDNR Incidental Take Permit (ITP) CESA/CEQA/Contract Litigation	185894	07/20	\$250,000
Aleshire & Wynder	Oil, Mineral and Gas Leasing	174613	08/18	\$50,000
Atkinson Andelson Loya Ruud & Romo	Employee Relations	59302	04/04	<del>\$1,214,517</del> <u>\$1,277,187</u>
	Delta Conveyance Project Bond Validation-CEQA Litigation	185899	09/21	\$250,000
	MWD Drone and Airspace Issues	193452	08/20	\$50,000
	Equal Employee Opportunity Commission Charge	200462	03/21	\$20,000
	Dfeh Charge (Dfeh Number 202102-12621316)	201882	07/01/21	\$25,000
	AFSCME Local 1902 in Grievance No. 1906G020 (CSU Meal Period)	201883	07/12/21	\$30,000
	AFSCME Local 1902 v. MWD, PERB Case No. LA-CE-1438-M	201889	09/15/21	\$20,000
	MWD MOU Negotiations**	201893	10/05/21	\$100,000
	Dfeh Charge (Dfeh Number 202109-14694608)	203460	02/22	\$35,000
Best, Best & Krieger	Navajo Nation v. U.S. Department of the Interior, et al.	54332	05/03	\$185,000
	Bay-Delta Conservation Plan/Delta Conveyance Project (with SWCs)	170697	08/17	\$500,000
	Environmental Compliance Issues	185888	05/20	\$100,000
	<u>Grant Compliance Issues</u>	<u>211921</u>	<u>05/23</u>	<u>\$75,000</u>
	Pure Water Southern California	207966	11/22	\$100,000



Firm Name	Matter Name	Agreement No.	Effective Date	Contract Maximum
Blooston, Mordkofsky, Dickens, Duffy & Prendergast, LLP	FCC and Communications Matters	110227	11/10	\$100,000
Brown White & Osborn LLP	HR Matter	203450	03/22	\$50,000
Buchalter, a Professional Corp.	Union Pacific Industry Track Agreement	193464	12/07/20	\$50,000
Burke, Williams & Sorensen, LLP	Real Property – General	180192	01/19	\$100,000
	Labor and Employment Matters	180207	04/19	\$75,000
	General Real Estate Matters	180209	08/19	\$200,000
	Rancho Cucamonga Condemnation Actions (Grade Separation Project)	207970	05/22	\$100,000
Law Office of Alexis S.M. Chiu*	Bond Counsel	200468	07/21	N/A
Cislo & Thomas LLP	Intellectual Property	170703	08/17	\$75,000
Cummins & White LLP	Board Advice	207941	05/22	\$10,000
Curls Bartling P.C.*	Bond Counsel	200470	07/21	N/A
Duane Morris LLP	SWRCB Curtailment Process	138005	09/14	\$615,422
Duncan, Weinberg, Genzer & Pembroke	Power Issues	6255	09/95	\$3,175,000
Ellison, Schneider, Harris & Donlan	Colorado River Issues	69374	09/05	\$175,000
	Issues re SWRCB	84457	06/07	\$200,000
Greines, Martin, Stein & Richland LLP	SDCWA v. MWD	207958	10/22	\$100,000
	Colorado River Matters	207965	11/22	\$100,000
Haden Law Office	Real Property Matters re Agricultural Land	180194	01/19	\$50,000





Firm Name	Matter Name	Agreement No.	Effective Date	Contract Maximum
Hanson Bridgett LLP	SDCWA v. MWD	124103	03/12	\$1,100,000
	Finance Advice	158024	12/16	\$100,000
	Deferred Compensation/HR	170706	10/17	\$500,000
	Tax Issues	180200	04/19	\$50,000
	Alternative Project Delivery (ADP)	207961	10/22	\$250,000
	Faith v. MWD	207963	10/22	\$100,000
Hausman & Sosa, LLP	MOU Hearing Officer Appeal	201892	09/21	\$95,000
	MOU Hearing Officer Appeal	207949	07/22	\$25,000
Hawkins Delafield & Wood LLP*	Bond Counsel	193469	07/21	N/A
Horvitz & Levy	SDCWA v. MWD	124100	02/12	\$1,250,000
	General Appellate Advice	146616	12/15	\$100,000
	Colorado River	203464	04/22	\$100,000
Innovative Legal Services, P.C.	Employment Matter	211915	01/19/23	\$100,000
Internet Law Center	Cybersecurity and Privacy Advice and Representation	200478	04/13/21	\$100,000
	Systems Integrated, LLC v. MWD	201875	05/17/21	\$65,000
Amira Jackmon, Attorney at Law*	Bond Counsel	200464	07/21	N/A
Jackson Lewis P.C.	Employment: Department of Labor Office of Contract Compliance	137992	02/14	\$45,000
Jones Hall, A Professional Law Corp*	Bond Counsel	200465	07/21	N/A
Kegel, Tobin & Truce	Workers' Compensation	180206	06/19	\$250,000
Kutak Rock LLP	Delta Islands Land Management	207959	10/22	\$10,000



Firm Name	Matter Name	Agreement No.	Effective Date	Contract Maximum
Liebert Cassidy Whitmore	Labor and Employment	158032	02/17	\$229,724
	FLSA Audit	180199	02/19	\$50,000
Manatt, Phelps & Phillips	SDCWA v. MWD rate litigation	146627	06/16	\$4,400,000
	Raftelis - Subcontractor of Manatt, Agr. No. 146627: Pursuant to 05/02/22 Engagement Letter between Manatt, Phelps & Phillips and Raftelis Financial Consultants, Inc., MWD paid Raftelis Financial Consultants, Inc.	Invoice No. 23949		\$56,376.64 for expert services & reimbursable expenses in SDCWA v. MWD
Meyers Nave Riback Silver & Wilson	OCWD v. Northrop Corporation	118445	07/11	\$2,300,000
	Pure Water Southern California	207967	11/22	\$100,000
	PFAS Compliance Issues	207968	11/14/22	\$100,000
Miller Barondess, LLP	SDCWA v. MWD	138006	12/14	\$600,000
Morgan, Lewis & Bockius	SDCWA v. MWD	110226	07/10	\$8,750,000
	Project Labor Agreements	200476	04/21	\$100,000
Musick, Peeler & Garrett LLP	Colorado River Aqueduct Electric Cables Repair/Contractor Claims	193461	11/20	\$1,700,000
	Arvin-Edison v. Dow Chemical	203452	01/22	\$100,000
	Semitropic TCP Litigation	207954	09/22	\$75,000
Nixon Peabody LLP*	Special Finance Project	207960	10/22	\$50,000
Norton Rose Fulbright US LLP*	Bond Counsel	200466	07/21	N/A
Olson Remcho LLP	Government Law	131968	07/14	\$400,000
	Executive Committee/Ad Hoc Committees Advice	207947	08/22	\$60,000
	Public Records Act	207950	08/22	\$45,000
	<u>Advice/Assistance re Proposition 26/Election Issues</u>	<u>211922</u>	<u>05/23</u>	<u>\$100,000</u>



Firm Name	Matter Name	Agreement No.	Effective Date	Contract Maximum
Paul Hastings LLP	MWD v. California Department of Fish and Wildlife	207969	3/23	\$100,000
Rains Lucia Stern St. Phalle & Silver, PC	Employment Matter	211919	4/23	\$60,000
Renne Public Law Group, LLP	ACE v. MWD (PERB Case No. LA-CE-1574-M)	203466	05/22	\$80,000
	<del>MOU Hearing Officer Appeal</del>	<del>-207948</del>	<del>07/22</del>	<del>-\$100,000</del>
	ACE v. MWD (PERB Case No. LA-CE-1611-M)	207962	10/22	\$50,000
Ryan & Associates	Leasing Issues	43714	06/01	\$200,000
Seyfarth Shaw LLP	Claim (Contract #201897)	201897	11/04/21	\$200,000
	Claim (Contract #203436)	203436	11/15/21	\$350,000
	Claim (Contract #203454)	203454	01/22	\$160,000
	Claim (Contract #203455)	203455	10/21	\$175,000
	Reese v. MWD	207952	11/22	\$400,000
	General Labor/Employment Advice	211917	3/23	\$100,000
Sheppard Mullin Richter & Hampton	Rivers v. MWD	207946	07/22	\$100,000
Stradling Yocca Carlson & Rauth*	Bond Counsel	200471	07/21	N/A
Theodora Oringher PC	Construction Contracts - General Conditions Update	185896	07/20	\$100,000
Thompson Coburn LLP	<del>FERC Representation re Colorado River Aqueduct Electrical Transmission System</del>	<del>122465</del>	<del>12/11</del>	<del>\$100,000</del>
	NERC Energy Reliability Standards	193451	08/20	<del>\$100,000</del> <u>\$300,000</u>



Van Ness Feldman, LLP	General Litigation	170704	07/18	\$50,000
	Colorado River MSHCP	180191	01/19	\$50,000
	Bay-Delta and State Water Project Environmental Compliance	193457	10/15/20	\$50,000
	<u>Colorado River Issues</u>	<u>211924</u>	<u>05/23</u>	<u>\$100,000</u>
Western Water and Energy	California Independent System Operator-Related Matters	193463	11/20/20	\$100,000

\*Expenditures paid by Bond Proceeds/Finance

\*\*Expenditures paid by another group



## **General Auditor's Report for May 2023**

### **Summary**

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This report highlights significant activities of the Office of the General Auditor for the month ended May 31, 2023.

### **Audit & Advisory Services**

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Thirteen projects are in progress and two projects are in the reporting phase.

No final audit reports were issued during this period.

Additionally, one advisory services project is in process.

### **Other General Auditor Activities**

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#### **1. Risk Assessment Update**

**Completed.** The General Auditor's risk assessment methodology was refreshed and presented at the May Subcommittee on Audits, where Board input on risk areas and internal control concerns was facilitated.

#### **2. General Auditor Business Plan for FY 2023/24**

The General Auditor's business plan for the next fiscal year will be presented in a revised format for approval at the June Subcommittee on Audits and the July Board/FAIR Committee meetings in accordance with the Metropolitan Administrative Code and professional internal auditing standards. Meetings with 27 district managers are underway to gain insight into business risks that will provide another input on where we assign department resources for the next fiscal year.

#### **3. Audit Project Management System Upgrade**

Coordination with the application vendor is in progress to upgrade the Office of the General Auditor's project management system to a secure, web-based, software-as-a-service solution. Expected deployment of the new application is July 2023.

#### **4. General Auditor Department Assessment**

The new general auditor is conducting a department assessment that will result in a strategic plan driving future focus and optimal service delivery. Expected completion of this plan is August 2023.

#### **5. Quality Assessment**

Professional standards require an external quality assessment of the General Auditor's internal audit function every five years. Coordination with the Institute of Internal Auditors is underway to contract this required assessment and answers the question, "Who audits the auditors." Expected completion of this assessment is in the Fall.





# Ethics Office Monthly Report

**MAY 2023**

## **EDUCATION**

Provided Ethics Office overview for new employees.

## **COMPLIANCE**

Assisted Board members and employees with their Annual, Assuming Office, and Leaving Office Form 700 filings. Assistance included filing for multiple positions, troubleshooting the electronic filing system, and notifications of deadlines.

Monitored the status of past due Assuming Office and Leaving Office Form 700 filings. Sent notices to two current employees and one former employee; obtained compliance from four current employees. Referred two former employees to the Fair Political Practices Commission for non-filing of Leaving Office Form 700 after separation.

## **ADVICE**

Addressed 24 advice matters involving: conflicts of interest, political activities, financial disclosure, gifts, honoraria, and other ethics-related topics.

## **STAFF DEVELOPMENT**

Deputy Ethics Officer Dominic Berbeo attended the Association of Workplace Investigators Training Institute.

## **INVESTIGATIONS**

Responded to three complaints involving the following allegations:

- Unauthorized disclosure of confidential information
- Bullying and harassment
- Misuse of authority

Referred EEO-related complaints to the EEO Office.

## **ETHICS OFFICER FINDING**

After an internal investigation by Ethics Office staff, the Ethics Officer determined that an employee disclosed confidential information without authorization, in violation of Administrative Code section 7126. The finding was forwarded to Human Resources and management for consideration of appropriate action.

## **ADVICE AND INVESTIGATIVE DATA**

Advice Matters	24
Compliance Assistance	20
Complaints Received	3
Investigations Opened	0
Pending Investigations	11

**MINUTES**  
**REGULAR MEETING OF THE**  
**BOARD OF DIRECTORS**  
**THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA**  
**May 9, 2023**

**53230** The Board of Directors of The Metropolitan Water District of Southern California met in a regular session on Tuesday, May 09, 2023.

Chair Ortega called the meeting to order at 12:32 p.m.

Chair Ortega announced that we do not have any Directors participating in the meeting utilizing AB2449.

**53231** The Meeting was opened with an invocation by Vice Chair Heather Repenning, City of Los Angeles. Vice Chair Repenning shared a video to acknowledge the recent Holocaust Days of Remembrance, April 16-23, 2023.

**53232** The Pledge of Allegiance was given by Director Dennis Erdman, Municipal Water District of Orange County.

Chair Ortega welcomed Alejandro Rojas, Central Basin General Manager. On a rotation basis, the Board will invite the Member Agency Managers to participate in the Board and Executive meetings with the exception of voting.

Chair Ortega announced that May is Water Awareness Month, and this is drinking water week. Metropolitan will be utilizing social media platforms to highlight the various events on conservation and education resources. An invite was extended to preview the liquid art exhibit on the twelfth floor.

Chair Ortega called upon Deven Upadhyay, Assistant General Manager, to discuss the Asian American Pacific Islander Heritage Month events. Chair Ortega recognized Memorial Day, the new employee resource group Military Veterans at Metropolitan (MetVets), and the members of the Board who served in the military.

**53233** Interim Board Administrator Hudson administered the roll call. Those responding present were: Directors Abdo, Ackerman (teleconference posted location), Alvarez, Armstrong, Camacho (teleconference posted location), Chacon, Cordero (teleconference posted location), De Jesus (teleconference posted location), Dennstedt, Dick, Erdman, Faessel, Fellow (teleconference posted location), Garza, Goldberg, Gray (teleconference posted location), Jung (Fullerton staff teleconferenced from posted location), Kassakhian, Kurtz, Lefevre, Luna, McCoy, McMillan (teleconference posted location), Miller, Morris, Ortega, Peterson (teleconference posted location), Phan (teleconference posted location), Pressman, Quinn, Ramos, Repenning, and Sutley.

Those not responding were: Directors Atwater, Fong-Sakai, Petersen, Seckel, and Smith.

Interim Board Administrator Hudson declared a quorum present.

**53234** Community Reflections: Robert Sausedo and Jennie Carreon, Groundswell For Water Justice.

Chair Ortega announced the Board meetings would include monthly community guest speakers beginning with the group Groundswell For Water Justice. Chair Ortega introduced Robert Sausedo and Jennie Carreon, Groundswell For Water Justice.

**53235** Chair Ortega invited members of the public to address the Board on matters within the Board's jurisdiction (in-person and via teleconference).

	Name	Affiliation	Item
1.	Brett Barbre	President, Yorba Linda Water District	Item 7B and 7-4
2.	Caty Wagner	Sierra Club, California	Media Coverage
3.	Wigs Mendoza	Metropolitan Employee	Indigenous People
4.	Ellen Mackey	Metropolitan Employee	Whistleblower Report

Chair Ortega addressed the following: Other Matters and Reports.

**53236** Chair Ortega asked if there were any changes to the report of events attended by Directors at Metropolitan's expense during the month of April, as previously posted and distributed to the Board. Chair Ortega asked the Directors if there were any corrections on the item. No amendments were made.

Chair Ortega announced that his office had received expense reports over the period of ninety days for approval. His office has the authority to waive the restrictions on late reports, but he encourages Directors to submit their expense reports timelier.

**53237** Chair Ortega referred to Chair's monthly report, which was previously posted and distributed to the Board.

Chair Ortega asked the Directors if there were any questions on the item.

The following Director(s) asked questions or made comments:

Director(s)

1. Goldberg

Chair Ortega responded to the Director comments or questions.

**53238** Assistant General Manager Upadhyay referred to the General Manager's monthly report, which was previously posted and distributed to the Board. In addition, Assistant General Manager Upadhyay reported on the following:

1. General Manager Hagekhalil is traveling for the Global Water Summit in Germany
2. Reported on the delegation of authority process
3. Reported on National Safety Month events and the Coffee with the GM update
4. Update on the Santa Ana Valley Pipeline shutdown
5. Addressed the previous public comments.

**53239** General Counsel Scully stated she had nothing to add to the written report.

**53240** General Auditor Suzuki stated he had nothing to add to the written report.

**53241** Ethics Officer Salinas stated he had nothing to add to the written report.

**53242** Chair Ortega asked the Directors if there were any comments or discussions on the Approval of the Minutes of the Board of Directors Meeting for April 11, 2023. (Copies have been submitted to each Director, any additions, corrections, or omissions) (Agenda Item 7A). No amendments were made.

**53243** Authorize the preparation of a commendatory resolution supporting Cathy Green as Association of California Water Agencies President (Agenda Item 7B). Chair Ortega made remarks.

**53244** Approval of Committee Assignments (Agenda Item 7C). No assignments were made. Chair Ortega called on Committee Chair Erdman to announce the Subcommittee on Pure Water Southern California and Regional Conveyance membership, adding Director Smith to the membership.

Chair Ortega called on Vice Chair Quinn to announce the membership of the Subcommittee on Demand Management and Conservation Programs and Priorities:

Director Armstrong, Chair of the Subcommittee. Directors Abdo, Alvarez, Fong-Sakai, Lefevre, McMillan, Miller, Quinn, and Ramos.

Vice Chair Quinn added Director Peterson to the membership of the Subcommittee on Bay-Delta.

Chair Ortega called on the Committee Chairs to give a report on Consent Calendar Action Items and to hear recusals before any discussion on the items.

**53245** Award a \$637,520 contract to Acro Constructors for upgrades to the video room at Metropolitan's Headquarters Building, as set forth in Agenda Item 7-1 board letter.

**53246** Authorize an agreement with Arcadis U.S. Inc. for a not-to-exceed amount of \$550,000 to design, develop, and deploy the Capital Investment Plan Budget System Improvements, as set forth in Agenda Item 7-2 board letter.

**53247** A. Authorize an increase of \$1.5 million to an existing agreement with Stantec Consulting Services Inc. for a new not-to-exceed total amount of \$1.69 million for preliminary design of a mechanical dewatering facility at the Jensen Plant; and B. Authorize an amendment to an agreement with Los Angeles Department of Water and Power to forego construction of two new lagoons on LADWP's property and to extend

Metropolitan's use of two solids lagoons at the Aqueduct Filtration Plant, as set forth in Agenda Item 7-3 board letter.

**53248** Amend the Capital Investment Plan for fiscal years 2022/2023 and 2023/2024 to include the Diemer Helicopter Hydrant Facility project, as set forth in Agenda Item 7-4 board letter.

**53249** Award a \$1,466,665 contract to B&K Valves & Equipment, Inc. for procurement of 72 replacement air release and vacuum valves for San Diego Pipeline Nos. 3 and 5., as set forth in Agenda Item 7-5 board letter.

**53250** Authorize an increase in the maximum amount payable under contract with Thompson Coburn LLP for legal advice on state and federal energy regulatory and contractual matters by \$200,000 to a maximum amount payable of \$300,000, as set forth in Agenda Item 7-6 board letter.

**53251** Approve changes in the Administrative Code to clarify provisions relating to Board committees and the role of the Vice Chairs of the Board, to delete references to certain Ad Hoc Committees, and to correct the pay grade for Board Executive Secretary due to elimination of the job title of Board Administrator, as set forth in Agenda Item 7-7 board letter.

Chair Ortega called for a vote to approve Consent Calendar Items 7A, 7B, 7C, 7-1 through 7-7 (**M.I. No. 53242 through 53251**).

Director Morris moved, seconded by Director Jung that the Board approve the Consent Calendar Items 7A, 7B, 7C, 7-1 through 7-7 as follows:



The following is a record of the vote:

Record of Vote on Consent Item(s):		Items: 7A, 7B, 7C and 7-1 through 7-7							
Member Agency	Total Votes	Director	Present	Yes	Yes Vote	No	No Vote	Abstain	Abstain Vote
Anaheim	5627	Faessel	x	x	5627				
Beverly Hills	4267	Pressman	x	x	4267				
Burbank	2893	Ramos	x	x	2893				
Calleguas Municipal Water District	12368	McMillan	x	x	12368				
Central Basin Municipal Water District	18216	Garza	x	x	9108				
		Chacon	x	x	9108				
			Subtotal:		18216				
Compton	599	McCoy	x	x	599				
Eastern Municipal Water District	10502	Armstrong	x	x	10502				
Foothill Municipal Water District	2290	Atwater							
Fullerton	2390	Jung	x	x	2390				
Glendale	3814	Kassakhian	x	x	3814				
Inland Empire Utilities Agency	14663	Camacho	x	x	14663				
Las Virgenes	2927	Peterson	x	x	2927				
Long Beach	6151	Cordero	x	x	6151				
Los Angeles	75699	Sutley	x	x	18925				
		Petersen							
		Quinn	x	x	18925				
		Luna	x	x	18925				
		Repenning	x	x	18925				
			Subtotal:		75699				
Municipal Water Dist. of Orange County	60913	Ackerman	x	x	20304				
		Seckel							
		Dick	x	x	20304				
		Erdman	x	x	20304				
			Subtotal:		60913				
Pasadena	3716	Kurtz	x	x	3716				
San Diego County Water Authority	63232	Fong-Sakai							
		Goldberg	x	x	31616				
		Miller	x	x	31616				
		Smith							
			Subtotal:		63232				
San Fernando	238	Ortega	x	x	238				
San Marino	770	Morris	x	x	770				
Santa Ana	3228	Phan	x	x	3228				
Santa Monica	4619	Abdo	x	x	4619				
Three Valleys Municipal Water District	8254	De Jesus	x	x	8254				
Torrance	3416	Lefevre	x	x	3416				
Upper San Gabriel Valley Mun. Wat. Dist.	12688	Fellow	x	x	12688				
West Basin Municipal Water District	25453	Alvarez	x	x	12727				
		Gray	x	x	12727				
			Subtotal:		25453				
Western Municipal Water District	13541	Dennstedt	x	x	13541				
<b>Total</b>	<b>362474</b>				<b>360184</b>				
<b>Present and not voting</b>									
<b>Absent</b>	<b>2290</b>								

The motion to approve the Consent Calendar Items 7A, 7B, 7C, 7-1 through 7-7 (**M.I. No. 53242 through 53251**)\* passed by a vote of 360,184 ayes; 0 noes; 0 abstain; 0 not voting; and 2,290 absent.

**\*Note: Individual vote tally for Item 7-3**

Director Gray abstained on Consent Calendar Item 7-3. The motion to approve the Consent Calendar Item 7-3 passed by a vote of 347,458 ayes; 0 noes; 12,727 abstain; 0 not voting; and 2,290 absent.

Chair Ortega called on the Committee Chairs to give a report on Board Items and to hear recusals before any discussion on the items.

Director Dennstedt recused herself on Item 8-4 due to the fact that she receives a per diem from Western Municipal Water District of Riverside County. Item 8-4 is an agreement between Metropolitan Water District and other agencies.

Director Garza requested an amendment to Item 8-4.

**53252** Award a \$2,601,437 procurement contract to Sojitz Machinery Corporation of America to furnish two large diameter butterfly valves for the Inland Feeder/SBVMWD Foothill Pump Station Intertie project as part of water supply reliability improvements in the Rialto Pipeline service area, as set forth in Agenda Item 8-1 board letter.

Chair Ortega called for a vote to approve Board Item 8-1 (**M.I. No. 53252**)

Director Erdman moved, seconded by Director Miller that the Board approve the Board Item 8-1 as follows:

The following is a record of the vote:

Record of Vote on Item:		8-1							
Member Agency	Total Votes	Director	Present	Yes	Yes Vote	No	No Vote	Abstain	Abstain Vote
Anaheim	5627	Faessel	x	x	5627				
Beverly Hills	4267	Pressman	x	x	4267				
Burbank	2893	Ramos	x	x	2893				
Calleguas Municipal Water District	12368	McMillan	x	x	12368				
Central Basin Municipal Water District	18216	Garza	x	x	9108				
		Chacon	x	x	9108				
			Subtotal:		18216				
Compton	599	McCoy	x	x	599				
Eastern Municipal Water District	10502	Armstrong	x	x	10502				
Foothill Municipal Water District	2290	Atwater							
Fullerton	2390	Jung	x	x	2390				
Glendale	3814	Kassakhian	x	x	3814				
Inland Empire Utilities Agency	14663	Camacho	x	x	14663				
Las Virgenes	2927	Peterson	x	x	2927				
Long Beach	6151	Cordero	x	x	6151				
Los Angeles	75699	Sutley	x	x	18925				
		Petersen							
		Quinn	x	x	18925				
		Luna	x	x	18925				
		Repenning	x	x	18925				
			Subtotal:		75699				
Municipal Water Dist. of Orange County	60913	Ackerman	x	x	20304				
		Seckel							
		Dick	x	x	20304				
		Erdman	x	x	20304				
			Subtotal:		60913				
Pasadena	3716	Kurtz	x	x	3716				
San Diego County Water Authority	63232	Fong-Sakai							
		Goldberg	x	x	31616				
		Miller	x	x	31616				
		Smith							
			Subtotal:		63232				
San Fernando	238	Ortega	x	x	238				
San Marino	770	Morris	x	x	770				
Santa Ana	3228	Phan	x	x	3228				
Santa Monica	4619	Abdo	x	x	4619				
Three Valleys Municipal Water District	8254	De Jesus	x	x	8254				
Torrance	3416	Lefevre	x	x	3416				
Upper San Gabriel Valley Mun. Wat. Dist.	12688	Fellow	x	x	12688				
West Basin Municipal Water District	25453	Alvarez	x	x	12727				
		Gray	x	x	12727				
			Subtotal:		25453				
Western Municipal Water District	13541	Dennstedt	x	x	13541				
<b>Total</b>	<b>362474</b>				<b>360184</b>				
<b>Present and not voting</b>									
<b>Absent</b>	<b>2290</b>								

The motion to approve the Board Item 8-1 (**M.I. No. 53252**) passed by a vote of 360,184 ayes; 0 noes; 0 abstain; 0 not voting; and 2,290 absent.

**53253** Award a \$5,266,000 contract to Leed Electric Inc. to install 12 flow monitoring stations along the CRA conveyance system, as set forth in Agenda Item 8-2 board letter.

Chair Ortega called for a vote to approve Board Item 8-2 (**M.I. No. 53253**)

Director Erdman moved, seconded by Director Dennstedt that the Board approve the Board Item 8-2 as follows:

The following is a record of the vote:

Record of Vote on Item:		8-2							
Member Agency	Total Votes	Director	Present	Yes	Yes Vote	No	No Vote	Abstain	Abstain Vote
Anaheim	5627	Faessel	x	x	5627				
Beverly Hills	4267	Pressman	x	x	4267				
Burbank	2893	Ramos	x	x	2893				
Calleguas Municipal Water District	12368	McMillan	x	x	12368				
Central Basin Municipal Water District	18216	Garza	x	x	9108				
		Chacon	x	x	9108				
			Subtotal:		18216				
Compton	599	McCoy	x	x	599				
Eastern Municipal Water District	10502	Armstrong	x	x	10502				
Foothill Municipal Water District	2290	Atwater							
Fullerton	2390	Jung	x	x	2390				
Glendale	3814	Kassakhian	x	x	3814				
Inland Empire Utilities Agency	14663	Camacho	x	x	14663				
Las Virgenes	2927	Peterson	x	x	2927				
Long Beach	6151	Cordero	x	x	6151				
Los Angeles	75699	Sutley	x	x	18925				
		Petersen							
		Quinn	x	x	18925				
		Luna	x	x	18925				
		Repenning	x	x	18925				
			Subtotal:		75699				
Municipal Water Dist. of Orange County	60913	Ackerman	x	x	20304				
		Seckel							
		Dick	x	x	20304				
		Erdman	x	x	20304				
			Subtotal:		60913				
Pasadena	3716	Kurtz	x	x	3716				
San Diego County Water Authority	63232	Fong-Sakai							
		Goldberg	x	x	31616				
		Miller	x	x	31616				
		Smith							
			Subtotal:		63232				
San Fernando	238	Ortega	x	x	238				
San Marino	770	Morris	x	x	770				
Santa Ana	3228	Phan	x	x	3228				
Santa Monica	4619	Abdo	x	x	4619				
Three Valleys Municipal Water District	8254	De Jesus	x	x	8254				
Torrance	3416	Lefevre	x	x	3416				
Upper San Gabriel Valley Mun. Wat. Dist.	12688	Fellow	x	x	12688				
West Basin Municipal Water District	25453	Alvarez	x	x	12727				
		Gray	x	x	12727				
			Subtotal:		25453				
Western Municipal Water District	13541	Dennstedt	x	x	13541				
<b>Total</b>	<b>362474</b>				<b>360184</b>				
<b>Present and not voting</b>									
<b>Absent</b>	<b>2290</b>								

The motion to approve the Board Item 8-2 (**M.I. No. 53253**) passed by a vote of 360,184 ayes; 0 noes; 0 abstain; 0 not voting; and 2,290 absent.

**53254** Adopt a resolution to support an approximately \$20,900,000 grant application to the Sacramento-San Joaquin Delta Conservancy to develop a multi-benefit landscape opportunity on Webb Tract; and authorize the General Manager or designated representative to accept the grant if awarded and return to the Board at a future meeting to review the draft funding agreement and funding plan and consider adding the proposed project to the Capital Investment Program, as an amended option of Agenda Item 8-3.

Chair Ortega called for a vote to approve Board Item 8-3 (**M.I. No. 53254**)

Director Alvarez moved, seconded by Director Quinn that the Board approve the Board Item 8-3 as follows:

The following Director(s) asked questions or made comments:

Director(s)

1. Alvarez
2. Quinn
3. Sutley
4. Miller

Staff responded to the Director's comments or questions.



The following is a record of the vote:

Record of Vote on Item:		8-3							
Member Agency	Total Votes	Director	Present	Yes	Yes Vote	No	No Vote	Abstain	Abstain Vote
Anaheim	5627	Faessel	x	x	5627				
Beverly Hills	4267	Pressman	x	x	4267				
Burbank	2893	Ramos	x	x	2893				
Calleguas Municipal Water District	12368	McMillan	x	x	12368				
Central Basin Municipal Water District	18216	Garza	x	x	9108				
		Chacon	x	x	9108				
			Subtotal:		18216				
Compton	599	McCoy	x	x	599				
Eastern Municipal Water District	10502	Armstrong	x	x	10502				
Foothill Municipal Water District	2290	Atwater							
Fullerton	2390	Jung	x	x	2390				
Glendale	3814	Kassakhian	x	x	3814				
Inland Empire Utilities Agency	14663	Camacho	x	x	14663				
Las Virgenes	2927	Peterson	x	x	2927				
Long Beach	6151	Cordero	x	x	6151				
Los Angeles	75699	Sutley	x	x	18925				
		Petersen							
		Quinn	x	x	18925				
		Luna	x	x	18925				
		Repenning	x	x	18925				
			Subtotal:		75699				
Municipal Water Dist. of Orange County	60913	Ackerman	x	x	30457				
		Seckel							
		Dick	x	x	30457				
		Erdman							
			Subtotal:		60913				
Pasadena	3716	Kurtz	x	x	3716				
San Diego County Water Authority	63232	Fong-Sakai							
		Goldberg	x	x	31616				
		Miller	x	x	31616				
		Smith							
			Subtotal:		63232				
San Fernando	238	Ortega	x	x	238				
San Marino	770	Morris	x	x	770				
Santa Ana	3228	Phan	x	x	3228				
Santa Monica	4619	Abdo	x	x	4619				
Three Valleys Municipal Water District	8254	De Jesus	x	x	8254				
Torrance	3416	Lefevre	x	x	3416				
Upper San Gabriel Valley Mun. Wat. Dist.	12688	Fellow	x	x	12688				
West Basin Municipal Water District	25453	Alvarez	x	x	12727				
		Gray	x	x	12727				
			Subtotal:		25453				
Western Municipal Water District	13541	Dennstedt							
<b>Total</b>	<b>362474</b>				<b>346643</b>				
<b>Present and not voting</b>									
<b>Absent</b>	<b>15831</b>								

The motion to approve the Board Item 8-3 (**M.I. No. 53254**) passed by a vote of 346,643 ayes; 0 noes; 0 abstain; 0 not voting; and 15,831 absent.

**53255** Authorize the General Manager to enter into an agreement with Western Municipal Water District, Rubidoux Community Services District, West Valley Water District, and San Bernardino Valley Municipal Water District to deliver water to Western's service area through facilities not owned by Metropolitan or Western and direct staff to

bring back to the Board, on a committee and board schedule to be established by staff working with the Board Chair, relevant Vice Chairs, and Committee Chairs, the three policy issues identified in the Board letter and a forth policy issue related to assessing water quality and salinity inequities among member agencies, including but not limited to, a report on how staff seeks to achieve the objectives of Section 136 of the MWD Act on blending, as an amended option to Agenda Item 8-4.

The following Director(s) asked questions or made comments:

Director(s)

1. Garza
2. Peterson
3. Goldberg
4. Alvarez
5. Morris
6. Ortega
7. De Jesus
8. Kurtz
9. Guest speaker (Alejandro Rojas, Central Basin General Manager)
10. Repenning

Staff responded to the Directors' comments or questions.

Chair Ortega called for a vote to approve Board Item 8-4 (**M.I. No. 53255**)

Director Garza moved, seconded by Director Sutley that the Board approve the Board Item 8-4 as follows:

The following is a record of the vote:

Record of Vote on Item:		8-4							
Member Agency	Total Votes	Director	Present	Yes	Yes Vote	No	No Vote	Abstain	Abstain Vote
Anaheim	5627	Faessel	x	x	5627				
Beverly Hills	4267	Pressman	x	x	4267				
Burbank	2893	Ramos	x	x	2893				
Calleguas Municipal Water District	12368	McMillan	x	x	12368				
Central Basin Municipal Water District	18216	Garza	x	x	9108				
		Chacon	x	x	9108				
			Subtotal:		18216				
Compton	599	McCoy	x	x	599				
Eastern Municipal Water District	10502	Armstrong	x	x	10502				
Foothill Municipal Water District	2290	Atwater							
Fullerton	2390	Jung	x	x	2390				
Glendale	3814	Kassakhian	x	x	3814				
Inland Empire Utilities Agency	14663	Camacho	x	x	14663				
Las Virgenes	2927	Peterson	x	x	2927				
Long Beach	6151	Cordero	x	x	6151				
Los Angeles	75699	Sutley	x	x	25233				
		Petersen							
		Quinn	x	x	25233				
		Luna							
		Repenning	x	x	25233				
			Subtotal:		75699				
Municipal Water Dist. of Orange County	60913	Ackerman	x	x	30457				
		Seckel							
		Dick	x	x	30457				
		Erdman							
			Subtotal:		60913				
Pasadena	3716	Kurtz	x	x	3716				
San Diego County Water Authority	63232	Fong-Sakai							
		Goldberg	x	x	31616				
		Miller	x	x	31616				
		Smith							
			Subtotal:		63232				
San Fernando	238	Ortega	x	x	238				
San Marino	770	Morris	x	x	770				
Santa Ana	3228	Phan	x	x	3228				
Santa Monica	4619	Abdo	x	x	4619				
Three Valleys Municipal Water District	8254	De Jesus	x	x	8254				
Torrance	3416	Lefevre	x	x	3416				
Upper San Gabriel Valley Mun. Wat. Dist.	12688	Fellow	x	x	12688				
West Basin Municipal Water District	25453	Alvarez	x	x	25453				
		Gray							
			Subtotal:		25453				
Western Municipal Water District	13541	Dennstedt							
<b>Total</b>	<b>362474</b>				<b>346643</b>				
<b>Present and not voting</b>									
<b>Absent</b>	<b>15831</b>								

The motion to approve the Board Item 8-4 (**M.I. No. 53255**)\* passed by a vote of 346,643 ayes; 0 noes; 0 abstain; 0 not voting; and 15,831 absent.

**\*Note:**

Director Dennstedt recused herself on Item 8-4 due to the fact that she receives a per diem from Western Municipal Water District of Riverside County. Item 8-4 is an agreement between Metropolitan Water District and other agencies.

**53256** On Board Item 8-5 the One Water Stewardship Committee reviewed and maintained the General Manager's implementation of the Cyclic Cost-Offset Program effective April 15, 2023, pursuant to the Program terms approved by the Board on April 9, 2019. (No motion or vote is required for this option; the Report will be received and filed.)

Board Item 8-5 required no motion or vote.

**53257** Adopt the resolution to continue the Standby Charge for fiscal year 2023/24, as set forth in Agenda Item 8-6 board letter.

Chair Ortega called for a vote to approve Board Item 8-6 (**M.I. No. 53257**)

Director Dick moved, seconded by Director Pressman that the Board approve the Board Item 8-6 as follows:

The following is a record of the vote:

Record of Vote on Item:		8-6							
Member Agency	Total Votes	Director	Present	Yes	Yes Vote	No	No Vote	Abstain	Abstain Vote
Anaheim	5627	Faessel	x	x	5627				
Beverly Hills	4267	Pressman	x	x	4267				
Burbank	2893	Ramos	x	x	2893				
Calleguas Municipal Water District	12368	McMillan	x	x	12368				
Central Basin Municipal Water District	18216	Garza	x	x	9108				
		Chacon	x	x	9108				
			Subtotal:		18216				
Compton	599	McCoy	x	x	599				
Eastern Municipal Water District	10502	Armstrong	x	x	10502				
Foothill Municipal Water District	2290	Atwater							
Fullerton	2390	Jung	x	x	2390				
Glendale	3814	Kassakhian	x	x	3814				
Inland Empire Utilities Agency	14663	Camacho	x	x	14663				
Las Virgenes	2927	Peterson	x	x	2927				
Long Beach	6151	Cordero	x	x	6151				
Los Angeles	75699	Sutley	x	x	25233				
		Petersen							
		Quinn	x	x	25233				
		Luna							
		Repenning	x	x	25233				
			Subtotal:		75699				
Municipal Water Dist. of Orange County	60913	Ackerman	x	x	30457				
		Seckel							
		Dick	x	x	30457				
		Erdman							
			Subtotal:		60913				
Pasadena	3716	Kurtz	x	x	3716				
San Diego County Water Authority	63232	Fong-Sakai							
		Goldberg	x	x	31616				
		Miller	x	x	31616				
		Smith							
			Subtotal:		63232				
San Fernando	238	Ortega	x	x	238				
San Marino	770	Morris	x	x	770				
Santa Ana	3228	Phan							
Santa Monica	4619	Abdo	x	x	4619				
Three Valleys Municipal Water District	8254	De Jesus	x	x	8254				
Torrance	3416	Lefevre							
Upper San Gabriel Valley Mun. Wat. Dist.	12688	Fellow	x	x	12688				
West Basin Municipal Water District	25453	Alvarez	x	x	25453				
		Gray							
			Subtotal:		25453				
Western Municipal Water District	13541	Dennstedt							
<b>Total</b>	<b>362474</b>				<b>339999</b>				
<b>Present and not voting</b>									
<b>Absent</b>	<b>22475</b>								

The motion to approve the Board Item 8-6 (**M.I. No. 53257**) passed by a vote of 339,999 ayes; 0 noes; 0 abstain; 0 not voting; and 22,475 absent.

**53258** Authorize the General Counsel to increase the maximum amount payable under a contract with Sheppard Mullin Richter & Hampton LLP for legal services by \$150,000, to an amount not to exceed \$250,000, as set forth in Agenda Item 8-7 board letter.

Chair Ortega called for a vote to approve Board Item 8-7 (**M.I. No. 53258**)



Director Sutley moved, seconded by Director Quinn that the Board approve the Board Item 8-7 as follows:

The following is a record of the vote:

Record of Vote on Item:		8-7							
Member Agency	Total Votes	Director	Present	Yes	Yes Vote	No	No Vote	Abstain	Abstain Vote
Anaheim	5627	Faessel	x	x	5627				
Beverly Hills	4267	Pressman	x	x	4267				
Burbank	2893	Ramos	x	x	2893				
Calleguas Municipal Water District	12368	McMillan	x	x	12368				
Central Basin Municipal Water District	18216	Garza	x	x	9108				
		Chacon	x	x	9108				
			Subtotal:		18216				
Compton	599	McCoy	x	x	599				
Eastern Municipal Water District	10502	Armstrong	x	x	10502				
Foothill Municipal Water District	2290	Atwater							
Fullerton	2390	Jung	x	x	2390				
Glendale	3814	Kassakhian	x	x	3814				
Inland Empire Utilities Agency	14663	Camacho	x	x	14663				
Las Virgenes	2927	Peterson	x	x	2927				
Long Beach	6151	Cordero	x	x	6151				
Los Angeles	75699	Sutley	x	x	25233				
		Petersen							
		Quinn	x	x	25233				
		Luna							
		Repenning	x	x	25233				
			Subtotal:		75699				
Municipal Water Dist. of Orange County	60913	Ackerman	x	x	30457				
		Seckel							
		Dick	x	x	30457				
		Erdman							
			Subtotal:		60913				
Pasadena	3716	Kurtz	x	x	3716				
San Diego County Water Authority	63232	Fong-Sakai							
		Goldberg	x	x	31616				
		Miller	x	x	31616				
		Smith							
			Subtotal:		63232				
San Fernando	238	Ortega	x	x	238				
San Marino	770	Morris	x	x	770				
Santa Ana	3228	Phan							
Santa Monica	4619	Abdo	x	x	4619				
Three Valleys Municipal Water District	8254	De Jesus	x	x	8254				
Torrance	3416	Lefevre							
Upper San Gabriel Valley Mun. Wat. Dist.	12688	Fellow	x	x	12688				
West Basin Municipal Water District	25453	Alvarez	x	x	25453				
		Gray							
			Subtotal:		25453				
Western Municipal Water District	13541	Dennstedt							
<b>Total</b>	<b>362474</b>				<b>339999</b>				
<b>Present and not voting</b>									
<b>Absent</b>	<b>22475</b>								

The motion to approve the Board Item 8-7 (**M.I. No. 53258**) passed by a vote of 339,999 ayes; 0 noes; 0 abstain; 0 not voting; and 22,475 absent.

**53259** Authorize filing a cross-complaint in Oswalt v. The Metropolitan Water District of Southern California, San Diego County Superior Court Case No. 37-2023-00009934-CU-PO-CTL, as set forth in Agenda Item 8-8 board letter.

Chair Ortega called for a vote to approve Board Item 8-8 (**M.I. No. 53259**)

Director Sutley moved, seconded by Director Morris that the Board approve the Board Item 8-8 as follows:

The following is a record of the vote:

Record of Vote on Item:		8-8							
Member Agency	Total Votes	Director	Present	Yes	Yes Vote	No	No Vote	Abstain	Abstain Vote
Anaheim	5627	Faessel	x	x	5627				
Beverly Hills	4267	Pressman	x	x	4267				
Burbank	2893	Ramos	x	x	2893				
Calleguas Municipal Water District	12368	McMillan	x	x	12368				
Central Basin Municipal Water District	18216	Garza	x	x	9108				
		Chacon	x	x	9108				
			Subtotal:		18216				
Compton	599	McCoy	x	x	599				
Eastern Municipal Water District	10502	Armstrong	x	x	10502				
Foothill Municipal Water District	2290	Atwater							
Fullerton	2390	Jung	x	x	2390				
Glendale	3814	Kassakhian	x	x	3814				
Inland Empire Utilities Agency	14663	Camacho	x	x	14663				
Las Virgenes	2927	Peterson	x	x	2927				
Long Beach	6151	Cordero	x	x	6151				
Los Angeles	75699	Sutley	x	x	25233				
		Petersen							
		Quinn	x	x	25233				
		Luna							
		Repenning	x	x	25233				
			Subtotal:		75699				
Municipal Water Dist. of Orange County	60913	Ackerman	x	x	30457				
		Seckel							
		Dick	x	x	30457				
		Erdman							
			Subtotal:		60913				
Pasadena	3716	Kurtz	x	x	3716				
San Diego County Water Authority	63232	Fong-Sakai							
		Goldberg	x	x	31616				
		Miller	x	x	31616				
		Smith							
			Subtotal:		63232				
San Fernando	238	Ortega	x	x	238				
San Marino	770	Morris	x	x	770				
Santa Ana	3228	Phan							
Santa Monica	4619	Abdo	x	x	4619				
Three Valleys Municipal Water District	8254	De Jesus	x	x	8254				
Torrance	3416	Lefevre							
Upper San Gabriel Valley Mun. Wat. Dist.	12688	Fellow	x	x	12688				
West Basin Municipal Water District	25453	Alvarez	x	x	25453				
		Gray							
			Subtotal:		25453				
Western Municipal Water District	13541	Dennstedt							
<b>Total</b>	<b>362474</b>				<b>339999</b>				
<b>Present and not voting</b>									
<b>Absent</b>	<b>22475</b>								

The motion to approve the Board Item 8-8 (**M.I. No. 53259**) passed by a vote of 339,999 ayes; 0 noes; 0 abstain; 0 not voting; and 22,475 absent.

Chair Ortega announced there were no other board items for action.

**53259** Chair Ortega asked if there were questions or need for discussion for Board Information Items 9-1 and 9-2. No requests were made.

Chair Ortega announced that the Ethics, Organization, and Personnel Committee is postponed due to Board members traveling for ACWA conference. Chair Ortega presented Alejandro Rojas, Central Basin General Manager, with a gift from Metropolitan.

**53260** Chair Ortega asked if there were any Other Matters Items. There were none.

**53261** Chair Ortega asked if there were any Follow-Up Items. There were none.

**53262** Chair Ortega asked if there were any Future Agenda Items. There were none.

**53263** There being no objection, at 2:16 p.m., Chair Ortega adjourned the meeting.

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**ADÁN ORTEGA**  
**CHAIR**

*Rickita C. Hudson*  
**RICKITA HUDSON,**  
**INTERIM BOARD EXECUTIVE SECRETARY**  
**ON BEHALF OF LOIS FONG-SAKAI**  

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**SECRETARY OF THE BOARD**



● **Board of Directors**  
***Engineering, Operations, and Technology Committee***

6/13/2023 Board Meeting

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**7-1**

**Subject**

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Authorize agreements with AECOM Technical Services Inc. and CDM Smith Inc., each in an amount not to exceed \$800,000, for water desalination studies in Metropolitan's service area; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

**Executive Summary**

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The recurring severe regional droughts, and their impacts on Metropolitan's water supplies from both the Colorado River and Northern California, have prompted an imminent, compelling need for Metropolitan to develop strategies to potentially develop alternative sources of water supplies for Metropolitan's member agencies. Staff has initiated efforts to assess the options for both seawater and brackish water desalination as potential new sources that can be made available to mitigate uncertainties in future supplies, thereby maintaining Metropolitan's ability to ensure water supply reliability in Southern California. Water desalination studies support the Board's policy of providing equitable water supply reliability to member agencies through an interconnected and robust system of supplies, storage, and programs. This is one of several efforts to help inform Metropolitan's Climate Adaptation Master Planning process. This action authorizes two agreements to provide engineering services for water desalination studies in Metropolitan's service area.

**Details**

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**Background**

Metropolitan delivers water from the Colorado River and the State Water Project (SWP) to its service area, meeting approximately 50 percent of regional water needs. In recent years, the western region of the United States has experienced recurrent droughts that have led to large drawdowns in the major reservoirs on the Colorado River and the SWP. Drastic changes in precipitation and large reservoir drawdowns may impact the reliability of Metropolitan's water deliveries to its member agencies in the future. To address this concern, staff has initiated efforts to assess options that could help mitigate uncertainties in future supplies and maintain Metropolitan's water supply reliability with the potential development of brackish and/or seawater desalination projects.

Request for Proposals (RFP) No. 1327 solicited proposals for engineering services to support water desalination studies in Metropolitan's service area. Staff recommends authorizing two professional service agreements based on the results of this RFP to expand Metropolitan's knowledge base on brackish and seawater desalination opportunities within Southern California and determine potential project delivery methods for the existing technology and project opportunity. The results of these studies will contribute to Metropolitan's current overall assessment of projected water supply needs for the region.

**Budget Impact**

In accordance with provisions of the Governmental Accounting Standards Board, Metropolitan's work on feasibility studies not associated with a specific asset must be conducted with O&M funds instead of a capital appropriation. Funds for these planning activities for regional reliability are included in the O&M budget for fiscal years 2022/23 and 2023/24.



These studies anticipate the expenditure of \$1.9 million in budgeted O&M funds. All expenditures will be incurred in the current biennium and have been previously authorized.

### **Water Desalination Opportunities & Technology Assessment**

The planned studies for brackish and seawater desalination studies will be conducted by consultants with oversight by Metropolitan staff. AECOM Technical Services Inc. (AECOM) will collect appropriate data, develop computer models, conduct analyses, and provide recommendations for brackish water desalination; CDM Smith Inc. (CDM) will conduct similar work efforts for seawater desalination. The planned scope of work for each consultant is described below. Metropolitan staff will compile record drawings and reports, perform overall project management, and conduct technical reviews.

A total of \$1,900,000 will be allocated in O&M funds in fiscal years 2022/23 and 2023/24 for studies associated with brackish and seawater desalination. This amount includes \$1,600,000 for the consultant's activities described below; \$160,000 for Metropolitan staff activities and technical oversight and review of consultant's work; and \$140,000 for project management, and project controls.

### **Engineering Services (AECOM Technical Services Inc. and CDM Smith Inc.) – New Agreements**

AECOM and CDM are recommended to provide engineering services for water desalination studies in Metropolitan's service area. Both AECOM and CDM were selected through a competitive process via RFP No. 1327. Staff received proposals from seven firms and evaluated each firm based on qualifications and experience, expertise of each firm's staff, technical approach and proposed methodology, and capability to deliver the planned work.

The planned scope of work for AECOM includes: (1) preparing an inventory of potential brackish water resources plant sites in Metropolitan's service area; (2) developing an evaluation methodology for the suitability of this water supply, including consistency with Metropolitan's commitment to carbon neutrality by 2045; (3) identifying applicable water quality and regulatory requirements; (4) developing conceptual cost estimates and schedules for water produced from desalination facilities; (5) developing project implementation options that would best suit these types of facilities; (6) determining the approximate proportion and area of Metropolitan's service area that would potentially receive water from the plant; and (7) assessing the near-term potential for advances in brackish water desalination technologies.

The planned scope of work for CDM includes: (1) preparing an inventory of potential seawater desalination plant sites in Metropolitan's service area; (2) assessment of permitting and regulatory frameworks that would potentially impact the potential siting of a seawater desalination plant, (3) developing an evaluation methodology for the suitability of this water supply, including consistency with Metropolitan's commitment to carbon neutrality by 2045; (4) identifying applicable water quality and regulatory requirements; (5) developing conceptual cost estimates and schedules for water produced from desalination facilities; (6) developing project implementation options that would best suit these types of facilities; (7) determining the approximate proportion and area of Metropolitan's service area that would potentially receive water from the plant; and (8) assessing the near-term potential for advances in seawater desalination technologies.

This action authorizes two professional services agreements with AECOM and CDM, each in an amount not to exceed \$800,000, to provide engineering services for water desalination studies in Metropolitan's service area. For this agreement, Metropolitan established a Small Business Enterprise participation level of 25 percent. Both AECOM and CDM have agreed to meet this level of participation. The planned sub-consultants for these agreements are listed in **Attachment 1**.

### **Alternatives Considered**

Staff considered utilizing in-house Metropolitan staff to perform the assessment of desalination technology opportunities. Metropolitan's staffing strategy for in-house Metropolitan staff has been: (1) to assess current work assignments for said staff and to determine the potential availability of staff to conduct this work; and (2) to use professional services agreements when resource needs exceed available in-house staffing or require specialized technical expertise in order to provide a concentrated engineering effort over an extended duration.

After assessing the current workload for in-house staff, and the required expertise, it has been determined that there is insufficient engineering staff with expertise in desalination technology to ensure the completion of the

work in a timely manner. Staff, therefore, recommends utilizing a consultant for this work. The consultants will perform the studies, and staff will perform project review and oversight. This approach will allow for the completion of the studies in the most efficient manner possible.

### **Summary**

This action authorizes professional services agreements with AECOM and CDM to provide engineering services for water desalination studies in Metropolitan's service area. See **Attachment 1** for the List of Subconsultants.

### ***Project Milestone***

March 2024 – Completion of studies

### **Policy**

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

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minute Item 52946, dated August 16, 2022, the Board adopted a resolution affirming a call to action and committing to regional reliability for all member agencies.

### **California Environmental Quality Act (CEQA)**

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#### **CEQA determination for Option #1:**

The proposed action is statutorily exempt from CEQA (State CEQA Guidelines Section 15262) because it involves only feasibility or planning studies for possible future actions which the board has not approved, adopted, or funded. The overall activity also involves carrying out studies that consist of basic data collection, which do not result in a serious or major disturbance to an environmental resource. This may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded. Accordingly, the proposed action qualifies under Class 6 (Section 15306) of the State CEQA Guidelines.

#### **CEQA determination for Option #2:**

None required

### **Board Options**

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#### **Option #1**

Authorize professional services agreements with AECOM Technical Services Inc. and CDM Smith Inc., each in an amount not to exceed \$800,000, to provide engineering services for water desalination studies in Metropolitan's service area.

**Fiscal Impact:** Expenditure of \$1.9 million in O&M funds. All expenditures will be incurred in the current biennium and have been previously authorized.

**Business Analysis:** This option will enhance Metropolitan's knowledge of potential brackish and seawater supply options in its service area.

#### **Option #2**

Do not proceed with the project at this time.

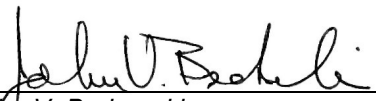
**Fiscal Impact:** None

**Business Analysis:** This option may forego or delay the opportunity to enhance Metropolitan's knowledge of brackish and seawater supply options in its service area.

**Staff Recommendation**

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Option #1

  
\_\_\_\_\_  
John V. Bednarski  
Manager/Chief Engineer  
Engineering Services

5/19/2023

*Date*

  
\_\_\_\_\_  
Adel Hagekhalil  
General Manager

5/23/2023

*Date***Attachment 1 – List of Subconsultants**

Ref# es12687872

**The Metropolitan Water District of Southern California**

**Subconsultants for Water Desalination Studies  
Agreements**

<b>Consultant: AECOM Technical Services Inc.</b>	
<b>Subconsultant and Location</b>	<b>Service Category; Specialty</b>
Awad Engineering Inc. Mission Viejo, CA	Brackish Water Desalination
Geoscience Support Services Inc. San Dimas, CA	Groundwater Modeling
John Robinson Consulting Inc. Pasadena, CA	General Water System Design
Kimley-Horn & Associates Inc. Riverside, CA	Civil Design
Leland Saylor Associates Inc. Los Angeles, CA	Cost Analysis
Water Globe Consultants LLC Winter Springs, FL	Technical Advisor

<b>Consultant: CDM Smith Inc.</b>	
<b>Subconsultant and Location</b>	<b>Service Category; Specialty</b>
EOA Inc. Oakland, CA	Permitting Evaluations, Ocean Plan Requirements, Brine Disposal
Geoscience Support Services Inc. San Dimas, CA	Slant Wells, Hydrogeology, Brackish Groundwater Desalination Opportunities
Means Consulting LLC Newport Beach, CA	Partnerships
Water Quality & Treatment Solutions Inc. Canoga Park, CA	Water Quality and Compatibility



Engineering, Operations, & Technology Committee

# Desalination Studies

Item 7-1

June 12, 2023



## Desalination Studies Water Portfolio

### Current Action

- Authorize agreements with AECOM Technical Services Inc. and CDM Smith Inc. each in an amount not to exceed \$800,000 for water desalination studies in Metropolitan's service area

# Background

- Metropolitan relies on water from the Colorado River & State Water Project
- Drastic changes in precipitation & large reservoir drawdowns may impact reliability of Metropolitan's water supplies
- Staff has initiated efforts to assess options for future supplies & maintain Metropolitan's water supply reliability



# Historical Background

- 1960s:
  - Investigated linking a seawater desalination plant to a nuclear power plant
- 1990s:
  - Operated pilot facility to research new desalination technologies
  - Funded conceptual designs of new desalination technologies
  - Conducted siting studies for desalination facilities
- Present:
  - Conduct conceptual studies of desalination technologies & potential sites
  - Investigate brackish & seawater facilities
  - Integrate findings in upcoming CAMP 4 Water analyses



Claude “Bud” Lewis  
Carlsbad Desalination Plant

## Desalination Studies Water Portfolio

### Alternatives Considered

- Staff considered utilizing in-house Metropolitan staff to perform the assessment
  - Insufficient engineering staff with current desalination technology expertise
- Selected Alternative – Use professional services agreements
  - Consultants will perform the studies
  - Staff will perform project review & oversight

# AECOM Technical Services Inc.

## New Agreement

- Competitively selected under RFP 1327
- Scope of work
  - Brackish water resources inventory
  - Water supply suitability evaluation methodology
  - Assessing potential for advances in brackish water desalination technologies
  - Identifying water quality & regulatory requirements
  - Conceptual cost estimates & schedules
  - Developing project implementation options
- SBE participation level – 25%
- NTE amount – \$800,000

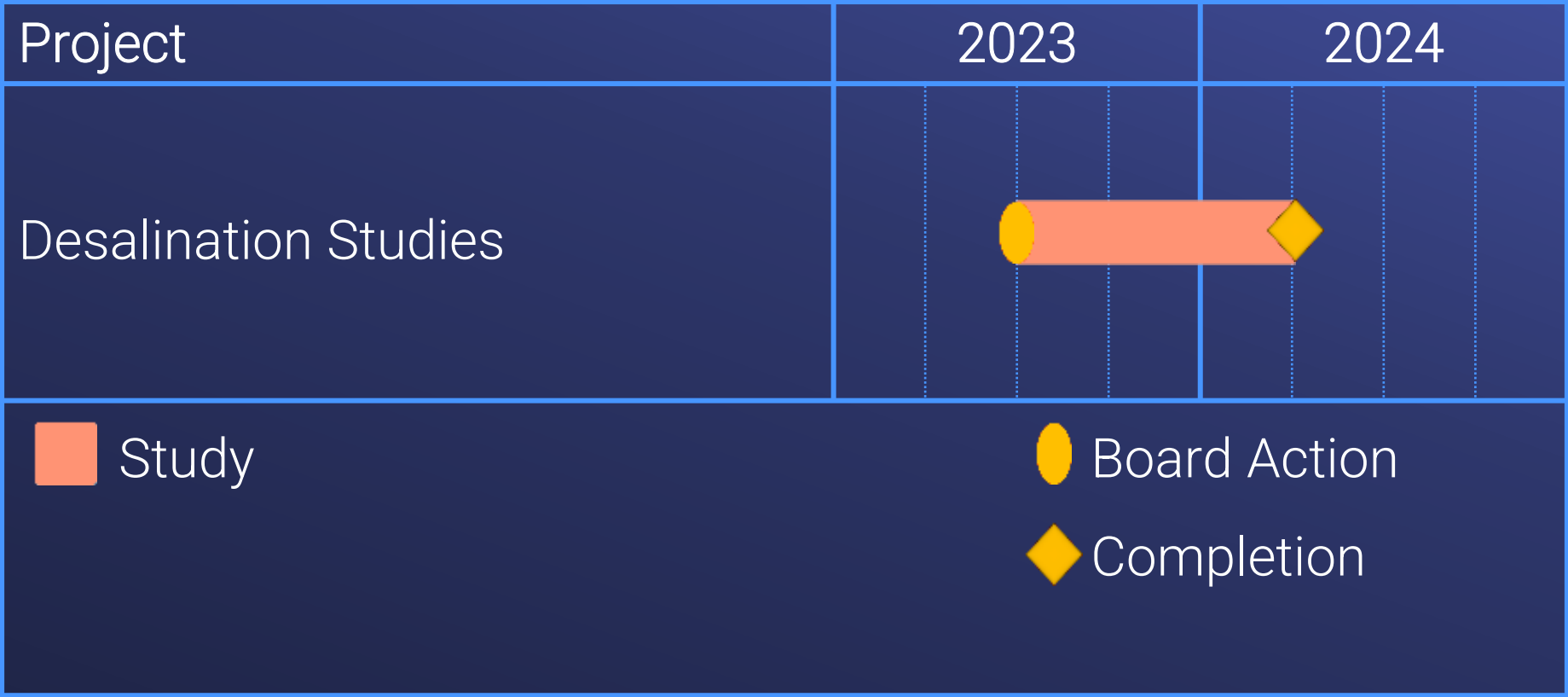


# CDM Smith Inc.

## New Agreement

- Competitively selected under RFP 1327
- Scope of work
  - Seawater desalination plant sites inventory
  - Water supply suitability evaluation methodology
  - Assessing potential for advances in seawater desalination technologies
  - Identifying water quality & regulatory requirements
  - Conceptual cost estimates & schedules
  - Developing project implementation options
- SBE participation level – 25%
- NTE amount – \$800,000

# Project Schedule



# Board Options

- Option #1  
Authorize professional services agreements with AECOM Technical Services Inc. and CDM Smith Inc., each in an amount not to exceed \$800,000, to provide engineering services for water desalination studies in Metropolitan's service area.
- Option #2  
Do not proceed with the project at this time.

# Staff Recommendation

- Option #1







● **Board of Directors**  
***Engineering, Operations, and Technology Committee***

6/13/2023 Board Meeting

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**7-2**

**Subject**

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Amend the Capital Investment Plan for fiscal years 2022/2023 and 2023/2024 to include three projects: (1) Jensen Administration Building column panel replacement; (2) Skinner chemical storage tanks replacement; and (3) Auld Valley and Red Mountain Control Structures upgrade; and award a \$281,900 contract to MMJ Contracting Inc. to replace the existing entrance column panels at the Jensen Administration Building; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

**Executive Summary**

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This action amends the Capital Investment Plan (CIP) to include three rehabilitation projects: (1) replacement of the column panels at the main entrance of the Administration Building at the Joseph Jensen Water Treatment Plant (Jensen plant); (2) replacement of the existing sodium hypochlorite storage tanks, which are prone to leaks, at the Robert A. Skinner Water Treatment Plant (Skinner plant); and (3) upgrade of the Auld Valley and Red Mountain Control Structures. This action also awards a contract to replace the existing deteriorating entrance column panels at the Jensen plant's Administration Building.

**Details**

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**Background**

In April 2022, the Board appropriated funds and authorized the General Manager to initiate or proceed with work on all capital projects identified in the CIP, subject to any limits on the General Manager's authority and CEQA requirements. During the course of the two-year CIP budget cycle, staff may identify the need to commence work on new projects that were not originally included in the Board-authorized CIP. Additionally, in some cases, smaller projects that were initially intended to be completed as a minor capital project with a budget of less than \$400,000 under the General Manager's authority are determined to have planned capital expenditures that will exceed this authority. In both of these cases, staff will recommend that the Board amend the current CIP to add these projects.

This action amends the CIP to include three new projects: (1) a project to replace the entrance columns panels at the Jensen plant's Administration Building; (2) a project to replace the existing sodium hypochlorite storage tanks at the Skinner plant; and (3) a project to upgrade the Auld Valley and Red Mountain Control Structures. Project No. 1 was originally initiated as a minor capital project; Projects Nos. 2 and 3 were recently identified as new projects that should proceed immediately. Staff also recommends award of a construction contract to replace the column panels at the Jensen plant's administration building at this time.

**Budget Impact**

It is not anticipated that the addition of these projects to the CIP will increase CIP expenditures in the current biennium beyond those which have been previously approved by the Board. Anticipated expenditures for these projects are approximately \$1.68 million of capital funds. Approximately \$1.40 million will be incurred in the current biennium. The remaining capital funds will be funded from future CIP budgets, following board approval of these budgets. These projects have been reviewed in accordance with Metropolitan's CIP prioritization criteria and were approved by Metropolitan's CIP Evaluation Team to be included in the Treatment Plant Reliability Program (Projects No. 1 and 2) and the Distribution System Reliability Program (Project No. 3).

**Project No. 1 – Jensen Administration Building Column Panel Replacement – Design and Construction**

Located in the community of Granada Hills, the Jensen plant was placed into service in 1972, has a current treatment capacity of 750 million gallons per day (MGD), and treats water from the West Branch of the State Water Project (SWP).

The Jensen Administration Building is a three-story reinforced concrete building built in 1970 as part of the original plant construction. The administration facility houses the plant's control room, incident command center, water quality laboratory, and administrative offices. The structure was strengthened in 2010 to withstand a major seismic event. During the seismic strengthening project, the eight columns which support a clerestory roof at the entrance of the building were reinforced and covered with glass fiber-reinforced concrete (GFRC) panels. These panels are made of a cement-based composite material, reinforced with alkali-resistant glass fibers.

The GFRC panels have cracked due to weathering, expansion, and contraction caused by temperature fluctuations, and due to movement caused by seismic vibrations. While these cracks do not impact the structural integrity of the building, the GFRC panels require replacement to protect the steel columns from corrosion and maintain the appearance of the building entrance. Final design for replacement of these panels was completed under a minor capital project. However, the project costs are now projected to exceed the project cost limits of a minor capital project. Staff proposes to complete the work under a new major capital project authorized through this action and will cancel the minor capital project.

The scope of construction consists of removing the existing GFRC panels that cover the entrance columns of the Jensen plant's Administration Building and replacing them with new panels. The new panels have an upgraded material specification that reduces the likelihood of future cracking, an increased strength requirement, and new panel connection details. Metropolitan force activities will include coating the entrance columns.

A total of \$530,000 is allocated for this work. In addition to the contract amount, allocated funds include \$100,000 for final design, field investigations, material testing, and other technical support; and \$27,000 for Metropolitan force activities described above. Other funds to be allocated include \$45,000 for construction management and inspection; \$14,000 for contract administration, environmental monitoring support, and project management; \$21,000 for submittals reviews and preparation of record drawings; and \$41,100 for remaining budget.

**Attachment 1** provides the allocation of the required funds. The total estimated cost to complete the GFRC panel replacement, including the amount allocated to date, and funds allocated for the work described in this action, is \$530,000.

***Award of Construction Contract (MMJ Contracting Inc.)***

Specifications No. M-3061 for the construction of the Jensen GFRC panel replacement was advertised on January 25, 2023. As shown in **Attachment 2**, two bids were received and opened on March 2, 2023. The low bid from MMJ Contracting Inc. in the amount of \$281,900 complies with the requirements of the specifications. The higher bid was \$294,400. For this contract, Metropolitan established a Small Business Enterprise (SBE) participation level of at least 25 percent of the bid amount. MMJ Contracting Inc. is an SBE firm, and thus achieves 100 percent participation.

As described above, Metropolitan staff will perform construction management and inspection. The total cost of construction for this project is \$308,900, which includes the amount of the contract (\$281,900) and Metropolitan force activities (27,000). Engineering Services' performance metric target range for inspection of projects with construction less than \$3 million is 12 to 15 percent. For this project, the performance metric for inspection is 14.6 percent of the total construction cost.

**Project No. 2 – Skinner Chemical Storage Tank Replacement – Design and Procurement**

Located within the city of Winchester, the Skinner plant was placed into service in 1976, has a treatment capacity of 350 MGD, and normally treats a blend of water from the Colorado River and SWP.

The Skinner plant relies on two cross-linked high-density polyethylene (HDPE) tanks for the storage of sodium hypochlorite, which serves as initial backup disinfection to ozone treatment and ensures that primary disinfection requirements are continuously met during unexpected events such as power outages. The tanks are 10 feet in

diameter and 12 feet tall, with a storage capacity of 6,250 gallons each. These tanks have a recommended service life of 15 years and have been in service since 2007. Recent inspections, conducted after the current CIP was authorized by the Board, discovered leakage from a propagating crack in one of the two tanks. The tank's leak has been repaired on a temporary basis; however, staff recommends that both tanks be replaced at the earliest possible time to enhance plant reliability. Consequently, staff is recommending that this project be added to the current CIP at this time instead of waiting to conduct this project once the new biennium CIP takes effect in July 2024.

This project will replace the two existing sodium hypochlorite tanks with tanks of the same size constructed of extrusion-molded linear HDPE, which provides improved structural properties. Planned design and procurement phase activities include the preparation of drawings and specifications for procurement and installation of two sodium hypochlorite storage tanks and manufacture and inspection of tanks and other required tank farm infrastructure. The tank procurement contract is planned to be awarded under the General Manager's authority. All other construction work, including the installation of the tanks, will be performed by Metropolitan staff.

A total of \$600,000 is required for this action. Allocated funds include \$57,000 for field investigations; \$98,000 for design activities as described above; \$230,000 for tank and instrumentation procurement; \$60,000 for fabrication inspection; \$90,000 for environmental support and project management; and \$65,000 for remaining budget. **Attachment 1** provides the Allocation of Funds. The total estimated cost to complete this project, including the funds allocated for the work described in this action, and future construction costs, is anticipated to range from \$1.35 million to \$1.5 million. The total estimated construction cost for this project is anticipated to range from \$700,000 to \$800,000, which includes procurement of the tanks. The final design cost as a percentage of the total estimated construction cost is approximately 14.0 percent. Engineering Services' goal for design of projects with construction cost less than \$3 million is 9 to 15 percent.

### **Project No. 3 - Auld Valley and Red Mountain Control Structures Upgrades – Design and Construction**

Flows to the San Diego Pipeline No. 3 and San Diego Pipeline No. 5 are regulated at the Auld Valley Control Structure and the Red Mountain Control Structure, respectively. The configurations of these control structures are similar. Each control structure includes two 66-inch-diameter pipes, which are each fitted with two 42-inch diameter throttling sleeve valves. These valves are used to regulate flows within the pipelines. The Auld Valley Control Structure was built in 1975, while the Red Mountain Control Structure was constructed in 1981.

Recent inspections of the control structures, which were conducted after the current CIP was authorized by the Board, have found that the sleeve valves have extensive wear and tear and require rehabilitation. One of the valves on the Red Mountain Control Structure was discovered to be structurally compromised. Staff attempted to repair the valve, but the deterioration was beyond repair. Isolation bulkheads were utilized in the interim to resume operation of the Red Mountain Control Structure at reduced flows. The other sleeve valve at the Red Mountain Control Structure was refurbished under the Minor Capital Program in 2022. Staff recommends replacing the severely deteriorated valve with a new valve at the Red Mountain Control Structure and refurbishment of the two sleeve valves at the Auld Valley Control Structure.

The original design of the control structures did not include isolation valves, and, as a result, the San Diego Pipelines Nos. 3 and 5 cannot be operated without the sleeve valves in service. A complete shutdown of these pipelines is required whenever one of the sleeve valves needs to be removed for maintenance. Staff recommends installation of eight new butterfly valves upstream and downstream of the sleeve valves at the Auld Valley and Red Mountain Control Structures to allow for isolation to enable the pipelines to remain in service during maintenance of the sleeve valves. Staff recommends that work to rehabilitate the remaining three sleeve valves begin at the earliest possible time to enhance facility reliability. Consequently, staff is recommending that this project be added to the current CIP at this time instead of waiting to conduct this project once the new biennium CIP takes effect in July 2024.

Planned work will include replacement of a sleeve valve at the Red Mountain Control Structure; refurbishment or replacement of two sleeve valves on the Auld Valley Control Structure; and installation of eight 42-inch diameter isolation butterfly valves, four at each of the control structures.

Planned design activities include: (1) preparation of procurement documents for one sleeve valve for the Red Mountain Control Structure, which was found to be beyond repair; (2) performing alternative evaluations for

refurbishment or replacement of sleeve valves for the Auld Valley Control Structure; and (3) conducting field investigations, performing topographic survey and mapping, geotechnical analysis, and site layouts for installation of the isolation valves at both control structures.

A total of \$550,000 is required for this action. Allocated funds include \$420,000 for the design activities described above; \$80,000 for project management and project controls; and \$50,000 for remaining budget.

**Attachment 1** provides the Allocation of Funds. The total estimated cost to complete the project, including funds allocated for the work described in this action, and future procurement and construction costs, is anticipated to range from \$13 million to \$15 million. Staff will return to the Board at a later date to award the construction contract.

### **Alternatives Considered**

Staff considered replacing the GFRC panels with concrete instead of replacing them in kind. This alternative would increase the design load of the columns, requiring design revisions and potential modifications to the columns. This alternative would also result in increased cost and complexity to the project. The selected alternative allows the panels to be replaced in a short time without modifications to the existing building structure.

Staff considered incorporating the Skinner chemical storage tank replacement project into the next biennial CIP budget. However, this would extend the project completion date beyond the current service life of the equipment and would not address the existing damage in one of the tanks. Utilizing a single tank reduces operational flexibility and increases chemical delivery costs. Additionally, the remaining sodium hypochlorite tank was installed at the same time as the repaired tank, so staff recommends replacing both tanks at this time.

Staff considered not including new isolation valves in the project scope for the upgrades to the Auld Valley and Red Mountain Control Structures. The current practice for isolation of an individual sleeve valve on these control structures requires that the main pipeline be removed from service. If the sleeve valve requires significant repairs, a steel bulkhead must be installed to return the main pipeline to service at reduced flows. Significant cutting and welding activities are required to install a steel bulkhead in the 66-inch diameter pressure control line. To return the main pipeline to full capacity, the pipeline must be shut down and the steel bulkhead removed. The existing process is difficult and time-consuming and requires lengthy flow reductions on the main pipelines. The selected alternative to install isolation valves under this project will eliminate the cutting and welding process required to isolate a sleeve valve. Staff also considered incorporating the rehabilitation of the Auld Valley and Red Mountain Control Structures into the next biennial CIP budget. However, this would delay the procurement of the isolation valves which require 18 months to fabricate and deliver to the Skinner plant. Including the rehabilitation of the Auld Valley and Red Mountain Control Structures in the CIP will now allow for completion of the project in early 2025 and proactively improves water delivery reliability to member agencies receiving water from San Diego Pipeline Nos. 3 and 5.

### **Summary**

This action amends the current CIP to include three new rehabilitation projects, and awards a \$281,900 contract to MMJ Contracting Inc. to replace the GFRC panels in the entrance columns of the Jensen Administration Building. These projects have been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds are available within the fiscal years 2022/23 and 2023/24 capital expenditure plan. See **Attachment 1** for the Allocation of Funds, **Attachment 2** for the Abstract of Bids, **Attachment 3** for the List of Subcontractors, and **Attachment 4** for the Location Map.

### **Project Milestones**

March 2024 – Complete construction of Jensen GFRC panel replacement

May 2024 – Complete field investigations and sleeve valve alternative analysis of Red Mountain and Auld Valley Control Structures

November 2024 – Complete procurement of Skinner sodium hypochlorite tanks

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## Policy

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Metropolitan Water District Administrative Code Section 5108: Appropriations

Metropolitan Water District Administrative Code Section 8140: Competitive Procurement

By Minute Item 52778, dated April 12, 2022, the Board appropriated a total of \$600 million for projects identified in the Capital Investment Plan for Fiscal Years 2022/2023 and 2023/2024.

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## California Environmental Quality Act (CEQA)

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### CEQA determination for Option #1:

The proposed action to amend the Capital Investment Plan is not defined as a project under CEQA (State CEQA Guidelines Section (Sections 15378(b)(2) and 15378(b)(4) of the State CEQA Guidelines)) because it involves the creation of a general funding mechanism and general policy and procedure making with no commitment to proceed with any specific project at this time. The design and construction associated with the Jensen Administration Column Panel Replacement, and design, procurement, and construction of the Auld Valley and Red Mountain Control Structures Upgrades and the Skinner Chemical Storage Tanks is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The overall activities involve the funding, design, minor alterations, and replacement of existing public facilities with negligible or no expansion of use and no possibility of significantly impacting the physical. Accordingly, the proposed action qualifies under Class 1, Class 2, and Class 6 (Sections 15301, 15302, and 15306) of the State CEQA Guidelines.

### CEQA determination for Option #2:

None required

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## Board Options

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### Option #1

- a. Amend the Capital Investment Plan for fiscal years 2022/2023 and 2023/2024 to include the Jensen Administration Building Column Panel Replacement, Skinner Chemical Storage Tank Replacement, and the upgrades to the Auld Valley and Red Mountain Control Structures; and
- b. Award a \$281,900 contract to MMJ Contracting Inc. to replace the GFRC panels in the entrance columns of the Jensen Administration Building.

**Fiscal Impact:** Expenditure of \$1.68 million in capital funds. Approximately \$1.40 million will be incurred in the current biennium. The remaining capital funds will be funded from future CIP budgets, following board approval of these budgets. It is not anticipated that the addition of the projects listed above to the CIP will increase CIP expenditures in the current biennium beyond those which have been previously approved by the Board.

**Business Analysis:** This option will enhance safety and operational resiliency at the Skinner plant, address required replacement of the column panels at the Jensen plant's administration building, and maintain the operational reliability of water deliveries to member agencies with connections to San Diego Pipeline Nos. 3 and 5.

### Option #2

Do not proceed with the projects at this time.

**Fiscal Impact:** None

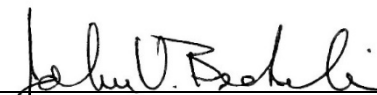

**Business Analysis:** This option will forego an opportunity to address required replacement of the column panels at the Jensen plant administration building, enhance safety and operational resiliency at the Skinner plant, and maintain the reliability of service to those member agencies with connections to San Diego Pipeline Nos. 3 and 5 and decrease the risk of costly urgent repairs to the pipelines.



**Staff Recommendation**

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Option #1

 _____ John V. Bednarski Manager/Chief Engineer Engineering Services	5/18/2023 _____ Date
 _____ Adel Hagekhalil General Manager	5/22/2023 _____ Date

**Attachment 1 – Allocation of Funds****Attachment 2 – Abstract of Bids****Attachment 3 – Subcontractors for Low Bidder****Attachment 4 – Location Map**

Ref# es12686941

### Allocation of Funds for Jensen Administration Building Column Panel Replacement

	<b>Current Board Action (Jun. 2023)</b>
Labor	
Investigations & Conceptual Design	\$ -
Final Design	100,000
Owner Costs (Program mgmt., envir. monitoring)	14,000
Submittals Review & Record Drwgs.	21,000
Construction Inspection & Support	45,000
Metropolitan Force Construction	27,000
Materials & Supplies	-
Incidental Expenses	-
Professional/Technical Services	-
Right-of-Way	-
Equipment Use	-
Contracts	-
MMJ Contracting Inc.	281,900
Remaining Budget	41,100
<b>Total</b>	<b>\$ 530,000</b>

The total amount expended to date replace the glass fiber reinforced concrete panels at Jensen administration building entrance columns is approximately \$100,000. The total estimated cost to complete this project, including the amount initially charged to the minor capital project, and funds allocated for the work described in this action is \$530,000.

### Allocation of Funds for Skinner Chemical Storage Tanks Replacement

	<b>Current Board Action (Jun. 2023)</b>
Labor	
Investigations & Conceptual Design	57,000
Final Design	98,000
Owner Costs (Program mgmt., envir. monitoring)	90,000
Submittals Review & Record Drwgs.	-
Construction Inspection & Support	60,000
Metropolitan Force Construction	-
Materials & Supplies	230,000
Incidental Expenses	-
Professional/Technical Services	-
Right-of-Way	-
Equipment Use	-
Contracts	-
Remaining Budget	65,000
<b>Total</b>	<b>\$ 600,000</b>

This is the initial action for the Skinner Chemical Storage Tanks Replacement project. The total estimated cost to complete this project, including the funds allocated for the work described in this action, and future construction costs, is anticipated to range from \$1.35 million to \$1.5 million.

### Allocation of Funds for the Auld Valley and Red Mountain Control Structures Upgrades

	<b>Current Board Action (Jun. 2023)</b>	
Labor		
Investigations & Conceptual Design	\$	420,000
Final Design		-
Owner Costs (Program mgmt., envir. monitoring)		80,000
Submittals Review & Record Drwgs.		-
Construction Inspection & Support		-
Metropolitan Force Construction		-
Materials & Supplies		-
Incidental Expenses		-
Professional/Technical Services		-
Right-of-Way		-
Equipment Use		-
Contracts		-
Remaining Budget		50,000
<b>Total</b>	<b>\$</b>	<b>550,000</b>

This is the initial action for the Auld Valley and Red Mountain Control Structures Upgrades project. The total estimated cost to complete this project, including the funds allocated for the work described in this action, and future procurement and construction costs, is anticipated to range from \$13 million to \$15 million.

**The Metropolitan Water District of Southern California****Abstract of Bids Received on March 2, 2023, at 2:00 P.M.****Specifications No. M-3061  
Jensen Administration Building Entrance  
Glass Fiber Reinforced Concrete Panel Replacement**

The work includes steel reinforcement and replacement of deteriorated Glass Fiber Reinforced Concrete Panels.

Engineer's estimate: N/A<sup>2</sup>

<b>Bidder and Location</b>	<b>Total</b>	<b>SBE \$</b>	<b>SBE %</b>	<b>Met SBE<sup>1</sup></b>
MMJ Contracting Inc. Hacienda Heights, CA	<b>\$281,900</b>	<b>\$281,900</b>	<b>100%</b>	<b>Yes</b>
JT Construction Group Inc. Glendale, CA	\$294,400	-	-	-

1 Small Business Enterprise (SBE) participation level established at 25% for this contract.

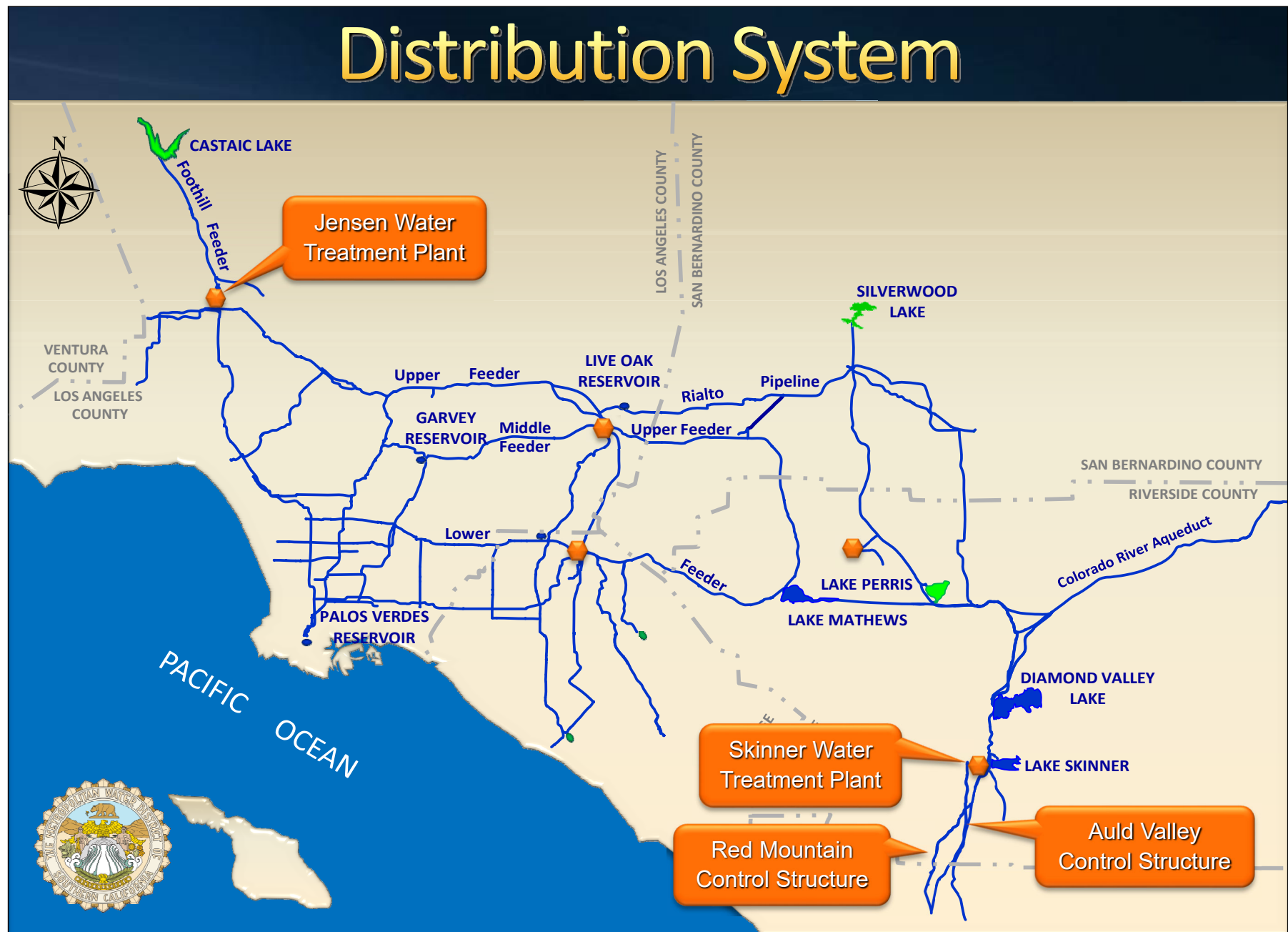
2 An engineer's estimate is not prepared for minor capital projects.

**The Metropolitan Water District of Southern California****Subcontractors for Low Bidder****Specifications No. M-3061****Jensen Administration Building Entrance****Glass Fiber Reinforced Concrete Panel Replacement**

Low bidder: MMJ Contracting Inc.

<b>Subcontractor</b>	<b>Service Category; Specialty</b>
Asbestos Instant Response Inc. dba Air Demolition & Environ. Solutions Los Angeles, CA	Demolition and Abatement
Meridian Precast Inc. Los Angeles, CA	GFRC Precast Panel Manufacturer and Installer







Engineering, Operations, & Technology Committee

# Amend FY 2022-24 CIP to Include Three New Projects

Item 7-2

June 12, 2023

## Add 3 New Projects to Current CIP

# Capital Investment Plan Background

- April 2022 board action
  - Appropriated \$600 M
  - Authorized the GM to proceed with all projects in the CIP
- Board action needed for:
  - New projects
  - Minor capital projects that will exceed \$400k
  - Contract awards & consultant agreements over \$250k

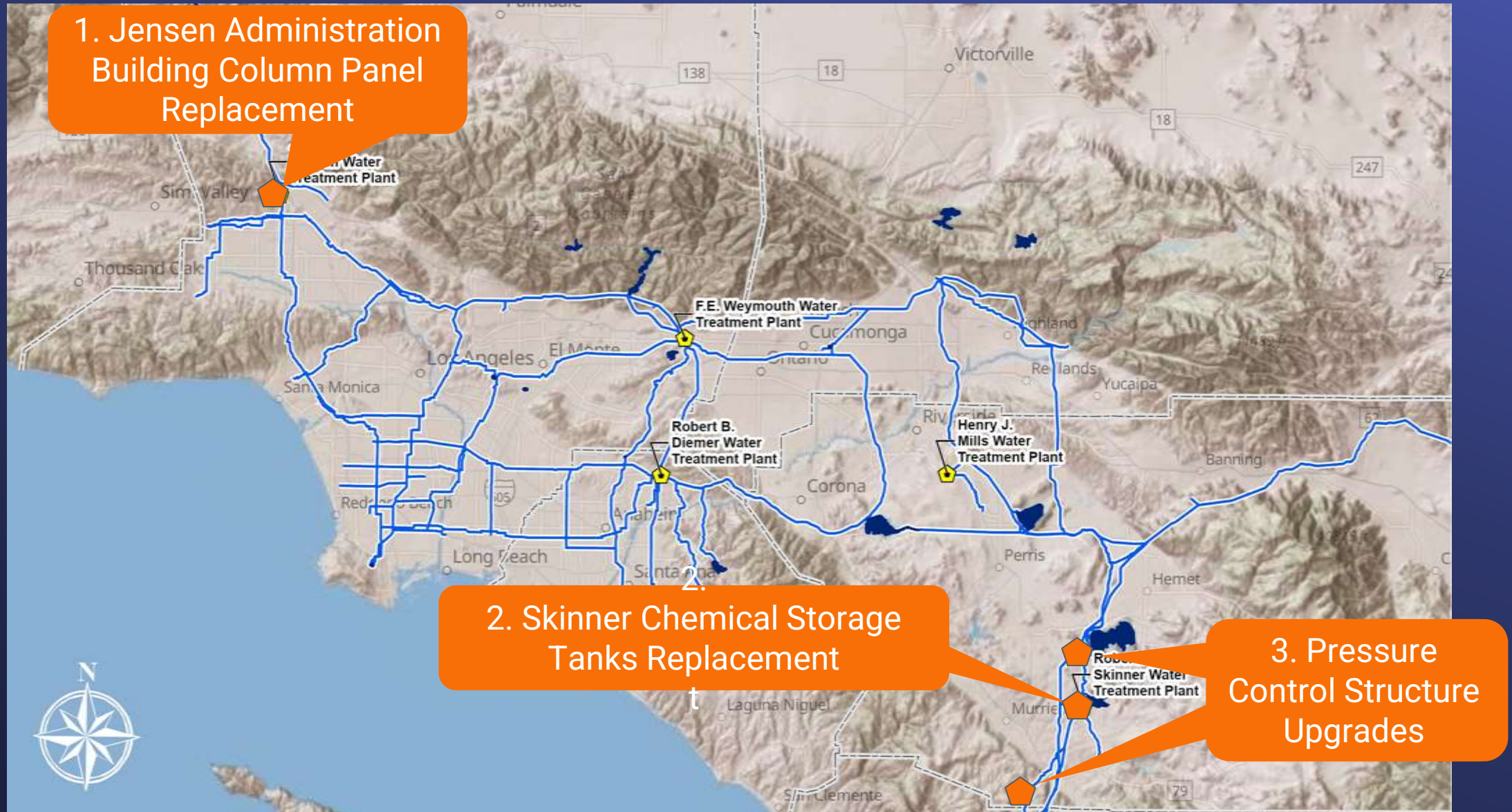
## Add 3 New Projects to Current CIP

### Current Action

- Amend the Capital Investment Plan for fiscal years 2022/2023 & 2023/2024 to include three projects:
  1. Jensen Administration Building Column Panel Replacement
  2. Skinner Chemical Storage Tanks Replacement
  3. Auld Valley & Red Mountain Control Structures Upgrade
- Award a \$281,900 contract to MMJ Contracting Inc. to replace the existing entrance column panels at the Jensen Administration Building



# Distribution System

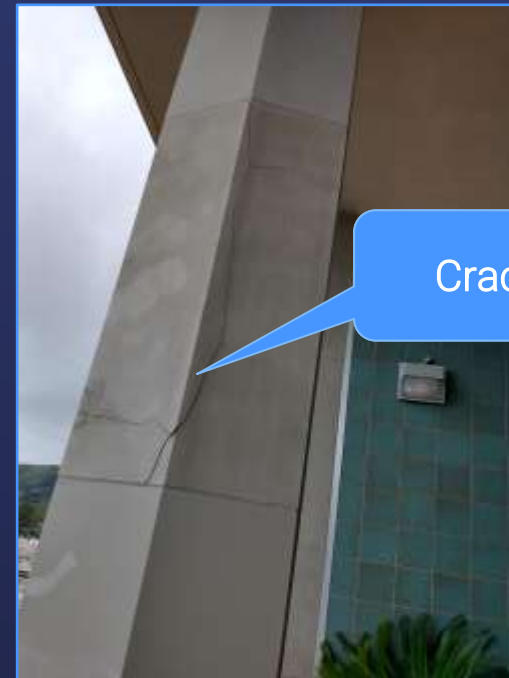


# 1. Background - Jensen Administration Building Column Panel Replacement

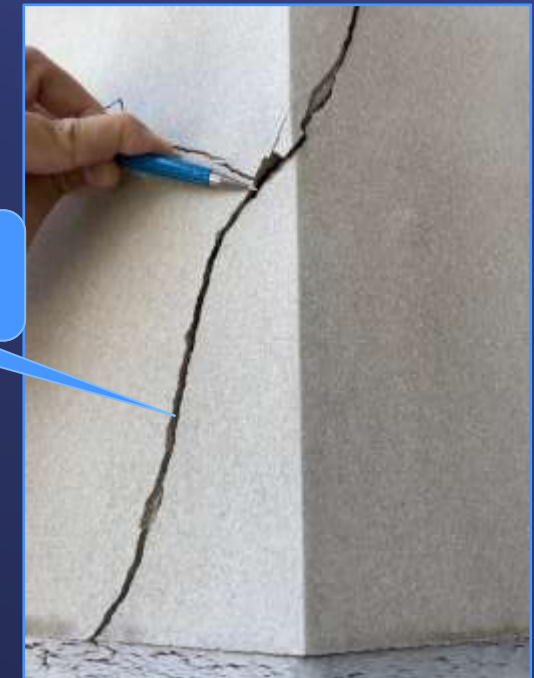
- Building constructed in 1970
- Glass fiber reinforced concrete (GFRC) panels installed in 2010
- Cracked due to weathering, temperature fluctuations & seismic movement



Jensen Admin Building Entrance



Entrance Column



Crack at Column



# Jensen Administration Building Column Panel Replacement

## 1. Alternatives Considered

- Replace GFRC panels with concrete
  - Increases design loads & potential for modification of columns
  - Increases cost & complexity
- Selected Alternative – Enhanced GFRC panels
  - Expeditiously addresses issue
  - Enhanced GFRC is expected to have a longer life

# Jensen Administration Building Column Panel Replacement

## 1. Scope of Work

- Contractor
  - Remove the existing panels at Jensen Administration Building
  - Furnish & install new GFRC Panels
- Metropolitan
  - Force Construction
    - Final coating of columns
  - Construction management & inspection
  - Review submittals & prepare record drawings
  - Provide project management & contract admin.

# 1. Bid Results

## Specifications No. M-3061 Jensen Administration GFRC Panels

Bids Received	March 2, 2023
No. of Bidders	2
Lowest Responsible Bidder	MMJ Contracting Inc.
Low Bid	\$281,900
Other Bid	\$294,000
SBE Participation*	100%

\*SBE (Small Business Enterprise) participation level set at 25%

## 2. Background - Skinner Chemical Storage Tanks Replacement

- Tanks installed in 2007
- Sodium hypochlorite provides
  - Backup disinfection
  - Algae control
- Leak developed in February 2023
- Promptly repaired on temporary basis
- Replacement of tanks & instrumentation recommended



Skinner Chemical Tank



Tank Flange

## 2. Alternatives Considered

- Include in the next biennium's CIP
  - Delays project completion & does not address tank deterioration
- Replace only damaged tank
  - Reduces operational flexibility
- Selected Alternative – Add project to current biennium CIP & replace both chemical tanks
  - Enhances plant reliability



## 2. Scope of Work - Metropolitan

- Field investigations & tank procurement specifications
- Specifications & drawings for tank installation
- Fabrication inspection
- Project management, project controls & environmental documentation



Inside Tank Flange



### 3. Background - Auld Valley & Red Mountain Control Structures Upgrades

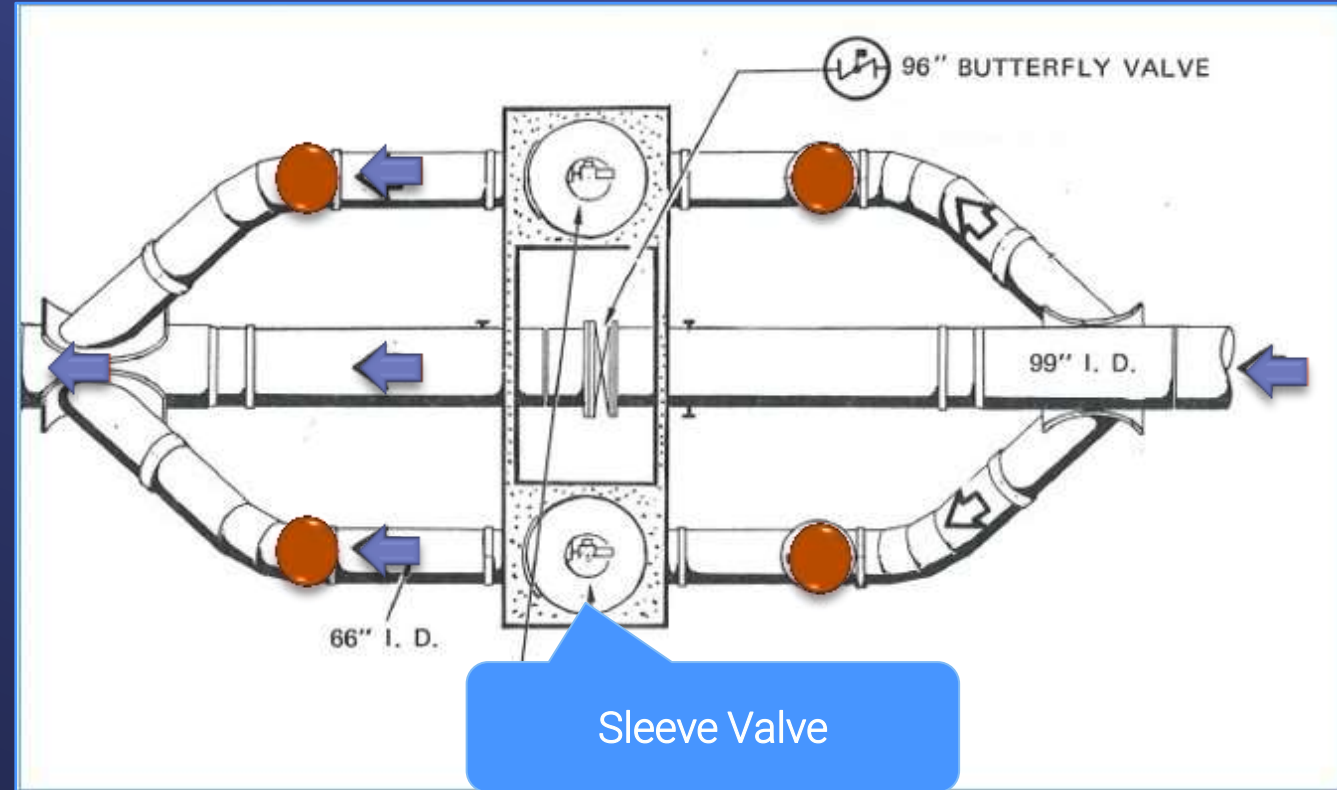
- Control Structures
  - Regulate flows to San Diego Pipelines Nos. 3 & 5
  - Each fitted with two 42-inch diameter throttling sleeve valves
- Extensive wear & tear on sleeve valves
  - One valve on Red Mtn. PCS was refurbished under a minor capital project
  - The other Red Mtn. PCS valve was found to be beyond repair



Sleeve Valve

### 3. Background - Auld Valley & Red Mountain Control Structures Upgrades

- Staff recommends replacement of one valve at Red Mtn. PCS & refurbishment of two valves on Auld Valley PCS
- Staff recommends installation of 8 new butterfly valves
  - Allows pipelines to remain in service for maintenance of sleeve valves



Plan View Drawing



Proposed Isolation Valves

### 3. Alternative Considered

- Alternative – Do not include isolation valves in project
  - Refurbishment currently requires installation of bulkheads
  - Time consuming & requires shutdown of pipelines
- Alternative – Incorporate project into next biennium CIP
  - Delays procurement of sleeve valve for Red Mtn. PCS which requires 18 months for fabrication
- Selected Alternative – Add project into current CIP biennium
  - Enhances reliability to member agencies

### 3. Scope of Work - Metropolitan

- Prepare documents for procurement of one sleeve valve
- Evaluate refurbishment options for remaining two sleeve valves
- Conduct field investigations for isolation valve siting
- Perform topographic survey & mapping, geotechnical analysis & site layouts
- Provide project management & project controls



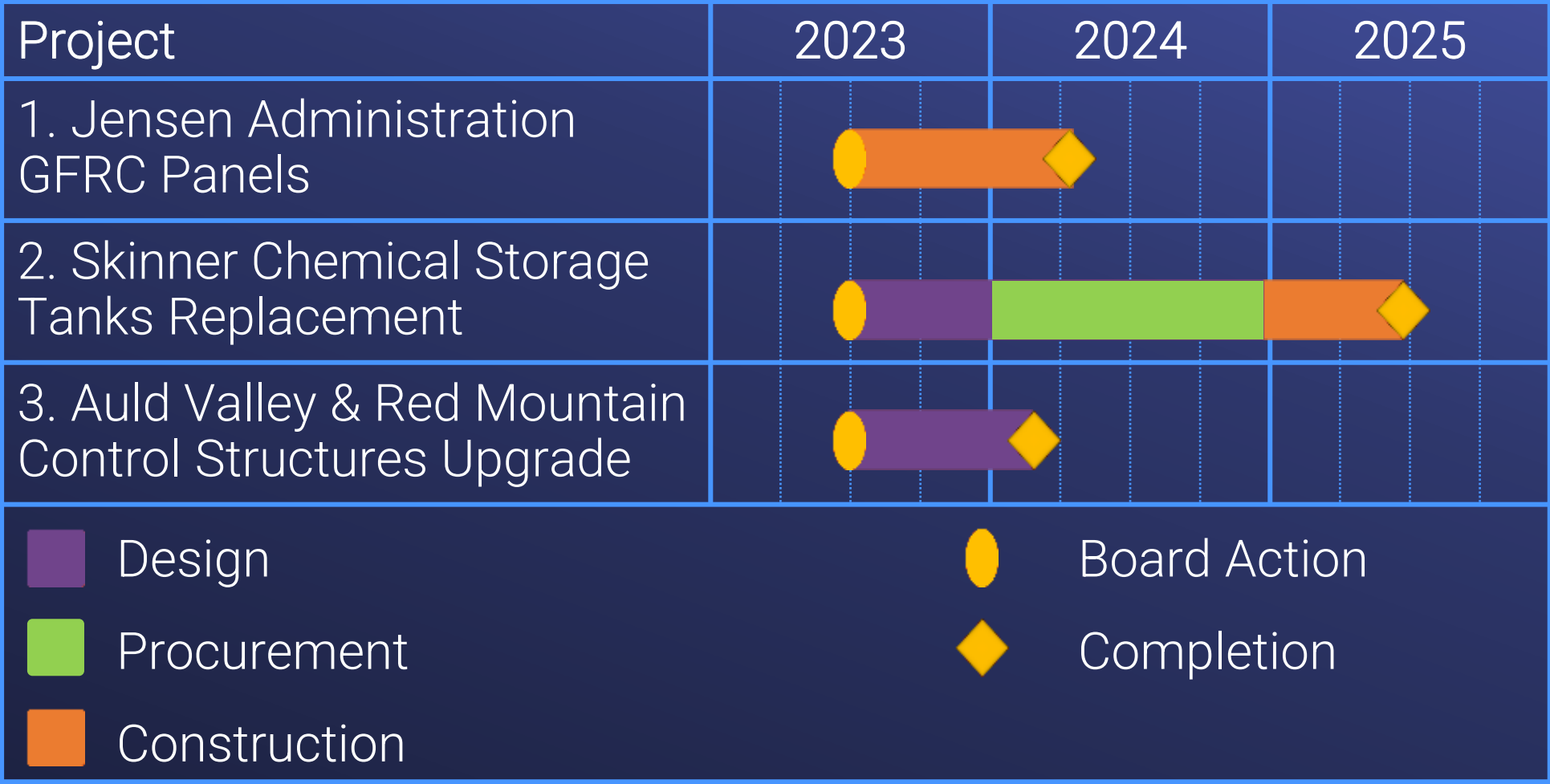
Inside Sleeve Valve Repair

# Allocation of Funds

	1. Jensen Panels	2. Skinner Tanks	3. Control Structures
Metropolitan Labor			
Investigations & Conceptual Design	\$ -	\$ 57,000	\$420,000
Design	100,000	98,000	
Owner Costs (Proj. Mgmt., Contract Admin., Envir. Support)	14,000	90,000	80,000
Construction Inspection & Support	45,000	60,000	
Force Construction	27,000	-	-
Submittals Review, Tech. Support, Record Drwgs.	21,000	-	-
Materials & Supplies	-	230,000	-
Contracts			
MMJ Contracting Inc.	281,900	-	-
Remaining Budget	41,100	65,000	50,000
<b>Total</b>	<b>\$530,000</b>	<b>\$600,000</b>	<b>\$550,000</b>



# Project Schedule





# Board Options

- Option #1
  - a. Amend the Capital Investment Plan for fiscal years 2022/2023 and 2023/2024 to include the Jensen Administration Building Column Panel Replacement, Skinner Chemical Storage Tank Replacement, and the upgrades to the Auld Valley and Red Mountain Control Structures; and
  - b. Award a \$281,900 contract to MMJ Contracting Inc. to replace the GFRC panels in the entrance columns of the Jensen Administration Building.
- Option #2

Do not proceed with the projects at this time.

# Staff Recommendation

- Option #1





• **Board of Directors**

***Finance, Audit, Insurance, and Real Property Committee***

6/13/2023 Board Meeting

7-3

**Subject**

Approve up to \$1.894 million to purchase insurance coverage for Metropolitan's Property and Casualty Insurance Program for fiscal year 2023/24; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

**Executive Summary**

The Property and Casualty Insurance Policy premiums for fiscal year (FY) 2023/24 will increase by up to \$179,000 or approximately 10.4 percent from about \$1.715 million for the current fiscal year, to approximately \$1.894 million if Metropolitan maintains the same coverage limits and retentions. The cost increase results from the insurance market pricing in a confluence of conditions and trends, including catastrophic storm and wildfire losses, the continued economic fallout of post pandemic supply chain issues, and significant inflation. In addition, a trend of more frequent and expensive liability settlements against municipalities due in part to rising social and political unrest continues to pressure the general liability market. Finally, rising medical costs contribute to rising settlement costs and higher premiums across multiple lines of coverage.

The following insurance coverages within the Property and Casualty Insurance Program will be expiring on June 30, 2023:

1. \$75 million general liability coverage in excess of a \$25 million self-insured retention.
2. \$60 million fiduciary and employee benefits liability coverage in excess of a \$25 million self-insured retention.
3. \$65 million public officials, directors, and officer's liability coverage in excess of a \$25 million self-insured retention.
4. \$5 million crime coverage for exposures such as fraud, theft, faithful performance, and employee dishonesty in excess of a \$150,000 deductible.
5. \$25 million aircraft liability coverage; \$10 million Unmanned Aerial Vehicle (UAV) liability coverage; and aircraft hull coverage up to the planes' assessed values.
6. Statutory workers' compensation, and \$1 million employer's liability coverage, in excess of a \$5 million self-insured retention; and statutory coverage for Washington, D.C. employees.
7. Property damage coverage up to the stated property value, with a \$25 million policy limit.

**Attachment 1** compares the current coverage and premium costs to those proposed for FY 2023/24

**Details**

**Background**

**Self-Insured Retention and Excess Limits** – For all coverages, staff reviews the self-insured retention levels and excess coverage limits to ensure that coverage is adequate, premium costs are controlled, and to take advantage of market changes that create opportunities to increase coverage limits and decrease premiums or self-insured retention levels. This process is completed with the services of actuarial consultants, Metropolitan's insurance broker, staff review, and comparisons with other like agencies. To limit the expected premium cost increases for

excess general liability coverage (catastrophic coverage for claims exceeding Metropolitan's \$25 million self-insured retention), we obtained additional premium quotes for the first policy layer of this coverage with self-insured retentions of \$35 million and \$50 million, versus our current 25 million retention level. For FY 2023/24, the premium cost with the carrier (AEGIS) would be \$825,440 for the first layer of excess general liability coverage, with limits of \$35 million over the \$25 million self-insured retention. The option to purchase this first layer of coverage with a \$35 million self-insured retention would be \$752,500, a savings of \$72,960 versus keeping the self-insured retention at \$25 million. Raising the retention to achieve this cost savings would increase the total exposure in the retention by \$10 million, or 40%, compared with the current levels. The second option of increasing the retention level to \$50 million would net an estimated savings of \$225,460 versus the current retention level. There may be additional savings in both scenarios of up to five percent (up to about \$20,000) from EIM if we were to select a higher self-insured retention level, but that is not yet a firm quote. Even with the additional \$20,000 in possible savings, it is not cost-effective considering the risk reward of increasing the liability exposure by 100 percent resulting from doubling the self-insured retention from \$25 million to \$50 million. Both options, one very slightly and the second more materially economical, both significantly increase liability exposure.

In addition, at either of these higher self-insured retention levels, the first policy layer provided by AEGIS can only offer a single aggregate instead of its customary double aggregate. The current coverage is \$35 million per claim with a \$70 million (double the per claim amount) aggregate. The aggregate is the total capacity of all claims in case there are multiple claims. This means that for all claims above the retention, there is a capacity of only the \$35 million limit, and not the usual \$70 million. There is a consequence of that change to coverage benefits from our second excess carrier Energy Insurance Mutual (EIM). Currently, EIM extends coverage below the \$60 million attachment point (\$25 self-insured retention plus \$35 million AEGIS coverage) if the first layer of coverage from AEGIS is exhausted. From the perspective of both protecting Metropolitan and obtaining value for funds expended, we cannot recommend either option, but will present the \$35 million retention level change as an option.

To contrast the value of our current retention level, Metropolitan also received a quote for the first layer of coverage with a self-insured retention of \$15 million compared with our present \$25 million level. That would increase premium costs from \$825,440 to \$2.1 million for that coverage. The nearly tripling of costs to reduce the retention by \$10 million, compared with the insignificant cost savings to raise the retention by \$10 million or even \$25 million reflect that the current retention and coverage is cost-effective and appropriate for Metropolitan's current risk profile.

In addition to the usual coverage review such as that described above, staff may investigate other coverage options, such as cyber liability and earthquake insurance, which we have been evaluating over the last couple of years. Due to notable price increases for existing coverages, the operational investment and activities to enhance cyber defenses, and the continuation of the Metropolitan Headquarters Building earthquake retrofit project, it was not timely to pursue those coverage options in recent years. Because of the dramatic rise in cyber-attacks worldwide, and the increasing threat, we have likewise upped our efforts to investigate initiating cyber liability coverage during the past few years. For the FY2022/23 renewal, we sought pricing of a cyber liability policy that would include coverage for business interruption, data loss, system failure, cyber extortion, and other features for up to a premium of \$200,000. We were not able to obtain a policy within the allocated budget amount that met our parameters, but we will continue to seek viable coverage options.

While all coverage limits and retentions are reviewed to maintain appropriate protection at cost-effective rates, historically, there have been more changes to Metropolitan's self-insured retention and excess coverage limits for the workers' compensation policies than the other coverages during the last several years due to global events and medical cost trends. Because of the difficult insurance market where coverage has become less available and prices continue to rise, we are not recommending changes to the existing coverage portfolio retentions and limits. Each of the different lines of insurance coverage is described below.

**General Liability** – The two layers of excess general liability, and public officials, directors, and officer's liability (D&O) policies provide catastrophic coverage for claims exceeding Metropolitan's \$25 million self-insured retention level, make up the largest portion of Metropolitan's casualty and specialty insurance premium budget. The projected cost of these coverages in the aggregate will increase by about 13.3 percent, from \$1,374,559 in FY 2022/23, to \$1,558,684 for FY 2023/24. The quotes this year do not yet include the disclosure

of the likely continuity credit (a dividend or rebate for good aggregate claims experience, and remaining with the insurer), which last year lowered the cost of the excess general liability by just over \$25,000. Within the aggregate, the premium cost for the two layers of D&O coverage in FY 2022/23 was \$320,068, after the initial cost of \$346,075 was also reduced by a continuity credit of \$26,007. For FY 2023/24, the projected premium cost, without inclusion of a continuity credit, will be \$350,812, an increase of \$30,744, or about 9.6 percent.

**Fiduciary Liability** – In FY 2019/20, Metropolitan added coverage to include the deferred compensation program to its existing fiduciary coverage for the first \$35 million layer of coverage. Metropolitan also carries a second layer of excess coverage with \$40 million in limits. For FY 2022/23, the premium cost for the two layers of coverage was \$94,990. For FY 2023/24, the premium cost will increase by about 2.1 percent to \$96,989.

**Workers' Compensation** – Excess workers' compensation insurance protects Metropolitan against the financial exposure of workplace injury and illness claims. This coverage is designed to handle an individual's catastrophic injury, or, for example, an event such as multiple injuries occurring at the Metropolitan Headquarters Building due to a major disaster. Metropolitan is self-insured for the first \$5 million in losses, after which the excess coverage with statutory limits goes into effect. Metropolitan also carries a separate first dollar (no deductible) policy to cover employees based in Washington, D.C. Over the last 15 years, Metropolitan has actively adjusted its self-insured retention and coverage limit in reaction to changes in the insurance market in order to maintain cost-efficient and adequate coverage. To control sky-rocketing premium costs during the early 2000s that resulted from the 9/11 terrorist attacks and other global events, Metropolitan incrementally increased the self-insured retention to its current level of \$5 million. Since FY 2011/12, premium costs have leveled, and occasionally even declined. Consequently, Metropolitan took advantage of the premium rate reduction and increased the coverage limit from \$25 million to \$50 million.

In 2015, Metropolitan was again able to take advantage of coverage capacity and market rate changes and obtained statutory excess coverage without increasing costs over the previous year. A stable claims history and claims experience has also contributed to Metropolitan's enhancement of coverage without increasing costs. Metropolitan typically has had an excellent claims history, and its claims experience rating or "Ex Mod," which assesses an organization's claims performance based on payroll and claims history versus other California businesses in the industry. For FY 2022/23, the score decreased from 1.33 to .94. For context, a score below the benchmark of 1.00 trends positive; a score above 1.00 trends more negative. While referenced here to reflect the claims history, the "Ex Mod" is not a weighted factor in the cost of obtaining excess workers' compensation coverage for Metropolitan.

The total premium costs for FY 2023/24 for the excess workers' compensation policy, and the first dollar policy for Washington D.C. employees will increase by about 6.1 percent, from \$121,727 in FY 2022/23 to \$129,117. Within that total amount, the premium for the first dollar policy for Washington, D.C. employees will decrease slightly, from \$1,296 to \$1,173.

**Property Insurance** – In order to have obtained reimbursement of over \$500,000 from the Federal Emergency Management Agency for damage resulting from the 2009 fall season fires, Metropolitan maintains a property damage insurance policy to cover the area damaged in that fire. The policy cost \$5,193 in FY 2022/23, and will rise by as much as 40 percent to a projected amount of \$7,271 For FY 2023/24. Though a small dollar amount, the projected large percentage increase is due to the past three years' historic catastrophic wildfire seasons, and the continuing exposure going forward.

**Specialty Coverages** – Metropolitan also carries aircraft liability and hull coverage, crime, travel accident, and special contingency policies to complete its insurance portfolio. The aircraft liability and hull policies provide \$25 million aircraft liability, hull coverage up to the assessed value of the planes, and UAV liability coverage up to \$10 million. For FY 2022/23, policies covering Metropolitan's two planes and eight UAVs cost \$81,820. For FY 2023/24, the premium will increase by 7.2 percent to 87,736. The crime policy provides \$5 million in coverage with a \$150,000 deductible to protect against losses such as fraud, public employee dishonesty, and forgery. The cost to obtain this policy will increase slightly from \$10,901 to \$11,401 for the coming year. Metropolitan also carries three-year duration special contingency crime, and travel accident policies last purchased in FY 2022/23 for the amounts of \$4,442 and \$25,450, respectively. These are not up for renewal until FY 2025/26.



The total cost of the insurance renewal for FY 2023/24, with similar limits and retentions, is \$1,893,257 without the inclusion of the expected continuity credits, up from approximately \$1,715,308 million expended in FY 2022/23.

If Metropolitan chooses to increase the self-insured retention to \$35 million from \$25 million, the total cost for FY 2023/24 is projected to be \$1,820,317

## Policy

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Metropolitan Water District Administrative Code Section 5201: Restricted Funds

Metropolitan Water District Administrative Code Section 5202: Fund Parameters

Metropolitan Water District Administrative Code Section 6413: Insurance Program

Metropolitan Water District Administrative Code Section 9101: Risk Retention and Procurements of Insurance

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

## California Environmental Quality Act (CEQA)

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### CEQA determination for Option #1:

The proposed action is not defined as a project under CEQA (Public Resources Code Section 21065, State CEQA Guidelines Section 15378) because the proposed action will not cause either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment, and because it involves continuing administrative activities such as general policy and procedure making (Section 15378(b)(2) of the State CEQA Guidelines). In addition, the proposed action is not defined as a project under CEQA because it involves the creation of government funding mechanisms or other government fiscal activities which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment (Section 15378(b)(4) of the State CEQA Guidelines).

### CEQA determination for Option #2:

None required

## Board Options

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### Option #1

Approve up to \$1.894 million to purchase insurance coverage for Metropolitan's Property and Casualty Insurance Program to renew or replace all the expiring excess liability and specialty insurance policies and maintain the \$25 million self-insured retention for general liability coverage.

**Fiscal Impact:** The anticipated \$1.894 million premium cost for FY 2023/24 would result in an approximate \$179,000 cost increase compared with the \$1.715 million premium cost for FY 2022/23. The \$1.894 million is included in the current board-approved budget.

**Business Analysis:** Protects Metropolitan's financial position against the risk of catastrophic loss.

### Option #2

Approve up to \$1.821 million to purchase insurance coverage for Metropolitan's Property and Casualty Insurance Program to renew or replace all the expiring excess liability and specialty insurance policies for FY 2023/24, and obtain general liability coverage with a \$35 million self-insured retention.



**Fiscal Impact:** The anticipated \$1.821 million premium cost for FY 2023/24 would result in an approximate \$106,000 increase compared with the \$1.715 million premium cost for FY 2022/23. The \$1.821 million cost is within the current board-approved Office of the CFO Group budget.

**Business Analysis:** Saves approximately \$73,000 compared with Option 1, protects Metropolitan's financial position against the risk of catastrophic loss, but significantly increases the financial exposure by \$10 million or 40 percent because of taking on the higher retention level.

**Staff Recommendation**

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Option #1

	6/5/2023
Katano Kasaine	Date
Assistant General Manager/ Chief Financial Officer	
	6/5/2023
Adel Hagekhalil	Date
General Manager	

**Attachment 1 – Metropolitan’s Casualty and Property Insurance Program Insurance Premium Comparison in Dollars**

Ref# cfo12693094

**Metropolitan's Casualty and Property Insurance Program  
Insurance Premium Comparison  
In Dollars**

<b>Insurance Policy Type</b>	<b>Self-Insured Retention (SIR)</b>	<b>Coverage Limits</b>	<b>2022/23 Actual Insurance Premiums</b>	<b>2023/24 Quoted Insurance Premiums</b>	<b>2023/24 Quoted Insurance Premium Cost Change</b>	<b>2023/24 Quoted Insurance Premium % Change</b>
Excess General Liability <sup>1</sup>	\$25 million	\$75 million	1,054,491	1,207,872	153,380	14.5%
Fiduciary and Employee Benefits Liability <sup>1</sup>	\$25 million	\$60 million	94,990	96,989	1,999	2.1%
Public Officials Directors and Officers Liability <sup>1</sup>	\$25 million	\$65 million	320,068	350,812	30,744	9.6%
Crime	\$150,000	\$5 million	10,901	11,401	500	4.6%
Aircraft Liability and Hull	\$7,500	\$25 million	81,820	89,736	7,916	9.7%
Excess Workers' Compensation, CA	\$5 million	Statutory	120,431	127,944	7,513	6.2%
Excess Workers' Compensation, D.C.	\$0	Statutory	1,296	1,173	(123)	(9.5%)
Property <sup>2</sup>	\$0	Asset value	5,236	7,331+	2,095	40%
Special Contingency <sup>3</sup>	\$0	\$5 million	4,442	NA	NA	NA
Travel Accident <sup>3</sup>	\$0	\$250,000	21,633	NA	NA	NA
<b>Total Insurance Premiums – Option 1</b>	\$25 million	NA	<b>1,715,308</b>	<b>1,893,258</b>	<b>177,950</b>	<b>10.4%</b>
<b>Total Insurance Premiums – Option 2 <sup>4</sup></b>	\$35 million	NA	<b>1,715,308</b>	<b>1,820,317</b>	<b>105,009</b>	<b>6.1%</b>

<sup>1</sup> Premium costs for two layers of General Liability, Fiduciary and Employee Benefits Liability, and Public Officials Directors and Officers Liability.

<sup>2</sup> Premium for 2023/24 is an estimate based upon market indications.

<sup>3</sup> Three-year policies last purchased July 2022, and are up for renewal FY 2025/26.

<sup>4</sup> General Liability Self-Insured Retention increase from \$25 million to \$35 million.



Finance, Audit, Insurance, and Real Property Committee

# Renewal Status of Metropolitan's Property and Casualty Insurance Program

Item 7-3

June 13, 2023

# Metropolitan's Property and Casualty Insurance Program

## Objectives

Review the Current Program

Provide insurance program cost information, and request approval to purchase this year's insurance renewal

## Review

# Metropolitan's Property and Casualty Insurance Program

Self-Insured Retentions

Claims Programs to Manage Self-Insured Retentions

Liability / Property

Workers' Compensation

Excess and Specialty Insurance Coverages



# Metropolitan's Property and Casualty Insurance Program

## Self-Insured Retention

General Liability \$25 million

Workers' Compensation \$ 5 million

Property Damage \* Self-Insured

\* Stand Alone Property Damage Insurance Coverage

# Metropolitan's Property and Casualty Insurance Program

## Excess Insurance

General Liability	\$75 million
Workers' Compensation	Statutory
Public Officials, Directors & Officers Liability	\$65 million
Fiduciary & Employee Benefit Liability	\$60 million

## Specialty Insurance

# Metropolitan's Property and Casualty Insurance Program

Aircraft Liability	\$25 million
Aircraft Hull	Assessed Value
Property Damage	Assessed Value up to \$25 million
Crime	\$5 million
Special Contingency *	\$5 million
Travel Accident *	\$250,000

\* Three-year policies were last purchased July 2022, and will be up for renewal FY 2025/26

# Metropolitan's Property and Casualty Insurance Program

## 2023/24 Outlook

10.4% Overall Cost Increase

### Factors Driving Expected Cost Increase

- Escalating global inflation due to continuation of post-pandemic supply chain issues, and Russia-Ukraine war causing market fluctuations and uncertainty
- Climate change induced mega-catastrophic weather events such as extreme storms and historic wildfires
- Global political and social unrest

Total Policy Renewal is estimated to increase from

**\$1.715 million**

**\$1.894 million**

# Metropolitan's Property and Casualty Insurance Program

Excess Insurance Premiums (in dollars)

Coverage Type	2022/23 Actual	2023/24 Quoted	2023/24 % Change
General Liability	1,054,491	1,207,872	14.5
Fiduciary and Employee Benefit Liability	94,990	96,989	2.1
Public Officials Directors & Officers Liability	320,068	350,812	9.6
Workers' Compensation	121,727	129,117	6.1

# Metropolitan's Property and Casualty Insurance Program

Excess Insurance Premiums (in dollars)

Coverage Type	2022/23 Actual	2023/24 Quoted	2023/24 % Change
Aircraft Hull & Liability	81,820	89,736	9.7
Crime	10,901	11,401	4.6
Property *	5,236	7,331+	40
<b>Total Premiums</b>	<b>1,715,308</b>	<b>1,893,258</b>	<b>10.4</b>

\* Estimated Premium for stand alone coverage for three structures previously damaged by fire



# Metropolitan's Property and Casualty Insurance Program

Options	Coverage Type	2022/23 Actual	2023/24 Quoted	2023/24 % Change
Option 1	General Liability SIR \$25 Million	1,715,308	1,893,258	10.4
Option 2	General Liability SIR \$35 Million	-	1,820,317	6.1

# Metropolitan's Property and Casualty Insurance Program

## Premium Comparison by Fiscal Year

Actual 2018/19	Actual 2019/20	Actual 2020/21	Actual 2021/22	Actual 2022/23
\$ 1,118,668	\$ 1,181,848*	\$ 1,308,608	\$1,543,787	\$ 1,715,308*
		Estimated 2023/2024	\$1,893,258	

\* Includes renewal cost of 3-year duration policies for Travel Accident and Special Contingency policies

# Board Options

## Option #1

Approve up to \$1.894 million to renew excess and specialty insurance coverages.

## Impact

The anticipated \$1.894 million premium cost for FY 2023/24 would result in an \$177,950 cost increase compared with a \$171,521 premium cost increase for FY 2022/23. The \$1.894 million is included in the current Board approved budget.

# Board Options

## Option #2

Approve up to \$1.821 million to renew excess and specialty insurance coverages and increase the self-insured retention for General Liability from \$25 million to \$35 million.

## Impact

Savings of \$72,941 compared to Option #1, but with significant increased financial exposure.

# Staff Recommendation

Option #1

Approve up to \$1.894 million to renew excess and specialty insurance coverages.







• **Board of Directors**

***Finance, Audit, Insurance, and Real Property Committee***

6/13/2023 Board Meeting

7-4

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**Subject**

Approve Metropolitan's Statement of Investment Policy for fiscal year 2023/24, delegate authority to the Treasurer to invest Metropolitan's funds for fiscal year 2023/24; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

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**Executive Summary**

Per Section 5114 of the Metropolitan Water District Administrative Code, staff seeks board approval of Metropolitan's Statement of Investment Policy (Policy) for fiscal year (FY) 2023/24. Staff also seeks board approval for the delegation of authority to the Treasurer to invest Metropolitan's funds for FY 2023/24, pursuant to the Government Code of the state of California (California Government Code).

The Policy has been updated to ensure that it complies with the requirements of the California Government Code, conforms to the investment policy certification standards established by the California Municipal Treasurers Association, provides a balance between investment restrictions and investment flexibility, and expresses Metropolitan's investment objectives and preferences with clarity and consistency.

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**Details**

**Background**

Under Section 5114 of the Metropolitan Water District Administrative Code, not less than annually, the Treasurer is required to render a Statement of Investment Policy for the following fiscal year for approval by the Board.

Metropolitan's Policy for FY 2023/24 (**Attachment 1**) adheres to the following three criteria:

1. **Safety of Principal.** Investments shall be undertaken which first seek to ensure the preservation of principal in the portfolio. The Treasurer shall ensure each investment transaction is evaluated or cause to have evaluated each potential investment, seeking both quality in issuer and in underlying security or collateral, and shall diversify the portfolio to reduce exposure to loss.
2. **Liquidity.** Investments shall be made whose maturity date is compatible with cash flow requirements of the District and which will permit easy and rapid conversion into cash without substantial loss of principal.
3. **Return on Investment.** Investments shall be undertaken to produce an acceptable rate of return after first considering the safety of principal and liquidity and the prudent investor standard.

In accordance with Section 53607 of the California Government Code, the authority to invest public funds granted to the Board may be delegated to the Treasurer for a one-year period. The Board's prior delegation to the Treasurer expires on June 30, 2023. Subject to review, the Board may renew the delegation to the Treasurer annually.

## Details

The proposed Policy for FY 2023/24 has been updated. The proposed Policy is included as **Attachment 1**. **Attachment 2** is a redlined document that compares the Policy for FY 2022/23 to the proposed Policy for FY 2023/24. The following changes to Section XIV of the Policy are highlighted for the Board's consideration:

**Section XIV** – This section is updated to incorporate the change of the District's "Other fund" to "Endowment fund," which enables a tailored investment strategy for several of Metropolitan's trust funds (Multi-Species Reserve Fund, Habitat Maintenance Fund-Lower Colorado, HCP Remedial Measures Fund, Water Utility Climate Alliance Membership, and Lake Mathews). The goal of the investment strategy for the Endowment Fund is to preserve capital in the new portfolio as long as possible by investing longer to better match the trust funds' specific expenditure patterns.

**Glossary** – A definition and formula of "Effective Rate of Return" and formula of "Total Rate of Return" are added to the Glossary. Specifically, the changes to the Glossary are as follows:

- **EFFECTIVE RATE OF RETURN:** The annualized rate of return on an investment considering the price paid for the investment, its coupon rate, and the compounding of interest paid.  $(\text{Total Earnings} / \text{Average daily balance}) \times (365 / \# \text{ of days in the reporting period})$
- **TOTAL RATE OF RETURN:** A measure of a portfolio's performance over time. It is the internal rate of return that equates the beginning value of the portfolio with the ending value, and includes interest earnings and realized and unrealized gains and losses on the portfolio. For bonds held to maturity, total return is the yield to maturity.  $(\text{Net Invested Income} / \text{Time Weighted Invested Value}) \times (365 / \# \text{ of days in the reporting period})$

## Policy

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Metropolitan Water District Act Section 125: Investment of Surplus Money

Metropolitan Water District Administrative Code Section 2701(a): Treasurer's Reports

Metropolitan Water District Administrative Code Section 5101: Investment of Surplus Funds

Metropolitan Water District Administrative Code Section 5114: Reporting Requirements of the Treasurer

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

## California Environmental Quality Act (CEQA)

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### CEQA determination for Option #1:

The proposed actions are not defined as a project under CEQA (Public Resources Code Section 21065, State CEQA Guidelines Section 15378(b)(2) and 15378(b)(5)) because they involve organizational or administrative activities and general policy and procedure making that would not result in a direct or indirect physical change to the environment.

### CEQA determination for Option #2:

None required

## Board Options

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### Option #1

Approve the Statement of Investment Policy for fiscal year 2023/24; and delegate authority to the Treasurer to invest Metropolitan's funds for fiscal year 2023/24.

**Fiscal Impact:** Allows Metropolitan's portfolio to continue to earn a reasonable return on investments while meeting the overarching goals of safety and liquidity.

**Business Analysis:** Permits the Treasurer to continue managing Metropolitan's investment portfolios and approves the Statement of Investment Policy for fiscal year 2023/24, governing investment practices.

**Option #2**


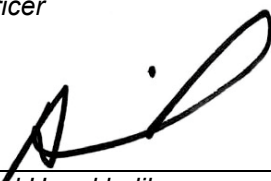
Do not approve the Statement of Investment Policy for fiscal year 2023/24, and do not delegate authority to the Treasurer to invest Metropolitan's funds for fiscal year 2023/24.

**Fiscal Impact:** May prevent Metropolitan's portfolio from earning a reasonable return on investments

**Business Analysis:** Not approving the Statement of Investment Policy would be an exception to the Metropolitan Water District Administrative Code requirement in Section 5114. Not delegating authority to the Treasurer to invest Metropolitan's funds would require the Board to directly manage Metropolitan's daily investments or have an authorized Board representative available to approve daily investment transactions identified by the Treasurer. This would likely result in lost investment income should the Board be unavailable to either manage or approve daily investment transactions.

**Staff Recommendation**

Option #1

	6/5/2023
Katano Kasaine	Date
Assistant General Manager/Chief Financial Officer	
	6/5/2023
Adel Hagekhalil	Date
General Manager	

**Attachment 1 – Statement of Investment Policy Fiscal Year 2023/24**

**Attachment 2 – Redline of Statement of Investment Policy Fiscal Year 2023/24**

Ref# cfo12693061

# **THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA**

## **STATEMENT OF INVESTMENT POLICY FISCAL YEAR 2023/24**

**June 13, 2023**

### **I. POLICY**

This Statement of Investment Policy (Policy) is intended to outline the guidelines and practices to be used in managing the Metropolitan Water District of Southern California's (District) investment portfolio. District funds not required for immediate cash disbursements will be invested in compliance with the Government Code of the state of California (California Government Code).

### **II. INVESTMENT AUTHORITY**

As authorized by Section 53607 of the California Government Code, authority to invest or reinvest funds of the District is hereby delegated by the Board of Directors to the Treasurer, for a period of one-year, who shall thereafter assume full responsibility for the investment program until the delegation of authority is revoked or expires. Subject to review, the Board of Directors may renew the delegation of authority each year. The Treasurer may delegate the day-to-day investment activities to their designee(s) but not the responsibility for the overall investment program.

The Treasurer may also delegate the day-to-day execution of investments to registered investment managers through written agreements. The investment manager(s), in coordination with the Treasurer, will manage on a daily basis the District's investment portfolio pursuant to the specific and stated investment objectives of the District. The investment manager(s) shall follow this Policy, the specific investment guidelines provided to each investment manager, and such other written instructions provided by the Treasurer or their designee(s). The investment manager(s) may be given discretion to acquire and dispose of assets in their designated account, but the investment manager(s) shall not be permitted to have custodial control over the District's investment portfolio.

### **III. STATEMENT OF OBJECTIVES**

In accordance with California Government Code Section 53600.5, and in order of importance, the Treasurer shall adhere to the following three criteria:

1. **Safety of Principal.** Investments shall be undertaken which first seek to ensure the preservation of principal in the portfolio. The Treasurer shall ensure that each investment transaction is evaluated or cause to have evaluated each potential investment, seeking both quality in issuer and in underlying security or collateral, and shall diversify the portfolio to reduce exposure to loss. Diversification of the portfolio will be used in order to reduce exposure to principal loss.
2. **Liquidity.** Investments shall be made whose maturity date is compatible with cash flow requirements of the District and which will permit easy and rapid conversion into cash without substantial loss of principal.
3. **Return on Investment.** Investments shall be undertaken to produce an acceptable rate of return after first considering safety of principal and liquidity and the prudent investor standard.

#### **IV. SCOPE**

This Policy applies to all funds and investment activities under the direct authority of the District and accounted for in the Annual Comprehensive Financial Report (ACFR), except for the employee's retirement and deferred compensation funds. In addition, deposits with banks under the California Government Code's "Deposit of Funds" provisions are excluded from this Policy's requirements. Funds of the District will be invested in compliance with the provisions of, but not necessarily limited to securities specified in the California Government Code Section 53601 et seq. and other applicable statutes. Investments will be in accordance with these policies and written administrative procedures. Investment of the District's bond proceeds shall be subject to the conditions and restrictions of bond documents and are not governed by this Policy.

#### **V. PRUDENT INVESTOR STANDARD**

Pursuant to California Government Code Section 53600.3, all persons authorized to make investment decisions on behalf of the District are trustees and therefore fiduciaries subject to the "prudent investor standard". The prudent investment standard obligates a trustee to ensure that "when investing, reinvesting, purchasing, acquiring, exchanging, selling, or managing public funds, a trustee shall act with care, skill, prudence, and diligence under the circumstances then prevailing, including, but not limited to, the general economic conditions and the anticipated needs of the agency that a prudent person acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of the agency. Within the limitations of this section and considering individual investments as part of an overall strategy, investments may be acquired as authorized by law."

#### **VI. SAFEKEEPING AND CUSTODY**

To protect against potential losses caused by the collapse of individual securities dealers, all investment transactions involving deliverable securities will be conducted on a delivery versus payment (DVP) basis. All deliverable securities owned by the District, including collateral on repurchase agreements, shall be held in safekeeping by a third party bank trust department acting as agent for the District under the terms of a custody agreement executed by the bank and the District. All financial institutions that provide safekeeping services for the District shall be required to provide reports or safekeeping receipts directly to the Controller to verify securities taken into their possession. The Controller shall also maintain evidence of the District ownership in non-deliverable securities (e.g. LAIF, CAMP, and Time CDs).

#### **VII. INVESTMENT TRANSACTIONS**

Information concerning investment opportunities and market developments will be gained by maintaining contact with the financial community. Confirmations for investment transactions will be sent directly to the Controller for audit. When practical, the Treasurer shall solicit more than one quotation on each trade.

#### **VIII. REPORTING**

If the Board delegates responsibility of the investment program to the Treasurer, then in accordance with the Metropolitan Water District Administrative Code, Section 5114, the Treasurer shall submit a monthly report to the Executive Secretary of the Board of Directors via the General Manager indicating the types of investment by fund and date of maturity, and shall provide the current market value of all securities, rates of interest, and expected yield to maturity. The Treasurer shall also submit a monthly summary report to the Board of Directors via the General Manager showing investment activity, including yield and earnings, and the status of cash by depository.

In addition, the monthly report shall also include a statement denoting the ability to meet the District's expenditure requirements for the next six (6) months. The report shall also state compliance of the portfolio to this Policy, or manner in which the portfolio is not in compliance. In the event of non-compliance, staff will prepare a report for the Board that details the compliance issue, provides analysis, and provides a recommendation to bring the portfolio back into compliance with this Policy.

## **IX. PERFORMANCE STANDARDS**

The investment portfolio shall be managed with the objective of obtaining a rate of return throughout budgetary and economic cycles, commensurate with the investment risk constraints and the cash flow needs of the District. The District will employ an active management approach that allows for the sale of securities prior to their scheduled maturity dates. Securities may be sold for a variety of reasons, such as to increase yield, lengthen or shorten maturities, to take a profit, or to increase investment quality. In no instance shall a transaction be used for purely speculative purposes. The District recognizes that in a diversified portfolio occasional measured losses are inevitable and must be considered within the context of the overall portfolio's structure and expected investment return, with the proviso that adequate diversification and credit analysis have been implemented.

Because the composition of the portfolio fluctuates, depending on market and credit conditions, various appropriate indices selected by the Treasurer will be used to monitor performance.

## **X. INVESTMENT GUIDELINES AND ELIGIBLE SECURITIES**

The District is governed by the California Government Code, Sections 53600 et seq. Within the context of these limitations, the investments listed below are authorized.

The District is prohibited from investing in any investment authorized by the California Government Code but not explicitly listed in this Policy without the prior approval of the Board of Directors. Some of the limitations on investments set forth below are more stringent than required by the California Government Code and have been included to better manage the credit risks specific to the District's portfolio. Under the provisions of California Government Code Sections 53601.6, the District shall not invest any funds covered by this Investment Policy in inverse floaters, range notes, mortgage-derived, interest-only strips or any investment that may result in a zero interest accrual if held to maturity, except as authorized by Code Section 53601.6.

### **1. US Treasury Obligations**

United States Treasury notes, bonds, bills, or certificates of indebtedness, or those for which the faith and credit of the United States are pledged for the payment of principal and interest.

- Maximum allocation: 100% of the portfolio
- Maximum maturity: Five (5) years, except as otherwise permitted by this Policy
- Credit requirement: N.A.

### **2. Federal Agency Obligations**

Federal agency or United States government-sponsored enterprise obligations, participations, or other instruments, including those issued by or fully guaranteed as to principal and interest by federal agencies or United States government-sponsored enterprises.

- Maximum allocation: 100% of the portfolio
- Maximum maturity: Five (5) years, except as otherwise permitted by this Policy
- Credit requirement: N.A.



### **3. Banker's Acceptances**

Bills of exchange or time drafts drawn on and accepted by a commercial bank, typically created from a letter of credit issued in a foreign trade transaction.

- Maximum allocation: Forty percent (40%) of the portfolio; five percent (5%) with any one issuer
- Maximum maturity: One-hundred eighty (180) days
- Credit requirement: A-1 or its equivalent or better by a Nationally Recognized Statistical Rating Organization (NRSRO).
- Issued by banks with total deposits of over one billion dollars (\$1,000,000,000)
- Issued by banks from offices in the USA.

### **4. Commercial Paper**

Commercial paper is defined as short-term, unsecured promissory notes issued by financial and non-financial companies to raise short-term cash. Financial companies issue commercial paper to support their consumer and/or business lending; non-financial companies issue for operating funds.

- Maximum allocation: Forty percent (40%) of the portfolio; five percent (5%) with any one issuer
- Maximum maturity: Two hundred seventy (270) days
- Credit requirement: Highest ranking or highest letter and number rating as provided by an NRSRO.
- Entity issuing the commercial paper must meet the conditions of California Government Code Section 53601(h)(1) or (2).

### **5. Medium Term Corporate Notes**

All corporate and depository institution debt securities (not to include other investment types specified in Code) issued by corporations organized and operating within the United States or by depository institutions licensed by the United States or any state and operating within the United States.

- Maximum allocation: Thirty percent (30%) of the portfolio; five percent (5%) with any one issuer
- Maximum maturity: Five (5) years
- Credit requirement: A or its equivalent or better by an NRSRO.

### **6. Negotiable Certificates of Deposit**

Issued by a nationally or state-chartered bank, a savings association or a federal association, a state or federal credit union, or by a federally licensed or state-licensed branch of a foreign bank.

- Maximum allocation: Thirty percent (30%) of the portfolio, five percent (5%) with any one issuer
- Maximum maturity: Five (5) years
- Credit requirement: A (long-term) or A-1 (short-term) or their equivalents or better by an NRSRO
- Issued by banks with total deposits of one billion dollars (\$1,000,000,000) or more

### **7. Bank Deposit**

Insured or collateralized time certificates of deposits, saving accounts, market rate accounts, or other bank deposits.

- Maximum limit: Thirty percent (30%) of the portfolio for all deposits
- Maximum maturity: Five (5) years

- Credit requirement: All deposits must be collateralized as required by California Government Code Sections 53630 et seq. The Treasurer may waive collateral for the portion of any deposits that is insured pursuant to federal law.
- Deposits are limited to a state or national bank, savings association or federal association, a state or federal credit union, or a federally insured industrial loan company, located in California.
- Deposits must meet the conditions of California Government Code Sections 53630 et seq.

Pursuant to Government Code 53637, the District is prohibited from investing in deposits of a state or federal credit union if a member of the District's Board of Directors, or any person at the District with investment decision-making authority, serves on the board of directors or committee of the state or federal credit union.

## **8. Money Market Mutual Funds**

Shares of beneficial interest issued by diversified management companies that are money market funds registered with the SEC.

- Maximum maturity: N/A
- Maximum allocation: Twenty percent (20%) of the portfolio
- Credit requirement: Highest ranking by not less than two NRSROs or must retain an investment advisor that meets specified requirements
- The use of money market funds is limited to Government money market funds that provide daily liquidity and seek to maintain a stable Net Asset Value (NAV)

## **9. State of California, Local Agency Investment Fund (LAIF)**

LAIF is a pooled investment fund overseen by the State Treasurer, which operates like a money market fund, but is for the exclusive benefit of governmental entities within the state. The maximum investment amount authorized by the Local Agency Investment Fund (LAIF) is set by the California State Treasurer's Office. The LAIF is held in trust in the custody of the State of California Treasurer. The District's right to withdraw its deposited monies from LAIF is not contingent upon the State's failure to adopt a State Budget.

- Maximum limit: The current limit set by LAIF for operating accounts
- Maximum maturity: N/A
- Credit requirement: N/A

## **10. Municipal Bonds and Notes**

Municipal obligations issued by the State of California, any other of the states in the union, or a local agency within the State of California. This may include bonds, notes, warrants, or other evidences of indebtedness including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by an authorized entity.

- Maximum limit: Thirty percent (30%) of the portfolio; five percent (5%) with any one issuer
- Maximum maturity: Five (5) years
- Credit requirement: A (long-term) or A-1 (short-term) or their equivalents or better by an NRSRO
- Must be issued by State of California, any of the other 49 states, or a California local agency

**11. Repurchase Agreement**

A repurchase agreement is a purchase of authorized securities with terms including a written agreement by the seller to repurchase the securities on a future date and price.

- Maximum allocation: Twenty percent (20%) of the portfolio
- Maximum maturity: Two hundred seventy (270) days
- Master Repurchase Agreement must be on file
- Limited to primary dealers or financial institutions rated in a rating category of “A” or its equivalent or higher by an NRSRO.
- Fully collateralized at market value of at least one hundred two percent (102%) with US government or federal agency securities

**12. California Asset Management Program (CAMP)**

Shares of beneficial interest issued by a joint powers authority organized pursuant to Section 6509.7.

- Maximum allocation: Forty percent (40%) of the portfolio
- Maximum maturity: N/A
- Credit requirement: AAAm or its equivalent or better by an NRSRO
- Joint powers authority has retained an investment adviser that is registered or exempt from registration with the Securities and Exchange Commission, has five or more years of experience investing in the securities and obligations authorized under California Government Code Section 53601, and has assets under management in excess of five hundred million dollars (\$500,000,000).

**13. Supranationals**

Securities issued or unconditionally guaranteed by the International Bank for Reconstruction and Development (IBRD), International Finance Corporation (IFC), or Inter-American Development Bank (IADB) and eligible for purchase and sale within the United States.

- Maximum allocation: Thirty percent (30%) of the portfolio
- Maximum maturity: Five (5) years
- Credit requirement: AA or its equivalent or better by an NRSRO.

**14. Asset-Backed Securities**

A mortgage pass-through security, collateralized mortgage obligation, mortgage-backed or other pay-through bond, equipment lease-backed certificate, consumer receivable pass-through certificate, or consumer receivable-backed bond.

- Maximum allocation: Twenty percent (20%) of the portfolio, five percent (5%) with any one issuer
- Maximum maturity: Five (5) years
- Credit requirement: AA or its equivalent or better by an NRSRO.

**XI. DIVERSIFICATION**

The District shall seek to diversify the investments within the investment portfolio to avoid incurring unreasonable risks inherent in concentrated holdings in specific instruments, individual financial institutions or maturities. To promote diversification, this Policy sets various percentage holding limits by investment type and issuer. Investment type and issuer percentage limitation listed in this Policy are

calculated at the time the security is purchased. Per issuer limits, when listed, are calculated across investment types at the parent company level. Should an investment percentage be exceeded due to instances such as the fluctuation in overall portfolio size, or market valuation changes, the Treasurer is not required to sell the affected securities. However, no additional investments can be made in that investment type or issuer while it is above the limits established by this Policy.

## **XII. CREDIT RATINGS**

Credit rating requirements for eligible securities in this Policy specify the minimum credit rating category required at the time of purchase without regard to +, -, or 1, 2, 3 modifiers, if any. The security, at the time of purchase, may not be rated below the minimum credit requirement by any of the NRSROs that rate the security.

If a security is downgraded below the minimum rating criteria specified in this Policy, the Treasurer shall determine a course of action to be taken on a case-by-case basis considering such factors as the reason for the downgrade, prognosis for recovery or further rating downgrades, and the market price of the security. The Treasurer shall note in the monthly report any securities which have been downgraded below Policy requirements and the recommended course of action.

## **XIII. MATURITY**

The Treasurer shall maintain a system to monitor and forecast revenues and expenditures so that the District's funds can be invested to the fullest extent possible while providing sufficient liquidity to meet the District's reasonably anticipated cash flow requirements.

The final maturity of any investment in the portfolios shall not exceed five (5) years with certain exceptions:

- The Treasurer is authorized to invest special trust funds in investment with a term to maximum maturity in excess of five years. These funds include, but are not limited to, the Water Revenue Bond Reserve Funds, Escrow Funds, Debt Service Funds, the Iron Mountain Landfill Closure/Post-closure Maintenance Trust Fund, and the Lake Mathews Multi-Species Reserve Trust Fund.
- The core portfolio may hold United States Treasury and Federal Agency securities with maturities in excess of five years.

## **XIV. DURATION**

Duration is a measure of a security's price sensitivity to interest rate changes. It indicates the approximate percentage change of a security's value given a 1% change in interest rates. A portfolio's duration is the weighted average of the individual security durations held in the portfolio.

The investment portfolio is divided into liquidity, core, and endowment fund portfolios. The Policy's duration limits only apply to the liquidity and core portfolios. The duration of the liquidity portfolio is limited to the duration of the benchmark index plus or minus 0.5 years. The duration of the core portfolio will be limited to the duration of the benchmark index plus or minus 1.5 years. The appropriate benchmark indices will be set by the Treasurer and reported to the Board in the Monthly Treasurer's Report.

## **XV. ADMINISTRATION**

The Treasurer may, at any time, establish more restrictive requirements for securities approved for investment as deemed appropriate in this Policy. These restrictions may include, but are not limited to, higher credit ratings, lower percentage limits by security type or issuer, shorter maturities and additional collateral requirements for collateralized investments.

## **XVI. AUTHORIZED FINANCIAL DEALERS AND INSTITUTIONS**

For investments not purchased directly from the issuer, the Treasurer shall select only brokers/dealers who are licensed and in good standing with the California Department of Securities, the Securities and Exchange Commission, the Financial Industry Regulatory Authority (FINRA) or other applicable self-regulatory organizations. Before engaging in investment transactions with a broker/dealer, the Treasurer shall obtain a signed verification form that attests the individual has reviewed the District's Policy, and intends to present only those investment recommendations and transactions to the District that is appropriate under the terms and conditions of the Policy.

The District's external investment manager(s) may be granted discretion to purchase and sell investment securities in accordance with this Policy. Investment managers may also use their own list of internally-approved issuers, broker-dealers and other financial firms, so long as such managers are registered under the Investment Advisers Act of 1940.

## **XVII. INTERNAL CONTROLS**

The Treasurer or designee shall maintain a system of internal control procedures designed to ensure compliance with the Policy and to prevent losses due to fraud, employee error, and misrepresentations by third parties or unanticipated changes in financial markets. The internal control procedures shall apply to the investment activities of any person with investment decision-making authority acting on behalf of the District. Procedures should include references to individuals authorized to execute transactions or transfers, safekeeping agreements, repurchase agreements, wire transfer agreements, collateral/depository agreements and banking services contracts, as appropriate. The internal control structure shall be designed to provide reasonable assurance that these objectives are met. The concept of reasonable assurance recognizes that (1) the cost of a control should not exceed the benefits likely to be derived; and (2) the valuation of costs and benefits requires estimates and judgement by management. As part of the annual audit, the District's external auditor will perform a review of investment transactions to verify compliance with policies and procedures.

## **XVIII. ETHICS AND CONFLICT OF INTEREST**

The Treasurer and designees shall refrain from personal business activity that could conflict with the proper execution and management of the investment program or that could impair their ability to make impartial decisions.

The Treasurer and designees shall disclose to the Ethics Officer and General Counsel any personal financial interests that could conflict with the proper execution and management of the investment program, or that could impair their ability to make impartial decisions.

## **XIX. INVESTMENT POLICY**

This Policy shall be reviewed periodically by the Treasurer with any and all modifications made thereto approved by the Board of Directors at a public meeting.

## SUMMARY TABLE OF INVESTMENT GUIDELINES AND ELIGIBLE SECURITIES

The following table is intended to be a summary of the Policy's requirements in Section X of this Policy. If there is a discrepancy between Section X and this table, the requirements listed in Section X take precedence.

Authorized Investments	Maximum % Holdings	Purchase Restrictions	Maximum Maturity	Credit Quality
US Treasury Obligations	100%	N/A	5 Years <sup>1</sup>	N/A
Federal Agency Obligations	100%	N/A	5 Years <sup>1</sup>	N/A
Bankers' Acceptance	40%	5% per issuer <sup>2</sup>	180 days	"A-1" or its equivalent or higher by an NRSRO.
Commercial Paper	40%	5% per issuer <sup>2</sup>	270 days	Highest ranking or of the highest letter and number rating as provided for by an NRSRO.
Medium Term Corporate Notes	30%	5% per issuer <sup>2</sup> . US licensed and operating corporations	5 years	"A" or its equivalent or higher by an NRSRO.
Negotiable CD	30%	5% per issuer <sup>2</sup> , National or state chartered bank, S&L, or branch of foreign bank	5 years	"A-1" (short-term) or "A" (long-term) or their equivalents or higher by an NRSRO.
Bank Deposit	30%	See California Government Code Section 53637	5 Years	Collateralized/FDIC Insured in accordance with California Government Code
Money Market Mutual Funds	20%	Gov't MMF. Stable NAV	Daily Liquidity	Highest ranking by two NRSROs or advisor requirements
Local Agency Investment Fund ("LAIF")	LAIF limit for operating accounts	Subject to California Government Code Section 16429.1 limitations	N/A	N/A
Municipal Bonds and Notes	30%	5% per issuer <sup>2</sup> . State of California or California agencies or other 49 states	5 Years <sup>1</sup>	"A" or its equivalent or higher by an NRSRO.



Authorized Investments	Maximum % Holdings	Purchase Restrictions	Maximum Maturity	Credit Quality
Repurchase Agreements (“REPO”)	20%	Limited to primary dealers or financial institutions rated “A” or better by a NRSROs	270 days	Collateralized (min 102% of funds invested) with US Government or federal agency securities with maximum 5 year maturities
California Asset Management Program (“CAMP”)	40%	N/A	Daily Liquidity	“AAAm” or its equivalent or higher by a NRSRO
Supranationals	30%	Limited to IBRD, IFC, IADB	5 Years	“AA” or its equivalent or higher by an NRSRO.
Asset-Backed Securities	20%	5% per issuer <sup>2</sup>	5 Years	“AA” or its equivalent or higher by an NRSRO.

## Notes:

1. The Treasurer is authorized to invest special trust funds in investment with a term to maximum maturity in excess of five years. These funds include, but are not limited to, the Water Revenue Bond Reserve Funds, Escrow Funds, Debt Service Funds, the Iron Mountain Landfill Closure/Post-closure Maintenance Trust Fund, and the Lake Mathews Multi-Species Reserve Trust Fund.

The core portfolio may be invested in United States Treasury and Federal Agency securities with maturities in excess of five years.

2. Per issuer limits, when listed, are calculated across investment types at the parent company level.

## GLOSSARY

The glossary is provided for general information only. It is not to be considered a part of the Policy for determining Policy requirements or terms.

**AGENCIES:** Federal agency securities and/or Government-sponsored enterprises (GSEs), also known as U.S. Government instrumentalities. Securities issued by Government National Mortgage Association (GNMA) are considered true agency securities, backed by the full faith and credit of the U.S. Government. GSEs are financial intermediaries established by the federal government to fund loans to certain groups of borrowers, for example homeowners, farmers and students and are privately owned corporations with a public purpose. The most common GSEs are Federal Farm Credit System Banks, Federal Home Loan Banks, Federal Home Loan Mortgage Association, and Federal National Mortgage Association.

**ASSET BACKED:** Securities whose income payments and hence value is derived from and collateralized (or “backed”) by a specified pool of underlying assets which are receivables. Pooling the assets into financial instruments allows them to be sold to general investors, a process called securitization, and allows the risk of investing in the underlying assets to be diversified because each security will represent a fraction of the total value of the diverse pool of underlying assets. The pools of underlying assets can comprise common payments credit cards, auto loans, mortgage loans, and other types of assets. Interest and principal is paid to investors from borrowers who are paying down their debt..

**BANKERS’ ACCEPTANCE (BA):** A draft or bill of exchange accepted by a bank or trust company. The accepting institution guarantees payment of the bill, as well as the issuer. This money market instrument is used to finance international trade.

**BASIS POINT:** One-hundredth of one percent (i.e., 0.01%).

**BENCHMARK:** A comparative base for measuring the performance or risk tolerance of the investment portfolio. A benchmark should represent a close correlation to the level of risk and the average duration of the portfolio’s investment.

**BOND:** A financial obligation for which the issuers promises to pay the bondholder a specified stream of future cash flows, including periodic interest payments and a principal repayment.

**BOOK VALUE:** The value at which a debt security is shown on the holder’s balance sheet. Book value is acquisition cost less amortization of premium or accretion of discount.

**BROKER:** A broker acts as an intermediary between a buyer and seller for a commission and does not trade for his/her own risk and account or inventory.

**CALLABLE SECURITIES:** A security that can be redeemed by the issuer before the scheduled maturity date.

**CALIFORNIA ASSET MANAGEMENT PROGRAM (CAMP):** A local government investment pool organized as joint powers authority in which funds from California local agency investors/participants are aggregated together for investment purposes.

**CASH EQUIVALENTS (CE):** Highly liquid and safe instruments or investments that can be converted into cash immediately. Examples include bank accounts, money market funds, and Treasury bills.

**CASH FLOW:** An analysis of all changes that affect the cash account during a specified period.

**CERTIFICATE OF DEPOSIT (CD):** A time deposit with a specific maturity evidenced by a certificate. Large-denomination CD's are typically negotiable.

**COLLATERAL:** Securities, evidence of deposit or other property which a borrower pledges to secure repayment of a loan. Also refers to securities pledged by a bank to secure deposits of public monies.

**COLLATERALIZED MORTGAGE OBLIGATION (CMO):** A type of mortgage-backed security that creates separate pools of pass-through rates for different classes of bondholders with varying maturities, called tranches. The repayments from the pool of pass-through securities are used to retire the bonds in the order specified by the bonds' prospectus.

**COMMERCIAL PAPER:** Short-term, unsecured, negotiable promissory notes of corporations.

**CORPORATE NOTE:** Debt instrument issued by a private corporation.

**COUPON:** The annual rate at which a bond pays interest.

**CREDIT RATINGS:** A grade given to a debt instrument that indicates its credit quality. Private independent rating services such as Standard & Poor's, Moody's and Fitch provide these

**CREDIT RISK:** The risk that an obligation will not be paid and a loss will result due to a failure of the issuer of a security.

**CUSIP:** Stands for Committee on Uniform Securities Identification Procedures. A CUSIP number identifies most securities, including: stocks of all registered U.S. and Canadian companies, and U.S. government and municipal bonds. The CUSIP system—owned by the American Bankers Association and operated by Standard & Poor's—facilitates the clearing and settlement process of securities. The number consists of nine characters (including letters and numbers) that uniquely identify a company or issuer and the type of security.

**CURRENT YIELD:** The annual interest on an investment divided by the current market value. Since the calculation relies on the current market value rather than the investor's cost, current yield is unrelated to the actual return the investor will earn if the security is held to maturity.

**CUSTODIAN:** A bank or other financial institution that keeps custody of stock certificates and other assets.

**DEALER:** A dealer, as opposed to a broker, acts as a principal in all transactions, buying and selling for his/her own risk and account or inventory.

**DELIVERY VERSUS PAYMENT (DVP):** Delivery of securities with a simultaneous exchange of money for the securities.

**DERIVATIVES:** A financial instrument that is based on, or derived from, some underlying asset, reference date, or index.

**DIRECT ISSUER:** Issuer markets its own paper directly to the investor without use of an intermediary.

**DISCOUNT:** The difference between the cost of a security and its value at maturity when quoted at lower than face value.

**DIVERSIFICATION:** Dividing investment funds among a variety of securities offering independent returns and risk profiles.

**DURATION:** A measure of the timing of the cash flows, such as the interest payments and the principal repayment, to be received from a given fixed-income security. This calculation is based on three variables: term to maturity, coupon rate, and yield to maturity. Duration measures the price sensitivity of a bond to changes in interest rates.

**EFFECTIVE RATE OF RETURN:** The annualized rate of return on an investment considering the price paid for the investment, its coupon rate, and the compounding of interest paid.  $(\text{Total Earnings} / \text{Average daily balance}) \times (365 / \# \text{ of days in the reporting period})$

**FACE VALUE:** The principal amount owed on a debt instrument. It is the amount on which interest is computed and represents the amount that the issuer promises to pay at maturity.

**FAIR VALUE:** The amount at which a security could be exchanged between willing parties, other than in a forced or liquidation sale. If a market price is available, the fair value is equal to the market value.

**FANNIE MAE:** Trade name for the Federal National Mortgage Association (FNMA), a U.S. Government sponsored enterprise.

**FEDERAL DEPOSIT INSURANCE CORPORATION (FDIC):** A federal agency that provides insurance on bank deposits, guaranteeing deposits to a set limit per account, currently \$250,000.

**FEDERAL FARM CREDIT BANK (FFCB):** Government-sponsored enterprise that consolidates the financing activities of the Federal Land Banks, the Federal Intermediate Credit Banks and the Banks for Cooperatives. Its securities do not carry direct U.S. government guarantees.

**FEDERAL FUNDS RATE:** The rate of interest at which Federal funds are traded. This rate is considered to be the most sensitive indicator of the direction of interest rates, as it is currently pegged by the Federal Reserve through open-market operations.

**FEDERAL GOVERNMENT AGENCY SECURITIES:** Federal Agency or United States government-sponsored enterprise obligations, participations, or other instruments, including those issued by or fully guaranteed as to principal and interest by federal agencies or United States government-sponsored enterprises.

**GOVERNMENT ACCOUNTING STANDARDS BOARD (GASB):** A standard-setting body, associated with the Financial Accounting Foundation, which prescribes standard accounting practices for governmental units.

**GUARANTEED INVESTMENT CONTRACTS (GICS):** An agreement acknowledging receipt of funds, for deposit, specifying terms for withdrawal, and guaranteeing a rate of interest to be paid.

**INDEX:** An index is an indicator that is published on a periodic basis that shows the estimated price and/or yield levels for various groups of securities. Examples of relevant indices for Metropolitan include, but not limited to, ICE BofAML, 3-Month Treasury Bill Index, and ICE BofAML, 1 - 5 years AAA-A US Corporate and Government Index

**INTEREST RATE:** The annual yield earned on an investment, expressed as a percentage.

**INTEREST RATE RISK:** The risk of gain or loss in market values of securities due to changes in interest-rate levels. For example, rising interest rates will cause the market value of portfolio securities to decline.

**INVESTMENT AGREEMENTS:** A contract providing for the lending of issuer funds to a financial institution that agrees to repay the funds with interest under predetermined specifications.

**INVESTMENT GRADE (LONG TERM RATINGS):** The minimum, high-quality ratings for long-term debt such as corporate notes. Investment Grade ratings are as follows: A3 (Moody's), A- (S&P), and A- (Fitch).

**INVESTMENT PORTFOLIO:** A collection of securities held by a bank, individual, institution or government agency for investment purposes.

**LIQUIDITY:** A liquid asset is one that can be converted easily and rapidly into cash with minimum risk of principal.

**LOCAL AGENCY INVESTMENT FUND (LAIF):** An investment pool sponsored by the State of California and administered/managed by the State Treasurer. Local government units, with consent of the governing body of that Agency, may voluntarily deposit surplus funds for the purpose of investment. Interest earned is distributed by the State Controller to the participating governmental agencies on a quarterly basis.

**LOCAL AGENCY INVESTMENT POOL:** A pooled investment vehicle sponsored by a local agency or a group of local agencies for use by other local agencies.

**MARKET RISK:** The risk that the value of securities will fluctuate with changes in overall market conditions or interest rates. Systematic risk of a security that is common to all securities of the same general class (stocks, bonds, notes, money market instruments) and cannot be eliminated by diversification (which may be used to eliminate non-systematic risk).

**MARKET VALUE:** The price at which a security is currently being sold in the market. See FAIR VALUE.

**MASTER REPURCHASE AGREEMENT:** A written contract covering all future transactions between the parties to repurchase agreements and reverse repurchase agreements that establish each party's rights in the transactions. A master agreement will often specify, among other things, the right of the buyer-lender to liquidate the underlying securities in the event of default by the seller-borrower.

**MATURITY:** The date that the principal or stated value of a debt instrument becomes due and payable.

**MEDIUM-TERM CORPORATE NOTES (MTNs):** Unsecured, investment-grade senior debt securities of major corporations which are sold in relatively small amounts either on a continuous or an intermittent basis. MTNs are highly flexible debt instruments that can be structured to respond to market opportunities or to investor preferences.

**MODIFIED DURATION:** The percent change in price for a 100 basis point change in yields. This is a measure of a portfolio's or security's exposure to market risk.

**MONEY MARKET:** The market in which short-term debt instruments (Treasury Bills, Discount Notes, Commercial Paper, Banker's Acceptances and Negotiable Certificates of Deposit) are issued and traded.

**MORTGAGED BACKED SECURITIES:** A type of security that is secured by a mortgage or collection of mortgages. These securities typically pay principal and interest monthly.

**MUNICIPAL BONDS:** Debt obligations issued by states and local governments and their agencies, including cities, counties, government retirement plans, school Agencies, state universities, sewer agency, municipally owned utilities and authorities running bridges, airports and other transportation facilities

**MUTUAL FUND:** An entity that pools money and can invest in a variety of securities that are specifically defined in the fund's prospectus.

**NEGOTIABLE CERTIFICATE OF DEPOSIT:** A large denomination certificate of deposit that can be sold in the open market prior to maturity.

**NET PORTFOLIO YIELD:** Calculation in which the 365-day basis equals the annualized percentage of the sum of all Net Earnings during the period divided by the sum of all Average Daily Portfolio Balances.

**NATIONALLY RECOGNIZED STATISTICAL RATING ORGANIZATION (NRSRO):** is a credit rating agency that issues credit ratings that the U.S Securities and Exchange Commission permits other financial firms to use for certain regulatory purposes.

**PAR VALUE:** The amount of principal which must be paid at maturity. Also referred to as the face amount of a bond. See FACE VALUE.

**PORTFOLIO:** The collection of securities held by an individual or institution.

**PREMIUM:** The difference between the par value of a bond and the cost of the bond, when the cost is above par.

**PRIMARY DEALER:** A group of government securities dealers who submit daily reports of market activity and positions and monthly financial statements to the Federal Reserve Bank of New York and are subject to its informal oversight. These dealers are authorized to buy and sell government securities in direct dealing with the Federal Reserve Bank of New York in its execution of market operations to carry out U.S. monetary policy. Such dealers must be qualified in terms of reputation, capacity, and adequacy of staff and facilities.

**PRIME (SHORT TERM RATING):** High-quality ratings for short-term debt such as commercial paper. Prime ratings are as follows: P1 (Moody's), A1 (S&P), and F1 (Fitch).

**PRINCIPAL:** The face value or par value of a debt instrument, or the amount of capital invested in a given security.

**PRIVATE PLACEMENTS:** Securities that do not have to be registered with the Securities and Exchange Commission because they are offered to a limited number of sophisticated investors.

**PROSPECTUS:** A legal document that must be provided to any prospective purchaser of a new securities offering registered with the Securities and Exchange Commission that typically includes information on the issuer, the issuer's business, the proposed use of proceeds, the experience of the issuer's management, and certain certified financial statements (also known as an "official statement").

**PRUDENT INVESTOR STANDARD:** A standard of conduct for fiduciaries. Investments shall be made with judgment and care, under circumstances then prevailing, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived.



**PUBLIC DEPOSIT:** A bank that is qualified under California law to accept a deposit of public funds.

**PURCHASE DATE:** The date in which a security is purchased for settlement on that or a later date. Also known as the “trade date”.

**RATE OF RETURN:** 1) The yield which can be attained on a security based on its purchase price or its current market price. 2) Income earned on an investment, expressed as a percentage of the cost of the investment.

**REALIZED GAIN (OR LOSS):** Gain or loss resulting from the sale or disposal of a security.

**REPURCHASE AGREEMENT (RP or REPO):** A transaction in which a counterparty or the holder of securities (e.g. investment dealer) sells these securities to an investor (e.g. the District) with a simultaneous agreement to repurchase them at a fixed date. The security “buyer” (e.g. the District) in effect lends the “seller” money for the period of the agreement, and the terms of the agreement are structured to compensate the “buyer” for this. Dealers use RP extensively to finance their positions. Exception: When the Fed is said to be doing RP, it is lending money that is, increasing bank reserves.

**REVERSE REPURCHASE AGREEMENT (REVERSE REPO):** The opposite of a repurchase agreement. A reverse repo is a transaction in which the District sells securities to a counterparty (e.g. investment dealer) and agrees to repurchase the securities from the counterparty at a fixed date. The counterparty in effect lends the seller (e.g. the District) money for the period of the agreement with terms of the agreement structured to compensate the buyer.

**RISK:** Degree of uncertainty of return on an asset.

**SAFEKEEPING:** A service that banks offer to clients for a fee, where physical securities are held in the bank’s vault for protection and book-entry securities are on record with the Federal Reserve Bank or Depository Trust Company in the bank’s name for the benefit of the client. As an agent for the client, the safekeeping bank settles securities transactions, collects coupon payments, and redeems securities at maturity or on the call date, if called.

**SECURITIES AND EXCHANGE COMMISSION (SEC):** Agency created by Congress to protect investors in securities transactions by administering securities legislation.

**SECONDARY MARKET:** A market for the repurchase and resale of outstanding issues following the initial distribution.

**SECURITIES:** Investment instruments such as notes, bonds, stocks, money market instruments and other instruments of indebtedness or equity.

**SETTLEMENT DATE:** The date on which a trade is cleared by delivery of securities against funds.

**SPREAD:** The difference between two figures or percentages. It may be the difference between the bid (price at which a prospective buyer offers to pay) and asked (price at which an owner offers to sell) prices of a quote, or between the amount paid when bought and the amount received when sold.

**STRUCTURED NOTE:** A complex, fixed-income instrument, which pays interest, based on a formula tied to other interest rates, commodities or indices. Examples include “inverse floating rate” notes which have coupons that increase when other interest rates are falling, and which fall when other interest rates are rising and “dual

index floaters”, which pay interest based on the relationship between two other interest rates, for example, the yield on the ten-year Treasury note minus the Libor rate. Issuers of such notes lock in a reduced cost of borrowing by purchasing interest rate swap agreements.

**SUPRANATIONALS:** International institutions that provide development financing, advisory services and/or financial services to their member countries to achieve the overall goal of improving living standards through sustainable economic growth. The California Government Code allows local agencies to purchase the United States dollar-denominated senior unsecured unsubordinated obligations issued or unconditionally guaranteed by the International Bank for Reconstruction and Development, International Finance Corporation, or Inter-American Development Bank.

**TIME DEPOSIT:** A deposit with a California bank or savings and loan association for a specific amount and with a specific maturity date and interest rate. Deposits of up to \$250,000 are insured by FDIC. Deposits over \$250,000 are collateralized above the insurance with either government securities (at 110% of par value), first trust deeds (at 150% of par value), or letters of credit (at 105% of par value).

**TOTAL RATE OF RETURN:** A measure of a portfolio’s performance over time. It is the internal rate of return that equates the beginning value of the portfolio with the ending value, and includes interest earnings and realized and unrealized gains and losses on the portfolio. For bonds held to maturity, total return is the yield to maturity.  $(\text{Net Invested Income} / \text{Time Weighted Invested Value}) \times (365 / \# \text{ of days in the reporting period})$

**TRUSTEE OR TRUST COMPANY OR TRUST DEPARTMENT OF A BANK:** A financial institution with trust powers that acts in a fiduciary capacity for the benefit of the bondholders in enforcing the terms of the bond contract.

**UNDERWRITER:** A dealer which purchases a new issue of municipal securities for resale.

**U.S. GOVERNMENT AGENCY SECURITIES:** Securities issued by U.S. government agencies, most of which are secured only by the credit worthiness of the particular agency. See AGENCIES.

**U.S. TREASURY OBLIGATIONS:** Securities issued by the U.S. Treasury and backed by the full faith and credit of the United States. Treasuries are the benchmark for interest rates on all other securities in the U.S. The Treasury issues both discounted securities and fixed coupon notes and bonds. The income from Treasury securities is exempt from state and local, but not federal, taxes.

**TREASURY BILLS:** Securities issued at a discount with initial maturities of one year or less. The Treasury currently issues three-month and six-month Treasury bills at regular weekly auctions. It also issues very short-term “cash management” bills as needed to smooth out cash flows.

**TREASURY NOTES:** Intermediate-term coupon-bearing securities with initial maturities of one year to ten years.

**TREASURY BOND:** Long-term coupon-bearing securities with initial maturities of ten years or longer.

**UNREALIZED GAIN (OR LOSS):** Gain or loss that has not become actual. It becomes a realized gain (or loss) when the security in which there is a gain or loss is actually sold. See REALIZED GAIN (OR LOSS).

**VOLATILITY:** Characteristic of a security, commodity or market to rise or fall sharply in price within a short-term period.

**WEIGHTED AVERAGE MATURITY:** The average maturity of all the securities that comprise a portfolio that is typically expressed in days or years.

**YIELD:** The annual rate of return on an investment expressed as a percentage of the investment. See CURRENT YIELD; YIELD TO MATURITY.

**YIELD CURVE:** Graph showing the relationship at a given point in time between yields and maturity for bonds that are identical in every way except maturity.

**YIELD TO MATURITY:** Concept used to determine the rate of return if an investment is held to maturity. It takes into account purchase price, redemption value, time to maturity, coupon yield, and the time between interest payments. It is the rate of income return on an investment, minus any premium or plus any discount, with the adjustment spread over the period from the date of purchase to the date of maturity of the bond, expressed as a percentage.

**RATING DESCRIPTION TABLE**

<b>Long Term Debt Ratings</b>			
<b>Credit Quality</b>	<b>Moody's</b>	<b>S&amp;P</b>	<b>Fitch</b>
<b>Strongest Quality</b>	Aaa	AAA	AAA
<b>Strong Quality</b>	Aa1/Aa2/Aa3	AA+/AA/AA-	AA
<b>Good Quality</b>	A1/A2/A3	A+/A/A-	A
<b>Medium Quality</b>	Baa1/Baa2/Baa3	BBB+/BBB/BBB-	BBB
<b>Speculative</b>	Ba1/Ba2/Ba3	BB+/BB/BB-	BB
<b>Low</b>	B1/B2/B3	B+/B/B-	B
<b>Poor</b>	Caa	CCC+	CCC
<b>Highly Speculative</b>	Ca/C	CCC/CCC-/CC	CC
<b>Short Term Debt Ratings</b>			
<b>Credit Quality</b>	<b>Moody's</b>	<b>S&amp;P</b>	<b>Fitch</b>
<b>Strongest Quality</b>	P-1	A-1+	F1
<b>Strong Quality</b>		A-1	
<b>Good Quality</b>	P-2	A-2	F2
<b>Medium Quality</b>	P-3	A-3	F3

Note: Investment Grade ratings apply to securities with at least a medium credit quality or higher by one of the nationally recognize statistical rating organization; anything below the medium credit quality is non-investment grade.

# THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

## STATEMENT OF INVESTMENT POLICY

FISCAL YEAR ~~2022/23~~ 2023/24

June ~~14, 2022~~ 13, 2023

### I. POLICY

This Statement of Investment Policy (Policy) is intended to outline the guidelines and practices to be used in managing the Metropolitan Water District of Southern California's (District) investment portfolio. District funds not required for immediate cash disbursements will be invested in compliance with the Government Code of the state of California (California Government Code).

### II. INVESTMENT AUTHORITY

As authorized by Section 53607 of the California Government Code, authority to invest or reinvest funds of the District is hereby delegated by the Board of Directors to the Treasurer, for a period of one-year, who shall thereafter assume full responsibility for the investment program until the delegation of authority is revoked or expires. Subject to review, the Board of Directors may renew the delegation of authority each year. The Treasurer may delegate the day-to-day investment activities to their designee(s) but not the responsibility for the overall investment program.

The Treasurer may also delegate the day-to-day execution of investments to registered investment managers through written agreements. The investment manager(s), in coordination with the Treasurer, will manage on a daily basis the District's investment portfolio pursuant to the specific and stated investment objectives of the District. The investment manager(s) shall follow this Policy, the specific investment guidelines provided to each investment manager, and such other written instructions provided by the Treasurer or their designee(s). The investment manager(s) may be given discretion to acquire and dispose of assets in their designated account, but the investment manager(s) shall not be permitted to have custodial control over the District's investment portfolio.

### III. STATEMENT OF OBJECTIVES

In accordance with California Government Code Section 53600.5, and in order of importance, the Treasurer shall adhere to the following three criteria:

1. **Safety of Principal.** Investments shall be undertaken which first seek to ensure the preservation of principal in the portfolio. The Treasurer shall ensure that each investment transaction is evaluated or cause to have evaluated each potential investment, seeking both quality in issuer and in underlying security or collateral, and shall diversify the portfolio to reduce exposure to loss. Diversification of the portfolio will be used in order to reduce exposure to principal loss.
2. **Liquidity.** Investments shall be made whose maturity date is compatible with cash flow requirements of the District and which will permit easy and rapid conversion into cash without substantial loss of principal.
3. **Return on Investment.** Investments shall be undertaken to produce an acceptable rate of return after first considering safety of principal and liquidity and the prudent investor standard.

#### **IV. SCOPE**

This Policy applies to all funds and investment activities under the direct authority of the District and accounted for in the Annual Comprehensive Financial Report (ACFR), except for the employee's retirement and deferred compensation funds. In addition, deposits with banks under the California Government Code's "Deposit of Funds" provisions are excluded from this Policy's requirements. Funds of the District will be invested in compliance with the provisions of, but not necessarily limited to securities specified in the California Government Code Section 53601 et seq. and other applicable statutes. Investments will be in accordance with these policies and written administrative procedures. Investment of the District's bond proceeds shall be subject to the conditions and restrictions of bond documents and are not governed by this Policy.

#### **V. PRUDENT INVESTOR STANDARD**

Pursuant to California Government Code Section 53600.3, all persons authorized to make investment decisions on behalf of the District are trustees and therefore fiduciaries subject to the "prudent investor standard". The prudent investment standard obligates a trustee to ensure that "when investing, reinvesting, purchasing, acquiring, exchanging, selling, or managing public funds, a trustee shall act with care, skill, prudence, and diligence under the circumstances then prevailing, including, but not limited to, the general economic conditions and the anticipated needs of the agency that a prudent person acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of the agency. Within the limitations of this section and considering individual investments as part of an overall strategy, investments may be acquired as authorized by law."

#### **VI. SAFEKEEPING AND CUSTODY**

To protect against potential losses caused by the collapse of individual securities dealers, all investment transactions involving deliverable securities will be conducted on a delivery versus payment (DVP) basis. All deliverable securities owned by the District, including collateral on repurchase agreements, shall be held in safekeeping by a third party bank trust department acting as agent for the District under the terms of a custody agreement executed by the bank and the District. All financial institutions that provide safekeeping services for the District shall be required to provide reports or safekeeping receipts directly to the Controller to verify securities taken into their possession. The Controller shall also maintain evidence of the District ownership in non-deliverable securities (e.g. LAIF, CAMP, and Time CDs).

#### **VII. INVESTMENT TRANSACTIONS**

Information concerning investment opportunities and market developments will be gained by maintaining contact with the financial community. Confirmations for investment transactions will be sent directly to the Controller for audit. When practical, the Treasurer shall solicit more than one quotation on each trade.

#### **VIII. REPORTING**

If the Board delegates responsibility of the investment program to the Treasurer, then in accordance with the Metropolitan Water District Administrative Code, Section 5114, the Treasurer shall submit a monthly report to the Executive Secretary of the Board of Directors via the General Manager indicating the types of investment by fund and date of maturity, and shall provide the current market value of all securities, rates of interest, and expected yield to maturity. The Treasurer shall also submit a monthly summary report to the Board of Directors via the General Manager showing investment activity, including yield and earnings, and the status of cash by depository.



In addition, the monthly report shall also include a statement denoting the ability to meet the District's expenditure requirements for the next six (6) months. The report shall also state compliance of the portfolio to this Policy, or manner in which the portfolio is not in compliance. In the event of non-compliance, staff will prepare a report for the Board that details the compliance issue, provides analysis, and provides a recommendation to bring the portfolio back into compliance with this Policy.

## **IX. PERFORMANCE STANDARDS**

The investment portfolio shall be managed with the objective of obtaining a rate of return throughout budgetary and economic cycles, commensurate with the investment risk constraints and the cash flow needs of the District. The District will employ an active management approach that allows for the sale of securities prior to their scheduled maturity dates. Securities may be sold for a variety of reasons, such as to increase yield, lengthen or shorten maturities, to take a profit, or to increase investment quality. In no instance shall a transaction be used for purely speculative purposes. The District recognizes that in a diversified portfolio occasional measured losses are inevitable and must be considered within the context of the overall portfolio's structure and expected investment return, with the proviso that adequate diversification and credit analysis have been implemented.

Because the composition of the portfolio fluctuates, depending on market and credit conditions, various appropriate indices selected by the Treasurer will be used to monitor performance.

## **X. INVESTMENT GUIDELINES AND ELIGIBLE SECURITIES**

The District is governed by the California Government Code, Sections 53600 et seq. Within the context of these limitations, the investments listed below are authorized.

The District is prohibited from investing in any investment authorized by the California Government Code but not explicitly listed in this Policy without the prior approval of the Board of Directors. Some of the limitations on investments set forth below are more stringent than required by the California Government Code and have been included to better manage the credit risks specific to the District's portfolio. Under the provisions of California Government Code Sections 53601.6, the District shall not invest any funds covered by this Investment Policy in inverse floaters, range notes, mortgage-derived, interest-only strips or any investment that may result in a zero interest accrual if held to maturity, except as authorized by Code Section 53601.6.

### **1. US Treasury Obligations**

United States Treasury notes, bonds, bills, or certificates of indebtedness, or those for which the faith and credit of the United States are pledged for the payment of principal and interest.

- Maximum allocation: 100% of the portfolio
- Maximum maturity: Five (5) years, except as otherwise permitted by this Policy
- Credit requirement: N.A.

### **2. Federal Agency Obligations**

Federal agency or United States government-sponsored enterprise obligations, participations, or other instruments, including those issued by or fully guaranteed as to principal and interest by federal agencies or United States government-sponsored enterprises.

- Maximum allocation: 100% of the portfolio
- Maximum maturity: Five (5) years, except as otherwise permitted by this Policy
- Credit requirement: N.A.

### **3. Banker's Acceptances**

Bills of exchange or time drafts drawn on and accepted by a commercial bank, typically created from a letter of credit issued in a foreign trade transaction.

- Maximum allocation: Forty percent (40%) of the portfolio; five percent (5%) with any one issuer
- Maximum maturity: One-hundred eighty (180) days
- Credit requirement: A-1 or its equivalent or better by a Nationally Recognized Statistical Rating Organization (NRSRO).
- Issued by banks with total deposits of over one billion dollars (\$1,000,000,000)
- Issued by banks from offices in the USA.

### **4. Commercial Paper**

Commercial paper is defined as short-term, unsecured promissory notes issued by financial and non-financial companies to raise short-term cash. Financial companies issue commercial paper to support their consumer and/or business lending; non-financial companies issue for operating funds.

- Maximum allocation: Forty percent (40%) of the portfolio; five percent (5%) with any one issuer
- Maximum maturity: Two hundred seventy (270) days
- Credit requirement: Highest ranking or highest letter and number rating as provided by an NRSRO.
- Entity issuing the commercial paper must meet the conditions of California Government Code Section 53601(h)(1) or (2).

### **5. Medium Term Corporate Notes**

All corporate and depository institution debt securities (not to include other investment types specified in Code) issued by corporations organized and operating within the United States or by depository institutions licensed by the United States or any state and operating within the United States.

- Maximum allocation: Thirty percent (30%) of the portfolio; five percent (5%) with any one issuer
- Maximum maturity: Five (5) years
- Credit requirement: A or its equivalent or better by an NRSRO.

### **6. Negotiable Certificates of Deposit**

Issued by a nationally or state-chartered bank, a savings association or a federal association, a state or federal credit union, or by a federally licensed or state-licensed branch of a foreign bank.

- Maximum allocation: Thirty percent (30%) of the portfolio, five percent (5%) with any one issuer
- Maximum maturity: Five (5) years
- Credit requirement: A (long-term) or A-1 (short-term) or their equivalents or better by an NRSRO
- Issued by banks with total deposits of one billion dollars (\$1,000,000,000) or more

### **7. Bank Deposit**

Insured or collateralized time certificates of deposits, saving accounts, market rate accounts, or other bank deposits.

- Maximum limit: Thirty percent (30%) of the portfolio for all deposits
- Maximum maturity: Five (5) years

- Credit requirement: All deposits must be collateralized as required by California Government Code Sections 53630 et seq. The Treasurer may waive collateral for the portion of any deposits that is insured pursuant to federal law.
- Deposits are limited to a state or national bank, savings association or federal association, a state or federal credit union, or a federally insured industrial loan company, located in California.
- Deposits must meet the conditions of California Government Code Sections 53630 et seq.

Pursuant to Government Code 53637, the District is prohibited from investing in deposits of a state or federal credit union if a member of the District's Board of Directors, or any person at the District with investment decision-making authority, serves on the board of directors or committee of the state or federal credit union.

#### **8. Money Market Mutual Funds**

Shares of beneficial interest issued by diversified management companies that are money market funds registered with the SEC.

- Maximum maturity: N/A
- Maximum allocation: Twenty percent (20%) of the portfolio
- Credit requirement: Highest ranking by not less than two NRSROs or must retain an investment advisor that meets specified requirements
- The use of money market funds is limited to Government money market funds that provide daily liquidity and seek to maintain a stable Net Asset Value (NAV)

#### **9. State of California, Local Agency Investment Fund (LAIF)**

LAIF is a pooled investment fund overseen by the State Treasurer, which operates like a money market fund, but is for the exclusive benefit of governmental entities within the state. The maximum investment amount authorized by the Local Agency Investment Fund (LAIF) is set by the California State Treasurer's Office. The LAIF is held in trust in the custody of the State of California Treasurer. The District's right to withdraw its deposited monies from LAIF is not contingent upon the State's failure to adopt a State Budget.

- Maximum limit: The current limit set by LAIF for operating accounts
- Maximum maturity: N/A
- Credit requirement: N/A

#### **10. Municipal Bonds and Notes**

Municipal obligations issued by the State of California, any other of the states in the union, or a local agency within the State of California. This may include bonds, notes, warrants, or other evidences of indebtedness including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by an authorized entity.

- Maximum limit: Thirty percent (30%) of the portfolio; five percent (5%) with any one issuer
- Maximum maturity: Five (5) years
- Credit requirement: A (long-term) or A-1 (short-term) or their equivalents or better by an NRSRO
- Must be issued by State of California, any of the other 49 states, or a California local agency

#### **11. Repurchase Agreement**

A repurchase agreement is a purchase of authorized securities with terms including a written agreement by the seller to repurchase the securities on a future date and price.

- Maximum allocation: Twenty percent (20%) of the portfolio
- Maximum maturity: Two hundred seventy (270) days
- Master Repurchase Agreement must be on file
- Limited to primary dealers or financial institutions rated in a rating category of “A” or its equivalent or higher by an NRSRO.
- Fully collateralized at market value of at least one hundred two percent (102%) with US government or federal agency securities

## **12. California Asset Management Program (CAMP)**

Shares of beneficial interest issued by a joint powers authority organized pursuant to Section 6509.7.

- Maximum allocation: Forty percent (40%) of the portfolio
- Maximum maturity: N/A
- Credit requirement: AAAm or its equivalent or better by an NRSRO
- Joint powers authority has retained an investment adviser that is registered or exempt from registration with the Securities and Exchange Commission, has five or more years of experience investing in the securities and obligations authorized under California Government Code Section 53601, and has assets under management in excess of five hundred million dollars (\$500,000,000).

## **13. Supranationals**

Securities issued or unconditionally guaranteed by the International Bank for Reconstruction and Development (IBRD), International Finance Corporation (IFC), or Inter-American Development Bank (IADB) and eligible for purchase and sale within the United States.

- Maximum allocation: Thirty percent (30%) of the portfolio
- Maximum maturity: Five (5) years
- Credit requirement: AA or its equivalent or better by an NRSRO.

## **14. Asset-Backed Securities**

A mortgage pass-through security, collateralized mortgage obligation, mortgage-backed or other pay-through bond, equipment lease-backed certificate, consumer receivable pass-through certificate, or consumer receivable-backed bond.

- Maximum allocation: Twenty percent (20%) of the portfolio, five percent (5%) with any one issuer
- Maximum maturity: Five (5) years
- Credit requirement: AA or its equivalent or better by an NRSRO.

# **XI. DIVERSIFICATION**

The District shall seek to diversify the investments within the investment portfolio to avoid incurring unreasonable risks inherent in concentrated holdings in specific instruments, individual financial institutions or maturities. To promote diversification, this Policy sets various percentage holding limits by investment type and issuer. Investment type and issuer percentage limitation listed in this Policy are calculated at the time the security is purchased. Per issuer limits, when listed, are calculated across investment types at the parent company level. Should an investment percentage be exceeded due to instances such as the fluctuation in overall portfolio size, or market valuation changes, the Treasurer is not

required to sell the affected securities. However, no additional investments can be made in that investment type or issuer while it is above the limits established by this Policy.

## **XII. CREDIT RATINGS**

Credit rating requirements for eligible securities in this Policy specify the minimum credit rating category required at the time of purchase without regard to +, -, or 1, 2, 3 modifiers, if any. The security, at the time of purchase, may not be rated below the minimum credit requirement by any of the NRSROs that rate the security.

If a security is downgraded below the minimum rating criteria specified in this Policy, the Treasurer shall determine a course of action to be taken on a case-by-case basis considering such factors as the reason for the downgrade, prognosis for recovery or further rating downgrades, and the market price of the security. The Treasurer shall note in the monthly report any securities which have been downgraded below Policy requirements and the recommended course of action.

## **XIII. MATURITY**

The Treasurer shall maintain a system to monitor and forecast revenues and expenditures so that the District's funds can be invested to the fullest extent possible while providing sufficient liquidity to meet the District's reasonably anticipated cash flow requirements.

The final maturity of any investment in the portfolios shall not exceed five (5) years with certain exceptions:

- The Treasurer is authorized to invest special trust funds in investment with a term to maximum maturity in excess of five years. These funds include, but are not limited to, the Water Revenue Bond Reserve Funds, Escrow Funds, Debt Service Funds, the Iron Mountain Landfill Closure/Post-closure Maintenance Trust Fund, and the Lake Mathews Multi-Species Reserve Trust Fund.
- The core portfolio may hold United States Treasury and Federal Agency securities with maturities in excess of five years.

## **XIV. DURATION**

Duration is a measure of a security's price sensitivity to interest rate changes. It indicates the approximate percentage change of a security's value given a 1% change in interest rates. A portfolio's duration is the weighted average of the individual security durations held in the portfolio.

The investment portfolio is divided into liquidity, core, and ~~bond reserves and trust endowment~~ fund portfolios. The Policy's duration limits only apply to the liquidity and core portfolios. The duration of the liquidity portfolio is limited to the duration of the benchmark index plus or minus 0.5 years. The duration of the core portfolio will be limited to the duration of the benchmark index plus or minus 1.5 years. The appropriate benchmark indices will be set by the Treasurer and reported to the Board in the Monthly Treasurer's Report.

## **XV. ADMINISTRATION**

The Treasurer may, at any time, establish more restrictive requirements for securities approved for investment as deemed appropriate in this Policy. These restrictions may include, but are not limited to, higher credit ratings, lower percentage limits by security type or issuer, shorter maturities and additional collateral requirements for collateralized investments.

## **XVI. AUTHORIZED FINANCIAL DEALERS AND INSTITUTIONS**

For investments not purchased directly from the issuer, the Treasurer shall select only brokers/dealers who are licensed and in good standing with the California Department of Securities, the Securities and Exchange Commission, the Financial Industry Regulatory Authority (FINRA) or other applicable self-regulatory organizations. Before engaging in investment transactions with a broker/dealer, the Treasurer shall obtain a signed verification form that attests the individual has reviewed the District's Policy, and intends to present only those investment recommendations and transactions to the District that is appropriate under the terms and conditions of the Policy.

The District's external investment manager(s) may be granted discretion to purchase and sell investment securities in accordance with this Policy. Investment managers may also use their own list of internally-approved issuers, broker-dealers and other financial firms, so long as such managers are registered under the Investment Advisers Act of 1940.

## **XVII. INTERNAL CONTROLS**

The Treasurer or designee shall maintain a system of internal control procedures designed to ensure compliance with the Policy and to prevent losses due to fraud, employee error, and misrepresentations by third parties or unanticipated changes in financial markets. The internal control procedures shall apply to the investment activities of any person with investment decision-making authority acting on behalf of the District. Procedures should include references to individuals authorized to execute transactions or transfers, safekeeping agreements, repurchase agreements, wire transfer agreements, collateral/depository agreements and banking services contracts, as appropriate. The internal control structure shall be designed to provide reasonable assurance that these objectives are met. The concept of reasonable assurance recognizes that (1) the cost of a control should not exceed the benefits likely to be derived; and (2) the valuation of costs and benefits requires estimates and judgement by management. As part of the annual audit, the District's external auditor will perform a review of investment transactions to verify compliance with policies and procedures.

## **XVIII. ETHICS AND CONFLICT OF INTEREST**

The Treasurer and designees shall refrain from personal business activity that could conflict with the proper execution and management of the investment program or that could impair their ability to make impartial decisions.

The Treasurer and designees shall disclose to the Ethics Officer and General Counsel any personal financial interests that could conflict with the proper execution and management of the investment program, or that could impair their ability to make impartial decisions.

## **XVIX. INVESTMENT POLICY**

This Policy shall be reviewed periodically by the Treasurer with any and all modifications made thereto approved by the Board of Directors at a public meeting.



## SUMMARY TABLE OF INVESTMENT GUIDELINES AND ELIGIBLE SECURITIES

The following table is intended to be a summary of the Policy's requirements in Section X of this Policy. If there is a discrepancy between Section X and this table, the requirements listed in Section X take precedence.

Authorized Investments	Maximum % Holdings	Purchase Restrictions	Maximum Maturity	Credit Quality
US Treasury Obligations	100%	N/A	5 Years <sup>1</sup>	N/A
Federal Agency Obligations	100%	N/A	5 Years <sup>1</sup>	N/A
Bankers' Acceptance	40%	5% per issuer <sup>2</sup>	180 days	"A-1" or its equivalent or higher by an NRSRO.
Commercial Paper	40%	5% per issuer <sup>2</sup>	270 days	Highest ranking or of the highest letter and number rating as provided for by an NRSRO.
Medium Term Corporate Notes	30%	5% per issuer <sup>2</sup> . US licensed and operating corporations	5 years	"A" or its equivalent or higher by an NRSRO.
Negotiable CD	30%	5% per issuer <sup>2</sup> , National or state chartered bank, S&L, or branch of foreign bank	5 years	"A-1" (short-term) or "A" (long-term) or their equivalents or higher by an NRSRO.
Bank Deposit	30%	See California Government Code Section 53637	5 Years	Collateralized/FDIC Insured in accordance with California Government Code
Money Market Mutual Funds	20%	Gov't MMF. Stable NAV	Daily Liquidity	Highest ranking by two NRSROs or advisor requirements
Local Agency Investment Fund ("LAIF")	LAIF limit for operating accounts	Subject to California Government Code Section 16429.1 limitations	N/A	N/A
Municipal Bonds and Notes	30%	5% per issuer <sup>2</sup> . State of California or California agencies or other 49 states	5 Years <sup>1</sup>	"A" or its equivalent or higher by an NRSRO.

Authorized Investments	Maximum % Holdings	Purchase Restrictions	Maximum Maturity	Credit Quality
Repurchase Agreements (“REPO”)	20%	Limited to primary dealers or financial institutions rated “A” or better by a NRSROs	270 days	Collateralized (min 102% of funds invested) with US Government or federal agency securities with maximum 5 year maturities
California Asset Management Program (“CAMP”)	40%	N/A	Daily Liquidity	“AAAm” or its equivalent or higher by a NRSRO
Supranationals	30%	Limited to IBRD, IFC, IADB	5 Years	“AA” or its equivalent or higher by an NRSRO.
Asset-Backed Securities	20%	5% per issuer <sup>2</sup>	5 Years	“AA” or its equivalent or higher by an NRSRO.

## Notes:

1. The Treasurer is authorized to invest special trust funds in investment with a term to maximum maturity in excess of five years. These funds include, but are not limited to, the Water Revenue Bond Reserve Funds, Escrow Funds, Debt Service Funds, the Iron Mountain Landfill Closure/Post-closure Maintenance Trust Fund, and the Lake Mathews Multi-Species Reserve Trust Fund.

The core portfolio may be invested in United States Treasury and Federal Agency securities with maturities in excess of five years.

2. Per issuer limits, when listed, are calculated across investment types at the parent company level.

## GLOSSARY

The glossary is provided for general information only. It is not to be considered a part of the Policy for determining Policy requirements or terms.

**AGENCIES:** Federal agency securities and/or Government-sponsored enterprises (GSEs), also known as U.S. Government instrumentalities. Securities issued by Government National Mortgage Association (GNMA) are considered true agency securities, backed by the full faith and credit of the U.S. Government. GSEs are financial intermediaries established by the federal government to fund loans to certain groups of borrowers, for example homeowners, farmers and students and are privately owned corporations with a public purpose. The most common GSEs are Federal Farm Credit System Banks, Federal Home Loan Banks, Federal Home Loan Mortgage Association, and Federal National Mortgage Association.

**ASSET BACKED:** Securities whose income payments and hence value is derived from and collateralized (or “backed”) by a specified pool of underlying assets which are receivables. Pooling the assets into financial instruments allows them to be sold to general investors, a process called securitization, and allows the risk of investing in the underlying assets to be diversified because each security will represent a fraction of the total value of the diverse pool of underlying assets. The pools of underlying assets can comprise common payments credit cards, auto loans, mortgage loans, and other types of assets. Interest and principal is paid to investors from borrowers who are paying down their debt..

**BANKERS’ ACCEPTANCE (BA):** A draft or bill of exchange accepted by a bank or trust company. The accepting institution guarantees payment of the bill, as well as the issuer. This money market instrument is used to finance international trade.

**BASIS POINT:** One-hundredth of one percent (i.e., 0.01%).

**BENCHMARK:** A comparative base for measuring the performance or risk tolerance of the investment portfolio. A benchmark should represent a close correlation to the level of risk and the average duration of the portfolio’s investment.

**BOND:** A financial obligation for which the issuers promises to pay the bondholder a specified stream of future cash flows, including periodic interest payments and a principal repayment.

**BOOK VALUE:** The value at which a debt security is shown on the holder’s balance sheet. Book value is acquisition cost less amortization of premium or accretion of discount.

**BROKER:** A broker acts as an intermediary between a buyer and seller for a commission and does not trade for his/her own risk and account or inventory.

**CALLABLE SECURITIES:** A security that can be redeemed by the issuer before the scheduled maturity date.

**CALIFORNIA ASSET MANAGEMENT PROGRAM (CAMP):** A local government investment pool organized as joint powers authority in which funds from California local agency investors/participants are aggregated together for investment purposes.

**CASH EQUIVALENTS (CE):** Highly liquid and safe instruments or investments that can be converted into cash immediately. Examples include bank accounts, money market funds, and Treasury bills.

**CASH FLOW:** An analysis of all changes that affect the cash account during a specified period.

**CERTIFICATE OF DEPOSIT (CD):** A time deposit with a specific maturity evidenced by a certificate. Large-denomination CD's are typically negotiable.

**COLLATERAL:** Securities, evidence of deposit or other property which a borrower pledges to secure repayment of a loan. Also refers to securities pledged by a bank to secure deposits of public monies.

**COLLATERALIZED MORTGAGE OBLIGATION (CMO):** A type of mortgage-backed security that creates separate pools of pass-through rates for different classes of bondholders with varying maturities, called tranches. The repayments from the pool of pass-through securities are used to retire the bonds in the order specified by the bonds' prospectus.

**COMMERCIAL PAPER:** Short-term, unsecured, negotiable promissory notes of corporations.

**CORPORATE NOTE:** Debt instrument issued by a private corporation.

**COUPON:** The annual rate at which a bond pays interest.

**CREDIT RATINGS:** A grade given to a debt instrument that indicates its credit quality. Private independent rating services such as Standard & Poor's, Moody's and Fitch provide these

**CREDIT RISK:** The risk that an obligation will not be paid and a loss will result due to a failure of the issuer of a security.

**CUSIP:** Stands for Committee on Uniform Securities Identification Procedures. A CUSIP number identifies most securities, including: stocks of all registered U.S. and Canadian companies, and U.S. government and municipal bonds. The CUSIP system—owned by the American Bankers Association and operated by Standard & Poor's—facilitates the clearing and settlement process of securities. The number consists of nine characters (including letters and numbers) that uniquely identify a company or issuer and the type of security.

**CURRENT YIELD:** The annual interest on an investment divided by the current market value. Since the calculation relies on the current market value rather than the investor's cost, current yield is unrelated to the actual return the investor will earn if the security is held to maturity.

**CUSTODIAN:** A bank or other financial institution that keeps custody of stock certificates and other assets.

**DEALER:** A dealer, as opposed to a broker, acts as a principal in all transactions, buying and selling for his/her own risk and account or inventory.

**DELIVERY VERSUS PAYMENT (DVP):** Delivery of securities with a simultaneous exchange of money for the securities.

**DERIVATIVES:** A financial instrument that is based on, or derived from, some underlying asset, reference date, or index.

**DIRECT ISSUER:** Issuer markets its own paper directly to the investor without use of an intermediary.

**DISCOUNT:** The difference between the cost of a security and its value at maturity when quoted at lower than face value.

**DIVERSIFICATION:** Dividing investment funds among a variety of securities offering independent returns and risk profiles.

**DURATION:** A measure of the timing of the cash flows, such as the interest payments and the principal repayment, to be received from a given fixed-income security. This calculation is based on three variables: term to maturity, coupon rate, and yield to maturity. Duration measures the price sensitivity of a bond to changes in interest rates.

**EFFECTIVE RATE OF RETURN:** The annualized rate of return on an investment considering the price paid for the investment, its coupon rate, and the compounding of interest paid.  $(\text{Total Earnings} / \text{Average daily balance}) \times (365 / \# \text{ of days in the reporting period})$

**FACE VALUE:** The principal amount owed on a debt instrument. It is the amount on which interest is computed and represents the amount that the issuer promises to pay at maturity.

**FAIR VALUE:** The amount at which a security could be exchanged between willing parties, other than in a forced or liquidation sale. If a market price is available, the fair value is equal to the market value.

**FANNIE MAE:** Trade name for the Federal National Mortgage Association (FNMA), a U.S. Government sponsored enterprise.

**FEDERAL DEPOSIT INSURANCE CORPORATION (FDIC):** A federal agency that provides insurance on bank deposits, guaranteeing deposits to a set limit per account, currently \$250,000.

**FEDERAL FARM CREDIT BANK (FFCB):** Government-sponsored enterprise that consolidates the financing activities of the Federal Land Banks, the Federal Intermediate Credit Banks and the Banks for Cooperatives. Its securities do not carry direct U.S. government guarantees.

**FEDERAL FUNDS RATE:** The rate of interest at which Federal funds are traded. This rate is considered to be the most sensitive indicator of the direction of interest rates, as it is currently pegged by the Federal Reserve through open-market operations.

**FEDERAL GOVERNMENT AGENCY SECURITIES:** Federal Agency or United States government-sponsored enterprise obligations, participations, or other instruments, including those issued by or fully guaranteed as to principal and interest by federal agencies or United States government-sponsored enterprises.

**GOVERNMENT ACCOUNTING STANDARDS BOARD (GASB):** A standard-setting body, associated with the Financial Accounting Foundation, which prescribes standard accounting practices for governmental units.

**GUARANTEED INVESTMENT CONTRACTS (GICS):** An agreement acknowledging receipt of funds, for deposit, specifying terms for withdrawal, and guaranteeing a rate of interest to be paid.

**INDEX:** An index is an indicator that is published on a periodic basis that shows the estimated price and/or yield levels for various groups of securities. Examples of relevant indices for Metropolitan include, but not limited to, ICE BofAML, 3-Month Treasury Bill Index, and ICE BofAML, 1 - 5 years AAA-A US Corporate and Government Index

**INTEREST RATE:** The annual yield earned on an investment, expressed as a percentage.

**INTEREST RATE RISK:** The risk of gain or loss in market values of securities due to changes in interest-rate levels. For example, rising interest rates will cause the market value of portfolio securities to decline.

**INVESTMENT AGREEMENTS:** A contract providing for the lending of issuer funds to a financial institution ~~which~~that agrees to repay the funds with interest under predetermined specifications.

**INVESTMENT GRADE (LONG TERM RATINGS):** The minimum, high-~~quality~~ ratings for long-~~term~~ debt such as corporate notes. Investment Grade ratings are as follows: A3 (Moody's), A- (S&P), and A- (Fitch).

**INVESTMENT PORTFOLIO:** A collection of securities held by a bank, individual, institution or government agency for investment purposes.

**LIQUIDITY:** A liquid asset is one that can be converted easily and rapidly into cash with minimum risk of principal.

**LOCAL AGENCY INVESTMENT FUND (LAIF):** An investment pool sponsored by the State of California and administered/managed by the State Treasurer. Local government units, with consent of the governing body of that Agency, may voluntarily deposit surplus funds for the purpose of investment. Interest earned is distributed by the State Controller to the participating governmental agencies on a quarterly basis.

**LOCAL AGENCY INVESTMENT POOL:** A pooled investment vehicle sponsored by a local agency or a group of local agencies for use by other local agencies.

**MARKET RISK:** The risk that the value of securities will fluctuate with changes in overall market conditions or interest rates. Systematic risk of a security that is common to all securities of the same general class (stocks, bonds, notes, money market instruments) and cannot be eliminated by diversification (which may be used to eliminate non-systematic risk).

**MARKET VALUE:** The price at which a security is currently being sold in the market. See FAIR VALUE.

**MASTER REPURCHASE AGREEMENT:** A written contract covering all future transactions between the parties to repurchase agreements and reverse repurchase agreements that establish each party's rights in the transactions. A master agreement will often specify, among other things, the right of the buyer-lender to liquidate the underlying securities in the event of default by the seller-borrower.

**MATURITY:** The date that the principal or stated value of a debt instrument becomes due and payable.

**MEDIUM-TERM CORPORATE NOTES (MTNs):** Unsecured, investment-grade senior debt securities of major corporations which are sold in relatively small amounts either on a continuous or an intermittent basis. MTNs are highly flexible debt instruments that can be structured to respond to market opportunities or to investor preferences.

**MODIFIED DURATION:** The percent change in price for a 100 basis point change in yields. This is a measure of a portfolio's or security's exposure to market risk.

**MONEY MARKET:** The market in which short ~~term~~ debt instruments (Treasury Bills, Discount Notes, Commercial Paper, Banker's Acceptances and Negotiable Certificates of Deposit) are issued and traded.

**MORTGAGED BACKED SECURITIES:** A type of security that is secured by a mortgage or collection of mortgages. These securities typically pay principal and interest monthly.

**MUNICIPAL BONDS:** Debt obligations issued by states and local governments and their agencies, including cities,



counties, government retirement plans, school Agencies, state universities, sewer agency, municipally owned utilities and authorities running bridges, airports and other transportation facilities

**MUTUAL FUND:** An entity that pools money and can invest in a variety of securities ~~which~~that are specifically defined in the fund's prospectus.

**NEGOTIABLE CERTIFICATE OF DEPOSIT:** A large denomination certificate of deposit ~~which~~that can be sold in the open market prior to maturity.

**NET PORTFOLIO YIELD:** Calculation in which the 365-day basis equals the annualized percentage of the sum of all Net Earnings during the period divided by the sum of all Average Daily Portfolio Balances.

**NATIONALLY RECOGNIZED STATISTICAL RATING ORGANIZATION (NRSRO):** is a credit rating agency that issues credit ratings that the U.S Securities and Exchange Commission permits other financial firms to use for certain regulatory purposes.

**PAR VALUE:** The amount of principal which must be paid at maturity. Also referred to as the face amount of a bond. See FACE VALUE.

**PORTFOLIO:** The collection of securities held by an individual or institution.

**PREMIUM:** The difference between the par value of a bond and the cost of the bond, when the cost is above par.

**PRIMARY DEALER:** A group of government securities dealers who submit daily reports of market activity and positions and monthly financial statements to the Federal Reserve Bank of New York and are subject to its informal oversight. These dealers are authorized to buy and sell government securities in direct dealing with the Federal Reserve Bank of New York in its execution of market operations to carry out U.S. monetary policy. Such dealers must be qualified in terms of reputation, capacity, and adequacy of staff and facilities.

**PRIME (SHORT TERM RATING):** High-~~quality~~ ratings for short-~~term~~ debt such as commercial paper. Prime ratings are as follows: P1 (Moody's), A1 (S&P), and F1 (Fitch).

**PRINCIPAL:** The face value or par value of a debt instrument, or the amount of capital invested in a given security.

**PRIVATE PLACEMENTS:** Securities that do not have to be registered with the Securities and Exchange Commission because they are offered to a limited number of sophisticated investors.

**PROSPECTUS:** A legal document that must be provided to any prospective purchaser of a new securities offering registered with the Securities and Exchange Commission that typically includes information on the issuer, the issuer's business, the proposed use of proceeds, the experience of the issuer's management, and certain certified financial statements (also known as an "official statement").

**PRUDENT INVESTOR STANDARD:** A standard of conduct for fiduciaries. Investments shall be made with judgment and care, under circumstances then prevailing, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived.

**PUBLIC DEPOSIT:** A bank that is qualified under California law to accept a deposit of public funds.

**PURCHASE DATE:** The date in which a security is purchased for settlement on that or a later date. Also known as the "trade date".

**RATE OF RETURN:** 1) The yield which can be attained on a security based on its purchase price or its current market price. 2) Income earned on an investment, expressed as a percentage of the cost of the investment.

**REALIZED GAIN (OR LOSS):** Gain or loss resulting from the sale or disposal of a security.

**REPURCHASE AGREEMENT (RP or REPO):** A transaction in which a counterparty or the holder of securities (e.g. investment dealer) sells these securities to an investor (e.g. the District) with a simultaneous agreement to repurchase them at a fixed date. The security "buyer" (e.g. the District) in effect lends the "seller" money for the period of the agreement, and the terms of the agreement are structured to compensate the "buyer" for this. Dealers use RP extensively to finance their positions. Exception: When the Fed is said to be doing RP, it is lending money that is, increasing bank reserves.

**REVERSE REPURCHASE AGREEMENT (REVERSE REPO):** The opposite of a repurchase agreement. A reverse repo is a transaction in which the District sells securities to a counterparty (e.g. investment dealer) and agrees to repurchase the securities from the counterparty at a fixed date. The counterparty in effect lends the seller (e.g. the District) money for the period of the agreement with terms of the agreement structured to compensate the buyer.

**RISK:** Degree of uncertainty of return on an asset.

**SAFEKEEPING:** A service ~~which~~that banks offer to clients for a fee, where physical securities are held in the bank's vault for protection and book-entry securities are on record with the Federal Reserve Bank or Depository Trust Company in the bank's name for the benefit of the client. As an agent for the client, the safekeeping bank settles securities transactions, collects coupon payments, and redeems securities at maturity or on the call date, if called.

**SECURITIES AND EXCHANGE COMMISSION (SEC):** Agency created by Congress to protect investors in securities transactions by administering securities legislation.

**SECONDARY MARKET:** A market for the repurchase and resale of outstanding issues following the initial distribution.

**SECURITIES:** Investment instruments such as notes, bonds, stocks, money market instruments and other instruments of indebtedness or equity.

**SETTLEMENT DATE:** The date on which a trade is cleared by delivery of securities against funds.

**SPREAD:** The difference between two figures or percentages. It may be the difference between the bid (price at which a prospective buyer offers to pay) and asked (price at which an owner offers to sell) prices of a quote, or between the amount paid when bought and the amount received when sold.

**STRUCTURED NOTE:** A complex, fixed-income instrument, which pays interest, based on a formula tied to other interest rates, commodities or indices. Examples include "inverse floating rate" notes which have coupons that increase when other interest rates are falling, and which fall when other interest rates are rising and "dual index floaters", which pay interest based on the relationship between two other interest rates, for example, the yield on the ten-year Treasury note minus the Libor rate. Issuers of such notes lock in a reduced cost of borrowing by purchasing interest rate swap agreements.

**SUPRANATIONALS:** International institutions that provide development financing, advisory services and/or

financial services to their member countries to achieve the overall goal of improving living standards through sustainable economic growth. The California Government Code allows local agencies to purchase the United States-dollar -denominated senior unsecured unsubordinated obligations issued or unconditionally guaranteed by the International Bank for Reconstruction and Development, International Finance Corporation, or Inter-American Development Bank.

**TIME DEPOSIT:** A deposit with a California bank or savings and loan association for a specific amount and with a specific maturity date and interest rate. Deposits of up to \$250,000 are insured by FDIC. Deposits over \$250,000 are collateralized above the insurance with either government securities (at 110% of par value), first trust deeds (at 150% of par value), or letters of credit (at 105% of par value).

**TOTAL RATE OF RETURN:** A measure of a portfolio's performance over time. It is the internal rate of return ~~which~~that equates the beginning value of the portfolio with the ending value, and includes interest earnings and realized and unrealized gains and losses on the portfolio. For bonds held to maturity, total return is the yield to maturity. (Net Invested Income/Time Weighted Invested Value) X (365/ # of days in the reporting period)

**TRUSTEE OR TRUST COMPANY OR TRUST DEPARTMENT OF A BANK:** A financial institution with trust powers ~~which~~that acts in a fiduciary capacity for the benefit of the bondholders in enforcing the terms of the bond contract.

**UNDERWRITER:** A dealer which purchases a new issue of municipal securities for resale.

**U.S. GOVERNMENT AGENCY SECURITIES:** Securities issued by U.S. government agencies, most of which are secured only by the credit worthiness of the particular agency. See AGENCIES.

**U.S. TREASURY OBLIGATIONS:** Securities issued by the U.S. Treasury and backed by the full faith and credit of the United States. Treasuries are the benchmark for interest rates on all other securities in the U.S. The Treasury issues both discounted securities and fixed coupon notes and bonds. The income from Treasury securities is exempt from state and local, but not federal, taxes.

**TREASURY BILLS:** Securities issued at a discount with initial maturities of one year or less. The Treasury currently issues three-month and six-month Treasury bills at regular weekly auctions. It also issues very short-term "cash management" bills as needed to smooth out cash flows.

**TREASURY NOTES:** Intermediate-term coupon-bearing securities with initial maturities of one year to ten years.

**TREASURY BOND:** Long-term coupon-bearing securities with initial maturities of ten years or longer.

**UNREALIZED GAIN (OR LOSS):** Gain or loss that has not become actual. It becomes a realized gain (or loss) when the security in which there is a gain or loss is actually sold. See REALIZED GAIN (OR LOSS).

**VOLATILITY:** Characteristic of a security, commodity or market to rise or fall sharply in price within a short-term period.

**WEIGHTED AVERAGE MATURITY:** The average maturity of all the securities that comprise a portfolio that is typically expressed in days or years.

**YIELD:** The annual rate of return on an investment expressed as a percentage of the investment. See CURRENT YIELD; YIELD TO MATURITY.

**YIELD CURVE:** Graph showing the relationship at a given point in time between yields and maturity for bonds that are identical in every way except maturity.

**YIELD TO MATURITY:** Concept used to determine the rate of return if an investment is held to maturity. It takes into account purchase price, redemption value, time to maturity, coupon yield, and the time between interest payments. It is the rate of income return on an investment, minus any premium or plus any discount, with the adjustment spread over the period from the date of purchase to the date of maturity of the bond, expressed as a percentage.

**RATING DESCRIPTION TABLE**

<b>Long Term Debt Ratings</b>			
<b>Credit Quality</b>	<b>Moody's</b>	<b>S&amp;P</b>	<b>Fitch</b>
<b>Strongest Quality</b>	Aaa	AAA	AAA
<b>Strong Quality</b>	Aa1/Aa2/Aa3	AA+/AA/AA-	AA
<b>Good Quality</b>	A1/A2/A3	A+/A/A-	A
<b>Medium Quality</b>	Baa1/Baa2/Baa3	BBB+/BBB/BBB-	BBB
<b>Speculative</b>	Ba1/Ba2/Ba3	BB+/BB/BB-	BB
<b>Low</b>	B1/B2/B3	B+/B/B-	B
<b>Poor</b>	Caa	CCC+	CCC
<b>Highly Speculative</b>	Ca/C	CCC/CCC-/CC	CC
<b>Short Term Debt Ratings</b>			
<b>Credit Quality</b>	<b>Moody's</b>	<b>S&amp;P</b>	<b>Fitch</b>
<b>Strongest Quality</b>	P-1	A-1+	F1
<b>Strong Quality</b>		A-1	
<b>Good Quality</b>	P-2	A-2	F2
<b>Medium Quality</b>	P-3	A-3	F3

Note: Investment Grade ratings apply to securities with at least a medium credit quality or higher by one of the nationally recognize statistical rating organization; anything below the medium credit quality is non-investment grade.



Finance, Audit, Insurance, and Real Property  
Committee

# Statement of Investment Policy and Authority to Invest

Item 7-4

June 13, 2023



# Investment Policy and Authority to Invest

- Section 5114 of Metropolitan's Administrative Code requires the Treasurer to submit a Statement of Investment Policy to the Board for approval for the following fiscal year.
- Sections 53600 et seq. of the California Government Code expressly grant the authority to the Board to invest public funds and that authority may be delegated to the Treasurer for a one-year period.

# Statement of Investment Policy – Change

	FY2022/23	FY2023/24	Rationale
§XIV	The investment portfolio is divided into liquidity, core and bond reserves and trust fund portfolios	The investment portfolio is divided into liquidity, core, and endowment fund portfolios	Combine trust funds into an endowment fund to enable a tailored investment strategy

# Statement of Investment Policy – Change

	FY2022/23	FY2023/24	Rationale
Glossary	N/A	EFFECTIVE RATE OF RETURN: The annualized rate of return on an investment considering the price paid for the investment, its coupon rate, and the compounding of interest paid. $(\text{Total Earnings} / \text{Average daily balance}) \times (365 / \# \text{ of days in the reporting period})$	Add a definition of Effective Rate of Return

# Statement of Investment Policy – Change

	FY2022/23	FY2023/24	Rationale
Glossary	<p><b>TOTAL RATE OF RETURN:</b> A measure of a portfolio's performance over time. It is the internal rate of return which equates the beginning value of the portfolio with the ending value, and includes interest earnings and realized and unrealized gains and losses on the portfolio. For bonds held to maturity, total return is the yield to maturity.</p>	<p><b>TOTAL RATE OF RETURN:</b> A measure of a portfolio's performance over time. It is the internal rate of return which equates the beginning value of the portfolio with the ending value, and includes interest earnings and realized and unrealized gains and losses on the portfolio. For bonds held to maturity, total return is the yield to maturity. (Net Invested Income/Time Weighted Invested Value) X (365/ # of days in the reporting period)</p>	<p>Add a formula of Total Rate of Return</p>

# Board Options

## Option #1:

- Approve the Statement of Investment Policy for fiscal year 2023/24; and
- Delegate authority to the Treasurer to invest Metropolitan's funds for fiscal year 2023/24.

## Option #2:

- Do not approve the Statement of Investment Policy for fiscal year 2023/24 and do not delegate authority to the Treasurer to invest Metropolitan's funds for fiscal year 2023/24.

# Staff Recommendation

## Option #1





# Questions







• **Board of Directors**

***Finance, Audit, Insurance, and Real Property Committee***

6/13/2023 Board Meeting

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**7-5**

**Subject**

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Authorize the General Manager to execute six lease/license amendments and two new license agreements for the installation and upgrade of telecommunication equipment and changes in the terms at existing telecommunication sites known as Edom Hill, Vidal Junction, Crossman Peak, Las Vegas Junction, Searchlight, Christmas Tree, and Black Peak, and to commence occupying a new site known as Super Nap, in Southern California, Southern Nevada, and Southern Arizona, as part of Metropolitan's Desert Microwave Project; the proposed action is in furtherance of a project that was previously determined to be exempt from CEQA (Riverside County Assessor Parcel No. 659-260-030, San Bernardino County Assessor Parcel No. 0647-321-20-0000, Mohave County Parcel No. 113-02-003, Clark County Parcel Nos. 190-15-000-001; 243-34-501-019; 259-00-001-001; 176-01-801-043, and La Paz County Parcel No. 311-01-006)

**Executive Summary**

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This action authorizes the General Manager to execute six lease/license amendments at Vidal Junction, Crossman Peak, Las Vegas Junction, Searchlight, Christmas Tree, and Black Peak sites and two new license agreements at Edom Hill and Super Nap sites for the upgrade of telecommunication equipment and changes in the terms including footprint, duration and rental amounts at existing telecom sites (**Attachment 1**). These upgrades and change in terms are part of Metropolitan's Desert-Wide-Area Network Upgrade Project. The existing microwave radio wide-area network is over 14 years old, and the Board authorized the design and procurement of components for the upgrade project on January 8, 2019, and July 13, 2021.

**Details**

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**Background**

Metropolitan's Desert-Wide-Area Network (WAN) was constructed in the late 1990s and presently comprises a network of 72 transmission tower sites throughout Southern California, including 24 that support the CRA. Most sites are located on remote hilltops to provide point-to-point communication links. These sites are managed by landowners or telecommunication site operators such as American Tower Company, Crown Castle, SBA Structure, Switch, or the US Bureau of Land Management. Metropolitan's WAN provides the primary data transmission and communications path across the desert region, which entails transmitting telephone, voice, data, and video communications as well as real-time data from the supervisory control and data acquisition system, automated meter reading system, security cameras, teleprotection, and system alarms to Metropolitan's control facilities. The WAN also provides access at remote sites to email, the geographical information system, Oracle Financial, WorkTech, and PeopleSoft applications between all Metropolitan facilities.

Each transmission site consists of a tower, directional antennas that transmit incoming and outgoing signals, and microwave radio equipment typically housed in a small masonry structure. In most cases, the transmission tower and related infrastructure are owned by the landowners or telecommunication site operators and serve other public and private end-users besides Metropolitan.

The upgrade of the WAN is included within Metropolitan's Capital Investment Plan and Infrastructure Reliability Program. On January 8, 2019, the Board authorized a professional technical service contract for the subject equipment upgrades. The Board authorized procurement of the equipment for this project and additional technical services on July 13, 2021. The WAN Project will replace the current microwave system with a high-capacity

carrier-grade microwave system that will provide a more reliable communications system to the desert region. The replacement microwave system is anticipated to upgrade the microwave radio antennas, waveguides, routers, rectifiers, network management system, supporting network equipment, and direct current power distribution with battery backup systems.

Metropolitan currently uses privately owned telecommunication sites at Vidal Junction, Crossman Peak, Las Vegas Junction, Searchlight, Christmas Tree, Black Peak, and Edom Hill, which have been identified as sites that need to be upgraded/expanded as part of the WAN upgrade project. The staff has also negotiated longer-term deals where possible due to the cost of implementing this WAN upgrade Project and the long-term needs for the communication facilities. The staff has also identified a new site at Super Nap as part of the WAN Upgrade Project. The existing and proposed agreements also include rent adjustments between 3 to 5 percent per year.

### **Proposed Terms**

Terms for each agreement and amendment have been tentatively agreed upon and are presented in this letter for the Board's consideration.

### **Term Duration**

Each agreement and amendment will include the term dates set forth in Table 1 below:

**Table 1: Proposed Term Dates**

<b>Site Name (Vendor)</b>	<b>Term Start Date</b>	<b>Term End Date</b>	<b>Extension Options</b>
Edom Hill (American Tower)	June 2023	June 2038	(3) Five-Year Options
Vidal Junction (American Tower)	June 2023	February 2032	(2) Five-Year Options
Crossman Peak (American Tower)	June 2023	November 2032	(6) Five-Year Options
Las Vegas Junction (American Tower)	June 2023	July 2033	(2) Five-Year Options
Searchlight (Crown Castle)	June 2023	March 2027	(3) Five-Year Options
Christmas Tree (SBA Structure)	TBD	July 2033	None
BlackPeak (SBA Structure)	TBD	July 2033	None
Super Nap (Switch)	TBD	December 2026	None

### **Annual Rent**

Annual rent for each agreement and amendment will be established as outlined in Table 2 below:

**Table 2: Proposed Annual Rents - Year 1**

<b>Site Name (Vendor)</b>	<b>Current Rent</b>	<b>Proposed Rent</b>	<b>Change</b>
Edom Hill (American Tower)	\$30,172	\$43,260 (New)	\$13,088
Vidal Junction (American Tower)	\$71,189	\$83,189	\$12,000
Crossman Peak (American Tower)	\$24,316	\$49,516	\$25,200
Las Vegas Junction (American)	\$34,160	\$65,960	\$31,800
Searchlight (Crown Castle)	\$19,577	\$24,677	\$5,100
Christmas Tree (SBA Structure)	\$40,991	\$52,991	\$12,000

Site Name (Vendor)	Current Rent	Proposed Rent	Change
BlackPeak (SBA Structure)	\$17,289	\$26,289	\$9,000
Super Nap (Switch)	New Agreement	\$12,864	\$12,864
<b>TOTAL</b>	<b>\$237,694</b>	<b>\$358,746</b>	<b>\$121,052</b>

## Policy

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Metropolitan Water District Administrative Code Section 8230: Grants Real Property Interests

Metropolitan Water District Administrative Code Section 8231: Appraisal of Real Property Interests

Metropolitan Water District Administrative Code Section 8232: Terms and Conditions of Management

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minute Item 48766, dated August 16, 2011, the Board adopted the proposed policy principles for managing Metropolitan's real property assets.

## California Environmental Quality Act (CEQA)

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### CEQA determination for Option #1:

Metropolitan's Desert-Wide-Area Network Upgrade Project was previously determined to be categorically exempt under the provisions of CEQA and State CEQA Guidelines. The activities associated with this project were determined to be exempt under Classes 1, 2, 4, 6 and 9, Sections 15301, 15303, 15304, 15306, and 15309 of the State CEQA Guidelines on January 8, 2019 and July 13, 2021. The statute of limitations has ended. With the current board action to execute six lease amendments and two license agreements, there is no substantial change proposed to the project. Accordingly, no further CEQA documentation is necessary for the Board to act with regards to the action.

### CEQA determination for Option #2:

None required

## Board Options

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### Option #1

Authorize the General Manager to execute six lease/license amendments and two new license agreements for the installation and upgrade of telecommunication equipment and changes in the terms at existing telecommunication sites known as Edom Hill, Vidal Junction, Crossman Peak, Las Vegas Junction, Searchlight, Christmas Tree, and Black Peak, and to commence occupying a new site known as Super Nap, in Southern California, Southern Nevada, and Southern Arizona, as part of Metropolitan's Desert Microwave Project.

**Fiscal Impact:** Metropolitan's annual rent for the subject Desert Microwave sites will increase by \$121,052.

**Business Analysis:** This action will allow equipment upgrades that increase the reliability and longevity of Metropolitan's communications systems.

### Option #2

Do not authorize the lease/license amendments and new license agreements.

**Fiscal Impact:** Metropolitan's annual rent will remain at \$237,694, subject to annual rent adjustments.


Project management and design costs incurred to date in association with the equipment upgrades at these sites will be sunk costs.

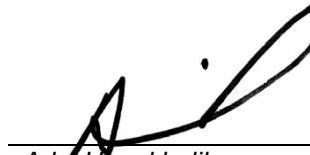
**Business Analysis:** Metropolitan's communications systems may become unreliable due to aging communication equipment.

## Staff Recommendation

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Option #1

 5/25/2023  
Shane O. Chapman  
Assistant General Manager/Operations  
Date

 5/26/2023  
Adel Hagekhalil  
General Manager  
Date

## Attachment 1 – Site Map

Ref# rpd12694274







Finance, Audit, Insurance, & Real Property Committee

# Desert Microwave Telecom Agreements

Item 7-5

June 13, 2023

# Service Area & CRA Map





## Key Provisions

- Six amendments to existing agreements and two new license agreements as part of MWD's Desert Wide Area Network Upgrade Project
- Metropolitan's annual rent for sites supporting the Desert Wide Area Network will increase \$121,052.
- The eight agreements include annual fixed rent increases ranging from 3, 4, & 5%.
- Five of the eight agreements include options to extend the term.

# Board Options

## Option No. 1

- Authorize the General Manager to execute six lease/license amendments and two new license agreements for the installation and upgrade of telecommunication equipment and changes in the terms at existing telecommunication sites known as Edom Hill, Vidal Junction, Crossman Peak, Las Vegas Junction, Searchlight, Christmas Tree, and Black Peak, and to commence occupying a new site known as SuperNap, in Southern California, Southern Nevada, and Southern Arizona, as part of Metropolitan's Desert Microwave Project.

# Board Options

## Option 2

- Do not authorize the new agreements and agreement amendments.



# Board Options

## Staff Recommendations

- Option No. 1





● **Board of Directors**

***Finance, Audit, Insurance, and Real Property Committee***

6/13/2023 Board Meeting

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**7-6**

**Subject**

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Authorize the General Manager to grant a permanent 40-foot easement to Eastern Municipal Water District for water pipeline purposes northeast of Diamond Valley Lake in the city of Hemet within Assessor Parcel Numbers 464-250-002, 464-250-003, 454-270-020 and 454-270-032; the General Manager has determined that the proposed action is exempt and not subject to CEQA

**Executive Summary**

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This action authorizes the General Manager to grant a permanent easement to Eastern Municipal Water District (EMWD) to allow for future construction, operation, maintenance, repair and replacement of a water pipeline within Metropolitan's fee-owned property. The proposed 4.1-acre easement area is located northeast of Diamond Valley Lake and south of the intersection of Chambers Avenue and Palm Avenue in the City of Hemet (**Attachment 1**). Board authorization to grant this permanent easement is required as the real property interest to be conveyed exceeds five years.

**Details**

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**Background**

In October 2003, Metropolitan granted approximately 1.7 acres to EMWD for a 20-foot-wide utility easement to accommodate a 24-inch potable water pipeline at the subject location. The purpose of the proposed additional 40-foot easement is to accommodate future construction, operation, maintenance, repair and replacement of a pipeline that would run parallel to EMWD's existing pipeline.

Staff has determined that this new easement would not interfere with Metropolitan's water operations as there are no existing or future facilities proposed in this area, and the surrounding land has been declared surplus by the Board. Prior to sale of the fee simple interest in the land, any improvements proposed within the easement area will be subject to Metropolitan's prior review and written approval to again ensure operational compatibility.

The proposed permanent easement will have the following key provisions to again protect Metropolitan for as long as Metropolitan continues to own the underlying fee simple interest:

- Requirements for mutually compatible uses between two public entities with prior rights provisions for Metropolitan.
- Easement owner rights for construction, operation, maintenance, repair and replacement.
- All plans for construction, maintenance, major repair, or replacement work shall be reviewed and approved by Metropolitan prior to the commencement of such work.
- EMWD shall complete and prepare any environmental analysis, review and documentation that may be required under the California Environmental Quality Act (CEQA) prior to approval and commencement of any activities permitted under the easement.
- EMWD shall defend, indemnify and hold harmless Metropolitan.

The fair market value for the proposed easement is \$60,000, as determined by a qualified licensed appraiser. Metropolitan will also receive a one-time processing fee of \$6,000.

## Policy

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Metropolitan Water District Administrative Code Section 8230: Grants of Real Property Interests

Metropolitan Water District Administrative Code Section 8231: Appraisal of Real Property Interests

Metropolitan Water District Administrative Code Section 8232: Terms and Conditions of Management

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minute Item 48766, dated August 16, 2011, the Board adopted fair market value policies for managing Metropolitan's real property assets.

## California Environmental Quality Act (CEQA)

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### CEQA determination for Option #1:

EMWD is requesting an additional 40-foot easement to accommodate future construction, operation, maintenance, repair and replacement of a pipeline running parallel to its existing 24-inch potable water pipeline. However, currently, no such pipeline has been proposed, planned or approved.

Accordingly, the proposed action granting this additional easement is not defined as a project because it involves organizational or continuing administrative activities that will not result in direct or indirect physical changes in the environment. (CEQA Public Resources Code §21065, State CEQA Guidelines §15378(b)(2).) In addition, the proposed action is not subject to CEQA because it can be seen with certainty that this additional easement in and of itself will not cause a significant effect on the physical environment (Section 15061(b)(3) of the State CEQA Guidelines).

EMWD, acting as the Lead Agency, will complete and prepare any environmental analysis, review and documentation that may be required under CEQA prior to approval and commencement of any activities permitted under this easement. (State CEQA Guidelines §§15004, 15352.)

### CEQA determination for Option #2:

None required

## Board Options

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### Option #1

Authorize the General Manager to grant a permanent 40-foot easement to Eastern Municipal Water District for water pipeline purposes northeast of Diamond Valley Lake in the city of Hemet within Assessor Parcel Numbers 464-250-002, 464-250-003, 454-270-020 and 454-270-032.

**Fiscal Impact:** Metropolitan will receive positive revenue in the form of a one-time payment of \$6,000 for processing fees and \$60,000 as the fair market value for the easement area.

**Business Analysis:** Cooperation with other agencies, by granting easements and other rights of entry, furthers the public interest and facilitates Metropolitan obtaining easements and other property rights critical for its operations. Metropolitan will also receive positive revenue in the form of fees and fair market value for the easement.

### Option #2

Do not approve the permanent easement.

**Fiscal Impact:** Metropolitan will forgo one-time transaction and conveyance fees of \$66,000.

**Business Analysis:** EMWD will not be permitted to construct and maintain a water pipeline within the Metropolitan property which may impact their future water deliveries in the area. This option could hinder water distribution and system resiliency.

**Staff Recommendation**

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Option #1

 5/25/2023  
Shane O. Chapman  
Asst. General Manager/Operations Date

 5/26/2023  
Adel Hagekhalil  
General Manager Date

**Attachment 1 – Site Map**

Ref# rpd12695821







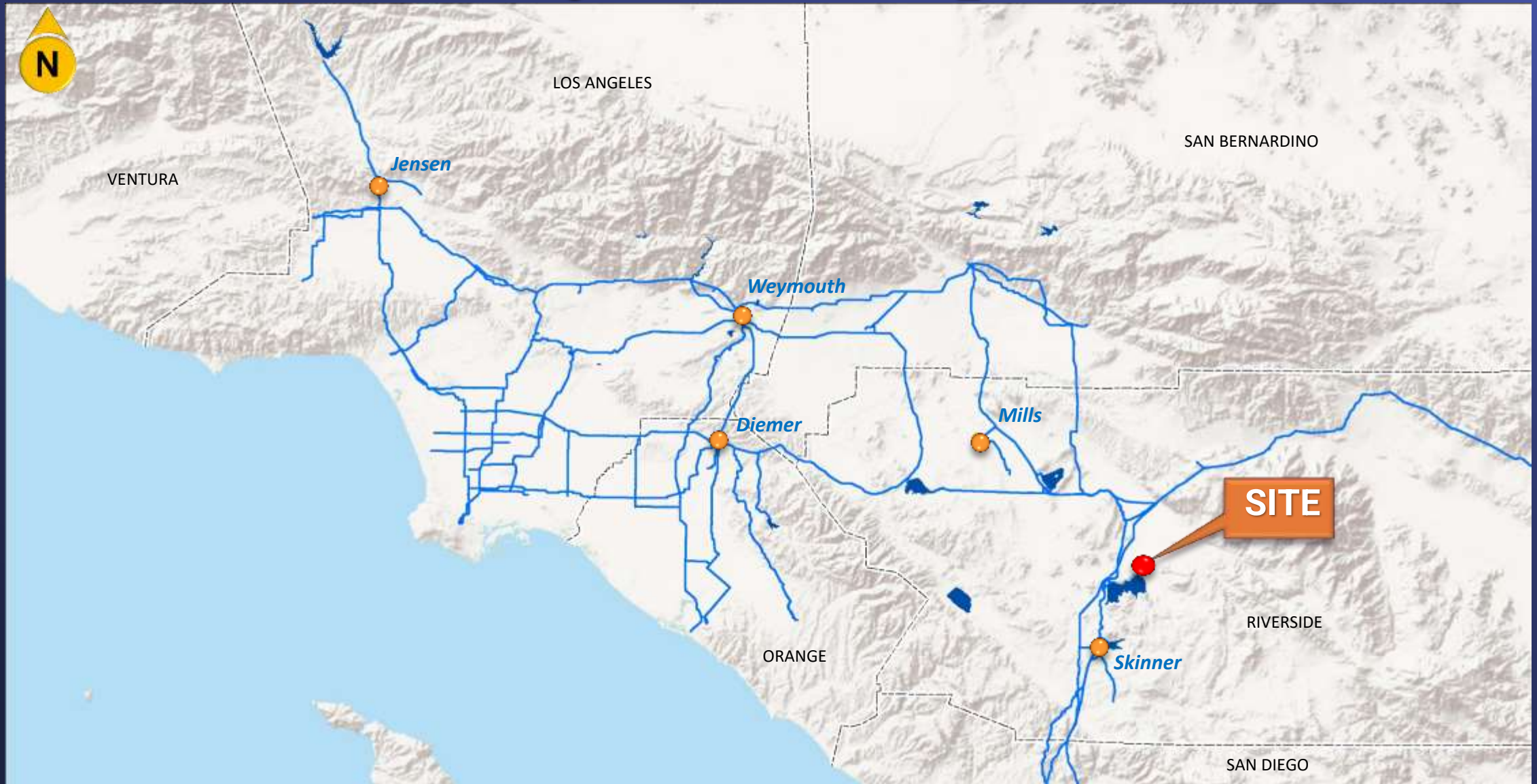
Finance, Audit, Insurance, & Real Property Committee

# Eastern Municipal Water District Easement

Item 7-6

June 13, 2023

# Distribution System Map





# General Location Map





# Site Map



## Key Provisions

- Prior rights provisions for Metropolitan
- Easement owner rights of 4.1 acres
- All plans shall be approved by Metropolitan prior commencement of work
- EMWD shall complete CEQA documentation
- EMWD shall hold Metropolitan harmless
- Appraised fair market value of \$60,000 + \$6,000 one-time processing fee

## Board Options

### Option No. 1

- Authorize the General Manager to grant a permanent 40-foot easement to Eastern Municipal Water District for water pipeline purposes northeast of Diamond Valley Lake in the city of Hemet.

### Option No. 2

- Do not approve the permanent easement.



# Board Options

## Staff Recommendation

- Option No. 1





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

6/13/2023 Board Meeting

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7-7

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## Subject

By a two-thirds vote, authorize payment of up to \$932,800 for support of the Colorado River Board and Six Agency Committee for fiscal Year 2023/2024; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

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## Executive Summary

Staff is requesting authorization for the General Manager to make this year's annual payment for Metropolitan's continued participation in activities of the Colorado River Board (CRB) and Six Agency Committee. California established the CRB in 1937 to protect the interests and rights of the state of California with respect to the water and power resources of the Colorado River system. Metropolitan and five other members of the CRB (also known as the Six Agency Committee) make annual cost-sharing payments to the CRB to fund its operations, studies, and special projects. Typically, those six agencies also fund the Colorado River Joint Powers Authority (Authority), which advances California's interests in Colorado River water and power through educational and informational campaigns. The Authority will use funds carried over from prior assessments for activities in fiscal year (FY) 2023/2024.

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## Details

### Background

#### The Colorado River Board and Six Agency Committee

The CRB provides the official representation for California before the United States and the other Colorado River Basin States. The CRB engages in activities that protect the interests and rights of the state of California, and its agencies and citizens, in the water and power resources of the Colorado River system. Six California agencies entirely fund the CRB through the Six Agency Committee; no State funding occurs. Each agency has a seat on the CRB, which also includes two public members appointed by the Governor and representatives of the California Department of Water Resources and the California Department of Fish and Wildlife.

The Six Agency Committee negotiated the most recent cost-sharing arrangement in 2020. In this agreement, urban agencies pay half of the total costs, and agricultural agencies pay the other half. . Metropolitan contributes 32 percent of the total costs; the remaining urban share is paid by the San Diego County Water Authority (10 percent) and the city of Los Angeles (8 percent). **Attachment 1** shows the cost-sharing percentages among the six agencies.

The six agencies jointly provide funds to support CRB functions, technical studies, special projects, and computer modeling. In FY 2022/2023, the CRB and the Six Agency Committee played key roles in:

- Organizing California's agencies to respond to historically dry conditions on the Colorado River system, which included reviewing and commenting on the Notice of Intent and Draft Supplemental Environmental Impact Statement (SEIS) to modify the 2007 Interim Guidelines for the Operations of Lakes Powell and Mead.
- Developing a consensus alternative modeling framework and a California modeling framework proposal to protect California's interests.

- Continuing to provide California representation and coordination associated with the binational implementation of Minute No. 323 with Mexico.
- Participating in technical and policy-level Basin States meetings addressing activities and measures to protect critical elevations in the reservoir system and developing additional drought mitigation projects.
- Supporting and cost-sharing funding of the Colorado River Basin Salinity Control Forum.

In FY 2023/2024, the CRB and the Six Agency Committee anticipate continuing participation in the programs described above, plus the following key activities:

- Coordinating California agencies' response to the Draft SEIS to modify the 2007 Interim Guidelines.
- Coordinating with California agencies to develop consensus policy positions to guide California representatives in the renegotiations of the 2007 Interim Operating Guidelines
- Contributing funds to the Basin States' efforts in winter season weather modification projects in Colorado, Utah, and Wyoming.
- Participating in the ongoing implementation of the Glen Canyon Dam Adaptive Management Program and the Lower Colorado River Multi-Species Conservation Program.

The total funding request for the CRB and Six Agency Committee is \$2,915,000. Metropolitan's proportionate share of the FY 2023/2024 funding request is \$932,800. The increase in the CRB and Six Agency Committee budgets are attributable primarily to modeling and legislative support for upcoming negotiations of the Interim Guidelines. An additional increase to the budget is due to normal office and labor cost increases.

Metropolitan's FY 2023/2024 budget includes \$826,666 for the CRB and Six Agency Committee. Because the requested amount is greater than budgeted, the remaining \$106,134 will be managed within Water Resource Management Group's overall budget.

#### Colorado River Joint Powers Authority

The six agencies also fund the Authority, which advances California's interests in the Colorado River Basin by conducting educational and informational campaigns for the CRB and others. Staff is not requesting funding for FY 2023/2024 for the Authority because the Authority proposes to use \$80,000 in funds carried over from a prior assessment. In FY 2022/2023, the Authority:

- Conducted a tour for Colorado River Authority member agencies to the Upper Colorado River Basin that included stakeholder discussions with representatives of Colorado, Utah, and the Western Area Power Administration, as well as visits to project sites.
- Prepared for oral history interviews and evaluated options for making oral histories more accessible to stakeholders and the public.

In FY 2023/2024, the Authority anticipates the following key activities:

- Modeling and legislative support for the renegotiation of the 2007 Interim Guidelines.
- Continuing the collection of oral histories.
- Providing a 2024 inspection of the Lower Colorado River Basin for California stakeholders.

The following table compares the FY 2023/2024 funding request with the FY 2022/2023 request:

<b>Fund</b>	<b>FY 2022/23</b>	<b>FY 2023/24 (est.)</b>
Colorado River Board/Six Agency Committee	\$871,680	\$932,800
Colorado River Joint Powers Authority	\$0	\$0
<b>Total</b>	<b>\$871,680</b>	<b>\$932,800</b>

## Policy

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Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

Metropolitan Water District Administrative Code Section 11102: Payment of Dues

Metropolitan Water District Administrative Code Section 11103: Participation in Projects or Programs Serving District Purposes

Metropolitan Water District Act Section 126: Dissemination of Information (subject to a two-thirds vote requirement)

By Minute Item 40277, dated June 15, 1993, the Board authorized amending the May 13, 1947, agreement to provide for appointment of alternate representatives on the Colorado River Association Six Agency Committee.

By Minute Item 46291, dated July 12, 2005, the Board authorized agreement to create the Colorado River Joint Powers Authority.

By Minute Item 46310, dated July 12, 2005, the Board approved the new funding arrangement for the Colorado River Board based on the proposed cost-sharing percentage.

By Minute Item 50166, dated June 9, 2015, the Board approved executing the Six Agency Committee agreement's amendment to extend the cost-sharing formula through June 30, 2020.

By Minute Item 52019, dated June 9, 2020, the Board approved executing the Six Agency Committee agreement's amendment to extend the cost-sharing formula through June 30, 2025.

## California Environmental Quality Act (CEQA)

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### CEQA determination for Option #1:

The proposed action is not defined as a project under CEQA (Public Resources Code Section 21065, State CEQA Guidelines Section 15378) because the proposed action will not cause either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment, and because it involves continuing administrative activities such as general policy and procedure making (Section 15378(b)(2) of the State CEQA Guidelines). In addition, the proposed action is not defined as a project under CEQA because it involves the creation of government funding mechanisms or other government fiscal activities which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment (Section 15378(b)(4) of the State CEQA Guidelines).

### CEQA determination for Option #2:

None required

## Board Options

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### Option #1

By a two-thirds vote, authorize payment of up to \$932,800 for support of the Colorado River Board and Six Agency Committee for FY 2023/2024.

**Fiscal Impact:** Expend budgeted funds of up to \$932,800 from the FY 2023/2024 budget. The adopted budget contains \$826,666 for this line item. The remaining \$106,134 will be managed within Water Resource Management Group's overall budget.

**Business Analysis:** Provides continued representation of Metropolitan and California in Colorado River matters by the CRB and Six Agency Committee at present levels.

### Option #2

Do not authorize payment of up to \$932,800 for support of the Colorado River Board and Six Agency Committee for FY 2023/2024.

**Fiscal Impact:** Savings of up to \$932,800

**Business Analysis:** Will not provide for continued representation of Metropolitan and California interests in Colorado River matters by the CRB and Six Agency Committee at present levels.

## Staff Recommendation


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Option #1

  
\_\_\_\_\_  
Brad Coffey  
Manager, Water Resource Management

5/25/2023

Date

  
\_\_\_\_\_  
Adel Hagekhalil  
General Manager

5/25/2023

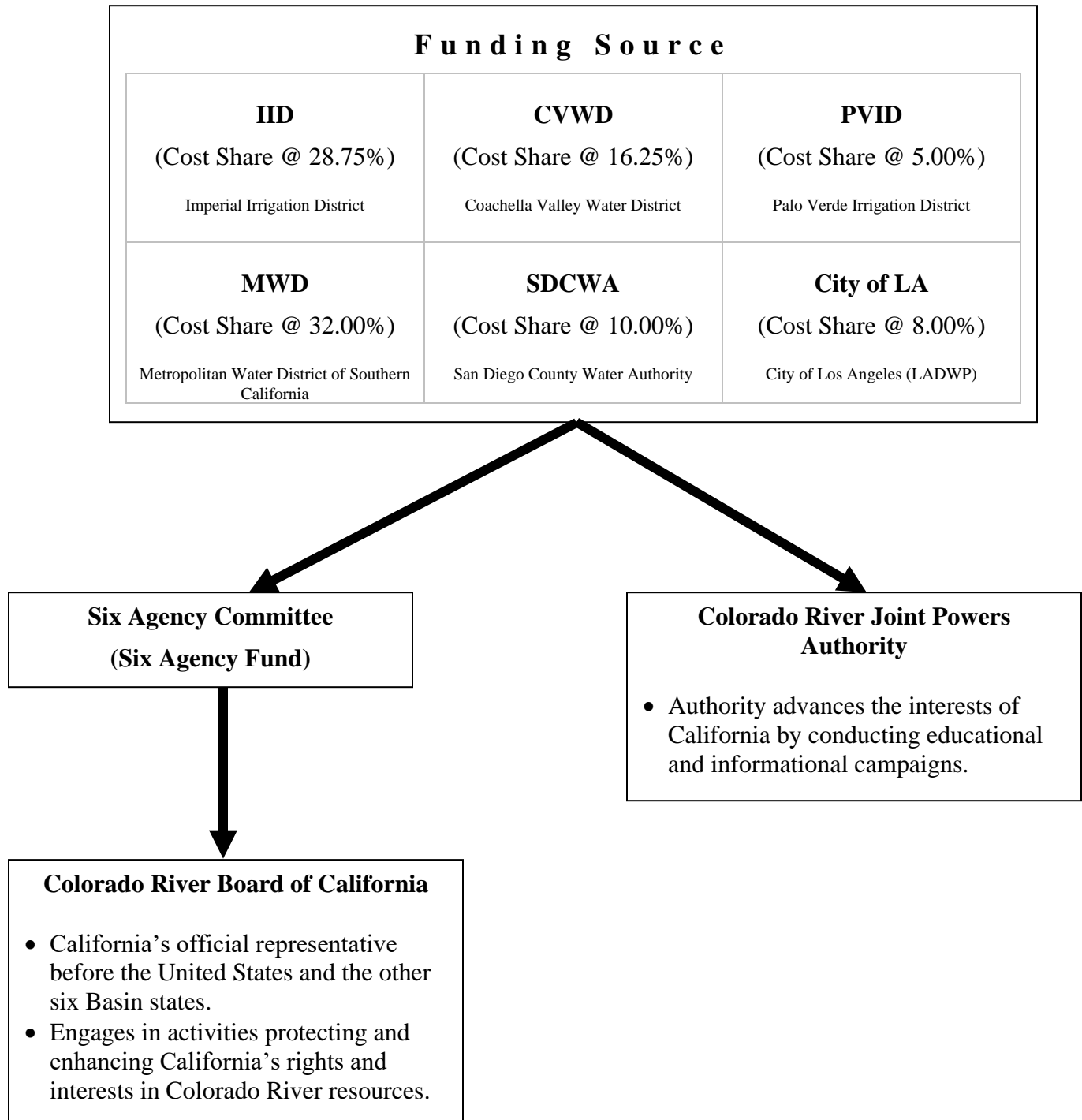
Date

## Attachment 1 – Cost-Sharing Summary

Ref# wrm12694227



## Cost-Sharing Summary





## One Water and Stewardship Committee

Authorize payment of up to \$932,800 for support of the Colorado River Board and Six Agency Committee

Item 7-7

June 12, 2023

Background Information

# Colorado River Board of California



## Summary of Responsibilities

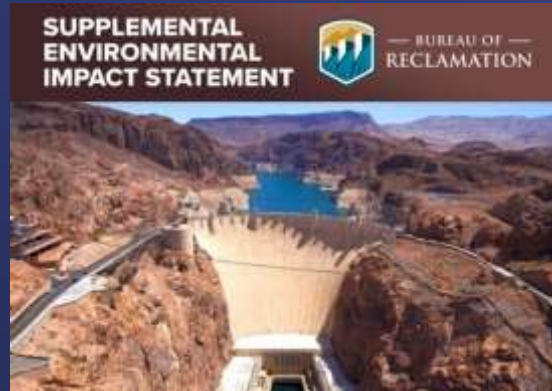
- California's official representative to the Basin States and United States
- Protects California's rights
- Provides unified voice

Background Information

# Colorado River Board of California



## Activities in FY 2022-23



- Reviewed and commented on the Notice of Intent (NOI) and Draft Supplemental Environmental Impact Statement (SEIS) to modify the 2007 Interim Guidelines
- Participated in technical and policy meetings addressing measures to protect critical elevations in the reservoir system
- Supported the Salinity Control Program

Background Information

# Colorado River Board of California



## Ongoing Activities

- Participate in planning for the Interim Guidelines Re-Negotiations
- Support and implement the Lower Colorado River Multi-Species Conservation Program
- Participate in Bi-National Work Groups under Minute 323





Background Information

# Colorado River Board of California



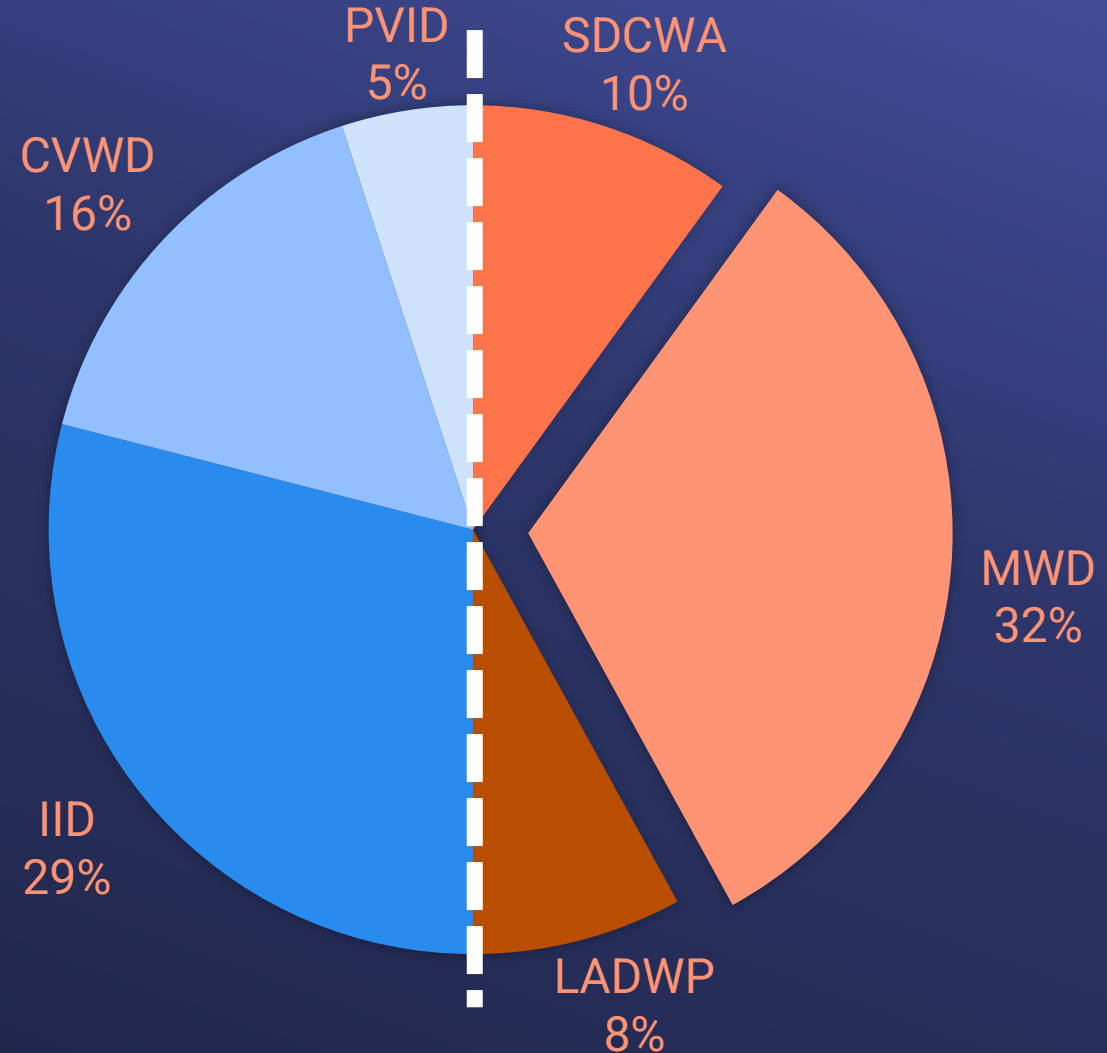
## Six Funding Agencies

- Coachella Valley Water District (CVWD)
- Imperial Irrigation District (IID)
- Los Angeles Department of Water & Power (LADWP)
- Metropolitan Water District of Southern California (MWD)
- Palo Verde Irrigation District (PVID)
- San Diego County Water Authority (SDCWA)



# Cost-Sharing Agreement Among Six Agency Members

Total \$2,915,000

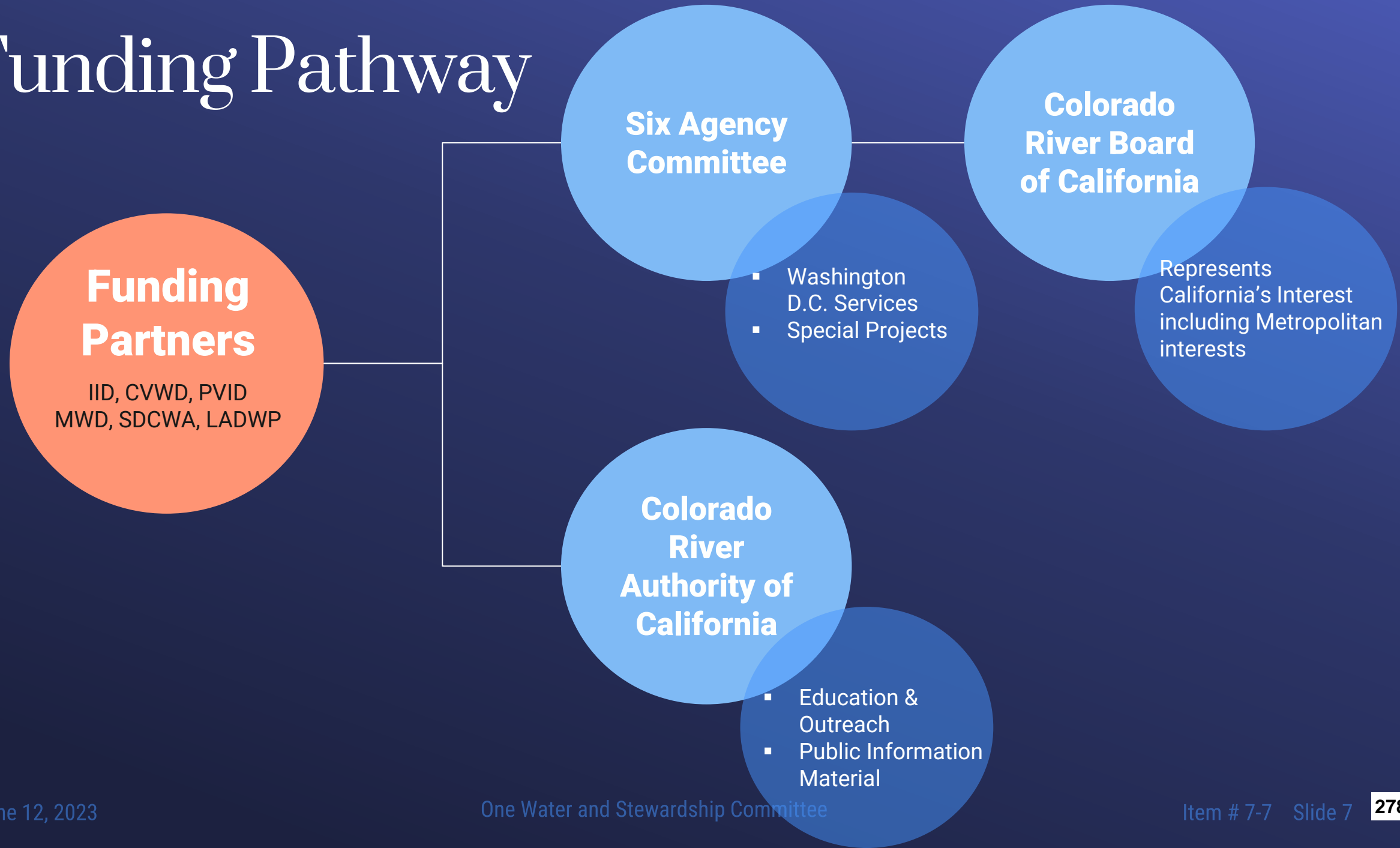


Background Information

## Colorado River Board of California



# Funding Pathway



# FY 2023-24 Request

- Approval to pay fees of \$932,800
- Colorado River Board will consider approval of final FY 2023-24 budget on June 14, 2023

# Options

## Staff Recommendation

- Option #1

By a two-thirds, vote, authorize the General Manager to make payment of up to \$932,800 for support of the Colorado River Board and Six Agency Committee for FY 2023/24.

- Option #2

Do Not authorize the General Manager to make payment of up to \$932,800 for support of the Colorado River Board and Six Agency Committee for FY 2023/24.





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

6/13/2023 Board Meeting

7-8

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## Subject

Adopt Mitigated Negative Declaration for the Delta Smelt and Native Species Preservation Project and take related CEQA actions

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## Executive Summary

In accordance with the California Environmental Quality Act (CEQA), this action adopts a Mitigated Negative Declaration (MND) for the Delta Smelt and Native Species Preservation Project (Project), which, if approved by a future Board action, would include the construction of two marsh-pond complexes to house native fish for research and experimental study. Each marsh-pond complex would consist of a propagation pond, a cooling marsh, and a food-producing marsh. Research conducted at these ponds would help refine future research on Delta smelt and the establishment of a marsh-pond complex that could support Delta smelt.

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## Details

### Background

Southern California has an important stake in the Delta region and its existing infrastructure. As the largest State Water Project (SWP) Contractor, Metropolitan has invested and will continue to invest significantly in the SWP, encourage efforts to restore sensitive fish populations in the Delta watershed, and promote scientific research into the causes of decline in fish native to the Delta.

Metropolitan is proposing the Delta Smelt and Native Species Preservation Project as part of a state and federal partnership. In cooperation with funding partners, and with the aid and assistance of the interagency state and federal Culture and Supplementation of Smelt (CASS) team and the University of California (UC) Davis, Metropolitan is proposing this Project to utilize a portion of the Bouldin Island property currently owned by Metropolitan in the Sacramento-San Joaquin Delta to further Delta smelt and other native fish research and research of potential future propagation variability. See **Attachment 1** for the Location Map.

Supplementation of the wild population of Delta smelt (*Hypomesus transpacificus*) with cultured fish is considered a vital step in preventing extirpation from the wild. The recovery of Delta smelt is important because it is an indicator species for the ecosystem health and, in part, because its presence in designated critical habitat in the Sacramento-San Joaquin Delta plays a key role in regulations affecting the SWP water supplies. While Delta smelt have declined in the wild, scientists have successfully cultured Delta smelt in captivity at the UC Davis Fish Conservation and Culture Laboratory (FCCL). As described in the 2019 U.S. Fish and Wildlife Service (USFWS) Biological Opinion for the Reinitiation of Consultation on the Coordinated Operations of the Central Valley Project and State Water Project, by 2030, the United States Bureau of Reclamation (USBR) proposes to work with the California Department of Water Resources (DWR) to support a larger conservation hatchery to breed and propagate a stock of fish with equivalent genetic resources of the native stock and at sufficient quantities to effectively augment the existing wild population, so that they can be returned to the wild to reproduce naturally in their habitat. Additional research is required to support this effort. The proposed Project would provide research opportunities and a potential location for an additional hatchery population.

The USFWS has recently developed its Delta Smelt Supplementation Strategy (DSSS) to provide a scientific and regulatory roadmap for achieving successful reintroduction of Delta smelt. The DSSS capitalized on an initial period of research, monitoring, and evaluation of the efficacy and effects of hatchery production and contained



release of cultured Delta smelt. One key initial finding was that cultured Delta smelt could survive the four-week study period in net pen enclosures in the wild. This study further demonstrated that cultured fish survived in ambient water quality and temperature and that they successfully transitioned from food pellets to naturally produced wild prey within enclosures set in natural conditions during the four-week period. An important next step highlighted in the DSSS is the development of science to guide uncontained releases of Delta smelt into the wild. Wild releases in the winter of 2021/22 were determined to be successful, with some detections in the wild post release. Although larvae of Delta smelt have been detected, it is uncertain whether they originated from the cultured Delta smelt. In addition, it is not clear what conditions favor improved survival and reproduction. The proposed Project would address these questions, including the development of methods for successful reintroduction.

The proposed Project would include the construction of two marsh-pond complexes on a portion of Bouldin Island that would house native fish for experimental study. Each marsh-pond complex would consist of a propagation pond, a cooling marsh, and a food-producing marsh that would be constructed in two phases. The first phase would be a smaller demonstration pilot, and the second larger phase would capitalize on what was learned in the first phase. The tule marshes would be of varying sizes and serve two distinct functions: the first type of marsh would be designed to optimize cooling of water temperatures (cooling marsh), and the second type would be for production of food for the native fish (food-producing marsh). The propagation ponds would contain the fish and would be connected to the cooling and feeding marshes through screened concrete-lined canals. Research conducted at these ponds would help refine future research on Delta smelt and the establishment of a marsh-pond complex that could support Delta smelt. This proposed Project assumes, prior to any transport and stocking of hatchery Delta smelt, that fish are available from the FCCL and that their release and rearing in the ponds is approved by the USFWS and California Department of Fish and Wildlife (CDFW).

Regulatory permits are necessary for the Project. Permitting activities planned for the Project include obtaining a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers (USACE), a Clean Water Act Section 401 certification and waste discharge and stormwater discharge permits from Regional Water Quality Control Board (RWQCB), and consultation with the USFWS under Section 7 of the federal Endangered Species Act. Staff will return to the Board at a future date with an action item to obtain a project approval and to award construction contract(s) to perform the proposed work.

#### **Adopt Mitigated Negative Declaration (no funds required)**

To comply with CEQA and the State CEQA Guidelines, Metropolitan, as the Lead Agency, prepared an MND for the Delta Smelt and Native Species Preservation Project (**Attachment 2**). On February 10, 2023, Metropolitan released the draft Initial Study and MND for a 30-day public review period as required by CEQA and the State CEQA Guidelines. Staff filed a Notice of Completion with the State Clearinghouse, and a Notice of Intent was posted to Metropolitan's website and provided to state and local agencies and other interested parties. The Initial Study and MND were also posted on Metropolitan's website, while hard copies were made available at Metropolitan's headquarters in Los Angeles and its Sacramento office. **Attachment 3** contains comment letters received during the public review period, along with responses to those comments.

As stated in the State CEQA Guidelines (Section 15074), the Board is required to review and consider the MND, the Initial Study, and comments received during the public review period prior to the adoption of the MND. Adoption of the MND is dependent on the finding by the Board that, based on the whole record before it, there is no substantial evidence that with the mitigation measures required by the MND, the proposed Project will have a significant impact on the environment and that the MND reflects the Lead Agency's independent judgment and analysis. The Mitigation Monitoring and Reporting Program (MMRP) is required under CEQA (Section 21081.6 of the California Public Resources Code) and must also be adopted by the Board prior to project approval (**Attachment 4**). All of the above documentation, including other materials that constitute the record of proceedings upon which the Lead Agency decision is based, is on file at Metropolitan's headquarters located at 700 North Alameda Street, Los Angeles, CA 90012.

#### **Summary**

This action proposes the adoption of the MND for the Delta Smelt and Native Species Preservation Project and the adoption of the MMRP in accordance with CEQA.

***Project Milestone***

Fall 2023 – Bring an action item to consider project approval and, if approved, award construction contract for the Delta Smelt and Native Species Preservation Project

**Policy**

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Metropolitan Water District Administrative Code Section 11100: Environmental Matters

By Minute 53012, dated October 11, 2002, the Board adopted the Revision and Restatement of Bay-Delta Policies.

**California Environmental Quality Act (CEQA)**

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**CEQA determination for Option #1:**

Review and consider the information in the MND, Initial Study, and comments received during the public review period; find that based on the whole record before the Board there is no substantial evidence that the proposed project will have a significant impact on the environment and the MND reflects the Lead Agency's independent judgment and analysis; adopt the MND for the proposed project; and adopt the MMRP.

**CEQA determination for Option #2:**

None required

**Board Options**

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**Option #1**

Adopt the Mitigated Negative Declaration for the Delta Smelt and Native Species Preservation Project and take related CEQA actions.

**Fiscal Impact:** None

**Business Analysis:** This option will enable staff to move forward with securing environmental permits and other future approvals for the Project.

**Option #2**

Do not adopt the Mitigated Negative Declaration for the Delta Smelt and Native Species Preservation Project at this time.


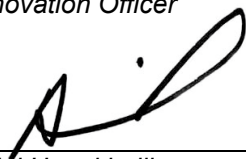
**Fiscal Impact:** None

**Business Analysis:** This option would not allow the Project to move forward at this time to secure environmental permits and other future approvals for the Project, thus forgoing an opportunity to further Delta smelt and other native fish research and research of potential future propagation variability.

**Staff Recommendation**

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Option #1

	5/22/2023
Elizabeth K. Crosson Chief Sustainability, Resiliency & Innovation Officer	Date
	5/23/2023
Adél Hagekhalil General Manager	Date

**Attachment 1 – Project Location****Attachment 2 – Initial Study and Mitigated Negative Declaration****Attachment 3 – Comment Letters and Responses to Comments****Attachment 4 – Mitigation Monitoring and Reporting Program**

Ref# sri12686157



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# **Delta Smelt and Native Species Preservation Project**

## **Mitigated Negative Declaration**

**The Metropolitan Water District of Southern California**  
700 North Alameda Street  
Los Angeles, CA 90012



Report No. 1659

*February 2023*

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DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT  
MITIGATED NEGATIVE DECLARATION

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- A. Proposed Project Construction Plans
- B. Construction Details and Air Quality Emission Estimate Calculations
- C. Biological Resources Technical Report
- D. Aquatic Resources Delineation Memo

# 1. Project Description

## 1.1 Background

The Metropolitan Water District of Southern California (Metropolitan) is the primary wholesale water supplier for Southern California and comprises 26 member agencies, which provide water to nearly 19 million Southern California residents. Metropolitan has a service area that spans through six counties within a 5,200-square-mile area. Additionally, Southern California has an important stake in the Delta region and its existing infrastructure. As a State Water Project (SWP) contractor, Metropolitan has invested and will continue to invest significantly in the SWP, encourage efforts to restore sensitive fish populations in the Delta watershed, and promote scientific research into the causes of decline in fish native to the Delta.

## 1.2 Proposed Project Purpose and Need

Metropolitan is proposing the Delta Smelt and Native Species Preservation Project (Proposed Project), as part of a state and federal partnership. In cooperation with funding partners, and with the aid and assistance of the state and federal interagency Culture and Supplementation of Smelt (CASS) team<sup>1</sup> and University of California (UC) Davis, Metropolitan is promoting a Proposed Project that would utilize a portion of the Bouldin Island property currently owned by Metropolitan in the Sacramento-San Joaquin Delta to further delta smelt (*Hypomesus transpacificus*) and other native fish research, and research of potentially future propagation viability.

Supplementation of the wild population of delta smelt with cultured fish is considered to be a vital step in preventing extirpation from the wild. The recovery of delta smelt is important because it is an indicator species for the ecosystem health and, in part, because its presence in designated critical habitat in the Sacramento-San Joaquin Delta plays a key role in regulations affecting California's water supply. While delta smelt have declined in the wild, scientists have successfully cultured delta smelt in captivity at the UC Davis Fish Conservation and Culture Laboratory (FCCL), and, as described in the 2019 United States Fish and Wildlife Service's (USFWS's) Biological Opinion for the Reinitiation of Consultation on the Coordinated Operations of the Central Valley Project and State Water Project, by 2030, the United States Bureau of Reclamation (USBR) proposes to work with the California Department of Water Resources (DWR) to support a larger conservation hatchery to breed and propagate a stock of fish with equivalent genetic resources to the native stock and at sufficient quantities to effectively augment the existing wild population so that they can be returned to the wild to reproduce naturally in their habitat. Additional research is required to support this effort. The Proposed Project would provide research opportunities and a potential location for an additional hatchery population.

The USFWS has recently developed its Delta Smelt Supplementation Strategy (DSSS) to provide a scientific and regulatory roadmap for achieving successful reintroduction of delta smelt (USFWS 2020). The DSSS capitalized on an initial period of research, monitoring, and evaluation of the

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<sup>1</sup> Consulting partners primarily include the United States Geological Survey (USGS), DWR, and USFWS. Other consulting agencies include the USBR and the California Department of Fish and Wildlife (CDFW). CASS is an interagency team, composed of the CDFW, DWR, USBR, and USFWS, created in 2019 to implement science-based management activities to secure and stabilize the delta smelt wild population through a coordinated captive propagation and supplementation program.

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**DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT  
MITIGATED NEGATIVE DECLARATION**

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efficacy and effects of hatchery production and contained release of cultured delta smelt (e.g., Israel et al. 2011; Lessard et al. 2018; Hung et al. 2019).

One key initial finding was that cultured delta smelt could survive the 4-week study period in net pen enclosures in the wild (Baerwald et al. 2019). This study further demonstrated that cultured fish survived in ambient water quality and temperature and that they successfully transitioned from pellets to naturally produced wild prey within enclosures set in natural conditions during the 4-week period. An important next step highlighted in the DSSS is the development of science to guide uncontained releases of delta smelt into the wild. However, it is uncertain whether cultured delta smelt would survive and complete their life cycle when introduced freely into a natural habitat. The Proposed Project would address this question, including the development of methods for successful reintroduction.

## **Project Objectives**

The objectives of the Proposed Project are:

- Establish a marsh-pond complex where research can occur to determine if the marsh-pond complex can support cultured delta smelt and other native fish that will survive and complete their life cycle when introduced freely into a natural habitat.
- Conduct further delta smelt and native fish research, and research of potential future propagation.
- Inform future design of native fish habitat projects through beta testing of various design concepts
- Research the potential of the marsh-pond complex to support a hatchery population in a more natural environmental setting using wetlands to provide a food source (food marsh) and a source of cold water (cooling marsh).

## **1.3 Project Location and Description**

### **Project Location**

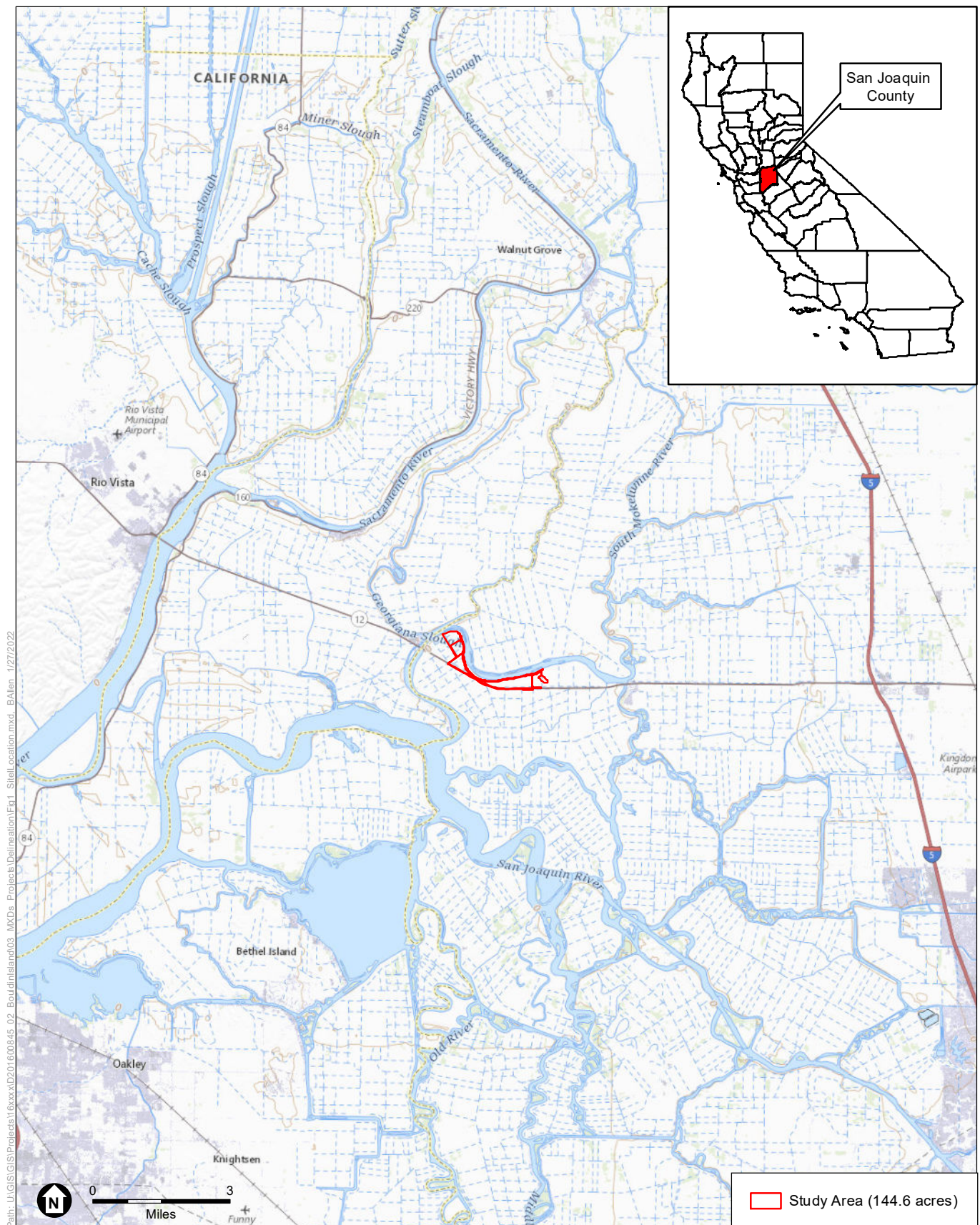
The Proposed Project covers approximately 145 acres across two parcels and includes two “marsh-pond complexes,” a tule harvest area, and several connecting access roads. The Proposed Project site is within the Sacramento-San Joaquin Delta on Bouldin Island, which is owned by Metropolitan and located adjacent to the confluence of the North and the South Forks of the Mokelumne River in unincorporated San Joaquin County, California (**Figures 1-1 and 1-2**).

### **Project Description**

The Proposed Project would include the construction of two marsh-pond complexes that would house native fish for experimental study.<sup>2</sup> Each marsh-pond complex consists of a propagation pond, a cooling marsh, and a food marsh that would be constructed in two phases. The first phase is a smaller demonstration pilot, and the second larger phase will capitalize on what was learned in the first phase. The tule marshes would be of varying sizes and serve two distinct functions: the

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<sup>2</sup> The Proposed Project is not a habitat or ecosystem restoration project. The marsh-pond complexes will be highly managed for the sole purpose of scientific research.



SOURCE: USGS, 2022; ESA, 2022

Delta Smelt Preservation Project

**Figure 1-1**  
Project Site Location





SOURCE: MAXAR, 2021; ESA, 2022

Delta Smelt Preservation Project

**Figure 1-2**  
Project Study Area



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**DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT  
MITIGATED NEGATIVE DECLARATION**

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first type of marsh would be designed to optimize cooling of water temperatures (cooling marsh) and the second type is for production of food for the native fish (food marsh). The propagation ponds would contain the fish and would be connected to the cooling and food marshes through screened concrete-lined canals. Research conducted at these ponds would help refine future research on delta smelt and the establishment of a marsh-pond complex that could support delta smelt. This Proposed Project assumes, prior to any transport and stocking of hatchery delta smelt, that fish are available from the FCCL and their release and rearing in the propagation ponds is approved by the USFWS and California Department of Fish and Wildlife (CDFW).

**Project Construction**

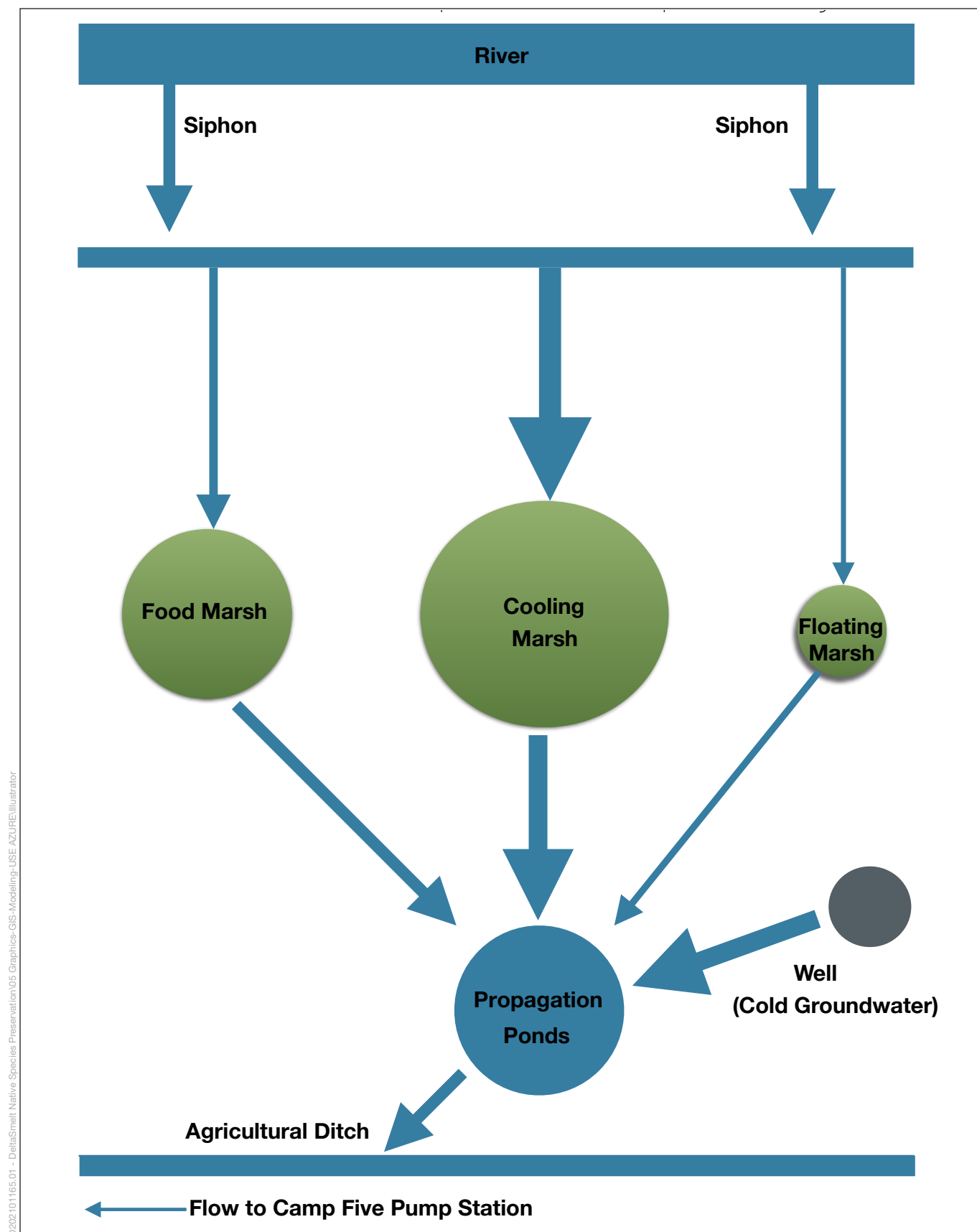
As discussed above, the Proposed Project would include the construction of native fish habitat marsh-pond complexes, which would be completed in two phases. Each phase would include a complete marsh-pond complex with a cooling marsh, food marsh, and a propagation pond (**Figure 1-3, Appendix A**). Phase I would include a 2-acre cooling marsh, a 0.3-acre food marsh, and an 0.5-acre propagation pond. Phase II would include a 3.5-acre cooling marsh, a 2-acre food marsh and a 1.5-acre propagation pond. A 0.3-acre floating peat marsh, which replicates historic floating tule mats, may also be constructed in Phase II if current ongoing research warrants. The entire marsh-pond complex footprint for the total Proposed Project, including all the associated staging area, water distribution system and access roads would be up to 25 acres.

***Access and Staging***

Construction access to the site from Highway 12 would consist of two roads labeled Road 1 and Road 2, including an existing road that is 15 to 20 feet wide and a new access road to be designed with a width of approximately 20 to 30 feet (Figure 1-2). The improved access road at the toe of the levee would be graded to remove existing ruts, and then a 4-inch layer of 0.75-inch class crushed aggregate base would be added with no change to the existing dimensions of the roads to improve mobility for vehicles, all-terrain vehicles, and foot traffic to key Proposed Project facilities, including wells, testing sites, screens, gates, and observation areas.

There are two construction material and equipment staging areas (**Figure 1-4**). Staging Area 1 is located immediately south of Cooling Marsh A along the west side of the Proposed Project area. Staging Area 2 is located immediately to the west of Food Marsh B along the southern edge of the Proposed Project area. The staging areas would be approximately 1,500 square feet in size. Crushed aggregate of 0.75 inches in size would be applied to the areas at a depth of approximately 6 inches.

All vehicles and equipment brought on-site shall be decontaminated in accordance with federal and state regulations and guidelines for controlling the spread of noxious weeds, invasive species, and disease, which includes inspecting all vehicles, tools, boots, and other Project-related equipment, and removing all visible soil/mud, plant materials, and animal remnants prior to entering and exiting the Project site. This decontamination process must be completed each time Project-related equipment is brought on-site. Transportation of off-hauled material would be conducted per state and federal regulations. All materials would be taken to an approved storage, recycle, or waste facility.

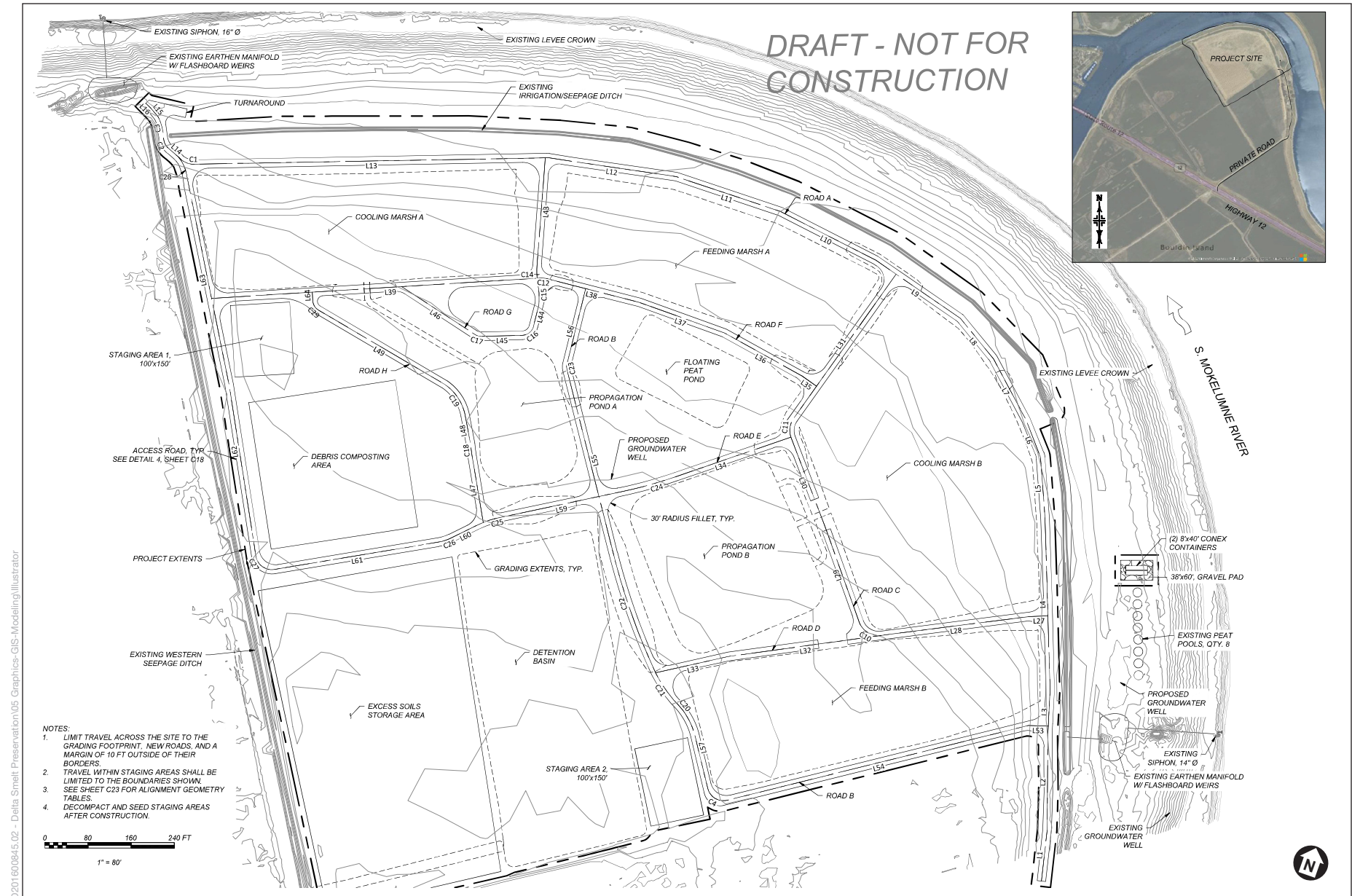


SOURCE: ESA, 2022

Delta Smelt Preservation Project

**Figure 1-3**

Delta Smelt and Native Species Preservation Project Conceptual Diagram



SOURCE: cbec, 2022

Delta Smelt Preservation Project

**Figure 1-4**  
Site Plan Overview

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**DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT  
MITIGATED NEGATIVE DECLARATION**

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***Cooling and Food Marshes***

The cooling and food marshes would be excavated with heavy equipment and the material removed would be used to create berms around the exterior of the two marshes and internal berms to direct the flow of water within the marshes. Initial land preparation would include disking and land leveling of up to 1 foot (plus or minus) within each marsh containment berm. Earth-moving includes constructing wetland by excavating soils and constructing perimeter berms (maximum of 3-foot height and 20-foot toe width) for water containment. These berms would be constructed using scrapers, graders, dozers, and water wagons. The sloped design and internal berms, with flashboard weirs, would allow water to be drained from the pond and isolate pond sections.

Both marshes would be planted with locally harvested tule rhizomes that would be excavated from the harvest area in 2-foot by 2-foot blocks, as described in the *Tule Harvesting* section below. The blocks would be offloaded with an excavator and placed in the cooling and food marsh ponds on 5-foot centers. Once the tule rhizome placement is completed, the area would be flooded to a depth of approximately 1 foot and held at that depth using the new water distribution features described in the *Surface Water/Groundwater Distribution, Control, and Screening* section below.

***Supplemental Floating Peat Marshes***

Eight 18-foot-diameter floating peat marshes currently exist in round aboveground pools immediately adjacent to the eastern border of the proposed marsh-pond complex site. Scientific monitoring of these floating peat marshes indicates good productivity of invertebrates that delta smelt feed on. If constructed in Phase II, a larger 0.3-acre floating peat marsh would supplement food from the Phase 1 food marsh for use in the propagation ponds. It would be constructed by excavating up to 3 feet of existing grade and using the excavated material to create perimeter berms, which would be covered with a construction-grade plastic sheeting called visqueen on the waterside embankments to reduce seepage and erosion. The anticipated depth of the water within the floating marshes would be around 6 to 8 feet. Water to the floating peat marsh pond would be conveyed using the existing siphons and the new water distribution features, including ditches, pipes, pumps and water control features, described in the *Water/Groundwater Distribution, Control, and Screening* section.

***Propagation Ponds***

The Proposed Project would include the construction of propagation ponds, which would be completed in two phases. Phase I would include one propagation pond roughly 0.5 acres in size. Phase II would include an additional propagation pond roughly 1.5 acres in size.

The locations of the ponds, berms, screens, siphons, wells, and water control structures are shown in Figure 1-4. The propagation ponds would be excavated to achieve the desired 20:1 side slope and a maximum water depth of up to 15 feet. Berms would be constructed with a 3:1 side slope. Excavated soil from the ponds would be used on-site to construct berms, footpaths, and roadways. Soil cut and fill would be balanced on-site. Potential shading features may include native woody vegetation around the perimeter of the containment areas. Aeration systems, which may include bubblers, would be added as needed depending upon dissolved oxygen conditions. The aeration system feature would include a diffused aeration system using an electric 1 horsepower (hp) pump or windmill to provide for power requirements. Pond fountains may be used to enhance biosecurity and limit avian predation. Biosecurity could also include perimeter fencing, additional non-lethal

**DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT  
MITIGATED NEGATIVE DECLARATION**

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bird deterrent techniques (e.g., netting or overhead wires strung along shoreline or across pond, noise, or visual scare devices), sunshade nettings over waterbody areas, and other security monitoring systems. The Proposed Project may also include fish cages/enclosures within each pond. This could allow for corralling the fish and ease monitoring while still benefiting from the attributes being designed into the impoundments.

The propagation ponds would be designed to be drained and filled when needed. The ponds would be fillable in a manageable timeframe to bring the ponds back online without too much loss of time for their primary function. These propagation ponds would receive water screened from the marsh-pond complexes and would be monitored and managed to eliminate the propagation of invasive species. Identification of invasive species would initiate the appropriate measures to remove the invasive species, such as the draining of the ponds. Draining would provide another form of biosecurity by making these ponds inhospitable for all invasive fish species and most invasive aquatic vegetation species (such as Brazilian waterweed and water hyacinth). Draining the ponds would also allow for mechanical removal of other invasive weeds. In addition, the outlets of the ponds are screened and are not directly connected to the Delta waterways (i.e., are not tidal aquatic habitat) and thus aquatic transmission of invasive species into Delta waterways would be avoided.

To facilitate scientific evaluations, Propagation Pond B would be divided into three equal-area cells using two float-anchor fabric curtains or equivalent. The curtains would be secured running from the shallow to the deep end of the ponds, suspended by floatation and the fabric held down on the pond bottom by weights. Each curtain would have anchors above and below the water that are appropriate to secure the curtains in place and prevent shifting during inflows and windy conditions.

***Tule Harvesting***

Harvest of native vegetation would occur within the existing on-island tule wetlands in the harvest area (Figure 1-2). Haul trucks would traverse the island on the existing roads that occur, on top of the levee, along the farm fields, and around the harvest pond to access the site from the marsh pond complex. Temporary access into the ponds for excavation and hauling equipment may use placement of Geoterra mats or similar protective mats to gain further access into the harvest area and minimize impacts to surrounding habitat. Alternatively, if the site is dry and equipment can access the harvest area without mats and without soil compaction or creating ruts, the access routes within the harvest area may be mowed to prevent a vegetation fire. Approximately 6 acres would be temporarily disturbed for access to the harvest areas. This would include minimal vegetative disturbance from mats, mowing, or haul trucks driving beside the excavator to collect the harvest. No grading or ground disturbance is anticipated in access areas not proposed for harvest. An estimated 1.5 acres would be harvested and would include harvesting up to 16,500 2-foot by 2-foot tule rhizomes blocks. The rhizome blocks would be removed by an excavator and/or hand tools in long parallel 2-foot-wide strips that would parallel the haul truck access route. The blocks would then be transported using the excavator to a haul truck which would drive beside the excavator. Then the blocks would be hauled to the marsh-pond complex site. In total, there would be up to 330 round trips transporting the rhizomes to the marsh-pond complexes from the harvesting area for both phases.

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**DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT**  
**MITIGATED NEGATIVE DECLARATION**

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Based on the tule growth rates of greater than 18 feet of spread in one growing season, it is anticipated that disturbed areas would revegetate within one growing season (Tilley 2012). If 75 percent coverage in disturbed areas has not been met within 365 days of the end of construction, then Metropolitan would reassess unvegetated areas and would monitor for another year, with optional replanting.

***Surface Water/Groundwater Distribution, Control, and Screening***

The propagation ponds would be filled using either surface water or groundwater to ensure consistent regulated temperatures. The water distribution system would be a combination of earthen and concrete-lined open ditches (6 feet wide) and pipes (ranging between 4 and 24 inches in diameter) to provide surface water from existing siphons or pumped from the existing groundwater aquifer. Under normal conditions, surface water would flow by gravity from the siphons through the cooling and food marshes and be screened before entering the propagation ponds (Figure 1-3, Appendix A). The surface water elevations in the food marsh would be adaptively managed to enhance fish food production. The surface water would originate from existing siphons that pull from the Mokelumne River within the Proposed Project site, including siphons #25 (16-inch diameter with max capacity of 18 cubic feet per second [cfs]) and #26 (14-inch diameter with max capacity of 12 cfs; Figure 1-4). In coordination with the irrigation needs of adjacent farms that use these siphons, a portion of the siphon flows (up to 10 cfs) would be used for the Proposed Project. The balance of the available siphon flow would remain available for agricultural purposes. The surface water distribution system would be screened between the marsh area and the native fish propagation area to enhance biosecurity.

The groundwater system would include the use of a new well (see Figure 1-4) to be constructed within the Proposed Project site. The new groundwater well is expected to be up to 300 feet deep. The well would not be hydraulically connected to any local surface water. The capacity of the new well would be up to 1,000 gallons per minute (gpm), with an approximately 8-inch-diameter discharge pipe. Well construction would cause a temporary ground disturbance with a construction footprint of up to 1,600 square feet. The transportation pipeline would be buried from the well location to Proposed Project at a depth of up to 24 inches.

***Water Use Monitoring and Outlet Control***

Water use would be monitored and documented through a set of water meters installed on both the existing surface water siphons and proposed groundwater well. The water supply system would include replumbing and rehabilitation of existing siphons, construction of a screened outlet on one side of the propagation containment areas and installation of operable slide gates for controlling water levels in the tule marshes and construction of tailwater ditches (up to 5 feet deep) (Figure 1-4). The design of the outlet system would use screens of appropriate size to prevent fish from escaping while also avoiding fish impingement.<sup>3</sup>

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<sup>3</sup> To prevent water passing through the screen from impinging fish, the screened-in area would be large enough that the approach velocity of water into the intake is sufficiently low that fish may swim to avoid the screen. An approach velocity less than 0.2 feet per second is recommended to prevent impingement of Delta smelt (California Fish and Game 2010).



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***Water Management Features***

An earthen manifold with three operable flashboard weirs would be installed to meter and distribute the desired flows and volumes for the Proposed Project, the adjacent farming operations and any overflows to the agricultural ditch. Project water would be diverted from the manifold into an existing but newly constructed agricultural ditch that runs along the outer perimeter of the Proposed Project marshes. The ditch was realigned in early 2022 by the tenant farmer as part of agricultural operations as shown in Figure 1-4. Five small low-lift pumps would transfer Proposed Project water from the toe drain into the two cooling marshes, the two food marshes, and the floating marsh. No disturbance of existing agricultural ditches or toe drains would occur during siphon manifold installation. The five low-lift pumps would be placed upon 5-foot by 5-foot gravel pads alongside the Reclamation District (District) toe drain at the sites shown on the engineering plans (Appendix A). District 756 maintains the District's levee system that protects approximately 6,000 acres of agricultural land, local infrastructure and on-island assets on Suisun Island. Pipes would transport pumped water directly into the five marshes.

***Detention Basin***

To avoid overwhelming channels with pond discharges, water discharged from the propagation ponds would be directed into the detention (surge) basin located in the southern corner of the Proposed Project (Figure 1-4). This basin has a surface area of about 6 acres. It is designed to hold 12 acre-feet of water with a maximum depth of 2 feet. The detention basin would be excavated to a depth of 3 feet and bermed slopes would be constructed with a 4:1 external side slope and 3:1 internal side slope to achieve the desired slope. Excavated soil from the ponds would be used on-site to construct berms, footpaths and roadways. Soil cut and fill would be balanced on-site. On the downstream end of the basin, a control structure would be used to slow the discharge of the Proposed Project water to a rate that can be handled by the island drainage system. Most of the water flowing out of the propagation ponds would be discharged into the detention basin over a 3-hour period in the morning. The detention basin is intended to drain this water over an 18- to 20-hour period throughout the subsequent day and night. The downstream water control structure would be adjustable to allow for better control of the discharge during the 18- to 20-hour period. The control structure would discharge flows into a newly created ditch that would connect to the adjacent agricultural ditch, by removing a portion of the bank and teeing into the existing ditch. No fill of the existing feature would occur. The flows would be monitored to ensure that agricultural ditch capacities are not exceeded.

***Power Source***

Power for the electric motor on the proposed new well, the low-lift pumps, and the water control structures would be provided from the existing clubhouse located near the marsh-pond complex site or from Pacific Gas and Electric Company (PG&E) powerlines that parallel the toe drain. Both sources of power would be served by the PG&E. An additional transformer may be required but would not result in additional ground disturbance.

***Debris Composting Area***

When the ponds are operational, debris could build up on the screens and impede flow, mainly during the fall as wetland plants die back from the colder weather. As needed to maintain flows, the screens would be manually raked, and the wetland plant detritus would be loaded into a trailer

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pulled by a small Kabota-type tractor to the debris-composting area (Figure 1-4). Spreading and discing would occur daily during the periods of debris clearing. A maximum of approximately 0.5 cubic yards of material would be collected per day of screen clearing (which would occur up to 50 times per year). The debris composting area would be accessed via compact gravel roads between the screen facilities and the composting areas.

### ***Research Access***

Prefabricated articulating mats would be used to create ramps with shallow grades from the perimeter berms into the ponds to provide a means for collecting fish. The ramps would have an approximate footprint of 500 square feet for each impoundment. Storage for all science and monitoring equipment would be in shipping storage containers brought onto the site and located near the existing clubhouse (Figure 1-4).

### ***Construction Process and Schedule***

Construction activities for the Proposed Project would be completed in two phases with Phase I starting in spring 2023 and lasting for approximately 2 months. If Phase I is successful, Phase II construction would start in spring 2024 and last for approximately 2 months. Construction would require approximately 12 workers total for each phase. Six workers for general construction and six workers for tule transplanting. Construction would occur 6 days per week (Monday through Saturday) with 8-hour days shifted to daylight hours as necessary. The equipment presented in **Table 1-1** would be used during construction.

**Table 1-1. Construction Equipment and Personnel Utilization**

Equipment	Model/Capacity	Horsepower (HP)	Max. Number Used per Day	Total Operation Days	Number of Workers
Articulated 3-axle hauler	23 cubic yard (CY)/30-ton	375HP	1	14	1
Four-tire pull scraper	John Deere 1810E	NA	1	14	1
Two-axle tractor	John Deere 7520	200HP	1	14	1
Two-axle backhoe	Caterpillar (Cat) 450/2CY bucket	131HP	1	14	1
Dozer	Cat D7	Up to 265HP	1	14	1
Sheep's-foot compactor	Cat	249HP	1	14	1
AWD motor grader	Cat	180HP	1	14	1
Long-reach track excavator	To be determined	200HP	1	14	1
Water tender/truck	2,000 gallon	362HP	1	14	1
Flatbed truck	F250 (gasoline)		1	28	1
Truck-mounted water-well-drilling rig	Watertec 24	570HP	1	3	2
Portable toilets	NA	NA	1		
Fish-transport truck	DWR/CDFW fish tanker trucks	TBD	1	1	1
Two-axle boom mower	Cat levee mower	100HP	1	1	1

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### ***Metropolitan Standard Construction Practices***

As part of standard construction practice, Metropolitan would incorporate a variety of standard measures as part of the proposed Project. These measures, which are defined in the contractor specifications, are included in and implemented as part of all Metropolitan construction projects. These practices are relatively standardized and/or compulsory (i.e., regulatory requirement); they represent sound and proven methods to reduce potential effects of construction activities. Specific standard construction practices identified for the Proposed Project are discussed throughout the document.

- **Worker Environmental Awareness Protections Training.** Metropolitan routinely conducts pre-construction Worker Environmental Awareness Protections Training (WEAP) for both capital projects and operations and maintenance activities. WEAP trainings are project-specific and cover potential environmental concerns or considerations including, but not limited to, awareness of biological resources, special status species near project sites, jurisdictional waters, cultural resources, paleontological resources, environmentally sensitive areas, and/or avoidance areas.
- **Environmental Assessment.** As an internal practice, Metropolitan conducts Environmental Assessments or similar studies prior to project commencement to determine if any sensitive resources have the potential to be present at a project site. Resources assessed typically include biological, cultural paleontological resources, noise sensitivity, and sensitive receptors in the vicinity of the project area.

## **Project Operations and Maintenance**

### **Operations**

The Proposed Project would have a 5-year project life with the possibility to extend based upon results. Equipment and personnel utilization for operations and maintenance during this period are provided in **Table 1-2**. When fish are on-site, staff from UC Davis using pickup trucks would be on-site daily for approximately 2 months in the spring and 2 months in the fall. It is anticipated that operations and maintenance of the Proposed Project would require four workers, using pickup trucks, to be on-site twice per week when ponds are operational and fish are on-site.

**Table 1-2. Operations and Maintenance Equipment and Personnel Utilization**

Equipment	Model/Capacity	Horsepower (HP)	Max. Number Used per Day	Total Operation Days	Number of Workers
Pickup truck			2		4
Fish transport truck	DWR/CDFW fish tanker trucks	TBD	1	1	1
Two-axle Boom mower	Cat levee mower	100HP	1	1	1
Low-lift pump (year-round operations)			5	365	0

Note: Assumes 5-year project life, ponds operating daily for entire period

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***Propagation Ponds***

The propagation ponds would require a constant inflow of 3 cfs. The water outlet is an overflow weir with flashboards and fish screen. Mechanical aeration may be required but is not anticipated at this time and the type of equipment has not been determined. The propagation ponds would also be designed to be drained and quickly filled when needed. As noted above, draining and drying of the ponds would serve as another form of biosecurity by making it inhospitable for all invasive fish species and preventing most invasive aquatic plant species from flourishing. As discussed above, draining the ponds would also allow for mechanical removal of other invasive weeds. In addition, the ponds are not directly connected to the Delta waterways (i.e., are not tidal aquatic habitat) and thus aquatic transmission of invasive species would be avoided.

***Transport and Stocking of Hatchery Delta Smelt***

This task involves the physical process of transporting delta smelt from the UC Davis FCCL in Byron, California, to the Proposed Project site and introducing them into the propagation ponds. The logistics and protocols for transferring the fish from the FCCL and introducing them into the ponds would mirror those used in previous efforts (Hung et al. 2019) with specific nuances required for this study to be determined and developed as needed. UC Davis would be a partner regarding the handling and transport of delta smelt. UC Davis has the permits to handle and transport the fish as the hatchery is a UC Davis facility, and hatchery affiliated staff would always be available to supervise or carry out the work. In addition, should the need arise, the US Geological Survey (USGS) also has the permits to handle and transport delta smelt.

If FCCL-sourced delta smelt are not available for release in the ponds, other fish species, including silversides and shads (which are non-native delta smelt surrogates) or native splittail, may be stocked to test the operations and habitat function of the ponds.

***Water Use Monitoring and Outlet Control***

Automated controllers would allow remote and manual operations and ensure appropriate flows that maintain required water temperatures, elevation, and water quality in the marsh and propagation ponds. The water inlet at the cooling marshes would consist of a pump on a timer that fills the cooling marsh from 5 p.m. to 9 p.m. daily, at a rate of approximately 7 to 8 cfs. The water outlet is an automatic slide gate that releases water at 4 a.m. for roughly 2 hours. The slide gates would have screens to limit unwanted weeds or aquatic species from entering the propagation ponds. Outflow is anticipated to be about 3 cfs continuously with higher flows during the pulse flow from the cooling marshes.

The water inlet at the food marshes would consist of a pump delivering a constant 0.07 cfs; however, the rate may fluctuate by 10 percent based on food concentrations required to supply pond and residence time would completely change out every 10 to 14 days. Internal water controls at the food marshes include six 3-foot-wide flashboard weirs. The water outlet at each food marsh consists of a flashboard weir.

Flows exiting the marsh area would be screened and controlled through a set of slide-gates. The screens would be designed to pass fish food, but limit access of non-native species into the native fish propagation area. When the ponds are operational, the screens would be routinely cleaned and maintained which would occur up to 50 times per year. Flows exiting the native fish propagation area would be managed to eliminate passage of native fish species to the adjacent agriculture water

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distribution system. Water from the food marshes would be on a continual flow basis, whereas water from the cooling marshes would be operated on a batch cycle. Water releases from the cooling marshes would occur over a roughly 2-hour time frame when the water is coldest in the morning hours.

The propagation pond water discharging through the exit screens would enter an agricultural ditch where the water surface elevation would be controlled to manage the hydraulic gradient and approach velocity (less than 2 feet per second (CDFG 2010)) through the screens and the flow rate. This ditch connects the propagation pond water to the detention basin. Water from the detention basin would enter the existing agricultural ditch connected to the island drainage system where it would ultimately be pumped off the island at the existing Camp Five pump station (Figures 1-2 and 1-4).

**Drainage Features**

Outlet water from the detention basin would drain to the existing agricultural ditch on the south-west side of the field. On the downstream end of the basin, a control structure would be used to slow the discharge of the Proposed Project water to a rate that can be handled by the island drainage system. Most of the water flowing out of the propagation ponds would be discharged into the detention basin over a 3-hour period in the morning. The detention basin is intended to drain this water over an 18- to 20-hour period throughout the subsequent day and night. The downstream water control structure would be adjustable to allow for better control of the discharge during the 18- to 20-hour period. The discharge of flows into the adjacent agricultural ditches would be monitored to ensure that agricultural ditch capacities are not exceeded.

**On-Site Storage**

Limited hazardous materials would be stored in the storage containers on-site, including 5 to 10 liters (L) of ethanol or formalin, and three 10 L cryogenic containers of liquid nitrogen. These substances would be appropriately stored according to physical and chemical properties and storage recommendations for the limited volumes detailed in their respective Materials Safety Data Sheets.

***Optional Monitoring of Native Fish in Ponds***

Acoustic cameras may be used to observe native fish behavior, dispersal, and survival at the time they are introduced into the ponds because water clarity would be insufficient for direct visual observation. Additional systematic observations of the introduced native fish may also be made with acoustic cameras to minimize disturbances to the habitat and aggravating the fish that would be associated with any other type of passive or active capture methods. Sampling for the presence of eggs and larvae would be conducted during the spring to determine if the native fish successfully reproduced in the ponds. This sampling may include the collection of eggs with artificial substrates and the collection of larvae with nets or light traps. Individual native fish may also be occasionally culled from the ponds to examine their health, condition, and feeding habits.

***Water Quality Monitoring***

Water quality conditions in the ponds that have been stocked with native fish and prevailing local weather conditions would be tracked with fixed-station continuous high-frequency monitoring. Fixed stations would be installed on pilings, buoys, or other semi-permanent infrastructure. Water

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quality parameters to be measured include temperature, specific conductance, turbidity, pH, dissolved oxygen concentration, chlorophyll-a, and fluorescent dissolved organic matter. Local weather parameters to be measured include air temperature, relative humidity, vapor pressure, barometric pressure, wind (speed, gust, and direction), solar radiation, and precipitation. Water quality measurements would be made by Yellow Springs Instruments EXO2 (or similar device) and weather measurements would be made by ClimaVue50 (or similar device). All data would be telemetered from the field into the National Water Inventory System so that they can be closely monitored (daily during late spring through late summer when air temperatures are highest) to minimize the risk of potential catastrophic mortality of stocked native fish due to water quality issues.

### ***Adaptive Management Operations***

Adaptive management would be a key element of this new and innovative research effort. Flows would be adaptively managed through the marsh-pond complexes to maximize productivity and to maintain cool water temperatures. West-side tree/wind-break plantings may be tested to reduce wind waves and increase thermal stratification. Undetermined science experiments may be implemented, but they would not occur outside of the Proposed Project site, and they would fall within the existing operations and management parameters of the Proposed Project.

### ***Vegetation***

It is anticipated that the tule harvesting area would revegetate with native vegetation within one growing season. Weed control would be done with a boom rotary cutter/mower. Earthen ditches would be maintained consistent with agricultural ditch maintenance practices by using a small excavator or backhoe to restore channel dimensions as needed to maintain open flows and reduce buildup of vegetation. Removed vegetated materials would be placed in the debris composting area. Concrete-lined canals would be cleaned as needed to remove sediment buildup, and removed materials would also be placed in the compost pile.

There would be no need for application of pesticides, herbicides, or fertilizers on the Proposed Project site; however, adjacent farming practices on agricultural fields and levee maintenance utilize chemical pest control as well as the use of sheep for cultural weed control. The Project plans to use both mechanical and cultural methods of weed control.

### ***Invasive and Predator Species Management***

The Proposed Project would develop and implement an invasive species management plan to ensure that invasive plant and wildlife species and populations are kept below preconstruction abundance and distribution levels.

An avian deterrent plan would also be developed that would include a maintenance and monitoring plan for avian deterrent devices. The plan would prescribe maintenance procedures and appropriate monitoring to ensure that deterrent devices are safe for avian species. Regular monitoring would be required if netting is used to ensure that netting is in good repair to prevent birds and other wildlife from becoming entangled.

## **1.4 Project Baseline and Existing Conditions**

The Mokelumne River borders Bouldin Island on the north and east sides and is separated from the Proposed Project by a man-made levee system. The south and west sides of the marsh-pond



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complex are bound by agricultural ditches and active farm fields that are typically planted in corn (Figure 1-2). The portion of the Proposed Project site where the marsh-pond complexes would be constructed is currently a fallow wheat field that has most recently been dryland farmed. The tule harvest area is located approximately 2.5 miles, by levee road, to the east of the marsh-pond complex. It consists of a tule marsh vegetated with tule, cattails, and willows. Access routes to both the marsh-pond complexes and tule harvest area are regularly maintained gravel roads that include the levee road around the exterior of the island and internal access roads that are accessible from Highway 12.

With the exception of a period of time in the early 20th century, Bouldin Island has been farmed continuously for over 140 years. Ongoing subsidence of peat soils has resulted in land surface elevations that are now between 5 and 25 feet below sea level. Land surface elevations where the marsh-pond complexes would be located range from 5 to 16 feet below mean sea level (National Geodetic Vertical Datum (NGVD) 29 datum). A toe-drain is located at the landside base of the levee and is periodically overgrown with blackberry shrubs.<sup>4</sup> The agricultural ditches to the south and west are regularly maintained and have only sparse vegetation. A clubhouse is located approximately 0.5 mile from the center of the proposed marsh-pond complexes on the opposite side of the levee and a single-family residence is situated just a little further than 0.5 mile from the center. Power and phone lines follow the levee system. Highway 12 lies approximately 0.5 mile south of the proposed marsh-pond complexes (Figure 1-4).

## 1.5 Permits and Approvals That May Be Required

**Table 1-3** summarizes the permits and/or approvals that may be required before construction of the Proposed Project.

**Table 1-3. Permits and Approvals That May Be Required**

Federal or State Approval	Agency/ Department	Permit/Approval	Description
Federal	US Army Corps of Engineers	Clean Water Act Section 404 Permit	Section 404 of the Clean Water Act regulates the discharge of dredged or fill material into all waters of the United States, including wetlands.
Federal	USFWS & National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service	Section 7 of the Federal Endangered Species Act Consultation/Biological Opinions	Federal agencies must consult with the USFWS if any project or action they authorize may affect a listed species or designated critical habitat.
State of California	Central Valley Regional Water Quality Control Board	401 Water Quality Certification (required for 404 Permit), NPDES General Permit for Stormwater Discharge Associated with Construction, Porter-Cologne Waste Discharge Requirements (WDR)	Project proponents are required to submit a Notice of Intent to the RWQCB for coverage under the General Construction Permit for projects with disturbance over 1 acre. Section 401 Water Quality Certification is necessary when Section 404 permits are required. WDRs are issued for discharges of dredged or fill material to waters of the State.

Notes: N/A (not applicable), NPDES (National Pollutant Discharge Elimination System).

<sup>4</sup> The toe-drains are regularly maintained by the local reclamation districts and the agricultural ditches are maintained as part of regular farming operations. The conditions described were based on surveys from December 2021.

## 2. Initial Study

This document is a proposed Initial Study and Mitigated Negative Declaration (IS/MND), which addresses the potential environmental effects resulting from the Proposed Project.

### 2.1 Legal Authority and Findings

This Initial Study was prepared in accordance with the California Environmental Quality Act (CEQA) Guidelines and relevant provisions of CEQA of 1970, as amended.

**Initial Study.** Section 15063 of the CEQA Guidelines describes an Initial Study as a preliminary method for analyzing the potential environmental consequences of a project. The purposes of an Initial Study include:

- (1) Providing the Lead Agency with the necessary information to decide whether to prepare an Environmental Impact Report (EIR) or a Negative Declaration;
- (2) Enabling the Lead Agency to modify a project during the planning stage by mitigating adverse impacts prior to preparation of CEQA documentation, thus avoiding the need to prepare an EIR; and
- (3) Providing documentation of the factual basis for the finding in a Mitigated Negative Declaration that the significant environmental impacts of a project have been mitigated to a less-than significant level.

**Negative Declaration or Mitigated Negative Declaration.** Section 15070 of the CEQA Guidelines states that a public agency shall prepare a Negative Declaration or Mitigated Negative Declaration for a project subject to CEQA when:

- (a) The Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment; or
- (b) The Initial Study identifies potentially significant effects but:
  1. Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed Mitigated Negative Declaration and Initial Study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur; and
  2. There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

An IS/MND may be used to satisfy the requirements of CEQA when a proposed project would have no significant unmitigable effects on the environment. As discussed further in subsequent sections of this document, implementation of the Proposed Project would not result in any significant effects on the environment that cannot be reduced to below a level of significance with the mitigation measures included herein.

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## **2.2 Impact Analysis and Significance Classification**

The following sections of this IS/MND provide discussions of the possible environmental effects of the Proposed Project for specific issue areas as identified on the CEQA Environmental Checklist Form in Appendix G of the CEQA Guidelines (as updated in December 2018). For each issue area, potential effects are discussed and evaluated.

A “significant effect on the environment” is defined by Section 15382 of the CEQA Guidelines as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by a project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.” According to the CEQA Guidelines, “an economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.”

Following the evaluation of each environmental effect determined to be potentially significant is a discussion of mitigation measures and the residual effects or level of significance remaining after the implementation of the measures.

## **2.3 Initial Study and Environmental Checklist Form**

- |  |   |
|--|---|
| a) Project Title:                      | Delta Smelt and Native Species Preservation Project (Proposed Project)  |
| b) Lead Agency Name and Address:       | The Metropolitan Water District of Southern California<br>700 North Alameda Street<br>Los Angeles, CA 90012   |
| c) Contact Person and Phone Number:    | Sean Carlson, Team Manager<br>The Metropolitan Water District of Southern California<br>(213) 217-6276  |
| d) Project Location:                   | The Proposed Project includes Bouldin Island. Figure 1-2 provides an overview of the entire project, with the locations of the Proposed Project shown in more detail on Figure 1-4. |
| e) Project Sponsor’s Name and Address: | The Metropolitan Water District of Southern California<br>700 North Alameda Street<br>Los Angeles, CA 90012   |
| f) General Plan Designation:           | San Joaquin County General Plan: General Agriculture.   |

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- |  |  |
|--|--|
| g) Zoning:   | Ag-40 General Agriculture  |
| h) Description of Project:   | Refer to Section 1 (Project Description).  |
| i) Surrounding Land Uses and Setting:  | Refer to Section 1 (Project Description).  |
| j) Other Agencies Whose Approval May be Required:  | Refer to Table 1-3.  |
| k) Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun? | No California Native American tribes traditionally and culturally affiliated with the project area have contacted Metropolitan pursuant to Public Resources Code Section 21080.3.1. No tribes have requested consultation. |

## 2.4 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by the Proposed Project, requiring implementation of mitigation. These environmental factors are indicated by “Less Than Significant With Mitigation Incorporated” in the checklist on the following pages.”

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Aesthetics                      | <input type="checkbox"/> Agriculture & Forestry Resources | <input type="checkbox"/> Air Quality                                   |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources               | <input type="checkbox"/> Energy  |
| <input type="checkbox"/> Geology/Soils                   | <input type="checkbox"/> Greenhouse Gas Emissions         | <input type="checkbox"/> Hazards & Hazardous Materials                 |
| <input type="checkbox"/> Hydrology/Water Quality         | <input type="checkbox"/> Land Use/Planning                | <input type="checkbox"/> Mineral Resources                             |
| <input type="checkbox"/> Noise                           | <input type="checkbox"/> Population/Housing               | <input type="checkbox"/> Public Services                               |
| <input type="checkbox"/> Recreation                      | <input type="checkbox"/> Transportation                   | <input type="checkbox"/> Tribal Cultural Resources                     |
| <input type="checkbox"/> Utilities/Service Systems       | <input type="checkbox"/> Wildfire                         | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

## 2.5 Determination

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION would be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION would be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project may have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

*Jennifer Harriger*

02/08/23

Jennifer Harriger

Date

Manager, Environmental Planning Section

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### 3. Evaluation of Environmental Impacts

The following discussion addresses impacts to various environmental resources, per the Environmental Checklist Form contained in Appendix G of the State CEQA Guidelines.

#### 3.1 Aesthetics

##### AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

##### **Discussion. Would the project:**

##### *a. Have a substantial adverse effect on a scenic vista?*

**No Impact.** No, the Proposed Project would not have a substantial adverse effect on a scenic vista. A scenic vista is defined as a viewpoint that provides panoramic or focused views of a highly valued landscape or scenic resource for the benefit of the general public. No designated scenic vistas or notable geographic features have been identified near the Project site in the San Joaquin County General Plan (San Joaquin County 2016). Thus, the Proposed Project would not result in substantial adverse effects on a scenic vista, no impact would occur.

##### *b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?*

**No Impact.** No, the Proposed Project would not substantially damage scenic resources within a state scenic highway. A review of the current California Department of Transportation (Caltrans) Map of Designated Scenic Routes indicates one officially designated state scenic highway in San Joaquin County, which is I-580 (Caltrans 2022). I-580 is officially designated as a scenic route in San Joaquin County from the Stanislaus County line to the Alameda County line; however, the interstate is more than 30 miles south of the Proposed Project site. California State Route (SR) 160 in Sacramento County is officially designated as a scenic route but is located over 2 miles northwest of the Project site. Therefore, the Proposed Project site would not be visible to travelers on SR 160 and would not affect the scenic quality of the landscape or intrude upon travelers' enjoyment of the view. Thus, there would be no impacts on scenic resources within a state scenic highway.



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- c. *In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

**No Impact.** No, the Proposed Project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. Although the Proposed Project would alter the existing visual conditions of the Project site with development of the marsh-pond complexes and associated infrastructure, the changes would be consistent with the area's existing visual character and aesthetic quality, which includes agriculture, waterways, recreation, and water supply infrastructure. Therefore, there would be no impacts that result in degradation of the existing visual character or quality of public views of the site and its surroundings.

- d. *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

**No Impact.** No, the Proposed Project would not create new sources of substantial light or glare that would adversely affect day or nighttime views in the area. Construction of the Proposed Project would occur during the daytime and would not require nighttime lighting. The Project does not propose any new light sources or reflective surfaces that would result in new sources of light or glare, thus no impacts would occur.

## 3.2 Agricultural Resources

### AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

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**Discussion. *Would the project:***

- a. *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

**Less than Significant Impact.** The Proposed Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The Project site is designated as Prime Farmland. The Proposed Project covers approximately 145 acres across two parcels and involves a marsh-pond complex where research can occur. The Proposed Project would last approximately 5 years with the option to extend longer; however, the Proposed Project would not be permanent or result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. As such, the Proposed Project would have a less than significant impact on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would occur as a result of the Proposed Project.

- b. *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

**Less than Significant Impact.** No, the Proposed Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. The Project site is not under a Williamson Act contract. The Proposed Project would be considered a compatible agricultural use. The Proposed Project would establish a marsh-pond complex where research can occur to determine if the marsh-pond complex can support cultured delta smelt and other native fish that would survive and complete their life cycle when introduced freely into a natural habitat. In addition, the Proposed Project would last approximately 5 years with the option to extend longer; however, the Proposed Project would not be permanent or conflict with existing zoning for agricultural use, or a Williamson Act contract, and no zoning changes are proposed. This impact would be less than significant.

- c. *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?*

**No Impact.** No, the Proposed Project site is not zoned as forest land or timberland or zoned for timberland production. Therefore, implementing the Proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland zoned for Timberland Production. No impacts to existing zoning for forest land or timberland would occur.

- d. *Result in the loss of forest land or conversion of forest land to non-forest use?*

**No Impact.** No, the Proposed Project site does not contain forest or forest land. Therefore, the Proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use. No impacts related to the loss of forest land or conversion of forest land to non-forest use would occur.

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- e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

**Less than Significant Impact.** No, the Proposed Project does not involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use. The Proposed Project would establish a marsh-pond complex where research can occur to determine if the marsh-pond complex can support cultured delta smelt and other native fish that would survive and complete their life cycle when introduced freely into a natural habitat. In addition, the Proposed Project would last approximately 5 years with the option to extend longer; however, the Proposed Project would not be permanent or result in the conversion or loss of agriculture or forest land. This impact is less than significant.

### 3.3 Air Quality

#### AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

#### Overview

San Joaquin County is located within the San Joaquin Valley Air Basin (SJVAB), which is under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The topography and meteorology of the SJVAB provide ideal conditions for trapping air pollution for long periods of time and producing harmful levels of air pollutants. Low precipitation levels, cloudless days, high temperatures, and light winds during the summer in the SJVAB are conducive to high ozone levels resulting from the photochemical reaction of precursors nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOC) in the presence of sunlight.

The federal Clean Air Act (CAA) requires the United States Environmental Protection Agency (US EPA) to set ambient air quality standards for the following seven criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter with a diameter of up to 10 microns (PM<sub>10</sub>), particulate matter with a diameter of up to 2.5 microns (PM<sub>2.5</sub>), and lead. Standards are set at levels of air quality deemed necessary, with an adequate margin of safety, to protect public health. In addition, the California Air Resources Board (CARB) has established ambient air quality standards for these and other pollutants, which are typically more stringent than the federal standards. The CARB is the agency responsible for coordination

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and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA).

Under amendments to the federal CAA, the US EPA has classified air basins or portions thereof as either “attainment” or “non-attainment” for each criteria air pollutant, based on whether or not the national standards have been achieved. The CCAA, which is patterned after the federal CAA, also requires areas to be designated as “attainment” or “non-attainment” for the state standards. Thus, areas in California have two sets of attainment/non-attainment designations: one set with respect to the national standards and one set with respect to the state standards.

### **Attainment Status of the SJVAB**

The SJVAB is currently designated as non-attainment for the national 8-hour ozone standard and for the California 1-hour and 8-hour ozone standard. The SVAB is also currently designated as non-attainment for California 24-hour PM<sub>10</sub> standards. In addition, the SJVAB is currently designated as non-attainment for both the national and California 24-hour PM<sub>2.5</sub> standard. The air basin is designated as unclassified or in attainment for the remaining criteria air pollutants (SJVAPCD 2022).

### **Toxic Air Contaminants**

The CARB has identified the diesel particulate matter (DPM) in diesel exhaust as a carcinogenic toxic air contaminant (CARB 2022). The majority of DPM emitted from the Proposed Project would be from construction equipment and diesel trucks.

### **Sensitive Receptors**

Sensitive receptors are individuals with increased susceptibility to the health effects from air pollutants; these include children, the elderly, and the ill. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants.

The land surrounding the Proposed Project site is composed of agricultural ditches and active farm fields. Highway 12 is approximately 0.5 miles south of the proposed site. There are no sensitive receptors within 1,000 feet of the Proposed Project site.

### **SJVAPCD Air Quality Thresholds of Significance**

For purposes of this Initial Study, air quality impacts may be considered significant if construction and/or operation of the Proposed Project would result in the following impacts in **Table 3.3-1** (SJVAPCD 2015a). Threshold values are in tons per year (tpy) for both construction and operational emissions and can be found in the SJVAPCD’s Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI).

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**Table 3.3-1. SJVAPCD Thresholds of Significance**

Pollutant/Precursor	Construction Emissions Emissions (tpy)	Operational Emissions	
		Permitted Equipment and Activities Emissions (tpy)	Non-permitted equipment and Activities Emission (tpy)
CO	100	100	100
NO <sub>x</sub>	10	10	10
ROG	10	10	10
Sox	27	27	27
PM <sub>10</sub>	15	15	15
PM <sub>2.5</sub>	15	15	15

**Discussion.** *Would the project:*

- a. *Conflict with or obstruct implementation of the applicable air quality plan?*

**Less than Significant Impact.** No, the Proposed Project would not conflict with or obstruct implementation of the applicable air quality plan.

Based on the GAMAQI a project's air quality impacts during construction would be considered significant if emissions generated exceed 10 tons per year of reactive organic gases (ROG) or NO<sub>x</sub>, 15 tons per year of PM<sub>10</sub> or PM<sub>2.5</sub>, or 100 tons per year of CO. These thresholds of significance are based on the SJVAPCD's New Source Review offset requirements and are applied to evaluate regional impacts of project-specific emissions of air pollutants and their impact on the region's ability to reach attainment (SJVAPCD 2015b). The SJVAPCD's attainment plans demonstrate that project-specific emissions below the offset thresholds would have a less than significant impact on air quality (SJVAPCD 2015b). Thus, the SJVAPCD concludes that use of New Source Review offset requirements as its thresholds of significance for criteria pollutants is an appropriate and effective means of promoting consistency in significance determinations within the environmental review process. Therefore, projects with emissions below the thresholds of significance for criteria pollutants would be determined to not conflict or obstruct implementation of the SJVAPCD's air quality plans.

***Construction***

Project construction activities would result in emissions of ozone precursors (ROG and NO<sub>x</sub>) and PM in the form of fugitive dust and exhaust. Emissions of ozone precursors and PM are primarily a result of the combustion of fuel from on-road vehicles and off-road construction equipment. The Project is proposed to take place in two phases, with Phase I starting in the spring of 2023. The Phase II construction start date is reliant on the success of Phase I and is slated to start in the spring of 2024. Construction emissions were calculated for Phase I, with the assumption that Phase II is similar in schedule and impact to Phase I and therefore emissions calculations can be used to represent the impacts for both phases. Pollutant emissions associated with Proposed Project construction would be generated from the following general construction activities: (1) grading, excavation, and dozing; (2) vehicle trips from workers traveling to and from the construction areas; (3) trips associated with delivery of construction supplies to, and hauling debris from, the

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construction areas; and (4) fuel combustion by on-site construction equipment. The amount of emissions generated on a daily basis would vary, depending on the intensity and types of construction activities occurring simultaneously. Overall, construction associated with Phase I is expected to last 2 months with work conducted 6 days per week.

PM is among the pollutants of greatest localized concern with respect to construction activities. Construction emissions of PM can vary greatly depending on the level of activity, the specific operations taking place, the number and types of equipment operated, local soil conditions, weather conditions, and the amount of earth disturbance. Fugitive dust emissions from construction would be regulated by SJVAPCD's Rule VIII, which limits fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities. The Proposed Project would be required to comply with these limits.

Construction emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0, and are presented in **Table 3.3-2**. Project-specific information was used for modeling when possible. Where project-specific data was unavailable, CalEEMod defaults were used as inputs. CalEEMod assumptions and detailed output can be found in **Appendix B**. The table shows the Proposed Project's annual emissions and compares them to the SJVAPCD significance thresholds for construction.

**Table 3.3-2. Maximum Annual Construction Emissions (tons/year)**

	NOX	PM10	PM2.5	ROG	CO	SO <sub>x</sub>
Maximum Construction Emissions	0.24	0.09	0.03	0.02	0.17	<0.01
SJVAPCD Regional Significance Thresholds	10	15	15	10	100	27
<i>Significant (Exceeds Thresholds)?</i>	<i>NO</i>	<i>NO</i>	<i>NO</i>	<i>NO</i>	<i>NO</i>	<i>NO</i>

Notes: NO<sub>x</sub> (nitrogen oxides), PM<sub>10</sub> (particulate matter 10 micrometers or less in diameter), PM<sub>2.5</sub> (particulate matter 2.5 micrometers or less in diameter), ROG (reactive organic gases), CO (carbon monoxide), SO<sub>x</sub> (sulfur oxides).

Source: Appendix B; SJVAPCD 2015a.

As shown in Table 3.3-2, annual construction emissions of ROG, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> would not exceed the SJVAPCD significance thresholds for construction. In addition, Proposed Project construction would be required to comply with the requirements of SJVAPCD Rule VIII (SJVAPCD 2004), which aims to limit fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities (SJVAPCD 2004). Control measures required and enforced by the SJVAPCD under Regulation VIII would further reduce the PM emissions shown in Table 3.3-2 and the impact would be less than significant.

### ***Operations***

Once operational, the Proposed Project would not create any substantial sources of air pollutant emissions. There would be a need for four UC Davis personnel to visit the site two times a week for approximately 2 months in the fall and 2 months in the spring to check fish on-site in pickup trucks. There would also be transport trucks being used to transport fish from the UC Davis FCCL to the Project site. The emissions associated with the operational trips were calculated using outputs modeled with the EMFAC2021 web tool (EMFAC2021 v1.0.2). Although there would be emissions associated with operations, the annual emissions are negligible, less than 0.01 ton per



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year for each pollutant, and therefore do not conflict with or obstruct implementation of the applicable air quality plans.

As previously discussed, based on the SJVAPCD's approach to air quality planning, as the Project's construction and operational emissions would be well below applicable SJVAPCD significance thresholds, the Project would be considered to be consistent with the region's air quality plans and the impacts would be less than significant.

- b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?*

**Less than Significant Impact.** No, the Proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Proposed Project region is in non-attainment under an applicable federal or state ambient air quality standard.

As discussed above and shown in Table 3.3-2, Project construction emissions would be less than the SJVAPCD recommended thresholds of significance for construction emissions. Emissions associated with operations would be negligible. Therefore, the Proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Proposed Project region is in non-attainment under an applicable federal or state ambient air quality standard and the impact would be less than significant.

- c. Expose sensitive receptors to substantial pollutant concentrations?*

**Less than Significant Impact.** No, the Proposed Project would not expose sensitive receptors to substantial pollutant concentrations. Sensitive receptors include schools, childcare centers, long-term health care facilities, rehabilitation centers, convalescent homes, hospitals, retirement homes, and residences. While there would be pollutant emissions from construction equipment in each phase, there are no sensitive receptors within 1,000 feet of the Proposed Project site, with the nearest residences over 2 miles west of the Project site. Although the sensitive receptors are greater than 1,000 feet from the Project site, they still could experience low levels of emissions. Given the distance from the Project site, the impact would be less than significant.

- d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

**Less than Significant Impact.** No, the Proposed Project would not result in other emissions, such as odors, that adversely affect a substantial number of people.

Odor sources of concern include wastewater treatment plants, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing facilities, fiberglass manufacturing facilities, auto body shops, and rendering plants. There would be temporary emissions from construction activity, and these could result in diesel exhaust odors. However, the construction activities are greater than 2 miles from the nearest residence, so the impact would be less than significant.

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### 3.4 Biological Resources

#### BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

#### Overview

Environmental Science Associates (ESA) prepared a Biological Resource Assessment Report in July 2022 (**Appendix C**) to document existing conditions and to evaluate the potential for impacts to biological resources during implementation of the Proposed Project. ESA biologists Joe Sanders and Christy Dawson conducted reconnaissance-level surveys of the Project survey area on October 8, 2021, and botanist Seth Kirby conducted a special-status plant survey on July 11, 2022. The surveys were conducted (1) to document vegetation communities that could provide habitat for sensitive species and other wildlife observed in and adjacent to the Proposed Project area and (2) to confirm that the previous aquatic resources delineation encompassed all aquatic resources in the Proposed Project area and was still accurate (**Appendix D**). Aquatic resources on Bouldin Island were mapped previously by DWR in 2020. That Preliminary Jurisdictional Determination was verified by the US Army Corps of Engineers on June 18, 2020 (SPK-2019-00899).

All biological resource field surveys were informed by a desktop review of historic and current aerial imagery, subscription-based biological resource databases, publicly available citizen science data, and the Biological Resource Assessment Report (Appendix C). This section describes the terrestrial and aquatic biological resources that are known or that have the potential to occur in the Proposed Project area. Biological resources are common vegetation, wildlife, and fisheries resources; sensitive habitats; plant communities; and special-status plant, wildlife, and fish species. Appendix C contains tables that identify all the special-status species that could potentially occur in

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the Proposed Project area, their legal status, their habitat or flowering period, and their potential to occur in the area. An aquatic resources memorandum was also prepared for the Proposed Project that discusses state and federal waters and wetlands that occur within the Proposed Project (Appendix D).

The impact analysis presented in this section focuses on those biological resources identified as potentially significant in the Environmental Checklist. The Proposed Project's potential impacts on biological resources are analyzed below. All potential impacts would be mitigated to less than significant levels.

**Discussion. *Would the project:***

- a. *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?*

**Less than Significant with Mitigation Incorporated.** No, the Proposed Project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS with incorporation of mitigation measures.

The California Natural Diversity Database (CNDDDB), USFWS Official Species List and the California Native Plant Society documented 22 special-status plant and 34 wildlife species within a USGS 7.5-minute topographic map nine quad search of the Proposed Project (CDFW 2021, USFWS 2021). Habitats within the Proposed Project area were assessed for their potential to support special-status species using information about local species occurrences and species' habitat requirements, in combination with the site visits described above.

**Special-Status Plants**

No special-status plant species were observed within the Proposed Project area during floristic surveys. The marsh-pond complex area is heavily disturbed by active farming operations and maintenance of agricultural ditches. Although the tule harvest area is less disturbed it did not provide suitable habitat for species that had the potential to occur. However, because there are known occurrences within the 5-mile radius, focused botanical surveys would be conducted within 2 years of the start of construction in both locations prior to the start of construction to confirm absence of the four species that have the potential to occur in accordance with Mitigation Measure BIO-2.

**Special-Status Wildlife**

Of the 34 wildlife species listed, 13 special-status wildlife species have moderate to high potential to occur within the Proposed Project area. The marsh-pond complex is heavily disturbed from farming activities and in most cases offers limited habitat for special-status wildlife species. Proposed construction activities include excavation, dirt moving, materials storage, and heavy equipment use. These activities could temporarily increase sound and vibration levels and potential exposure to dust at the sites and thus reduce the likelihood that special-status wildlife species would be present. The short-term human presence and earthwork required for construction of the marsh-pond complex would be similar to farming activities that are currently occurring at the Project area. In the long term, the Project would have a positive effect on special-status species

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because additional information would be obtained to increase conservation efforts for native fish. Additionally, the created habitat would provide habitat for native species. **Table 3.4-1** lists the special-status species with potential to occur at the Project site, which are discussed in further detail below.

**Table 3.4-1. Special-Status Wildlife with Potential to Occur Within the Project Site**

Common Name	Scientific Name	Status
Northwestern pond turtle	<i>Actinemys marmorata</i>	CDFW SSC
Giant garter snake	<i>Thamnophis gigas</i>	State/Federally Threatened
Burrowing owl	<i>Athene cunicularia</i>	CDFW SSC
Swainson's hawk	<i>Buteo swainsoni</i>	State Threatened
Northern harrier	<i>Circus cyaneus</i>	CDFW SSC
White-tailed kite	<i>Elanus leucurus</i>	CDFW Fully Protected Watch List
Short-eared owl	<i>Asio flammeus</i>	CDFW SSC
Loggerhead shrike	<i>Lanius ludovicianus</i>	CDFW SSC
Lesser sandhill crane	<i>Antigone canadensis</i>	CDFW SSC
Greater sandhill crane	<i>Antigone canadensis tabida</i>	State Threatened/ CDFW Fully Protected
California black rail	<i>Laterallus jamaicensis coturniculus</i>	State Threatened/ CDFW Fully Protected
Song sparrow – "Modesto" population	<i>Melospiza melodia</i>	CDFW SSC
Western red bat	<i>Lasiurus blossevillei</i>	CDFW SSC

Notes: CDFW (California Department of Fish and Wildlife), SSC (Species of Special Concern)

### ***Northwestern Pond Turtle***

The northwestern pond turtle is a California species of special concern. This moderate-sized aquatic turtle is commonly found in ponds, lakes, marshes, rivers, streams, and agricultural ditches with rocky or muddy substrates. Northwestern pond turtle habitat often includes shoreline basking areas that may or may not be bordered by aquatic vegetation. Aquatic sites are often within woodlands, grasslands, and open forests, between sea level and 6,000 feet in elevation. Northwestern pond turtles bask on logs or other objects when water temperatures are lower than air temperatures. Their nests are created in upland areas with friable soils, often up to 0.25 miles from an aquatic site (Jennings and Hayes 1994; Stebbins, 2003; Zeiner et al. 1988).

Northwestern pond turtles are discontinuously distributed throughout California west of the Cascade-Sierran crest (Jennings and Hayes 1994). There is a CNDDDB-documented occurrence on Bouldin Island in an irrigation plunge pool in 2001, approximately halfway between the pond and harvest areas near the access route, just north of Highway 12. The agricultural ditches and harvest area provide suitable aquatic habitat for the northwestern pond turtle when water is present.

### ***Giant Garter Snake***

Giant garter snake is state and federally listed as threatened by CDFW and the USFWS, respectively. Giant garter snakes inhabit agricultural wetlands, including agricultural ditches, sloughs, ponds, small lakes, low-gradient streams, and adjacent uplands in the Central Valley.

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Giant garter snakes are often found within these aquatic features especially when emergent vegetation, including cattails and bulrushes, are present. Because most of its natural habitat has been lost, the giant garter snake also lives in rice fields (USFWS 2017). Rice fields provide surface water during the summer when the snakes are active and marsh-like conditions provide the cover, habitat, and prey required for giant garter snake to survive (Halstead et al. 2010). The active season extends from April 1 to October 1. Giant garter snakes inhabit small-mammal burrows and other soil crevices above flood elevations during the inactive period (USFWS 2017).

There are two giant garter snake CNDDDB occurrences documented within 5 miles of the survey area. One occurrence is from 2016 and is approximately 5 miles west of the survey area. The record of this occurrence states it was mapped on the south side of Twitchell Island on the San Joaquin River. The other occurrence is from 2010 and is approximately 4.5 miles south of the survey area just northeast of Venice Island. The record of this occurrence states that three individuals were found dead on the road and one live snake was basking on the shoulder of the road and then retreated into the riprap.

The agricultural ditch could provide suitable habitat for giant garter snake if they contain water during the active season. However, based on the lack of remnant aquatic vegetation, the agricultural ditches are either regularly maintained or do not pond water for a significant period of time to support aquatic vegetation. The toe drains were completely covered by dense blackberry shrubs and are not considered giant garter snake habitat. The small-mammal burrows present on the sides of the agricultural ditches within the survey area and on the graded levee provide suitable upland habitat.

### ***Western Burrowing Owl***

The western burrowing owl is listed by CDFW as a California species of special concern. They inhabit grassland, desert, and open shrub habitats throughout the state from sea level to approximately 5,300 feet (CDFW 1999). Unlike many sensitive species, burrowing owls persist and even thrive in some landscapes that are highly altered by human activity. The characteristics of suitable habitat are burrows for roosting and nesting, and relatively short vegetation with only sparse shrubs and taller vegetation. Individuals in agricultural environments nest along roadsides and water conveyance structures. Breeding occurs February through August (CDFW 2012).

Although burrowing owls are not common in the Delta, there is habitat available and potential for burrowing owl to be present in the survey area. Suitable habitat is present along the levees and in agricultural fields. Ground squirrel burrows were observed adjacent to the survey area, but no burrowing owls or signs were observed.

### ***Swainson's Hawk***

Swainson's hawk is state listed as threatened. It once occupied large grassland and shrub steppe habitats, as well as canyons, foothills, and smaller interior valleys in otherwise mountainous regions. Currently, the species is most common in the Central Valley and Great Basin. Nesting habitat for Swainson's hawk includes mature trees with relatively dense canopies such as oaks or cottonwoods in or near riparian habitat, agricultural fields, or suburban neighborhoods near suitable foraging habitat. They forage in grasslands, irrigated pastures, and grain fields. In California, Swainson's hawks begin nesting in late March, and the young usually leave the nest (fledge) by August.

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There are numerous documented CNDDDB occurrences within 5 miles of the survey area. The large trees within the riparian corridor and adjacent areas could provide nesting sites and the agricultural fields provide suitable foraging habitat.

***Northern Harrier***

Northern harrier is listed by CDFW as a California species of special concern. This raptor breeds widely but locally in North America from northern Alaska and Canada south to midlatitudes and lower latitudes of the United States and northern Baja, California; it is found year-round in much of its breeding range in the contiguous United States and locally in southwestern and southeastern Canada. Northern harriers breed and forage in a variety of open habitats that provide adequate vegetative cover, an abundance of suitable prey, and scattered hunting perches, such as shrubs or fence posts. In California, such habitats include freshwater marshes, brackish and saltwater marshes, wet meadows, weedy borders of lakes, rivers and streams, annual and perennial grasslands (including those with vernal pools), ungrazed or lightly grazed pastures, some croplands, sagebrush flats, and desert sinks. The species occurs more broadly and in much greater numbers during migration and winter than during the breeding season. Northern harriers nest on the ground from March through August mostly in patches of dense, often tall shrubby/scrubby vegetation in undisturbed areas (Davis and Niemela 2008). Northern harriers require approximately 4 to 6 weeks to fledge young (Smith et al. 2011), and undisturbed nesting habitat must be available to avoid nest depredation and destruction (Cripe 2000).

The potential for northern harriers to occur in the survey area is high. Open habitats on levees and in the survey area provide foraging habitat and potentially suitable nesting habitat for this species occurs in the harvest area as well as in adjacent agricultural lands.

***White-Tailed Kite***

The white-tailed kite is a fully protected species under the California Fish and Game Code. This species nests primarily in riparian and lowland habitats often associated with agricultural areas throughout cismontane California. White-tailed kites typically nest in dense vegetation at the tops of oaks, willows, or other native trees. They prey primarily on voles and other diurnal mammals (CDFW 2005). Their numbers and range have increased in the past few decades (CDFW 2005).

There are no documented occurrences in the vicinity of the survey area and they were not observed during the survey; however, white-tailed kites are underreported in CNDDDB and they could use the survey area for foraging.

***Short-eared Owl***

Short-eared owl is listed by CDFW as a California species of special concern. While small resident populations of short-eared owls remain in the Great Basin region and locally in the Sacramento–San Joaquin Delta, most recent breeding from coastal central California and the San Joaquin Valley has been episodic. The breeding range retracts dramatically in drought conditions and during prey reductions.

Nesting short-eared owls require open grassland that supports concentrations of microtine rodents and herbaceous cover sufficient to conceal their ground nests from predators (Holt and Leasure 1993). Suitable habitats may include salt- and freshwater marshes, irrigated alfalfa or grain fields, and ungrazed grasslands and old pastures. Tule marsh or tall grasslands with cover of 30 to 50 cm



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in height can support nesting pairs (Holt and Leasure 1993). Productive habitat for resident owls is now almost entirely limited to wildlife refuges and management areas (Roberson 2008). Management of refuges and restoration areas for herbaceous cover has been successful in maintaining resident owls, even when prey dwindle.

A short-eared owl was flushed during surveys of the harvest area. The owl is likely a winter migrant, which is common in the Central Valley.

### ***Lesser and Greater Sandhill Crane***

Lesser and greater sandhill cranes are winter residents and migrants in the Delta, arriving during early September and reaching maximum densities during December and January and departing during early March. Sandhill cranes vocalizations were heard on the adjacent Staten Island, which occurs approximately 1,500 feet to the north of the survey area and is a known roost area.

Lesser sandhill crane is a California species of special concern. Lesser sandhill crane is a large gray, heavy-bodied bird with a long neck, long legs, and red plumage on top of the head. The subspecies range includes much of North America; the population that occurs in the Study Area breeds in southwestern and southcentral Alaska and migrates to the Central Valley of California to overwinter (Shuford and Gardali 2008).

Greater sandhill crane is state listed as threatened and is fully protected under California Fish and Game Code. Greater sandhill crane is the largest sandhill crane subspecies, with gray plumage, heavy body, long neck and legs, and red plumage on top of the head. The subspecies range includes much of North America; the population that occurs in the Study area breeds in small numbers in northeastern California, with larger populations coming from Washington, Oregon, and western Canada, and migrates to the Central Valley of California to overwinter (CDFW 1994).

Foraging habitat between the two subspecies is similar (although there are some individual crop preferences) and consists mainly of harvested corn fields, winter wheat, irrigated pastures, alfalfa fields, and fallow fields. Mid-day loafing typically occurs in wetlands and flooded fields. Greater and lesser sandhill cranes occasionally forage and opportunistically consume small rodents, birds, and invertebrates along agricultural field borders, levees, rice checks, and ditches, and in alfalfa fields or pastures. Night roosting is in shallowly flooded open fields and open wetlands interspersed with uplands and tend to congregate in small to large flocks. Greater and lesser sandhill cranes use similar roost sites and are both sensitive to human disturbance (Littlefield and Ivey 2000).

Staten Island, just to the north of Bouldin Island, is a known sandhill crane refuge, where a significant portion of the Delta populations reside in the winter. They have also been documented on Bouldin Island (Littlefield and Ivey 2000). Vocalizations from Staten Island were heard during the field visit. Greater sandhill cranes that roost on Staten Island are documented to use the north portion of Bouldin Island to forage for corn and winter wheat (Ivey et al. 2014). During field surveys the Proposed Project area consisted of a fallowed winter wheat field. Therefore, the Proposed Project area provides suitable foraging habitat for the greater sandhill cranes when residual wheat or corn from recent plantings is present.

***California Black Rail***

The California black rail is State listed as threatened. It is a scarce and rarely seen bird with little known about its life history. It occurs yearlong in the San Francisco Bay area, Sacramento-San Joaquin Delta, coastal southern California, the Salton Sea, and lower Colorado River area. It can be found in saline, brackish, and fresh emergent wetlands. It often occurs in association with pickleweed in tidal and brackish wetlands or with bulrushes, cattails, and saltgrass in freshwater wetlands (Manolis 1977). It builds its nests in dense vegetation at ground level or elevated several inches (Stephens 1909). Nests with eggs have been observed from mid-March to early June (Bent 1926, Wilbur 1974). One California black rail was reported responding to a taped call on Davis Island, which is just east of Bouldin Island and is densely vegetated with little human activity. The harvest area could provide marginal habitat.

***Loggerhead Shrike***

The loggerhead shrike is listed by CDFW as a California species of special concern, and is a year-round resident, distributed throughout much of California, except in higher-elevation and heavily forested mountainous regions (Humple 2008). Shrikes nest earlier than most other passerines. The breeding season for the species may begin as early as late February and lasts through July (Yosef 1996). Loggerhead shrikes establish breeding territories in open habitats with relatively short vegetation that allows for visibility of prey such as arthropods, small reptiles, amphibians, rodents, and birds. They can be found in grasslands, scrub habitats, riparian areas, other open woodlands, ruderal habitats, and developed areas, including golf courses and agricultural fields (Yosef 1996). Loggerhead shrikes require the presence of structures for impaling their prey. These structures most often take the form of thorny or sharp-stemmed shrubs or barbed wire (Humple 2008). Ideal breeding habitat for loggerhead shrikes is short grass habitat with many perches, shrubs, or trees for nesting and sharp branches or barbed wire fences for impaling prey.

Loggerhead shrikes are known to occur throughout the Central Valley, and suitable habitat, such as the riparian areas, blackberry shrubs, and areas with adjacent foraging sites, such as fallow fields and agricultural crops, are present in the survey area; therefore, there is a moderate potential for the loggerhead shrike to be present in the survey area.

***Song Sparrow (“Modesto” population)***

The song sparrow has the greatest number of genetically distinct populations of any bird in North America, including seven subspecies that breed in California, six of which are endemic to the State. The “Modesto” population was once considered to be a distinct subspecies (*M. m. mailliardi*), but it has recently been classified as a race and merged with the *heermanni* subspecies (Patten and Pruett 2009). Because it is debatable that the Modesto population is genetically distinct, it is considered a California species of special concern (Gardali 2008) until further genetic studies are conclusive.

Song sparrows are year-round residents that breed from mid-March through early August in the Sacramento Valley, Delta, and northern San Joaquin Valley, with centers of abundance in the Delta and Butte Sink areas (Gardali 2008). They generally breed in freshwater and saline emergent wetlands and riparian willow thickets. However, breeding has been documented in sparsely vegetated agricultural ditches, and levees, especially in areas adjacent to the Butte Sink, in the

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northernmost limit of Little Butte Creek, and in roadside agricultural ditches east of the Sacramento River above the Tisdale Bypass (Gardali 2008).

The Modesto song sparrow is known to occur in the sloughs around Bouldin Island. Because suitable habitat is present adjacent to the survey area and marginal habitat occurs in the survey area the Modesto song sparrow has a moderate to high potential to be present in the survey area.

***Other Breeding and Migratory Birds***

The federal Migratory Bird Treaty Act and Section 3513 of the California Fish and Game Code protect raptors, most native migratory birds, and breeding birds that could be present in the survey area. The survey area provides high-quality foraging and nesting opportunities for a variety of resident and migratory birds. Common raptor species that may nest in the mature trees in the survey area could include red-tailed hawk, red-shouldered hawk, and great horned owl (observed near survey area). Wading birds such as the great egret and the great blue heron are known to nest on the nearby Venice and Decker Islands and could use the agricultural ditches for foraging.

***Western Red Bat***

The western red bat is listed by CDFW as a California species of special concern. This is a riparian obligate species (i.e., dependent on riparian habitat) that is ubiquitous throughout California except the northern Great Basin region. Western red bats roost individually in dense clumps of tree foliage in riparian areas, orchards, and suburban areas. They are primarily moth specialists but will forage for a variety of other insects. Individuals have been observed foraging around streetlamps and floodlights in suburban areas (WBWG 2005).

Based on its tendency to roost within tree foliage, this species may be intermittently present in the riparian areas; the closest and most recent CNDDDB occurrence within 5 miles was from 1999 and was located 4 miles to the west.

**Potential Adverse Effects on Special-Status Wildlife**

Construction and maintenance activities could have direct and indirect adverse impacts on several special-status wildlife species. All maintenance activities that involve the use of heavy equipment; or produce disturbances such as noise, dust, smoke, vibrations, and visual disturbance; or that could accidentally release hazardous materials could have impacts. This section describes an assessment of those potential effects and describes mitigation measures for those impacts.

***General Construction and Maintenance Activities***

The use of vehicles and heavy equipment could result in mortality of giant garter snakes, northwestern pond turtles, and burrowing owls through vehicle strikes when these animals are aboveground, basking on or crossing roads. These species, along with other species using burrows (i.e., burrowing owls), may also be crushed or entombed by vehicles and heavy equipment, resulting in direct mortality. In addition, the potential exists for contaminants, including fuel, oil, other petroleum products, and other chemicals used in maintenance activities, to be accidentally introduced into waterways. In sufficient concentrations, these contaminants would be toxic to special-status aquatic wildlife (i.e., special-status plants, giant garter snake, northwestern pond turtle) and their prey species.

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Noise, dust, vibrations, and visual disturbance related to the use of vehicles and heavy equipment during construction and maintenance activities, as well as disturbances associated with the presence of persons conducting maintenance activities, could indirectly affect giant garter snake, northwestern pond turtle, and all species of special-status birds by negatively altering behaviors such as foraging, thermoregulation, brumation, nesting, incubation, and feeding. It is also possible that such disturbances could modify predator-prey relationships (e.g., by increasing predator populations through habitat alterations that benefit predators or through disposal of refuse that attracts predators).

Exposing special-status wildlife species to disturbances that alter these natural behaviors or increase predators could potentially result in decreased reproductive success and increased mortality of adults or juveniles (e.g., through nest abandonment).

Because connecting to agricultural ditches would require ground disturbance, equipment access, the removal of vegetation from channels, and construction of gates and weirs, the Proposed project has the potential to cause direct mortality or injury of a number of species, including: northwestern pond turtle, giant garter snake, burrowing owl, Modesto song sparrow, and northern harrier.

### ***Vegetation Harvesting***

Harvesting of aquatic vegetation using an excavator could result in both direct and indirect effects on giant garter snake, northwestern pond turtle, Modesto song sparrow, northern harrier, Swainson's hawk, and California black rail.

Aquatic vegetation removal from the harvest area when inundated could result in mortality or injury of giant garter snakes and northwestern pond turtles if they were captured or crushed by the excavator or other heavy equipment while active in aquatic habitats or basking along the upland edges. Additionally, snakes found in upland refugia and northwestern pond turtle nests along canal banks could be crushed or have their burrows or nests collapsed and crushed by heavy equipment operating within the harvest area edges.

In addition, birds that nest or roost in freshwater emergent vegetation, including cattails and bulrush (e.g., Modesto song sparrow, northern harrier, and California black rail), could be directly affected by aquatic vegetation removal. These species are particularly vulnerable to vegetation removal activities during the breeding season (February 1 through September 15), when they nest in dense stands of cattails and bulrush and other freshwater emergent vegetation. The removal of emergent vegetation supporting nests of these three species could therefore cause mortality and injury of adults and young as well as abandonment and subsequent failure of a nest. Nesting birds could also be directly affected by the noise, vibration, dust, and visual disturbance of these activities, which could potentially cause decreased nest attendance, nest abandonment, and nest failure.

The harvesting of aquatic vegetation could also result in temporary, indirect effects on giant garter snakes and northwestern pond turtles by modifying the aquatic component of their habitats. Removal of emergent vegetation would decrease available cover, foraging habitat, and basking sites (e.g., mats of downed cattails) for species. Vegetation removal could also affect both species by degrading water quality through temporary increases in turbidity and potential release of contaminants or by reducing production of invertebrates and other prey for these species. These indirect effects, although not directly resulting in mortality, could disrupt breeding and foraging behaviors; reduce the availability of breeding and foraging habitat; and potentially expose giant

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garter snakes and northwestern pond turtles to predation, mortality, or other impacts when animals are displaced from their habitat or when habitat is altered in quality or quantity such that it no longer meets all the species' life history needs.

Removing emergent vegetation could indirectly affect Modesto song sparrow, northern harrier, and California black rail because the emergent habitat used by these species would be altered or removed. This would temporarily reduce the amount of available nesting habitat for these species in the harvest area and displace birds from potentially suitable nesting habitat. Additionally, aquatic vegetation harvesting could expose bird nests to increased disturbance and risk of predation by avian and mammalian predators. Decreased prey production would decrease foraging success for these birds and could potentially result in decreased survivorship of adults and young.

***Vegetation Management***

Herbaceous vegetation management around ponds and access roads, including mowing, disking, and weed trimming, could directly affect species that occur in burrows, nest on the ground, or otherwise use the ground surface for basking or movement. These species include giant garter snakes, northwestern pond turtles, northern harriers, and burrowing owls.

***Maintenance of Water Control Structures***

Water control structures require regular maintenance to remove built-up debris and sediments around inlet and outlet structures and screens. Aquatic vegetation removal from the marsh-pond complex could result in mortality or injury of giant garter snakes and northwestern pond turtles if they were captured during structure maintenance while active in aquatic habitats or basking along marsh-pond banks. Additionally, snakes found in upland refugia and northwestern pond turtle nests along banks could be crushed or have their burrows or nests collapsed and crushed by vehicles accessing banks.

Additionally, birds that nest in freshwater emergent vegetation including cattails and bulrush (e.g., Modesto song sparrow, northern harrier, and California black rail) could be directly affected by aquatic vegetation removal or disturbance. These species are particularly vulnerable to vegetation removal activities during the breeding season (February 1 through September 15) when they nest in dense stands of cattails and bulrush and other freshwater emergent vegetation. The removal of emergent vegetation supporting nests of these three species could therefore cause mortality and injury of adults and young as well as abandonment and subsequent failure of a nest. Nesting birds could also be directly affected by the noise, vibration, dust, and visual disturbance of these activities, which could potentially cause decreased nest attendance, nest abandonment, and nest failure.

***Summary***

Adverse effects on special-status wildlife could occur as a result of construction and maintenance activities. As described previously, these adverse effects include mortality, injury, and harassment of individuals, along with the permanent or temporary loss or modification of habitat.

The most substantial impact would result from harvesting aquatic vegetation (emergent plants with roots and associated sediment) from the harvest area. Up to 1.5 acres would be harvested within in an approximately 6.5-acre disturbance area during construction activities. Metropolitan's Standard Practices for construction projects require that pre-construction Worker Environmental

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Awareness Protections Training (WEAP) is conducted for both capital projects and operations and maintenance activities. WEAP trainings are project-specific and cover potential environmental concerns or considerations including, but not limited to, awareness of biological resources, special status species near project sites, jurisdictional waters, environmentally sensitive areas, and/or avoidance areas. Because special-status wildlife species supported by the affected habitats are considered to be declining, rare, threatened, or endangered by California or federal fish and wildlife agencies, the loss or modification of habitat for these species or harassment or mortality of individuals is considered a potentially significant impact.

***Mitigation Measures***

Implementation of the following mitigation measures would reduce this impact to a less than significant level. This list includes general measures that apply to all maintenance activities.

**BIO-1 Special-Status Plant Species Surveys**

Surveys for special-status plants shall be completed within 2 years of the start of construction activities, including any vegetation removal, grubbing, or staging and mobilization. The surveys shall be seasonally timed to coincide with the target species identified in Appendix C. All plant surveys shall be conducted by a monitoring biologist no more than 2 years before initial ground disturbance associated with construction activities and shall cover the entire area proposed for disturbance (including areas for staging and mobilization). All special-status plant species identified on-site shall be mapped onto a site-specific aerial photograph and topographic map. Surveys shall be conducted in accordance with the most current protocols established by the CDFW and USFWS. If federally listed, state listed, or California Rare Plant Rank 1B species are found, avoidance and minimization measures shall be implemented in accordance with Mitigation Measure BIO-3.

**BIO-2 Special-Status Plant Species Avoidance and Minimization**

If federally listed, state listed, or California Rare Plant Rank 1B species are found during special-status plant surveys conducted pursuant to Mitigation Measure BIO-2, then avoidance measures shall be implemented to avoid impacting these plant species, if feasible. Rare plant occurrences that are not within the immediate disturbance footprint but are located within 50 feet of disturbance limits shall be protected at least 30 feet beyond their extent or other distance as approved by a monitoring biologist or have a suitable barrier, such as a bermed levee or bank, to protect them from harm. If avoidance of federally listed, state listed, or California Rare Plant Rank 1B plant species is not feasible, impacts shall be fully offset through implementation of a restoration plan that results in no net loss in accordance with Mitigation Measure BIO-3.

**BIO-3 Special-Status Plant Species Revegetation**

If avoidance of state listed, federally listed, or California Rare Plant Rank 1B species is not feasible, the individuals shall be transplanted, and surrounding topsoil shall be salvaged to be incorporated into the revegetation process for the site. A special-status plant restoration plan shall be prepared and implemented that includes the following criteria at minimum:



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- The number of specimens affected for each species
- Identification of on-site or off-site preservation location(s)
- Methods for restoration, enhancement, and/or transplanting, including topsoil salvage and planting seeds of the affected species
- A performance standard replacement ratio of 1:1 per impacted specimen to be achieved within 3 to 5 years
- Monitoring of on-site and off-site preservation location(s) to verify performance shall occur in conjunction with special-status plant growing seasons, and no less than annually until performance standards are achieved

**BIO-4 Special-Status Wildlife Species Surveys**

Prior to the start of construction, Metropolitan shall conduct general pre-construction wildlife surveys. Pre-construction surveys for special-status species with moderate to high potential to occur shall be conducted where suitable habitat is present not more than 72 hours prior to the start of construction activities or maintenance activities that require vegetation removal during the nesting or giant garter snake active season. The pre-construction survey area shall include the Proposed Project area and all ingress/egress routes, plus a 200-foot buffer. If the results of the site-specific pre-activity surveys determine a candidate, sensitive, or special-status species identified in local or regional plans, policies, or regulations is present within a 200-foot buffer of the Project area, implementation of appropriate avoidance measures shall be required in accordance with Mitigation Measure BIO-5.

**BIO-5 Special-Status Wildlife Species Avoidance and Minimization**

If the results of the pre-activity surveys conducted pursuant to Mitigation Measure BIO-4 determine a candidate, sensitive, or special-status species identified in local or regional plans, policies, or regulations is present within a 200-foot buffer of the Proposed Project area, Metropolitan shall develop and implement appropriate avoidance measures listed below and in BIO 6 and 7. Avoidance measures may include but are not limited to:

- Installation of Environmentally Sensitive Area/avoidance fencing
- Flagging or fencing of any special-status species burrows by a monitoring biologist to ensure avoidance during Project activities
- Monitoring by a monitoring biologist during all initial ground disturbing activities. Once initial ground disturbing activities have been completed, the biologist shall conduct daily pre-activity clearance surveys, as necessary
- If at any time during Project construction or maintenance activities, a special-status species enters the Project area or otherwise may be impacted by the Project, all activities at the area where the find occurred shall cease. At that point, a monitoring biologist shall be consulted and recommend an appropriate course of action

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**BIO-6 Giant Garter Snake Avoidance and Minimization**

The Proposed Project area provides marginal habitat for giant garter snake. However, suitable habitat occurs within 200 feet of the Proposed Project area. Thus, Metropolitan proposes to implement standard avoidance and minimization measures during construction activities. The following measures shall be implemented to avoid impacts to giant garter snake:

- Confine movement of heavy equipment to existing roadways to minimize habitat disturbance. Maintain a speed limit of 10 mph on all roadways within the construction area.
- Check under all equipment and materials prior to moving them. Do not store construction materials or stockpiles within 200 feet of giant garter snake habitat.
- All construction activities that occur within 200 feet of giant garter snake habitat shall occur between May 1 and October 1. This is the active period for giant garter snakes and direct mortality is lessened, because snakes are expected to actively move and avoid danger.
- If dewatering is necessary, Metropolitan shall dewater construction areas that could provide aquatic habitat for giant garter snakes to the extent feasible. Any dewatered aquatic habitat shall be kept dry for at least 15 consecutive days before conducting construction activities. If 15 consecutive days is not feasible then Metropolitan shall consult with the USFWS to apply appropriate measures. If dewatering cannot remove all water, potential giant garter snake prey (i.e., fish and tadpoles) would be removed so that giant garter snakes and other wildlife are not attracted to the construction area. The connection of the marsh-pond complex to the existing agricultural ditch requires temporary disturbance of potentially suitable aquatic habitat. These areas are small (generally less than 0.02 acre) and construction-related activities generally require 1 day. Since implementation of the 15-day dewatering period in these scenarios necessitates fill in multiple locations and a culvert or pumping/ piping system in the surrounding upland area to reroute irrigation or drainage water, resulting in more disturbance to potential aquatic habitat than the primary fill itself, a modification is proposed. This includes conducting a preconstruction survey; having a Service-approved biological monitor oversee initial ground disturbance in suitable upland habitat and thereafter be available during work; if limited dewatering is necessary, concentrating dewatering to pump water out of the area; and requiring that biological monitor checks the dewatered area for the snake and prey, and relocates prey species out of the work area.
- Confine clearing to the minimal area necessary to facilitate construction activities. Flag and designate avoided giant garter snake habitat within or adjacent to the Proposed Project area as Environmentally Sensitive Areas.
- Construction personnel shall receive worker environmental awareness training. This training shall instruct workers to recognize giant garter snakes and their habitat(s).

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- 24 hours prior to construction activities, the Proposed Project area shall be surveyed for giant garter snakes. Survey of the Proposed Project area shall be repeated if a lapse in construction activity of 2 weeks or greater has occurred.
- If a snake is encountered during construction, activities shall cease until appropriate corrective measures have been completed or it has been determined that the snake would not be harmed.
- After completion of construction activities, all temporary construction debris and materials shall be removed, and habitat within temporary impact areas would be restored to pre-Project conditions.

**BIO-7 Northwestern Pond Turtle Avoidance and Minimization**

Metropolitan shall implement the following measures to avoid and minimize effects on northwestern pond turtle:

- A qualified biologist shall conduct a pre-construction survey within 7 days before the start of Project activities. If no northwestern pond turtles are observed, Metropolitan would document that information for the file, and no additional measures shall be required.
- Should any northwestern pond turtles be detected on land during the pre-construction survey, the qualified biologist would identify the location using GPS coordinates. The qualified biologist may relocate any northwestern pond turtles found on land or in aquatic habitat within the construction footprint to suitable aquatic habitat at least 200 feet away from the construction footprint.
- If northwestern pond turtles are observed on land within the construction footprint during construction activities, Metropolitan would stop work within approximately 200 feet of the turtle, and a qualified biologist would be notified immediately. If possible, the turtle would be allowed to leave on its own and the qualified biologist would remain in the area until the biologist deems his or her presence no longer necessary to ensure that the turtle is not harmed. Alternatively, the qualified biologist may capture and relocate the turtle unharmed to suitable habitat at least 200 feet outside the construction footprint. If a northwestern pond turtle nest is unintentionally uncovered during construction activities, work would stop in the vicinity of the nest until a qualified biologist could evaluate the situation and notify the appropriate agencies.

**BIO-8 Nesting Birds Avoidance and Minimization**

To avoid and minimize effects on nesting birds and achieve compliance with the Migratory Bird Treaty Act and California Fish and Game Code Sections 3503, 3503.5, and 3513, Metropolitan shall implement the following measures:

- Where feasible, construction and maintenance activities that have the potential to affect special-status nesting birds and common nesting birds shall occur at times of the year when adverse effects on those species would be avoided. If activities are conducted outside the nesting seasons no additional measures are required to mitigate adverse effects on nesting birds.

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- If construction is scheduled to occur during the nesting season, a breeding season survey for nesting birds shall be conducted by a qualified biologist for all vegetation to be removed, harvested or disturbed that are located within 500 feet of construction activities, including grading. Swainson's hawk surveys shall be completed during at least two of the following survey periods: January 1 to March 20, March 20 to April 5, April 5 to April 20, and June 10 to July 30. An area with a radius of 0.5 miles from construction activities shall be surveyed for Swainson's hawk nests. No fewer than three surveys shall be completed in at least two survey periods, and at least one of these surveys would occur immediately before Proposed Project initiation (SWHA Technical Advisory Committee 2000).
- Western burrowing owl surveys shall follow suggested guidelines set forth in CDFW's *Staff Report on Burrowing Owl Mitigation* such as prior to the start of construction a biologist should conduct three or more daytime survey visits at least 3 weeks apart during the peak of breeding season from April 15 to July 15 or 4 surveys spread evenly throughout the non-breeding season (CDFW 2012). Other migratory bird nest surveys could be conducted concurrent with Swainson's hawk surveys, with at least one survey to be conducted no more than 48 hours from the initiation of Proposed Project activities to confirm the absence of nesting. If the biologist determines that the area surveyed does not contain any active nests, construction activities, including removal or pruning of trees and shrubs, could commence without any further mitigation. If at any time during the nesting season construction stops for a period of 2 weeks or longer, pre-construction surveys would be conducted before construction resumes. If construction occurs outside the nesting window for burrowing owls, a pre-construction survey shall be conducted to ensure no burrowing owls are present.
- If nesting birds have been identified within or adjacent to the construction footprint, Metropolitan would establish appropriate avoidance buffers (50 feet for passerines, 300 feet for raptors *except Swainson's hawk and burrowing owls*, and 200 feet for heron or egret rookeries). Reduced buffers may be implemented if recommended by the monitoring biologist. Buffers would be marked in the field by a qualified biologist using temporary fencing, high-visibility flagging, or other means that are equally effective in clearly delineating the buffers. The specific buffer distance for Swainson's hawk is 0.25 miles, and buffer distances for burrowing owl, which vary depending on time of year and level of disturbance, are presented in **Table 3.4-2** in accordance with CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). Reduced buffers for Swainson's hawk and burrowing owl may be implemented if recommended by the monitoring biologist, due to the nature of the activity. Any needed burrowing owl exclusion and burrow closure would occur during the non-breeding season only, following the methodology in the CDFW Staff Report.
- To minimize and avoid the potential indirect impacts to lesser and greater sandhill crane that may occur within or adjacent to the Project area between September 15 through March 15, during roosting season, pre-activity surveys and an assessment of known roost sites shall be conducted within 0.25 miles of the

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Project area by a qualified biologist. If roost sites are identified within 0.25 miles of the Project area, the start of large equipment used for construction activities would be delayed to an hour after sunrise and stop an hour before sunset.

- Vegetation clearing and harvesting shall not be conducted during the nesting season (generally February 1 through September 15, depending on the species and environmental conditions for any given year) where feasible.

**Table 3.4-2. Recommended Restricted Activity Dates and Setback Distances by Level of Disturbance for Burrowing Owls**

Time of Year	Distance of Disturbance (feet) from Occupied Burrows Low Disturbance	Distance of Disturbance (feet) from Occupied Burrows Medium Disturbance	Distance of Disturbance (feet) from Occupied Burrows High Disturbance
April 1 to August 15	600	1,500	1,500
August 16 to October 15	600	600	1,500
October 16 to March 31	150	300	1,500

Notes:

Low = Presence of maintenance staff on foot or in vehicles conducting work with light equipment (maintenance trucks, all-terrain vehicles).

Medium = Heavy equipment use with moderate noise levels (approximately 50–75 A-weighted decibels [dBA]).

High = Heavy equipment with high noise levels (more than 75 dBA).

Source: California Department of Fish and Game. 2012. *Staff Report on Burrowing Owl Mitigation*. March 7, 2012.

- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?*

**Less than Significant with Mitigation Incorporated.** The Proposed Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service because no riparian vegetation will be removed as part of this project. Additionally, impacts to fresh emergent wetland will be temporary in nature and will be passively restored as described in Mitigation Measures BIO-9 thereby reducing these impacts to a less-than-significant level.

The marsh-pond complex is proposed to be constructed within land that has been regularly dry-land farmed. There is a small area of riparian habitat adjacent to the marsh-pond complex, but the riparian habitat would be avoided during construction, including for staging and access. The harvest area consists of fresh emergent wetland with some willow trees. No trees would be removed during the Proposed Project and no riparian habitat would be impacted. Fresh emergent wetland in the harvest area would be temporarily impacted but would be restored through passive restoration. See wetland discussion in Section C for additional information. No other sensitive natural communities were identified in the Proposed Project area.

Tule harvesting would have minimal temporary impacts. Based on the tule growth rates of greater than 18 feet of spread in one growing season, it is anticipated that disturbed areas would revegetate within one growing season (Tilley 2012). Dispersing the sections would allow the tule to revegetate disturbed areas within one year resulting in minimal temporary impacts to the habitat. Similar harvesting techniques were used for experimental work by Metropolitan on Twitchell Island in 2019 and there was 100 percent tule recovery by the following year (ESA 2019).

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**BIO-9** Metropolitan proposes to monitor tule growth for 1 year. As discussed in the Project Description, if 75 percent coverage in disturbed areas has not been met within 365 days of the end of construction, Metropolitan would reassess unvegetated areas and would monitor for another year, with optional replanting. If 75 percent coverage is not met at the end of year two, Metropolitan will replant the disturbed area with appropriate native vegetation.

- c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

**Less than Significant.** No, the Proposed Project would not have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means. Implementation of standard erosion control measures and implementation of Mitigation Measure BIO-9 to ensure successful restoration of temporarily disturbed habitat will reduce temporary impacts to a less-than-significant level.

Jurisdictional waters were identified within the marsh-pond complex and harvest area. Although the intent is to avoid jurisdictional waters to the extent feasible, potential temporary impacts to jurisdictional waters would occur during the connection of agricultural ditches.

Indirect impacts could include runoff of sediment and dust into jurisdictional areas during operation of heavy equipment. All areas temporarily impacted would also be revegetated with native seeds or as described above for the harvest area.

The Proposed Project would not permanently impact jurisdictional waters because no permanent structures, direct removal, or filling is proposed for the Project. Furthermore, when Project activities are complete, more native vegetation is expected to be in place, which would enhance fresh emergent wetlands or other sensitive natural communities. Therefore, no permanent impacts to potentially jurisdictional waters would occur.

- d. 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?*

**No Impact.** No, the Proposed Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or disrupt native nursery sites. No known fish or wildlife movement corridors occur within the Proposed Project area. Therefore, no direct or indirect impacts would occur.

- e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

**No Impact.** No, the Proposed Project would not conflict with any local policies or ordinances protecting biological resources as there are no local policies or ordinances protecting biological resources in the Project area. As such, there would be no impact related to conflicting with policies or ordinances protecting biological resources.



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- f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?*

**No Impact.** No, the Proposed Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. The survey area is not within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan; therefore, the Proposed Project is not in conflict with any plans and no impacts would occur.

### 3.5 Cultural Resources

#### CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

#### Overview

This section examines the potential impacts of the Proposed Project on cultural resources. For purposes of this analysis, the term *cultural resource* is defined as follows:

Pre-contact and historic-era sites, structures, districts, and landscapes, or other evidence associated with human activity considered important to a culture, a subculture, or a community for scientific, traditional, religious, or other reason. These resources include the following types of CEQA-defined resources: historical resources, archaeological resources, and human remains.

The term *pre-contact* is used as a chronological adjective to refer to the period prior to Euroamerican arrival in the Proposed Project area.

This section relies on the information and findings presented in the Proposed Project's confidential cultural resources technical report: *Delta Smelt and Native Species Preservation Project, San Joaquin County, California: Cultural Resources Inventory Report* (Hoffman et al. 2022). That report included an overview of the environmental, ethnographic, and historic background of the Proposed Project area, with an emphasis on aspects related to human occupation. Please contact Metropolitan to inquire about reviewing this report.

#### CEQA Area of Potential Effects

For purposes of this analysis, the CEQA Area of Potential Effects (C-APE) is defined as both the horizontal and vertical maximum extents of potential direct impacts of the Proposed Project on cultural resources. This area encompasses the footprint of Proposed Project actions, including

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staging and access areas. The C-APE comprises approximately 145 acres and extends vertically to the maximum depth of the Proposed Project's ground-disturbing activities, varying according to specific location. **Table 3.5-1** details the vertical C-APE by Proposed Project activity.

**Table 3.5-1. Vertical C-APE by Project Component/Activity**

Component	Activity	Project Location	Depth of Ground Disturbance (ft)
Tule Food and Cooling Marshes	Disking and land leveling	Work Area	1.0
	Wetland construction	Work Area	2.0
	Tule planting	Work Area	0.0
Tule Harvesting	Tule removal/harvesting	Collection Area	2.0
Native Fish Propagation Ponds	Pond excavation	Work Area	15.0
	Berm construction	Work Area	0.0
Water Distribution, Control, and Screening	Well construction	Work Area	300.0
	Transportation pipeline installation	Work Area	3.0
Water Use Monitoring and Outlet Control	Tailwater ditches excavation	Work Area	5.0
Drainage Features	Agricultural ditch excavation	Work Area	5.0
Supplemental Floating Peat Marshes	Floating peat marsh excavation	Work Area	3.0
Access Roads	Gravelling existing roads	Work Area	0.0
	Use of existing roads	Access Roads	0.5
Operations and Maintenance	Weed control	Work Area	0.0
	Agricultural ditch cleaning	Work Area	5.0

## Records Search

In November 2021, ESA requested cultural resources records searches for the C-APE and vicinity from staff at the Central California Information Center (CCIC) at California State University Stanislaus, and the North Central Information Center at California State University Sacramento. The study area for the records searches consisted of the C-APE with a 0.5-mile buffer. The California Historical Resources Information System (CHRIS) has record of ten previously recorded cultural resources mapped within 0.5 mile of the C-APE, one of which (P-39-000322) is mapped within the C-APE. The CCIC reply letter erroneously stated that two additional previously recorded resources (P-39-000033, -004541) are in the C-APE; a review of the geospatial data and site records associated with these resources, as provided to ESA by the CCIC, clearly show them both to be outside the C-APE. Of the ten cultural resources previously recorded within 0.5 mile of the C-APE, seven are historic-era archaeological resources and three are historic-era architectural resources. The one previously recorded cultural resource mapped within the C-APE, P-39-000322, is an historic-era archaeological site consisting of a refuse scatter that does not appear to have ever been evaluated for eligibility for listing in the National Register of Historic Places (National Register) or California Register of Historical Resources (California Register).

## Additional Archival Research

The National Oceanic and Atmospheric Administration (NOAA) maintains an online database of shipwrecks derived from historic nautical charts at <https://wrecks.nauticalcharts.noaa.gov/viewer/>. ESA conducted a search of this database for the C-APE and vicinity on November 16, 2021. ESA

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conducted a review of the following sources of historic maps: Library of Congress (<https://www.loc.gov/>); David Rumsey Historical Map Collection ([www.davidrumsey.com](http://www.davidrumsey.com)); USGS's TopoView (<https://ngmdb.usgs.gov/topoview/>); University of California Santa Barbara's FrameFinder database ([https://mil.library.ucsb.edu/ap\\_indexes/FrameFinder/](https://mil.library.ucsb.edu/ap_indexes/FrameFinder/)); and NOAA Historical Shoreline Surveys Google Earth layer, which provides access to nautical charts from the US Coast Survey (later the US Coast and Geodetic Survey) and US National Ocean Service. The historic map and photography review focused on the C-APE and vicinity, and did not reveal any potential architectural or archaeological resources in the C-APE other than the existing levee. ESA conducted a review of ethnographic literature for the C-APE and vicinity to gather information on potential Native American villages, place names, or documented use of the area. This review revealed that no documented Native American villages are mapped in or in the immediate vicinity of the C-APE. The nearest ethnographic villages appear to have been the Plains Miwok villages *Guaypemne*, mapped approximately 1.5 miles northeast of the C-APE (Bennyhoff 1977; Heizer 1978), and *Musupumne*, mapped approximately 3.0 miles northeast of the C-APE (Bennyhoff 1977; Heizer 1978).

### **Native American Correspondence**

ESA contacted the California Native American Heritage Commission (NAHC) on November 11, 2021, in request of a search of the NAHC's Sacred Lands File (SLF) and a list of Native American representatives who may have interest in the Proposed Project. The NAHC reply, dated January 3, 2022, stated that the SLF has no record of sacred sites in the C-APE.

### **Field Survey**

On December 28, 2021, ESA archaeologist Robin Hoffman conducted a pedestrian surface survey of the entire C-APE. Intensive pedestrian methods were used during the survey, consisting of walking the ground surface in parallel transects no greater than 20 meters apart and inspecting the ground surface for evidence of cultural material (archaeological or architectural). Field methods were augmented for the close inspection of the location of P-39-000322, as previously recorded. These augmented methods entailed reducing parallel transect spacing to no greater than 5 meters, examining surface sediments and debris for remains of a refuse deposit described in the original site record for the resource.

No archaeological resources, including any evidence of P-39-000322, were observed in the C-APE during the survey. One architectural resource, San Joaquin County Levee 54 (later designated by CHRIS as P-39-005454), was identified in the C-APE during the survey; the resource was previously unrecorded.

### **Archaeological Sensitivity Analysis**

Holocene Delta mud deposits underlie the entire C-APE (Dawson 2009), and native soils in the C-APE consist of Ryde series clay loams (majority of Work Area), Piper series sandy loams (majority of Collection Area), and Rindge series muck (portions of Collection Area) (USDA 2021). Rindge series muck is of historic-era/modern age (150 BP–present) (Meyer and Rosenthal 2008), and Ryde series clay loams and Piper series sandy loams are of estimated Latest Holocene age (2000–150 BP). Based on the ages of the mapped soil units in the C-APE, and that the C-APE is in proximity to a large, perennial freshwater body, the C-APE's theoretical potential for presence

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of buried Native American archaeological deposits is high to very high (Meyer and Rosenthal 2008:160–161). Historic-era and modern engineering of the landscape, notably through the construction of the levees and roads have disturbed the access road portions of the C-APE, while historic-era and modern agricultural activities (e.g., row crops) have disturbed portions of the C-APE, notably the Work Area. It is likely, though not certain, that the deep plowing associated with historic-era and modern agricultural activities in the C-APE, particularly Work Area portion thereof, would have resulted in some manifestation (etc., fragmented artifacts or faunal remains) of any shallow buried archaeological deposits. Given that no archaeological material was identified during the field survey conducted for the current study, we conclude that the actual potential for presence of buried and surficial Native American archaeological deposits in the C-APE is moderate. Based on the above analysis, the C-APE has a moderate sensitivity for both surficial and buried Native American archaeological resources.

No signs of historic-era development activities and associated use that may have resulted in the creation of surficial and buried historic-era archaeological deposits in the C-APE were observed in a review of historic photographs or maps, or during the field survey. Therefore, the potential presence for both surficial and buried historic-era archaeological deposits in the C-APE is low. Background research of historic topographic maps and photographs did not indicate any clear avenues for significance for the California Register for any buried historic-era archaeological deposits in the C-APE, if present. Also, based on known historic-era archaeological resources previously recorded in similar settings in the Proposed Project vicinity, the potential significance of any intact historic-era archaeological resources in the C-APE is low. Therefore, the C-APE has a low sensitivity for historic-era archaeological resources, both buried and surficial (low potential presence with low potential significance).

### **Summary of Cultural Resources Identified**

Through background research, one previously recorded cultural resource, P-39-000322 (historic-era refuse scatter), and one previously unrecorded cultural resource, San Joaquin County Levee 54, were identified in the C-APE. During the field survey conducted for the Proposed Project, no evidence of P-39-000322 was observed in the C-APE, and the San Joaquin County Levee 54 (subsequently assigned the designation P-39-005454), was identified in the C-APE. P-39-005454 is an historic-era architectural resource consisting of the San Joaquin County Levee 54, an earthen levee that surrounds the whole of Bouldin Island, and is in the Levee Access Road portion of the C-APE. The levee measures approximately 17.89 miles long, and protects 9.2 square miles of agricultural land. Within the C-APE, the levee measures 12 feet wide at the crown, 35 feet wide at the base, and 8 feet tall, with a gravel access road topping the levee. The levee is a locally owned, operated, and maintained levee. Per archival review, the earliest levees on the island date to the 1870s, and a levee appears in the same location as the resource on the earliest historic topographic maps dating to 1910. ESA evaluated P-39-005454 for California Register-eligibility, recommending it not eligible for the California Register (Hoffman et al. 2022).

In summary, no cultural resources that qualify as historical resources or unique archaeological resources, as defined by CEQA, were identified in the C-APE.

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**Discussion.** *Would the project:*

- a. *Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

**No Impact.** No, the Proposed Project would not cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5. One historic-era architectural resource (P-39-005454: San Joaquin County Levee 54) was identified in the C-APE, though it is not eligible for the California Register and, therefore, P-39-005454 does not qualify as an historical resource, pursuant to CEQA Guidelines § 15064.5. Therefore, the Proposed Project would have no impact on historical resources, pursuant to CEQA Guidelines § 15064.5.

- b. *Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

**Less than Significant.** No, the Proposed Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5. Background research identified one archaeological resource (P-39-000322: historic-era refuse deposit) within a portion of the C-APE. However, no evidence of the resource was observed in the C-APE during the field survey and this study concludes that the resource is no longer present in the C-APE.

Although there is no substantial evidence that archaeological resources are present in the C-APE, the Proposed Project would involve ground-disturbing activities that may extend into undisturbed soil, and the archaeological sensitivity analysis conducted for the Proposed Project concluded that the C-APE has a moderate sensitivity for both surficial and subsurface Native American archaeological resources. Metropolitan's Standard Practices for construction projects require that, in the event unanticipated archaeological resources are discovered during Proposed Project activities, all work would cease within 50 feet of the discovery to protect the area until a qualified archaeologist can evaluate the discovery and recommend additional measures for proper handling and treatment.

As no known archaeological resources that may qualify as historical resources (as defined in CEQA Guidelines § 15064.5) or unique archaeological resources (as defined in PRC § 21083.2[g]) are present in the C-APE, the Proposed Project is not expected to impact any archaeological resource, pursuant to CEQA Guidelines § 15064.5, and impacts are less than significant.

- c. *Disturb any human remains, including those interred outside of dedicated cemeteries?*

**Less than Significant.** Archival research and the field survey of the C-APE did not find any evidence of the presence of human remains. Also, the land use designations for the C-APE do not include cemetery uses, and no known human remains exist within the C-APE. Therefore, the Proposed Project is not anticipated to disturb any human remains. Should human remains be encountered, Metropolitan would comply with the State of California's Health and Safety Code Section 7050.5, which states that no further disturbance would occur until the appropriate county coroner has made a determination of origin and disposition of the remains pursuant to PRC Section 5097.98. Adherence to State of California's Health and Safety Code Section 7050.5 would result in the proper handling and treatment of unexpected human remains. Therefore, impacts to human remains would be less than significant.

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### 3.6 Energy

#### Energy

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

**Discussion. Would the project:**

- a. *Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

**Less than Significant Impact.** No, the Proposed Project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation. During construction of the Proposed Project, fuel consumption would result from the use of construction tools and equipment, truck trips to haul material, and construction workers' commutes to and from the Project site. Construction of the Proposed Project is anticipated to last for 4 months total, in two phases of 2 months each.

Construction activities and corresponding fuel energy consumption would be temporary and localized, as the use of diesel fuel and heavy-duty equipment would not be a long-term condition of the Proposed Project. In addition, the Proposed Project has no unusual characteristics that would require using construction equipment or haul vehicles that would be less energy efficient than equipment and vehicles used at similar construction sites elsewhere in California. In conclusion, construction-related fuel consumption by the Proposed Project would not result in inefficient, wasteful, or unnecessary energy use compared with other construction sites in the region. This impact would be less than significant.

Operation of the Proposed Project would require staff from UC Davis using pickup trucks to be on-site daily for approximately 2 months in the spring and 2 months in the fall, when fish are on-site. It is anticipated that operations and maintenance of the Proposed Project would require four workers, using pickup trucks, to be on-site twice per week. Because the Proposed Project's operational impacts on energy resources would be driven primarily by limited maintenance and research activities, energy use would be minimal. Therefore, the Proposed Project would not include the wasteful, inefficient, or unnecessary consumption of energy resources and would have no potential for significant energy impacts.

- b. *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

**Less than Significant Impact.** No, the Proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The transportation sector is a major end user of energy in California, accounting for approximately 34 percent of the state's total energy consumption in 2020 (US Energy Information Administration 2022). Energy is also consumed in connection with construction and maintenance of transportation



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infrastructure, such as streets, highways, freeways, rail lines, and airport runways. In 2015, California's 30 million vehicles consumed more than 15 billion gallons of gasoline and more than 4.2 billion gallons of diesel, making California the second largest consumer of gasoline in the world (CEC 2016).

Existing standards for transportation energy are promulgated through the regulation of fuel refineries and products, such as the Low Carbon Fuel Standard, which mandated a 10 percent reduction in the non-biogenic carbon content of vehicle fuels by 2020. In 2018, the Board approved amendments to the regulation, which included strengthening and smoothing the carbon intensity benchmarks through 2030 in line with California's 2030 greenhouse gas (GHG) emission reduction target enacted through Senate Bill (SB) 32, adding new crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector. Other regulatory programs with emissions and fuel efficiency standards have been established by the US Environmental Protection Agency and the CARB, such as Pavley II/Low Emission Vehicle III from California's Advanced Clean Cars Program and the Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation.

In 2020, Governor Gavin Newsom signed Executive Order N-79-202 which established a goal that 100 percent of California sales of new passenger cars and trucks be zero-emission by 2035. In addition, the Governor's order set a goal to transition all drayage trucks to zero-emission by 2035, all off-road equipment to zero-emission where feasible by 2035, and the remainder of medium- and heavy-duty vehicles to zero-emission where feasible by 2045. Under the order, CARB is tasked to work with their state agency partners to develop regulations to achieve these goals taking into account technological feasibility and cost effectiveness (CARB 2021). Further, construction sites need to comply with state requirements designed to minimize idling and associated emissions, which also minimizes fuel use. Specifically, idling of commercial vehicles and off-road equipment is limited to 5 minutes in accordance with the Commercial Motor Vehicle Idling Regulation and the Off-Road Regulation (California Code of Regulations Title 13, Section 2485).

San Joaquin County has not implemented energy action plans. The Proposed Project is consistent with the state goals and would not impede progress toward achieving these goals. The Proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency or impede progress toward achieving any goals and targets. This impact would be less than significant.

### 3.7 Geology and Soils

#### GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic groundshaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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## GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on geologic units or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code (2010), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

### **Discussion.** *Would the project:*

- a. *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*
  - i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

**No Impact.** No, the Proposed Project would not directly or indirectly cause a potential substantial adverse effect involving rupture of a known earthquake fault. The Proposed Project site is not located within an Alquist-Priolo earthquake fault zone (DOC 2022). Therefore, no impact related to rupture of a known earthquake fault would occur.

- ii) *Strong seismic groundshaking?*

**Less than Significant Impact.** No, the Proposed Project would not directly or indirectly cause potential substantial adverse effects involving strong seismic groundshaking. Earthquakes associated with the active faults in the Project area may cause strong ground shaking at the Proposed Project site. The region of the Great Valley Fault closest to the Proposed Project site is estimated to have an approximately 0.48 percent chance of a Mw 6.7 or greater earthquake over the next 30 years (WGCEP 2015). The Proposed Project would be constructed to industry standards to protect against potential adverse geological impacts of seismic activity and other site-specific soils and geology constraints, including compliance with the American Society of Civil Engineers standards. Implementation of the regulatory requirements, to ensure that all improvements are constructed in compliance with the law, is the responsibility of the project engineers and building officials. With compliance with these standards, the impact related to seismic shaking would be less than significant.

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*iii and iv) Seismic-related ground failure, including liquefaction or landslides?*

**No Impact.** No, the Proposed Project would not directly or indirectly cause potential substantial adverse effects involving seismic-related ground failure or liquefaction. Liquefaction is a transformation of soil from a solid to a liquefied state during which saturated soil temporarily loses strength resulting from the buildup of excess pore water pressure, especially during earthquake-induced cyclic loading. Slope failures, commonly referred to as landslides, include many phenomena that involve the downslope displacement and movement of material, triggered by either static forces (i.e., gravity) or dynamic forces (i.e., earthquakes). The Project area is not known to be susceptible to landslides or liquefaction and is within a flat area. In addition, the Proposed Project would be subject to compliance with the American Society of Civil Engineers standards. Therefore, no impact would occur.

*b. Result in substantial soil erosion or the loss of topsoil?*

**Less than Significant Impact.** No, the Proposed Project would not result in substantial soil erosion or the loss of topsoil. Soils in the Project area have low potential for erosion (NRCS 2022); however, earthmoving and grading activities during construction of the Proposed Project have the potential to cause erosion. Routine Project operations and maintenance activities are not anticipated to result in substantial soil erosion or loss of topsoil. Construction would be required to adhere to BMPs associated with the National Pollutant Discharge Elimination System (NPDES) Construction General Permit for Discharges of Stormwater Associated with Construction Activities, also known as the Construction General Permit, to control sediment in stormwater runoff from the Project area (see checklist item a in Section 3.10, *Hydrology and Water Quality*). Therefore, impacts of the Proposed Project related to soil erosion would be less than significant.

*c and d. Be located on geologic units or soil that is expansive or unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?*

**Less than Significant Impact.** No, the Proposed Project would not be located on geologic units or soil that is unstable, or that would become unstable as a result of the Proposed Project. According to the soil survey data for San Joaquin County, close to half of the upper 5 feet of soils throughout the county have a low shrink-swell potential, a lesser portion is considered to have a moderate potential, and about an eighth of the area (primarily in the southwestern end of the county) has been mapped with a high potential (San Joaquin County 2014). There are no nearby structures that could be damaged and the Proposed Project would not construct any structures. Therefore, the Proposed Project would not expose people or structures to potential substantial adverse effects caused by a seismic event or other phenomena that create unstable ground at the Proposed Project site. Less than significant impacts resulting from unstable or expansive soils would result from the Proposed Project.

*e. 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?*

**No Impact.** The Proposed Project would not include the use of septic tanks or alternative wastewater disposal systems. Therefore, soil suitability for septic tanks or alternative wastewater disposal systems is not applicable, and the Proposed Project would have no impacts associated

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with septic systems. No impacts related to soils necessary to support septic tanks or other alternative wastewater disposal systems would occur.

- f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

**Less than Significant.** No, the Proposed Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. The Society of Vertebrate Paleontology (SVP) considers remains of 5,000 years and older to be a significant resource. This also means that geologic units that have ages younger than 5,000 have a low potential as a paleontological resource. Rock formations that are considered paleontologically sensitive are those rock units that have yielded significant vertebrate or invertebrate fossil remains (SVP 2010). The vast majority of paleontological specimens from San Joaquin County have been found in rock formations in the foothills of the Diablo Mountain Range. However, remains of extinct animals such as mammoth, could be found virtually anywhere in the county, especially along watercourses such as the San Joaquin River and its tributaries (San Joaquin County 2014). However, the Project Site has an extensive history of agricultural production, no fossil specimens in institutional collections have been found near the Proposed Project site, and the majority of excavation would occur within the top 5 feet. The Native Fish Propagation Ponds would be excavated to a depth of 15 feet. Considering the soils at the Project Site and its historical use, the potential for paleontological resources is low. Furthermore, part of Metropolitan Standard Practices, if unanticipated paleontological resources are discovered during construction activities, the Project Contractor(s) would be required to comply with Metropolitan standard practices related to the protection of paleontological resources as outlined in Section 01065 of the construction contractor specifications. Therefore, impacts to paleontological resources would be less than significant.

### 3.8 Greenhouse Gas Emissions

GREENHOUSE GAS EMISSIONS				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

#### Overview

GHG emissions worldwide cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate sufficient GHG emissions on its own to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects in the San Joaquin Valley; the entire state of California; across the nation; and around the world contribute cumulatively to the phenomenon of global climate change and its associated environmental impacts.

Assembly Bill 32 (AB 32) also known as the Global Warming Solutions Act of 2006, codifies the State of California's GHG emissions target by directing CARB to design and implement feasible

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and cost-effective emissions limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25-percent reduction in emissions). The CARB identified a GHG reduction target of 15 percent from current levels for local governments (municipal and community-wide) and noted that successful implementation of the plan relies on local governments' land use planning and urban growth decisions because local governments have primary authority to plan, zone, approve, and permit land development to accommodate population growth and the changing needs of their jurisdictions. The AB 32 emissions reduction limit was achieved in 2017, 3 years prior to the 2020 goal.

In response to AB 32 GHG reduction goals, CARB adopted the Climate Change Scoping Plan, which outlined a framework for achieving the emission reduction goals set in the California Global Warming Solutions Act. The Scoping Plan was most recently updated in 2017 to address California's 2030 GHG target and identifies how the State can reach the 2030 climate target established by SB 32 while making substantial advancements toward the 2050 climate goal established by Executive Order S-3-05 (2005).

***Discussion. Would the project:***

*a and b. Conflict with or obstruct implementation of the applicable air quality plan or result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?*

**Less than Significant Impact.** The SJVAPCD does not recommend quantitative significance thresholds for the analysis of the impact of a project's GHG emissions on the environment. Instead, the SJVAPCD's approach relies on the application of performance-based standards to assess project-specific GHG emission impacts on global climate change. This is based on the principle that projects whose emissions have been reduced or mitigated consistent with AB 32 should be considered to have a less than significant impact on global climate change (SJVAPCD 2015c). SJVAPCD's policy provides for the following tiered approach in assessing significance of project-specific GHG emission increases:

- Projects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located would be determined to have a less than significant individual and cumulative impact for GHG emissions. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement best performance standards (BPS).
- Projects implementing BPS would not require quantification of project-specific GHG emissions and would be determined to have a less than significant individual and cumulative impact for GHG emissions.
- Projects not implementing BPS would require quantification of project-specific GHG emissions and demonstration that project-specific GHG emissions would be reduced or mitigated by at least 29 percent compared to business as usual, including GHG emission reductions achieved since the 2002–2004 baseline period, consistent with GHG emission reduction targets established in California Air Resources Board's AB 32 Scoping Plan. Projects achieving at least a 29 percent GHG emission reduction compared to business as usual would be determined to have a less than significant individual and cumulative impact for GHG emissions.

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In May 2022, Metropolitan adopted a Climate Action Plan (CAP) and certified the associated Program Environmental Impact Report (PEIR). Metropolitan's CAP complies with the requirements of CEQA Guidelines Section 15183.5(b)(1) for a qualified greenhouse gas (GHG) emissions reduction plan, and as such, can be used to streamline and tier GHG CEQA analysis and mitigate for GHG impacts associated with construction and operational activities.<sup>5</sup> The CAP includes a baseline GHG emissions inventory of Metropolitan's operations from 1990 through 2020 and a GHG emissions forecast through 2045. It also establishes actions and policies that Metropolitan could implement to achieve its GHG reduction target. The CAP established Metropolitan's GHG emissions reduction targets to be consistent with Senate Bill (SB) 32 (40 percent reduction below 1990 levels by 2030) and Assembly Bill (AB) 1279, which codifies the state goal of achieving carbon neutrality by 2045.

Metropolitan's CAP is a qualified GHG emissions reduction plan and can be used with later activities in the cumulative analysis of future projects. More specifically, an environmental document that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project, per CEQA Guidelines Section 15183.5(b)(2).

Using a qualified CAP allows Metropolitan to tier future project-level GHG emissions analyses from the CAP, if those projects demonstrate consistency with the CAP. Consistency will be determined by conducting annual GHG emissions inventories to ensure Metropolitan is meeting its adopted GHG reduction goals. The Proposed Project's estimated construction and operation emissions are consistent with the CAP. Where applicable, the Proposed Project would follow the measures adopted in this plan, and the impact would be less than significant.

Although there are no set thresholds of significance for GHG emissions for Metropolitan projects, emissions were calculated to show the low levels of emissions associated with the Proposed Project. Construction would take place in two phases, with each phase lasting 2 months within a given year. Ongoing activities associated with Proposed Project operation would occur over 4 months each year. The Proposed Project would have a 5-year project life, over which the construction operations were amortized. The Proposed Project's GHG emission impacts associated with construction and operations were calculated using CalEEMod (Version 2020.4.0) and EMFAC2017 (v1.0.3), respectively. Emissions would come from use of diesel-powered construction equipment, and worker trips to and from the site for operational maintenance.

**Table 3.8-1. Greenhouse Gas Emissions**

	GHG Emissions (CO <sub>2</sub> e MT/y)
Amortized <sup>1</sup> Construction GHG Emissions	9.08
Operational Annual GHG Emissions	0.48
Total Annual Project GHG Emissions	9.56

Source: Appendix B

Note: CO<sub>2</sub>e MT: Metric ton of carbon dioxide equivalent

1 Emissions were amortized over a 5-year project lifespan.

<sup>5</sup> Metropolitan. 2022. *Climate Action Plan*. March 2022.

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The Proposed Project would not conflict with the applicable CAP and the emissions would have minimal impacts on the environment; therefore, GHG impacts associated with this Proposed Project would be less than significant.

### 3.9 Hazards and Hazardous Materials

#### HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

#### **Discussion.** *Would the project:*

*a and b. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or 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?*

**Less than Significant Impact.** No, the Proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or 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.

The Proposed Project's construction equipment and materials would include fuels, oils and lubricants, and concrete, which are all commonly used in construction. The routine use of or an accidental spill of hazardous materials used in construction could result in inadvertent releases, which could adversely affect construction workers, the public, and the environment.



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As part of standard practice, Metropolitan complies with numerous regulations to ensure that construction-related fuels and other hazardous materials are transported, used, stored, and disposed of safely to protect worker safety, and to reduce the potential for such fuels or other hazardous materials to be released into the environment, including stormwater and downstream receiving water bodies. Contractors would be required to prepare and implement hazardous-materials plans that would require proper use of hazardous materials during construction and storage of such materials in appropriate containers with secondary containment, as needed, to contain a potential release.

In addition, construction contractors would be required to acquire coverage under the NPDES General Stormwater Permit, which requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) for construction activities. The SWPPP would list the hazardous materials (including petroleum products) proposed for use during construction; describe spill prevention measures, equipment inspections, and equipment and fuel storage; describe protocols for responding immediately to spills; and describe BMPs for controlling site run-on and runoff. Details regarding BMPs designed to minimize erosion are discussed in Section 3.10, *Hydrology and Water Quality*. Construction would be required to adhere to BMPs associated with the NPDES Construction General Permit for Discharges of Stormwater Associated with Construction Activities, also known as the Construction General Permit, to control sediment in stormwater runoff from the Project area.

Lastly, the transportation of hazardous materials would be regulated by the US Department of Transportation, the California Department of Transportation, and the California Highway Patrol. Together, federal and state agencies determine driver-training requirements, load-labeling procedures, and container specifications designed to minimize the risk of an accidental release.

Limited hazardous materials would be stored in the storage containers on-site, including 5 to 10 L of ethanol or formalin, and three 10 L cryogenic containers of liquid nitrogen. These substances would be appropriately stored according to physical and chemical properties and storage recommendations for the limited volumes detailed in their respective Materials Safety Data Sheets.

As part of standard Metropolitan practice, the Proposed Project would comply with the numerous laws and regulations discussed above that govern transportation, use, handling, and disposal of hazardous materials, which would limit the potential for creation of hazardous conditions due to the use or accidental release of hazardous materials. As a result, this impact would be less than significant.

- c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

**No Impact.** No, the Proposed Project would not emit hazardous emissions, materials, substances or waste within 0.25 miles of an existing or proposed school. No schools are located within 0.25 miles of the Proposed Project site. No impacts would occur related to emitting or handling hazardous materials within 0.25 miles of an existing or proposed school.

- d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

**No Impact.** No, the Proposed Project would not be located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Information about hazardous materials

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sites on the Proposed Project site was collected by reviewing the California Environmental Protection Agency's Cortese List data resources and the State Water Resources Control Board's GeoTracker list. The Cortese List data resources provide information regarding facilities or sites identified as meeting the requirements for inclusion on the Cortese List. The Cortese List is updated at least annually, in compliance with California regulations (California Government Code Section 65964.6[a][4]), and includes federal Superfund sites, state response sites, non-operating hazardous waste sites, voluntary cleanup sites, and school cleanup sites. The GeoTracker list shows underground storage tanks. Based on a review of the Cortese List conducted in June 2022, no listed sites are located within 1 mile of the Proposed Project site (DTSC 2022). No impacts would occur related to the Proposed Project being located on a hazardous materials site.

- e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

**No Impact.** The Proposed Project would not be located within an airport land use plan. The Proposed Project site is not located within 2 miles of a public airport or public use airport. The nearest public use airport to the Proposed Project site is the Rio Vista Municipal Airport located approximately 8 miles to the northwest. No impacts would occur.

- f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

**No Impact.** The Proposed Project would not impair implementation of or physically interfere with an adopted emergency plan or evacuation plan. The construction activity and the staging of equipment and materials for the Proposed Project would occur on the Project site, which would not require road closures or lane restrictions. Construction access to and from the Project site from Highway 12 consists of two roads labeled Road 1 and Road 2, including an existing road and a new access road. Therefore, the Proposed Project would not impair implementation or physically interfere with an adopted emergency response or evacuation plan, and no impact would occur.

- g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

**Less than Significant Impact.** No, the Proposed Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. The Proposed Project site is adjacent to lands occupied by irrigated row crops. The vegetation and land use types have a low potential for wildland fires and the Proposed Project is not expected to expose people or structures to a significant risk of loss, injury, or death involving wildland fires. The Proposed Project is within a Local Responsibility Area and lies within an Unzoned fire severity zone (CAL FIRE 2007). There is no fueling on-site and Metropolitan actively maintains its fleet vehicles and equipment. Therefore, the Proposed Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires, and no impacts would occur.

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### 3.10 Hydrology and Water Quality

#### HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate Regional Water Quality Control Board water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on or off site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

#### **Discussion. Would the project:**

- a. *Violate Regional Water Quality Control Board water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

**Less than Significant Impact.** Construction of the Proposed Project would involve the use of heavy equipment, such as excavation, grading, earthmoving, movement of spoils, installation of pipes, pumps, and water control features. Even though soil erosion potential on the Proposed Project site is generally low, construction activities have the potential to increase rates of erosion, which could increase turbidity in the agricultural ditches. In addition, the use of heavy machinery during construction would have the potential to result in an accidental release of fuels, oils, solvents, hydraulic fluid, and other construction-related fluids to the environment, thereby degrading water quality.

As described previously, soils in the Project area have low potential for erosion; however, earthmoving and grading activities during construction have the potential to cause erosion. Routine Project operations and maintenance activities are not anticipated to result in substantial soil erosion or loss of topsoil.

The contractor would be required to obtain an NPDES Construction General Permit for Discharges of Stormwater Associated with Construction Activities (Construction General Permit) from the Central Valley Regional Water Quality Control Board before initiating ground-disturbing

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activities. Among the permit's conditions would be preparation and implementation of a SWPPP that would identify and require implementation of BMPs to prevent sediment and other construction-related compounds (e.g., fuel, oil) from entering stormwater runoff. Compliance with the NPDES Construction General Permit, including the implementation of BMPs described in the SWPPP, would ensure that the Proposed Project would avoid and/or minimize the potential impact of soil erosion or the loss of topsoil during construction. Therefore, this impact would be less than significant.

On the downstream end of the basin, a control structure would be used to slow the discharge of the project water to a rate that can be handled by the island drainage system. Most of the water flowing out of the propagation ponds would be discharged into the detention basin over a 3-hour period in the morning. The detention basin is intended to drain this water over an 18- to 20-hour period throughout the subsequent day and night. The downstream water control structure would be adjustable to allow for better control of the discharge during the 18- to 20-hour period. The discharge of flows into the adjacent agricultural ditches would be monitored to ensure that agricultural ditch capacities are not exceeded. Routine operation and maintenance activities for the Proposed Project would include staff from UC Davis using pickup trucks to be on-site daily for approximately 2 months in the spring and 2 months in the fall, when fish are on-site. It is anticipated that operations and maintenance of the Proposed Project would require four workers, using pickup trucks, to be on-site twice per week. There would be no significant increase in sediment or other potential pollutants discharged into receiving waters. As a result, impacts on water quality from the Proposed Project's operation and maintenance activities would be less than significant.

- b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

**Less than Significant Impact.** No, the Proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. The propagation ponds would be filled using either surface water or groundwater to ensure consistent regulated temperatures. The water inlet at the cooling marshes would consist of a pump on a timer that fills the cooling marsh from 5 p.m. to 9 p.m. daily, at a rate of approximately 78 cfs. The groundwater system would include the use of a new well to be constructed within the Proposed Project site. The new groundwater well is expected to be up to 300 feet deep. The wells would not be hydraulically connected to any local surface water. The capacity of the new well would be up to 1,000 gpm, with up to an 8-inch-diameter discharge pipe. Well construction would cause a temporary ground disturbance with a construction footprint of up to 1,600 square feet. The transportation pipeline would be buried from the well location to Proposed Project fields at a depth of up to 24 inches. Because the Proposed Project would rely on a combination of surface water and groundwater and not solely groundwater, the amount of groundwater used would be relatively small. In addition, the majority of the Proposed Project site would not be covered by impervious surfaces and would allow for groundwater recharge. Therefore, a less than significant impact related to the decrease of groundwater supplies or interfere substantially with groundwater recharge would occur from the Proposed Project.

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- c. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*

- i) *Result in substantial erosion or siltation on or off site?*

**Less than Significant Impact.** No, the Proposed Project would not substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion on- or off-site. The Proposed Project would comply with the NPDES Construction General Permit, including the implementation of BMPs described in the SWPPP to prevent water quality pollutants such as silt and sediment from entering receiving waters. In addition, the perimeter berms would be covered with visqueen on the waterside embankments to reduce seepage and erosion. Outlet water from the detention basin would be slowed by a control structure to slow the discharge of the Proposed Project water to a rate that can be handled by the island drainage system. Therefore, a less than significant impact related to the creation of substantial erosion or siltation would occur from the Proposed Project.

- ii and iii) *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

**Less than Significant Impact.** No, the Proposed Project would not substantially alter the existing drainage pattern of the site or area in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Flows exiting the marsh area would be screened and controlled through a set of slide-gates. Outlet water from the detention basin would drain to the existing agricultural ditch on the south-west side of the field. On the downstream end of the basin, a control structure would be used to slow the discharge of the project water to a rate that can be handled by the island drainage system. Most of the water flowing out of the propagation ponds would be discharged into the detention basin over a 3-hour period in the morning. The detention basin is intended to drain this water over an 18- to 20-hour period throughout the subsequent day and night. The downstream water control structure would be adjustable to allow for better control of the discharge during the 18- to 20-hour period. The discharge of flows into the adjacent agricultural ditch would be monitored to ensure that agricultural ditch capacities are not exceeded. Therefore, the Proposed Project would have less than significant associated impacts related to substantially increasing the rate or amount of surface runoff and creating or contributing substantial amounts of runoff water.

- iv) *Impede or redirect flood flows?*

**Less than Significant Impact.** No, the Proposed Project would not impede or redirect flood flows. The Proposed Project would include development of the marsh-pond complexes and associated infrastructure. Outlet water from the detention basin would drain to the existing agricultural ditch on the south-west side of the field. On the downstream end of the basin, a control structure would be used to slow the discharge of the Proposed Project water to a rate that can be handled by the island drainage system. Therefore, this impact would be less than significant.

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- d. *In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

**Less than Significant Impact.** No, the Proposed Project would include development of the marsh-pond complexes and associated infrastructure to serve as a surface water regulating and storage facility. Once constructed, routine operation and maintenance activities for the Proposed Project would include staff from UC Davis using pickup trucks to be on-site daily for approximately 2 months in the spring and 2 months in the fall, when fish are on-site. It is anticipated that operations and maintenance of the Proposed Project would require four workers, using pickup trucks, to be on-site twice per week. Limited hazardous materials would be stored in the storage containers on-site, including 5 to 10 L of ethanol or formalin, and three 10 L cryogenic containers of liquid nitrogen. Therefore, this impact would be less than significant.

- e. *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

**Less than Significant Impact.** No, the Proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. As described previously under checklist items a) and b), the Proposed Project would comply with the NPDES Construction General Permit, including the implementation of BMPs described in the SWPPP to prevent water quality pollutants such as silt, sediment, hazardous materials, and construction-related fluids from entering receiving waters. Implementing the Proposed Project would result in the addition of minimal impervious surfaces from construction of the concrete-lined open ditches; however, the Proposed Project would discharge Proposed Project water via the island drainage system. Therefore, this impact would be less than significant.

### 3.11 Land Use and Planning

#### LAND USE PLANNING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

#### **Discussion.** *Would the project:*

- a and b. *Physically divide an established community or cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

**No Impact.** No, the Proposed Project would not physically divide an established community. The Proposed Project site is on Bouldin Island which is Metropolitan fee property. The Proposed Project site and access roads are not located within an established community and do not serve as a means of moving through or connecting a community or neighborhood. There are no communities in the vicinity of the Proposed Project site and the Proposed Project would be consistent with existing land uses, plans, policies, and regulations. For these reasons, the Proposed

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Project would not physically divide an existing community, would not conflict with a land use plan, policy or regulation and no impacts would occur.

### 3.12 Mineral Resources

MINERAL RESOURCES				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

***Discussion. Would the project:***

*a and b. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State or resource recovery site delineated on a local general plan, specific plan or other land use plan?*

**No Impact.** No, the Proposed Project would not result in the loss of availability of a known mineral resource or result in the loss of availability of a locally important mineral resource recovery site. The Proposed Project is located on a parcel zoned for agriculture and would not result in the loss of availability of a known mineral resource and would not affect a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. No impact would occur related to loss of a known mineral resource of value to the region or residents of the State.

### 3.13 Noise

NOISE				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generation of 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

### Regulatory

Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies. Local regulation of noise involves



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implementation of general plan policies and noise ordinance standards. Local general plans tend to identify general principles intended to guide and influence development plans; local ordinances establish standards and procedures for addressing specific noise sources and activities.

San Joaquin County General Plan. The San Joaquin County General Plan Public Health and Safety Element contains policies and noise thresholds that are only applicable to permanent noise sources (San Joaquin County 2016). The Health and Safety Element does not contain policies that address temporary noise during construction.

San Joaquin County Code of Ordinances. San Joaquin County Ordinance Chapter 9-1025 establishes the noise control regulations in the County. Section 9-1025.9(c) identifies activities that are exempt from any noise threshold or standard identified in Ordinance Chapter 9-1025: (3). Noise sources associated with construction, provided such activities do not take place before 6 a.m. or after 9 p.m. on any day (San Joaquin County 2002).

**Discussion. *Would the project:***

- a. *Generation of 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?*

**Less than Significant Impact.** No, the Proposed Project would not generate a substantial temporary or permanent increase in ambient noise levels in excess of standards. The Proposed Project would include the construction of two marsh-pond complexes that would house native fish to create an approximately 145-acre Project site. Construction of the Proposed Project is expected to take place with Phase I starting in spring 2023 and lasting for approximately 2 months. If Phase I is successful, Phase II construction would start in spring 2024 and last for approximately 2 months. Operation and maintenance of the Proposed Project would not generate a permanent increase in ambient noise levels. Therefore, when considering noise that could exceed standards established in the local general plan or noise ordinance, only temporary construction noise generated by the Proposed Project would apply.

All construction activities associated with the Proposed Project would occur during a daytime 8-hour construction period and would therefore be consistent with the noise exemption pursuant to Section 9-1025.9(c)(3). As such, this Proposed Project would not exceed established standards of the County Code. The Proposed Project is located in the is within the Sacramento-San Joaquin Delta on Bouldin Island. Recreational uses exist surrounding the Proposed Project site. The nearest residential receptors are 0.40 miles (approximately 2,100 feet) west from the Project site. The primary noise sources in the vicinity of the Project site primarily include vehicle traffic on SR 12. Because the nearest residential receptor is over 2,000 feet away, construction noise would not result in a substantial increase in noise levels. As part of Metropolitan standard practice, work would be performed without undue noise and in a manner that prevents nuisance noise, including use of construction equipment with mufflers. A less than significant impact would occur from the Proposed Project generating substantial temporary or permanent noise levels in the vicinity of the Proposed Project area in excess of established standards.

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*b. Generation of excessive groundborne vibration or groundborne noise levels?*

**Less than Significant Impact.** Operation and maintenance of the Proposed Project's marsh-pond complexes would not include any substantial sources of vibration. Groundborne vibration and noise associated with some construction activities, including the use of bulldozers, drill rigs and compaction equipment. vibratory rollers, can cause excessive vibration. Groundborne vibration and noise levels generated by the types of equipment required to prepare the site and construct the proposed facility would be minimal, temporary, and would not cause human annoyance or structure damage at distance of 25 feet or beyond from the source (FTA 2018). No existing historic structures that would be potentially vulnerable to vibration are located in the immediate vicinity of the Proposed Project site such that any damage related to groundborne vibration from construction activities would occur. This impact would be less than significant.

*c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

**No Impact.** There are no private airstrips or public airports located within 2 miles of the Proposed Project site. The nearest airport, the Rio Vista Municipal Airport is located more than 8 miles northeast from the Proposed Project site (Rio Vista 1998). Therefore, the Proposed Project would not expose people residing or working in the Proposed Project area to excessive noise levels from aircraft activity. There would be no impact with respect to this criterion.

### 3.14 Population and Housing

POPULATION AND HOUSING				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

**Discussion.** *Would the project:*

*a and b. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure; or displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

**No Impact.** No, the Proposed Project would not induce substantial unplanned growth in an area or displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. The Proposed Project would involve the development of the marsh-pond complexes and associated infrastructure. The Proposed Project would not include new homes. Construction would be short-term and would not require additional workers outside of the existing work force. Existing workers would be responsible for operation and maintenance of the

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Proposed Project. The Proposed Project site is located on a parcel zoned for agriculture and would not displace any housing or people. Therefore, the Proposed Project would not induce substantial unplanned population growth in an area either directly or indirectly or displace substantial numbers of existing people or housing and no impact would occur.

### 3.15 Public Services

#### PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

#### **Discussion. Would the Proposed Project:**

***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:***

*a-e. Fire protection, police protection, schools, parks, or other public facilities?*

**No Impact.** No, the Proposed Project would not result in the construction of any new facilities or population that would generate a need for new or physically altered government facilities. The Proposed Project would not induce population growth or change the existing land use at the Project site. The Project site does not contain any existing dwelling units or structures, and none are proposed. Therefore, demand for police and fire protection and for community amenities such as schools and parks would not change relative to existing conditions, would not alter acceptable service ratios or response times, would not increase the need for new or expanded park facilities, and would not result in the need for new schools or alteration to schools or any other public facilities. No impact would occur.

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### 3.16 Recreation

#### RECREATION

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

#### **Discussion.** *Would the project:*

- a. *Would the project 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?*

**No Impact.** No, the Proposed Project would not increase the use of existing neighborhood and regional parks or other recreational facilities. The Proposed Project would include development of the marsh-pond complexes and associated infrastructure, and would not increase demand for recreation facilities. Therefore, no impacts related to existing neighborhood and regional parks or other recreational facilities, or the deterioration of such facilities, would occur as a result of implementing the Proposed Project.

- b. *Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?*

**No Impact.** No, the Proposed Project does not include recreational facilities or require the construction or expansion of recreational facilities. The Proposed Project would include development of the marsh-pond complexes and associated infrastructure. The Proposed Project would not change the existing land use at the Project site and does not include recreational facilities or require the construction or expansion of recreational facilities. The Proposed Project does not involve the development of recreational facilities that would have an adverse effect on the environment, and no impacts would occur.

### 3.17 Transportation

#### TRANSPORTATION

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (5.g., sharp curves or dangerous intersections) or incompatible uses (5.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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## TRANSPORTATION

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

### ***Discussion. Would the project:***

- a. *Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?*

**Less than Significant Impact.** No, the Proposed Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system. Construction of the Proposed Project would temporarily generate increases in vehicle trips by workers and vehicles on area roadways. There could be a minimal increase in truck trips for construction. Construction activities would be completed in two phases, lasting approximately 2 months for each phase. Construction would require approximately 12 workers total for each phase. Six workers for general construction and six workers for tule transplanting. Given the scale of the Proposed Project and the length of the construction period, the capacity of local roads used to access the Proposed Project site would not likely be substantially reduced. Operation of the Proposed Project would require staff from UC Davis using pickup trucks to be on-site daily for approximately 2 months in the spring and 2 months in the fall, when fish are on-site. It is anticipated that operations and maintenance of the Proposed Project would require four workers, using pickup trucks, to be on-site twice per week when ponds are operational and fish are on-site. Because the increase in traffic during construction and operation of the Proposed Project would be minimal, there would be no decreased levels of service. The Proposed Project would not induce population growth or changes to a transit roadway, bicycle system, or pedestrian facilities. The Proposed Project would not change the existing land use at the Project sites. The Proposed Project would not impact any county program, plan, ordinance, or policy related to transit, bicycle, or pedestrian facilities in the vicinity of the site or along local roadways. Therefore, this impact would be less than significant.

- b. *Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?*

**Less than Significant Impact.** No, the Proposed Project would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3(b). The State CEQA Guidelines Section 15064.3(b)(3) identify vehicle miles traveled (VMT)—the amount and distance of automobile travel attributable to a project—as the most appropriate measure of transportation impacts. Other relevant considerations may include the effects of the Proposed Project on transit and nonmotorized travel. Construction activities for the Proposed Project would be completed in two phases with Phase I starting in spring 2023 and lasting for approximately 2 months. If Phase I is successful, Phase II construction would start in spring 2024 and last for approximately 2 months. Both phases of construction would use existing construction crews. Operation of the Proposed Project would not add a substantial amount of VMT to the Project area and as discussed under impact a), the Proposed Project would not impact any county program, plan, ordinance, or policy related to transit, bicycle, or pedestrian facilities in the vicinity of the site or along local roadways. Therefore, the Proposed Project would not generate any new long-term trips and would have no effect on existing VMT of the area. Therefore, this impact would be less than significant.

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- c. *Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

**Less than Significant Impact.** No, the Proposed Project would not substantially increase hazards due to a geometric design feature or incompatible uses. Construction access to and from the site from Highway 12 consists of two roads labeled Road 1 and Road 2, including an existing road which is 15 to 20 feet wide and a new access road to be designed with a width of approximately 20 to 30 feet. Based on the low number of anticipated construction trips relative to traffic volumes on local roadways and their limited duration, this impact of Proposed Project construction would be less than significant. Construction of the Proposed Project would not result in new design features on roads in the area. No pedestrian or bicycle paths are along the construction route. Further, the Proposed Project would not result in potential traffic safety hazards for vehicles, bicyclists, and pedestrians on public roadways, given the intermittent and temporary nature of construction activities. The Proposed Project does not include installation of or modifications to any public roadways, driveways, or geometric design features. Therefore, this impact would be less than significant.

- d. *Result in inadequate emergency access?*

**Less than Significant Impact.** No, the Proposed Project would not result in inadequate emergency access. Temporary construction staging would be on the Proposed Project site and would not block or interfere with emergency response vehicles. Increases in traffic volumes on local roadways providing access to the Proposed Project site could cause intermittent and temporary slowdowns in traffic flow during construction, although truck trips associated with Project operation are not expected to cause access on local roadways to deteriorate. For these reasons, the Proposed Project would not result in inadequate emergency access, and this impact would be less than significant.

### 3.18 Tribal Cultural Resources

#### TRIBAL CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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## Native American Correspondence

No California Native American Tribes traditionally and culturally affiliated with the Proposed Project Area and vicinity have reached out to Metropolitan to be consulted with on Metropolitan projects as per PRC § 21080.3.1, 21080.3.2, and 21082.3. Therefore, no tribal consultation efforts outside of the NAHC correspondence was conducted.

See Section 3.5, *Cultural Resources*, for a summary of ESA's CCIC records search, background research, and field identification efforts for cultural resources.

### **Discussion. Would the project:**

- a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*
  - i) *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?*
  - ii) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*

**No Impact.** No, the Proposed Project would not cause a substantial adverse change in the significance of a tribal cultural resource, as defined in PRC § 21074, that is listed or eligible for listing in the California Register or local register of historical resources, or determined by Metropolitan to be significant pursuant to PRC § 5024.1. No California Native American Tribes traditionally and culturally affiliated with the Proposed Project Area and vicinity have reached out to Metropolitan to be consulted with on Metropolitan projects as per PRC § 21080.3.1, 21080.3.2, and 21082.3. As such, no tribal consultation efforts outside of the NAHC correspondence was conducted. Therefore, the Proposed Project is not anticipated to impact any tribal cultural resources.

## 3.19 Utilities and Service Systems

### UTILITIES AND SERVICE SYSTEMS

Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



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## UTILITIES AND SERVICE SYSTEMS

Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

### **Discussion.** *Would the project:*

- a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction of which could cause significant environmental effects?*

**Less than Significant Impact.** The Proposed Project would involve the development of the marsh-pond complexes and associated infrastructure, the effects of which are analyzed throughout this document. The Proposed Project would not include or require the relocation or construction of new or expanded wastewater treatment or stormwater drainage, natural gas, or telecommunications facilities as a result of the Proposed Project. The Proposed Project would not require additional water or expanded wastewater treatment capacity or facilities. The propagation ponds would be filled using either surface water or groundwater to ensure consistent regulated temperatures. The water distribution system would be a combination of earthen and concrete-lined open ditches (6 feet wide) and pipes (ranging between 4 and 24 inches in diameter) to provide surface water from existing siphons or pumped from the existing groundwater aquifer. Power for the electric motors on the proposed new well, the low-lift pumps, and the water control structures would be provided from the existing clubhouse located near the marsh-pond complex site or from PG&E powerlines that parallel the toe drain. Both sources of power would be served by PG&E. An additional transformer may be required. Construction of the Proposed Project would comply with all wastewater requirements of the Central Valley Regional Water Quality Control Board (see Section 3.10, *Hydrology and Water Quality*, for more information). Therefore, these impacts would be less than significant.

- b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?*

**Less than Significant Impact.** Yes, the Proposed Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. Bouldin Island has water rights sufficient to supply the Proposed Project. The surface water would originate from existing siphons that pull from the Mokelumne River within the Project site. The groundwater system would include the use of a new well to be constructed within the Project site. The new groundwater well is expected to be up to 300 feet deep. The wells would not be hydraulically connected to any local surface water. Groundwater

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depth in the Project area is under 10 feet below surface level (DWR 2022). Impacts would be less than significant related to water supplies.

- c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

**No Impact.** No, the Proposed Project would not result in a determination by a wastewater treatment provider which serves or may serve the Proposed Project that it does not have adequate capacity to serve the Proposed Project. The Proposed Project includes the development of the marsh-pond complexes and associated infrastructure. The Proposed Project would not require additional wastewater treatment capacity or facilities. No new demand on an existing wastewater treatment provider would occur as a result of the Proposed Project, thus no impact would occur.

- d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

**Less than Significant Impact.** No, the Proposed Project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. The Proposed Project involves the development of the marsh-pond complexes and associated infrastructure. Small amounts of solid waste would be generated by the Proposed Project. The Proposed Project would generate minimal waste during temporary construction activities. As of December 31, 2009, the North County Landfill & Recycling Center, the closest permitted landfill in San Joaquin County, had a permitted capacity of 41,200,000 cubic yards and a remaining capacity of 35,400,000, and the landfill is permitted through 2048 (CalRecycle 2022). The landfill that serves the Project area has the capacity to accept the minimal amount of waste generated by the Proposed Project. Therefore, this impact would be less than significant.

- e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

**No Impact.** The Proposed Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. The Proposed Project involves development of the marsh-pond complexes and associated infrastructure. All off-hauled materials would be taken to an approved storage, recycle, or waste facility. Off-hauled material would be handled and disposed of per federal, state, and local statutes and regulations related to solid waste. Therefore, no impacts from the Proposed Project would occur related to compliance with federal, state, and local management and reduction statutes and regulations related to solid waste.

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### 3.20 Wildfire

#### Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### **Discussion. Would the project:**

- a. *Substantially impair an adopted emergency response plan or emergency evacuation plan?*

**No Impact.** No, the Proposed Project would not substantially impair an adopted emergency response plan or emergency evacuation plan. The Project site is adjacent to lands occupied by irrigated row crops. The Proposed Project is within a Local Responsibility Area and lies within an Unzoned fire severity zone (CAL FIRE 2007) and does not include modifications to any public roadways that would be used in an emergency response or evacuation plan. Construction activities would be completed in two phases, lasting approximately 2 months for each phase. Construction would require approximately 12 workers total for each phase. Six workers for general construction and six workers for tule transplanting. Given the scale of the Proposed Project and the length of the construction period, the capacity of local roads used to access the Proposed Project site would not likely be substantially reduced. Therefore, the Proposed Project would not impact roadways or access routes that could be utilized for emergency response or emergency evacuation. No impacts related to substantial impairment of an adopted emergency response plan or emergency evacuation plan would occur from the Proposed Project.

- b. *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

**No Impact.** No, the Proposed Project would not expose Project occupants to pollutant concentrations from a wildfire due to slope, prevailing winds, or other factors. The Proposed Project is within a Local Responsibility Area and lies within an unzoned fire severity zone (CAL FIRE 2007). Generally, irrigated agricultural land poses a low risk for wildfire. Removing vegetation would lower on-site fuel sources for wildfires. The Project area is within a flat area and would not exacerbate wildfire risk from slopes. To reduce fire risk during construction, the construction contractor would adhere to standard Metropolitan construction practices, which

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require fire containment and extinguishing equipment located onsite and include practices to avoid accidental ignition and leaking of fuels and other combustible materials. All gasoline-powered or diesel-powered machinery used during construction would be equipped with standard exhaust controls and muffling devices that will also act as spark arrestors. The Proposed Project would not exacerbate wildfire risks that would expose on-site employees to pollutants or uncontrolled wildfires. Therefore, no impact would occur.

- c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

**Less than Significant Impact.** No, the Proposed Project would include the development of the marsh-pond complexes and associated infrastructure that would be powered by electricity. Power for the electric motors on the wells would be provided from the existing clubhouse located near the marsh-pond complex site or from powerlines that parallel the toe drain. An additional transformer may be required but would not result in additional ground disturbance. Given the low wildfire potential because of the irrigated agricultural lands surrounding the Project site, the Proposed Project is not expected to result in temporary or ongoing impacts to the environment from the installation or maintenance of infrastructure that would exacerbate wildfire risks. This impact would be less than significant.

- d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

**No Impact.** No, the Proposed Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. The Proposed Project would include the development of the marsh-pond complexes and associated infrastructure in an area used for irrigated row crops. The slope and stability of the Project site would not change as a result of the Proposed Project and would not result in runoff or drainage changes after a fire. The Proposed Project is within a Local Responsibility Area and lies within an Unzoned fire severity zone (CAL FIRE 2007), the Proposed Project does not have the potential to expose people or structures to significant risks due to post-wildfire flooding or ground instability. No impacts would occur related to exposing persons or structures to significant post-fire risks.

### 3.21 Mandatory Findings of Significance

#### MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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### MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? ( <i>Cumulatively considerable</i> means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

### Discussion:

- a. *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?*

**Less than Significant with Mitigation Incorporated.** As described in the preceding impact discussions, the impacts related to the potential of the Proposed Project to substantially degrade the environment would be less than significant with mitigation measures incorporated. As described in this IS/MND, the Proposed Project has the potential for impacts related to biological resources. However, these impacts would be avoided or reduced to a less than significant level with the incorporation of avoidance and mitigation measures discussed in each section.

- b. *Does the project have impacts that are individually limited, but cumulatively considerable? (*Cumulatively considerable* means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)*

**Less than Significant with Mitigation Incorporated.** This section provides a description of other actions in the area and a discussion of the cumulative impacts of those projects in combination with the previously identified effects of the Proposed Project. State CEQA Guidelines Section 15355 states that “cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts”:

- The individual effects may be changes resulting from a single project or a number of separate projects.
- The cumulative impact from several projects is the change in the environment which results from the incremental impact of the Proposed Project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

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The past, present, and reasonably foreseeable future conditions of the Proposed Project site and vicinity were considered for the cumulative analysis.

**Aesthetics.** Completion of the Proposed Project would result in some permanent visual changes to the Proposed Project site from installation of the marsh-pond complexes and associated infrastructure. The Proposed Project would be consistent with the rural agricultural nature of the existing setting. Therefore, cumulative impacts on aesthetics would be less than significant.

**Agriculture and Forestry Resources.** The Project site is designated as Prime Farmland. The Proposed Project covers approximately 145 acres across two parcels and involves two marsh-pond complexes where research can occur. The Proposed Project would last approximately 5 years with the option to extend longer; however, the Proposed Project would not be permanent or result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The Proposed Project site is not under a Williamson Act contract. The Proposed Project site is not zoned as forest land or timberland or zoned for timberland production. Therefore, impacts related to agriculture would be less than significant. As such, cumulative impacts to agricultural resources would be less than significant. The Proposed Project would have no impact on forestry resources and thus would not contribute to cumulative impacts.

**Air Quality and Greenhouse Gas Emissions.** A number of individual projects in the vicinity of the Proposed Project may be under construction simultaneously with the Proposed Project. Depending on construction schedules and actual implementation of projects in and around San Joaquin County, generation of fugitive dust and pollutant emissions during construction may result in short-term air pollutants, which would contribute to short-term cumulative impacts on air quality. However, each individual project would be subject to San Joaquin Valley Air Pollution Control District rules, regulations, and other mitigation requirements during construction. In addition, the Proposed Project's estimated construction and operation emissions are consistent with the CAP. Where applicable, the Proposed Project would follow the measures adopted in this plan, and the impact would be less than significant. For cumulative impacts on air quality and greenhouse gas emissions and further discussion of consistency with the CAP, see Section 3.3, *Air Quality*, and Section 3.8, *Greenhouse Gas Emissions*, above. The thresholds used consider the contributions of other projects in the air basin. Additionally, greenhouse gas emissions are considered cumulative in nature because it is unlikely that a single project would contribute significantly to climate change.

**Biological Resources.** Adverse effects on special-status plants and wildlife could occur as a result of construction and maintenance activities, but would be reduced to less than significant through implementation of mitigation measures BIO-1 through BIO-8. Impacts to fresh emergent wetland will be temporary in nature and will be passively restored as described in Mitigation Measures BIO-9 thereby reducing these impacts to a less-than-significant level. The Proposed Project's impacts for biological resources would be limited to the Proposed Project site, and any significant impacts would be reduced to a less than significant level by implementing proposed mitigation measures. Thus, the Proposed Project would not contribute to cumulative impacts for biological resources.

**Cultural Resources.** The Proposed Project would have no impact on historical resources, pursuant to CEQA Guidelines § 15064.5. As no known archaeological resources that may qualify as historical resources (as defined in CEQA Guidelines § 15064.5) or unique archaeological resources (as defined in PRC § 21083.2[g]) are present in the C-APE, the Proposed Project is not expected

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to impact any archaeological resource, pursuant to CEQA Guidelines § 15064.5, and impacts are less than significant. The Proposed Project is not anticipated to disturb any human remains. The Proposed Project's impacts for cultural resources would be limited to the Proposed Project site, and any significant impacts would be reduced to a less than significant level by implementing proposed mitigation measures. Thus, the Proposed Project would not contribute to cumulative impacts for cultural resources.

**Energy.** Construction of the Proposed Project would result in fuel consumption from the use of construction tools and equipment, truck trips to haul materials, and vehicle trips by construction workers commuting to and from the Proposed Project site. This impact would be temporary and localized. Operational energy impacts are not anticipated. Construction-related fuel consumption by the Proposed Project would not result in inefficient, wasteful, or unnecessary energy use compared with other construction sites in the region.

**Geology and Soils.** The Proposed Project would be constructed with adherence to regulatory requirements, which would ensure impacts related to seismic shaking would be less than significant. Construction would be required to adhere to BMPs associated with NPDES Construction General Permit for Discharges of Stormwater Associated with Construction Activities, also known as the Construction General Permit, to control sediment in stormwater runoff from the Project area which would ensure soil erosion would be less than significant. There are no nearby structures that could be damaged and the Proposed Project would not construct any structures. Therefore, the Proposed Project would not expose people or structures to potential substantial adverse effects caused by a seismic event or other phenomena that create unstable ground at the Proposed Project site. Considering the soils at the Project Site and its historical use, the potential for paleontological resources is low. Furthermore, part of Metropolitan Standard Practices, if unanticipated paleontological resources are discovered during construction activities, the Project Contractor(s) would be required to comply with Metropolitan standard practices related to the protection of paleontological resources as outlined in Section 01065 of the construction contractor specifications. Therefore, impacts to paleontological resources would be less than significant. The Proposed Project's impacts for geology and soils would be limited to the Proposed Project site, and any significant impacts would be reduced to a less than significant level by implementing proposed mitigation measures. Thus, the Proposed Project would not contribute to cumulative impacts for geology and soils.

**Hazards and Hazardous Materials.** The Proposed Project's impacts for these environmental issues would be limited to the Proposed Project site, and any significant impacts would be reduced to a less than significant level by implementing proposed mitigation measures. Thus, the Proposed Project would not contribute to cumulative impacts for these topics.

**Hydrology and Water Quality.** Implementing the Proposed Project construction activities would have the potential to increase rates of erosion, which could increase turbidity in the agricultural ditches. In addition, the use of heavy machinery during construction would have the potential to result in an accidental release of fuels, oils, solvents, hydraulic fluid, and other construction-related fluids into the environment, thereby degrading water quality. Construction contractors would be required to acquire coverage under the National Pollutant Discharge Elimination System General Stormwater Permit, which requires the preparation and implementation of an SWPPP for construction activities. The SWPPP would list the hazardous materials (including petroleum products) proposed for use during construction; describe spill prevention measures, equipment



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inspections, and equipment and fuel storage; describe protocols for responding immediately to spills; and describe best management practices for controlling site run-on and runoff. Therefore, cumulative impacts would be less than significant.

**Land Use and Land Use Planning.** The Proposed Project would have no impact on land use and land use planning; therefore, it would not contribute to cumulative land use issues.

**Mineral Resources.** The Proposed Project would have no impact on mineral resources and thus would not contribute to cumulative impacts.

**Noise.** The Proposed Project would not generate a substantial temporary or permanent increase in ambient noise levels in excess of standards. As such, this Proposed Project would not exceed established standards of the County Code. Additionally, because the nearest residential receptor is over 2,000 feet away, construction noise would not result in a substantial increase in noise levels. Operation and maintenance of the Proposed Project's marsh-pond complexes would not include any substantial sources of vibration. Thus, cumulative noise impacts would be less than significant.

**Population and Housing.** The Proposed Project would have no impact on population growth in the area because it would not include any new residential or commercial development. The Proposed Project also would not result in temporary employment during construction and would not result in the permanent creation of a significant number of new jobs that would induce substantial population growth. Therefore, cumulative population and housing impacts would be less than significant.

**Public Services.** No commercial or residential development is proposed as part of the Proposed Project; therefore, the Proposed Project would not increase demands on fire protection or police services, nor would it affect the response time of these services. Therefore, cumulative public services impacts would be less than significant.

**Recreation.** The Proposed Project would have no impact on recreation and thus would not contribute to cumulative impacts.

**Transportation.** For cumulative impacts, see Section 3.17, *Transportation*. The Proposed Project would not impact any county program, plan, ordinance, or policy related to transit, bicycle, or pedestrian facilities in the vicinity of the site or along local roadways. Construction would utilize existing construction crews and operation would not add substantial amount of VMT to the Project Area. Construction of the Proposed Project would not result in new design features on roads in the area. No pedestrian or bicycle paths are along the construction route. Further, the Proposed Project would not result in potential traffic safety hazards for vehicles, bicyclists, and pedestrians on public roadways, given the intermittent and temporary nature of construction activities. Increases in traffic volumes on local roadways providing access to the Proposed Project site could cause intermittent and temporary slowdowns in traffic flow during construction, although truck trips associated with Project operation are not expected to cause access on local roadways to deteriorate. Therefore, cumulative transportation impacts would be less than significant.

**Tribal Cultural Resources.** The Proposed Project would not cause a substantial adverse change in the significance of a tribal cultural resource, as defined in PRC § 21074, that is listed or eligible for listing in the California Register or local register of historical resources, or determined by Metropolitan to be significant pursuant to PRC § 5024.1. No tribal cultural resources, as defined in PRC § 21074, were identified in or near the Proposed Project area. No California Native

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American Tribes traditionally and culturally affiliated with the Proposed Project Area and vicinity have reached out to Metropolitan to be consulted with on Metropolitan projects as per PRC § 21080.3.1, 21080.3.2, and 21082.3. The Proposed Project's impacts for tribal cultural resources would be limited to the Proposed Project site, and any significant impacts would be reduced to a less than significant level by implementing proposed mitigation measures. Thus, the Proposed Project would not contribute to cumulative impacts for tribal cultural resources.

**Utilities and Service Systems.** The Proposed Project does not include and would not require the relocation or construction of new or expanded wastewater treatment or stormwater drainage, natural gas, or telecommunications facilities. The Proposed Project also would not require stormwater treatment. Therefore, cumulative impacts related to utilities and service systems would be less than significant.

The analyses in this draft IS/MND found that the Proposed Project and associated activities would have the potential to result in impacts on the environment in the area of biological resources. However, these potential impacts would be reduced to a less than significant level with implementation of the mitigation measures included in this document, and most impacts would be temporary (i.e., would occur only during construction). Other future projects proposed in the region and vicinity may increase the impacts identified herein, or the Proposed Project may contribute to other impacts. However, the Proposed Project is not anticipated to contribute substantially to any one impact, and the Proposed Project's impacts are not anticipated to be cumulatively considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of future projects. Thus, this impact would be less than significant with mitigation incorporated.

- c. Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?*

**Less than Significant with Mitigation Incorporated.** The Proposed Project would not result in any substantial adverse effects on human beings, either directly or indirectly, because each potentially significant impact can be reduced to a less than significant level with the implementation of the mitigation measures provided in this document. No other substantial adverse effects on human beings are anticipated as a result of the Proposed Project, resulting in a less than significant impact with mitigation incorporated.

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## 4. List of Acronyms

AB	Assembly Bill
BMP	Best Management Practices
CAA	Clean Air Act
CCAA	California Clean Air Act
C-APE	CEQA Area of Potential Effects
CASS	Culture and Supplementation of Smelt
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CAP	Climate Action Plan
CAT	Caterpillar
CCIC	Central California Information Center
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CHRIS	California Historical Resources Information System
CNDDDB	California Natural Diversity Database
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
CY	Cubic Yard
dB	Decibels
dBA	A-weighted Decibels
DPM	Diesel Particulate Matter
DWR	California Department of Water Resources
DSSS	Delta Smelt Supplementation Strategy
EIR	Environmental Impact Report
ESA	Environmental Science Associates
FCCL	UC Davis Fish Conservation and Culture Laboratory
FESA	Federal Endangered Species Act
GHG	Greenhouse Gas
Hz	Hertz
IS/MND	Initial Study/Mitigated Negative Declaration
L	Liters
Metropolitan	Metropolitan Water District of Southern California
NAHC	Native American Heritage Commission
NGVD	National Geodetic Vertical Datum
NO <sub>x</sub>	Nitrous Oxides
NO <sub>2</sub>	Nitrogen Dioxide
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollution Discharge Elimination System
OHP	State Office of Historic Preservation
PG&E	Pacific Gas and Electric Company
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter less than or equal to 10 microns in diameter
PM <sub>2.5</sub>	Particulate Matter less than or equal to 2.5 microns in diameter

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PPV	Peak Particle Velocity
ROG	Reactive Organic Gas
RMS	Root Mean Square
SB	Senate Bill
SHPO	State Historic Preservation Office
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLF	Sacred Lands File
SO <sub>x</sub>	Sulfur Oxide
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
SVP	Society of Vertebrate Paleontology
TCR	Tribal Cultural Resources
UC	University of California
USBR	US Bureau of Reclamation
USFWS	US Fish and Wildlife Service
USGS	US Geological Survey
VdB	Decibel Notation
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds

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# **Appendix A**

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## **Proposed Project Construction Plans**





1

2

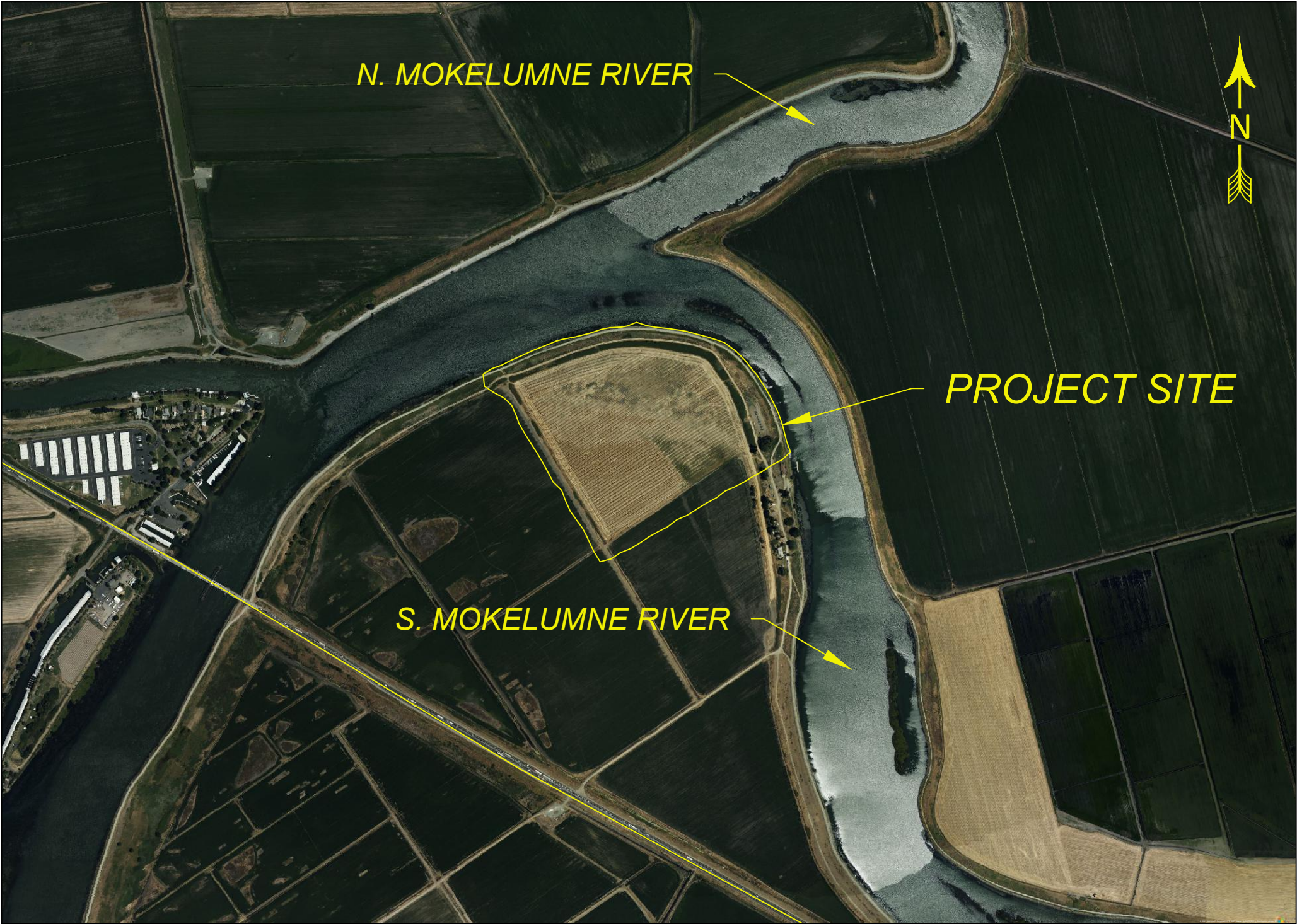
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# DELTA SMELT PROPAGATION RESEARCH PROJECT

BOULDIN ISLAND, CA

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LOCATION MAP  
NOT TO SCALE



VICINITY MAP  
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LEGEND

- 100 EXISTING GROUND CONTOURS
- 80 FINISHED GRADE CONTOURS
- 89.4 EXISTING GROUND SPOT ELEVATION
- 84.5 FINISHED GRADE SPOT ELEVATION
- GRADING EXTENTS
- PROJECT BOUNDARY

CONTACTS

MWD	CURT SCHMUTTE, REPRESENTATIVE FOR MWD	(530) 219-9369
cbec, INC.	GREG SHELLNBARGER, PROJECT MANAGER	(916) 668-5226
cbec, INC.	SAM DIAZ, PROJECT ENGINEER	(916) 668-5235
cbec, INC.	CHRIS BOWLES, PROJECT DIRECTOR	(916) 668-5231

NOTE: CONTOURS AND ELEVATIONS SHOWN ON PLANS CONSIST OF UNITED STATES GEOLOGICAL SURVEY (USGS) LIDAR SUPPLEMENTED WITH MBK'S SITE TOPOGRAPHY COLLECTED IN JUNE 2021 AND CBEC'S SITE TOPOGRAPHY COLLECTED IN APRIL 2022. USGS LIDAR REFERENCES NAD83 (NSRS2007) EPOCH 2017.95 HORIZONTAL DATUM, UTM ZONE 10N, METERS PROJECTION AND NAVD88 GEOID 12B US SURVEY FEET VERTICAL DATUM (CA SACRAMENTO LIDAR 2017 B16 - AIRBORNE LIDAR REPORT).

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C5	FEEDING MARSH A & FLOATING PEAT POND PLAN VIEW 2
C6	PROPAGATION POND A PLAN VIEW 3
C7	COOLING MARSH B PLAN VIEW 4
C8	FEEDING MARSH B PLAN VIEW 5
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C23	ALIGNMENT GEOMETRY

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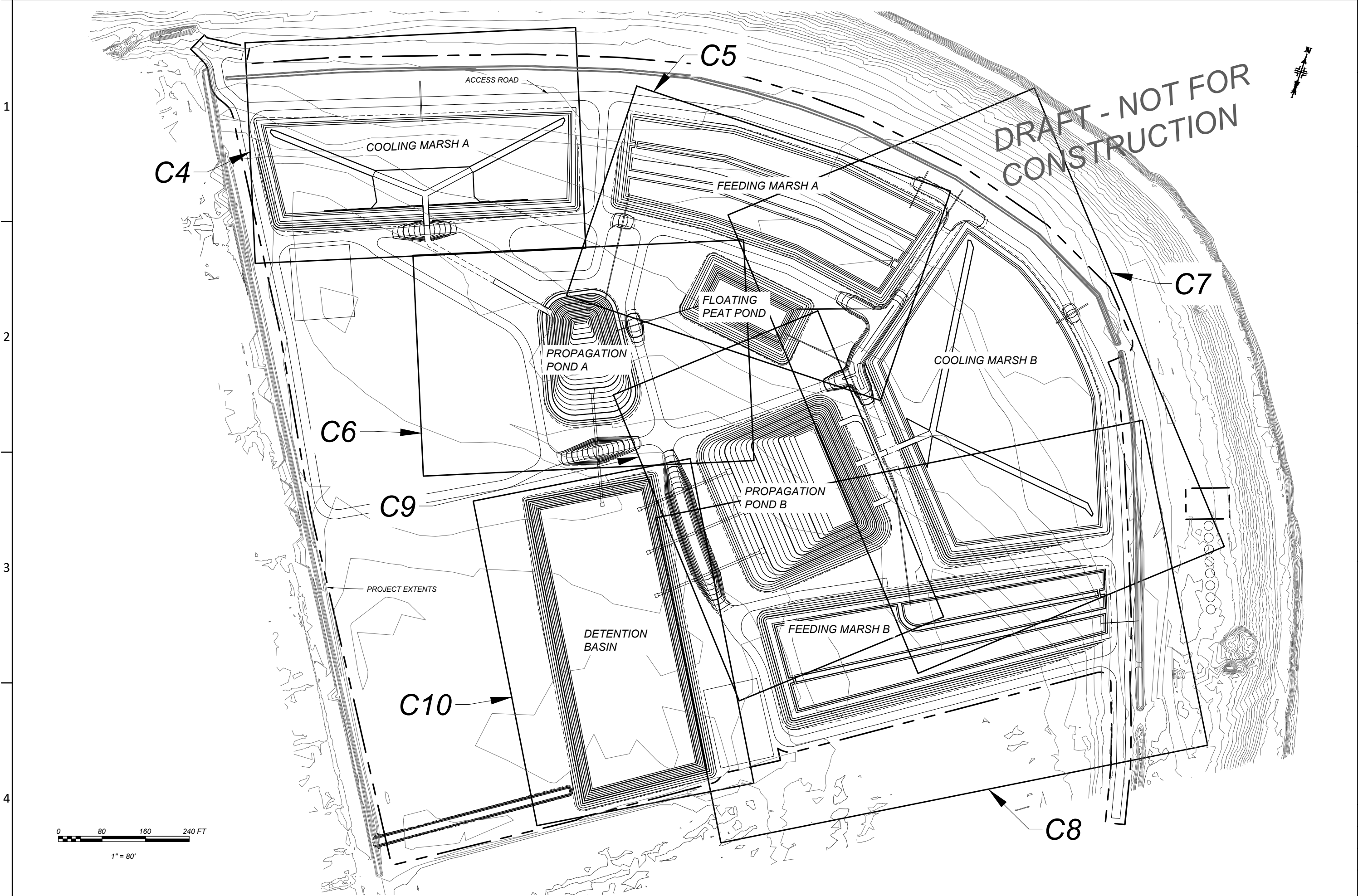


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SHEET LAYOUT PLAN

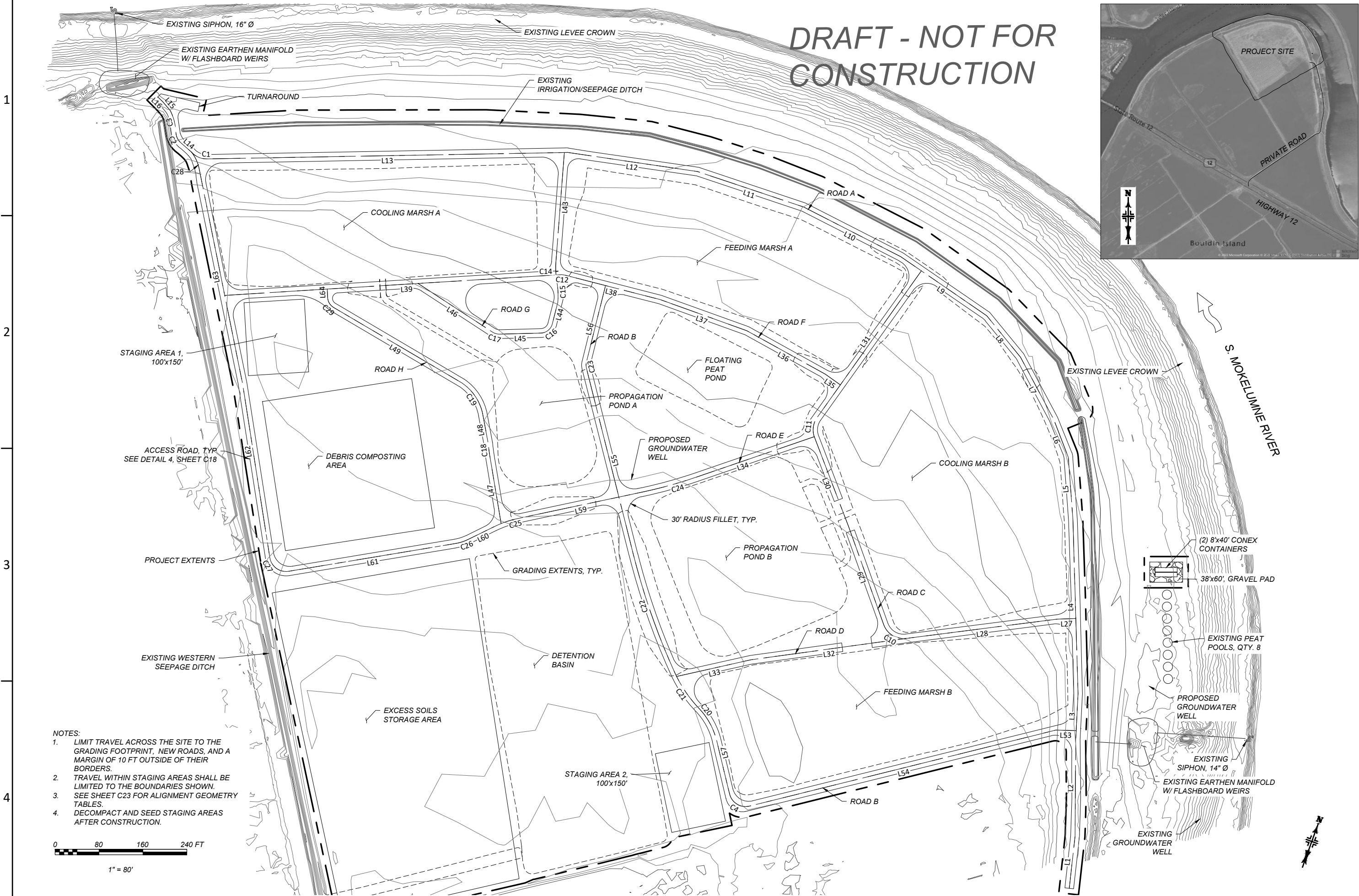
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COOLING MARSH A PLAN VIEW 1

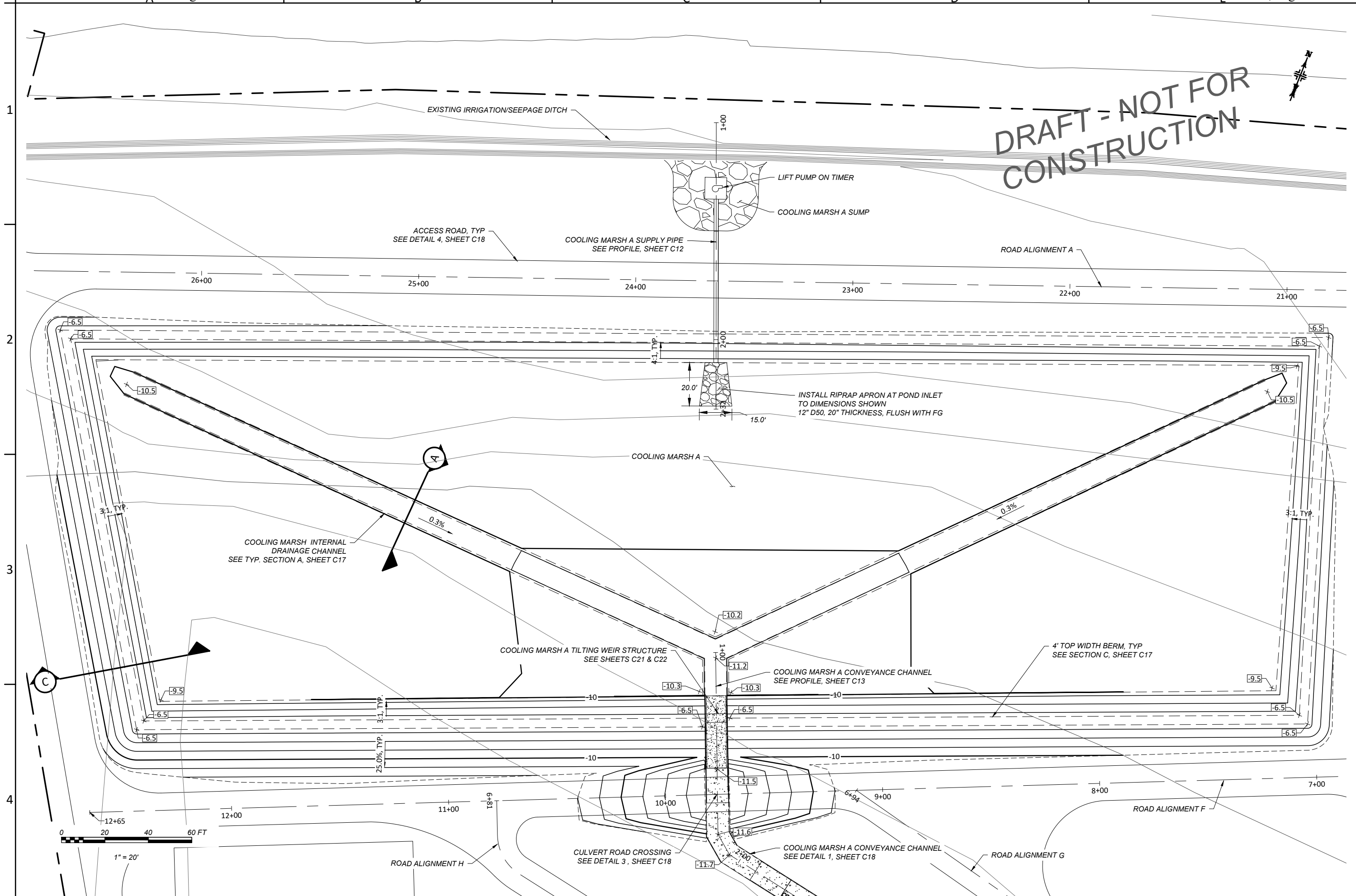
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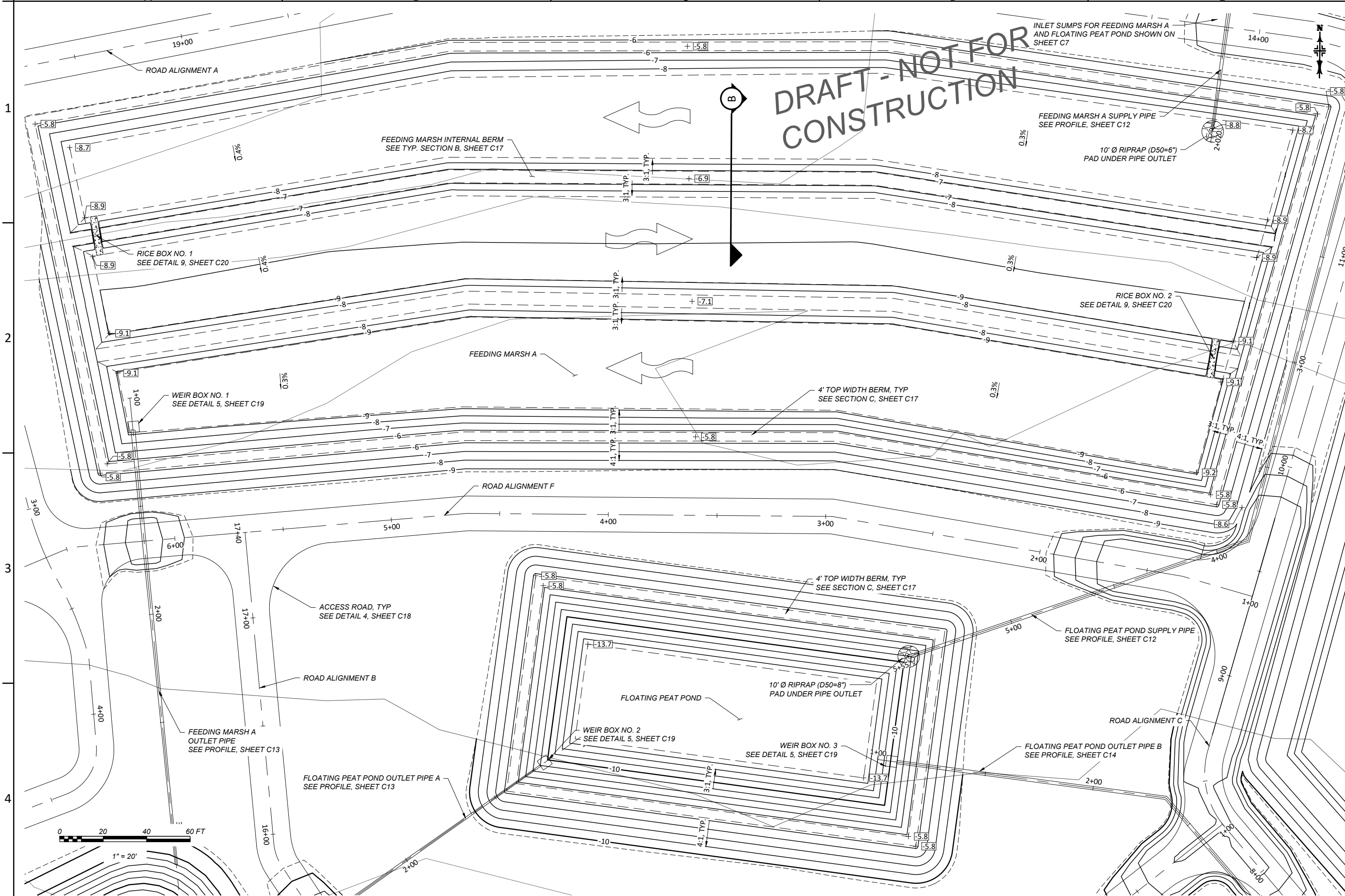
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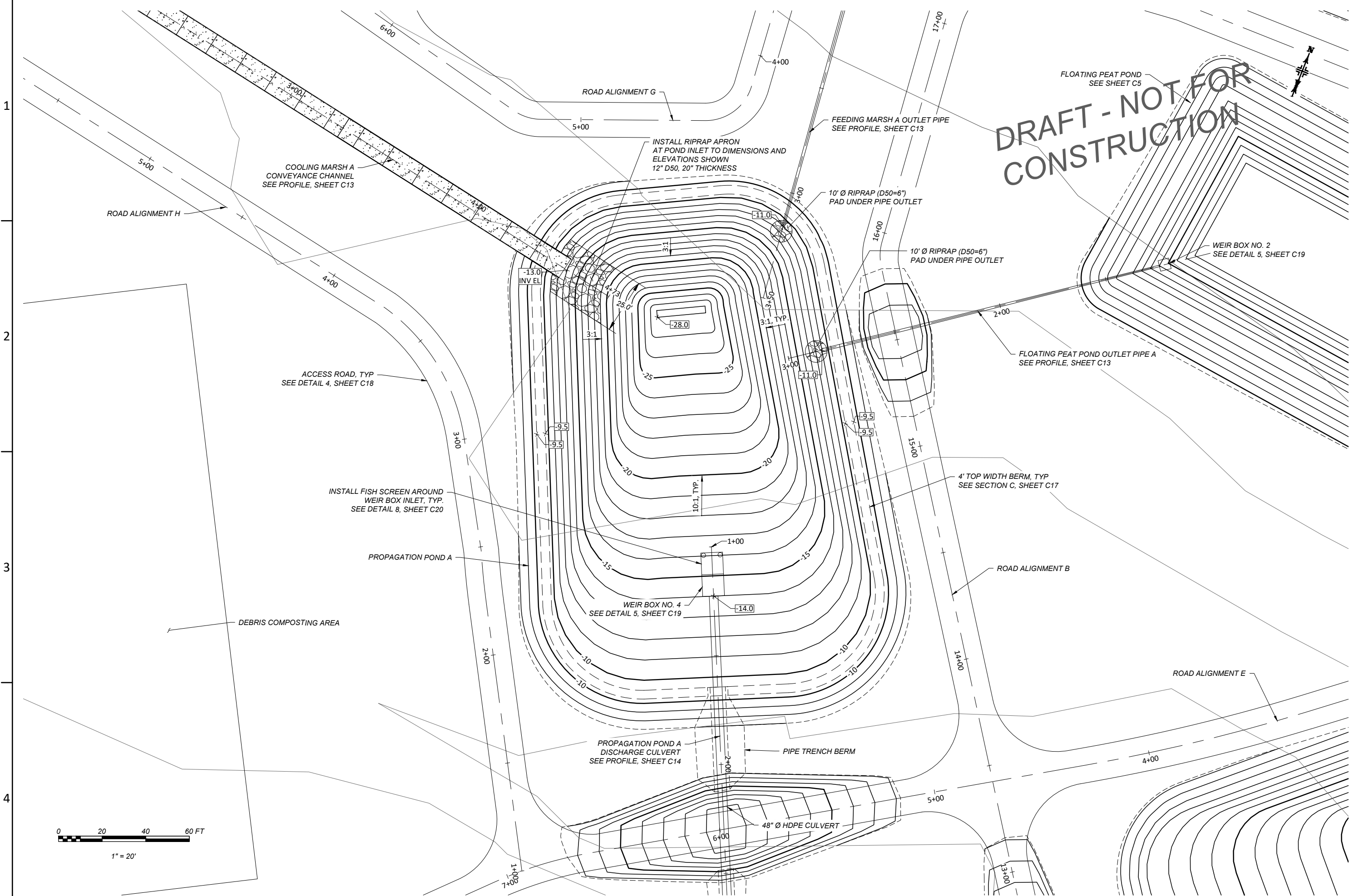
FEEDING MARSH A & FLOATING PEAT POND PLAN VIEW 2

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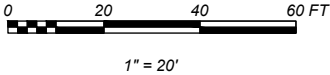
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PROPAGATION POND A PLAN VIEW 3

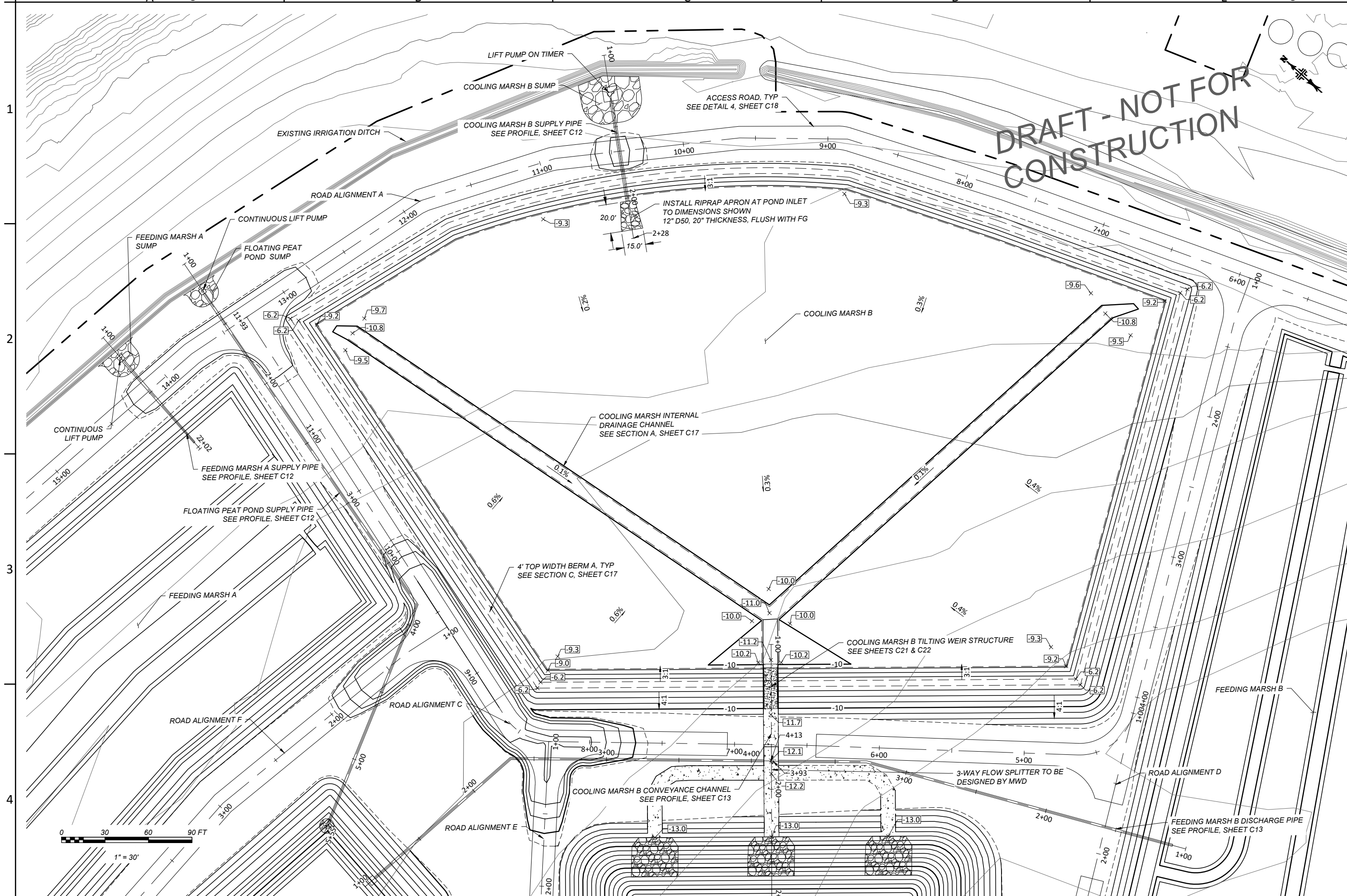
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COOLING MARSH B PLAN VIEW 4

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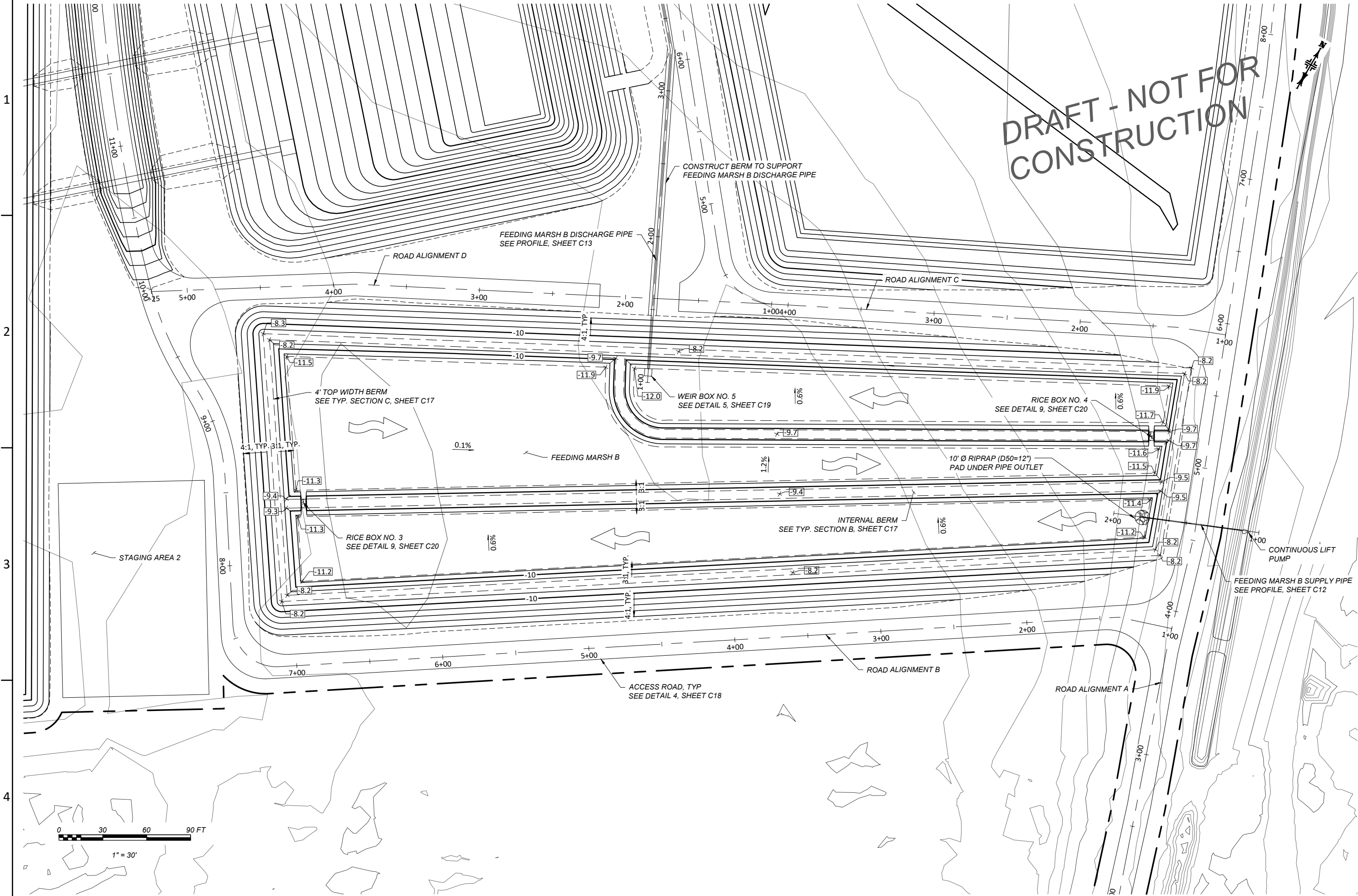
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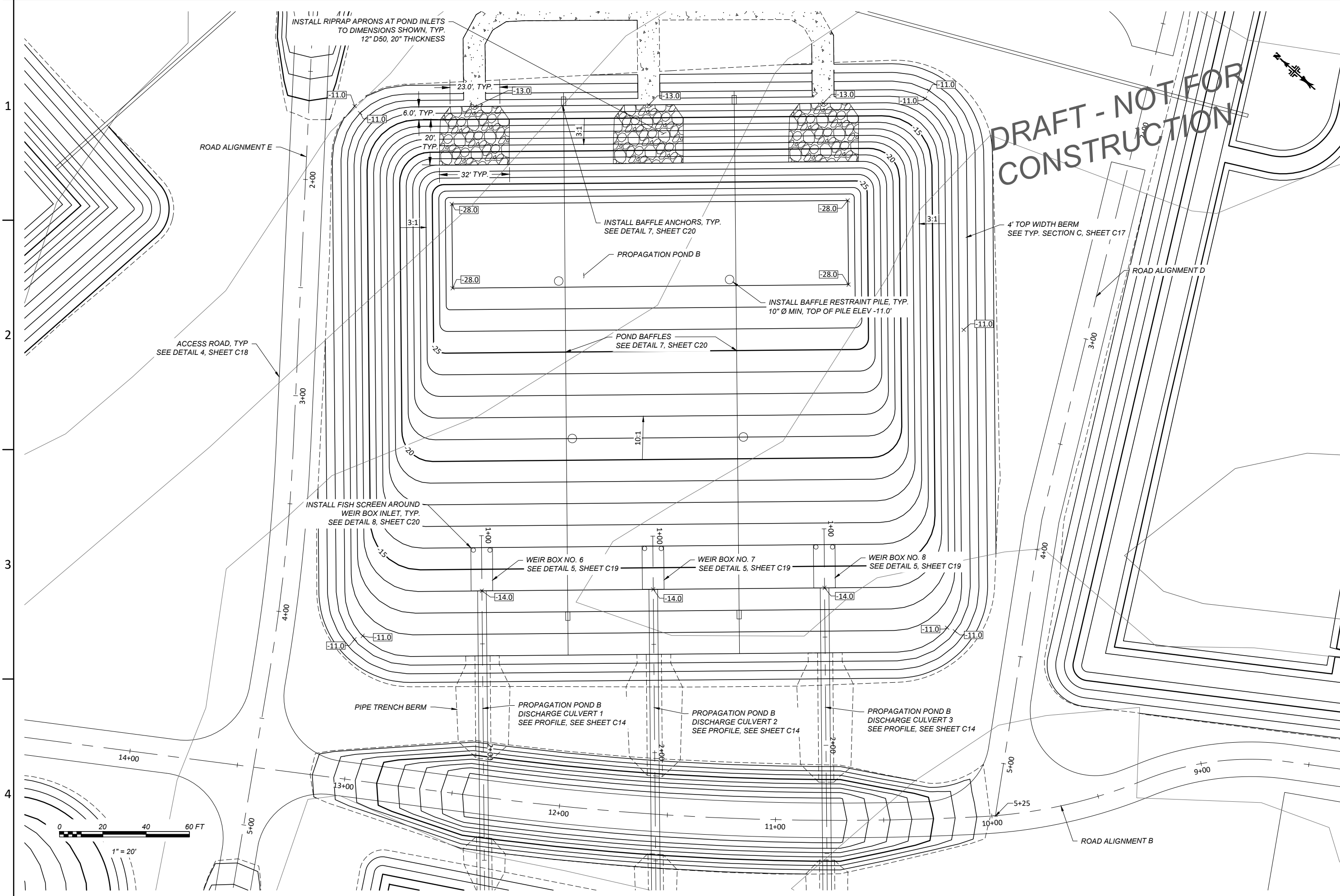
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**PROPAGATION POND B PLAN VIEW 6**

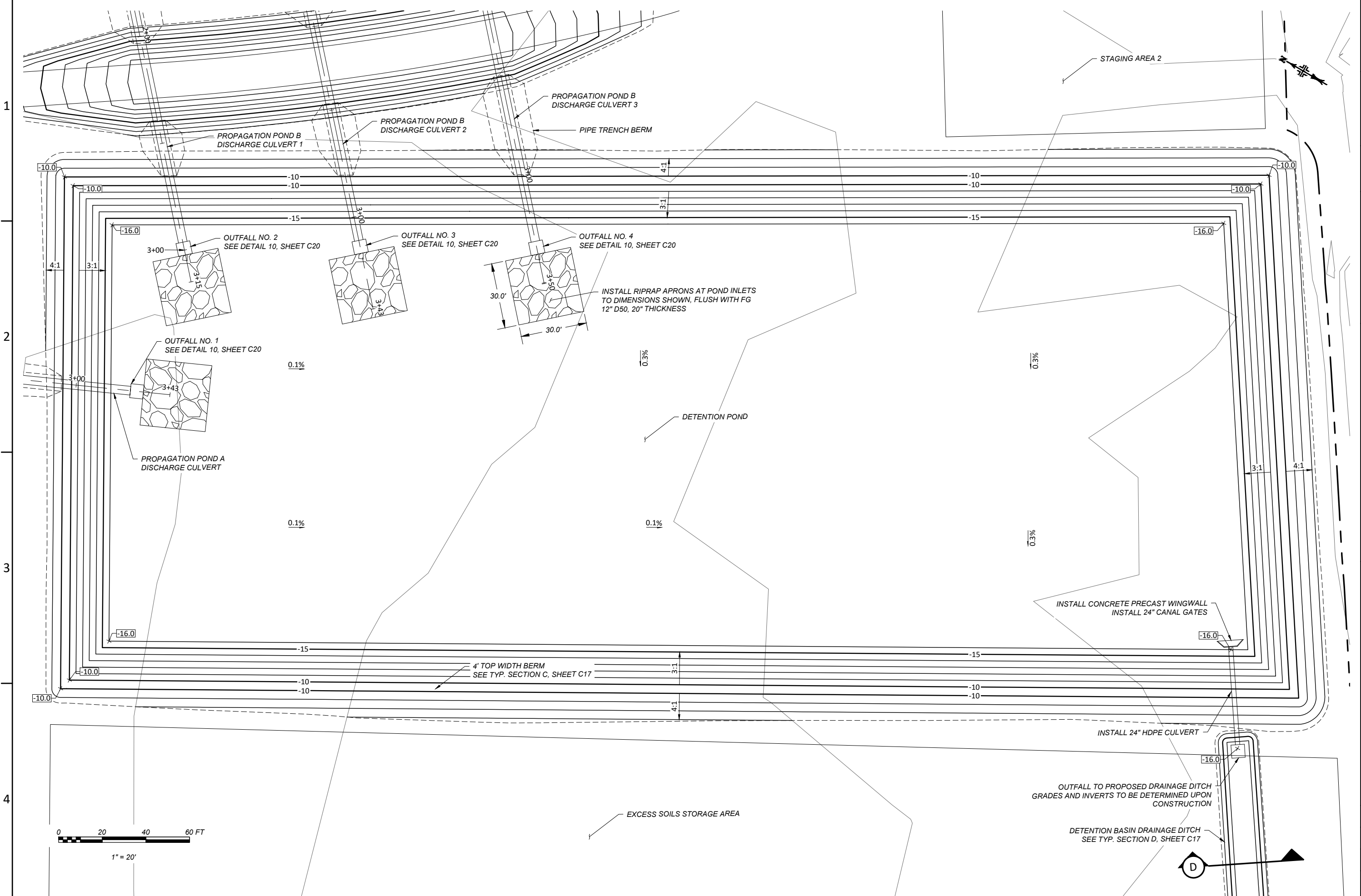
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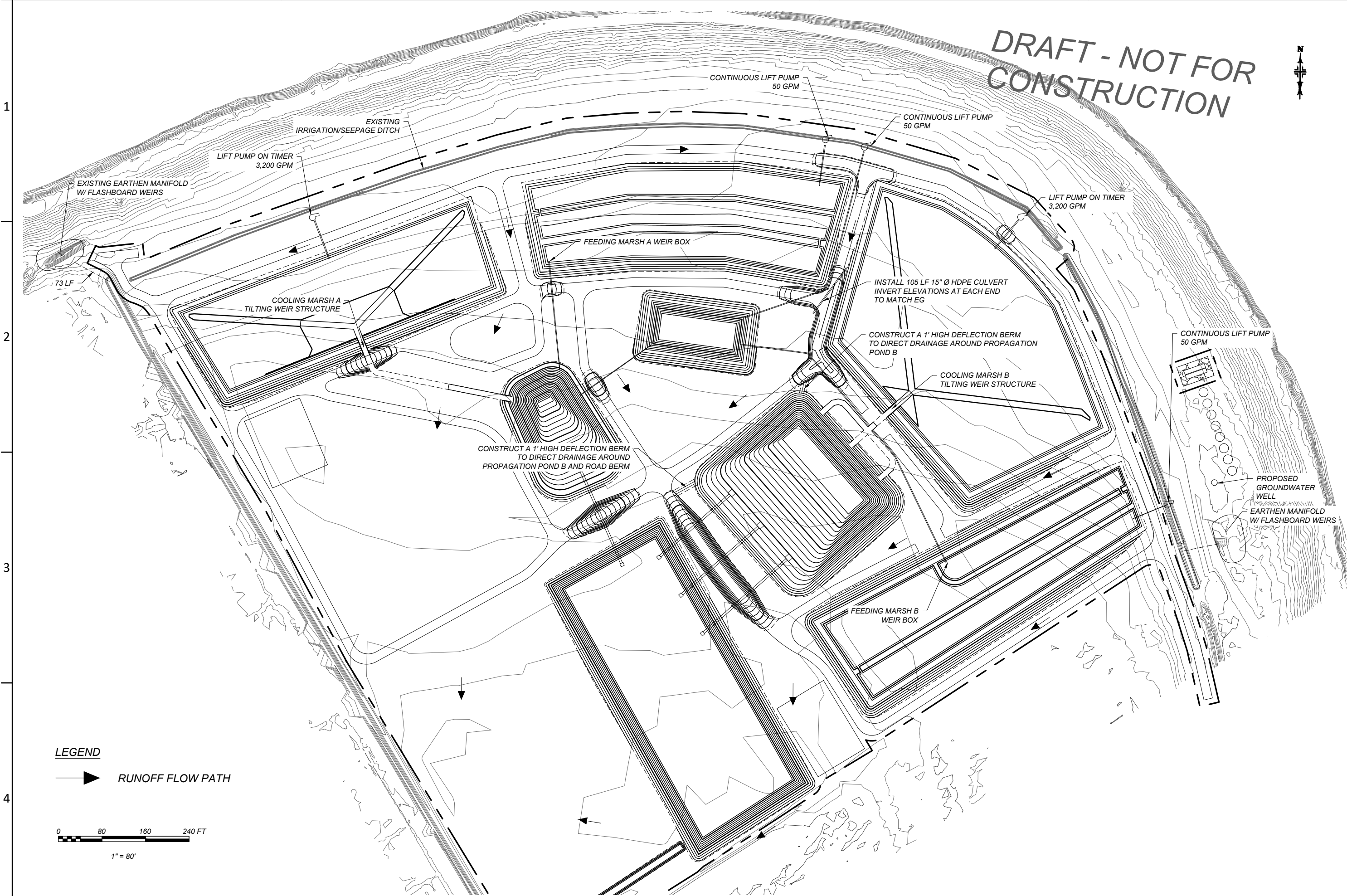
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**LEGEND**

RUNOFF FLOW PATH

0 80 160 240 FT

1" = 80'

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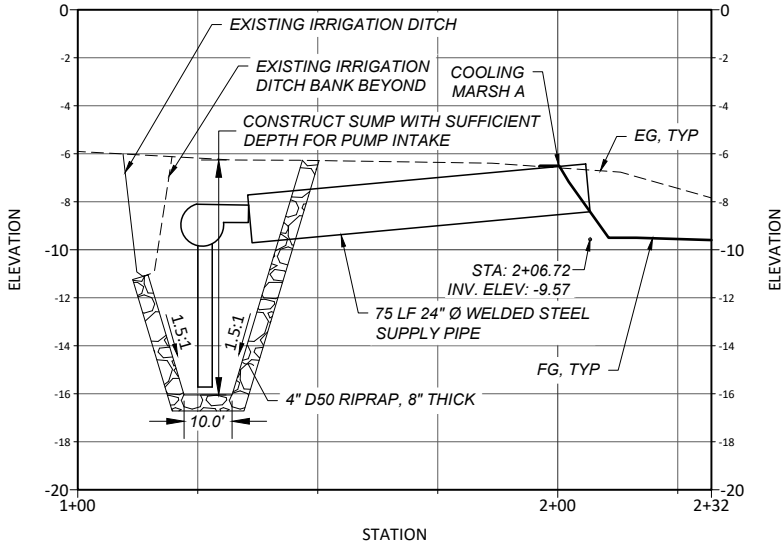
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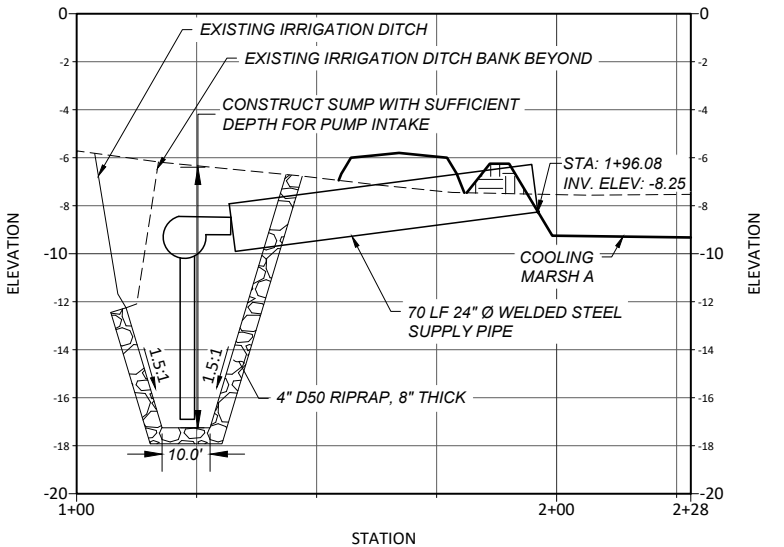
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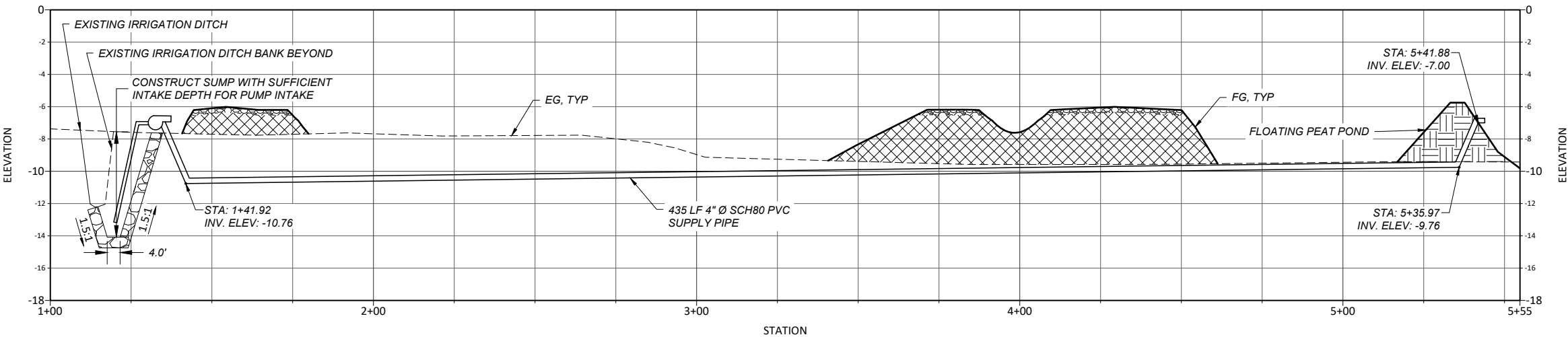
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SCALE: H1" = 20'; V1" = 4'

SHEET C4



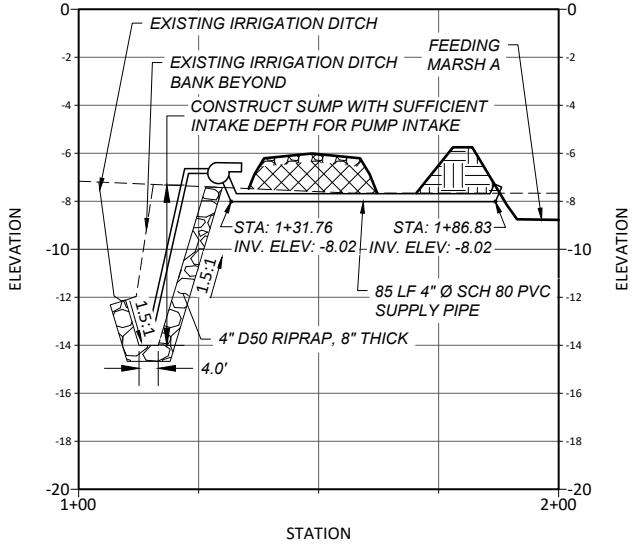
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SCALE: H1" = 20'; V1" = 4'

SHEET C7



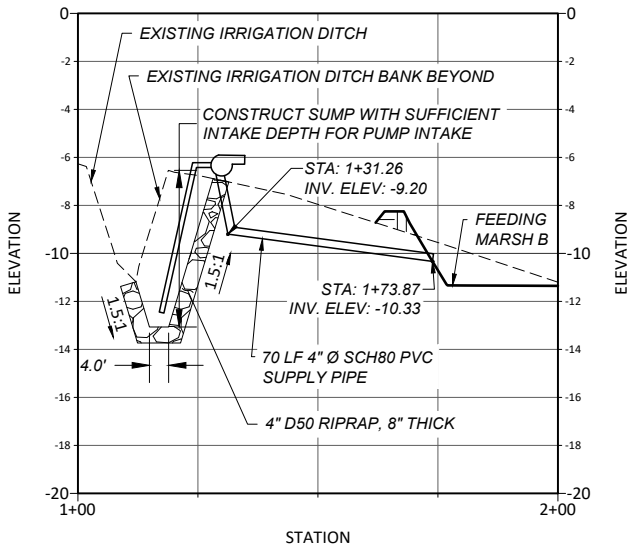
PROFILE: FLOATING PEAT POND SUPPLY PIPE  
SCALE: H1" = 20'; V1" = 4'

SHEET C5



PROFILE: FEEDING MARSH A SUPPLY PIPE  
SCALE: H1" = 20'; V1" = 4'

SHEET C5



PROFILE: FEEDING MARSH B SUPPLY PIPE  
SCALE: H1" = 20'; V1" = 4'

SHEET C8

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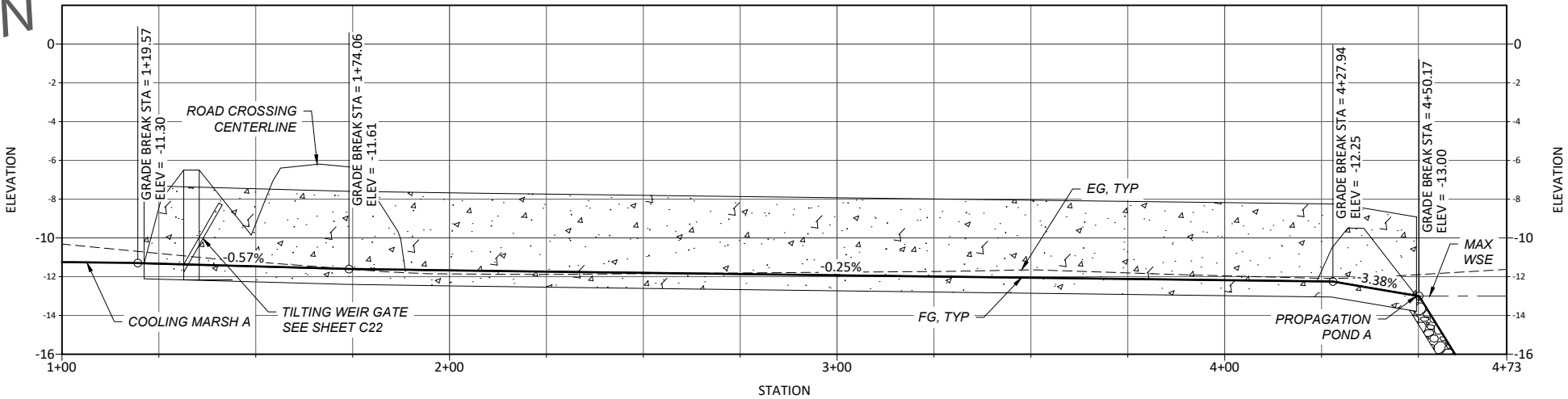
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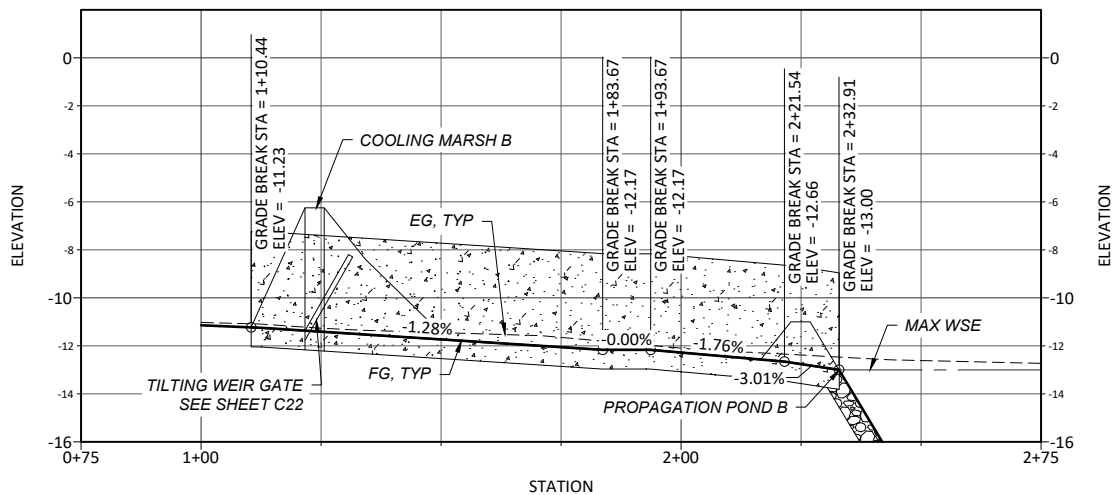
SHEET  
C1?  
12 OF 394

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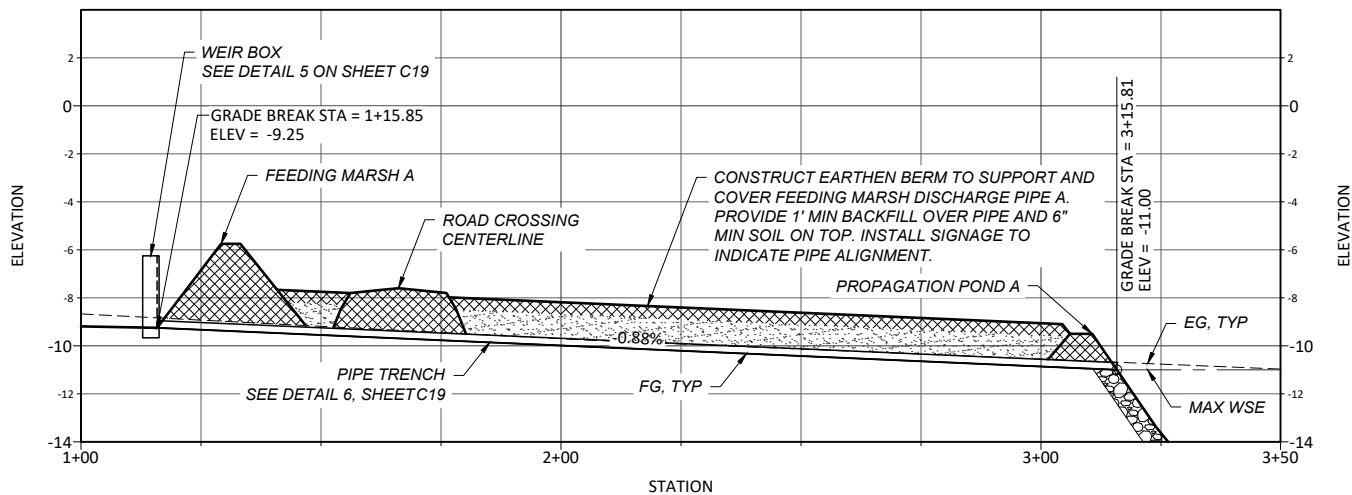
PROFILE: COOLING MARSH A CONVEYANCE CHANNEL  
SCALE: H1" = 20'; V1" = 4'

SHEET C4



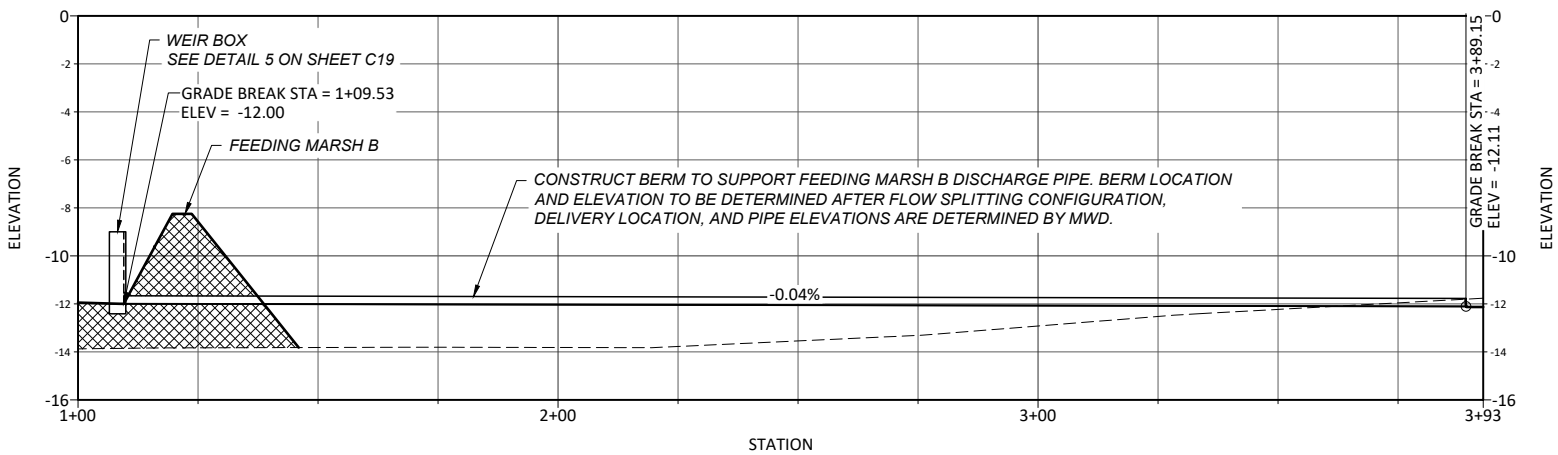
PROFILE: COOLING MARSH B CONVEYANCE CHANNEL  
SCALE: H1" = 20'; V1" = 4'

SHEET C7



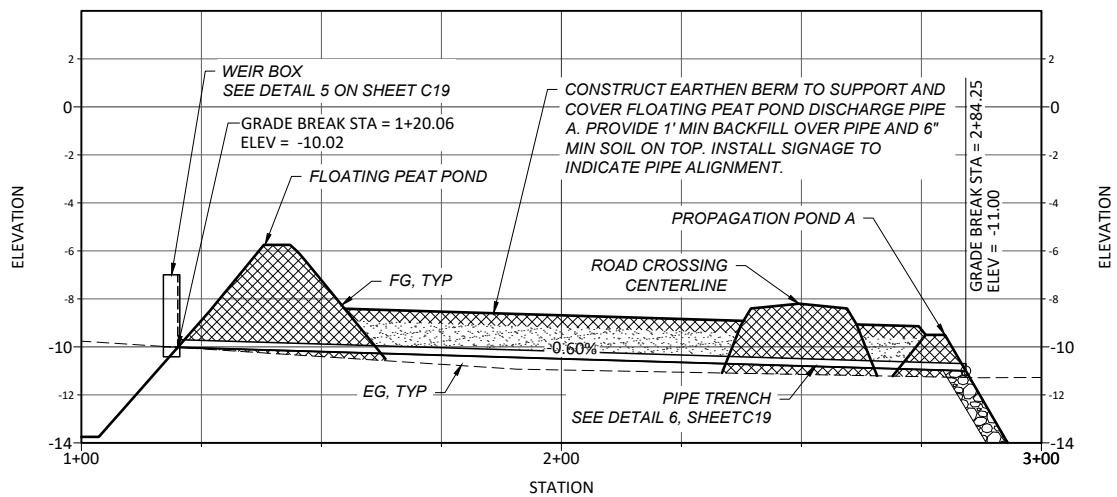
PROFILE: FEEDING MARSH A DISCHARGE PIPE  
SCALE: H1" = 20'; V1" = 4'

SHEET C5



PROFILE: FEEDING MARSH B DISCHARGE PIPE  
SCALE: H1" = 20'; V1" = 4'

SHEET C8



PROFILE: FLOATING PEAT POND DISCHARGE PIPE A  
SCALE: H1" = 20'; V1" = 4'

SHEET C5

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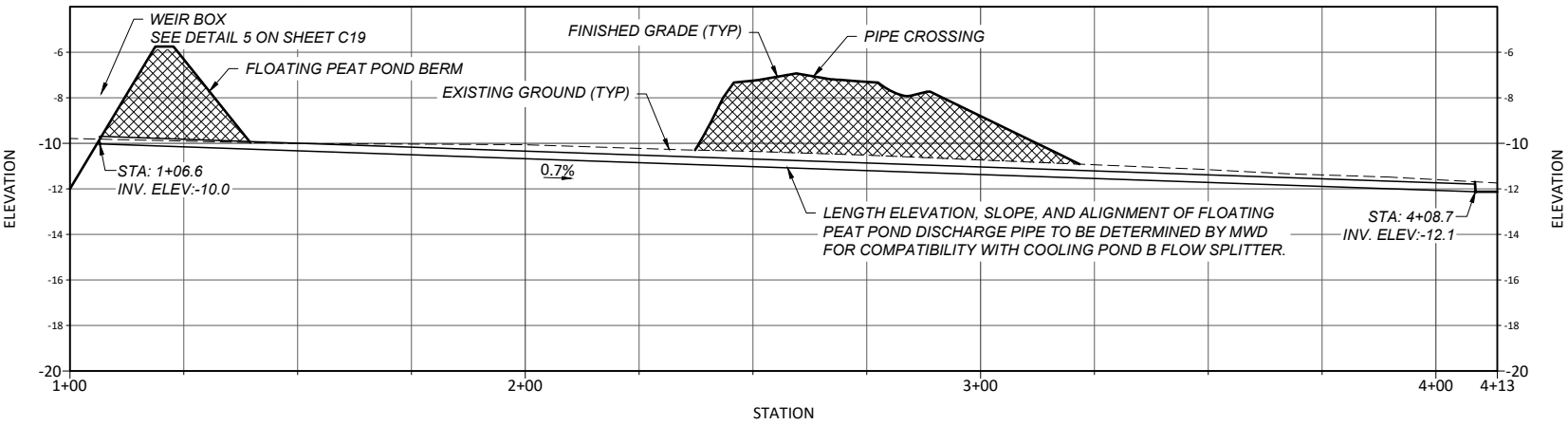
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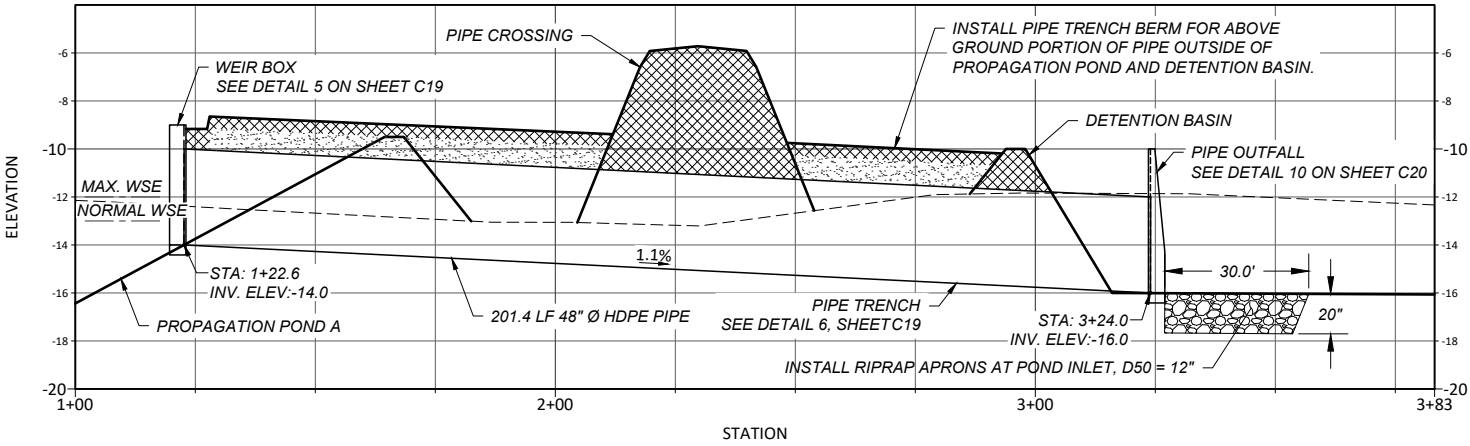
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SHEET  
C13  
13 OF 395



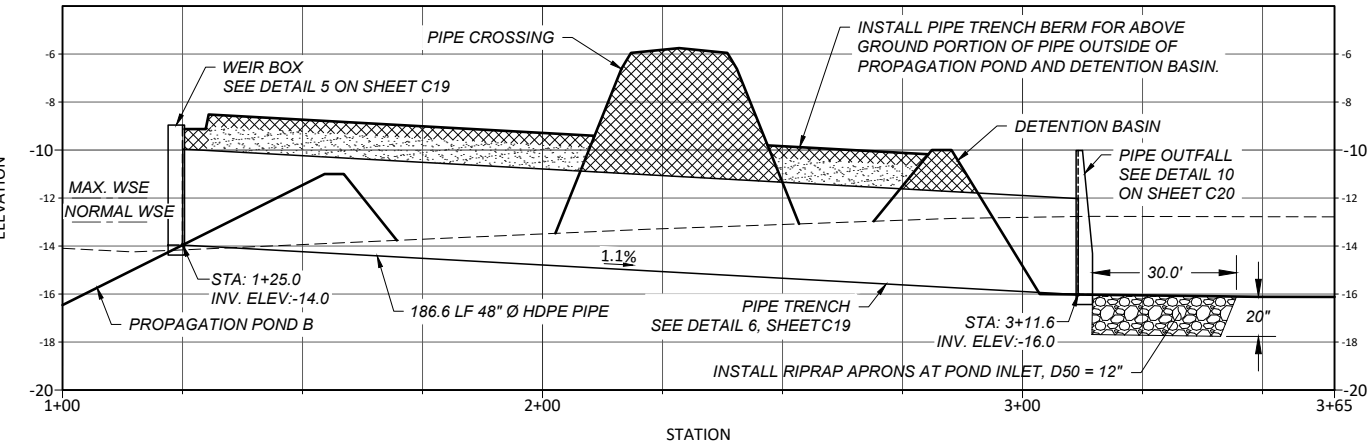
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PROFILE: FLOATING PEAT POND DISCHARGE PIPE B  
SCALE: H1" = 20'; V1" = 4' SHEET C5



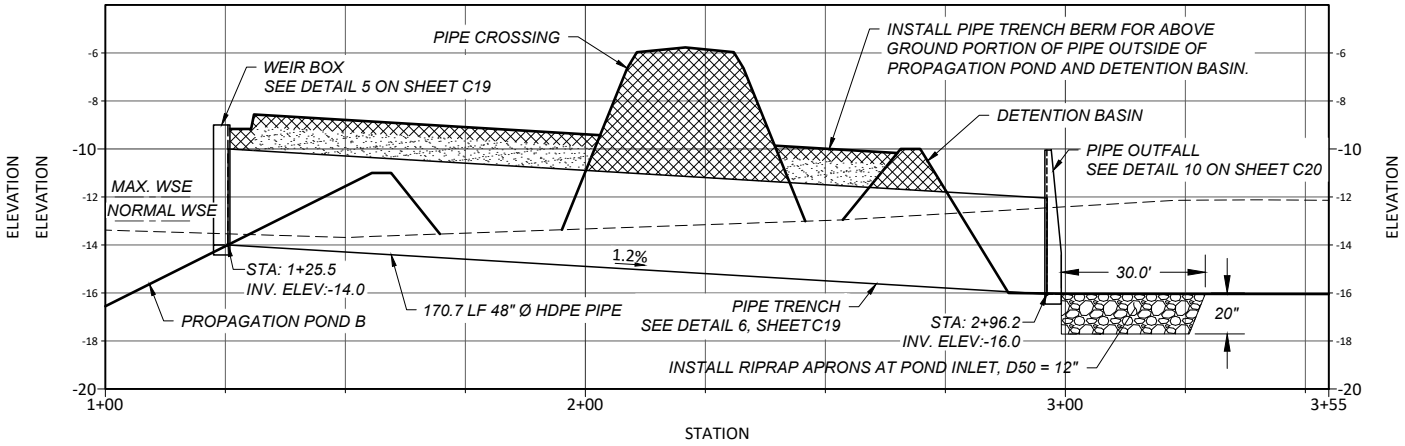
PROFILE: PROPAGATION POND A DISCHARGE CULVERT  
SCALE: H1" = 20'; V1" = 4' SHEET C6

NOTE:  
1. THE NORMAL WSE IN THE PROPAGATION PONDS IS -13'. THE MAXIMUM WSE IN THE PROPAGATION PONDS IS -12'



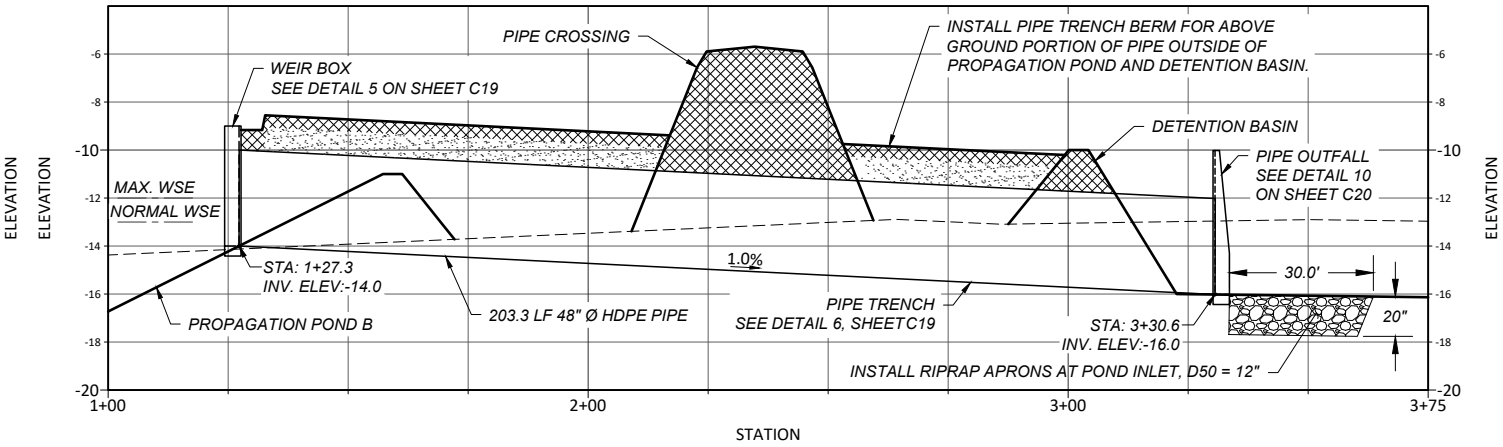
PROFILE: PROPAGATION POND B DISCHARGE CULVERT 2  
SCALE: H1" = 20'; V1" = 4' SHEET C9

NOTE:  
1. THE NORMAL WSE IN THE PROPAGATION PONDS IS -13'. THE MAXIMUM WSE IN THE PROPAGATION PONDS IS -12'



PROFILE: PROPAGATION POND B DISCHARGE CULVERT 1  
SCALE: H1" = 20'; V1" = 4' SHEET C9

NOTE:  
1. THE NORMAL WSE IN THE PROPAGATION PONDS IS -13'. THE MAXIMUM WSE IN THE PROPAGATION PONDS IS -12'



PROFILE: PROPAGATION POND B DISCHARGE CULVERT 3  
SCALE: H1" = 20'; V1" = 4' SHEET C9

NOTE:  
1. THE NORMAL WSE IN THE PROPAGATION PONDS IS -13'. THE MAXIMUM WSE IN THE PROPAGATION PONDS IS -12'

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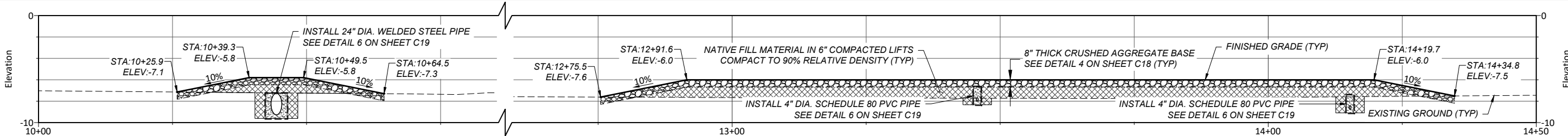


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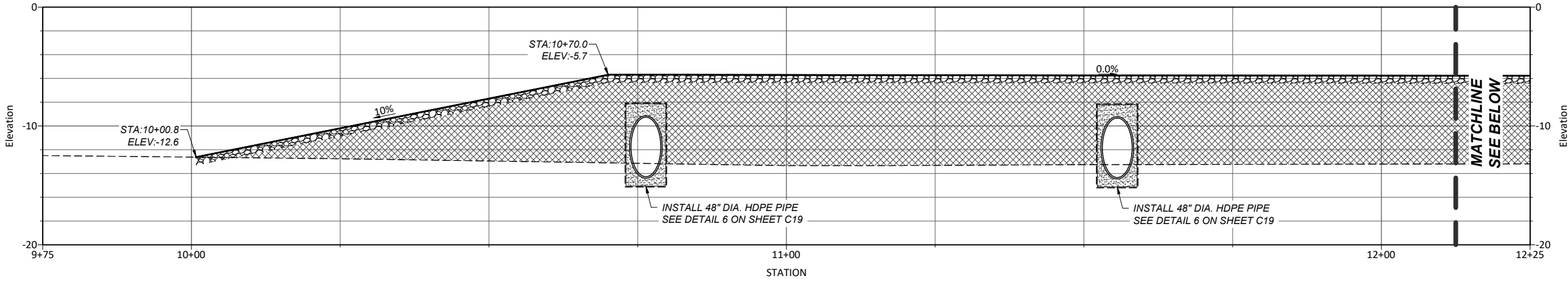


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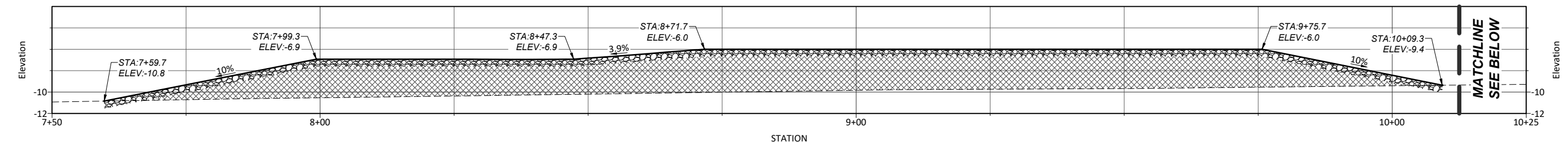
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SHEET	C14
14 OF	396



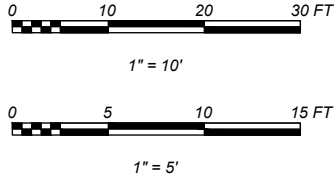
PROFILE: ROAD A - PIPE CROSSING  
SCALE: H1" = 10'; V1" = 5' SHEET C7



PROFILE: ROAD B - PIPE CROSSING  
SCALE: H1" = 10'; V1" = 5' SHEET C9



PROFILE: ROAD C - PIPE CROSSING  
SCALE: H1" = 10'; V1" = 5' SHEET C7



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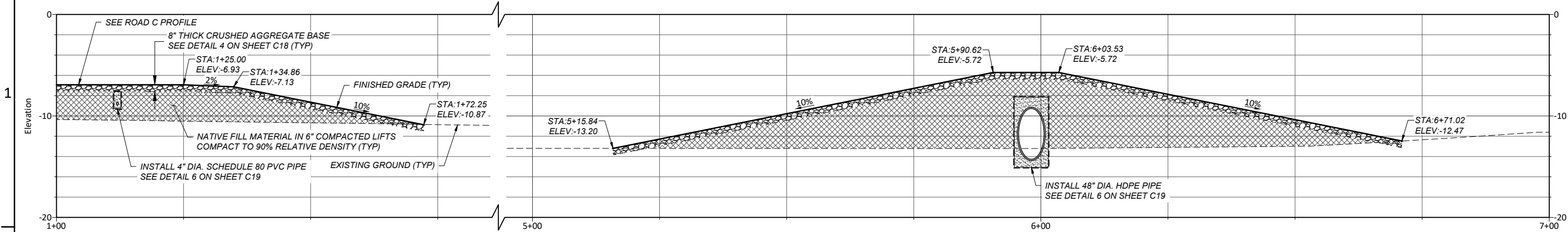
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ROAD CROSSING PROFILES - 1

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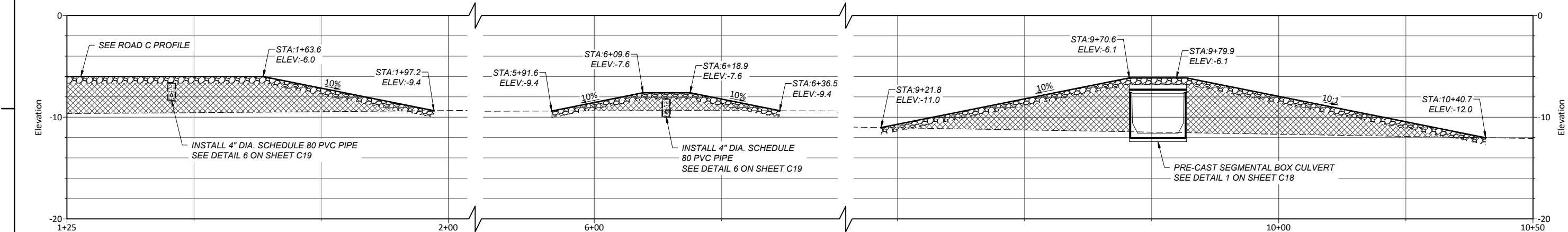
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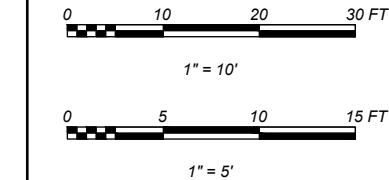
SHEET  
C15  
15 OF 397



PROFILE: ROAD E - PIPE CROSSING  
SCALE: H1" = 10'; V1" = 5' SHEET C6



PROFILE: ROAD F - PIPE CROSSING  
SCALE: H1" = 10'; V1" = 5' SHEET C4, C5



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C16  
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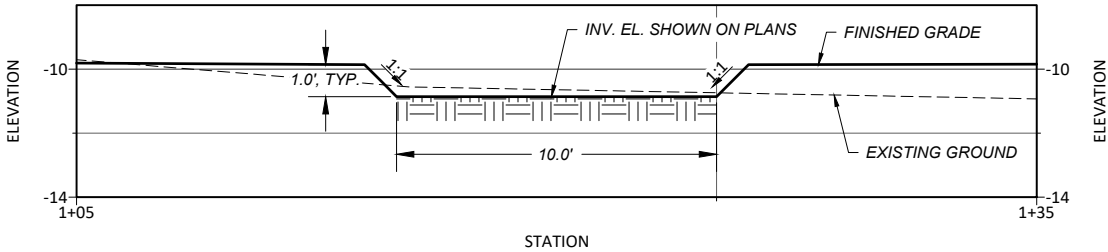


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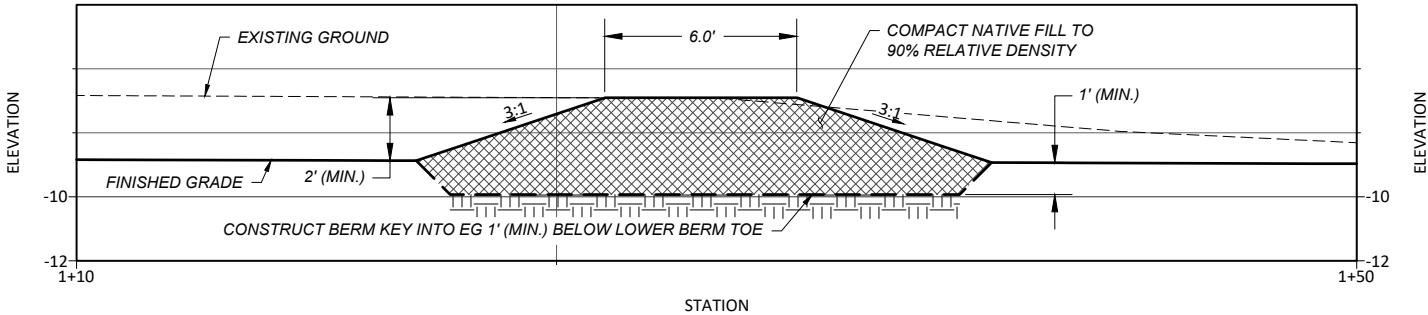
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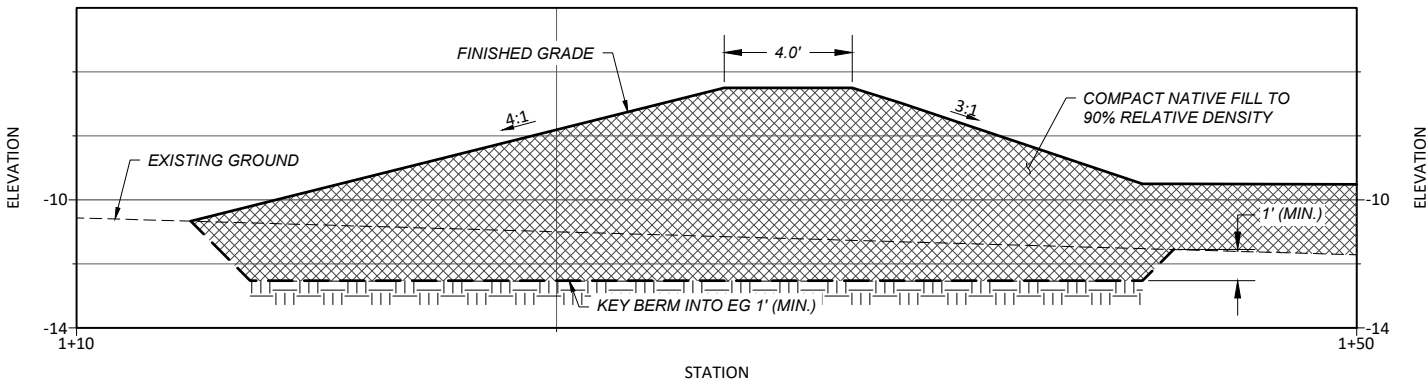
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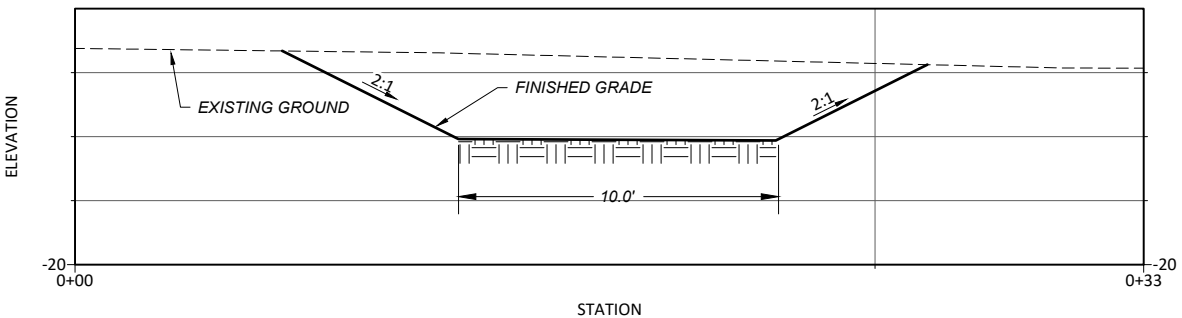
A  
C4 COOLING MARSH INTERNAL DRAINAGE CHANNEL TYPICAL SECTION  
SCALE: 1" = 3'



B  
C5 FEEDING MARSH INTERNAL BERM TYPICAL SECTION  
SCALE: 1" = 3'



C  
C4 MARSH AND POND PERIMETER BERM TYPICAL SECTION  
SCALE: 1" = 3'



D  
C10 DETENTION BASIN DRAINAGE DITCH TYPICAL SECTION  
SCALE: 1" = 3'

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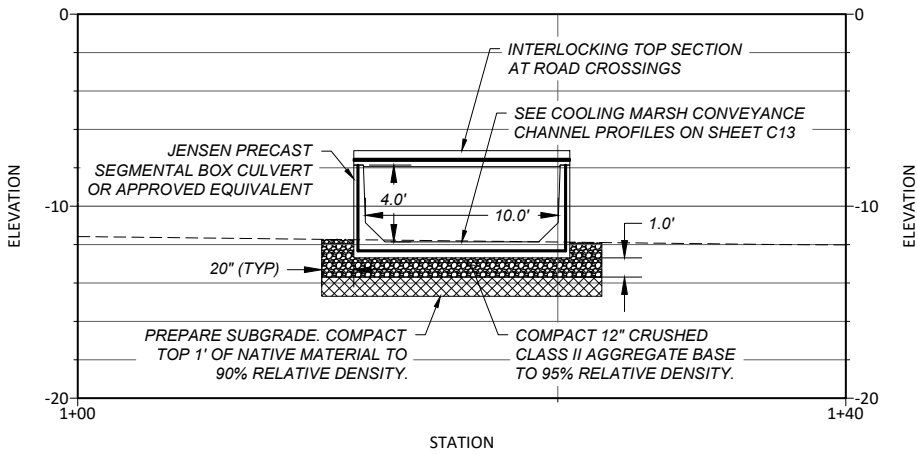
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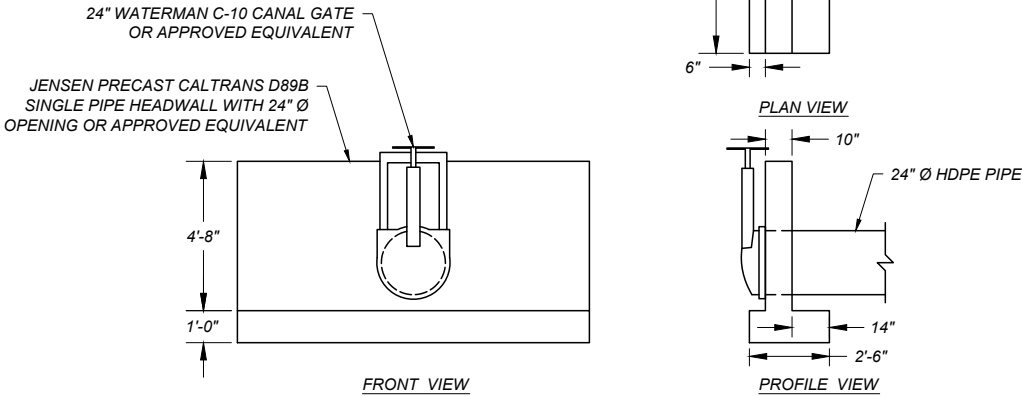
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SHEET  
C17  
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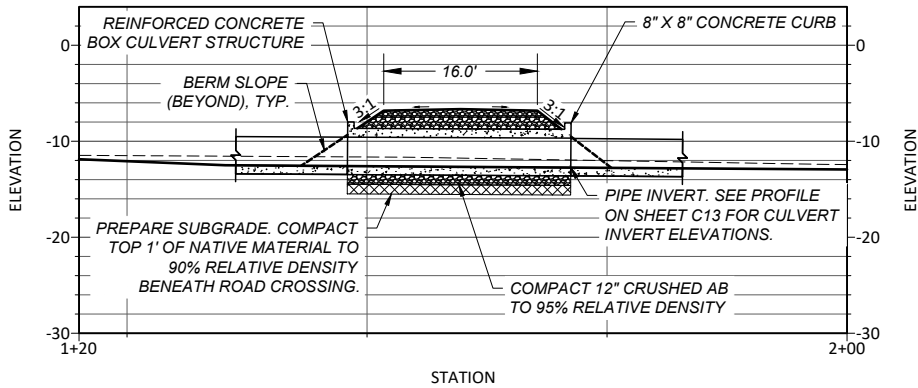
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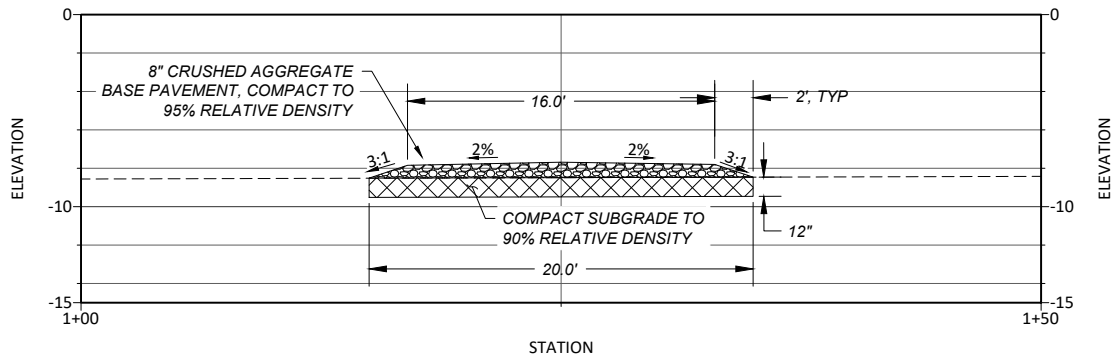
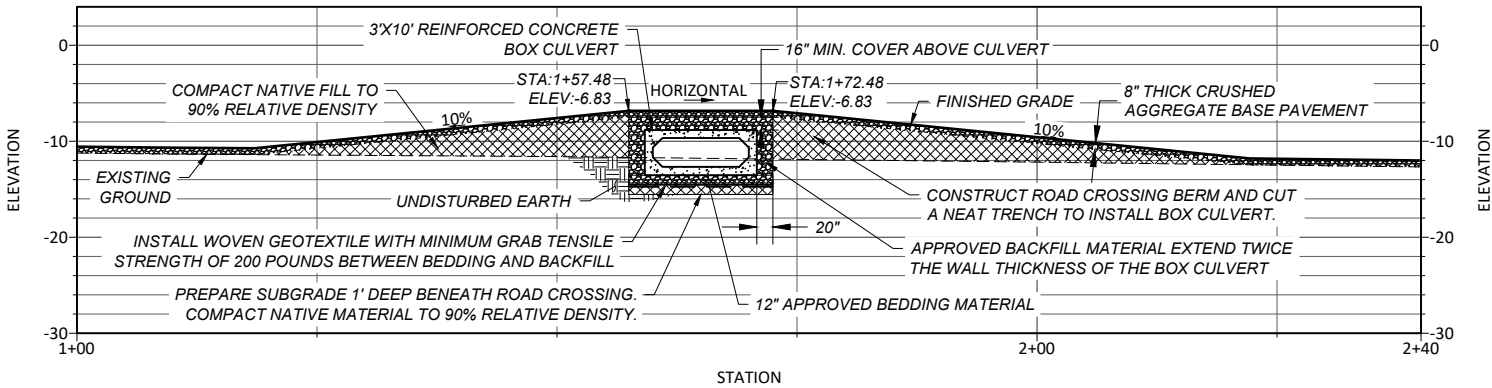
1 SEGMENTAL BOX CULVERT DETAIL  
SCALE: 1" = 5'



2 DETENTION BASIN OUTLET HEADWALL DETAIL  
SCALE: 1" = 4'



3 CULVERT CROSSING DETAIL  
SCALE: 1" = 10'



4 ACCESS ROAD TYPICAL SECTION DETAIL  
SCALE: 1" = 5'

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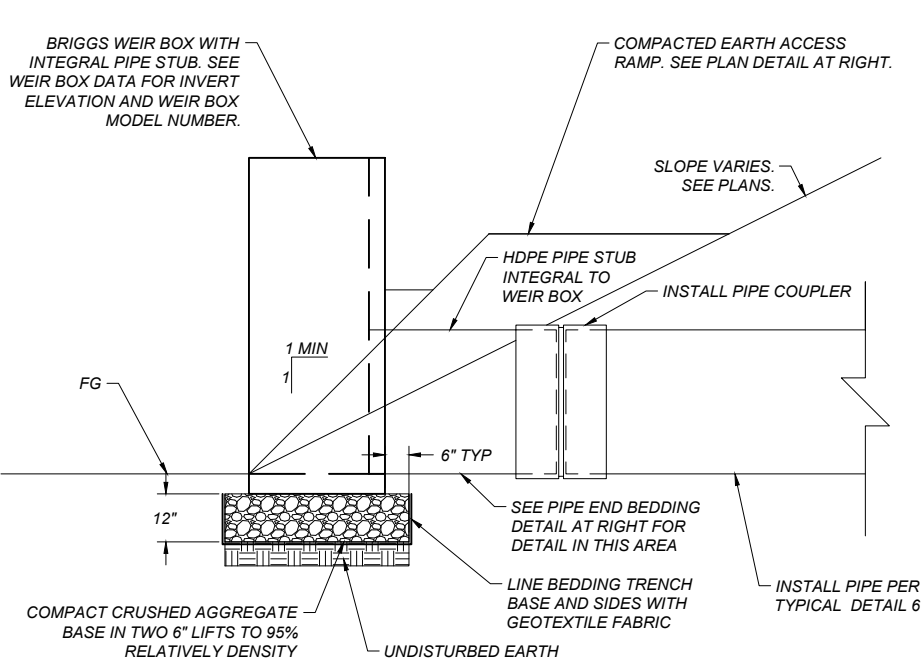
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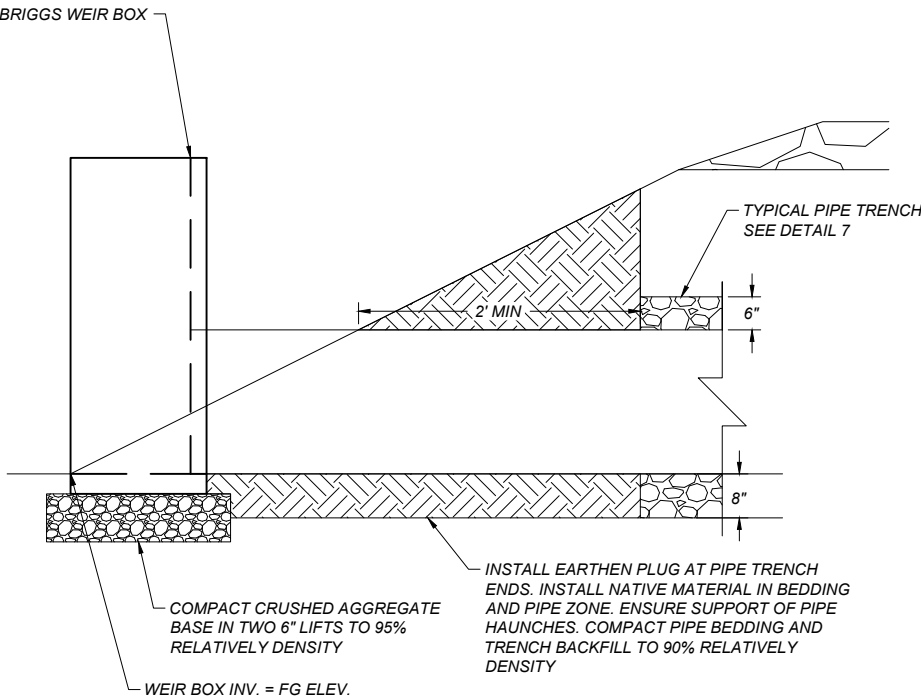
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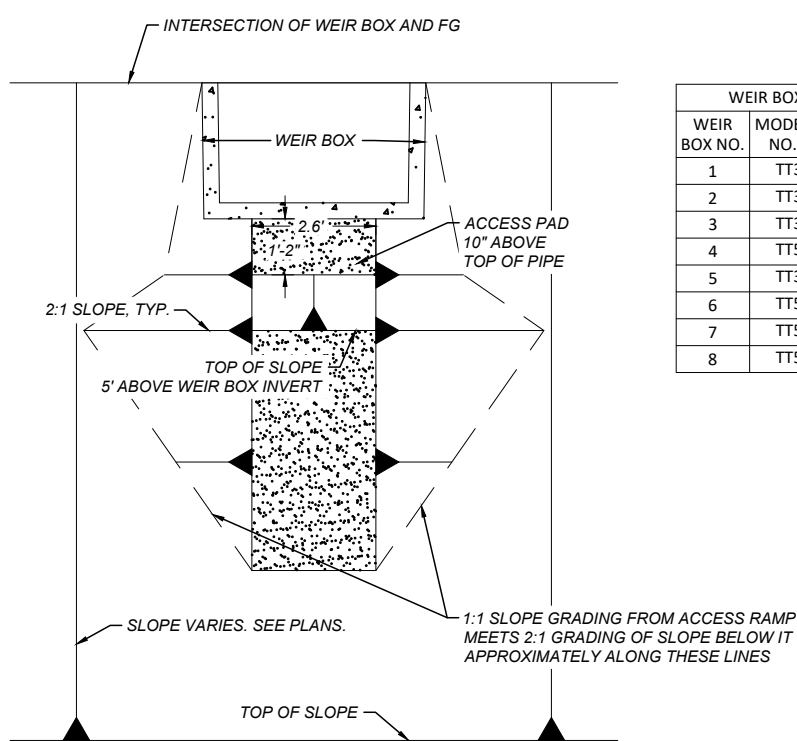


- NOTES:
1. CONSTRUCT COMPACTED EARTH ACCESS RAMP TO WEIR BOX. SEE COMPACTED EARTH ACCESS RAMP GRADING DETAIL.
  2. WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL SCARIFY AND RECOMPACT NATIVE SOILS TO AT LEAST 4" BELOW THE BEDDING, OR EXCAVATE TO A DEPTH REQUIRED BY THE OWNER'S REPRESENTATIVE AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE OWNER'S REPRESENTATIVE.

TYPICAL CONSTRUCTION

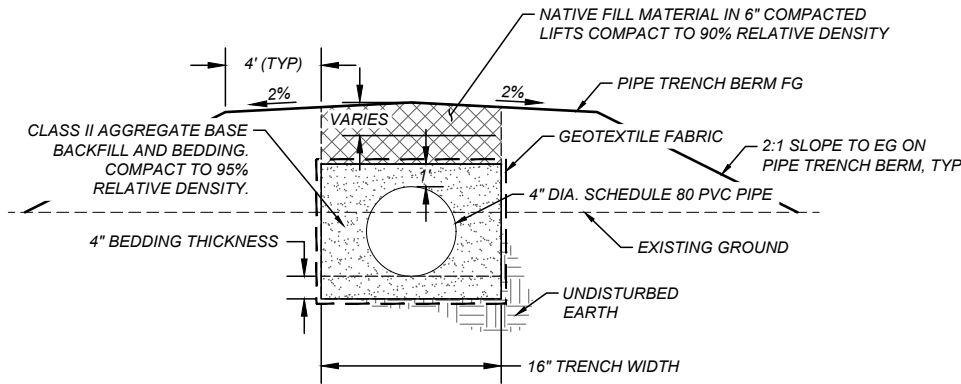


PIPE END BEDDING

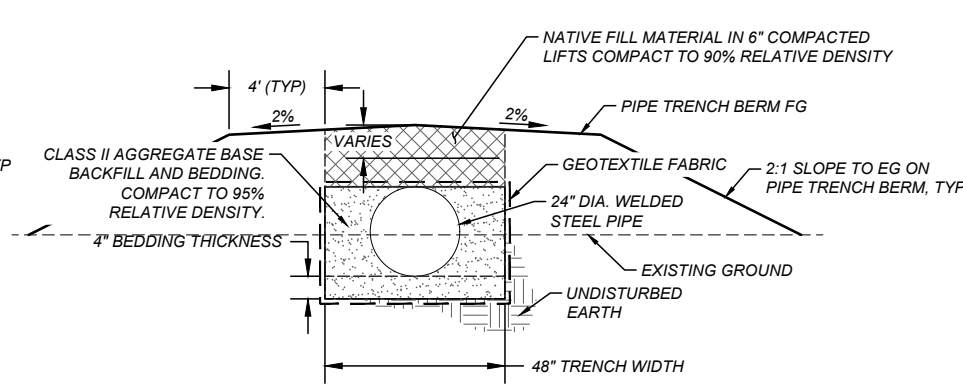


COMPACTED EARTH ACCESS RAMP GRADING DETAIL

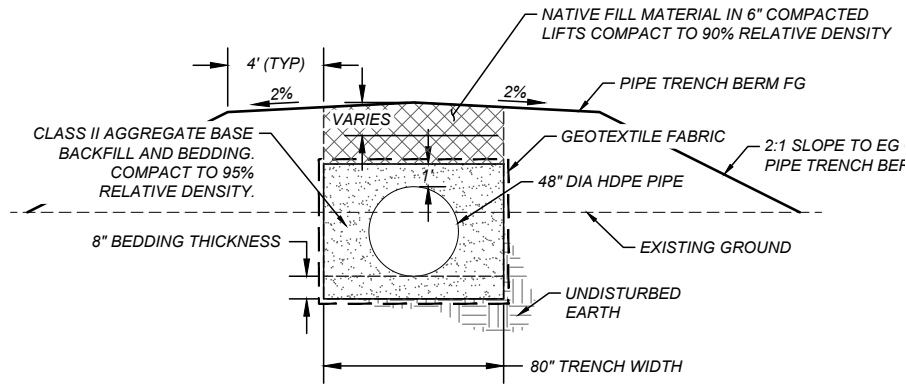
5 WEIR BOX INSTALLATION DETAIL  
NTS



4" DIA. SCHEDULE 80 PVC PIPE TRENCH



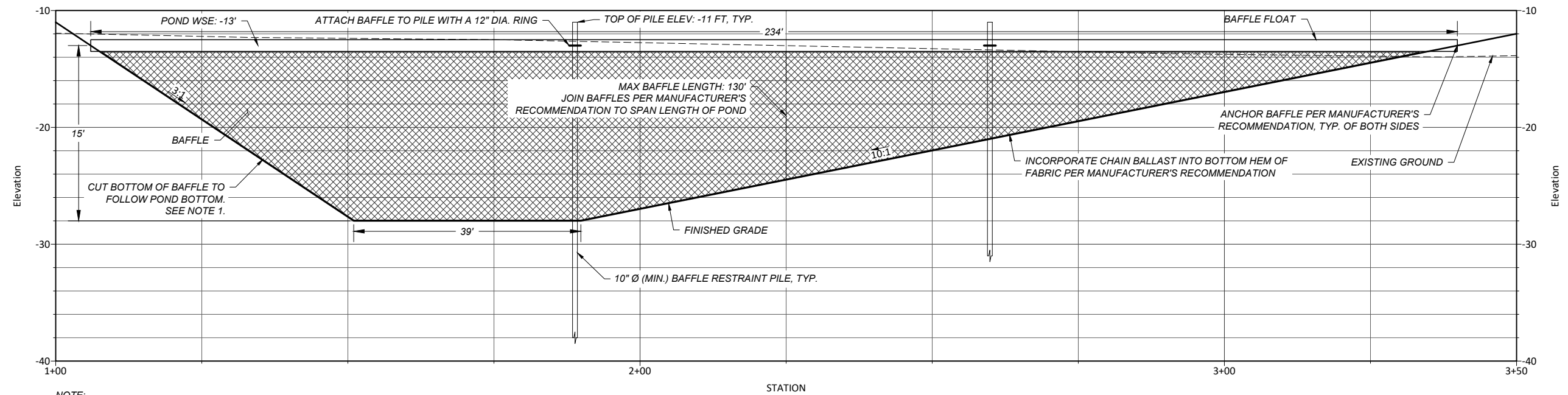
24" DIA. WELDED STEEL PIPE TRENCH



48" DIA. HDPE PIPE TRENCH

- NOTES
1. UNSTABLE TRENCH BOTTOM MATERIAL SHALL BE EXCAVATED TO A DEPTH SPECIFIED BY THE ENGINEER AND REPLACED WITH SUITABLE MATERIAL AS DIRECTED.
  2. APPROVED BEDDING AND BACKFILL MATERIAL SHALL BE CALTRANS CLASS 2 AGGREGATE BASE
  3. PIPE INSTALLATION SHALL NOT OCCUR IF WATER IS PRESENT IN THE TRENCH.
  4. INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D2321.
  5. 2' MINIMUM COVER REQUIRED DURING HEAVY CONSTRUCTION ACTIVITIES.
  6. EXPOSE FIRM, STABLE SOILS FOR THE SUBGRADE BY DRAWING THE BACKHOE BUCKET AND NOT ITS TEETH THROUGH THE SOILS.

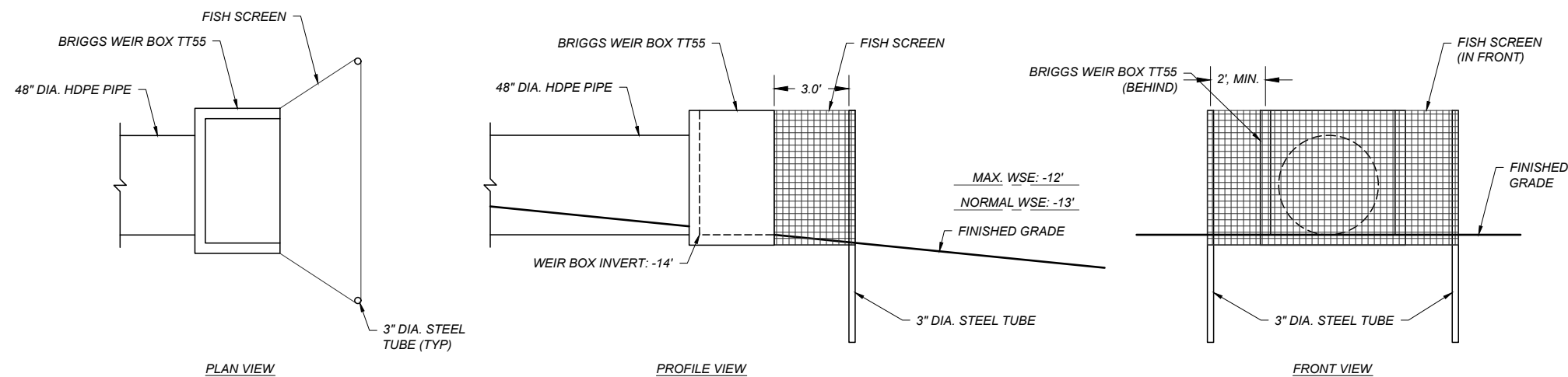
6 PIPE TRENCH DETAIL  
NTS



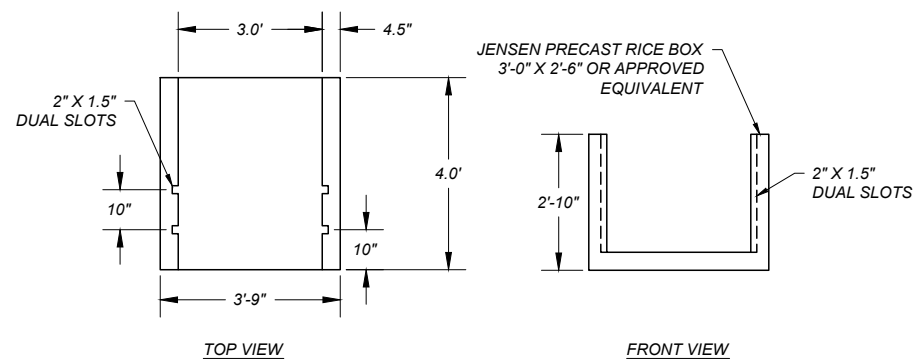
NOTE:

1. CUT BOTTOM OF BAFFLE WITH SUFFICIENT MATERIAL TO MAINTAIN SEGMENTATION OF POND AT THE MAXIMUM POND WSE (-12'), ACCORDING TO MANUFACTURER'S RECOMMENDATION.

**7**  
**C9** **BAFFLE DETAIL**  
SCALE: H1" = 10', V1" = 5'

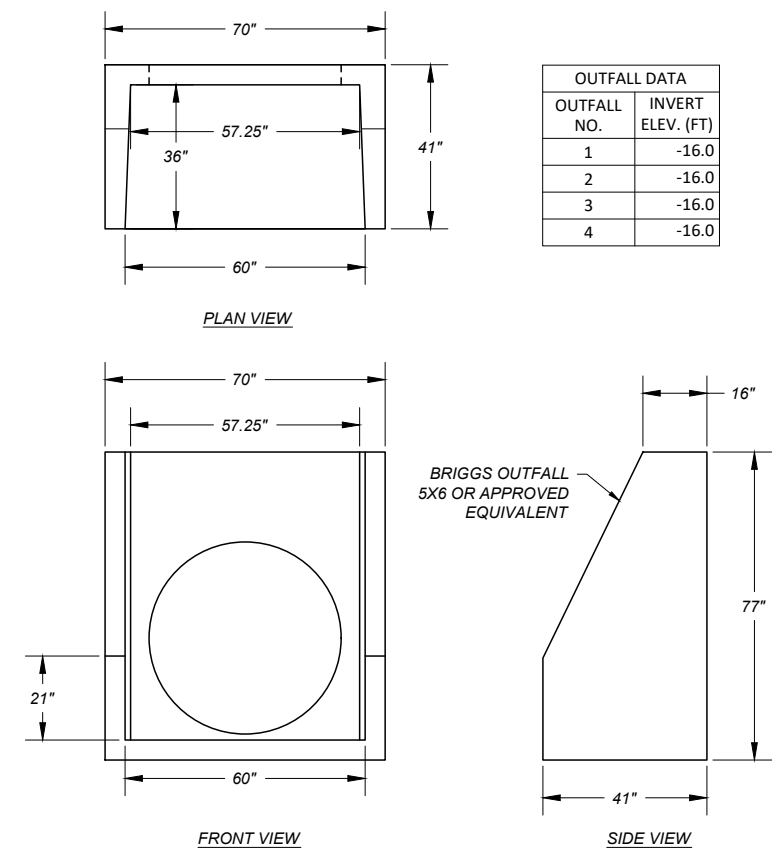


**FISH SCREEN DETAIL**  
SCALE: 1" = 3'



RICE BOX DATA	
RICE BOX NO.	INVERT ELEV. (FT)
1	-8.9
2	-9.1
3	-11.3
4	-11.7

9 RICE BOX DETAIL  
C5, C8 SCALE: 1" = 2'



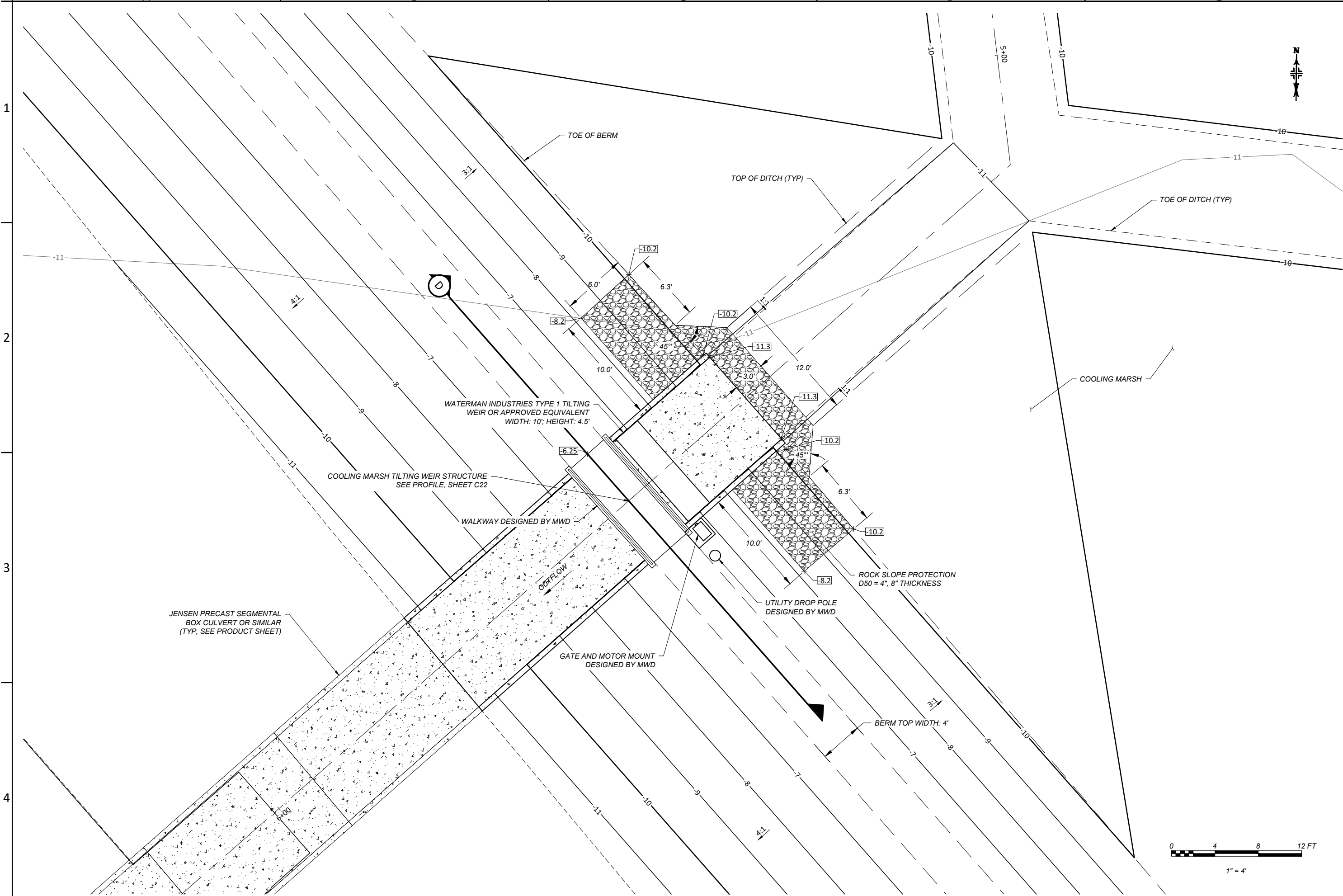
10  
C10

OUTFALL DETAIL

SCALE: 1" = 2'

OUTFALL DATA	
OUTFALL NO.	INVERT ELEV. (FT)
1	-16.0
2	-16.0
3	-16.0
4	-16.0

NOTE:  
1. INSTALL RICE BOXES IN SERIES TO SPAN THE TOE TO TOE DISTANCE OF THE FEEDING MARSH BERMS AS SHOWN ON PLANS.



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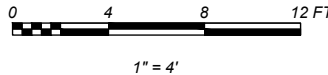
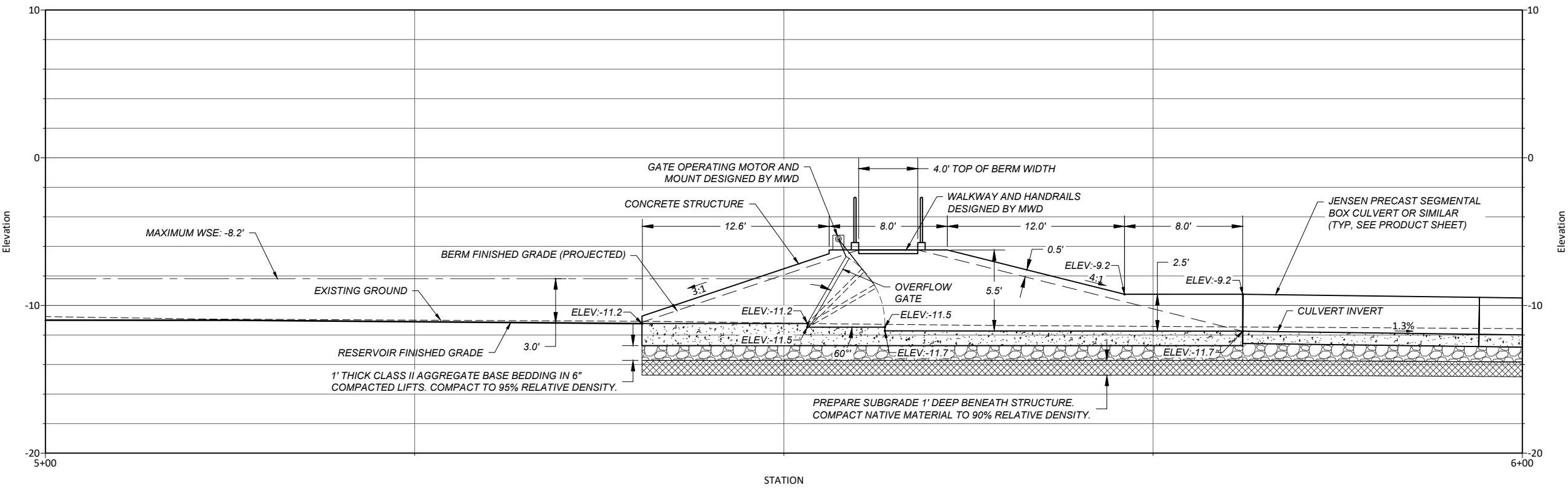
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TILTING WEIR PLAN DETAIL

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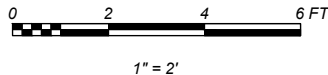
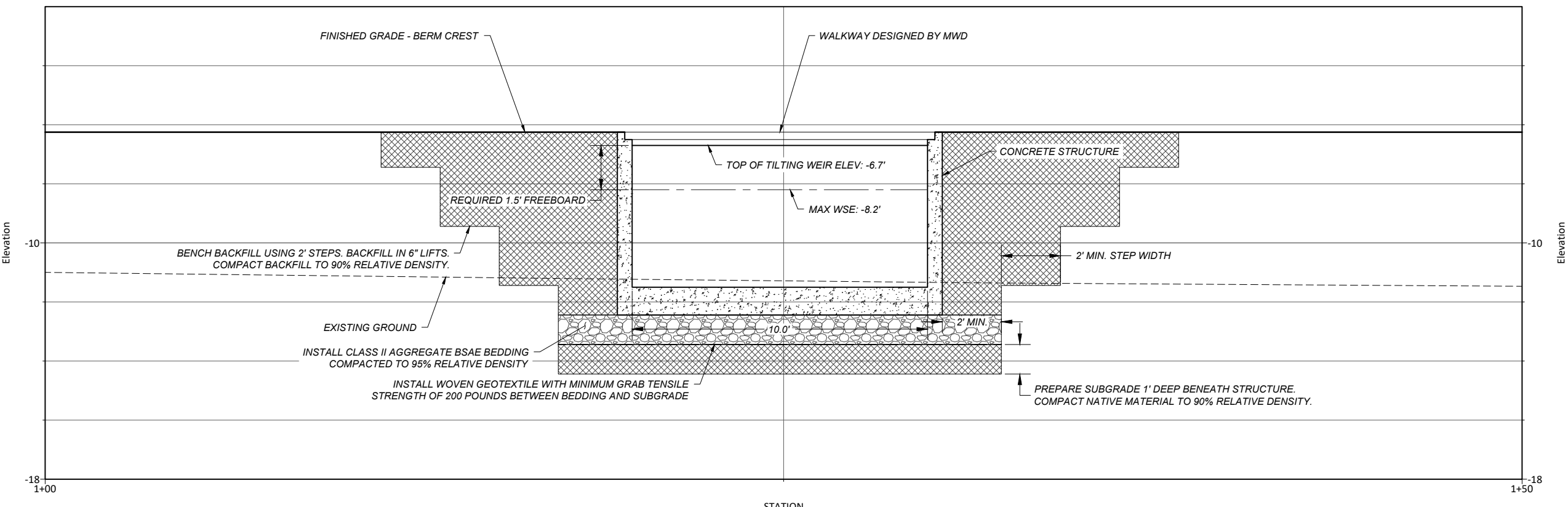
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SHEET  
C21  
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PROFILE: COOLING MARSH TILTING WEIR STRUCTURE  
SCALE: 1" = 4' SHEET C21



D WATER CONTROL STRUCTURE SECTION  
C21 SCALE: 1" = 2'

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DISTRICT OF S. CALIFORNIA  
700 NORTH ALAMEDA STREET  
LOS ANGELES, CA 90012-2944  
(213) 217-6000



CLIENT:  
CALIFORNIA  
BOULDER ISLAND  
DELTA SMELT PROPAGATION  
RESEARCH PROJECT  
-----  
TILTING WEIR PROFILE AND SECTION DETAILS

JOB NUMBER	21-1016
DOCUMENT RELEASE	100% DRAFT
DATE	JUNE 2022
SHEET	C21
22 OF	404

Road A ALIGNMENT GEOMETRY				
NUMBER	LENGTH	RADIUS	START POINT	END POINT
L1	95.4		E: 6255697.46 N: 2234965.28	E: 6255676.14 N: 2235058.26
L2	176.6		E: 6255676.14 N: 2235058.26	E: 6255618.99 N: 2235225.32
L3	83.5		E: 6255618.99 N: 2235225.32	E: 6255595.42 N: 2235305.40
L4	316.9		E: 6255595.42 N: 2235305.40	E: 6255481.96 N: 2235601.30
L5	114.1		E: 6255481.96 N: 2235601.30	E: 6255436.47 N: 2235705.96
L6	74.5		E: 6255436.47 N: 2235705.96	E: 6255388.20 N: 2235762.70
L7	127.9		E: 6255388.20 N: 2235762.70	E: 6255294.06 N: 2235849.30
L8	97.3		E: 6255294.06 N: 2235849.30	E: 6255211.16 N: 2235900.28
L9	190.3		E: 6255211.16 N: 2235900.28	E: 6255027.51 N: 2235950.17
L10	198.5		E: 6255027.51 N: 2235950.17	E: 6254830.90 N: 2235977.11
L11	203.7		E: 6254830.90 N: 2235977.11	E: 6254627.17 N: 2235974.28
L12	239.1		E: 6254627.17 N: 2235974.28	E: 6254392.37 N: 2235929.00
L13	657.5		E: 6254392.37 N: 2235929.00	E: 6253775.76 N: 2235700.82
C1	32.2	37	E: 6253775.76 N: 2235700.82	E: 6253744.68 N: 2235703.45
L14	25.1		E: 6253744.68 N: 2235703.45	E: 6253721.32 N: 2235712.74
C2	21.8	26	E: 6253721.32 N: 2235712.74	E: 6253706.39 N: 2235727.81
C3	41.0	94	E: 6253706.39 N: 2235727.81	E: 6253683.87 N: 2235761.68
L15	20.4		E: 6253683.87 N: 2235761.68	E: 6253666.26 N: 2235771.98
L16	13.5		E: 6253666.26 N: 2235771.98	E: 6253654.05 N: 2235777.83

Road B ALIGNMENT GEOMETRY				
NUMBER	LENGTH	RADIUS	START POINT	END POINT
L17	37.0		E: 6255614.48 N: 2235240.62	E: 6255579.22 N: 2235229.35
L53	37.0		E: 6255614.48 N: 2235240.62	E: 6255579.22 N: 2235229.35
L18	574.9		E: 6255579.22 N: 2235229.35	E: 6255098.27 N: 2234914.31
L54	574.9		E: 6255579.22 N: 2235229.35	E: 6255098.27 N: 2234914.31
C4	47.3	30	E: 6255098.27 N: 2234914.31	E: 6255056.64 N: 2234923.11
L57	99.8		E: 6255056.64 N: 2234923.11	E: 6255002.45 N: 2235006.86
C20	68.4	130	E: 6255002.45 N: 2235006.86	E: 6254952.21 N: 2235052.15
C21	78.2	233	E: 6254952.21 N: 2235052.15	E: 6254889.68 N: 2235098.54
C22	228.2	1256	E: 6254889.68 N: 2235098.54	E: 6254747.43 N: 2235276.55
L55	350.7		E: 6254747.43 N: 2235276.55	E: 6254554.23 N: 2235569.27
C23	11.1	23	E: 6254554.23 N: 2235569.27	E: 6254550.58 N: 2235579.66
L56	143.8		E: 6254550.58 N: 2235579.66	E: 6254537.34 N: 2235722.86

Road C ALIGNMENT GEOMETRY				
NUMBER	LENGTH	RADIUS	START POINT	END POINT
L27	33.7		E: 6255546.42 N: 2235433.18	E: 6255514.93 N: 2235421.11
L28	277.5		E: 6255514.93 N: 2235421.11	E: 6255266.75 N: 2235296.96
C10	51.7	38	E: 6255266.75 N: 2235296.96	E: 6255219.93 N: 2235306.89
L29	190.8		E: 6255219.93 N: 2235306.89	E: 6255099.88 N: 2235455.18
L30	173.4		E: 6255099.88 N: 2235455.18	E: 6254987.95 N: 2235587.64
C11	37.4	38	E: 6254987.95 N: 2235587.64	E: 6254980.49 N: 2235622.79
L31	328.3		E: 6254980.49 N: 2235622.79	E: 6255071.60 N: 2235938.19

Road D ALIGNMENT GEOMETRY				
NUMBER	LENGTH	RADIUS	START POINT	END POINT
L32	285.7		E: 6255266.75 N: 2235296.96	E: 6255012.46 N: 2235166.73
L33	138.8		E: 6255012.46 N: 2235166.73	E: 6254894.67 N: 2235093.24

Road E ALIGNMENT GEOMETRY				
NUMBER	LENGTH	RADIUS	START POINT	END POINT
L34	225.5		E: 6254987.20 N: 2235588.55	E: 6254810.09 N: 2235448.97
C24	103.8	854	E: 6254810.09 N: 2235448.97	E: 6254724.89 N: 2235389.85
L59	232.3		E: 6254724.89 N: 2235389.85	E: 6254526.32 N: 2235269.22
C25	45.6	183	E: 6254526.32 N: 2235269.22	E: 6254490.69 N: 2235240.97
L60	52.1		E: 6254490.69 N: 2235240.97	E: 6254454.22 N: 2235203.79
C26	24.9	85	E: 6254454.22 N: 2235203.79	E: 6254434.46 N: 2235188.83
L61	307.7		E: 6254434.46 N: 2235188.83	E: 6254164.69 N: 2235040.91
C27	47.4	30	E: 6254164.69 N: 2235040.91	E: 6254123.82 N: 2235053.04
L62	321.2		E: 6254123.82 N: 2235053.04	E: 6253972.10 N: 2235336.11
L63	399.9		E: 6253972.10 N: 2235336.11	E: 6253767.86 N: 2235679.87
C28	33.4	69	E: 6253767.86 N: 2235679.87	E: 6253744.68 N: 2235703.45

Road F ALIGNMENT GEOMETRY				
NUMBER	LENGTH	RADIUS	START POINT	END POINT
L35	33.5		E: 6255000.88 N: 2235693.39	E: 6254968.68 N: 2235702.69
L36	163.6		E: 6254968.68 N: 2235702.69	E: 6254807.45 N: 2235730.22
L37	167.8		E: 6254807.45 N: 2235730.22	E: 6254639.61 N: 2235731.64
L38	178.6		E: 6254639.61 N: 2235731.64	E: 6254461.67 N: 2235716.36
C12	9.4	30	E: 6254461.67 N: 2235716.36	E: 6254452.60 N: 2235714.13
L39	612.4		E: 6254452.60 N: 2235714.13	E: 6253888.09 N: 2235476.63

Road G ALIGNMENT GEOMETRY				
NUMBER	LENGTH	RADIUS	START POINT	END POINT
L43	199.5		E: 6254386.45 N: 2235926.81	E: 6254437.71 N: 2235734.05
C14	37.0	149	E: 6254437.71 N: 2235734.05	E: 6254451.56 N: 2235699.83
C15	37.0	149	E: 6254451.56 N: 2235699.83	E: 6254465.40 N: 2235665.61
L44	41.0		E: 6254465.40 N: 2235665.61	E: 6254468.91 N: 2235624.72
C16	28.5	22	E: 6254468.91 N: 2235624.72	E: 6254454.79 N: 2235602.27
L45	75.3		E: 6254454.79 N: 2235602.27	E: 6254384.38 N: 2235575.56
C17	13.3	22	E: 6254384.38 N: 2235575.56	E: 6254371.31 N: 2235574.77
L46	162.3		E: 6254371.31 N: 2235574.77	E: 6254213.70 N: 2235613.62

Road H ALIGNMENT GEOMETRY				
NUMBER	LENGTH	RADIUS	START POINT	END POINT
L47	124.5		E: 6254501.06 N: 2235250.75	E: 6254441.12 N: 2235359.90
C18	23.6	338	E: 6254441.12 N: 2235359.90	E: 6254430.48 N: 2235380.98
L48	52.4		E: 6254430.48 N: 2235380.98	E: 6254404.42 N: 2235426.47
C19	71.6	90	E: 6254404.42 N: 2235426.47	E: 6254349.07 N: 2235468.95
L49	271.4		E: 6254349.07 N: 2235468.95	E: 6254082.87 N: 2235521.60
C29	21.5	22	E: 6254082.87 N: 2235521.60	E: 6254066.95 N: 2235534.68
L64	15.8		E: 6254066.95 N: 2235534.68	E: 6254060.91 N: 2235549.34

COOLING MARSH A CONVEYANCE CHANNEL ALIGNMENT GEOMETRY				
NUMBER	LENGTH	RADIUS	START POINT	END POINT
L65	83.8		E: 6254130.28 N: 2235649.45	E: 6254161.54 N: 2235571.67
L66	10.8		E: 6254161.54 N: 2235571.67	E: 6254169.96 N: 2235564.83
L67	278.1		E: 6254169.96 N: 2235564.83	E: 6254442.81 N: 2235510.98

COOLING MARSH B CONVEYANCE CHANNEL ALIGNMENT GEOMETRY				
NUMBER	LENGTH	RADIUS	START POINT	END POINT
L68	174.9		E: 6255138.57 N: 2235516.72	E: 6255006.90 N: 2235401.58

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APPROVED  
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cbec  
eco engineering

CALIFORNIA  
BOULDER ISLAND  
DELTA SMELT PROPAGATION  
RESEARCH PROJECT  
ALIGNMENT GEOMETRY  
---  
METROPOLITAN WATER  
DISTRICT OF S. CALIFORNIA  
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LOS ANGELES, CA 90012-2944  
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23 OF 405





# **Appendix B**

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## **Construction Details and Air Quality Emission Estimate Calculations**



## **B-1 CalEEMod Output**

## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## Bouldin Smelt

## San Joaquin Valley Air Basin, Annual

## 1.0 Project Characteristics

## 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	25.00	0.00	0

## 1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	2			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MW hr)	203.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

## 1.3 User Entered Comments &amp; Non-Default Data

Project Characteristics -

Land Use - Project specific information

Construction Phase - Project specific information

Off-road Equipment - Project specific info

Off-road Equipment - Project specific information

Off-road Equipment - Placeholder for dust calcs

Grading - Project info

Trips and VMT - Project specific information, trip for flatbed and fish transport trucks

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	47.00

## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblConstructionPhase	NumDays	370.00	47.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	AcresOfGrading	11.75	117.00
tblLandUse	LotAcreage	0.00	25.00
tblOffRoadEquipment	HorsePower	367.00	231.00
tblOffRoadEquipment	HorsePower	402.00	362.00
tblOffRoadEquipment	HorsePower	158.00	1.00
tblOffRoadEquipment	HorsePower	97.00	200.00
tblOffRoadEquipment	HorsePower	97.00	450.00
tblOffRoadEquipment	HorsePower	247.00	265.00
tblOffRoadEquipment	HorsePower	221.00	570.00
tblOffRoadEquipment	HorsePower	8.00	249.00
tblOffRoadEquipment	HorsePower	187.00	180.00
tblOffRoadEquipment	HorsePower	158.00	200.00
tblOffRoadEquipment	HorsePower	187.00	1.00
tblOffRoadEquipment	HorsePower	247.00	1.00
tblOffRoadEquipment	HorsePower	16.00	375.00
tblOffRoadEquipment	HorsePower	367.00	1.00
tblOffRoadEquipment	HorsePower	172.00	100.00
tblOffRoadEquipment	HorsePower	97.00	1.00
tblOffRoadEquipment	LoadFactor	0.48	0.29
tblOffRoadEquipment	LoadFactor	0.38	0.20
tblOffRoadEquipment	LoadFactor	0.37	0.74
tblOffRoadEquipment	LoadFactor	0.40	0.45
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	OffRoadEquipmentType	Cranes	Scrapers
tblOffRoadEquipment	OffRoadEquipmentType	Forklifts	Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType	Welders	Rubber Tired Dozers

## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	7.00	2.40
tblOffRoadEquipment	UsageHours	7.00	2.40
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	0.00	2.00

**2.0 Emissions Summary**



## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0249	0.2382	0.1742	5.1000e-004	0.0835	9.3100e-003	0.0929	0.0174	8.5700e-003	0.0260	0.0000	45.0756	45.0756	0.0136	1.0000e-004	45.4453
Maximum	0.0249	0.2382	0.1742	5.1000e-004	0.0835	9.3100e-003	0.0929	0.0174	8.5700e-003	0.0260	0.0000	45.0756	45.0756	0.0136	1.0000e-004	45.4453

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0249	0.2382	0.1742	5.1000e-004	0.0835	9.3100e-003	0.0929	0.0174	8.5700e-003	0.0260	0.0000	45.0755	45.0755	0.0136	1.0000e-004	45.4453
Maximum	0.0249	0.2382	0.1742	5.1000e-004	0.0835	9.3100e-003	0.0929	0.0174	8.5700e-003	0.0260	0.0000	45.0755	45.0755	0.0136	1.0000e-004	45.4453

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2022	9-30-2022	0.1440	0.1440
		Highest	0.1440	0.1440

**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase I	Building Construction	9/1/2022	10/25/2022	6	47	
2	Grading for dust calc	Grading	9/1/2022	10/25/2022	6	47	

## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****Acres of Grading (Site Preparation Phase): 0****Acres of Grading (Grading Phase): 117****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase I	Scrapers	1	2.40	231	0.29
Phase I	Off-Highway Trucks	1	2.40	362	0.20
Grading for dust calc	Excavators	1	1.00	1	0.38
Phase I	Tractors/Loaders/Backhoes	1	2.40	200	0.74
Phase I	Tractors/Loaders/Backhoes	1	2.40	450	0.37
Phase I	Rubber Tired Dozers	1	2.40	265	0.45
Phase I	Bore/Drill Rigs	1	0.50	570	0.50
Phase I	Plate Compactors	1	2.40	249	0.43
Phase I	Graders	1	2.40	180	0.41
Phase I	Excavators	1	2.40	200	0.38
Grading for dust calc	Graders	1	1.00	1	0.41
Grading for dust calc	Rubber Tired Dozers	1	1.00	1	0.40
Phase I	Dumpers/Tenders	1	2.40	375	0.50
Grading for dust calc	Scrapers	1	1.00	1	0.48
Phase I	Other Construction Equipment	1	0.20	100	0.42
Grading for dust calc	Tractors/Loaders/Backhoes	1	1.00	1	0.37

**Trips and VMT**

## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Phase I	11	0.00	0.00	2.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading for dust calc	5	13.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction****3.2 Phase I - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0235	0.2370	0.1622	4.8000e-004		9.2900e-003	9.2900e-003		8.5500e-003	8.5500e-003	0.0000	41.9086	41.9086	0.0136	0.0000	42.2475
<b>Total</b>	<b>0.0235</b>	<b>0.2370</b>	<b>0.1622</b>	<b>4.8000e-004</b>		<b>9.2900e-003</b>	<b>9.2900e-003</b>		<b>8.5500e-003</b>	<b>8.5500e-003</b>	<b>0.0000</b>	<b>41.9086</b>	<b>41.9086</b>	<b>0.0136</b>	<b>0.0000</b>	<b>42.2475</b>

## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.2 Phase I - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.5000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0587	0.0587	0.0000	1.0000e-005	0.0615
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0587</b>	<b>0.0587</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0615</b>

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0235	0.2370	0.1622	4.8000e-004		9.2900e-003	9.2900e-003		8.5500e-003	8.5500e-003	0.0000	41.9086	41.9086	0.0136	0.0000	42.2474
<b>Total</b>	<b>0.0235</b>	<b>0.2370</b>	<b>0.1622</b>	<b>4.8000e-004</b>		<b>9.2900e-003</b>	<b>9.2900e-003</b>		<b>8.5500e-003</b>	<b>8.5500e-003</b>	<b>0.0000</b>	<b>41.9086</b>	<b>41.9086</b>	<b>0.0136</b>	<b>0.0000</b>	<b>42.2474</b>

## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.2 Phase I - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.5000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0587	0.0587	0.0000	1.0000e-005	0.0615
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0587</b>	<b>0.0587</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0615</b>

## 3.3 Grading for dust calc - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0797	0.0000	0.0797	0.0164	0.0000	0.0164	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>					<b>0.0797</b>	<b>0.0000</b>	<b>0.0797</b>	<b>0.0164</b>	<b>0.0000</b>	<b>0.0164</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>



## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.3 Grading for dust calc - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3700e-003	1.0500e-003	0.0120	3.0000e-005	3.8000e-003	2.0000e-005	3.8200e-003	1.0100e-003	2.0000e-005	1.0300e-003	0.0000	3.1083	3.1083	8.0000e-005	9.0000e-005	3.1364
Total	1.3700e-003	1.0500e-003	0.0120	3.0000e-005	3.8000e-003	2.0000e-005	3.8200e-003	1.0100e-003	2.0000e-005	1.0300e-003	0.0000	3.1083	3.1083	8.0000e-005	9.0000e-005	3.1364

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0797	0.0000	0.0797	0.0164	0.0000	0.0164	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.0797	0.0000	0.0797	0.0164	0.0000	0.0164	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.3 Grading for dust calc - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3700e-003	1.0500e-003	0.0120	3.0000e-005	3.8000e-003	2.0000e-005	3.8200e-003	1.0100e-003	2.0000e-005	1.0300e-003	0.0000	3.1083	3.1083	8.0000e-005	9.0000e-005	3.1364
Total	1.3700e-003	1.0500e-003	0.0120	3.0000e-005	3.8000e-003	2.0000e-005	3.8200e-003	1.0100e-003	2.0000e-005	1.0300e-003	0.0000	3.1083	3.1083	8.0000e-005	9.0000e-005	3.1364

## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

## 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.505022	0.051937	0.170337	0.165963	0.030143	0.007880	0.013096	0.025463	0.000664	0.000317	0.023954	0.001505	0.003719

## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 5.0 Energy Detail

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

## 6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>



## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**7.2 Water by Land Use****Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## Bouldin Smelt - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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## **B-2 EMFAC Output**

Source: EMFAC2017 (v1.0.3) Emission Rates  
Region Type: Air District  
Region: San Joaquin Valley Unified APCD  
Calendar Year: 2022  
Season: Annual  
Vehicle Classification: EMFAC2007 Categories  
Units: miles/day for VMT, trips/day for Trips,  
g/mile for RUNEX, PMBW and PMTW, g/trip for  
STREX, HOTSOAK and RUNLOSS, g/vehicle/day  
for IDLEX, RESTLOSS and DIURN

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RUNEX	PM2.5_IDLEX	PM2.5_STREX	PM2.5_PMTW	PM2.5_PMBW	PM10_RUNEX
SAN JOAQUIN VALLEY UNIFIED APCD	2022	LDA	Aggregate	Aggregate	Gasoline	1661148.167	64658321.37	7803211.342	0.043284634	0	0.265155809	0.001199407	0	0.001952554	0.002000001	0.002562831	0.001304465
SAN JOAQUIN VALLEY UNIFIED APCD	2022	LDA	Aggregate	Aggregate	Diesel	14264.95498	589120.3636	67883.18562	0.226664724	0	0	0.017600996	0	0	0.002000001	0.002627942	0.018396835
SAN JOAQUIN VALLEY UNIFIED APCD	2022	LDT1	Aggregate	Aggregate	Gasoline	176038.9696	6110101.244	793270.5784	0.125423483	0	0.398245816	0.001721538	0	0.002735029	0.002000001	0.003135613	0.001872301
SAN JOAQUIN VALLEY UNIFIED APCD	2022	LDT1	Aggregate	Aggregate	Diesel	136.7096324	2398.669101	456.7800866	1.630771493	0	0	0.239514193	0	0	0.002000001	0.003697181	0.250343962
SAN JOAQUIN VALLEY UNIFIED APCD	2022	LDT2	Aggregate	Aggregate	Gasoline	574010.1744	20743582.97	2646431.26	0.065397601	0	0.332795078	0.001240111	0	0.001961236	0.002000001	0.003009773	0.001348733
SAN JOAQUIN VALLEY UNIFIED APCD	2022	LDT2	Aggregate	Aggregate	Diesel	2918.123683	125207.1376	14281.74698	0.046595085	0	0	0.005015774	0	0	0.002000001	0.003029454	0.005242565

SAN JOAQUIN VALLEY UNIFIED APCD	2022	LDA	Aggregate	Aggregate	Gasoline	1661148.167	64658321.37	7803211.342
SAN JOAQUIN VALLEY UNIFIED APCD	2022	LDA	Aggregate	Aggregate	Diesel	14264.95498	589120.3636	67883.18562
SAN JOAQUIN VALLEY UNIFIED APCD	2022	LDT1	Aggregate	Aggregate	Gasoline	176038.9696	6110101.244	793270.5784
SAN JOAQUIN VALLEY UNIFIED APCD	2022	LDT1	Aggregate	Aggregate	Diesel	136.7096324	2398.669101	456.7800866
SAN JOAQUIN VALLEY UNIFIED APCD	2022	LDT2	Aggregate	Aggregate	Gasoline	574010.1744	20743582.97	2646431.26
SAN JOAQUIN VALLEY UNIFIED APCD	2022	LDT2	Aggregate	Aggregate	Diesel	2918.123683	125207.1376	14281.74698



Source: EMFAC2017 (v1.0.3) Emission Rates  
Region Type: Air District  
Region: San Joaquin Valley Unified APCD  
Calendar Year: 2022  
Season: Annual

GWP  
N2O 298  
CH4 25

Vehicle Classification: EMFAC2007 Categories  
Units: miles/day for VMT, trips/day for Trips,  
g/mile for RUNEX, PMBW and PMTW, g/trip for  
STREX, HOTSOAK and RUNLOSS, g/vehicle/day  
for IDLEX, RESTLOSS and DIURN

Region	PM10_IDLEX	PM10_STREX	PM10_PMTW	PM10_PMBW	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTSOAK
SAN JOAQUIN VALLEY UNIFIED APCD	0	0.002123581	0.008000002	0.007322374	277.2970776	0	70.47021729	0.002379009	0	0.073795306	0.00472715	0	0.033531307	0.009157725	0	0.341211899	0.094269277
SAN JOAQUIN VALLEY UNIFIED APCD	0	0	0.008000002	0.007508406	237.5206877	0	0	0.001352907	0	0	0.037421481	0	0	0.029127284	0	0	0
SAN JOAQUIN VALLEY UNIFIED APCD	0	0.002974529	0.008000002	0.008958894	329.4377608	0	87.20086303	0.006025977	0	0.1095182	0.009291582	0	0.039592558	0.026698346	0	0.566767342	0.172338095
SAN JOAQUIN VALLEY UNIFIED APCD	0	0	0.008000002	0.010563373	420.6566494	0	0	0.014144852	0	0	0.066274626	0	0	0.304530336	0	0	0
SAN JOAQUIN VALLEY UNIFIED APCD	0	0.002133019	0.008000002	0.00859935	340.9798583	0	87.12353711	0.002752676	0	0.083090134	0.005760212	0	0.037309505	0.010699157	0	0.384386245	0.080750375
SAN JOAQUIN VALLEY UNIFIED APCD	0	0	0.008000002	0.008655584	314.9866554	0	0	0.000637114	0	0	0.049626276	0	0	0.013716696	0	0	0

SAN JOAQUIN VALLEY UNIFIED APCD  
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SAN JOAQUIN VALLEY UNIFIED APCD  
SAN JOAQUIN VALLEY UNIFIED APCD  
SAN JOAQUIN VALLEY UNIFIED APCD  
SAN JOAQUIN VALLEY UNIFIED APCD

CO2e_RUNEX	CO2e_IDLEX	CO2e_STREX
278.7652434	0	82.30742957
248.7061117	0	0
332.3573017	0	101.7374002
440.7601093	0	0
342.7652182	0	100.3190229
329.7912134	0	0

Source: EMFAC2017 (v1.0.3) Emission Rates  
Region Type: Air District  
Region: San Joaquin Valley Unified APCD  
Calendar Year: 2022  
Season: Annual

Vehicle Classification: EMFAC2007 Categories  
Units: miles/day for VMT, trips/day for Trips,  
g/mile for RUNEX, PMBW and PMTW, g/trip for  
STREX, HOTSOAK and RUNLOSS, g/vehicle/day  
for IDLEX, RESTLOSS and DIURN

Region	ROG_RUNLOSS	ROG_DIURN	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTSOAK	TOG_RUNLOSS	TOG_RESTLOSS	TOG_DIURN	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNEX	SOx_IDLEX	SOx_STREX
SAN JOAQUIN VALLEY UNIFIED APCD	0.242861844	1.463803414	0.013362931	0	0.37358408	0.094269277	0.242861844	1.463803414	0.034744349	0.724398196	0	3.355647743	0.002741364	0	0.00069667
SAN JOAQUIN VALLEY UNIFIED APCD	0	0	0.033159476	0	0	0	0	0	0.0031	0.349589455	0	0	0.002250629	0	0
SAN JOAQUIN VALLEY UNIFIED APCD	0.497312475	2.745407653	0.038954398	0	0.620538374	0.172338095	0.497312475	2.745407653	0.035934282	1.357871019	0	5.517556387	0.003256828	0	0.000862069
SAN JOAQUIN VALLEY UNIFIED APCD	0	0	0.346687541	0	0	0	0	0	0.0031	1.694602598	0	0	0.003985936	0	0
SAN JOAQUIN VALLEY UNIFIED APCD	0.21429534	1.325386307	0.015611903	0	0.420854514	0.080750375	0.21429534	1.325386307	0.036406635	0.797763172	0	3.708245642	0.003370933	0	0.000861305
SAN JOAQUIN VALLEY UNIFIED APCD	0	0	0.015615547	0	0	0	0	0	0.0031	0.13810128	0	0	0.002984659	0	0

SAN JOAQUIN VALLEY UNIFIED APCD  
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SAN JOAQUIN VALLEY UNIFIED APCD



## **B-3 On Road Emissions**

**Bouldin Smelt - Final Emissions Calculations**

TPY		ROG	NOx	PM10	PM2.5	CO2e
Offsite Emissions	Exhaust (Trucks and passenger vehicles)	1.91E-04	1.39E-04	3.08E-05	1.09E-05	5.40E-01
	Fugitive Dust (Trucks and passenger vehicles)	x	x	0.000502	0.000123	x
<b>Total</b>		0.00	0.00	0.00	0.00	0.54

PPD		ROG	NOx	PM10	PM2.5	CO2e
Offsite Emissions	Exhaust (Trucks and passenger vehicles)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Fugitive Dust (Trucks and passenger vehicles)	x	x	0.002753	0.000676	x
<b>Total</b>		0.00	0.00	0.00	0.00	0.00

Bouldin Smelt - EMFAC2021 Emissions Calculations for *Off-Site Exhaust Emissions*

Accounts for trucks and passenger vehicles driving to and from the site

### Background Information

Conversions			Trip Info		
Tons	Pounds	Grams	Employee Trips		
1	2000	907185	Annual One-Way Trips	128	
			Trip Length	16.8	
Mile	Feet		Truck Trips		
1	5280		Annual One-Way Trips	16	
			Trip Length	39	

Fleet Mix		
<i>Employee Trips - Same as Worker (above)</i>		
LDA	Gas	0.5
LDT1	Gas	0.125
LDT1	Diesel	0.125
LDT2	Gas	0.125
LDT2	Diesel	0.125

### Vehicle Mix

The user can select the type of vehicle mix. The EMFAC mix is the total mix of all vehicles provided by EMFAC. The program can also assume that the workers' personal vehicles consist of 50% light-duty auto (or passenger car), 25% light-duty truck type 1 (LDT1), and 25% light-duty truck type 2 (LDT2). The equivalent test weight (ETW) from EMFAC2017 for each type of vehicle is presented below<sup>12</sup>:

<b>Vehicle Type</b>	<b>ETW (lb)</b>
LDA	All
LDT1	<= 3,750
LDT2	3,751 - 5,750

## EMFAC2022 Output - Aggregate Speed

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_PMTW	PM10_PMBW	PM2.5_RUNEX	PM2.5_IDLEX	PM2.5_STREX	PM2.5_PMTW	PM2.5_PMBW	CO2e_RUNEX	CO2e_IDLEX	CO2e_STREX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTSOAK	ROG_RUNLOSS	ROG_DIURN	
San JOAQUIN	2022	LDA	Aggregate	Aggregate	Gasoline	1661148.167	64658321.37	7803211.342	0.043284634	0	0.265155809	0.001304465	0	0.002123581	0.008000002	0.007322374	0.001199407	0	0.001952554	0.002000001	0.002562831	278.7652843	0	82.30742957	0.00915773	0	0.341211899	0.094269277	0.242861844	1.463803414	
San JOAQUIN	2022	LDA	Aggregate	Aggregate	Diesel	14264.95498	589120.3636	67883.18562	0.226664724	0	0	0.018396835	0	0	0.008000002	0.007508406	0.017600996	0	0	0.002627942	248.706112	0	0	0.02912728	0	0	0.341211899	0.094269277	0.242861844	1.463803414	
San JOAQUIN	2022	LDT1	Aggregate	Aggregate	Gasoline	176038.9696	6110101.244	793270.5784	0.125423483	0	0.398245816	0.001872301	0	0.002974529	0.008000002	0.008958894	0.001721538	0	0.002735029	0.002000001	0.003135613	332.357302	0	101.7374002	0.02669835	0.566767342	0.172338095	0.497312475	2.745407653	0	
San JOAQUIN	2022	LDT1	Aggregate	Aggregate	Diesel	136.7096234	2398.669101	456.7800866	1.630771493	0	0	0.250343962	0	0	0.008000002	0.010563373	0.239514193	0	0	0.002000001	0.003697181	440.760109	0	0	0.30453034	0	0	0.341211899	0.094269277	0.242861844	1.463803414
San JOAQUIN	2022	LDT2	Aggregate	Aggregate	Gasoline	574010.1744	20743582.97	266431.26	0.053697301	0	0.332795078	0.001348733	0	0.002133019	0.008000002	0.00859935	0.001240111	0	0.001961626	0.002000001	0.003090973	342.765218	0	100.3190229	0.01069916	0.384386245	0.080750375	0.214295334	1.325386307	0	
San JOAQUIN	2022	LDT2	Aggregate	Aggregate	Diesel	2918.123683	125207.1376	142641.74698	0.046595085	0	0	0.005242565	0	0	0.008000002	0.008555884	0.005015774	0	0	0.002000001	0.003029944	329.791213	0	0	0.01731767	0	0	0.341211899	0.094269277	0.242861844	1.463803414

## Emissions Calcs

TPY	g/ton		907185																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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## Off-Site Exhaust Emissions (includes brakeware + tireware)

TPY	ROG	NOx	PM10	PM2.5	CO2e
LDA	1.10E-04	7.00E-05	1.99E-05	6.97E-06	3.36E-01
LDT1	5.39E-05	4.42E-05	5.63E-06	2.08E-06	1.00E-01
LDT2	2.68E-05	2.52E-05	5.36E-06	1.89E-06	1.03E-01
<b>Total</b>	1.91E-04	1.39E-04	3.08E-05	1.09E-05	5.40E-01

Bouldin Smelt - AP42 Emissions Calculations for *Off-Site Fugitive Dust Emissions*

Accounts for trucks and passenger vehicles driving to and from the site

Background Information

Conversions

Tons	Pounds	Grams
1	2000	907185

Mile	Feet
1	5280

Year	Day
1	365

Vehicle Weight

4800	pounds
2.4	tons

NOTE: average  
vehicle weight,  
California statewide

Roadway Travel Fractions and VMT

Estimates

County	San Joaquin
Freeway	0.46
Major	0.35
Collector	0.117
Local	0.02

SOURCE: Table 6

Silt Loading Content

County	San Joaquin
Freeway	0.015
Major	0.032
Collector	0.032
Local	1.6

SOURCE: Table 7

Composite Silt Load

0.053844
----------

Operational Trips

	Annual One-Way Trips	Trip Length (mi)	VMT/Year
Trucks	16	39	624
Passenger	128	16.8	2150.4
Total			2774.4

AP42 Paved Roads - Re-entrained PAVED Road Dust and Emission Factors

Calculation Methodology: USEPA AP-42, Paved Roads, Section 13.2.1, Revised January 2011

<http://www.epa.gov/ttn/chief/ap42/ch13/final/c13s0201.pdf>

Road Dust Equation	$E \text{ [lb/VMT]} = k * (sL)^{0.91} * (W)^{1.02} * (1 - P/4N)$
--------------------	--

Where:

E = the particulate emission factor in units of pounds of particulate matter per VMT

k = the U.S. EPA AP-42 particle size multiplier (PM10 = 0.0022 lb/VMT),[1]

sL = the roadway-specific silt loading in grams/square meter (g/m2),[2,3,4,5]

W = the average weight of vehicles traveling the road (California statewide default = 2.4 tons),[5]

P = number of “wet” days, when at least one site per county received at least 0.01 inch of precipitation during the annual averaging period,[9] and

N = the number of days in the annual averaging period (default = 365)

Source: California Air Resources Board (CARB), Miscellaneous Process Methodology 7.9 — Entrained Road Travel, Paved Road Dust. Revised and updated March

Source:

calculation

Table 13.2.1-1 Particle Size Multipliers for Paved Road Equation of

Calculated above (silt loading factor)

Table 7 of CARB, 2018.

Table 8 of CARB, 2018.

annual days (365)

Emission Factor	PM10	PM2.5
	0.000362	8.8893E-05

lbs/mi

Off-Site Fugitive Dust Emissions

lb/year	PM10	PM2.5
	1.004768	0.24662479

PPD	PM10	PM2.5
	0.002753	0.000675684

TPY	PM10	PM2.5
	0.000502	0.000123312



Background Information

Table 6  
2008 Roadway Travel Fractions and VMT (1) Estimates  
for California Entrained Paved Road Dust

Air Basin	County	Air District	2012 VMT (million VMT per year)	2008 HPMS Travel Fractions (2)				
				Freeway	Major	Collector	Local, Local Urban (3)	Local Rural
GB	Alpine	GBU	67	0.000	0.775	0.118	0.107	
GB	Inyo	GBU	555	0.002	0.743	0.156	0.099	
GB	Mono	GBU	314	0.000	0.776	0.085	0.139	
LC	Lake	LAK	510	0.000	0.610	0.278	0.113	
LT	El Dorado	ED	387	0.174	0.572	0.130	0.124	
LT	Placer	PLA	312	0.408	0.381	0.113	0.097	
MC	Amador	AMA	443	0.000	0.763	0.139	0.098	
MC	Calaveras	CAL	369	0.000	0.688	0.186	0.126	
MC	El Dorado	ED	1,384	0.174	0.572	0.130	0.124	
MC	Mariposa	MPA	177	0.000	0.488	0.075	0.437	
MC	Nevada	NSI	1,050	0.437	0.261	0.167	0.135	
MC	Placer	PLA	556	0.408	0.381	0.113	0.097	
MC	Plumas	NSI	259	0.000	0.519	0.273	0.209	
MC	Sierra	NSI	90	0.140	0.435	0.153	0.272	
MC	Tuolumne	TUO	387	0.000	0.583	0.246	0.171	
MD	Kern	KER	1,666	0.268	0.562	0.082	0.089	
MD	Los Angeles	AV	3,466	0.453	0.442	0.054	0.051	
MD	Riverside	MOJ	392	0.478	0.333	0.126	0.063	
MD	Riverside	SC	425	0.478	0.333	0.126	0.063	
MD	San Bernardino	MOJ	8,814	0.524	0.340	0.069	0.067	
NC	Del Norte	NCU	224	0.000	0.657	0.227	0.116	
NC	Humboldt	NCU	1,111	0.222	0.497	0.175	0.106	
NC	Mendocino	MEN	1,020	0.062	0.599	0.221	0.118	
NC	Sonoma	NS	716	0.258	0.470	0.185	0.087	
NC	Trinity	NCU	200	0.000	0.712	0.082	0.206	
NCC	Monterey	MBU	3,620	0.164	0.572	0.164	0.101	
NCC	San Benito	MBU	686	0.000	0.853	0.082	0.064	
NCC	Santa Cruz	MBU	1,523	0.271	0.476	0.187	0.066	
NEP	Lassen	LAS	374	0.000	0.587	0.256	0.157	
NEP	Modoc	MOD	134	0.000	0.453	0.224	0.323	
NEP	Siskiyou	SIS	1,000	0.453	0.224	0.121	0.201	
SC	Los Angeles	SC	78,066	0.453	0.442	0.054	0.051	
SC	Orange	SC	27,160	0.483	0.431	0.027	0.059	
SC	Riverside	SC	18,207	0.478	0.333	0.126	0.063	
SC	San Bernardino	SC	14,487	0.524	0.340	0.069	0.067	
SCC	San Luis Obispo	SLO	2,761	0.211	0.611	0.086	0.092	
SCC	Santa Barbara	SB	3,304	0.299	0.505	0.127	0.069	
SCC	Ventura	VEN	7,191	0.370	0.469	0.082	0.079	
SD	San Diego	SD	30,297	0.553	0.319	0.080	0.048	
SF	Alameda	BA	13,732	0.566	0.317	0.064	0.053	
SF	Contra Costa	BA	7,985	0.517	0.334	0.066	0.082	
SF	Marin	BA	2,258	0.497	0.290	0.146	0.067	
SF	Napa	BA	1,101	0.180	0.524	0.204	0.092	
SF	San Francisco	BA	3,159	0.360	0.520	0.068	0.053	
SF	San Mateo	BA	5,595	0.563	0.319	0.063	0.055	
SF	Santa Clara	BA	14,041	0.434	0.449	0.054	0.064	
SF	Solano	BA	2,891	0.627	0.251	0.061	0.062	
SF	Sonoma	BA	3,047	0.258	0.470	0.185	0.087	

Table 6  
2008 Roadway Travel Fractions and VMT (1) Estimates  
for California Entrained Paved Road Dust

Air Basin	County	Air District	2012 VMT (million VMT per year)	2008 HPMS Travel Fractions (2)				
				Freeway	Major	Collector	Local, Local Urban (3)	Local Rural
SJV	Fresno	SJU	8,641	0.293	0.427	0.126	0.085	0.022
SJV	Kern	SJU	6,872	0.268	0.562	0.082	0.066	0.026
SJV	Kings	SJU	1,408	0.264	0.503	0.144	0.063	0.070
SJV	Madera	SJU	1,854	0.139	0.650	0.100	0.041	0.052
SJV	Merced	SJU	2,575	0.244	0.527	0.125	0.052	0.018
SJV	San Joaquin	SJU	6,485	0.456	0.351	0.117	0.058	0.020
SJV	Stanislaus	SJU	3,769	0.300	0.375	0.229	0.075	0.071
SJV	Tulare	SJU	3,777	0.152	0.545	0.172	0.059	0.022
SS	Imperial	IMP	2,400	0.273	0.453	0.168	0.106	
SS	Riverside	SC	4,714	0.478	0.333	0.126	0.063	
SV	Butte	BUT	1,693	0.080	0.557	0.240	0.124	
SV	Colusa	COL	696	0.609	0.167	0.077	0.147	
SV	Glenn	GLE	527	0.541	0.209	0.121	0.129	
SV	Placer	PLA	3,110	0.408	0.381	0.113	0.097	
SV	Sacramento (4)	SAC	13,027	0.469	0.389	0.075	0.067	
SV	Shasta	SHA	1,923	0.419	0.401	0.090	0.090	
SV	Solano	YS	1,660	0.627	0.251	0.061	0.062	
SV	Sutter	FR	798	0.088	0.628	0.129	0.155	
SV	Tehama	TEH	1,065	0.492	0.264	0.148	0.095	
SV	Yolo	YS	2,167	0.561	0.252	0.086	0.101	
SV	Yuba	FR	658	0.165	0.503	0.220	0.111	
Statewide Total			337,332					

Table 7  
2008 Silt Loadings and PM<sub>10</sub> Emission Factors for California  
Entrained Paved Road Dust Estimates

Air Basin	County	Air District	Silt Loadings (SL, g/m <sup>2</sup> ) and PM <sub>10</sub> Emission Factors (EF; lbs PM <sub>10</sub> /10 <sup>6</sup> VMT)										Avg. Vehicle Weight (tons)
			Freeway		Major (1)		Collector (1)		Local, Local Urban (1,2)		Local Rural (2) Sand/Gravel Proc. (3)		
			SL	EF	SL	EF	SL	EF	SL	EF	SL	EF	
GB	Alpine	GBU	0.015	111.8	0.032	222.8	0.032	222.8	0.32	1,811.2			2.4
GB	Inyo	GBU	0.015	115.4	0.032	229.9	0.032	229.9	0.32	1,868.6			2.4
GB	Mono	GBU	0.015	114.5	0.032	228.1	0.032	228.1	0.32	1,854.2			2.4
LC	Lake	LAK	0.015	112.1	0.032	223.5	0.032	223.5	0.32	1,816.4			2.4
LT	El Dorado	ED	0.015	112.1	0.032	223.5	0.032	223.5	0.32	1,816.4			2.4
LT	Placer	PLA	0.015	111.4	0.032	222.0	0.032	222.0	0.32	1,804.7			2.4
MC	Amador	AMA	0.015	112.5	0.032	224.1	0.032	224.1	0.32	1,821.6			2.4
MC	Calaveras	CAL	0.015	111.8	0.032	222.8	0.032	222.8	0.32	1,811.2			2.4
MC	El Dorado	ED	0.015	112.3	0.032	223.8	0.032	223.8	0.32	1,819.0			2.4
MC	Mariposa	MPA	0.015	112.1	0.032	223.3	0.032	223.3	0.32	1,815.1			2.4
MC	Nevada	NSI	0.015	110.9	0.032	221.1	0.032	221.1	0.32	1,796.8			2.4
MC	Placer	PLA	0.015	111.7	0.032	222.7	0.032	222.7	0.32	1,809.9			2.4
MC	Plumas	NSI	0.015	111.6	0.032	222.3	0.032	222.3	0.32	1,807.3			2.4
MC	Sierra	NSI	0.015	111.3	0.032	221.7	0.032	221.7	0.32	1,802.0			2.4
MC	Tuolumne	TUO	0.015	112.4	0.032	223.9	0.032	223.9	0.32	1,820.3			2.4
MD	Kern	KER	0.015	115.7	0.032	230.5	0.032	230.5	0.32	1,873.8			2.4
MD	Los Angeles	AV	0.015	115.7	0.032	230.5	0.032	230.5	0.32	1,873.8			2.4
MD	Riverside	MOJ	0.015	116.3	0.08	533.3	0.08	533.3	0.84	4,531.5			2.4
MD	Riverside	SC	0.015	116.3	0.08	533.3	0.08	533.3	0.84	4,531.5			2.4
MD	San Bernardino	MOJ	0.015	115.8	0.08	531.1	0.08	531.1	0.84	4,512.7			2.4
NC	Del Norte	NCU	0.015	108.7	0.032	216.6	0.032	216.6	0.32	1,760.3			2.4
NC	Humboldt	NCU	0.015	107.9	0.032	215.0	0.032	215.0	0.32	1,747.2			2.4
NC	Mendocino	MEN	0.015	108.4	0.032	215.9	0.032	215.9	0.32	1,755.1			2.4
NC	Sonoma	NS	0.015	111.6	0.032	222.3	0.032	222.3	0.32	1,807.3			2.4
NC	Trinity	NCU	0.015	110.9	0.032	220.9	0.032	220.9	0.32	1,795.5			2.4
NCC	Monterey	MBU	0.015	113.2	0.032	225.6	0.032	225.6	0.32	1,833.4			2.4
NCC	San Benito	MBU	0.015	113.5	0.032	226.2	0.032	226.2	0.32	1,838.6			2.4
NCC	Santa Cruz	MBU	0.015	112.4	0.032	223.9	0.032	223.9	0.32	1,820.3			2.4
NEP	Lassen	LAS	0.015	112.9	0.032	224.9	0.032	224.9	0.32	1,828.1			2.4
NEP	Modoc	MOD	0.015	111.5	0.032	222.2	0.032	222.2	0.32	1,806.0			2.4
NEP	Siskiyou	SIS	0.015	109.9	0.032	219.0	0.032	219.0	0.32	1,779.9			2.4
SC	Los Angeles	SC	0.015	114.9	0.013	100.9	0.013	100.9	0.135	848.4			2.4
SC	Orange	SC	0.015	115.0	0.013	100.9	0.013	100.9	0.135	849.0			2.4
SC	Riverside	SC	0.015	114.9	0.08	527.0	0.08	527.0	0.84	4,478.2			2.4
SC	San Bernardino	SC	0.015	114.3	0.08	524.4	0.08	524.4	0.84	4,456.2			2.4
SCC	San Luis Obispo	SLO	0.015	114.2	0.032	227.6	0.032	227.6	0.32	1,850.3			2.4
SCC	Santa Barbara	SB	0.015	113.9	0.032	227.0	0.032	227.0	0.32	1,845.1			2.4
SCC	Ventura	VEN	0.015	115.1	0.032	229.4	0.032	229.4	0.32	1,864.7			2.4
SD	San Diego	SD	0.015	114.2	0.032	227.6	0.032	227.6	0.32	1,850.3			2.4

Table 7  
2008 Silt Loadings and PM<sub>10</sub> Emission Factors for California  
Entrained Paved Road Dust Estimates

Air Basin	County	Air District	Silt Loadings (SL, g/m <sup>2</sup> ) and PM <sub>10</sub> Emission Factors (EF; lbs PM <sub>10</sub> /10 <sup>6</sup> VMT)										Avg. Vehicle Weight (tons)
			Freeway		Major (1)		Collector (1)		Local, Local Urban (1,2)		Local Rural (2) Sand/Gravel Proc. (3)		
			SL	EF	SL	EF	SL	EF	SL	EF	SL	EF	
SF	Alameda	BA	0.015	112.7	0.032	224.6	0.032	224.6	0.32	1,825.5			2.4
SF	Contra Costa	BA	0.015	112.8	0.032	224.8	0.032	224.8	0.32	1,826.8			2.4
SF	Marin	BA	0.015	112.3	0.032	223.8	0.032	223.8	0.32	1,819.0			2.4
SF	Napa	BA	0.015	112.1	0.032	223.5	0.032	223.5	0.32	1,816.4			2.4
SF	San Francisco	BA	0.015	112.2	0.032	223.6	0.032	223.6	0.32	1,817.7			2.4
SF	San Mateo	BA	0.015	112.8	0.032	224.8	0.032	224.8	0.32	1,826.8			2.4
SF	Santa Clara	BA	0.015	112.5	0.032	224.1	0.032	224.1	0.32	1,821.6			2.4
SF	Solano	BA	0.015	113.3	0.032	225.7	0.032	225.7	0.32	1,834.7			2.4
SF	Sonoma	BA	0.015	112.1	0.032	223.3	0.032	223.3	0.32	1,815.1			2.4
SJV	Fresno	SJU	0.015	114.0	0.032	227.2	0.032	227.2	0.32	1846.4	1.6	7987.1	2.4
SJV	Kern	SJU	0.015	114.6	0.032	228.4	0.032	228.4	0.32	1856.8	1.6	8032.3	2.4
SJV	Kings	SJU	0.015	114.6	0.032	228.3	0.032	228.3	0.32	1855.5	1.6	8026.6	2.4
SJV	Madera	SJU	0.015	114.1	0.032	227.3	0.032	227.3	0.32	1847.7	1.6	7992.8	2.4
SJV	Merced	SJU	0.015	113.5	0.032	226.2	0.032	226.2	0.32	1838.6	1.6	7953.3	2.4
SJV	San Joaquin	SJU	0.015	113.2	0.032	225.6	0.032	225.6	0.32	1833.4	1.6	7930.7	2.4
SJV	Stanislaus	SJU	0.015	113.4	0.032	226.0	0.032	226.0	0.32	1837.3	1.6	7947.6	2.4
SJV	Tulare	SJU	0.015	114.4	0.032	228.0	0.032	228.0	0.32	1852.9	1.6	8015.4	2.4
SS	Imperial	IMP	0.015	116.7	0.032	232.6	0.032	232.6	0.32	1890.8			2.4
SS	Riverside	SC	0.015	116.3	0.08	533.3	0.08	533.3	0.84	4,531.5			2.4
SV	Butte	BUT	0.015	112.5	0.032	224.3	0.032	224.3	0.32	1,822.9			2.4
SV	Colusa	COL	0.015	113.1	0.032	225.4	0.032	225.4	0.32	1,832.1			2.4
SV	Glenn	GLE	0.015	112.5	0.032	224.3	0.032	224.3	0.32	1,822.9			2.4
SV	Placer	PLA	0.015	112.3	0.032	223.8	0.032	223.8	0.32	1,819.0			2.4
SV	Sacramento (4)	SAC	0.015	113.0	0.032	225.2	0.032	225.2	0.32	1,830.8			2.4
SV	Shasta	SHA	0.015	111.0	0.032	221.2	0.032	221.2	0.32	1,798.1			2.4
SV	Solano	YS	0.015	112.9	0.032	225.1	0.032	225.1	0.32	1,829.4			2.4
SV	Sutter	FR	0.015	111.6	0.032	222.3	0.032	222.3	0.32	1,807.3			2.4
SV	Tehama	TEH	0.015	111.9	0.032	223.0	0.032	223.0	0.32	1,812.5			2.4
SV	Yolo	YS	0.015	112.9	0.032	225.1	0.032	225.1	0.32	1,829.4			2.4
SV	Yuba	FR	0.015	112.5	0.032	224.3	0.032	224.3	0.32	1,822.9			2.4

Table 8  
Annual Rainfall Days: Average Days per Year that California Counties Receive  
0.01 Inch or Greater Precipitation Over Years of Record (1)

Air Basin	County	Air District	Annual Rainfall Days (1)
GBV	Alpine	GBU	72
GBV	Inyo	GBU	28
GBV	Mono	GBU	39
LC	Lake	LAK	68
LT	El Dorado	ED	68
LT	Placer	PLA	77
MC	Amador	AMA	64
MC	Calaveras	CAL	72
MC	El Dorado	ED	66
MC	Mariposa	MPA	69
MC	Nevada	NSI	83
MC	Placer	PLA	73
MC	Plumas	NSI	75
MC	Sierra	NSI	79
MC	Tuolumne	TUO	65
MD	Kern	KER	24
MD	Los Angeles	AV	24
MD	Riverside	MOJ	17
MD	Riverside	SC	17
MD	San Bernardino	MOJ	23
NC	Del Norte	NCU	111
NC	Humboldt	NCU	121
NC	Mendocino	MEN	115
NC	Sonoma	NS	75
NC	Trinity	NCU	84
NCC	Monterey	MBU	55
NCC	San Benito	MBU	51
NCC	Santa Cruz	MBU	65
NEP	Lassen	LAS	59
NEP	Modoc	MOD	76
NEP	Siskiyou	SIS	96
SC	Los Angeles	SC	34
SC	Orange	SC	33
SC	Riverside	SC	34
SC	San Bernardino	SC	41
SCC	San Luis Obispo	SLO	42
SCC	Santa Barbara	SB	46
SCC	Ventura	VEN	31
SD	San Diego	SD	42

Air Basin	County	Air District	Annual Rainfall Days (1)
SF	Alameda	BA	61
SF	Contra Costa	BA	60
SF	Marin	BA	66
SF	Napa	BA	68
SF	San Francisco	BA	67
SF	San Mateo	BA	60
SF	Santa Clara	BA	64
SF	Solano	BA	54
SF	Sonoma	BA	69
SJV	Fresno	SJU	45
SJV	Kern	SJU	37
SJV	Kings	SJU	38
SJV	Madera	SJU	44
SJV	Merced	SJU	51
SJV	San Joaquin	SJU	55
SJV	Stanislaus	SJU	52
SJV	Tulare	SJU	40
SS	Imperial	IMP	11
SS	Riverside	SC	17
SV	Butte	BUT	63
SV	Colusa	COL	56
SV	Glenn	GLE	63
SV	Placer	PLA	66
SV	Sacramento	SAC	57
SV	Shasta	SHA	82
SV	Solano	YS	58
SV	Sutter	FR	75
SV	Tehama	TEH	71
SV	Yolo	YS	58
SV	Yuba	FR	63

Table 13.2.1-1. PARTICLE SIZE MULTIPLIERS FOR PAVED ROAD EQUATION

Size range <sup>a</sup>	Particle Size Multiplier k <sup>b</sup>		
	g/VKT	g/VMT	lb/VMT
PM-2.5 <sup>c</sup>	0.15	0.25	0.00054
PM-10	0.62	1.00	0.0022
PM-15	0.77	1.23	0.0027
PM-30 <sup>d</sup>	3.23	5.24	0.011

<sup>a</sup> Refers to airborne particulate matter (PM-x) with an aerodynamic diameter equal to or less than x micrometers.

<sup>b</sup> Units shown are grams per vehicle kilometer traveled (g/VKT), grams per vehicle mile traveled (g/VMT), and pounds per vehicle mile traveled (lb/VMT). The multiplier k includes unit conversions to produce emission factors in the units shown for the indicated size range from the mixed units required in Equation 1.

<sup>c</sup> The k-factors for PM<sub>2.5</sub> were based on the average PM<sub>2.5</sub>:PM<sub>10</sub> ratio of test runs in Reference 30.

<sup>d</sup> PM-30 is sometimes termed "suspendable particulate" (SP) and is often used as a surrogate for TSP.

SOURCE: CARB, 2018.



# **Appendix C**

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## **Biological Resources Technical Report**





Final

# DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT

## Biological Resource Assessment Report

Prepared for  
Metropolitan Water District of  
Southern California

October 2022







Final

# DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT

## Biological Resource Assessment Report

Prepared for  
Metropolitan Water District of  
Southern California

October 2022

2600 Capitol Avenue  
Suite 200  
Sacramento, CA 95816  
916.564.4500  
esassoc.com



Atlanta	Orlando	San Diego
Bend	Palm Beach County	San Francisco
Camarillo	Pasadena	San Jose
Irvine	Pensacola	Sarasota
Los Angeles	Petaluma	Seattle
Mobile	Portland	Tampa
Oakland	Sacramento	



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# DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT

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## Biological Resource Assessment

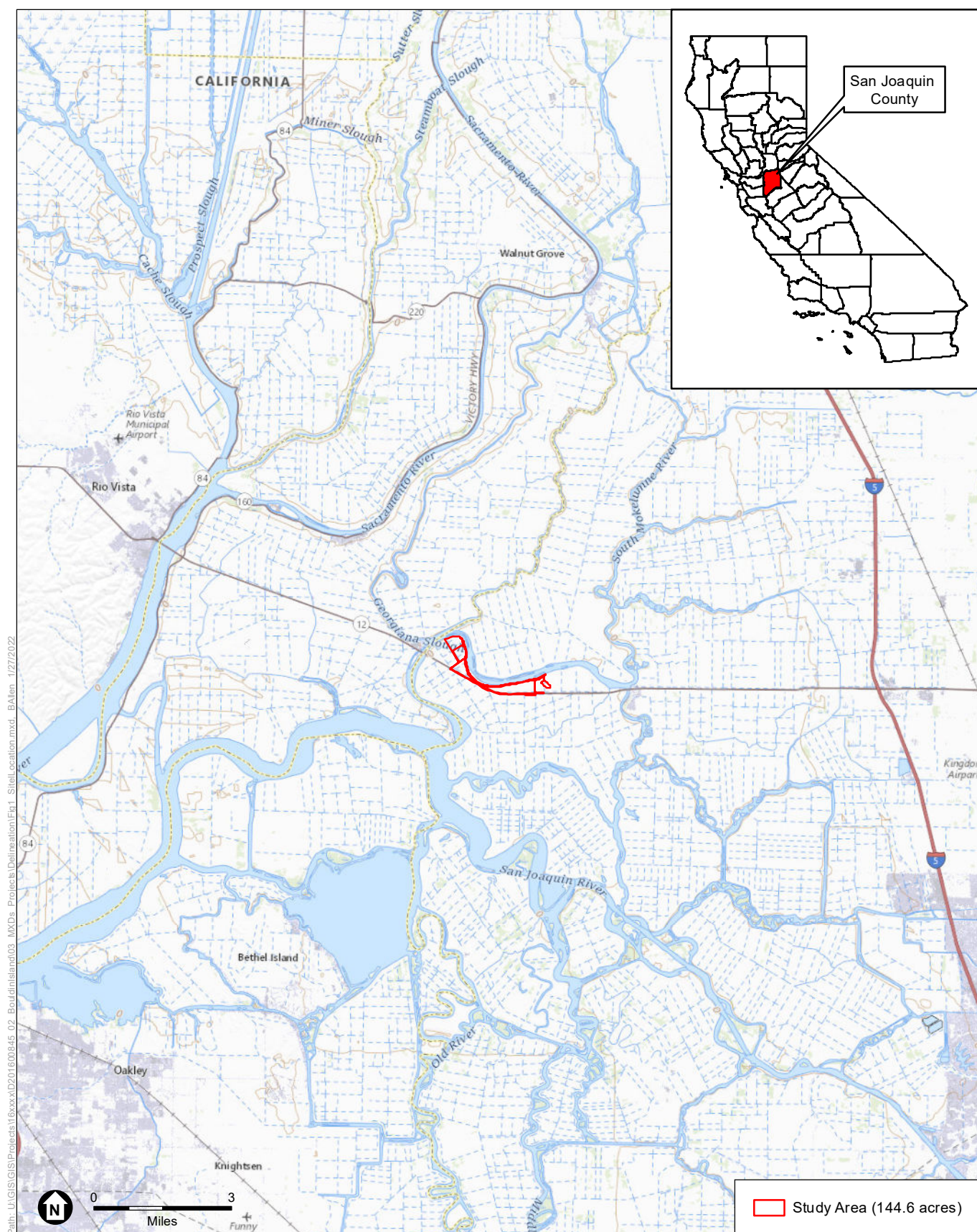
### 1. Introduction

The purpose of this report is to document the results of the reconnaissance level surveys conducted within the Delta Smelt Preservation Project (Project) survey area. The proposed Project will include the establishment of native fish propagation ponds, cooling marshes, and food production marshes (also referred to as a marsh-pond complex) on the northwest side of Bouldin Island and a tule harvest pond on the northeast portion of Bouldin Island. The location of the proposed Project survey area is shown in **Figures 1 and 2**. For this report, the survey area encompasses the Project area and is larger in some portions to allow for flexibility in Project placement and to avoid sensitive areas when feasible. The marsh-pond complex defines the area where the ponds will be constructed and the tule harvest area refers to the area where the tules will be harvested; these areas are connected by existing haul routes.

The proposed Project area is owned by Metropolitan Water District of Southern California (Metropolitan) and located adjacent to the confluence of the North Mokelumne River and the South Mokelumne River. The Mokelumne River borders Bouldin Island on the north and east sides and is separated from the Proposed Project by a man-made levee system. The south and west sides of the marsh-pond complex are bound by agricultural ditches and active farm fields that are typically planted in corn. The portion of the Proposed Project site where the marsh-pond complexes will be constructed is currently a fallow wheat field that has most recently been dryland farmed. The tule harvest area is located approximately 2.5 miles, by levee road, to the east of the marsh-pond complex. It consists of a tule marsh tule, cattails, and willows. Haul routes to both the marsh complexes and tule harvest area are regularly maintained gravel roads that include the levee road around the exterior of the island and internal access roads that are accessible from Highway 12.

Bouldin Island has been farmed continuously for over 140 years. Due to on-going subsidence of peat soils, land surface elevations are now between 5 and 25 feet below sea level. Land surface elevations where the marshes and ponds will be located range from 5 to 16 feet below mean sea level (NGVD 29 datum). A toe-drain is located at the landside base of the levee and is periodically overgrown with blackberry shrubs.<sup>1</sup> The agricultural ditches to the south and west are regularly maintained and have only sparse vegetation. A club is located approximately 0.5 mile from the

<sup>1</sup> The toe-drains are regularly maintained by the local reclamation districts and the agricultural ditches are maintained as part of regular farming operations. The conditions described were based on surveys from December 2021.



SOURCE: USGS, 2022; ESA, 2022

Delta Smelt Preservation Project

**Figure 1**  
Project Site Location





SOURCE: MAXAR, 2021; ESA, 2022

Delta Smelt Preservation Project

**Figure 1-2**  
Project Study Area

center of the proposed marsh-pond complexes on the opposite side of the levee and a single-family residence is situated just a little further than a 0.5 mile from the center. Power and phone lines follow the levee system. Highway 12 lies approximately 0.5 mile south of the proposed marsh-pond complex (Figures 1 and 2).

## **2. Regulatory Setting**

The proposed Project is subject to several federal, state and regional regulations (Table 1). This section discusses those regulations that are applicable to the Proposed Project Area.

### **Federal**

#### **Federal Endangered Species Act**

Pursuant to the Endangered Species Act (ESA), as amended (16 USC 1531 et seq.), USFWS and National Oceanic and Atmospheric Administration (NOAA) Fisheries (previously known as the National Marine Fisheries Service (NMFS)) have regulatory authority over Federally listed species. Under the ESA, a permit to take a listed species is required for any Federal action that may harm an individual of that species. “Take” is defined under ESA Section 9 as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Under Federal regulation, take is further defined to include habitat modification or degradation where it would be expected to result in death or injury to listed wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. ESA Section 7 outlines procedures for Federal interagency cooperation to conserve Federally listed species and designated critical habitat. Section 7(a)(2) requires Federal agencies to consult with USFWS and NMFS to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species.

#### **Migratory Bird Treaty Act**

The Migratory Bird Treaty Act (MBTA) of 1936, as amended (16 USC 703 et seq.), implements domestically a series of international treaties that provide for migratory bird protection. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds; the act provides that it is unlawful, except as permitted by regulations, “to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird ...” (16 USC 703). This prohibition includes both direct and indirect acts, although harassment and habitat modification are not included unless they result in direct loss of birds, nests, or eggs. The current list of species protected by the MBTA includes several hundred species and essentially includes all native birds. Permits for take of nongame migratory birds can be issued only for specific activities, such as scientific collecting, rehabilitation, propagation, education, taxidermy, and protection of human health and safety and personal property.

**TABLE 1**  
**PERMITS AND APPROVALS WHICH MAY BE REQUIRED**

Agency/Department	Permit/Approval	Description
<b>Federal</b>		
USACE	Clean Water Act Section 404 Permit	Section 404 of the CWA regulates "the discharge of dredged or fill material into all waters of the United States, including wetlands.
US Fish and Wildlife Service (USFWS) & National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service	Section 7 of the Federal Endangered Species Act Consultation/Biological Opinions	Federal agencies must consult with the USFWS if any project or action they authorize may affect a listed species or designated critical habitat.
<b>State of California</b>		
State Historic Preservation Office (SHPO)	Section 106 of the National Historic Preservation Act	Section 106 of the NHPA requires that all federal agencies to take into account the effects of their undertakings on historic properties. Federal agencies are required to consult with the SHPO during the identification and evaluations process.
CDFW	Streambed Alteration Agreement	Regulates activities that would 'substantially divert or obstruct the natural flow, substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material into a river, stream, or lake.
CDFW	California Endangered Species Act	Prohibits the take of any species of wildlife designated as endangered, threatened, or candidate species. CDFW may authorize the take of any such species if certain conditions are met.
Central Valley Regional Water Quality Control Board (CVRWQCB)	401 Water Quality Certification (required for 404 Permit), NPDES General Permit for Stormwater Discharge Associated with Construction, Porter-Cologne Waste Discharge Requirements (WDR)	Project proponents are required to submit a Notice of Intent to the RWQCB for coverage under the General Construction Permit for projects with disturbance over one acre. Section 401 Water Quality Certification is necessary when Section 404 permits are required. WDRs are issued for discharges of dredged or fill material to waters of the State.
Notes: N/A (not applicable), NPDES (National Pollutant Discharge Elimination System).		

The Pacific Coast FMP designates EFH for Pacific salmon, which includes Sacramento River winter-run Chinook salmon, Central Valley spring-run Chinook salmon, and Central Valley fall-/late fall-run Chinook salmon. The Pacific Coast Groundfish FMP designates EFH for species of flatfish, rockfish, roundfish, sharks and rays, which extends from the Pacific Ocean landward into bays and estuaries up to the mean higher high-water level.

## Clean Water Act

The United States Army Corps of Engineers administers Section 404 of the Clean Water Act. Section 404 regulates activities in "waters of the United States." This term is defined in Code of Federal Regulations (CFR) title 33, section 328.3 (33 CFR 328.3). As of early September 2021, USACE and the U.S. Environmental Protection Agency (EPA) are interpreting "waters of the

United States” consistent with the pre-2015 regulatory regime until further notice. Therefore, *waters of the U.S.* shall include:

- (1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (2) All interstate waters including interstate wetlands;
- (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters:
  - (a) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
  - (b) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
  - (c) Which are used or could be used for industrial purpose by industries in interstate commerce;
- (4) All impoundments of waters otherwise defined as waters of the United States under the definition;
- (5) Tributaries of the above waters;
- (6) The territorial seas;
- (7) Wetlands adjacent to the above waters (other than waters that are themselves wetlands). Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.
- (8) Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area’s status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with EPA.

## State

### California Endangered Species Act

Under the CESA, CDFW has the responsibility for maintaining a list of threatened and endangered species (California Fish and Game Code Section 2070). CDFW also maintains a list of candidate species, which are those formally under review for addition to either the list of endangered species or the list of threatened species. CESA prohibits the take of plant and animal species that the California Fish and Game Commission has designated as either threatened or endangered in California. “Take” in the context of CESA means to hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture, or kill a State-listed species (California Fish and Game Code Section 86). The take prohibitions also apply to candidates for listing under CESA. However, Section 2081 of CESA allows CDFW to authorize exceptions to the State’s take prohibition for educational, scientific, or management purposes.

In accordance with the requirements of CESA, an agency reviewing a project within its jurisdiction must determine if any State-listed endangered or threatened species could be present in the project area and if the proposed project would potentially result in “take” of such a species. If the applicant determines that the project may result in the incidental take of a State-listed species, they may apply for, and CDFW may issue, an incidental take permit under Section 2081 of the California Fish and Game Code. For species that are listed under both CESA and FESA, where an applicant has received incidental take authorization under FESA, the Director of CDFW may make a Consistency Determination under Section 2080.1 of the California Fish and Game Code declaring that the federal authorization also applies to compliance with CESA.

## **California Native Plant Protection Act**

State listing of plant species began in 1977 with the passage of the California Native Plant Protection Act (CNPPA) (California Fish and Game Code Sections 1900–1913), which directed CDFW to carry out the legislature’s intent to “preserve, protect, and enhance endangered plants in this state.” The CNPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare and to require permits for collecting, transporting, or selling such plants. CESA expanded on the original CNPPA and enhanced legal protection for plants. The CESA established threatened and endangered species categories and grandfathered all rare animals—but not rare plants—into the act as threatened species. Thus, three listing categories for plants are employed in California: rare, threatened, and endangered.

## **Special-Status Natural Communities**

CDFW’s Natural Heritage Division identifies special-status natural communities, which are those that are naturally rare and those whose extent has been greatly diminished through changes in land use. The California Natural Diversity Database tracks natural communities in the same way that it tracks occurrences of special-status species: Information is maintained on each site for the natural community’s location, extent, habitat quality, level of disturbance, and current protection measures. CDFW is mandated to seek the long-term perpetuation of the areas in which these communities occur. While there is no statewide law that requires protection of all special-status natural communities, CEQA requires consideration of the potential impacts of a project on biological resources of statewide or regional significance.

## **California Fish and Game Code**

In addition to CESA, the following California Fish and Game Code sections provide protection to biological resources.

### ***Fully Protected Species***

Certain species are considered *fully protected*, meaning that the Code explicitly prohibits all take of individuals of these species except for take permitted for scientific research. Section 5050 lists fully protected amphibians and reptiles, Section 5515 lists fully protected fish, Section 3511 lists fully protected birds, and Section 4700 lists fully protected mammals.



It is possible for a species to be protected under the California Fish and Game Code, but not fully protected. For instance, mountain lion (*Puma concolor*) is protected under Section 4800 et seq. but is not a fully protected species.

### ***Protection of Birds and Their Nests***

Under Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this Code or any regulation made pursuant thereto. Section 3503.5 of the Code prohibits take, possession, or destruction of any birds in the orders Falconiformes (hawks) or Strigiformes (owls), or of their nests and eggs. Migratory non-game birds are protected under Section 3800, while other specified birds are protected under Section 3505.

### ***Stream and Lake Protection***

CDFW has jurisdictional authority over streams and lakes and the wetland resources associated with these aquatic systems under California Fish and Game Code Sections 1600 et seq. through administration of Lake or Streambed Alteration Agreements. The agreements are treated as permits once both parties have signed. California Fish and Game Code Sections 1600–1616 authorize CDFW to regulate work that will “substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river lake or stream.” Because CDFW asserts its jurisdiction over streamside habitats that may not qualify as waters or wetlands under the federal Clean Water Act definition (see Section 3.4.2.1), CDFW’s asserted jurisdiction may be broader than USACE’s jurisdiction, and may include the outermost extent of riparian habitat or floodplain.

When CDFW enters into a Streambed Alteration Agreement with the project applicant, CDFW can impose reasonable measures necessary to protect the resource. A project applicant must submit a notification of lake or streambed alteration to CDFW and, if necessary, obtain an agreement before implementing the project. CDFW can also enter into special types of agreements for recurring operation and maintenance activities or large scale long-range planned projects, referred to as Routine Maintenance Agreements or Master Streambed Alteration Agreements.

### **California Species of Special Concern**

CDFW maintains a list of “species of special concern,” which serves as a watch list. While this designation does not afford protection under CESA, species of special concern should be included in the analysis of project impacts according to CEQA Guidelines Section 15380 if the species of special concern meets the sensitivity criteria outlined in Section 15380. The criteria address species not included on an official list but that are at risk of becoming threatened or endangered throughout all or a portion of their range.

### **State Water Resources Control Board and Regional Water Quality Control Board**

The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) (together “Boards”) are the principal State agencies with primary

responsibility for the coordination and control of water quality. In the Porter-Cologne Act, the California Legislature declared that the “state must be prepared to exercise its full power and jurisdiction to protect the quality of the waters in the state from degradation...” (California Water Code Section 13000). Porter-Cologne grants the Boards the authority to implement and enforce the water quality laws, regulations, policies, and plans to protect the groundwater and surface waters of the State. Impacts to waters of the State determined to be jurisdictional would require a project proponent to obtain a waste discharge permit (for non-federally jurisdictional waters) and/or a Clean Water Act Section 401 certification (for federally jurisdictional waters, when a USACE Section 404 permit is obtained). The enforcement of the State’s water quality requirements is not solely the purview of the Boards and their staff. Other agencies (e.g., CDFW) can enforce certain water quality provisions in State law.

### 3. Methodology

Environmental Science Associates (ESA) biologists Joe Sanders and Christy Dawson conducted reconnaissance-level surveys of the Project survey area on October 8, 2021. The surveys were conducted to document vegetation communities that could provide habitat for sensitive species and other wildlife observed in and adjacent to the Project area.

### 4. Vegetative Communities

Vegetative communities within the proposed marsh-pond complex include annual grassland, cropland, disturbed/developed area and small patches of riparian habitat associated with the agricultural ditches (**Figure 3**). The tule harvest area was comprised of tule marsh and riparian habitat (**Figure 4**).

#### Annual Grassland

Annual grassland is comprised of non-native grasses and forbs. Common non-native grass species observed in this community include Bermuda grass (*Cynodon dactylon*), oat (*Avena sp.*), bromes (*Bromus spp.*), Johnson grass (*Sorghum halepense*), and Pacific bentgrass (*Agrostis avenacea*). Common forbs observed were milk thistle (*Silybum marianum*), filaree (*Erodium sp.*) and cheeseweed (*Malva sp.*).

Annual grassland provides little cover for most wildlife, yet numerous species forage and several species breed in this habitat type. Grasslands attract bumble bees and other insects that rely on flowering grassland species. They also attract reptiles and amphibians such as western fence lizard (*Sceloporus occidentalis*), common garter snake (*Thamnophis sirtalis*), gopher snake (*Pituophis melanoleucus*), and Pacific chorusfrog (*Pseudacris regilla*); and birds such as California quail (*Callipepla californica*), western bluebird (*Sialia mexicana*), and lesser goldfinch (*Carduelis psaltria*). Common small mammals expected to occur in grasslands include western harvest mouse (*Reithrodontomys megalotis*), deer mouse (*Mus musculus*), California vole (*Microtus californicus*), black-tailed jackrabbit (*Lepus californicus*), black-tailed deer (*Odocoileus hemionus*), coyote (*Canis latrans*), and Botta’s pocket gopher (*Thomomys bottae*). Small rodents, reptiles, and invertebrates attract raptors (birds of prey) including red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Accipiter striatus*), and American kestrel (*Falco sparverius*), and special-status



birds such as white-tailed kite (*Elanus leucurus*), burrowing owl (*Athene cunicularia*), and Swainson's hawk (*Buteo swainsoni*).

Non-native grasslands are important foraging grounds for aerial and ground-foraging insect eaters such as Myotis (*Myotis* sp.) bat species and pallid bats (*Antrozous pallidus*).

## Disturbed/Developed

The levee system has substantially altered the habitat of the proposed Project area. In addition to the levee system, existing facilities in the survey area include a club house, gravel access roads, and farm fields. Disturbed portions of the survey area include bare ground, non-native vegetation, or farmed areas that are subject to continued disturbance.

## Wetlands and Other Waters

A delineation conducted by the California Department of Water Resources in April of 2020 and verified by the US Army Corps of Engineers (USACE) on June 18, 2020 (SPK-2019-00899) was prepared for a separate project also occurring in part on Bouldin Island. This delineation identified approximately 14.65 acres of potential waters of the United States and State within the survey area. This includes 1.38 acres of agricultural ditch that was comprised mostly of blackberry shrubs, 0.20 acres of forested wetland, which includes riparian scrub and woodland species, 2.58 acres of seasonally flooded scrub shrub, which is comprised primarily of riparian scrub with no overstory, and 10.48 acres of fresh emergent wetland that was comprised of various aquatic plants such as tules. An additional field visit was conducted on October 8, 2021, to confirm that the delineation was still accurate and a supporting memo was prepared (**Appendix A**).

Wetland and other waters habitat for the survey area are described below.

### Riparian Scrub (Scrub-shrub)

Riparian scrub habitat consists of shrub-dominated areas that are subject to hydrologic influence from toe drain and agricultural ditches (agricultural ditches). Scrub habitat consists of areas dominated by non-native Himalayan blackberry (*Rubus armeniacus*) shrubs and vines that have no tree cover. Some of the agricultural ditches had remnant Himalayan blackberry canes and looked to have been recently cleared of vegetation.

Riparian scrub supports large numbers of insects and attracts passerine birds, including several species of flycatchers, warblers, and hummingbirds.

### Riparian Woodland (Forested Wetland)

Riparian woodlands in the survey area are tree-dominated areas that are fed by agricultural water that is either siphoned from the river or pulled from wells. These areas are dominated by Goodding's willow (*Salix gooddingii*) and Fremont cottonwood (*Populus fremontii*) with an understory of dense Himalayan blackberry.



SOURCE: MAXAR, 2021; DWR, 2021; ESA, 2022



**Figure 3**  
Vegetative Communities of the  
Project Marsh-Pond Complex





SOURCE: MAXAR, 2021; DWR, 2021; ESA, 2022

Delta Smelt Preservation Project



**Figure 4**  
Vegetative Communities of the  
Project Marsh-Pond Complex

Many wildlife species depend on riparian woodlands for water, food, and cover. Several raptor species—red-shouldered hawk, Cooper’s hawk, great horned owl, and the State-listed Swainson’s hawk—build their nests in the crowns of cottonwood, valley oak, and other large trees that grow on the landside and waterside of the levees. Natural cavities and woodpecker holes provide nesting sites for cavity-nesting species, including wood duck (*Aix sponsa*), American kestrel, tree swallow (*Tachycineta bicolor*), western bluebird, and western screech owl (*Megascops kennicottii*).

### **Emergent Wetland (Fresh Emergent Wetland)**

Emergent wetland is dominated by aquatic emergent vegetation and occurs in the tule harvest area. Vegetation is dominated by willows (*Salix gooddingii*, *S. lasiolepis*, and *S. exigua*), as well as catails (*Typha* sp.), and tule (*Schoenoplectus* sp.).

Fresh emergent wetland provides food, cover, and water for numerous birds, amphibians, reptiles, and mammals and is one of the most productive wildlife habitats in California. Common bird species that feed in fresh emergent wetlands include various ducks, geese, and wading birds including mallards, Canada geese, herons and egrets, forage in the water and along the shallow edges. Many flycatchers, such as black phoebes (*Sayornis nigricans*), swallows, and other insectivores also utilize fresh emergent wetlands to forage on insects attracted to the water. Several birds, such as the red-winged blackbird (*Agelaius phoeniceus*), make use of the tall aquatic vegetation to hide their nests over the water, which protects them from ground predators. Larger emergent wetlands provide safety for resting waterfowl.

In addition to birds, amphibians, such as the Pacific chorus frog and reptiles like the northwestern pond turtle (*Actinemys marmorata*), a species of special concern, live within and around the margins of wetlands, which provide moist habitat, food, and cover. Deer, coyote, and various smaller mammals access emergent wetlands for a year-round water source.

## **5. Federally Listed and State-Listed Wildlife Species**

Several wildlife species known to occur in or in the vicinity of the survey area are protected under Federal and/or State Endangered Species Acts or have been designated as species of special concern by CDFW. In addition, Section 15380(b) of the State CEQA Guidelines provides a definition of rare, endangered, or threatened species that are not included in any listing. Species recognized under these terms are referred to collectively as “special-status species.”

A list of special-status plant and wildlife species with potential to occur in or in the vicinity of the survey area was compiled from a search of the California Natural Diversity Database (CNDDB) (CDFW 2021), the California Native Plant Society (CNPS) rare plant inventory, a search of the USFWS Information for Planning and Consultation endangered species database (USFWS 2021), and biological literature of the region. The search encompassed the Isleton and Bouldin Island 7.5-minute U.S. Geological Survey topographic quadrangles.

Each species on the list was assessed individually based on its habitat requirements and distribution relative to the location and vegetation communities that occur in and around the survey area.

**Tables 2 and 3** provide a comprehensive list of special-status wildlife species that have potential

to occur within the survey area. Those species with a moderate or high potential to occur in the survey area are described below in greater detail. If habitat was not present or the survey area is outside of the known range of the species, the species with no potential was assumed absent and excluded from the list. A complete list of the downloaded special-status species lists are included in **Appendix B**.

The “Potential to Occur” categories are defined as follows:

- **Low:** The survey area provides only limited and low-quality habitat for a particular species. In addition, the known range for a particular species may be outside of the survey area.
- **Moderate:** The survey area and/or immediate vicinity provides suitable habitat for a particular species.
- **High:** The survey area and/or immediate vicinity provide ideal habitat conditions for a particular species and/or known populations occur in the survey areas or within its immediate vicinity.
- **Present:** The species was observed during the biological surveys within the survey area.

## Northwestern Pond Turtle

The northwestern pond turtle is a California species of special concern. This moderate-sized aquatic turtle is commonly found in ponds, lakes, marshes, rivers, streams, and agricultural ditches with rocky or muddy substrates. Northwestern pond turtle habitat often includes shoreline basking areas that may or may not be bordered by aquatic vegetation. Aquatic sites are often within woodlands, grasslands, and open forests, between sea level and 6,000 feet in elevation. Northwestern pond turtles bask on logs or other objects when water temperatures are lower than air temperatures. Their nests are created in upland areas with friable soils, often up to 0.25 miles from an aquatic site (Jennings and Hayes 1994; Stebbins, 2003; Zeiner et al. 1988).

Northwestern pond turtles are discontinuously distributed throughout California west of the Cascade-Sierran crest (Jennings and Hayes 1994). There is a CNDDDB documented occurrence on Bouldin Island in an agricultural plunge pool in 2001, approximately halfway between the pond and harvest areas near the haul route, just north of Hwy 12.

## Giant Garter Snake

Giant garter snake is State and Federally listed as threatened by CDFW and the USFWS respectively. Giant garter snakes inhabit agricultural wetlands including agricultural ditches, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands in the Central Valley. Giant garter snakes are often found within these aquatic features especially when emergent vegetation including cattails and bulrushes are present. Because most of its natural habitat has been lost, the giant garter snake also lives in rice fields (USFWS 2017). Rice fields provide surface water during the summer when the snakes are active and marsh-like conditions provide the cover, habitat, and prey required for giant garter snake to survive (Halstead et al. 2010). The active season extends from April 1 to October 1. Giant garter snakes inhabit small mammal burrows and other soil crevices above flood elevations during this inactive period (USFWS 2017).



**TABLE 2**  
**SPECIAL-STATUS PLANT SPECIES WITH THE POTENTIAL TO OCCUR**  
**WITHIN THE PROPOSED PROJECT AREA**

Common Name Scientific Name	Status (Federal/ State/CNPS)	Habitat Requirements	Identification/ Survey Period	Potential to Occur
<b>Plants</b>				
Woolly rose-mallow <i>Hibiscus lasiocarpus</i>	--/--/1B	Margins of freshwater marshes, wet riverbanks, and on low, peat islands in sloughs of the Delta; 0 to 400 feet elevation;	Blooming period: June–September	Moderate potential to occur in agricultural ditches that are not inundated with blackberries. Known to occur along edge of waterways adjacent to Bouldin Island (CNDDDB 2021).
Sanford's arrowhead <i>Sagittaria sanfordii</i>	--/--/1B	Wetland. Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0 to 2133 feet in elevation.	Blooming period: May–October	Moderate potential to occur in agricultural ditches that are not inundated with blackberries. A population was recorded in CNDDDB in 1994 approximately 2.5 miles to the north (CNDDDB 2021).
Marsh skullcap <i>Scutellaria galericulata</i>	--/--/2	Freshwater marshes and swamps, meadows and seeps; 0 to 7,000 feet elevation.	Blooming period: June–September	Moderate potential to occur in agricultural ditches that are not inundated with blackberries. Known occurrence from 1994 on small island between Bouldin and Staten Islands, just east of the marsh-pond complex and west of the harvest area (CNDDDB 2021).
Side-flowering skullcap <i>Scutellaria lateriflora</i>	--/--/2	Freshwater marshes and swamps, meadows and seeps; 0 to 7,000 feet elevation.	Blooming period: June–September	Moderate potential to occur in agricultural ditches that are not overgrown by blackberries. Historic occurrence from 1892 documented on Bouldin Island. More recent documented occurrence approximately 7 miles to the north (CNDDDB 2021)

**TABLE 3**  
**SPECIAL-STATUS WILDLIFE SPECIES WITH THE POTENTIAL TO OCCUR**  
**WITHIN THE PROPOSED PROJECT AREA**

Common Name Scientific Name	Status (Federal/ State)	Habitat Requirements	Potential to Occur
<b>Invertebrates</b>			
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT/--	Mature elderberry shrubs.	None. Elderberry plants are not present in the survey area.
<b>Reptiles</b>			
Northwestern pond turtle <i>Actinemys marmorata</i>	--/CSC	Agricultural wetlands and other wetlands such as agricultural and drainage canals, low gradient streams, marshes, ponds, sloughs, small lakes, and their associated uplands.	Moderate potential to occur. Marginal aquatic habitat is present in the agricultural canals and in the harvest area when inundated. The survey area also contains a limited amount of potentially suitable upland egg-laying habitat within grasslands. There is a documented occurrence on Bouldin Island in an agricultural plunge pool in 2001 approximately 1 mile from the pond and harvest areas, just north of Hwy 12 (CNDDDB 2021).
Giant garter snake <i>Thamnophis gigas</i>	FT/CT	Marsh and swamp, riparian scrub, wetland. Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and agricultural ditches. This is the most aquatic of the garter snakes in California.	Moderate potential to occur. Suitable aquatic habitat is present in the agricultural ditches. The toe drain is not currently suitable habitat due to inundation by blackberry. The closest CNDDDB occurrence records of giant garter snake occur approximately 4.5 miles to the south in 2010.
<b>Birds</b>			
Burrowing owl <i>Athene cunicularia</i> (burrow sites)	--/CSC	Coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran Desert scrub, and valley and foothill grassland. Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Moderate potential to occur in the Delta, but suitable grassland habitat is present. The closest CNDDDB occurrence is approximately 6 miles to the west (CNDDDB 2021).
Swainson's hawk <i>Buteo swainsoni</i>	--/CT	Great Basin grassland, riparian forest, riparian woodland, valley and foothill grassland. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	High potential to occur. Known to occur within a five-mile radius of the survey area. Suitable nest trees are present in the riparian area adjacent to the pond and the harvest area and there is suitable foraging habitat within grasslands and irrigated pasture in and adjacent to the survey area.



**TABLE 3**  
**SPECIAL-STATUS WILDLIFE SPECIES WITH THE POTENTIAL TO OCCUR**  
**WITHIN THE PROPOSED PROJECT AREA**

<b>Common Name Scientific Name</b>	<b>Status (Federal/ State)</b>	<b>Habitat Requirements</b>	<b>Potential to Occur</b>
Northern harrier <i>Circus cyaneus</i> (nesting)	--/CSC	Coastal scrub, Great Basin grassland, marsh and swamp, riparian scrub, valley and foothill grassland, and wetlands. Coastal salt and fresh-water marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	High potential to occur. Potentially suitable grassland nesting and foraging habitat for this species is present. While there are no known nesting occurrences of northern harrier within the quad search area, northern harrier has been documented within other portions of Bouldin Island by ESA biologists. This species is underreported in the CNDDB.
White-tailed kite <i>Elanus leucurus</i> (nesting)	--/CFP	Cismontane woodland, marsh and swamp, riparian woodland, valley and foothill grassland, and wetlands. Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	High potential to occur. Suitable nest trees are present and there is suitable foraging habitat within grasslands, croplands, and marsh habitat in and adjacent to the pond and harvest areas. While there are no known nesting occurrences of white-tailed kites within the quad search area, there is a potential for them to occur. This species is underreported in the CNDDB.
Short-eared owl <i>Asio flammeus</i> (wintering)	--/CSC	Utilizes densely vegetated grasslands and emergent wetlands with abundant prey (e.g., voles, other small mammals, birds, reptiles, amphibians, and arthropods) in the Delta as wintering grounds. It has been known to occasionally nest in Northern California.	Present. Observed in the harvest area during surveys, which provides suitable wintering habitat and the surrounding crop lands provides ideal foraging habitat.
Lesser sandhill crane <i>Grus canadensis</i> (wintering)	--/CSC	Annual and perennial grassland habitats, pastures, moist croplands with rice or corn stubble, and open, emergent wetlands.	High potential to occur. Sandhill cranes vocalizations heard on the adjacent Staten Island to the north. They were not identified to subspecies. Suitable winter foraging habitat could be present on Bouldin Island. This species is known to winter, but does not breed in the Delta, wintering only.
Greater sandhill crane <i>Grus canadensis tabida</i> (wintering)	--/CT,CFP	Annual and perennial grassland habitats, pastures, moist croplands with rice or corn stubble, and open, emergent wetlands. Typically nests in mounds of wetland plants or hummocks in remote portions of extensive wetlands. Sometimes nests in grass-lined depressions on dry sites.	High potential to occur. Sandhill cranes vocalizations heard on the adjacent Staten Island to the north. They were not identified to subspecies. Suitable winter foraging habitat could be present on Bouldin Island. This species is known to winter, but does not breed in the Delta, wintering only.
California black rail <i>Laterallus jamaicensis coturniculus</i> (year round)	--/CT,CFP	Brackish marsh, freshwater marsh, marsh and swamp, salt marsh, wetland. Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Low potential to occur. Submarginal habitat is present in the harvest area, which does not maintain consistent water. The nearest known occurrence of this species is approximately 5 miles to the southeast (CNDDB 2021).

**TABLE 3**  
**SPECIAL-STATUS WILDLIFE SPECIES WITH THE POTENTIAL TO OCCUR**  
**WITHIN THE PROPOSED PROJECT AREA**

Common Name Scientific Name	Status (Federal/ State)	Habitat Requirements	Potential to Occur
Loggerhead shrike <i>Lanius ludovicianus</i> (nesting)	--/CSC	Forages and nests in grasslands, shrublands, and open woodlands. Nests in trees and shrubs.	Moderate potential to occur. Suitable nesting habitat is present and there is suitable foraging habitat within grasslands, croplands, and marsh habitat in and adjacent to the pond and harvest areas. While there is only one known nesting occurrence within the quad search area. This species is underreported in the CNDDDB.
Song sparrow – “Modesto” population <i>Melospiza melodia</i> (year-round)	--/CSC	Nests and forages primarily in emergent marsh, riparian scrub, and early successional riparian forest habitats in the north-central portion of the Central Valley; infrequently in mature riparian forest and sparsely vegetated ditches and levees. Forages primarily on exposed ground or in leaf litter.	Moderate potential to occur. Suitable habitat is present in marsh and riparian habitat in and adjacent to the pond and harvest areas. There are multiple occurrences on the east side of Bouldin Island along the various sloughs (CNDDB 2021).
Mammals			
Western red bat <i>Lasiurus blossevillei</i>	--/CSC	Cismontane woodland, lower montane coniferous forest, riparian forest, riparian woodland. Roosts primarily in trees, 2-40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	Moderate potential to occur. Suitable roost habitat is present in riparian trees and western red bat may forage within the survey area. There is an older occurrence from 1999 approximately 4 miles to the west.

STATUS CODES:

Federally Listed Species  
FE = federal endangered  
FT = federal threatened  
FC = candidate  
PT = proposed threatened  
FPD = proposed for delisting  
FD = delisted

California State Ranked Species  
CE = California state endangered  
CT = California state threatened  
CR = California state rare  
CSC = California species of special Concern  
CCT = California state threatened candidate  
CFP = California fully protected

CNPS Rank Categories  
1A = plants presumed extinct in California  
1B = plants rare, threatened, or endangered in California and elsewhere  
2 = plants rare, threatened, or endangered in California, but common elsewhere  
3 = plants about which we need more information  
4 = plants of limited distribution

There are two giant garter snake CNDDDB occurrences documented within 5 miles of the survey area. One occurrence is from 2016 and is approximately five miles west of the survey area. This occurrence states that the record was mapped on the south side of Twitchell Island on the San Joaquin River. The other occurrence is from 2010 and is approximately 4.5 miles south of the survey area just northeast of Venice Island. This occurrence states that three individuals were found dead on the road and one live snake was basking on the shoulder of the road and then retreated into the riprap.

The agricultural ditch could provide suitable habitat for giant garter snake if they contain water during the active season. However, based on the lack of remnant aquatic vegetation, the agricultural ditches are either regularly maintained or don't pond water for a significant period of time to support aquatic vegetation. The toe drains were completely covered by dense blackberry

shrubs and are not considered giant garter snake habitat. The small mammal burrows present on the sides of the agricultural ditches within the survey area and on the graded levee provide suitable upland habitat.

## Western Burrowing Owl

The western burrowing owl is listed by CDFW as a California species of special concern. They inhabit grassland, desert, and open shrub habitats throughout the state from sea level to approximately 5,300 feet (CDFW 1999). Unlike many sensitive species, burrowing owls persist and even thrive in some landscapes that are highly altered by human activity. The characteristics of suitable habitat are burrows for roosting and nesting, and relatively short vegetation with only sparse shrubs and taller vegetation. Individuals in agricultural environments nest along roadsides and water conveyance structures. Breeding occurs February through August (CDFW 2012).

Although burrowing owls are not common in the Delta, there is habitat available and potential for burrowing owl to be present in the survey area. Suitable habitat is present along the levees and in agricultural fields. Ground squirrel burrows were observed adjacent to the survey area, but no burrowing owls or signs were observed.

## Swainson's Hawk

Swainson's hawk is State listed as threatened. It once occupied large grassland and shrub steppe habitats, as well as canyons, foothills, and smaller interior valleys in otherwise mountainous regions. Currently, the species is most common in the Central Valley and Great Basin. Nesting habitat for Swainson's hawk includes mature trees with relatively dense canopies such as oaks or cottonwoods in or near riparian habitat, agricultural fields, or suburban neighborhoods near suitable foraging habitat. They forage in grasslands, irrigated pastures, and grain fields. In California, Swainson's hawks begin nesting in late March, and the young usually leave the nest (fledge) by August.

There are numerous documented CNDDB occurrences within five miles of the survey area. The large trees within the riparian corridor and adjacent areas could provide nesting sites and the agricultural fields provide suitable foraging habitat.

## Northern Harrier

Northern harrier is listed by CDFW as a California species of special concern. This raptor breeds widely but locally in North America from northern Alaska and Canada south to midlatitudes and lower latitudes of the United States and northern Baja, California; it is found year-round in much of its breeding range in the contiguous United States and locally in southwestern and southeastern Canada. Northern harriers breed and forage in a variety of open habitats that provide adequate vegetative cover, an abundance of suitable prey, and scattered hunting perches, such as shrubs or fence posts. In California, such habitats include freshwater marshes, brackish and saltwater marshes, wet meadows, weedy borders of lakes, rivers and streams, annual and perennial grasslands (including those with vernal pools), ungrazed or lightly grazed pastures, some croplands, sagebrush flats, and desert sinks. The species occurs more broadly and in much greater numbers during

migration and winter than during the breeding season. Northern harriers nest on the ground from March through August mostly in patches of dense, often tall shrubby/scrubby vegetation in undisturbed areas (Davis and Niemela 2008). Northern harriers require approximately 4 to 6 weeks to fledge young (Smith et al. 2011), and undisturbed nesting habitat must be available to avoid nest depredation and destruction (Cripe 2000).

The potential for northern harriers to occur in the survey area is high. Open habitats on levees and in the survey area provide foraging habitat and potentially suitable nesting habitat for this species occurs in the harvest area as well as in adjacent agricultural lands.

## White-Tailed Kite

The white-tailed kite is a fully protected species under the California Fish and Game Code. This species nests primarily in riparian and lowland habitats often associated with agricultural areas throughout cismontane California. White-tailed kites typically nest in dense vegetation at the tops of oaks, willows, or other native trees. They prey primarily on voles and other diurnal mammals (CDFW 2005). Their numbers and range have increased in the past few decades (CDFW 2005).

There are no documented occurrences in the vicinity of the survey area, and they were not observed during the survey; however, white-tailed kites are underreported in CNDDDB and they could use the survey area for foraging.

## Short-eared Owl

Short-eared owl is listed by CDFW as a California species of special concern. While small resident populations of short-eared owls remain in the Great Basin region and locally in the Sacramento–San Joaquin River Delta, most recent breeding from coastal central California and the San Joaquin Valley has been episodic. The breeding range retracts dramatically in drought conditions and during prey reductions.

Nesting short-eared owls require open grassland that supports concentrations of microtine rodents and herbaceous cover sufficient to conceal their ground nests from predators (Holt and Leasure 1993). Suitable habitats may include salt- and freshwater marshes, irrigated alfalfa or grain fields, and ungrazed grasslands and old pastures. Tule marsh or tall grasslands with cover 30–50 cm in height can support nesting pairs (Holt and Leasure 1993). Productive habitat for resident owls is now almost entirely limited to wildlife refuges and management areas (Roberson 2008). Management of refuges and restoration areas for herbaceous cover has been successful in maintaining resident owls, even when prey dwindle.

A short-eared owl was flushed during surveys of the harvest area. The owl is likely a winter migrant, which is common in the Central Valley.

## Lesser and Greater Sandhill Crane

Lesser and greater sandhill cranes are winter residents and migrants in the Delta, arriving during early September and reaching maximum densities during December and January and

departing during early March. Sandhill cranes vocalizations were heard on the adjacent Staten Island, which occurs approximately 1500 feet to the north of the survey area.

Lesser sandhill crane is a California species of special concern. Lesser sandhill crane is a large gray, heavy-bodied bird with a long neck, long legs, and red plumage on top of the head. The subspecies range includes much of North America; the population that occurs in the proposed Project area breeds in southwestern and south-central Alaska and migrates to the Central Valley of California to overwinter (Shuford and Gardali 2008).

Greater sandhill crane is State listed as threatened and Fully Protected under California Fish and Game Code. Greater sandhill crane is the largest sandhill crane subspecies, with gray plumage, heavy body, long neck and legs, and red plumage on top of the head. The subspecies range includes much of North America; the population that occurs in the proposed Project area breeds in small numbers in northeastern California, with larger populations coming from Washington, Oregon, and western Canada, and migrates to the Central Valley of California to overwinter (CDFW 1994).

Foraging habitat between the two subspecies is similar (although there are some individual crop preferences) and consists mainly of harvested corn fields, winter wheat, irrigated pastures, alfalfa fields, and fallow fields. Mid-day loafing typically occurs in wetlands and flooded fields and they occasionally forage and will opportunistically consume small rodents, birds, and invertebrates along agricultural field borders, levees, rice checks, and ditches, and in alfalfa fields or pastures. Night roosting is in shallowly flooded open fields and open wetlands interspersed with uplands and tends to congregate in small to large flocks. Greater and lesser sandhill cranes use similar roost sites and are both sensitive to human disturbance (Littlefield and Ivey 2000).

Staten Island, just to the north of Bouldin Island, is a known sandhill crane refuge, where a significant portion of the Delta populations reside in the winter. They have also been documented on Bouldin Island (Littlefield and Ivey 2000). Vocalizations from Staten Island were heard during the field visit.

## Loggerhead Shrike

The loggerhead shrike is listed by CDFW as a California species of special concern, and is a year-round resident, distributed throughout much of California, except in higher-elevation and heavily forested mountainous regions (Humble 2008). Shrikes nest earlier than most other passerines. The breeding season for the species may begin as early as late February and lasts through July (Yosef 1996). Loggerhead shrikes establish breeding territories in open habitats with relatively short vegetation that allows for visibility of prey such as arthropods, small reptiles, amphibians, rodents, and birds. They can be found in grasslands, scrub habitats, riparian areas, other open woodlands, ruderal habitats, and developed areas, including golf courses and agricultural fields (Yosef 1996). Loggerhead shrikes require the presence of structures for impaling their prey. These structures most often take the form of thorny or sharp-stemmed shrubs or barbed wire (Humble 2008). Ideal breeding habitat for loggerhead shrikes is short grass habitat with many perches, shrubs, or trees for nesting and sharp branches or barbed wire fences for impaling prey.

Loggerhead shrikes are known to occur throughout the Central Valley, and suitable habitat, such as the riparian areas, blackberry shrubs, and areas with adjacent foraging sites, such as fallow fields and agricultural crops, are present in the survey area; therefore, there is a moderate potential for the loggerhead shrike to be present in the survey area.

## Song Sparrow (“Modesto” population)

The song sparrow (*Melospiza melodia*) has the greatest number of genetically distinct populations of any bird in North America, including seven subspecies that breed in California, six of which are endemic to the State. The “Modesto” population was once considered to be a distinct subspecies (*M. m. mailliardi*), but it has recently been classified as a race and merged with the *heermanni* subspecies (Patten and Pruett 2009). Because it is debatable that the Modesto population is genetically distinct, it is considered a California species of special concern (Gardali 2008) until further genetic studies are conclusive.

Song sparrows are year-round residents that breed from mid-March through early August in the Sacramento Valley, Delta, and northern San Joaquin Valley, with centers of abundance in the Delta and Butte Sink areas (Gardali 2008). They generally breed in freshwater and saline emergent wetlands and riparian willow thickets. However, breeding has been documented in sparsely vegetated agricultural ditches, and levees, especially in areas adjacent to the Butte Sink, in the northernmost limit of Little Butte Creek, and in roadside agricultural ditches east of the Sacramento River above the Tisdale Bypass (Gardali 2008).

The Modesto song sparrow is known to occur in the sloughs around Bouldin Island. Because suitable habitat is present adjacent to the survey area and marginal habitat occurs in the survey area the Modesto song sparrow has a moderate to high potential to be present in the survey area.

## Other Breeding and Migratory Birds

The Federal Migratory Bird Treaty Act and Section 3513 of the California Fish and Game Code protect raptors, most native migratory birds, and breeding birds that could be present in the survey area. The survey area provides high-quality foraging and nesting opportunities for a variety of resident and migratory birds. Common raptor species that may nest in the mature trees in the survey area could include red-tailed hawk, red-shouldered hawk, and great horned owl (observed near survey area). Wading birds such as the great egret and the great blue heron are known to nest on the nearby Venice and Decker Islands and could use the agricultural ditches for foraging.

## Western Red Bat

The western red bat is listed by CDFW as a California species of special concern. This is a riparian obligate species (i.e., dependent on riparian habitat) that is ubiquitous throughout California except the northern Great Basin region. Western red bats roost individually in dense clumps of tree foliage in riparian areas, orchards, and suburban areas. They are primarily moth specialists but will forage for a variety of other insects. Individuals have been observed foraging around streetlamps and floodlights in suburban areas (WBWG 2005).

Based on its tendency to roost within tree foliage, this species may be intermittently present in the riparian areas; the closest and most recent CNDDDB occurrence within 5 miles was from 1999 and was located 4 miles to the west.

## Critical Habitat for Listed Wildlife Species

USFWS defines the term “critical habitat” in the Federal Endangered Species Act as a specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The survey area is not within designated critical habitat for any listed terrestrial wildlife species. While delta smelt critical habitat does overlap Bouldin Island and Central Valley steelhead critical habitat is designated in the waters around Bouldin Island, there is currently no habitat to support delta smelt or Central Valley steelhead in the Project area.

## Essential Fish Habitat

No EFH occurs in the proposed Project area. Pacific Coast Salmon EFH for Chinook salmon is designated in the waters around Bouldin Island. Pacific Coast Groundfish EFH extends to the mean higher high-water level (MHHW) or the upriver extent of saltwater intrusion (upstream area and landward where waters have salinities less than 0.5 ppt); however, Pacific Groundfish species occur primarily in higher salinity areas, principally further west in San Pablo Bay, Suisun Bay and Central San Francisco Bay.

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# Appendix A

## **Aquatic Resources Delineation Memorandum**



180 Grand Avenue  
Suite 1050  
Oakland, CA 94612  
510.839.5066 **phone**  
510.839.5825 **fax**

[esassoc.com](http://esassoc.com)

# memorandum

date December 21, 2021

to Dee Bradshaw, Metropolitan Water District of Southern California

cc Christy Dawson, Environmental Science Associates (ESA)

from Joe Sanders, Environmental Science Associates (ESA)

subject Bouldin Island Delta Smelt Preservation Project – Aquatic Resources Delineation Memorandum

## Introduction

Environmental Science Associates (ESA) conducted a delineation of aquatic resources on behalf of the Metropolitan Water District of Southern California. The study area, which encompasses an area approximately 144.61 acres, is located adjacent to the confluence of the North Mokelumne River and the South Mokelumne River in northwestern San Joaquin County, CA (**Attachment 1**). The Mokelumne River borders the Proposed Project on north and east sides and is separated from the Proposed Project by a levee system. The south and west sides of the project are bound by irrigation ditches and adjacent farm fields.

The purpose of this memo is to identify aquatic resources, if present, within the study area. It is important to note that this work builds upon a previous Preliminary Jurisdictional Determination (PJD) of aquatic resources by the California Department of Water Resources (DWR) which encompasses this study area (SPK-2019-00899) and is provided in **Attachment 3**. This assessment is based on the best professional judgment of ESA investigators. All conclusions presented should be considered preliminary and subject to change pending agency review.

## Setting

The study area is located adjacent to the confluence of the North Mokelumne River and the South Mokelumne River. The Mokelumne River borders the study area on north and east sides and is separated from the study area by a levee system. The south and west sides of the project are bound by irrigation ditches and adjacent farm fields, that were recently planted in corn. The study area currently consists of a fallow wheat field that has most recently been dryland farmed, a depressional area that is used as levee sourcing material, and farm roads. Bouldin Island was reclaimed around 1922, farmed continuously, and due to on-going land subsidence, is now between 5 and 25 feet below sea level and the adjacent river water surface elevations. A toe-drain is located at the base of the levee and is overgrown with blackberries.

## Survey Methods

ESA Wetland Ecologist Joe Sanders verified previously mapped aquatic resources in the field based on their spatial extents on November 8, 2021. The study area was walked such that visual coverage was 100 percent. All features, including the aquatic resources mapping performed by DWR in 2020 and study area boundaries, were analyzed in the field with a GPS unit (EOS Arrow 100) with real-time differential correction and an instrument-rated mapping accuracy of less than one meter.

## Survey Results

The boundaries of previously mapped aquatic resources within the study area by DWR in 2020 were determined to encompass all aquatic resources present within the study area (**Attachment 2**). Aquatic features present within the study area include Agricultural Ditches, Forested Wetlands, Freshwater Emergent Wetlands, and Scrub Shrub Wetlands. The aquatic features that occur within the study area are outlined below in **Table 1**.

**TABLE 1**  
**AQUATIC RESOURCES SUMMARY**

Feature Type	Cowardin Classification	Area	
		Acres	Square Feet
Wetlands			
Agricultural Ditch	Palustrine - Emergent - farmed	1.38	60,262
Forested Wetland	Palustrine - Forested	0.20	8,523
Freshwater Emergent Wetland	Palustrine - Emergent Persistent	10.48	456,593
Scrub Shrub Wetland	Palustrine - Scrub-Shrub	2.58	112,597
Total Area of Aquatic Features:		14.65	637,975

All mapped features likely have a significant nexus with the Mokelumne River, a Traditional Navigable Water (TNW), and are therefore likely jurisdictional under Sections 401 and 404 of the Clean Water Act (CWA). These results received a Preliminary Jurisdictional Determination by the USACE in 2020 (SPK-2019-00899) and are subject to further change pending agency review.

## Attachments

Attachment 1 – Regional Location Map

Attachment 2 – Aquatic Resources Delineation Map

Attachment 3 – Delta Conveyance Project – Aquatic Resources Delineation Report

# Appendix B

## **Special-Status Species Lists**

**IPaC** Information for Planning and Consultation **U.S. Fish & Wildlife Service**

## IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

### Location

San Joaquin County, California




### Local office

San Francisco Bay-Delta Fish And Wildlife

☎ (916) 930-5603



 (916) 930-5654

650 Capitol Mall  
Suite 8-300  
Sacramento, CA 95814

[http://kim\\_squires@fws.gov](mailto:kim_squires@fws.gov)

NOT FOR CONSULTATION

# Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

- 
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
  2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

## Birds

NAME	STATUS
<b>California Clapper Rail</b> <i>Rallus longirostris obsoletus</i> Wherever found No critical habitat has been designated for this species. <a href="http://ecos.fws.gov/ecp/species/4240">http://ecos.fws.gov/ecp/species/4240</a>	Endangered

## Reptiles

NAME	STATUS
<b>Giant Garter Snake</b> <i>Thamnophis gigas</i> Wherever found No critical habitat has been designated for this species. <a href="http://ecos.fws.gov/ecp/species/4482">http://ecos.fws.gov/ecp/species/4482</a>	Threatened

## Amphibians

NAME	STATUS
<b>California Red-legged Frog</b> <i>Rana draytonii</i> Wherever found There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. <a href="http://ecos.fws.gov/ecp/species/2891">http://ecos.fws.gov/ecp/species/2891</a>	Threatened
<b>California Tiger Salamander</b> <i>Ambystoma californiense</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. <a href="http://ecos.fws.gov/ecp/species/2076">http://ecos.fws.gov/ecp/species/2076</a>	Threatened

## Fishes

NAME	STATUS
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**Delta Smelt** *Hypomesus transpacificus*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location overlaps the critical habitat.<http://ecos.fws.gov/ecp/species/321>

## Insects

NAME

STATUS

**Delta Green Ground Beetle** *Elaphrus viridis*

Threatened

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.<http://ecos.fws.gov/ecp/species/2319>**Monarch Butterfly** *Danaus plexippus*

Candidate

Wherever found

No critical habitat has been designated for this species.

<http://ecos.fws.gov/ecp/species/9743>**Valley Elderberry Longhorn Beetle** *Desmocerus californicus dimorphus*

Threatened

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.<http://ecos.fws.gov/ecp/species/7850>

## Crustaceans

NAME

STATUS

**Conservancy Fairy Shrimp** *Branchinecta conservatio*

Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.<http://ecos.fws.gov/ecp/species/8246>

**Vernal Pool Fairy Shrimp** *Branchinecta lynchi*

Threatened

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<http://ecos.fws.gov/ecp/species/498>

**Vernal Pool Tadpole Shrimp** *Lepidurus packardii*

Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<http://ecos.fws.gov/ecp/species/2246>

## Flowering Plants

NAME	STATUS
<b>Large-flowered Fiddleneck</b> <i>Amsinckia grandiflora</i>	Endangered
Wherever found	
There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available.	
<a href="http://ecos.fws.gov/ecp/species/5558">http://ecos.fws.gov/ecp/species/5558</a>	

## Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
<b>Delta Smelt</b> <i>Hypomesus transpacificus</i>	Final
<a href="http://ecos.fws.gov/ecp/species/321#crithab">http://ecos.fws.gov/ecp/species/321#crithab</a>	

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

**Bald Eagle** *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<http://ecos.fws.gov/ecp/species/1626>

Breeds Jan 1 to Aug 31

**Clark's Grebe** *Aechmophorus clarkii*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Jun 1 to Aug 31

**Common Yellowthroat** *Geothlypis trichas sinuosa*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<http://ecos.fws.gov/ecp/species/2084>

Breeds May 20 to Jul 31

**Nuttall's Woodpecker** *Picoides nuttallii*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<http://ecos.fws.gov/ecp/species/9410>

Breeds Apr 1 to Jul 20

**Oak Titmouse** *Baeolophus inornatus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<http://ecos.fws.gov/ecp/species/9656>

Breeds Mar 15 to Jul 15

**Tricolored Blackbird** *Agelaius tricolor*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<http://ecos.fws.gov/ecp/species/3910>

Breeds Mar 15 to Aug 10

**Wrentit** *Chamaea fasciata*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Mar 15 to Aug 10



**Yellow-billed Magpie** *Pica nuttalli*

Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<http://ecos.fws.gov/ecp/species/9726>

## Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

### Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

### Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

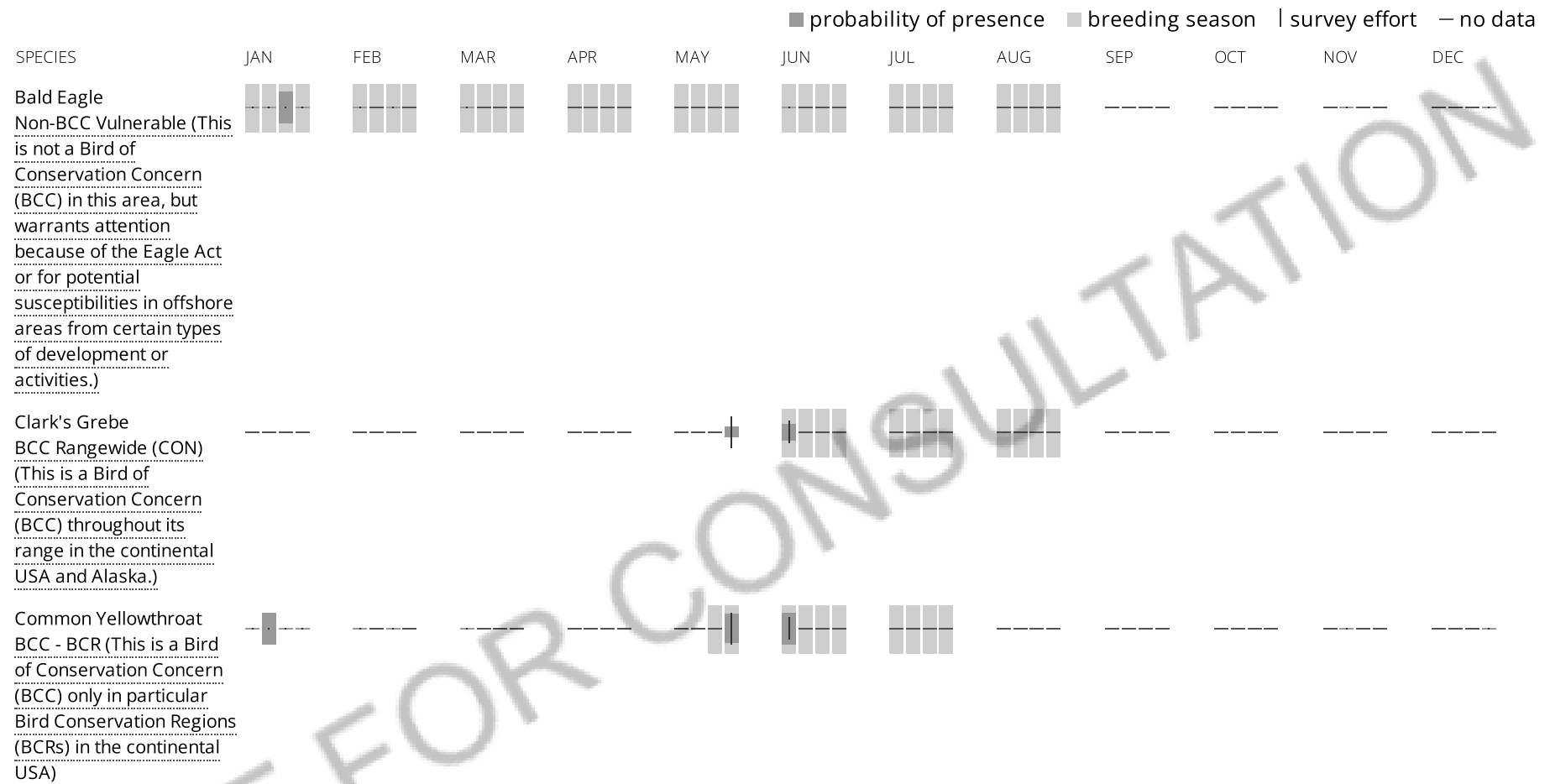
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

### No Data (—)

A week is marked as having no data if there were no survey events for that week.

### Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Nuttall's Woodpecker BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)	-----	-----	-----					-----	-----	-----	-----	-----
Oak Titmouse BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	-----	-----						-----	-----	-----	-----	-----
Tricolored Blackbird BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	-----	-----							-----	-----	-----	-----
Wrentit BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	-----	-----							-----	-----	-----	-----
Yellow-billed Magpie BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	-----	-----	-----					-----	-----	-----	-----	-----

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the migratory birds potentially occurring in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

**How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

**What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern \(BCC\)](#) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

## Facilities

### Wildlife refuges and fish hatcheries

REFUGE AND FISH HATCHERY INFORMATION IS NOT AVAILABLE AT THIS TIME

# Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

OTHER

[Pf](#)

RIVERINE

[R1UBV](#)

[R2ABHx](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

## Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

## Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

**Data precautions**

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION





## Selected Elements by Common Name

## California Department of Fish and Wildlife

## California Natural Diversity Database

**Query Criteria:** Quad< IS </span>(Rio Vista (3812126)<span style="color:Red"> OR </span>Isleton (3812125)<span style="color:Red"> OR </span>Thornton (3812124)<span style="color:Red"> OR </span>Jersey Island (3812116)<span style="color:Red"> OR </span>Bouldin Island (3812115)<span style="color:Red"> OR </span>Terminous (3812114)<span style="color:Red"> OR </span>Woodward Island (3712185)<span style="color:Red"> OR </span>Holt (3712184)<span style="color:Red"> OR </span>Brentwood (3712186))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b>Alkali Meadow</b> <i>Alkali Meadow</i>	CTT45310CA	None	None	G3	S2.1	
<b>alkali milk-vetch</b> <i>Astragalus tener</i> var. <i>tener</i>	PDFAB0F8R1	None	None	G2T1	S1	1B.2
<b>Alkali Seep</b> <i>Alkali Seep</i>	CTT45320CA	None	None	G3	S2.1	
<b>American peregrine falcon</b> <i>Falco peregrinus anatum</i>	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
<b>Antioch andrenid bee</b> <i>Perdita scitula antiochensis</i>	IIHYM01031	None	None	G1T1	S1	
<b>Antioch Dunes anthicid beetle</b> <i>Anthicus antiochensis</i>	IICOL49020	None	None	G1	S1	
<b>Antioch Dunes evening-primrose</b> <i>Oenothera deltooides</i> ssp. <i>howellii</i>	PDONA0C0B4	Endangered	Endangered	G5T1	S1	1B.1
<b>bank swallow</b> <i>Riparia riparia</i>	ABPAU08010	None	Threatened	G5	S2	
<b>big tarplant</b> <i>Blepharizonia plumosa</i>	PDAST1C011	None	None	G1G2	S1S2	1B.1
<b>Bolander's water-hemlock</b> <i>Cicuta maculata</i> var. <i>bolanderi</i>	PDAP10M051	None	None	G5T4T5	S2?	2B.1
<b>Brewer's western flax</b> <i>Hesperolinon breweri</i>	PDLIN01030	None	None	G2	S2	1B.2
<b>bristly sedge</b> <i>Carex comosa</i>	PMCYP032Y0	None	None	G5	S2	2B.1
<b>burrowing owl</b> <i>Athene cunicularia</i>	ABNSB10010	None	None	G4	S3	SSC
<b>California black rail</b> <i>Laterallus jamaicensis coturniculus</i>	ABNME03041	None	Threatened	G3G4T1	S1	FP
<b>California linderiella</b> <i>Linderiella occidentalis</i>	ICBRA06010	None	None	G2G3	S2S3	
<b>California tiger salamander - central California DPS</b> <i>Ambystoma californiense</i> pop. 1	AAAAA01181	Threatened	Threatened	G2G3	S3	WL
<b>caper-fruited tropidocarpum</b> <i>Tropidocarpum capparideum</i>	PDBRA2R010	None	None	G1	S1	1B.1
<b>Cismontane Alkali Marsh</b> <i>Cismontane Alkali Marsh</i>	CTT52310CA	None	None	G1	S1.1	



## Selected Elements by Common Name

## California Department of Fish and Wildlife

## California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b>Coastal and Valley Freshwater Marsh</b> <i>Coastal and Valley Freshwater Marsh</i>	CTT52410CA	None	None	G3	S2.1	
<b>Congdon's tarplant</b> <i>Centromadia parryi ssp. congdonii</i>	PDAST4R0P1	None	None	G3T1T2	S1S2	1B.1
<b>curved-foot hygrotus diving beetle</b> <i>Hygrotus curvipes</i>	IICOL38030	None	None	G1	S1	
<b>Delta button-celery</b> <i>Eryngium racemosum</i>	PDAP10Z0S0	None	Endangered	G1	S1	1B.1
<b>Delta mudwort</b> <i>Limosella australis</i>	PDSCR10030	None	None	G4G5	S2	2B.1
<b>Delta smelt</b> <i>Hypomesus transpacificus</i>	AFCHB01040	Threatened	Endangered	G1	S1	
<b>Delta tule pea</b> <i>Lathyrus jepsonii var. jepsonii</i>	PDFAB250D2	None	None	G5T2	S2	1B.2
<b>eel-grass pondweed</b> <i>Potamogeton zosteriformis</i>	PMPOT03160	None	None	G5	S3	2B.2
<b>giant gartersnake</b> <i>Thamnophis gigas</i>	ARADB36150	Threatened	Threatened	G2	S2	
<b>great blue heron</b> <i>Ardea herodias</i>	ABNGA04010	None	None	G5	S4	
<b>Great Valley Valley Oak Riparian Forest</b> <i>Great Valley Valley Oak Riparian Forest</i>	CTT61430CA	None	None	G1	S1.1	
<b>hoary bat</b> <i>Lasiurus cinereus</i>	AMACC05030	None	None	G3G4	S4	
<b>loggerhead shrike</b> <i>Lanius ludovicianus</i>	ABPBR01030	None	None	G4	S4	SSC
<b>longfin smelt</b> <i>Spirinchus thaleichthys</i>	AFCHB03010	Candidate	Threatened	G5	S1	
<b>marsh skullcap</b> <i>Scutellaria galericulata</i>	PDLAM1U0J0	None	None	G5	S2	2B.2
<b>Mason's lilaeopsis</b> <i>Lilaeopsis masonii</i>	PDAP119030	None	Rare	G2	S2	1B.1
<b>midvalley fairy shrimp</b> <i>Branchinecta mesoavallensis</i>	ICBRA03150	None	None	G2	S2S3	
<b>molestan blister beetle</b> <i>Lytta molesta</i>	IICOL4C030	None	None	G2	S2	
<b>Northern California legless lizard</b> <i>Anniella pulchra</i>	ARACC01020	None	None	G3	S3	SSC
<b>redheaded sphecid wasp</b> <i>Eucerceris ruficeps</i>	IIHYM18010	None	None	G1G3	S1S2	
<b>riparian brush rabbit</b> <i>Sylvilagus bachmani riparius</i>	AMAEB01021	Endangered	Endangered	G5T1	S1	



## Selected Elements by Common Name

## California Department of Fish and Wildlife

## California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b>Sacramento anthicid beetle</b> <i>Anthicus sacramento</i>	IICOL49010	None	None	G1	S1	
<b>San Joaquin kit fox</b> <i>Vulpes macrotis mutica</i>	AMAJA03041	Endangered	Threatened	G4T2	S2	
<b>San Joaquin pocket mouse</b> <i>Perognathus inornatus</i>	AMAFD01060	None	None	G2G3	S2S3	
<b>San Joaquin spearscale</b> <i>Extriplex joaquinana</i>	PDCHE041F3	None	None	G2	S2	1B.2
<b>Sanford's arrowhead</b> <i>Sagittaria sanfordii</i>	PMALI040Q0	None	None	G3	S3	1B.2
<b>side-flowering skullcap</b> <i>Scutellaria lateriflora</i>	PDLAM1U0Q0	None	None	G5	S2	2B.2
<b>soft salty bird's-beak</b> <i>Chloropyron molle ssp. molle</i>	PDSCR0J0D2	Endangered	Rare	G2T1	S1	1B.2
<b>song sparrow ("Modesto" population)</b> <i>Melospiza melodia</i>	ABPBXA3010	None	None	G5	S3?	SSC
<b>steelhead - Central Valley DPS</b> <i>Oncorhynchus mykiss irideus pop. 11</i>	AFCHA0209K	Threatened	None	G5T2Q	S2	
<b>stinkbells</b> <i>Fritillaria agrestis</i>	PMLIL0V010	None	None	G3	S3	4.2
<b>Suisun Marsh aster</b> <i>Symphyotrichum lentum</i>	PDASTE8470	None	None	G2	S2	1B.2
<b>Swainson's hawk</b> <i>Buteo swainsoni</i>	ABNKC19070	None	Threatened	G5	S3	
<b>tricolored blackbird</b> <i>Agelaius tricolor</i>	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
<b>valley elderberry longhorn beetle</b> <i>Desmocerus californicus dimorphus</i>	IICOL48011	Threatened	None	G3T2	S3	
<b>vernal pool fairy shrimp</b> <i>Branchinecta lynchi</i>	ICBRA03030	Threatened	None	G3	S3	
<b>watershield</b> <i>Brasenia schreberi</i>	PDCAB01010	None	None	G5	S3	2B.3
<b>western bumble bee</b> <i>Bombus occidentalis</i>	IIHYM24250	None	None	G2G3	S1	
<b>western pond turtle</b> <i>Emys marmorata</i>	ARAAD02030	None	None	G3G4	S3	SSC
<b>western red bat</b> <i>Lasiurus blossevillii</i>	AMACC05060	None	None	G4	S3	SSC
<b>western ridged mussel</b> <i>Gonidea angulata</i>	IMBIV19010	None	None	G3	S1S2	
<b>western spadefoot</b> <i>Spea hammondi</i>	AAABF02020	None	None	G2G3	S3	SSC

**Selected Elements by Common Name**

California Department of Fish and Wildlife

California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b>white-tailed kite</b> <i>Elanus leucurus</i>	ABNKC06010	None	None	G5	S3S4	FP
<b>woolly rose-mallow</b> <i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>	PDMAL0H0R3	None	None	G5T3	S3	1B.2

Record Count: 62







## Inventory of Rare and Endangered Plants of California

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NATIVE PLANT SOCIETY

## Search Results

12 matches found. Click on scientific name for details

Search Criteria: Quad is one of [3812125:3812115]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
<a href="#"><i>Brasenia schreberi</i></a>	watershield	Cabombaceae	perennial rhizomatous herb (aquatic)	Jun-Sep	None	None	G5	S3	2B.3	 ©2014 Kirsten Bovee
<a href="#"><i>Carex comosa</i></a>	bristly sedge	Cyperaceae	perennial rhizomatous herb	May-Sep	None	None	G5	S2	2B.1	 Dean Wm. Taylor 1997
<a href="#"><i>Cicuta maculata</i> var. <i>bolanderi</i></a>	Bolander's water-hemlock	Apiaceae	perennial herb	Jul-Sep	None	None	G5T4T5	S2?	2B.1	No Photo Available
<a href="#"><i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i></a>	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	None	None	G5T3	S3	1B.2	 © 2020 Steven Perry
<a href="#"><i>Lathyrus jepsonii</i> var. <i>jepsonii</i></a>	Delta tule pea	Fabaceae	perennial herb	May-Jul(Aug-Sep)	None	None	G5T2	S2	1B.2	 © 2003 Mark Fogiel
<a href="#"><i>Lilaeopsis masonii</i></a>	Mason's lilaeopsis	Apiaceae	perennial rhizomatous herb	Apr-Nov	None	CR	G2	S2	1B.1	No Photo Available
<a href="#"><i>Limosella australis</i></a>	Delta mudwort	Scrophulariaceae	perennial stoloniferous herb	May-Aug	None	None	G4G5	S2	2B.1	 © 2020 Richard Sage
<a href="#"><i>Potamogeton zosteriformis</i></a>	eel-grass pondweed	Potamogetonaceae	annual herb (aquatic)	Jun-Jul	None	None	G5	S3	2B.2	No Photo Available
<a href="#"><i>Sagittaria sanfordii</i></a>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	No Photo Available
<a href="#"><i>Scutellaria galericulata</i></a>	marsh skullcap	Lamiaceae	perennial rhizomatous herb	Jun-Sep	None	None	G5	S2	2B.2	 © 2021

<u><i>Scutellaria</i></u> <u><i>lateriflora</i></u>	side- flowering skullcap	Lamiaceae	perennial rhizomatous herb	Jul-Sep	None	None	G5	S2	2B.2	No Photo Available
<u><i>Symphyotrichum</i></u> <u><i>lentum</i></u>	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	(Apr)May- Nov	None	None	G2	S2	1B.2	No Photo Available

Showing 1 to 12 of 12 entries

#### Suggested Citation:

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# **Appendix D**

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## **Aquatic Resources Delineation Memo**







180 Grand Avenue  
Suite 1050  
Oakland, CA 94612  
510.839.5066 phone  
510.839.5825 fax

esassoc.com

# memorandum

date December 21, 2021

to Dee Bradshaw, Metropolitan Water District of Southern California

cc Christy Dawson, Environmental Science Associates (ESA)

from Joe Sanders, Environmental Science Associates (ESA)

subject Bouldin Island Delta Smelt Preservation Project – Aquatic Resources Delineation Memorandum

## Introduction

Environmental Science Associates (ESA) conducted a delineation of aquatic resources on behalf of the Metropolitan Water District of Southern California. The study area, which encompasses an area approximately 144.61 acres, is located adjacent to the confluence of the North Mokelumne River and the South Mokelumne River in northwestern San Joaquin County, CA (**Attachment 1**). The Mokelumne River borders the Proposed Project on north and east sides and is separated from the Proposed Project by a levee system. The south and west sides of the project are bound by irrigation ditches and adjacent farm fields.

The purpose of this memo is to identify aquatic resources, if present, within the study area. It is important to note that this work builds upon a previous Preliminary Jurisdictional Determination (PJD) of aquatic resources by the California Department of Water Resources (DWR) which encompasses this study area (SPK-2019-00899) and is provided in **Attachment 2**. This assessment is based on the best professional judgment of ESA investigators. All conclusions presented should be considered preliminary and subject to change pending agency review.

## Setting

The study area is located adjacent to the confluence of the North Mokelumne River and the South Mokelumne River. The Mokelumne River borders the study area on north and east sides and is separated from the study area by a levee system. The south and west sides of the project are bound by irrigation ditches and adjacent farm fields, that were recently planted in corn. The study area currently consists of a fallow wheat field that has most recently been dryland farmed, a depressional area that is used as levee sourcing material, and farm roads. Bouldin Island was reclaimed around 1922, farmed continuously, and due to on-going land subsidence, is now between 5 and 25 feet below sea level and the adjacent river water surface elevations. A toe-drain is located at the base of the levee and is overgrown with blackberries.

## Survey Methods

ESA Wetland Ecologist Joe Sanders verified previously mapped aquatic resources in the field based on their spatial extents on November 8, 2021. The study area was walked such that visual coverage was 100 percent. All features, including the aquatic resources mapping performed by DWR in 2020 and study area boundaries, were analyzed in the field with a GPS unit (EOS Arrow 100) with real-time differential correction and an instrument-rated mapping accuracy of less than one meter.

## Survey Results

The boundaries of previously mapped aquatic resources within the study area by DWR in 2020 were determined to encompass all aquatic resources present within the study area (**Attachment 3**). Aquatic features present within the study area include Agricultural Ditches, Forested Wetlands, Freshwater Emergent Wetlands, and Scrub Shrub Wetlands. The aquatic features that occur within the study area are outlined below in **Table 1**.

**TABLE 1**  
**AQUATIC RESOURCES SUMMARY**

Feature Type	Cowardin Classification	Area	
		Acres	Square Feet
Wetlands			
Agricultural Ditch	Palustrine - Emergent - farmed	1.38	60,262
Forested Wetland	Palustrine - Forested	0.20	8,523
Freshwater Emergent Wetland	Palustrine - Emergent Persistent	10.48	456,593
Scrub Shrub Wetland	Palustrine - Scrub-Shrub	2.58	112,597
Total Area of Aquatic Features:		14.65	637,975

All mapped features likely have a significant nexus with the Mokelumne River, a Traditional Navigable Water (TNW), and are therefore likely jurisdictional under Sections 401 and 404 of the Clean Water Act (CWA). These results received a Preliminary Jurisdictional Determination by the USACE in 2020 (SPK-2019-00899) and are subject to further change pending agency review.

## Attachments

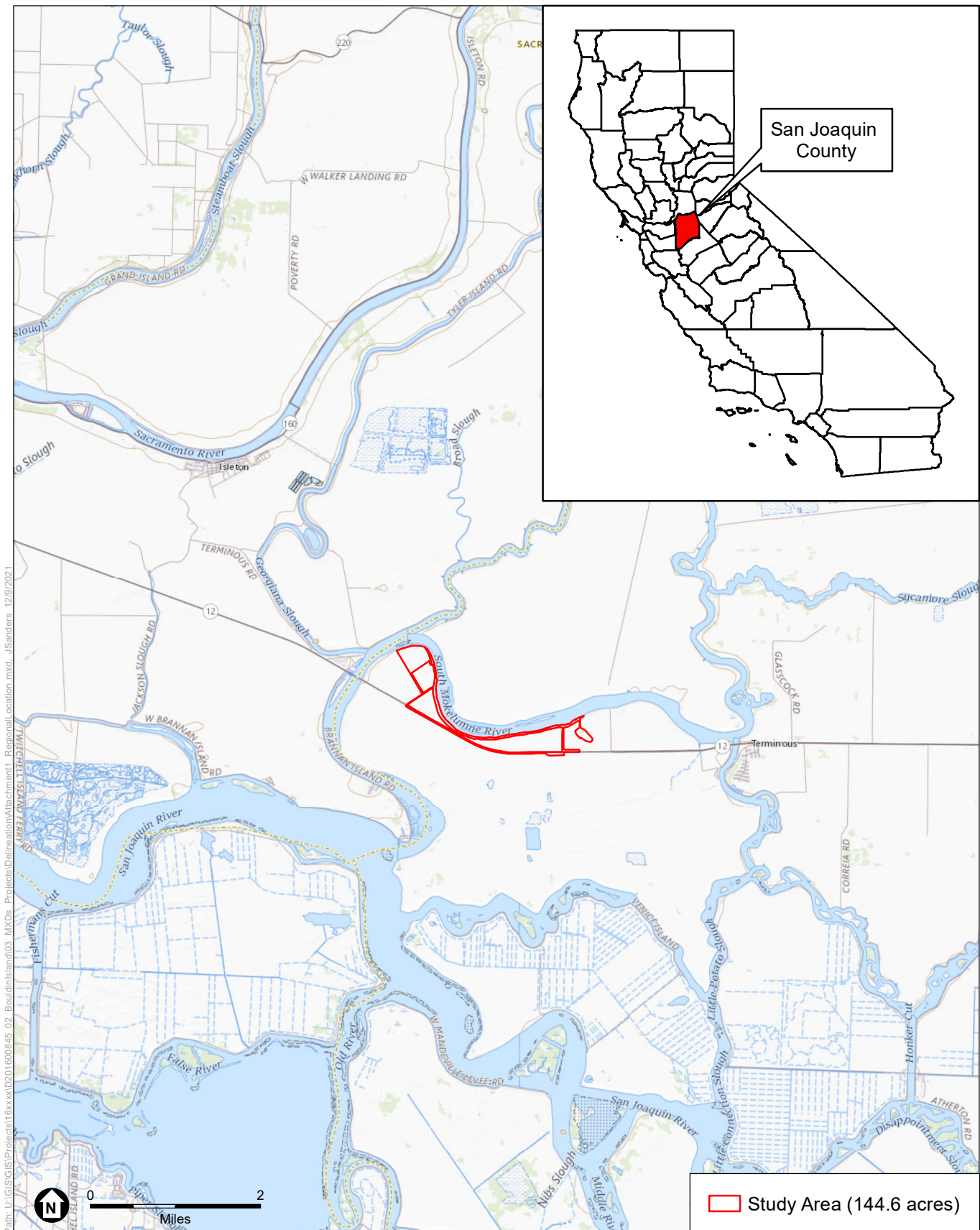
Attachment 1 – Regional Location Map

Attachment 2 – Delta Conveyance Project – Aquatic Resources Delineation Report

Attachment 3 – Aquatic Resources Delineation Map

# Attachment 1

## **Regional Location Map**



SOURCE: USGS, 20221; ESA, 2021

Delta Smelt Preservation Project

**Attachment 1**  
Regional Location

## Attachment 2

### **Delta Conveyance Project - Aquatic Resources Delineation Report**



# Aquatic Resources Delineation Report

---

## **Delta Conveyance Project**

**April 27, 2020**

### **Submitted to:**

US Army Corps of Engineers, Sacramento District  
1325 J Street – Room 1513  
Sacramento, CA 95814

### **Prepared by:**

California Department of Water Resources  
Division of Environmental Services  
3500 Industrial Boulevard  
West Sacramento, CA 95691

and

GEI Consultants, Inc.  
2868 Prospect Park Drive, Suite 400  
Rancho Cordova, CA 95670



## EXECUTIVE SUMMARY

The California Department of Water Resources is proposing to construct a water conveyance facility in the Sacramento–San Joaquin Delta, known as the Delta Conveyance Project. The following report presents the results of a delineation of potential waters of the United States, including wetlands, within the 135,639-acre study area. Two alignments (Central and East) are being considered for further development at this time, and a preferred alignment and project footprint will be identified in the pending Department of the Army permit application at a later date. The study area encompasses both alignments that are currently being considered.

The following report and mapping have been prepared for the Sacramento District of the U. S. Army Corps of Engineers (USACE) to request a verification of aquatic resources utilizing the Preliminary Jurisdictional Determination process. Aquatic features that are identified as potential waters of the United States may be subject to USACE regulation under Section 404 of the Clean Water Act up to the ordinary high-water mark for non-tidal channels and to the mean higher high water elevation (e.g., high tide line) in water bodies subject to tidal influence. Navigable waters, including waters subject to tidal influence, up to the mean high water level, are also subject to USACE regulation under Section 10 of the Rivers and Harbors Act of 1899.

Within the 135,639-acre study area for this project, 16,680.85 acres of wetlands and other waters were delineated.

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**ACRONYMS AND ABBREVIATIONS**

CVP	Central Valley Project
CWA	Clean Water Act
Delta	Sacramento–San Joaquin Delta
DEM	Digital Elevation Model
DWR	California Department of Water Resources
CDFW	California Department of Fish and Wildlife
FAC	Facultative
FACU	Facultative Upland
FACW	Facultative Wetland
GIS	Geographic Information System
HUC	Hydrologic Unit Code
LiDAR	Light Detection and Ranging
MHW	Mean High Water
MHHW	Mean Higher High Water
MLRA	Major Land Resource Area
NAIP	National Agriculture Imagery Program
NAVD 88	North American Vertical Datum of 1988
NRCS	Natural Resources Conservation Service
OBL	Obligate
OHWM	Ordinary High-Water Mark
PJD	Preliminary Jurisdictional Determination
SWP	State Water Project
RGL	Regulatory Guidance Letter
RPW	Relatively Permanent Water
TNW	Traditional Navigable Water
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USGS	United States Geological Survey

## 1.0 INTRODUCTION

The California Department of Water Resources (DWR) is proposing to construct a water conveyance facility (Delta Conveyance Project; proposed project) in the Sacramento–San Joaquin Delta (Delta).

The existing State Water Project (SWP) water conveyance facilities, which include Clifton Court Forebay and the Banks Pumping Plant in the south Delta, currently enable DWR to divert water and lift it into the California Aqueduct. The proposed project would construct and operate new conveyance facilities in the Delta that would add to the existing SWP infrastructure. New intake facilities are proposed as part of the Delta Conveyance Project as points of diversion that would be located in the north Delta along the Sacramento River between Freeport and the confluence with Sutter Slough. The new conveyance facilities would include a tunnel to convey water from the new intakes to the existing Banks Pumping Plant and potentially the federal Jones Pumping Plant in the south Delta. The new facilities would provide an alternate location for diversion of water from the Delta and would be operated in coordination with the existing south Delta pumping facilities, resulting in a system also known as "dual conveyance" because there would be two complementary methods to divert and convey water. New facilities proposed for the Delta Conveyance Project include, but are not limited to, the following:

- Two intake facilities on the Sacramento River
- Tunnel reaches and tunnel shafts
- Forebays
- Pumping plant
- South Delta Conveyance Facilities

Other ancillary facilities may be constructed to support construction of the conveyance facilities including, but not limited to, access roads, barge unloading facilities, concrete batch plants, fuel stations, mitigation areas, and power transmission and/or distribution lines. Under the proposed project, the new north Delta facilities would be sized to convey up to 6,000 cubic feet per second (cfs) of water from the Sacramento River to the SWP facilities in the south Delta.

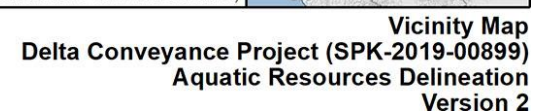
The 135,639-acre study area for this project is located within the legal Delta (Figure 1. *Study Area for the Delta Conveyance Project*; DWR 2020). The study area includes two alignments (Central and East) that are currently being considered for further development, and a preferred alignment and project footprint will be identified at a later date. Because of the large size of the study area and the lack of access to private land<sup>1</sup>, aquatic resources were mapped via interpretation of aerial imagery, topographical maps,

---

<sup>1</sup> Through environmental review of previous Delta conveyance projects, the Bay Delta Conservation Plan and the California WaterFix, private landowners throughout the Delta have objected to DWR's requests to access land in private ownership to perform soil studies leading to a series of court cases culminating in the California State Supreme Court decision, *Property Reserve, Inc. v. Superior Court* (2016) 1 Cal.5th 151.

LiDAR imagery, and vegetation maps in a Geographical Information System (GIS). No pedestrian field surveys were completed as part of the current mapping effort discussed in this report.





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This report presents the results of a delineation of potential waters of the U.S., including wetlands, in the study area. Waters of the U.S. are subject to U.S. Army Corps of Engineers (USACE) regulation under Section 404 of the Clean Water Act (CWA) to the Ordinary High Water Mark (OHWM) for non-tidal channels and to the Mean Higher High Water (MHHW) elevation (e.g., high tide line) in water bodies subject to tidal influence. Navigable waters, including waters subject to tidal influence to the Mean High Water (MHW) level, are also subject to USACE regulation under Section 10 of the Rivers and Harbors Act of 1899.

DWR hereby requests verification of this delineation, utilizing the Preliminary Jurisdictional Determination (PJD) process from the Sacramento District of the USACE.

## **2.0 METHODS**

The Delta Conveyance Project study area encompasses approximately 135,639 acres. At the time of this delineation, only a limited portion of the study area was accessible to conduct field delineation due to lack of access to properties under private ownership; therefore, the decision was made to conduct the entire delineation via aerial imagery interpretation in order to maintain consistency across the study area. During project kick-off efforts, DWR met with USACE and State Water Resources Control Board staff to obtain agreement on a methodology that relied exclusively upon aerial photo interpretation and digitizing aquatic resources using GIS. Similar methods have been employed and accepted for other large-scale projects in the region in the recent past.

The Core Wetland Mapping Team was composed of wetland delineators, GIS analysts, and wetland ecologists from DWR's Division of Environmental Services, GEI Consultants, Inc., and Stillwater Sciences, working under the direction of DWR's Delta Conveyance Office. The Core Wetland Mapping Team used aerial imagery interpretation in GIS to identify and delineate aquatic features in the study area by identifying signatures typically associated with, and indicative of wetlands, including areas of inundation or saturation on wet season imagery, hydrophytic vegetation signatures that persisted over multiple years, and soil map unit properties as obtained from the Natural Resource Conservation Service (NRCS) Soil Survey. Other imagery signatures that were evaluated included variation in soil color and areas of active agriculture where cropped lands showed reduced growth and/or vigor. LiDAR imagery was routinely used to identify minor variations in topography to correlate potential wetland signatures on aerial imagery to topographic depressions and to delineate wetland polygons.

To ensure a systematic approach for evaluating the entirety of the study area, a grid of 509 tiles was overlaid on the study area. Each tile covered approximately 371 acres, with a perimeter of approximately 3.1 miles. Blocks of tiles were assigned to each of the five GIS analysts on the Core Wetland Mapping Team, and each tile was recorded as it was completed. A quality assurance review of the consultant-produced portions of the data was conducted by DWR prior to submission of the mapping to USACE.

## 2.1 Data Sources

The Core Wetland Mapping Team primarily used the following as data sources to identify aquatic features within the study area:

- 1-foot resolution true-color digital orthorectified aerial imagery flown on December 14-20, 2017 (USGS 2017)
- 2017 Sacramento-San Joaquin Delta LiDAR, Digital Elevation Model (DEM) data from flights conducted on December 9, 2017 through January 21, 2018 (USGS 2017)
- 1-meter pixel resolution true-color digital aerial imagery from the National Agriculture Imagery Program captured in 2018 (NAIP 2018)
- Soil data from the NRCS Web Soil Survey database (NRCS 2019)

Additional sources of information included historical aerial imagery available on Google Earth, United States Geological Survey (USGS) topographic maps, earlier NAIP imagery, the United States Fish and Wildlife Service's (USFWS) National Wetland Inventory (USFWS 2020), and the 2011 Delta Vegetation and Land Use Data (CDFW 2020). Wetland mapping products that were developed by DWR for the Bay Delta Conservation Plan and California Water Fix were also consulted. Information on wetland vegetation, soils, and hydrology which was used to identify aquatic features is described below.

## 2.2 Delineation of Aquatic Resources

Over the majority of the study area, aquatic resources were initially identified using the 2017 USGS orthoimagery, which was the most recent high-resolution imagery collected during the wet season that was available during the mapping process. If a presumed aquatic resource was identified based on the 2017 USGS orthoimagery, the 2017 DEM and aerial imagery from other years were also viewed to confirm the presence of the feature. This was done to reduce aerial photo interpretation error, and to ensure that only persistent aquatic resources were mapped and not anomalies that were present in only one year (e.g. temporary agricultural ditches). Some of the easternmost portions of the study area were not included in the 2017 imagery collection, and in those cases, the 2018 NAIP was used as the primary source. Aquatic resources were digitized at a 1:1000 or greater (e.g. 1:500) map scale. All aquatic features that were identified at this scale were mapped. Ditches and other narrow, linear features were digitized as lines that were buffered based on their observed width.

Wetland features within the study area were identified based on the *Corps of Engineers Wetlands Delineation Manual* (USACE 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008) technical guidance documents that describe and define the characteristics of wetlands. In these guidance documents, wetlands are defined as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Although wetland polygons were delineated based exclusively on aerial interpretation, consideration of USACE's three-parameter approach, which relies on presence of

hydrophytic vegetation assemblage, hydric soils, and wetland hydrology, was applied to identify and delineate boundaries of aquatic features.

Aquatic features were categorized as perennial or seasonal, based on persistence of hydrology as evidenced by sustained inundation or saturation visible on aerial imagery. Perennial wetlands were further classified into emergent wetlands, scrub-shrub wetlands, or forested wetlands based primarily on vegetative life form (i.e., herbaceous, shrub dominated, or tree dominated). Seasonal wetlands were further classified as alkaline wetland or vernal pool as these habitats have unique soil and distinctive vegetation assemblages. The seasonal wetland category also includes a third class generalized as “seasonal wetland” to capture the diversity of non-specialized vegetation assemblages that are associated with a range of soil types and are subject to temporal inundation of a duration that supports a hydrophytic vegetation assemblage.

Linear features and open water habitats that may qualify as other waters of the U.S. were categorized based on tidal influence as non-tidal or tidal. Non-tidal waters include natural channels, lakes, depressions, and agricultural ditches. Tidal classifications include tidal channel, which includes major waterways, and conveyance channel which was used for conveyance features associated with the SWP and Central Valley Project (CVP). Specific characteristics of each aquatic type are discussed below in Section 3.2 Aquatic Resources.

The aerial interpretation mapping methods utilized for this effort are robust, repeatable, and incorporate a number of data sources; however, conducting a wetland delineation in GIS may affect the accuracy of the results based on the following: 1) aerial imagery is necessarily distorted in order to construct a two-dimensional representation of a three-dimensional surface. For instance, NAIP aerial imagery is acquired with a minimum horizontal accuracy of 6 meters from photo-identifiable ground points (USDA 2020) and 2017 USGS imagery was produced with a minimum accuracy target of 1.52 meters (USGS 2017); and, 2) delineation based on aerial imagery is limited to evaluation of surface features such as transitions in vegetation types and inundation or saturation signatures that do not necessarily exhibit abrupt boundaries. In these cases, the delineator must use best professional judgement in delineating a wetland boundary. Because of these factors, an exact margin of precision for this delineation is difficult to quantify.

## 2.3 Vegetation Interpretation

Identification and quantification of many individual plant species is not possible using the methods outlined in this mapping effort; however, the vegetation assemblages that are generally associated with the wetland classes that were used are dominated by hydrophytic vegetation. The National Wetland Plant List (Lichvar et al. 2016) was referenced to obtain the wetland indicator status for each species likely to be dominant within each wetland class within the study area. A species is considered dominant when that species accounts for 20 percent or more of the total absolute cover in a vegetation stratum (USACE 1987, 2008). Based on the GIS approach employed, dominant plant species that typify a wetland class assisted in the determination of class. Botanical nomenclature follows *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012).

Ratings of obligate (OBL), facultative wetland (FACW), or facultative (FAC) correspond to hydrophytic species, and the plant's frequency of occurrence in wetlands. These plant indicator categories are defined as:

- OBL—greater than 99 percent occurrence in wetlands
- FACW—between 67 percent and 99 percent occurrence in wetlands
- FAC—between 34 percent and 66 percent occurrence in wetlands

Plants ranked as facultative upland (FACU) and upland (UPL) may also occur in wetlands but are not part of the dominant plant community. Dominant plant species that are likely to be encountered in each class of wetland are described in Section 3.2 Aquatic Resources.

## 2.4 Soil Survey

The Core Wetland Mapping Team consulted NRCS soil maps of Alameda, Contra Costa, Sacramento, and San Joaquin counties (NRCS 2019). Although most soil map units within the study area were identified as hydric, hydric soil map units may also include portions that are non-hydric, and therefore, should not be taken as a sole indicator of wetland conditions. The hydric soil criteria are as follows (NRCS 2012):

1. All Histels except Folistels and Histosols except Folists; or
2. Map unit components in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, or Andic, Cumulic, Pachic, or Vitrandic subgroups that:
  - a. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
  - b. Show evidence that the soil meets the definition of a hydric soil;
3. Map unit components that are frequently ponded for long duration or very long duration during the growing season that:
  - a. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
  - b. Show evidence that the soil meets the definition of a hydric soil; or
4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
  - a. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
  - b. Show evidence that the soils meet the definition of a hydric soil.

## 2.5 Hydrology

The Core Wetland Mapping Team evaluated wetland hydrology by analyzing inundation or saturation signatures on aerial images and landscape form and position in the LiDAR DEM. Features such as depressions and toe slopes, combined with the photographic signatures indicative of seasonal or persistent inundation or saturation were used to infer wetland hydrology. The primary aerial image sources relied upon for this mapping effort were the 2017 USGS Orthoimagery and the 2018 NAIP imagery.

Prior to the initiation of this mapping effort, the USACE was consulted to determine whether conditions observed in the 2017 USGS Orthoimagery would be accepted as representative of normal rainfall conditions for the area. The USACE conducted an analysis of antecedent rainfall conditions using the dates of the imagery flight and found scores over the study area ranging from 7 to 11, indicating that wet season conditions at the time were normal to drier than normal. In some cases, the 2017 USGS imagery captured areas that were flood irrigated or artificially managed for waterfowl. In those cases, analysts could not exclusively rely on inundation as a reliable wetland hydrology indicator. This issue was addressed by utilizing LiDAR to identify topographic depressions and multiple aerial images to identify persistent farmed wetlands.

The 2017 LiDAR DEM and USGS 7.5-Minute 1:24,000 scale Topographic Quadrangles were used to identify topographic depressions, major water bodies, drainage channels, and ditches. Additionally, photographic signatures of hydrology were assessed under different precipitation conditions by comparing aerial photographs from multiple years. NAIP aerial imagery from 2010, 2012, and 2016, as well as aerial images in Google Earth were routinely referenced in areas subject to high degrees of anthropogenic disturbance, such as agricultural fields on Delta islands, to distinguish persistent aquatic features from more temporary features.

### **3.0 RESULTS**

#### **3.1 Environmental Setting**

The Sacramento-San Joaquin Delta is formed at the western edge of California's Central Valley by the confluence of the Sacramento and San Joaquin Rivers. The study area is located within portions of Sacramento, San Joaquin, Contra Costa, and Alameda Counties. The study area encompasses portions of 18 USGS topographic 7.5-minute quadrangles (quads) stretching from Township 7 North on the Clarksburg quad to Township 1 South on the Clifton Court Forebay quad and spans from Range 6 East at the western study area boundary to Range 3 East along the eastern boundary. The study area overlaps with the following USGS quads: Clarksburg, Florin, Courtland, Bruceville, Galt, Rio Vista, Isleton, Thornton, Lodi North, Bouldin Island, Terminous, Lodi South, Brentwood, Woodward Island, Holt, Stockton West, Byron Hot Springs, and Clifton Court Forebay (Figure 1). The topography of the study area is generally flat and ranges in elevation from about 36 feet above sea level (NAVD 88) at the northern study area boundary to sea level near Clifton Court Forebay at the south end of the study area. The lowest elevations within the study area are located on Delta islands, with 16.44 feet below sea level (NAVD 88) documented as the lowest elevation point (USGS 2017). The highest elevation within the study area is 129.3 feet above mean sea level (NAVD 88). The Delta islands within the study area are surrounded by levees, and on-island pumps and ditches maintain water levels within the island interiors.

Cultivated land constitutes the majority of the land cover in the study area. Major crops include corn, alfalfa, tomatoes, wheat, and wine grapes. A large number of other crops are also grown in the study area, including orchard crops like almonds and pears, and many annual crops like pumpkins and safflower. Other agricultural land uses include pasture, hay, and turf grasses.

Tidal channels include open water river channels and sloughs that are subject to the ebb and flow of the tides, including portions of the Sacramento and San Joaquin Rivers, several tributaries, and associated sloughs. Tidal freshwater emergent wetland occurs as a transition between the tidal channels and adjacent riparian or upland plant communities. The lower elevation emergent wetland areas are more frequently inundated and are dominated by tules (*Schoenoplectus* spp.) and cattails (*Typha* spp.).

Non-tidal perennial aquatic communities include small ponds, lakes, and river channels without tidal influence. This community is characterized by open water; however, floating and/or submerged vegetation may be present. Common plant species include water primrose (*Ludwigia* spp.), water hyacinth (*Eichhornea crassipes*), and Brazilian waterweed (*Egeria densa*). Tules and cattails may also grow at the water margins.

The valley/foothill riparian natural community is often the transition between aquatic and upland habitats. In the Delta, this community is most often confined to long linear patches along waterways. Larger areas can be found on instream islands and restoration areas. Riparian forest supports broadleaved riparian trees with canopy cover ranging from open to dense. Riparian forest often has an understory layer of riparian scrub species. The tree species that dominate the Delta's riparian forests include willows (*Salix* spp.), Fremont's cottonwood (*Populus fremontii*), boxelder (*Acer negundo*), Oregon ash (*Fraxinus latifolia*), and California sycamore (*Platanus racemosa*).

Alkaline seasonal wetland and vernal pool complex also occur in areas where shallow depressions are underlain by hardpan or dense clay layers. The vegetation of these communities is characterized by a high percentage of native and special status species such as different species of goldfields (*Lasthenia* spp). These habitat types are found primarily at the northern and southern ends of the study area, near North Stone Lake and Clifton Court Forebay, respectively.

Seasonal wetlands occur in areas that are seasonally ponded or saturated either through water management or natural water table levels. Plant species composition within these generalized wetlands depends on the hydrologic regime. Common species range from cattails and tules to annual species that are tolerant of disturbance. In some farm fields on subsided islands, there are areas that remain too wet for crops to grow or thrive. These areas often form seasonal wetlands with weedy vegetation.

Undeveloped upland areas are generally dominated by a grassland community that consists of introduced or native annual and perennial grasses and forbs. In the study area, this community can be found on levee banks, in undeveloped fields, or interspersed with vernal pool and alkaline seasonal wetland communities. Common species include wild oats (*Avena* spp.), bromes (*Bromus* spp.), barley (*Hordeum* spp.), wild radish (*Raphanus raphanistrum*), and mustards (*Brassica* spp.).

### **3.1.1 Landscape and Local Hydrology**

The study area crosses four watersheds, including the Lower Sacramento watershed (Hydrologic Unit Code [HUC] 18020163), the San Joaquin Delta watershed (HUC 18040003), the Upper Cosumnes watershed (HUC 18040012), and the Upper Mokelumne watershed (HUC 18040012).



The study area is located primarily within Major Land Resource Area (MLRA) 16 (California Delta) in Land Resource Region C (California Subtropical Fruit, Truck, and Specialty Crop) (NRCS 2006). This MLRA, located at the confluence of the Sacramento and San Joaquin Rivers, was floodplain prior to European settlement and anthropogenic modification. The historic Delta formed as a result of fluvial sedimentation due to reduced flow rates and low gradient stream deposition. As the Delta formed, so did the many streams that divided the then-nearly topographically level Delta into “islands.” Levee building commenced in the late 1800’s to facilitate large-scale agricultural development in the Delta, disconnecting the interior of Delta islands from seasonal flooding. Presently, groundwater management in the form of pumping and ditching which provide drainage to prevent islands from internal flooding is required as a result of land subsidence.

Delta channels and sloughs are influenced by ocean tides and water levels vary during each tidal cycle; the range of tidal fluctuation is from less than one foot in the east Delta to more than 5 feet near Carquinez Strait (DWR 2013). Flows in the Delta are also influenced by human activities such as the CVP and SWP operations, other water exports, channel widening, channel connections, barriers, and agricultural diversions.

The C.W. Bill Jones and Harvey O. Banks pumping plants, elements of the Federal CVP and California SWP respectively, are located in the south Delta near Tracy. These pumping plants lift water from the Delta into the Delta-Mendota Canal and California Aqueduct to deliver water to farms located in the southern Central Valley and Tulare Lake Basins, and cities in southern California. During periods of low flow, operation of the pumping plants can create a flow reversal, allowing brackish waters from San Pablo Bay to move into the Delta (NRCS 2006).

### **3.1.2 Soils**

The NRCS soil map units that occur within the study area are shown in Figure 2 *Soil Map Units in the Study Area*. Many of the soil map units in the study area are listed as hydric, or contain minor components that meet the definition of hydric soil. Within the Delta, much of the soil genesis occurred under anaerobic conditions as a result of regular and prolonged saturation, flooding, and ponding under historic conditions. Therefore, the preponderance of hydric map units within the study area is primarily a relic of Delta conditions prior to land reclamation in the late 1800’s. In many instances, hydric soil indicators remain despite the presence of levees and measures to control groundwater levels.

The soil orders that are prevalent in this MLRA are Entisols, Histosols, and Mollisols (NRCS 2006). The soils have a thermic temperature regime, aquatic soil moisture regime, and mixed minerology as a result of sediment transport from fluvic processes. The soils are generally very deep, poorly drained or very poorly drained, and have a high clay content.

According to NRCS (2006), soil great groups common to the study area generally formed as follows. Fluvaquents (Valdez series) formed in alluvium on floodplains and deltas. Haplosaprists formed in organic material in freshwater marshes (Kingile and Rindge series). Endoaquolls (Egbert, Gazwell, Peltier, and Ryde series) formed in alluvium in basins, marshes, sloughs, and on deltas.

Table 1. Soil Units Within the Study Area

Soil Unit Symbol	Soil Unit Name	Contains Hydric Components?
101	Acampo sandy loam, 0 to 2 percent slopes	No
Bb	Brentwood clay loam	No
Bc	Brentwood clay loam, wet	No
111	Bruella sandy loam, 0 to 2 percent slopes	No
CaA	Capay clay, 0 to 2 percent slopes	No
CbA	Capay clay, wet, 0 to 2 percent slopes	No
115	Clear Lake clay, hardpan substratum, drained, 0 to 1 percent slopes	Yes
114	Clear Lake clay, partially drained, 0 to 2 percent slopes, frequently flooded	Yes
130	Columbia fine sandy loam, drained, 0 to 2 percent slopes	Yes
121	Columbia sandy loam, clayey substratum, drained, 0 to 2 percent slopes, occasionally flooded	Yes
119	Columbia sandy loam, clayey substratum, partially drained, 0 to 2 percent slopes	Yes
116	Columbia sandy loam, partially drained, 0 to 2 percent slopes	Yes
123	Columbia silt loam, drained, 2 to 5 percent slopes	Yes
128	Cosumnes silt loam, drained, 0 to 2 percent slopes	Yes
129	Cosumnes silt loam, drained, 0 to 2 percent slopes, occasionally flooded	Yes
127	Cosumnes silt loam, partially drained, 0 to 2 percent slopes	Yes
138	Cosumnes silty clay loam, drained, 0 to 2 percent slopes	Yes
148	Dello clay loam, drained, 0 to 2 percent slopes, overwashed	Yes
145	Dello loamy sand, drained, 0 to 2 percent slopes	Yes
146	Dello loamy sand, partially drained, 0 to 2 percent slopes	Yes
149	Devries sandy loam, drained, 0 to 2 percent slopes, MLRA 16	Yes
135	Dierssen clay loam, deep, drained, 0 to 2 percent slopes	Yes
134	Dierssen sandy clay loam, drained, 0 to 2 percent slopes	Yes
133	Dierssen sandy loam, drained, 0 to 2 percent slopes	Yes
150	Dumps	No
137	Durixeralfs, 0 to 1 percent slopes	No
155	Egbert-Urban land complex, partially drained, 0 to 2 percent slopes	Yes
141	Egbert clay, partially drained, 0 to 2 percent slopes	Yes
Ea	Egbert mucky clay loam	Yes
152	Egbert mucky clay loam, partially drained, 0 to 2 percent slopes	Yes

Table 1. Soil Units Within the Study Area

Soil Unit Symbol	Soil Unit Name	Contains Hydric Components?
153	Egbert silty clay loam, partially drained, 0 to 2 percent slopes	Yes
154	Egbert silty clay loam, sandy substratum, partially drained, 0 to 2 percent slopes	Yes
155	Egbert-Urban land complex, partially drained, 0 to 2 percent slopes	Yes
Fc	Fluvaquents	Yes
150	Fluvaquents, 0 to 2 percent slopes, frequently flooded	Yes
159	Fluvaquents, 0 to 2 percent slopes, frequently flooded	Yes
152	Galt clay, 0 to 1 percent slopes, MLRA 17	Yes
153	Galt clay, 0 to 4 percent slopes, MLRA 17	Yes
151	Galt clay, leveled, 0 to 1 percent slopes	Yes
155	Gazwell mucky clay, partially drained, 0 to 2 percent slopes	Yes
166	Grangeville fine sandy loam, partially drained, 0 to 2 percent slopes	No
168	Guard clay loam, 0 to 2 percent slopes	Yes
169	Guard clay loam, drained, 0 to 2 percent slopes	Yes
173	Hollenbeck silty clay, 0 to 2 percent slopes	No
179	Itano silty clay loam, partially drained, 0 to 2 percent slopes	Yes
181	Jacktone-Urban land complex, 0 to 2 percent slopes	Yes
189	Kingdon fine sandy loam, 0 to 2 percent slopes	No
191	Kingile-Ryde complex, partially drained, 0 to 2 percent slopes	Yes
Kb	Kingile muck	Yes
190	Kingile muck, partially drained, 0 to 2 percent slopes	Yes
167	Lang fine sandy loam, drained, 0 to 2 percent slopes	Yes
Lb	Lang sandy loam, deep	No
169	Laugenour loam, partially drained, 0 to 2 percent slopes	Yes
LaC	Linne clay loam, 3 to 15 percent slopes	No
LbD	Linne clay loam, 5 to 15 percent slopes	No
Mb	Marcuse clay	Yes
Mbcc	Marcuse clay	Yes
Mb	Marcuse clay	Yes
Mc	Marcuse clay, strongly alkali	Yes
Md	Merritt loam	Yes
197	Merritt silty clay loam, partially drained, 0 to 2 percent slopes	Yes
205	Peltier mucky clay loam, organic substratum, partially drained, 0 to 2 percent slopes	Yes

Table 1. Soil Units Within the Study Area

Soil Unit Symbol	Soil Unit Name	Contains Hydric Components?
204	Peltier mucky clay loam, partially drained, 0 to 2 percent slopes, MLRA 16	Yes
213	Piper sandy loam, partially drained, 0 to 2 percent slopes	Yes
190	Pits	No
222	Reiff fine sandy loam, 0 to 2 percent slopes, occasionally flooded	No
RbA	Rincon clay loam, 0 to 2 percent slopes, MLRA 14	No
RdA	Rincon clay loam, 0 to 3 percent slopes	No
Rd	Rindge muck, 0 to 2 percent slopes, partially drained, MLRA 16	Yes
225	Rindge muck, 0 to 2 percent slopes, partially drained, MLRA 16	Yes
201	Rindge mucky silt loam, partially drained, 0 to 2 percent slopes, MLRA 16	Yes
224	Rindge mucky silt loam, partially drained, 0 to 2 percent slopes, overwashed	Yes
226	Rioblanco clay loam, drained, 0 to 2 percent slopes	Yes
230	Ryde clay loam, partially drained, 0 to 2 percent slopes, MLRA 16	Yes
232	Ryde clay loam, sandy substratum, partially drained, 0 to 2 percent slopes	Yes
231	Ryde silty clay loam, organic substratum, partially drained, 0 to 2 percent slopes	Yes
233	Ryde-Peltier complex, partially drained, 0 to 2 percent slopes, MLRA 16	Yes
Sa	Sacramento clay, 0 to 2 percent slopes, MLRA 16	Yes
Sb	Sacramento clay, alkali	Yes
234	Sailboat silt loam, drained, 0 to 2 percent slopes	Yes
206	Sailboat silt loam, partially drained, 0 to 2 percent slopes	Yes
214	San Joaquin silt loam, 0 to 3 percent slopes	No
213	San Joaquin silt loam, leveled, 0 to 1 percent slopes	No
216	San Joaquin-Durixeralfs complex, 0 to 1 percent slopes	No
218	San Joaquin-Galt complex, 0 to 3 percent slopes	No
217	San Joaquin-Galt complex, leveled, 0 to 1 percent slopes	No
219	San Joaquin-Urban land complex, 0 to 2 percent slopes	No
Sc	San Ysidro loam, 0 to 5 percent slopes, dry, MLRA 17	No
Sccc	San Ysidro loam, 0 to 5 percent slopes, dry, MLRA 17	No
222	Scribner clay loam, partially drained, 0 to 2 percent slopes	Yes
243	Scribner clay loam, partially drained, 0 to 2 percent slopes	Yes

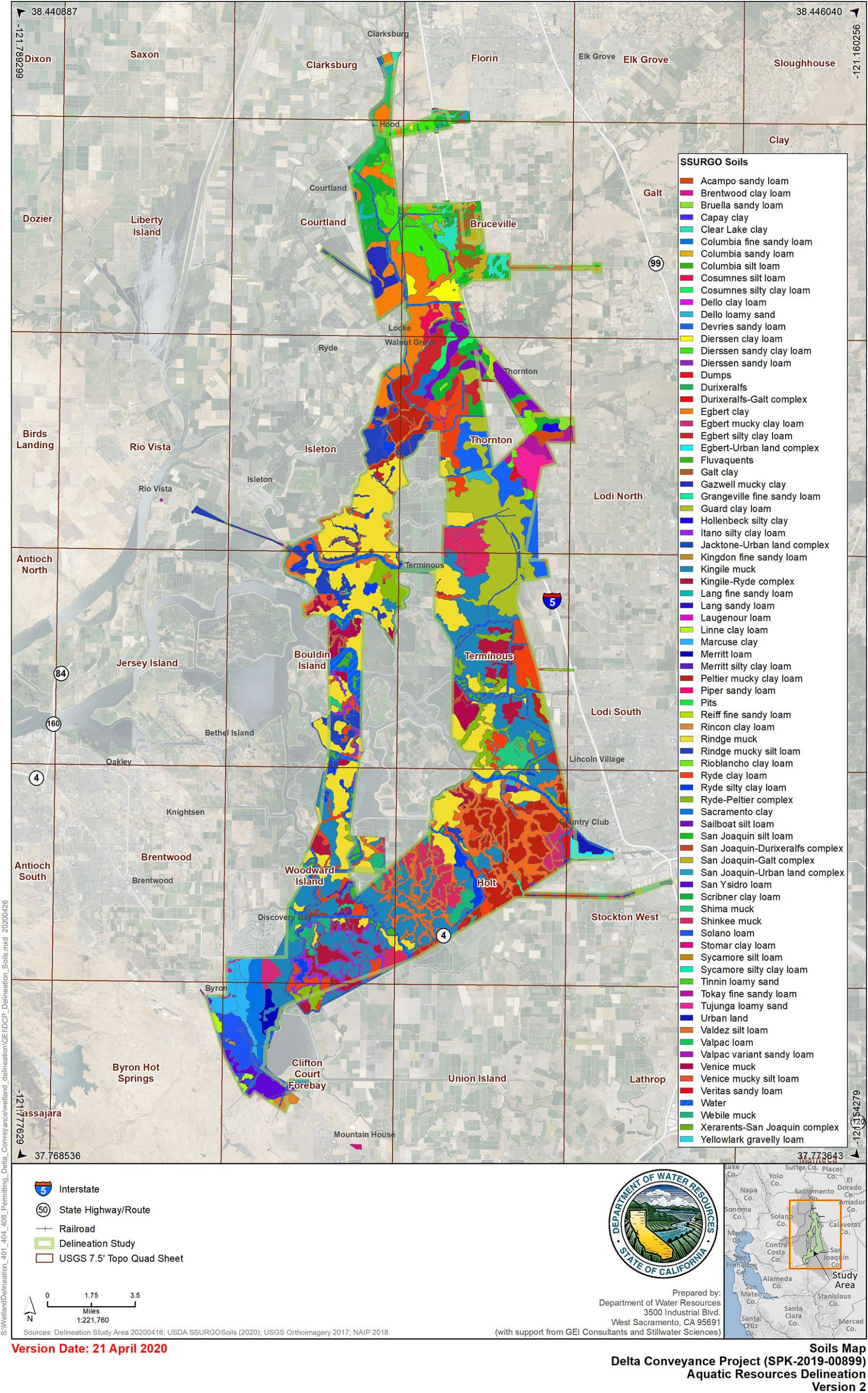
Table 1. Soil Units Within the Study Area

Soil Unit Symbol	Soil Unit Name	Contains Hydric Components?
244	Scribner clay loam, sandy substratum, partially drained, 0 to 2 percent slopes	Yes
246	Shima muck, partially drained, 0 to 2 percent slopes	Yes
247	Shinke muck, partially drained, 0 to 2 percent slopes	Yes
Sh	Solano loam	Yes
Sk	Solano loam, strongly alkali	Yes
252	Stomar clay loam, 0 to 2 percent slopes	No
So	Sycamore silt loam	Yes
Ss	Sycamore silty clay loam	Yes
225	Tinnin loamy sand, 0 to 2 percent slopes	No
256	Tokay fine sandy loam, 0 to 2 percent slopes	No
259	Tujunga loamy sand, 0 to 2 percent slopes	No
Ub	Urban land	No
260	Urban land	No
261	Valdez silt loam, organic substratum, partially drained, 0 to 2 percent slopes, MLRA 16	Yes
230	Valpac loam, partially drained, 0 to 2 percent slopes	Yes
232	Valpac variant sandy loam, partially drained, 0 to 2 percent slopes	Yes
264	Venice muck, partially drained, 0 to 2 percent slopes	Yes
263	Venice mucky silt loam, partially drained, 0 to 2 percent slopes, overwashed	Yes
265	Veritas sandy loam, partially drained, 0 to 2 percent slopes	No
Wa	Webile muck	Yes
273	Webile muck, partially drained, 0 to 2 percent slopes	Yes
238	Xerarents-San Joaquin complex, 0 to 1 percent slopes	No
280	Yellowlark gravelly loam, 2 to 5 percent slopes	No

Source: NRCS 2019











### 3.1.3 Climate

The Mediterranean climate of the study area is defined by hot, dry summers and cool, wet winters. The temperatures of the Sacramento–San Joaquin Delta tend to be lower than the surrounding areas during the summer because of periodic and diurnal cooling that is a result of its proximity to the Pacific Ocean and the San Francisco Bay.

Precipitation in the study area occurs mostly between November and April in the form of rain. Rainfall totals are variable based on local weather patterns, but typically 12 to 21 inches are received in the study area (NRCS 2006).

### 3.1.4 Normal Circumstances

The extensive marshes, channels, and natural levees that existed in the Delta prior to European settlement have been altered by human use. Dams on the Sacramento and San Joaquin Rivers manipulate flows and reduce sediment loads. Channels have been leveed, deepened, and straightened. Cities, industry, and agriculture extract and discharge water into the waterways of the Delta. Today the vegetation, soils, and hydrology of most of the Delta islands are highly altered and manipulated to facilitate intensive agriculture. Because of the historic modifications within the Delta, the permanence of the modifications, and their effect on Delta hydrology, the current conditions are considered the normal circumstance of the Delta.

USACE Regulatory Guidance Letter 86-09<sup>1</sup> (USACE 1986) states that “normal circumstances” are determined on the basis of an area’s characteristics and use, at present and in the recent past. The Courts<sup>2</sup> have upheld the view that such historically manipulated areas are the baseline for “normal

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<sup>1</sup> Regulatory Guidance Letter (RGL) 86-09: “it is our intent under Section 404 to regulate discharges of dredged or fill material into the aquatic system as it exists and not as it may have existed over a record period of time...We do not intend to assert jurisdiction over those areas that once were wetlands and part of an aquatic system, but which, in the past, have been transformed into dry land for various purposes.” ... “Many areas of wetlands converted in the past to other uses would, if left unattended for a sufficient period of time, revert to wetlands solely through the devices of nature. However, such natural circumstances are not what is meant by “normal” circumstances...” “Normal circumstances” are determined on the basis of an area’s characteristics and use, at present and in the recent past. Thus, if a former wetland has been converted to another use...and that use alters its wetland characteristics to such an extent that it is no longer a “water of the United States”, that area will no longer come under the Corps regulatory jurisdiction for purposes of Section 404. However, if the area is abandoned and over time regains wetland characteristics such that it meets the definition of “wetlands”, then the Corps 404 jurisdiction has been restored.”

<sup>2</sup> See e.g., *New Hope Power Co. v. U.S. Army Corps of Engineers*, 746 Fed. Supp. 2d 1272 (S.D. Fla. 2010)(historic ground water pumping is the “normal circumstance” for the purposed of making wetland determinations); *Golden Gate Audubon Society, Inc. v. United States Army Corps of Engineers*, 717 F.Supp. 1417, 1421–1422 (N.D. Cal. 1988) (“*Audubon I*”) (if wetlands site was transformed into dry land by 1975, Corps could find the dry land was its normal circumstance because regulatory definition does not retroactively extend jurisdiction over areas that have been transformed into dry land); *Leslie Salt Co. v. United States*, 896 F.2d 354, 358 (9th Cir. 1990) (whether wetlands are artificially or naturally created is irrelevant to determine whether, “under normal circumstances,” an area supports wetland vegetation); *Golden Gate Audubon Society, Inc. v. United States Army Corps of Engineers*, 796 F.Supp. 1306, 1313 (N.D. Cal. 1992) (“*Audubon II*”) (“if a site has been legally converted to dry land, so that it no longer meets the regulatory definition of ‘wetlands,’ that site will not come under Corps jurisdiction”; conversely, “it is impossible to state that the ‘normal circumstances’ of an area which contains wetlands is anything other than “wetlands”);

*Harris v. United States*, 820 F.Supp. 1026, (N.D. Miss. 1993) (agency’s failure to consider what characteristics the land would possess without the presence of water control structures is not grounds for concluding delineation was arbitrary).

circumstances” for wetland determinations. Thus, it is appropriate to map and identify wetlands based on current conditions, which include anthropogenic modification of vegetation and natural hydrology conditions, as they have existed since prior to the establishment of the Clean Water Act.

### 3.2 Aquatic Resources

A total of 135,650 acres were evaluated in GIS for the presence of aquatic features that may be subject to USACE jurisdiction under CWA Section 404 and Section 10 of Rivers and Harbors Act. Potentially jurisdictional aquatic features are depicted on the Aquatic Resources Delineation Mapbook provided in **Appendix A**. A detailed table of aquatic features is provided in **Appendix B**. A summary of the types of aquatic resources that were identified in the study area and the corresponding Cowardin classification types (Cowardin et al. 1979) are provided in **Table 2**. Potentially jurisdictional aquatic features are described below.

<b>Table 2. Summary of Aquatic Features Within the Study Area</b>			
	<b>Feature ID</b>	<b>Cowardin Code</b>	<b>Acres</b>
<b>Wetlands</b>			<b>6,627.16</b>
<i>Perennial</i>			<i>3,059.54</i>
	EM (Emergent Wetland)	PEM Palustrine-emergent	1,468.60
	SS (Scrub-Shrub Wetland)	PSS Palustrine-scrub shrub	906.80
	FO (Forested Wetland)	PFO Palustrine-forested	684.14
<i>Seasonal</i>			<i>3,567.62</i>
	SW (Seasonal Wetland)	PEM Palustrine-emergent nonpersistent	3,115.30
	AW (Alkaline Wetland)	PSS Palustrine-scrub shrub	319.00
	VP (Vernal Pool)	PEM1 Palustrine-emergent nonpersistent	133.32
<b>Other Waters of the U.S.</b>			<b>9,186.27</b>
<i>Non-Tidal</i>			<i>2,864.62</i>
	AD (Agricultural Ditch)	R4 Riverine-intermittent	2,341.37
	CH (Natural Channel)	R4 Riverine-intermittent	21.66
	DE (Depression)	PUB Palustrine-unconsolidated bottom	304.76
	LA (Lake)	L1UB Lacustrine-unconsolidated bottom	196.83
<i>Tidal</i>			<i>7,189.07</i>
	TC (Tidal Channel)	R1UB Riverine-Tidal-unconsolidated bottom	7,096.16
	CO (Conveyance Channel)	N/A, Rock-lined Conveyance Channel	92.91
<b>Total Acreage of Aquatic Features</b>			<b>16,680.84</b>
version April 21, 2020 Source: DWR 2020			

#### 3.2.1 Wetlands

While ground truthing was not feasible as a result of restricted land access at the time of mapping and report preparation, areas depicted as wetlands in **Appendix A** are assumed to meet USACE’s three wetland parameters as these locations have evidence of inundation or saturation on aerial imagery from multiple years, are dominated by hydrophytic vegetation as interpreted from aerial imagery, and have

hydric soils based on NRCS soil maps and hydric soil ratings, or soils are assumed to be hydric based on the presence of wetland hydrology and hydrophytic plant assemblages. Delineated wetlands were categorized as perennial or seasonal based on evidence of persistent or temporary saturation or inundation respectively. The following section describes likely conditions within each of the aquatic feature types.

### **Perennial Wetlands**

Perennial wetlands are dominated by persistent wetland hydrology and perennial hydrophytic vegetation. Three types of perennial wetlands were mapped in the study area and were differentiated based on the growth form of the vegetation.

#### ***Emergent Wetland***

Emergent wetlands within the study area are dominated by herbaceous emergent plants such as California tule (*Schoenoplectus californicus*; OBL), hard-stem tule (*S. acutus*; OBL), narrow-leaf cattail (*Typha angustifolia*; OBL), broad-leaf cattail (*T. latifolia*; OBL), and floating water primrose (*Ludwigia peploides*; OBL). The vegetation assemblages typically associated with this wetland type are almost exclusively dominated by species rated as obligate on the National Wetland Plant List (Lichvar et al. 2016). These areas have a persistent vegetative aerial signature and evidence of inundation or saturation is present on most aerial images evaluated.

This wetland class typically occurs at the edges of ponds or lakes, along the margins of tidal channels, on in-channel islands of major tidal channels within the Delta, and where seepage occurs on the landside of levees. Average water depth in this type of feature is estimated to be around 3 feet.

#### ***Scrub-Shrub Wetland***

Scrub-shrub wetlands within the study area are dominated by woody vegetation less than 20 feet tall and include shrubs typically associated with riparian areas such as sandbar willow (*Salix exigua*; FACW), Himalayan blackberry (*Rubus armeniacus*; FAC), red twig dogwood (*Cornus sericea* [syn. *C. alba*]; FACW) buttonwillow (*Cephalanthus occidentalis*; OBL), and California wild rose (*Rosa californica*; FAC). Fremont's cottonwood (*Populus fremontii* [syn. *P. deltoides*]; FAC) seedlings or saplings may also be present. The vegetation assemblages typically associated with this wetland type include species rated as obligate, facultative wetland, and facultative on the National Wetland Plant List (Lichvar et al. 2016). Herbaceous species are generally lacking or are a minor component of the vegetation assemblage as the canopy cover in scrub-shrub wetlands is high and low-growing herbaceous species do not receive sufficient light for survival. Evidence of saturation or inundation is more variable as compared to the emergent wetland class; however, the vegetation community is persistent due to the dominance of perennial shrubs.

The scrub-shrub wetland class typically occurs at the periphery of depressions, ponds, and lakes; along the margins of tidal and non-tidal channels; and on in-channel islands in the Delta. Average water depth in this type of feature is estimated to be around 2 feet.

### **Forested Wetland**

Forested wetlands are defined by woody vegetation that is 20 feet tall or taller with a tree canopy cover equal to or greater than 25 percent. Riparian trees common in the study area include Goodding's black willow (*Salix gooddingii*; FACW), red willow (*S. laevigata*; FACW), box elder (*Acer negundo*; FACW), Oregon ash (*Fraxinus latifolia*; FACW), Fremont's cottonwood, white alder (*Alnus rhombifolia*; FACW), black walnut (*Juglans hindsii*; FAC), and valley oak (*Quercus lobata*; FACU). Forested wetlands generally have a shrub component, typically in canopy openings and along the forested edge. The presence of an herbaceous layer is variable. The vegetation assemblages typically associated with forested wetlands include species rated as facultative wetland and facultative on the National Wetland Plant List (Lichvar et al. 2016). Species with obligate or facultative upland ratings are occasional in forested wetlands, and generally not the dominant species represented in the habitat.

Forested wetlands within the study area are located along the edges of tidal and non-tidal channels, and on in-channel islands located within tidally influenced waterways. Evidence of saturation or inundation is variable on aerial images as compared to the emergent wetland class; however, the vegetation community is persistent due to the dominance of perennial tree species. Average water depth in this type of feature is estimated to be around 2 feet.

### **Seasonal Wetlands**

Three classes of seasonal wetlands were mapped in the study area. Seasonal wetlands experience temporary inundation or saturation, typically in the winter or spring months of water years that receive at or above normal precipitation. Inundation and saturation are most evident on aerial images captured during wet months. Due to the seasonality of saturated or inundated conditions, hydrophytic vegetation is transitory and these areas are prone to colonization by annual upland grasses and forbs late in the growing season as the soils dry. Aerial image evaluation beyond the primary image source years of 2017 and 2018 was often necessary to aid in the determination of seasonal wetlands.

### **Vernal Pool**

Vernal pool wetlands are topographic depressions that are usually found within annual grassland habitats. There is a water-restricting soil horizon, often high in clay content and indurated, located near the soil surface that prevents water from infiltrating deep into the soil horizons and away from the root zone. These depressions fill with rainwater and may remain inundated through spring or early summer. Vernal pools often occur in complexes of many small pools that are hydrologically interconnected via overland surface flow through swales when pools are full. Water may also move below the soil surface as water infiltrates and travels above the hardpan or claypan layer into adjacent pools. Vernal pools support distinct herbaceous

vegetation assemblages and many of the plant species that occur in this wetland type are endemic to California. Vernal pool wetlands can support a variety of floristic diversity, ranging from common to rare. Commonly encountered species typical of vernal pool habitats within the study area include popcorn flower (*Plagiobothrys* spp.; OBL to FACW), Fremont's tidy tips (*Layia fremontii*; OBL), goldfields (*Lasthenia* spp.; OBL to FACU), coyote thistle (*Eryngium* spp.; OBL to FACW), calicoflower (*Downingia* spp.; OBL), and pale spike rush (*Eleocharis macrostachya*; OBL). The wet phase of vernal pools is dominated by plants rated as obligate or facultative wetland on the National Wetland Plant List (Lichvar et al. 2016). As the vernal pools draw down as a result of evaporation and increased evapotranspiration in late spring and early summer, annual upland grasses sometimes colonize and become dominant in these seasonal wetland habitats.

Vernal pool wetlands within the study area are located primarily in areas that are relatively undeveloped without substantial land alteration. This wetland type occurs on lands with hummocky surfaces, primarily at the northernmost portion of the study area south of North Stone Lake, and along the western side of the San Joaquin Valley near Clifton Court Forebay. Average water depth in this type of feature is estimated to be around 1 foot.

### **Alkaline Wetland**

Alkaline wetland is a type of seasonal wetland influenced by strongly alkaline or saline soils. Alkaline wetlands often support alkaline or saline tolerant shrubs such as iodine bush (*Allenrolfea occidentalis*; FACW), alkali heath (*Frankenia salina*; FACW), bush seepweed (*Suaeda nigra*; OBL), and saltbush (*Atriplex* spp.; FACW to FAC). The shrub layer may be co-dominate with salt-tolerant grasses including salt grass (*Distichlis spicata*; FAC) and alkali sacaton (*Sporobolus airoides*; FAC). This wetland type may have large unvegetated areas as a result of salt accumulations at or near the soil surface. Alkaline wetland habitats are dominated by an assemblage of plants with facultative wetland or facultative ratings on the National Wetland Plant List (Lichvar et al. 2016).

Evidence of seasonal saturation or inundation may be present on wet season aerial imagery, and salt crust presents bright white signatures during dry season imagery. Alkaline wetlands are primarily located in the southern portion of the study area on lands without substantial land alteration, or in small patches at the periphery of agricultural fields or along canals. Average water depth in this type of feature is estimated to be around 1 foot.

### **Seasonal Wetland**

Seasonal wetlands are the most broad and diverse of the wetland types identified in this report. These wetlands are primarily colonized by herbaceous species that are common throughout the Central Valley and Delta. The vegetation assemblages typically associated with seasonal wetlands primarily include species rated as facultative wetland and facultative on the National Wetland Plant List (Lichvar et al. 2016), and often include ruderal species such as tall flatsedge (*Cyperus eragrostis*; FACW), Santa Barbara sedge (*Carex barbarae*; FAC), soft rush (*Juncus*

*effusus*; FACW), fiddle dock (*Rumex pulcher*; FAC), curly dock (*R. crispus*; FAC), and perennial rye grass (*Festuca perennis* [syn. *Lolium perenne*]; FAC). Species with obligate or facultative upland ratings typically comprise a lesser percentage of the plant community. The vegetation composition is influenced primarily by landscape position, influence of ground water, soil texture, and runoff and drainage properties, as well as anthropogenic and natural disturbances.

Seasonal wetlands are the most prevalent and widespread of all wetland classes mapped within the study area. Evidence of saturation or inundation is variable on aerial images, especially in areas with a high degree of anthropogenic modification and which may be subject to regular disturbance such as agriculture or winter flooding for migratory bird and waterfowl management. Numerous seasonal wetlands were mapped in active agricultural fields in the Delta. While the size and shape of seasonal wetlands in farmed fields is subject to a degree of annual variation which may result from on-going farming practices, some evidence of wet season inundation or saturation is visible in a typical year. Although ground water levels are controlled on Delta islands using a system of pumps and drainage ditches to maintain water levels on the subsided islands, a high water table persists in some areas. Upland crops planted in these areas may be subject to failure or may be impossible to harvest; therefore, aerial signatures indicating reduced growth and/or vigor in crops such as corn or areas within cropped fields that were seldom planted were interpreted as indications of wetland conditions and these areas were categorized as seasonal wetland. Average water depth in this type of feature is estimated to be around 1 foot.

### **3.2.2 Other Waters**

Areas identified on aerial images as other waters were categorized into non-tidal and tidal features. On some tidal features, man-made structures such as gates or culverts may restrict tidal influence to varying degrees, but the waterways are still subject to twice-daily tidal fluctuations.

#### **Non-Tidal Waters**

Five types of non-tidal waters were mapped in the study area. Non-tidal features include naturally occurring features and anthropogenic features on the landscape that are the result of ditching or excavation. Non-tidal waters are subject to Section 404 of the CWA up to the OHWM.

##### ***Agricultural Ditch***

Agricultural land cover is common throughout the study area, most notably on Delta islands. Agricultural ditches are used for irrigation and drainage purposes. Agricultural ditches range in size from 1 to 75 feet in width. These features are generally unvegetated with unconsolidated mud bottoms as a result of regular maintenance activities conducted to maintain capacity for drainage and water delivery. Tule and cattail species may colonize ditch side-slopes if there is a lapse in the vegetation maintenance cycle. Water in agricultural ditches may be pumped off of agricultural lands and/or Delta islands and have a connection to Traditional Navigable Waters



(TNW) or Relatively Permanent Waters (RPW). Average water depth in this type of feature is estimated to be around 3 feet.

### ***Natural Channel***

Non-tidal natural channels are present primarily along the northeast and southwest portions of the study area. Natural channels include large perennial rivers that qualify as TNW, intermittent streams that qualify as RPW, and ephemeral channels that qualify as non-RPW. All features mapped to this class are assumed to have an OHWM as indicated by a change in vegetative character or break in bank slope, as evidenced on aerial imagery or DEM. The substrate in natural channels may be mud, sand, gravel, and/or cobble depending on geographic location. Natural channels within the study area include waterways such as drainages to Stone Lake and tributaries to the Cosumnes River and Italian Slough. Average water depth in this type of feature is estimated to be around 3 feet.

### ***Depression***

Depressions are open-water ponds that are permanently or seasonally inundated, with little to no rooted vegetation on an unconsolidated or mud bottom. These features may be artificially filled as a result of agricultural or stormwater detention, or may result from a high water table. Depressions are less than 20 acres in size and generally have a water depth of less than 6 feet. These water bodies are often created by excavation, and are diked or otherwise artificially impounded.

Depressions may be colonized by floating plant species such as common duckweed (*Lemna minor*; OBL), mosquito fern (*Azolla* spp.; OBL), or water hyacinth (*Eichhornia crassipes*; OBL), but generally lack rooted vegetation except on depression margins. Average water depth in this type of feature is estimated to be around 6 feet.

### ***Lake***

Lakes are open-water features that are permanently inundated with little to no rooted vegetation on an unconsolidated or mud bottom and are greater than 20 acres in size. Lakes may have a wave-formed shoreline.

Lakes may also exhibit floating vegetation such as common duckweed, mosquito fern, or water hyacinth. Average water depth in this type of feature is estimated to be around 6 feet.

## **Tidal Waters**

Tidal waters are the open water portions of linear aquatic features that are influenced by the rise and fall of the tides. Man-made structures such as gates or culverts may restrict tidal influence to varying degrees. Tidal waters are subject to regulation under Section 404 of the CWA up to the MHHW elevation (e.g., high tide line), and are subject to Section 10 of the Rivers and Harbors Act of 1899 up to the MHW level.

***Tidal Channel***

Tidal channels are natural perennial riverine waterways, though most within the study area have been modified with leveed banks that are reinforced with rock revetment. In-channel water velocity and depth fluctuate under tidal influence, and the channel bottom is generally composed of mud or unconsolidated sediments with varying amounts of sand, silt, and clay.

Emergent wetlands that occur along the margins of tidal channels and in-channel islands that are also commonly encountered in the study area, notably along Old River and Middle River, were mapped separately from the tidal channel aquatic type.

***Conveyance Channel***

Conveyance channels include rock or cement-lined linear channels. These are constructed water features which are associated with the SWP or CVP. These features are generally straight as a result of excavation and are diked or have reinforced banks. Vegetation is generally absent due to water depth or a lack of rooting substrate. Control structures are present that periodically affect tidal influence, but conveyance channels experience tidal fluctuation when water is brought into the system, generally on a flood tide.

**4.0 CLEAN WATER ACT GUIDANCE ON POTENTIAL JURISDICTIONAL FEATURES**

This aquatic resource delineation has been prepared in order to provide the USACE with necessary information for the issuance of a PJD. A significant nexus evaluation is not necessary to obtain a PJD; however, the following information summarizes the Clean Water Act jurisdictional guidance in effect as of the submission of this report.

On October 22, 2019 the U.S. Environmental Protection Agency (USEPA) and USACE returned to the definition of “waters of the United States” promulgated in 1986/1988, repealing the 2015 Clean Water Rule.

Under this ruling, the following types of water bodies are subject to CWA jurisdiction, as codified in 33 Code of Federal Regulations 328.3 (1986):

1. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of tide
2. All interstate waters, including interstate wetlands
3. The territorial seas
4. All impoundments of waters otherwise identified as waters of the United States
5. All tributaries of waters 1–3 above

6. All waters adjacent to a water identified in 1–5, including wetlands, ponds, oxbows, impoundments, and similar waters
7. On a case-specific basis, other waters, including wetlands, provided that those waters alone, or in combination with other similarly situated waters, including wetlands, located in the same region, have a significant nexus to a traditional navigable water, interstate water, or the territorial seas.

The results of this report and the identification of potentially jurisdictional features is consistent with the guidance documents presently in effect. The Aquatic Resources Delineation Mapbook (**Appendix A**) was prepared in accordance with the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program (USACE 2016).

## 5.0 CONCLUSION

The 135,639-acre study area contains 16,680.84 acres of wetlands and other waters that may be jurisdictional under Section 404 of the CWA and/or Section 10 of the Rivers and Harbors Act of 1899. The locations of potentially jurisdictional features are depicted in **Appendix A**.

This delineation is draft until a preliminary jurisdictional determination is issued by the Sacramento District of USACE.

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## **LIST OF APPENDICES**

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Appendix A – Aquatic Resources Delineation Mapbook

Appendix B – ORM Upload Sheet

Appendix C – Aquatic Resources Delineation GIS Data

*NOTE - these appendices are not available in this Attachment 3 of the "Bouldin Island Delta Smelt Preservation Project - Aquatic Resources Delineation Memorandum" (December 21, 2021)*

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**APPENDIX A**

Aquatic Resources Delineation Mapbook (provided as three separate pdf files)

*NOTE - these appendices are not available in this Attachment 3 of the "Bouldin Island Delta Smelt Preservation Project - Aquatic Resources Delineation Memorandum" (December 21, 2021)*



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**APPENDIX B**

ORM Upload Sheet (provided as a separate Excel file)

*NOTE - these appendices are not available in this Attachment 3 of the "Bouldin Island Delta Smelt Preservation Project - Aquatic Resources Delineation Memorandum" (December 21, 2021)*

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**APPENDIX C**

Aquatic Resources Delineation GIS Data (provided as a separate geodatabase file)

*NOTE - these appendices are not available in this Attachment 3 of the "Bouldin Island Delta Smelt Preservation Project - Aquatic Resources Delineation Memorandum" (December 21, 2021)*

# Attachment 3

## **Aquatic Resources Delineation Map**





SOURCE: NAIP Imagery; DWR, 2019; ESA, 2021

Delta Smelt Preservation

Study Area (144.6 acres) **Aquatic Resources Within Study Area**

- Agricultural Ditch
- Forested Wetland
- Scrub Shrub Wetland

**Attachment 2a**  
Delineation of Aquatic Resources

(1 of 3)  
Delineated by: DWR



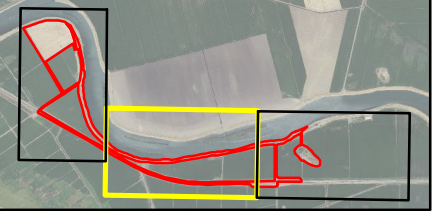




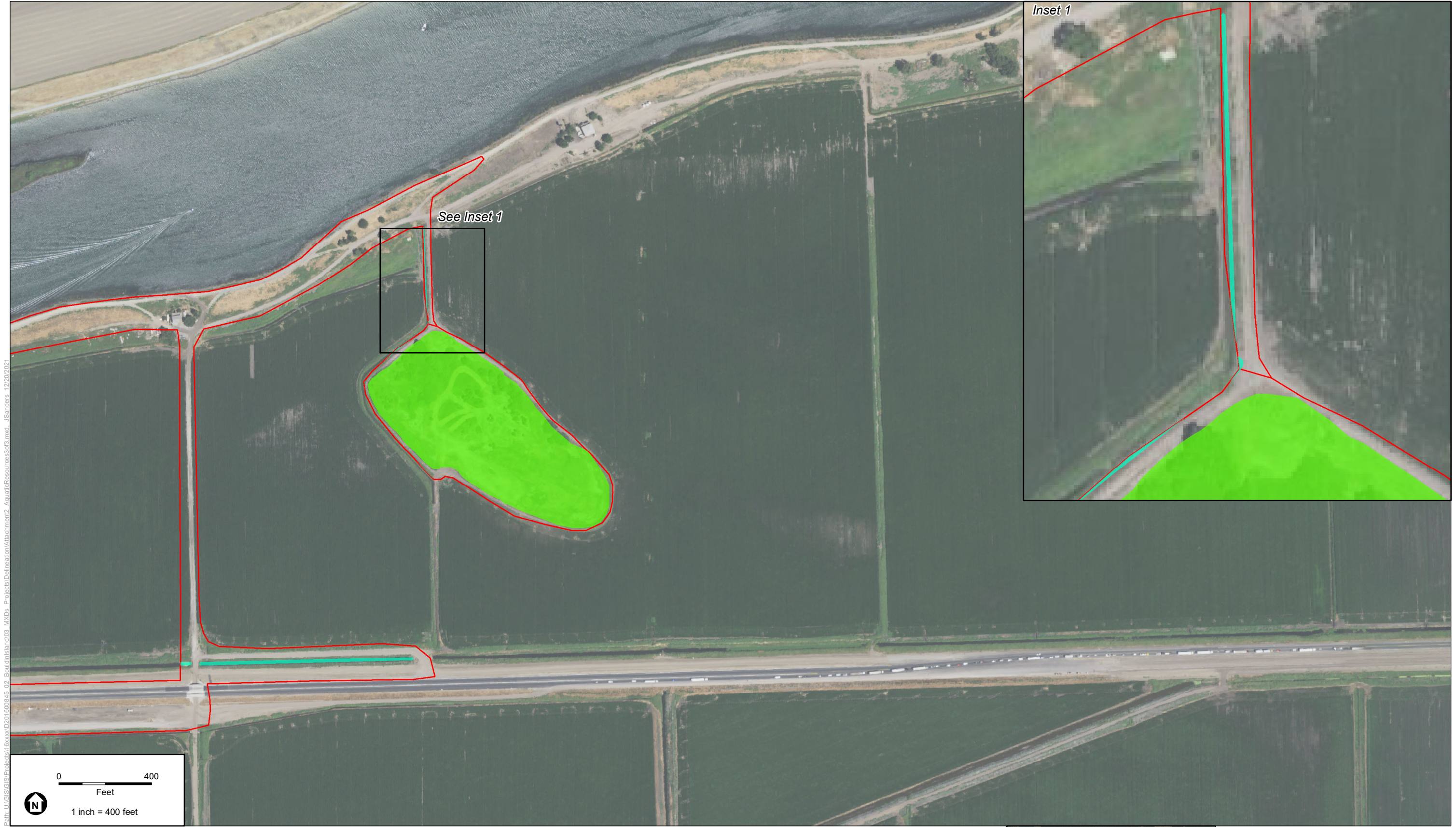
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SOURCE: NAIP Imagery; DWR, 2019; ESA, 2021

Study Area (144.6 acres)

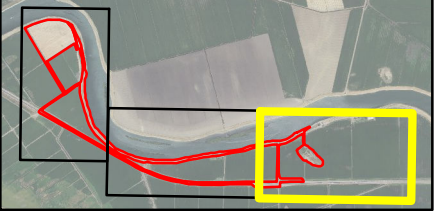






SOURCE: NAIP Imagery; DWR, 2019; ESA, 2021

- Study Area (144.6 acres)
- Aquatic Resources Within Study Area**
- Agricultural Ditch
- Freshwater Emergent Wetland









# **Delta Smelt and Native Species Preservation Project**

## **Responses to Comments Received**

**The Metropolitan Water District of Southern California**

700 North Alameda Street

Los Angeles, CA 90012



Report No. 1659

*June 2023*

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# CHAPTER 1

## COMMENT LETTERS RECEIVED

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This section includes comments received during public circulation of the Draft Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the proposed Delta Smelt Native Species Preservation Project. This document includes a copy of the four comment letters submitted during the 32-day public review period for the Draft IS/MND, which were submitted by the East Bay Municipal Utility District (EBMUD), the Delta Protection Commission (Commission), the Delta Stewardship Council (Council), and the Central Valley Regional Water Quality Control Board (Central Valley Water Board), along with The Metropolitan Water District of Southern California's (Metropolitan) responses. Although not required by the California Environmental Quality Act (CEQA) or the CEQA Guidelines, Metropolitan is providing written responses to comments received on the Draft IS/MND as part of the administrative record and for the Metropolitan Board of Directors (Board) to review when considering adoption of the MND. In accordance with the requirements of CEQA Guidelines Section 15073(e), Metropolitan will provide notification in writing to the commenters 10 days in advance of the Board meeting to adopt the MND for the Proposed Project.

All written comments received have been coded to facilitate identification and tracking. The four comment letters received during the public review period were reviewed and divided into individual comments, with each comment containing a single theme, issue, or concern. Individual comments were bracketed and numbered, and the responses were assigned corresponding numbers (Response 1, for example, indicates that the response is for the first issue raised in the comment letter). To aid readers comments have been reproduced in this chapter together with the corresponding responses.

As a general introduction, the Draft IS/MND's conclusions on the character and significance level of the Project's potential to cause environmental impacts are supported by substantial evidence, which is presented in the Draft IS/MND, Mitigation Monitoring and Reporting Plan (MMRP), and Appendices, and further clarified in this document. The commenter may disagree with the analyses and conclusions in the Draft IS/MND. Consistent with the intent of CEQA and the CEQA Guidelines for its implementation, this Final IS/MND also includes the differing opinions and statements presented by the commenter. This document provides information for the record explaining why the comments do not affect the Lead Agency's conclusion that there are no potential significant environmental effects.

## Letter 1



715 P Street, 15-300  
Sacramento, CA 95814

916.445.5511  
DELTACOUNCIL.CA.GOV

**CHAIR**  
Virginia Madueño

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Frank C. Damrell, Jr.  
Christy Smith  
Diane Burgis  
Daniel Zingale  
Julie Lee

**EXECUTIVE OFFICER**  
Jessica R. Pearson

March 13, 2023

Sean Carlson  
Environmental Planning Section  
Metropolitan Water District of Southern California  
P.O. Box 54153  
Los Angeles, CA 90054-0153

Delivered via email: EP@mwdh2o.com

### RE: Delta Smelt and Native Species Preservation Project

Dear Sean Carlson,

Thank you for the opportunity to review and comment on the Notice of Intent (NOI) to Adopt a Mitigated Negative Declaration (MND) for the Metropolitan Water District of Southern California (Metropolitan) Delta Smelt and Native Species Preservation Project (project). The Delta Stewardship Council (Council) recognizes the objective(s) of the project, as described in the NOI, to consist of the construction of two marsh-pond complexes that would house native fish for a pilot experimental study.

The Council is an independent state agency established by the Sacramento-San Joaquin Delta Reform Act of 2009, codified in Division 35 of the California Water Code, sections 85000-85350 (Delta Reform Act). The Delta Reform Act charges the Council with furthering California's coequal goals of providing a more reliable water supply and protecting, restoring, and enhancing the Sacramento-San Joaquin River Delta (Delta) ecosystem. (Wat. Code § 85054.) The Delta Reform Act further states that the coequal goals are to be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the

1-1

1

Delta Smelt and Native Species Preservation Project  
Sean Carlson  
March 13, 2023

Delta as an evolving place. (Ibid.) The Council is charged with furthering California's coequal goals for the Delta through the adoption and implementation of the Delta Plan. (Wat. Code § 85300(a).)

Pursuant to the Delta Reform Act, the Council has adopted the Delta Plan, a comprehensive long-term management plan for the Delta and Suisun Marsh that furthers the coequal goals. The Delta Plan contains regulatory policies, which are set forth in California Code of Regulations, Title 23, sections 5001-5015. Through the Delta Reform Act, the Council was granted specific regulatory and appellate authority over certain actions of State or local public agencies that take place in whole or in part in the Delta. (Wat. Code §§ 85210, 85225, 85225.30.) A state or local agency that proposes to undertake a covered action is required to prepare a written Certification of Consistency with detailed findings as to whether the covered action is consistent with the Delta Plan and submit that certification to the Council prior to implementation of the project. (Wat. Code § 85225.)

1-1,  
cont.

#### **COVERED ACTION DETERMINATION AND CERTIFICATION OF CONSISTENCY WITH THE DELTA PLAN**

Water Code section 85057.5(a) states that a covered action is a plan, program, or project, as defined pursuant to Section 21065 of the Public Resources Code that meets all of the following conditions:

- (1) Will occur, in whole or in part, within the boundaries of the Delta or Suisun Marsh;*
- (2) Will be carried out, approved, or funded by a State or a local public agency;*
- (3) Is covered by one of the provisions of the Delta Plan; and*
- (4) Will have a significant impact on achievement of one or both of the coequal goals or the implementation of government-sponsored flood control programs to reduce risks to people, property, and State interests in the Delta.*

1-2

The State or local agency approving, funding, or carrying out the project must determine if that project is a covered action and, if so, file a Certification of Consistency with the Council prior to project implementation. (Wat. Code § 85225; Cal. Code Regs., tit. 23, § 5001(j)(3).)

#### **COMMENTS REGARDING DELTA PLAN POLICIES AND POTENTIAL CONSISTENCY CERTIFICATION**

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2



Delta Smelt and Native Species Preservation Project  
Sean Carlson  
March 13, 2023

The following section describes the Delta Plan regulatory policies that may apply to the proposed project based on the available information in the MND. This information is offered to assist the Metropolitan Water District of Southern California to determine if the project is a covered action and to prepare environmental documents that could be used to support a Certification of Consistency for the project.

1-3,  
cont.

*General Policy 1: Detailed Findings to Establish Consistency with the Delta Plan*

Delta Plan Policy **G P1** (Cal. Code Regs., tit. 23, § 5002) specifies what must be addressed in a Certification of Consistency by a project proponent of a project that is a covered action. The following is a subset of policy requirements which a project must meet to demonstrate consistency with the Delta Plan:

*Mitigation Measures*

Delta Plan Policy **G P1(b)(2)** (Cal. Code Regs., tit. 23, § 5002(b)(2)) requires that covered actions not exempt from the California Environmental Quality Act (CEQA) must include all applicable feasible mitigation measures adopted and incorporated into the Delta Plan as amended April 26, 2018 (unless the measures are within the exclusive jurisdiction of an agency other than the agency that files the Certification of Consistency), or substitute mitigation measures that the agency finds are equally or more effective. These mitigation measures are identified in Delta Plan Appendix O and are available at: <https://deltacouncil.ca.gov/pdf/delta-plan/2018-appendix-o-mitigation-monitoring-and-reporting-program.pdf>.

1-4

*Best Available Science*

Delta Plan Policy **G P1(b)(3)** (Cal. Code Regs., tit. 23, § 5002(b)(3)) states that actions subject to Delta Plan regulations must document use of best available science as relevant to the purpose and nature of the project. The Delta Plan defines best available science as "the best scientific information and data for informing management and policy decisions." (Cal. Code Regs., tit. 23, § 5001 (f).) Best available science is also required to be consistent with the guidelines and criteria in Appendix 1A of the Delta Plan (<https://deltacouncil.ca.gov/pdf/delta-plan/2015-appendix-1a.pdf>).

*Adaptive Management*

Delta Plan Policy **G P1(b)(4)** (Cal. Code Regs., tit. 23, § 5002(b)(4)) requires that ecosystem restoration and water management covered actions include

3

## Delta Smelt and Native Species Preservation Project

Sean Carlson

March 13, 2023

adequate provisions for continued implementation of adaptive management, appropriate to the scope of the action. This requirement is satisfied through a) the development of an adaptive management plan that is consistent with the framework described in Appendix 1 B of the Delta Plan (<https://deltacouncil.ca.gov/pdf/delta-plan/2015-appendix-1b.pdf>), and b) documentation of adequate resources to implement the proposed adaptive management plan.

1-4,  
cont.

The MND states adaptive management operations will be a key element since this is a pilot research project and part of the project, in place of any separate adaptive management plan.

*Ecosystem Restoration Policy 5: Avoid Introductions of and Habitat Improvements for Invasive Nonnative Species*

Delta Plan Policy **ER P5** (Cal. Code Regs., tit. 23, § 5009) requires that covered actions fully consider and avoid or mitigate the potential for new introductions of, or improved habitat conditions for nonnative invasive species, striped bass, or bass in a way that appropriately protects the ecosystem. The project is self-contained, and the MND states that "All vehicles and equipment brought on-site shall be decontaminated in accordance with federal and state regulations and guidelines for controlling the spread of noxious weeds, invasive species, and disease." However, Metropolitan should consider Policy ER P5 and any mitigation that may be warranted must include Delta Plan Mitigation Measure 4-1 (available at: <https://deltacouncil.ca.gov/pdf/delta-plan/2018-appendix-o-mitigation-monitoring-and-reporting-program.pdf>) or substitute equally or more effective measures.

1-5

*Delta as Place Policy 2: Respect Local Land Use when Siting Water or Flood Facilities or Restoring Habitats*

Delta Plan Policy **DP P2** (Cal. Code Regs., tit. 23, § 5011) reflects one of the Delta Plan's charges to protect the Delta as an evolving place by siting water management facilities, ecosystem restoration, and flood management infrastructure to avoid or reduce conflicts with existing or planned future land uses when feasible, considering comments from local agencies and the Delta Protection Commission.

1-6

**CLOSING COMMENTS**

As Metropolitan proceeds with design and implementation of the project, the Council invites Metropolitan to engage Council staff to discuss project features and mitigation measures that would promote consistency with the Delta Plan.

1-7

4

Delta Smelt and Native Species Preservation Project  
Sean Carlson  
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More information on covered actions, early consultation, and the certification process can be found on the Council website, <https://coveredactions.deltacouncil.ca.gov>. Council staff are available to discuss issues outlined in this letter as Metropolitan proceeds in the next stages of its project and approval processes. Please contact Eva Bush at (916) 284 -1619 or [Eva.Bush@deltacouncil.ca.gov](mailto:Eva.Bush@deltacouncil.ca.gov) with any questions.

1-7,  
cont.

Sincerely,



Jeff Henderson, AICP  
Deputy Executive Office  
Delta Stewardship Council

## Letter 2



March 1, 2023

Sean Carlson  
Environmental Planning Section  
The Metropolitan Water District of Southern California  
PO Box 54153  
Los Angeles, CA 90054-0153

Re: Notice of Intent to Adopt a Mitigated Negative Declaration for the Delta Smelt and Native Species Preservation Project, San Joaquin County

Dear Mr. Carlson:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Mitigated Negative Declaration (MND) for the Delta Smelt and Native Species Preservation Project (Project) located off State Route 12 in San Joaquin County. EBMUD has the following comments.

The Project is located in the primary migratory corridor for juvenile fall-run Chinook salmon and Central Valley Steelhead (Federal Endangered Species Act threatened), which EBMUD monitors and manages in the Mokelumne Watershed. The migratory route is used most heavily by juvenile salmonids from January to June. Based on the MND description, EBMUD is concerned about increased entrainment of Mokelumne juvenile fish as a result of the Project, and requests that the Biological Resources section of the MND address juvenile salmonoid entrainment risks and impacts.

Page 10 of the MND notes that two siphons will be used to transfer surface water to the propagation ponds, and screens will be placed between marsh and propagation pond areas. The need to screen between the marsh and propagation areas suggests that the siphons are not screened. As a result, the Project could cause increased fish entrainment. It is also unclear if any native fish, including salmonids, captured in screens will be quantified and released back into the river channel to minimize stress and/or mortality. The MND should clarify if siphons are screened to prevent fish entrainment or describe how entrainment will be prevented. In addition, the MND does not mention how screening at the propagation ponds will be monitored and managed. The MND should clarify how native fish accidentally captured in the ponds and screening will be released back to the Mokelumne River channel.

2-1

The Project should also consider operational hours in relationship to juvenile salmonids migration periods (January to June) and hour of day. Inadequate detail is provided regarding whether siphons will be running more often than under current agricultural practice. Operational hours noted on page 14 of the MND indicate water will be transferred to the cooling marsh from 5 p.m. to 9 p.m. daily. Please note this time frame could coincide with juvenile salmonids' preferred migration period (at night) and increased entrainment risk could result without proper prevention

2-2

375 ELEVENTH STREET • OAKLAND • CA 94607-4240 • TOLL FREE 1-866-40-EBMUD

Sean Carlson  
March 1, 2023  
Page 2

measures. The MND should clarify if siphons will be used more often under future operation of the Project compared to under current agricultural operations and how entrainment will be prevented during peak salmonoid migration periods and hours.

2-2 cont.

If you have any questions concerning this response, please contact Timothy R. McGowan, Senior Civil Engineer, Major Facilities Planning Section at (510) 287-1981.

Sincerely,



David J. Rehnstrom  
Manager of Water Distribution Planning

DJR:SHT:kvv  
wdpd23\_064 Delta Smelt Preservation Proj.docx



## Letter 3



### Central Valley Regional Water Quality Control Board

13 March 2023

Governor's Office of Planning & Research

**March 13 2023**

Sean Carlson  
Metropolitan Water District of Southern California  
700 North Alameda Street  
Los Angeles, CA 90012  
EP@mwdh2o.com

**STATE CLEARING HOUSE**

#### **COMMENTS TO REQUEST FOR REVIEW FOR THE MITIGATED NEGATIVE DECLARATION, DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT, SCH#2023020289, SAN JOAQUIN COUNTY**

Pursuant to the State Clearinghouse's 10 February 2023 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Mitigated Negative Declaration* for the Delta Smelt and Native Species Preservation Project, located in San Joaquin County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore, our comments will address concerns surrounding those issues.

#### **I. Regulatory Setting**

##### **Basin Plan**

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of

3-1

MARK BRADFORD, CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

11020 Sun Center Drive #200, Rancho Cordova, CA 95670 | [www.waterboards.ca.gov/centralvalley](http://www.waterboards.ca.gov/centralvalley)

Delta Smelt and Native  
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San Joaquin County

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13 March 2023

Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:

[http://www.waterboards.ca.gov/centralvalley/water\\_issues/basin\\_plans/](http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/)

3-1  
cont.

**Antidegradation Considerations**

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:

[https://www.waterboards.ca.gov/centralvalley/water\\_issues/basin\\_plans/sacsjr\\_2018\\_05.pdf](https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_2018_05.pdf)

In part it states:

*Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.*

3-2

*This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.*

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

**II. Permitting Requirements**

**Construction Storm Water General Permit**

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

3-3



Delta Smelt and Native  
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13 March 2023

[http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/constpermits.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml)

**Clean Water Act Section 404 Permit**

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

**Clean Water Act Section 401 Permit – Water Quality Certification**

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: [https://www.waterboards.ca.gov/centralvalley/water\\_issues/water\\_quality\\_certification/](https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/)

3-3  
cont.

**Waste Discharge Requirements – Discharges to Waters of the State**

If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at: [https://www.waterboards.ca.gov/centralvalley/water\\_issues/waste\\_to\\_surface\\_water/](https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/)

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at:

Delta Smelt and Native  
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[https://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2004/wqo/wqo2004-0004.pdf](https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf)

#### **Dewatering Permit**

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:

[http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2003/wqo/wqo2003-0003.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf)

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at:

[https://www.waterboards.ca.gov/centralvalley/board\\_decisions/adopted\\_orders/waivers/r5-2018-0085.pdf](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf)

#### **Limited Threat General NPDES Permit**

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:

[https://www.waterboards.ca.gov/centralvalley/board\\_decisions/adopted\\_orders/general\\_orders/r5-2016-0076-01.pdf](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf)

#### **NPDES Permit**

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: <https://www.waterboards.ca.gov/centralvalley/help/permit/>

3-3  
cont.

Delta Smelt and Native  
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13 March 2023

If you have questions regarding these comments, please contact me at (916) 464-4684  
or [Peter.Minkel2@waterboards.ca.gov](mailto:Peter.Minkel2@waterboards.ca.gov).

*Peter Minkel* here

Peter Minkel  
Engineering Geologist

cc: State Clearinghouse unit, Governor's Office of Planning and Research,  
Sacramento

## Letter 4

DocuSign Envelope ID: 0DC4A379-CCF5-400E-9B67-454977792793

Gavin Newsom, Governor

### DELTA PROTECTION COMMISSION

2101 Stone Blvd., Suite 200  
West Sacramento, CA 95691  
(916) 375-4800  
[www.delta.ca.gov](http://www.delta.ca.gov)

*Diane Burgis, Chair*  
Contra Costa County Board of Supervisors

*John Vasquez, Vice Chair*  
Solano County Board of Supervisors

*Oscar Villegas*  
Yolo County Board of Supervisors

*Patrick Hume*  
Sacramento County Board of Supervisors

*Steven Ding*  
San Joaquin County Board of Supervisors

*Ron Kott*  
Cities of Contra Costa and Solano Counties

*Paul Steele*  
Cities of Sacramento and Yolo Counties

*Alan Nakanishi*  
Cities of San Joaquin County

*Jim Paroli*  
Central Delta Reclamation Districts

*Tom Slater*  
North Delta Reclamation Districts

*Nick Mussi*  
South Delta Reclamation Districts

*Toks Omishakin*  
CA State Transportation Agency

*Karen Ross*  
CA Department of Food and Agriculture

*Wade Crowfoot*  
CA Natural Resources Agency

*Brian Bugsch*  
CA State Lands Commission

#### Ex Officio Members

*Honorable Susan Eggman*  
California State Senate

*Honorable Carlos Villapudua*  
California State Assembly



March 13, 2023

Sean Carlson  
Environmental Planning Section  
The Metropolitan Water District of Southern California  
PO Box 54153, Los Angeles, CA 90054-0153  
Via email: [EP@mwdh2o.com](mailto:EP@mwdh2o.com)

Re: Delta Smelt and Native Species Preservation Project Mitigated Negative Declaration (SCH # 2023020289)

Dear Mr. Carlson,

Thank you for providing the Delta Protection Commission (Commission) the opportunity to comment on the Mitigated Negative Declaration (MND) for the Delta Smelt and Native Species Preservation Project (Project). The Project would construct two marsh-pond complexes to house native fish for experimental study. The marsh-pond complexes would be constructed on Bouldin Island across two parcels totaling 145 acres.

The Commission is a state agency charged with ensuring orderly, balanced conservation and development of Delta land resources and improved flood protection. Proposed local government projects within the primary zone of the Legal Delta must be consistent with the Commission's Land Use and Resource Management Plan (LURMP) (California Public Resources Code Sections 29700-29780). The Commission also submits comments under Public Resource Code Section 29770(d) which states that the Commission may comment on projects that impact the primary zone. The Project area lies within the boundary of the primary zone.

We believe that the Project will have a Potentially Significant impact on agricultural resources by converting Prime Farmland on Bouldin Island to other uses. These impacts have not been fully evaluated in the MND. A Draft Environmental Impact Report should be developed to further evaluate these impacts and identify mitigation measures to minimize them. The environmental analysis should also evaluate the cumulative impacts of restoration and preservation projects in the primary zone that would take farmland out of production or covert farmland to other uses.

Our detailed comments on the MND and the project's consistency with the Commission's LURMP are provided below.



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Impacts on Agricultural Resources

There are approximately 6,000 acres of agricultural land on Bouldin Island (MND p. 11). The California Department of Conservation designates most the island as Prime Farmland. There is also Farmland of Local Importance and Grazing Land. According to the MND, the proposed marsh-pond complexes would be located on fallowed wheat fields that were previously dry farmed (p. 17). The project area is bounded by actively farmed fields.

The MND states that the Project would not permanently convert farmland in the project area to other uses. However, the MND does not provide sufficient information to support this impact determination.

4.1

The Project would alter the project area for a period of approximately five years or longer. The Project would include excavation of salt marshes, creation of propagation ponds, and installation of a new, 300-foot-deep groundwater well and a transportation pipeline from the well. The MND does not identify how the landscape will be returned to conditions suitable for agriculture after the Project is complete. The MND also states that the Project duration could extend beyond five years.

We believe that the Project features and construction activities would substantially alter the project area to the point where the land could no longer produce agricultural commodities and convert the land to wetlands. The U.S. Army Corps of Engineers generally considers land 'recaptured' as wetlands when it is flooded or managed as wetlands for five or more years. Under the Clean Water Act, prior converted cropland is considered 'abandoned' if it not used for, or in support of, agricultural purposes for at least once in the immediately preceding five years. If the Project would return the land to wetlands for five years, the land could be considered wetlands again by the U.S. Army Corps of Engineer and become ineligible to be farmed in the future. For these reasons, we believe the Project would permanently convert the farmland in the project area.

Conversion of farmland in the primary zone is inconsistent with the LURMP and San Joaquin County General Plan. The LURMP directs conversion of farmland to areas where agricultural values are lowest and environmental mitigation in agricultural areas only when its consistent with ongoing agricultural operations:

4.2

**Agriculture Policy 2.** Conversion of land to non-agriculturally-oriented uses should occur first where productivity and agricultural values are lowest.

**Agriculture Policy 6.** Encourage acquisition of agricultural conservation easements from willing sellers as mitigation for projects within each county. Promote use of environmental mitigation in agricultural areas only when it is consistent and compatible with ongoing agricultural operations and when developed in appropriate locations designated on a countywide or Deltawide habitat management plan.

The San Joaquin County General Plan also includes policies to protect farmland in the Delta:

**Natural and Cultural Resources Element Policy D-4.2.** Emphasize Agricultural Uses. The County shall promote and facilitate agriculture and agriculturally-supporting commercial and industrial uses as the primary land uses in the Primary Zone; recreation and natural resource land uses shall be supported in

Page 3 of 4

appropriate locations and where conflicts with agricultural land uses or other beneficial uses can be minimized. (RDR/PSP)

**Natural and Cultural Resources Element Policy D-4.8.** Limit Non-Agricultural Uses on Delta Islands. The County shall generally limit development in the Delta islands to water-dependent uses, recreation, and agricultural uses. (RDR/PSP)

**Natural and Cultural Resources Element Policy D-4.9.** Conversion of Delta Farmland to Wetlands. The County shall not allow the conversion of prime farmland within the Delta into wetlands, with the exception of the Lower San Joaquin River Floodplain, as defined in the Delta Plan. (RDR/PSP)

4.2  
cont

The MND also fails to identify potential impacts to the agricultural properties surrounding the project area. The MND states that Bouldin Island has sufficient water rights to support the Project (p. 74). However, the MND does not discuss how the Project will increase consumptive water use compared to existing conditions. The environmental analysis should evaluate how the Project will impact the availability of water for other agricultural properties on Bouldin Island.

The analysis should also evaluate whether the marshes and ponds may cause seepage or other impacts to the surrounding parcels. The LURMP states that:

4.3

**Land Use Policy 14.** The conversion of an agricultural parcel, parcels, and/or an agricultural island for water impoundment, including reservoirs, water conveyance or wetland development may not result in the seepage of water onto or under the adjacent parcel, parcels, and/or island. These conversions shall mitigate the risks and adverse effects associated with seepage, levee stability, subsidence, and levee erosion, and shall be consistent with the goals of this Plan.

For these reasons, we believe that impacts to Agricultural Resources should be Potentially Significant and fully evaluated in a Draft Environmental Impact Report. In addition, any conversion of farmland should be mitigated to the fullest extent feasible. These mitigation measures should be identified in the Draft Environmental Impact Report and provide adequate financial mechanisms as directed by the LURMP:

4-4

**Natural Resources Policy 5.** Preserve and protect the viability of agricultural areas by including an adequate financial mechanism in any planned conversion of agricultural lands to wildlife habitat for conservation purposes. The financial mechanism shall specifically offset the loss of local government and special district revenues necessary to support public services and infrastructure.

We also encourage Metropolitan Water District to consider buffers between the Project and the surrounding agricultural properties consistent with the following LURMP policies:

**Land Use Policy 3.** New non-agriculturally oriented residential, recreational, commercial, habitat, restoration, or industrial development shall ensure that appropriate buffer areas are provided by those proposing new development to prevent conflicts between any proposed use and existing adjacent agricultural parcels. Buffers shall adequately protect integrity of land for existing and future agricultural uses and shall not include uses that conflict with agricultural operations on adjacent agricultural lands. Appropriate buffer setbacks shall be determined in consultation with local Agricultural Commissioners

4-5

Page 4 of 4

and shall be based on applicable general plan policies and criteria included in Right-to-Farm Ordinances adopted by local jurisdictions.

**Natural Resources Policy 6.** Support the implementation of appropriate buffers, management plans and/or good neighbor policies (e.g. safe harbor agreements) that among other things, limit liability for incidental take associated with adjacent agricultural and recreational activities within lands converted to wildlife habitat to ensure the ongoing agricultural and recreational operations adjacent to the converted lands are not negatively affected.

4-5  
cont.

#### Impacts on Transportation

The project area would be accessed from two roads – one new and one existing— from State Route 12. Construction activities would require approximately 12 workers per project phase (MND p.12, p.71). Construction equipment would include a hauler, tractor, backhoe, dozer, excavator, motor grader, and water-mounted drilling rig (MND p.12).

The MND states the Project would not cause significant impacts to transportation because there would be a minimal increase in truck trips for construction. However, the section of State Route 12 to the project area is already a highly congested and dangerous transportation corridor. The movement of construction equipment to and from the project site will cause transportation impacts, particularly if equipment is transported during peak times. These impacts should be further evaluated in the environmental analysis.

4-6


#### Cumulative Impact Analysis

The cumulative impact analysis in the MND fails to consider the impacts of other past or probable future restoration and preservation projects in the primary zone in the Delta that would convert farmland to other uses. This includes Sherman Island, Twitchell Island, McCormack Williamson Tract, Zacharias Ranch Mitigation Bank, Lookout Slough, Cache Slough Mitigation Bank, and Little Egbert Multi-Benefit Project. If all these projects were implemented, up to 12,993 acres of farmland in the primary zone of Delta would be converted. The cumulative impacts of these projects should be considered and evaluated in the environmental analysis.

4-7

Thank you for the opportunity to provide input. Please contact Kirsten Pringle, Senior Environmental Planner, at (530) 650-6327 for any questions regarding the comments provided.

Sincerely,

  
Bruce Blodgett  
Executive Director

cc: Steven Ding, San Joaquin County Supervisor



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## **CHAPTER 2**

### **RESPONSES TO COMMENTS RECEIVED**

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#### **Response to Comment Letter 1**

**COMMENTER:** Jeff Henderson, AICP Deputy Executive Office, Delta Stewardship Council

**DATE:** March 13, 2023

##### **Response 1-1**

The commenter provides an introduction to the comment letter, describes the Delta Stewardship Council's (the Council) role and the function of the Delta Plan.

This comment is noted.

##### **Response 1-2**

The commenter provides a description of a covered action as provided in the Water Code and the requirements of filing a Certification of Consistency prior to project implementation.

Metropolitan completed the Covered Actions Checklist, a "discretionary tool for state and local agencies to use in determining whether a plan, program, or project is a 'Covered Action.'" The project would not have a significant impact on the achievement of one or both of the coequal goals or the implementation of a government-sponsored flood control program to reduce risks to people, property, and State interests in the Delta. The Proposed Project would not meet all of the conditions specified in Water Code Section 85057.5(a) and is therefore not a covered action. Accordingly, Metropolitan is not required to and will not be filing a Certification of Consistency with the Council.

##### **Response 1-3**

The commenter provides an introduction to the description of the Delta Plan regulatory policies that may apply to the Proposed Project

This comment is noted. As detailed in Response 1-2, the Proposed Project is not a covered action and as such no Certification of Consistency is required.

##### **Response 1-4**

The commenter provides the policy requirements of what must be addressed in a Certification of Consistency by a project proponent if that project is a covered action.

This comment is noted. As detailed in Response 1-2, the Proposed Project is not a covered action and as such no Certification of Consistency is required.

**Response 1-5**

The commenter provides the policy requirements that covered actions fully consider and avoid or mitigate the potential for new introductions of, or improved habitat conditions for nonnative invasive species.

This comment is noted. As detailed in Response 1-2, the Proposed Project is not a covered action and as such no Certification of Consistency is required.

**Response 1-6**

The commenter provides the policy requirements for protection of local land use when siting water or flood facilities or restoring habitats.

This comment is noted.

**Response 1-7**

The commenter encourages Metropolitan to engage the Council to discuss features and mitigation measures of the Proposed Project. The commenter provides a hyperlink to more information on covered actions, early consultation, and the certification process. The commenter provides contact information to Metropolitan for further discussion or questions.

This comment is noted. At this time Metropolitan will not be engaging the Council, but appreciates the comments and feedback on the Proposed Project.

## Response to Comment Letter 2

**COMMENTER:** David J. Rehnstrom, Manager of Water Distribution Planning, East Bay Municipal Utility District, EBMUD

**DATE:** March 1, 2023

### Response 2-1

The commenter provides background information on outmigration of juvenile salmonids (fall-run Chinook salmon and Central Valley Steelhead) in the Mokelumne River. The commenter indicates that the analysis of the potential impacts on biological resources does not discuss the presumed risk of increased entrainment of Mokelumne juvenile salmonids as a result of the Proposed Project. The commenter requests clarification on how the Proposed Project will avoid or minimize potential entrainment impacts.

The Proposed Project will have no impact to Mokelumne juvenile fish because diversions will not change from existing conditions. Under current agricultural operations, the two siphons (number 25 and 26) pump a maximum of 30 cfs from the Mokelumne River into the existing irrigation ditches for agricultural use throughout the northern portion of Bouldin Island. The Proposed Project will not control or change the existing operation of siphons #25 and #26 that serve this portion of the island. The Proposed Project would utilize water from existing agricultural ditches on the island serviced by the siphons. In months when the siphons do not routinely operate (usually November-February), the Proposed Project would be served by the new groundwater well as described in the IS/MND Project Description. The use of both sources of water has been incorporated into the operation of the Proposed Project for scientific research.

Screens within the Proposed Project are designed (1) to prevent aquatic weeds and aquatic species from entering the propagation ponds from the irrigation ditches and the cooling and food marshes and (2) to prevent the experimental populations of Delta smelt in the propagation ponds from exiting the Project.

The IS/MND language has been revised (page 10) to clarify the Proposed Project as follows:

#### ***Surface Water/Groundwater Distribution, Control and Screening***

The propagation ponds would be filled using either surface water or groundwater to ensure consistent regulated temperatures. The water distribution system would be a combination of earthen and concrete lined open ditches (six feet wide) and pipes (ranging between four and 24 inches in diameter) to provide surface water from ~~existing siphons~~ the existing agricultural ditch or pumped from the existing groundwater aquifer. Under normal conditions, surface water would flow by gravity from the ~~siphons~~ agricultural ditch and then pumped from agricultural ditch into the cooling and food marshes. The ponds do not receive water directly from the Mokelumne River. The water would be screened at the standpipe before entering into the ~~propagation ponds~~ cooling and food marshes (Figure 1-3, Appendix A). The surface water elevations in the food marsh would be adaptively managed to enhance fish food production. The surface water would originate from existing agricultural ditch that is fed from the siphons that pull from the Mokelumne River ~~within~~ outside the Proposed Project site, siphons #25 (16-inch

diameter with max capacity of 18 cubic feet per second [cfs]) and #26 (14-inch diameter with max capacity of 12 cfs; Figure 1-4). In coordination with irrigation needs of adjacent farms that utilize these siphons, a portion of the ~~siphon~~ agricultural ditch flows, up to ten cfs, would be used for the Proposed Project. The balance of the available ~~siphon~~ flow would remain available for agriculture purposes. The Proposed Project does not require changes in the quantity or rate of current flow diverted from the Mokelumne through siphons #25 and #26. The surface water distribution system would be screened between the agricultural ditch and the marsh area and ~~the native fish propagation area~~ to enhance biosecurity.

## Response 2-2

The commenter provides background information on the timing of juvenile salmonid outmigration (peak period January to June, prefer to move at night). The commenter requests clarification on whether the siphons would be operated more often under Proposed Project and how entrainment would be prevented.

As explained in Response 2-1 the siphons would not be operated more frequently or longer under the Proposed Project compared to existing agricultural operations, and normally, it would receive groundwater from November through February.

## Response to Comment Letter 3

**COMMENTER:** Peter Minkel, Engineering Geologist, RWQCB

**DATE:** March 13, 2023

### Response 3-1

The commenter provides the regulatory setting of the Central Valley Water Board with a description and purpose of Basin Plans. The commenter provides a hyperlink to their website for further information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*.

This comment is noted.

### Response 3-2

The commenter provides information on the Antidegradation Policy for wastewater discharges and provides a hyperlink to the Antidegradation Policy.

This comment is noted.

### Response 3-3

The commenter provides permitting requirements that may be applicable to the Proposed Project related to protecting the quality of surface and groundwaters of the state.

This comment is noted. The IS/MND discusses impacts to surface and groundwaters of the state, and which additional regulatory approvals and permits would be needed from the applicable agencies.

## Response to Comment Letter 4

**COMMENTS:** Bruce Blodgett, Executive Director, Delta Protection Commission

**DATE:** March 13, 2023

### Response 4-1

The commenter provides background information on potential impacts to agricultural resources. The commenter indicates that the analysis of the potential impacts on agricultural resources does not adequately address permanent conversion of farmland to other uses and does not identify how the Proposed Project site would be returned to existing conditions.

As described in the IS/MND, the Proposed Project would last approximately 5 years with the option to extend longer.

The project description has been modified to clarify the timing of the Proposed Project and the demobilization of the site and return to existing conditions as follows:

#### Project Demobilization

As described previously, the Proposed Project is a pilot project and would be conducted in order to further delta smelt and other native fish research. At the conclusion of the project life or at a maximum of 5 years from project initiation, the Proposed Project would end. At the end of this pilot project, the constructed ponds and berm areas will be returned to pre-pilot conditions, which includes removal of appurtenances and pilot related above ground hardware. Prior to demobilization activities, the ponds would be dewatered for 6 months to 1 year, which would allow the artificial ponds to dry out. A bulldozer would be used to move the earthen material from the berms back into the ponds and regrade the site to the pre-project topography. Applicable pre-construction surveys, BMPs, and mitigation measures related to constructing the ponds would apply, and no new mitigation measures would be necessary.

If Metropolitan proposes to extend the Project beyond five years, additional environmental analysis would be conducted at that time.

### Response 4-2

The commenter states an opinion that the Proposed Project features and construction activities would substantially alter the Proposed Project site to the point that the land could no longer produce agricultural commodities and convert the land to wetlands. The commenter provides regulatory information that the U.S. Army Corps of Engineers generally considers land 'recaptured' as wetlands when it is flooded or managed as wetlands for five or more years. The commenter also provided information that the Clean Water Act considers prior converted cropland as 'abandoned' if not used for, or in support of, agricultural purposes for at least once in the immediately preceding five years. The commenter states that conversion of farmland in the primary zone is inconsistent with the LURMP and San Joaquin County General Plan and provides relevant General Plan policies.



As detailed in Response 4-1, the Proposed Project would be complete at a maximum of 5 years. At that time, the Proposed Project site would be returned to the existing agricultural conditions by draining the ponds, removing project components and returning the site to pre-project conditions. If there is a proposal to develop a long term or permanent project, additional environmental analysis and compliance would be completed at that time for any proposed new or modified project.

The U.S. Army Corps of Engineers and EPA policy regarding recapture of farmland under Section 404(f) of the Clean Water Act applies to prior converted (PC) cropland, meaning land that once was a wetland or other water of the United States, but was converted to agriculture. It also involves “abandonment” of agricultural practices on prior converted cropland such that the land naturally regains the properties of a wetland. **(58 Fed. Reg. 45,008, 45,034 (Aug. 25, 1993) [“PC cropland which now meets wetland criteria is considered to be abandoned unless: For once in every five years the area has been used for the production of an agricultural commodity, or the area has been used and will continue to be used for the production of an agricultural commodity in a commonly used rotation with aquaculture, grasses, legumes or pasture production”].)** The proposed ponds and associated cooling marshes would be constructed in dry, upland locations, not where the land would revert to wetland but for its agricultural use. The constructed pond-marsh complexes would be maintained and operated for up to five years exclusively for the purpose of conducting experiments, so Metropolitan would not be abandoning the land to revert to a natural wetland state, nor would the artificial ponds and marshes be considered waters of the United States regardless how long they are used exclusively for experiments. (33 C.F.R. sec. 328.3(b)(5).) Metropolitan does not agree that the proposed project is inconsistent with the cited land use policies. The project would not permanently convert farmland into wetland habitat, but involves the temporary creation of artificial ponds and cooling marshes, so it does not result in a change in land use. In addition, inconsistency with a land use policy, in and of itself, is not an environmental impact, but under CEQA is used as an indicator of potential environmental impacts. The IS/MND fully analyzed the impacts to Agricultural land consistent with CEQA’s requirements.

### Response 4-3

The commenter states an opinion that the Proposed Project will increase consumptive water use compared to existing conditions. The commenter states that the IS/MND should evaluate how the Proposed Project will impact the availability of water for other agricultural properties on Bouldin Island. The commenter states an opinion that the IS/MND should evaluate whether the marshes and ponds would cause seepage or other impacts to the surrounding parcels. The commenter provides LURMP policy related to seepage.

The Proposed Project would utilize the existing water source and siphons providing water to agricultural ditches on the island. The project would also rely on a new well when this source is not available. Water use under the Proposed Project would be the same or less than is used for the existing agriculture. There would be no change in consumptive water use compared to existing conditions and the project would not control nor affect supply of water required by other agricultural purposes on the island. The topography and design of the ponds are not expected for seepage to occurs. In case seepage does occurs, the flow will be captured in existing agricultural drain ditches.

**Response 4-4**

The commenter states an opinion that the Proposed Project should be evaluated in an Environmental Impact Report based on what they consider to be potential agricultural impacts as discussed in the preceding comments. The commenter states that any impacts should be fully mitigated, and the mitigation measures should be identified in the EIR as directed by the LURMP.

As detailed in Response 4-1, the Proposed Project would not result in the permanent conversion of farmland to other uses. “Significant effect on the environment” is defined in PRC §21068 as “a substantial, or potentially substantial, adverse change in the environment.” There are approximately 6000 acres of farmland on Bouldin Island, and 415,000 acres of farmland in the Delta.<sup>1</sup> The total Proposed Project footprint, including the marsh-pond complexes, associated staging areas, water distribution system, and access roads, would be up to 25 acres, which is 0.4% of the farmland on Bouldin Island or .006% of farmland acreage in the Delta, and would last a maximum of 5 years. At that time, the Proposed Project site would be returned to the existing agricultural conditions, or additional environmental compliance would be completed at that time for any proposed new or modified project. Accordingly, the temporary nature of this small project is not considered a significant impact to agricultural resources.

This clarification of the size of the actual construction footprint (25 acres) applies to the following sections of the MND as noted here and in Errata: Project Location and Description (p. 2), Agriculture and Forestry Resources (p. 24), Cultural Resources (pp. 47-48), Noise (p. 67), and Mandatory Findings of Significance: Agriculture and Forestry Resources (p. 79).

**Response 4-5**

The commenter states an opinion that Metropolitan should consider buffers between the Proposed Project site and the surrounding agricultural properties to be consistent with the LURMP policies regarding appropriate buffers to protect existing agricultural land uses.

As detailed in the Project Description of the IS/MND, the Proposed Project would be constructed in two phases of approximately two months each. Following construction, operation and maintenance activities would occur over the project life of a maximum of 5 years. Operation and maintenance activities would be similar in nature to those occurring in the area for agriculture. The marsh-pond complex would be constructed with elevated up to approximately two-foot berms surrounding each pond, thus providing a physical buffer and barrier between the ponds and adjacent land uses. The proposed project is separated from adjacent land uses by existing roads and agricultural ditches. The ditches along the boundary would capture any seepage and/or surface flow that occurs on the project site. The temporary ponds would be managed for a research population of native fish (i.e., not a protected wild population), which are not expected to conflict with continued farming of adjacent lands. The implementation of the Proposed Project would not interfere with agricultural use of adjacent parcels.

The intent of the marsh-pond complex is to provide temporary habitat for a research population of native fish and is not intended to provide habitat for other listed species. Although there is potential that the marsh-pond complex could temporarily attract giant garter snake (a state and

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<sup>1</sup> Delta Protection Commission. 2020. The State of Delta Agriculture: Economic Impact, Conservation and Trends. Available at: <https://delta.ca.gov/wp-content/uploads/2020/07/Ag-ESP-update-agricultural-trends-FINAL-508.pdf>. February 3, 2020.

federally threatened species) to the site, the potential for the snake population to increase in adjacent areas outside of the Proposed Project is low for the following reasons:

- The marsh-pond complex will be highly managed. The pond levels will regularly fluctuate, there will be a regular human presence, and there will not be quality upland cover or hibernacula,
- Due to ongoing farming practices in the area there is very little habitat in the vicinity of the Proposed Project, resulting in low numbers of known occurrences of giant garter snakes in the vicinity of Bouldin Island.
- The portion of Bouldin Island where the Proposed Project will occur is isolated from high-quality giant garter snake habitat by the Mokelumne River and Highway 12. Because there is no high-quality habitat that is nearby or easily accessible to the snake, the potential for giant garter snake to colonize the marsh-pond complex is low
- Bouldin Island contains very little habitat that would support giant garter snake. The existing agricultural ditches are routinely maintained by Reclamation District #756. The agricultural fields and typical farming operations would not support giant garter snake and therefore would not attract dispersing giant garter snake.
- Lastly, because the project is temporary, the marsh-pond complexes will be returned to their original condition and would no longer support giant garter snake. Therefore, there would not be long term potential to attract giant garter snakes to the site.

Therefore, because there is no high-quality habitat for giant garter snake on Bouldin Island, and there is a low potential for occurrence of giant garter snake, the Proposed Project would not likely draw in giant garter snakes that could potentially disperse and negatively impact the adjacent land on Bouldin Island.

## Response 4-6

The commenter states an opinion that construction of the Proposed Project would result in transportation impacts from construction equipment to and from the Proposed Project site and requires further evaluation.

As detailed in the IS/MND, the Proposed Project would be constructed in two phases of approximately two months each. Construction would require approximately 12 workers total. The Proposed Project site would contain two staging areas. Once construction equipment is brought to the Proposed Project site, it would remain within the staging areas when not in use. The entire Proposed Project is located across two parcels and all work would take place within these parcels. Operation of the Proposed Project would require approximately four workers. In considering the impacts caused by an increase in Vehicle Miles Traveled (VMT), the California Office of Planning and Research (OPR) has concluded that, “absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 or fewer trips could be considered not to lead to a significant impact.”<sup>2</sup> Therefore, the Proposed Project would not result in significant impacts to transportation.

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<sup>2</sup> Governor’s Office of Planning and Research (OPR). 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. December 2018.

**Response 4-7**

The commenter asserts that the cumulative impact analysis in the IS/MND failed to fully consider the impacts of other past or probably future restoration and preservation projects in the primary zone in the Delta that would convert farmland to other uses.

The Proposed Project is a research project that would further delta smelt and other native fish research, and research of potentially future propagation viability. It is not a habitat restoration project like the other projects identified in the comment. As detailed in Response 4-1, the Proposed Project would not result in the permanent conversion of farmland to other uses. The Proposed Project would last a maximum of 5 years or less. At that time, the Proposed Project site would be returned to the existing agricultural conditions, or additional environmental analysis would be completed at that time for any proposed new or modified project.

# ERRATA FOR DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT MITIGATED NEGATIVE DECLARATION

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## Introduction

The Metropolitan Water District of Southern California (Metropolitan) circulated a Draft Initial Study and Notice of Intent (NOI) to adopt a Mitigated Negative Declaration (IS/MND) for the Delta Smelt and Native Species Preservation Project (Proposed Project) from February 10, 2023 to March 13, 2023 (State Clearinghouse # 2023020289). Following close of the public comment period and prior to adopting the MND, Metropolitan made refinements to the project description.

California Environmental Quality Act (CEQA) Guidelines §15073.5(a) requires that a lead agency recirculate a negative declaration “when the document must be substantially revised.” A “substantial revision” includes: (1) identification of a new, avoidable significant effect requiring mitigation measures or project revisions and/or; (2) determination that proposed mitigation measures or project revisions will not reduce potential effects to less than significance and new measures or revisions must be required.

State CEQA Guidelines specify situations in which recirculation of a negative declaration is not required. This includes, but is not limited to, situations in which “new information is added to the negative declaration which merely clarifies, amplifies, or makes insignificant modifications to the negative declaration.” Revisions to the Draft IS Environmental Checklist regarding refinements to the project description would result in minor clarifications of the Proposed Project, and these edits do not meet the threshold of “substantial revisions” established by CEQA. Recirculation of the Draft IS and Notice of Intent (NOI) to Adopt a MND is therefore not required in accordance with CEQA Guidelines §15073.5(c)(4).

This Final MND has been prepared pursuant to CEQA Guidelines,<sup>1</sup> which outline all aspects of the preparation of the Draft IS/MND and its review, as well as the subsequent steps to preparing a Notice of Determination (NOD). This document incorporates comments from public agencies, and the general public, and contains responses by the Lead Agency, Metropolitan, to those comments. The sole intent and purpose of the Final IS/MND is to provide corrections and clarity to certain facts set forth in the Draft IS/MND to ensure accuracy. The changes shown below are incorporated into the Final IS/MND. The changes do not substantially modify the conclusions or findings of the impact analysis included in the Draft IS/MND nor do they require any new or substantially modified mitigation measures. The project description refinements and text changes are summarized below.

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<sup>1</sup> Title 14, California Code of Regulations, Chapter 3, Sections 15000 – 15387 and Appendices, accessible at [http://ceres.ca.gov/topic/env\\_law/ceqa/guidelines/](http://ceres.ca.gov/topic/env_law/ceqa/guidelines/).

## Refinements to the Proposed Project

The Draft IS/MND included a description of the Proposed Project as covering a total study area of 145 acres across two parcels. However, the actual construction footprint, including the marsh-pond complexes, associated staging areas, water distribution system, and access roads, would be up to 25 acres.

## Summary of Text Changes to the Initial Study

Minor text changes have been made to the Draft IS/MND and incorporated as part of the Final IS/MND. These changes do not substantially modify the impact analysis of the Draft IS/MND, but instead update the analysis for the refinement to the project description as described above. New text is shown in a double underline and text to be deleted is shown in ~~strike-out~~. The changes identified below are clarifications or amplification of the information and analysis contained in the IS Environmental Checklist and does not change the results or conclusions.

### Page 2:

~~The Proposed Project covers approximately 145 acres across two parcels and includes two “marshpond complexes,” a tule harvest area, and several connecting access roads. The total~~ Proposed Project footprint, including the marsh-pond complexes, associated staging areas, water distribution system, and access roads, would be up to 25 acres. The Proposed Project site is within the Sacramento-San Joaquin Delta on Bouldin Island, which is owned by Metropolitan and located adjacent to the confluence of the North and the South Forks of the Mokelumne River in unincorporated San Joaquin County, California (**Figures 1-1 and 1-2**).

### Page 24:

**Less than Significant Impact.** The Proposed Project would not permanently convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The Project site is designated as Prime Farmland. ~~The Proposed Project covers approximately 145 acres across two parcels and involves a marshpond complex where research can occur. The total Proposed Project footprint, including the marsh-pond complexes, associated staging areas, water distribution system, and access roads, would be up to 25 acres, which is 0.4% of the farmland on Bouldin Island or .006% of farmland acreage in the Delta, and would last a maximum of 5 years. At that time, the Proposed Project site would be returned to the existing agricultural conditions, or additional environmental compliance would be completed at that time for any proposed new or modified project. Accordingly, the temporary nature of this small project is not considered a significant impact to agricultural resources.~~ The Proposed Project would last approximately 5 years with the option to extend longer; however, the Proposed Project would not be permanent or result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. As such, the Proposed Project would have a less than significant impact on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would occur as a result of the Proposed Project.

### Pages 47-48:

For purposes of this analysis, the CEQA Area of Potential Effects (C-APE) is defined as both the horizontal and vertical maximum extents of potential direct impacts of the Proposed Project on

cultural resources. This area encompasses the footprint of Proposed Project actions, including staging and access areas. The C-APE comprises approximately 145 acres over the two parcels and extends vertically to the maximum depth of the Proposed Project's ground-disturbing activities, varying according to specific location. However, the total Proposed Project footprint, including the marsh-pond complexes, associated staging areas, water distribution system, and access roads, would only be up to 25 acres. Table 3.5-1 details the vertical C-APE by Proposed Project activity.

### Page 67:

**Less than Significant Impact.** No, the Proposed Project would not generate a substantial temporary or permanent increase in ambient noise levels in excess of standards. ~~The Proposed Project would include the construction of two marsh-pond complexes that would house native fish to create an approximately 145-acre Project site.~~ The total Proposed Project footprint, including the marsh-pond complexes, associated staging areas, water distribution system, and access roads, would be up to 25 acres. Construction of the Proposed Project is expected to take place with Phase I starting in spring 2023 and lasting for approximately 2 months. If Phase I is successful, Phase II construction would start in spring 2024 and last for approximately 2 months. Operation and maintenance of the Proposed Project would not generate a permanent increase in ambient noise levels. Therefore, when considering noise that could exceed standards established in the local general plan or noise ordinance, only temporary construction noise generated by the Proposed Project would apply.

### Page 79:

**Agriculture and Forestry Resources.** The Project site is designated as Prime Farmland. ~~The Proposed Project covers approximately 145 acres across two parcels and involves two marsh-pond complexes where research can occur.~~ The total Proposed Project footprint, including the marsh-pond complexes, associated staging areas, water distribution system, and access roads, would be up to 25 acres, or .006 percent of farmland acreage in the Delta. The Proposed Project would last approximately 5 years with the option to extend longer; however, the Proposed Project would not be permanent or result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The Proposed Project site is not under a Williamson Act contract. The Proposed Project site is not zoned as forest land or timberland or zoned for timberland production. Therefore, impacts related to agriculture would be less than significant. As such, cumulative impacts to agricultural resources would be less than significant. The Proposed Project would have no impact on forestry resources and thus would not contribute to cumulative impacts.

### Page 40:

In addition to the above revisions to the description of the Proposed Project, a reference to Mitigation Measure BIO-1, under the Mitigation Measure BIO-2, was incorrectly listed as BIO-2. It has been revised as follows.

#### **BIO-2 Special-Status Plant Species Avoidance and Minimization**

If federally listed, state listed, or California Rare Plant Rank 1B species are found during special-status plant surveys conducted pursuant to Mitigation Measure



~~BIO-2~~BIO-1, then avoidance measures shall be implemented to avoid impacting these plant species, if feasible. Rare plant occurrences that are not within the immediate disturbance footprint but are located within 50 feet of disturbance limits shall be protected at least 30 feet beyond their extent or other distance as approved by a monitoring biologist or have a suitable barrier, such as a bermed levee or bank, to protect them from harm. If avoidance of federally listed, state listed, or California Rare Plant Rank 1B plant species is not feasible, impacts shall be fully offset through implementation of a restoration plan that results in no net loss in accordance with Mitigation Measure BIO-3.

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# **Delta Smelt and Native Species Preservation Project**

## **Mitigation Monitoring and Reporting Program**

**The Metropolitan Water District of Southern California**

700 North Alameda Street

Los Angeles, CA 90012



Report No. 1659

*June 2023*

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## Mitigation Monitoring and Reporting Program

The Mitigation Monitoring and Reporting Program (MMRP) for the proposed Delta Smelt and Native Species Preservation Project (proposed Project) has been prepared in accordance with Public Resources Code Section 21081.6 and *State CEQA Guidelines* Section 15074(d). The Metropolitan Water District of Southern California (Metropolitan) will use this MMRP to track compliance with the required Project mitigation measures.

Metropolitan's Board of Directors will consider the MMRP during the meeting to adopt the Initial Study/Mitigated Negative Declaration (IS/MND). The MMRP will incorporate all mitigation measures adopted for the proposed Project. Metropolitan makes the finding that the measures included in the MMRP constitute changes or alterations that avoid or substantially lessen the potentially significant environmental effects of the proposed Project on the environment.

This MMRP contains mitigation commitments identified in the IS/MND. Table 1 provides the MMRP, which includes all mitigation measures, monitoring process, and monitoring timing. Metropolitan is the agency responsible for ensuring implementation of all mitigation measures. Impacts and mitigation measures are presented in the same order as in the IS/MND. The columns in the table provide the following information:

- **Mitigation Measures:** This column indicates the action(s) that will be taken to reduce the impact to a less-than-significant level.
- **Responsible Party:** This column indicates the party who must ensure each mitigation measure is implemented and that monitoring and reporting activities occur.
- **Timing of Implementation:** This column indicates the general schedule for conducting each monitoring task, either during the design phase, prior to construction, during construction, and/or after construction.
- **Implementation Party:** This column lists the party responsible for implementing the mitigation measure.

DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM

**Table 1 Mitigation Monitoring and Reporting Program**

Mitigation Measure	Responsible Party	Timing of Implementation	Implementation Party	Comments	Initials/Date
<b>Biological Resources</b>					
<b>BIO-1 Special-Status Plant Species Surveys</b>					
Surveys for special-status plants shall be completed within 2 years of the start of construction activities, including any vegetation removal, grubbing, or staging and mobilization. The surveys shall be seasonally timed to coincide with the target species identified in Appendix C. All plant surveys shall be conducted by a monitoring biologist no more than 2 years before initial ground disturbance associated with construction activities and shall cover the entire area proposed for disturbance (including areas for staging and mobilization). All special-status plant species identified on-site shall be mapped onto a site-specific aerial photograph and topographic map. Surveys shall be conducted in accordance with the most current protocols established by the CDFW and USFWS. If federally listed, state listed, or California Rare Plant Rank 1B species are found, avoidance and minimization measures shall be implemented in accordance with Mitigation Measure BIO-3.	Metropolitan	Implement during appropriate blooming period and prior to commencement of construction activities.	Metropolitan Qualified biologist		
<b>BIO-2 Special-Status Plant Species Avoidance and Minimization</b>					
If federally listed, state listed, or California Rare Plant Rank 1B species are found during special-status plant surveys conducted pursuant to Mitigation Measure BIO 1, then avoidance measures shall be implemented to avoid impacting these plant species, if feasible. Rare plant occurrences that are not within the immediate disturbance footprint but are located within 50 feet of disturbance limits shall be protected at least 30 feet beyond their extent or other distance as approved by a monitoring biologist or have a suitable barrier, such as a bermed levee or bank, to protect them from harm. If avoidance of federally listed, state listed, or California Rare Plant Rank 1B plant species is not feasible, impacts shall be fully offset through implementation of a restoration plan that results in no net loss in accordance with Mitigation Measure BIO-3.	Metropolitan	Implement prior to commencement of construction activities.	Metropolitan Qualified biologist		

DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Responsible Party	Timing of Implementation	Implementation Party	Comments	Initials/Date
<b>BIO-3 Special-Status Plant Species Revegetation</b>					
<p>If avoidance of state listed, federally listed, or California Rare Plant Rank 1B species is not feasible, the individuals shall be transplanted, and surrounding topsoil shall be salvaged to be incorporated into the revegetation process for the site. A special-status plant restoration plan shall be prepared and implemented that includes the following criteria at minimum:</p> <ul style="list-style-type: none"> <li>■ The number of specimens affected for each species</li> <li>■ Identification of on-site or off-site preservation location(s)</li> <li>■ Methods for restoration, enhancement, and/or transplanting, including topsoil salvage and planting seeds of the affected species</li> <li>■ A performance standard replacement ratio of 1:1 per impacted specimen to be achieved within 3 to 5 years</li> <li>■ Monitoring of on-site and off-site preservation location(s) to verify performance shall occur in conjunction with special-status plant growing seasons, and no less than annually until performance standards are achieved</li> </ul>	Metropolitan	<p>Prepare special-status plant restoration plan prior to commencement of construction activities. Implement transplant and topsoil salvage during construction activities. Implement special-status plant restoration plan following completion of construction activities.</p>	Metropolitan Qualified biologist Project Contractor Project Contractor		
<b>BIO-4 Special-Status Wildlife Species Surveys</b>					
<p>Prior to the start of construction, Metropolitan shall conduct general pre-construction wildlife surveys. Pre-construction surveys for special-status species with moderate to high potential to occur shall be conducted where suitable habitat is present not more than 72 hours prior to the start of construction activities or maintenance activities that require vegetation removal during the nesting or giant garter snake active season. The pre-construction survey area shall include the Proposed Project area and all ingress/egress routes, plus a 200-foot buffer. If the results of the site-specific pre-activity surveys determine a candidate, sensitive, or special-status species identified in local or regional plans, policies, or regulations is present within a 200-foot buffer of the Project area, implementation of appropriate avoidance measures shall be required in accordance with Mitigation Measure BIO-5.</p>	Metropolitan	<p>Implement pre-construction surveys not more than 72 hours prior to start of construction activities.</p>	Metropolitan Qualified biologist		

DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Responsible Party	Timing of Implementation	Implementation Party	Comments	Initials/Date
<b>BIO-5 Special-Status Wildlife Species Avoidance and Minimization</b>					
<p>If the results of the pre-activity surveys conducted pursuant to Mitigation Measure BIO-4 determine a candidate, sensitive, or special-status species identified in local or regional plans, policies, or regulations is present within a 200-foot buffer of the Proposed Project area, Metropolitan shall develop and implement appropriate avoidance measures listed below and in BIO 6 and 7. Avoidance measures may include but are not limited to:</p> <p>Installation of Environmentally Sensitive Area/avoidance fencing</p> <ul style="list-style-type: none"> <li>■ Flagging or fencing of any special-status species burrows by a monitoring biologist to ensure avoidance during Project activities</li> <li>■ Monitoring by a monitoring biologist during all initial ground disturbing activities. Once initial ground disturbing activities have been completed, the biologist shall conduct daily pre-activity clearance surveys, as necessary</li> <li>■ If at any time during Project construction or maintenance activities, a special-status species enters the Project area or otherwise may be impacted by the Project, all activities at the area where the find occurred shall cease. At that point, a monitoring biologist shall be consulted and recommend an appropriate course of action</li> </ul>	Metropolitan	Implement prior to and during construction activities.	Metropolitan Qualified biologist		
<b>BIO-6 Giant Garter Snake Avoidance and Minimization</b>					
<p>The Proposed Project area provides marginal habitat for giant garter snake. However, suitable habitat occurs within 200 feet of the Proposed Project area. Thus, Metropolitan proposes to implement standard avoidance and minimization measures during construction activities. The following measures shall be implemented to avoid impacts to giant garter snake:</p> <ul style="list-style-type: none"> <li>■ Confine movement of heavy equipment to existing roadways to minimize habitat disturbance. Maintain a speed limit of 10 mph on all roadways within the construction area.</li> <li>■ Check under all equipment and materials prior to moving them. Do not store construction materials or stockpiles within 200 feet of giant garter snake habitat.</li> <li>■ All construction activities that occur within 200 feet of giant garter snake habitat shall occur between May 1 and October 1. This is the active period for giant garter snakes and direct</li> </ul>	Metropolitan	Implement 24 hours prior to construction activities. Survey of the proposed Project area shall be repeated if a lapse in construction activity of 2 weeks or greater has occurred.	Metropolitan Qualified biologist		



DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Responsible Party	Timing of Implementation	Implementation Party	Comments	Initials/Date
<p>mortality is lessened, because snakes are expected to actively move and avoid danger.</p> <ul style="list-style-type: none"> <li>■ If dewatering is necessary, Metropolitan shall dewater construction areas that could provide aquatic habitat for giant garter snakes to the extent feasible. Any dewatered aquatic habitat shall be kept dry for at least 15 consecutive days before conducting construction activities. If 15 consecutive days is not feasible then Metropolitan shall consult with the USFWS to apply appropriate measures. If dewatering cannot remove all water, potential giant garter snake prey (i.e., fish and tadpoles) would be removed so that giant garter snakes and other wildlife are not attracted to the construction area. The connection of the marsh-pond complex to the existing agricultural ditch requires temporary disturbance of potentially suitable aquatic habitat. These areas are small (generally less than 0.02 acre) and construction-related activities generally require 1 day. Since implementation of the 15-day dewatering period in these scenarios necessitates fill in multiple locations and a culvert or pumping/ piping system in the surrounding upland area to reroute irrigation or drainage water, resulting in more disturbance to potential aquatic habitat than the primary fill itself, a modification is proposed. This includes conducting a preconstruction survey; having a Service-approved biological monitor oversee initial ground disturbance in suitable upland habitat and thereafter be available during work; if limited dewatering is necessary, concentrating dewatering to pump water out of the area; and requiring that biological monitor checks the dewatered area for the snake and prey, and relocates prey species out of the work area.</li> <li>■ Confine clearing to the minimal area necessary to facilitate construction activities. Flag and designate avoided giant garter snake habitat within or adjacent to the Proposed Project area as Environmentally Sensitive Areas.</li> <li>■ Construction personnel shall receive worker environmental awareness training. This training shall instruct workers to recognize giant garter snakes and their habitat(s).</li> <li>■ 24 hours prior to construction activities, the Proposed Project area shall be surveyed for giant garter snakes. Survey of the Proposed Project area shall be repeated if a lapse in construction activity of 2 weeks or greater has occurred.</li> </ul>					

DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Responsible Party	Timing of Implementation	Implementation Party	Comments	Initials/Date
<ul style="list-style-type: none"> <li>■ If a snake is encountered during construction, activities shall cease until appropriate corrective measures have been completed or it has been determined that the snake would not be harmed.</li> <li>■ After completion of construction activities, all temporary construction debris and materials shall be removed, and habitat within temporary impact areas would be restored to pre-Project conditions.</li> </ul>					
<b>BIO-7 Northwestern Pond Turtle Avoidance and Minimization</b>					
Metropolitan shall implement the following measures to avoid and minimize effects on northwestern pond turtle:	Metropolitan	Implement 7 days prior to commencement of construction activities.	Metropolitan	Qualified biologist	
<ul style="list-style-type: none"> <li>■ A qualified biologist shall conduct a pre-construction survey within 7 days before the start of Project activities. If no northwestern pond turtles are observed, Metropolitan would document that information for the file, and no additional measures shall be required.</li> <li>■ Should any northwestern pond turtles be detected on land during the pre-construction survey, the qualified biologist would identify the location using GPS coordinates. The qualified biologist may relocate any northwestern pond turtles found on land or in aquatic habitat within the construction footprint to suitable aquatic habitat at least 200 feet away from the construction footprint.</li> <li>■ If northwestern pond turtles are observed on land within the construction footprint during construction activities, Metropolitan would stop work within approximately 200 feet of the turtle, and a qualified biologist would be notified immediately. If possible, the turtle would be allowed to leave on its own and the qualified biologist would remain in the area until the biologist deems his or her presence no longer necessary to ensure that the turtle is not harmed. Alternatively, the qualified biologist may capture and relocate the turtle unharmed to suitable habitat at least 200 feet outside the construction footprint. If a northwestern pond turtle nest is unintentionally uncovered during construction activities, work would stop in the vicinity of the nest until a qualified biologist could evaluate the situation and notify the appropriate agencies.</li> </ul>					

DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Responsible Party	Timing of Implementation	Implementation Party	Comments	Initials/Date
<b>BIO-8 Nesting Birds Avoidance and Minimization</b>					
<p>To avoid and minimize effects on nesting birds and achieve compliance with the Migratory Bird Treaty Act and California Fish and Game Code Sections 3503, 3503.5, and 3513, Metropolitan shall implement the following measures:</p> <ul style="list-style-type: none"> <li>■ Where feasible, construction and maintenance activities that have the potential to affect special-status nesting birds and common nesting birds shall occur at times of the year when adverse effects on those species would be avoided. If activities are conducted outside the nesting seasons no additional measures are required to mitigate adverse effects on nesting birds.</li> <li>■ If construction is scheduled to occur during the nesting season, a breeding season survey for nesting birds shall be conducted by a qualified biologist for all vegetation to be removed, harvested or disturbed that are located within 500 feet of construction activities, including grading. Swainson's hawk surveys shall be completed during at least two of the following survey periods: January 1 to March 20, March 20 to April 5, April 5 to April 20, and June 10 to July 30. An area with a radius of 0.5 miles from construction activities shall be surveyed for Swainson's hawk nests. No fewer than three surveys shall be completed in at least two survey periods, and at least one of these surveys would occur immediately before Proposed Project initiation (SWHA Technical Advisory Committee 2000).</li> <li>■ Western burrowing owl surveys shall follow suggested guidelines set forth in CDFW's <i>Staff Report on Burrowing Owl Mitigation</i> such as prior to the start of construction a biologist should conduct three or more daytime survey visits at least 3 weeks apart during the peak of breeding season from April 15 to July 15 or 4 surveys spread evenly throughout the non-breeding season (CDFW 2012). Other migratory bird nest surveys could be conducted concurrent with Swainson's hawk surveys, with at least one survey to be conducted no more than 48 hours from the initiation of Proposed Project activities to confirm the absence of nesting. If the biologist determines that the area surveyed does not contain any active nests, construction activities, including removal or pruning of trees and shrubs, could commence without any further mitigation. If at any time</li> </ul>	Metropolitan	Conduct surveys prior to the start of construction during nesting season.	Metropolitan Qualified biologist		

DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Responsible Party	Timing of Implementation	Implementation Party	Comments	Initials/Date
<p>during the nesting season construction stops for a period of 2 weeks or longer, pre-construction surveys would be conducted before construction resumes. If construction occurs outside the nesting window for burrowing owls, a pre-construction survey shall be conducted to ensure no burrowing owls are present.</p> <ul style="list-style-type: none"> <li>■ If nesting birds have been identified within or adjacent to the construction footprint, Metropolitan would establish appropriate avoidance buffers (50 feet for passerines, 300 feet for raptors <i>except Swainson's hawk and burrowing owls</i>, and 200 feet for heron or egret rookeries). Reduced buffers may be implemented if recommended by the monitoring biologist. Buffers would be marked in the field by a qualified biologist using temporary fencing, high-visibility flagging, or other means that are equally effective in clearly delineating the buffers. The specific buffer distance for Swainson's hawk is 0.25 miles, and buffer distances for burrowing owl, which vary depending on time of year and level of disturbance, are presented in <b>Table 3.4-2</b> in the IS/MND, in accordance with CDFW's <i>Staff Report on Burrowing Owl Mitigation</i> (CDFW 2012). Reduced buffers for Swainson's hawk and burrowing owl may be implemented if recommended by the monitoring biologist, due to the nature of the activity. Any needed burrowing owl exclusion and burrow closure would occur during the non-breeding season only, following the methodology in the CDFW Staff Report.</li> <li>■ To minimize and avoid the potential indirect impacts to lesser and greater sandhill crane that may occur within or adjacent to the Project area between September 15 through March 15, during roosting season, pre-activity surveys and an assessment of known roost sites shall be conducted within 0.25 miles of the Project area by a qualified biologist. If roost sites are identified within 0.25 miles of the Project area, the start of large equipment used for construction activities would be delayed to an hour after sunrise and stop an hour before sunset.</li> <li>■ Vegetation clearing and harvesting shall not be conducted during the nesting season (generally February 1 through September 15, depending on the species and environmental conditions for any given year) where feasible.</li> </ul>					

DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT  
**MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure	Responsible Party	Timing of Implementation	Implementation Party	Comments	Initials/Date
<b>BIO-9 Jurisdictional Waters Avoidance and Compensatory Mitigation</b>					
Metropolitan proposes to monitor tule growth for 1 year. As discussed in the Project Description, if 75 percent coverage in disturbed areas has not been met within 365 days of the end of construction, Metropolitan would reassess unvegetated areas and would monitor for another year, with optional replanting. If 75 percent coverage is not met at the end of year two, Metropolitan will replant the disturbed area with appropriate native vegetation.	Metropolitan	Implement monitoring following completion of construction activities. If needed, implement replanting after end of year 2 to achieve coverage	Metropolitan Qualified biologist Restoration Contractor		

DELTA SMELT AND NATIVE SPECIES PRESERVATION PROJECT  
MITIGATION MONITORING AND REPORTING PROGRAM

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One Water and Stewardship Committee

# Adopt Mitigated Negative Declaration for Delta Smelt and Native Species Preservation Project

Item 7-8

June 12, 2023

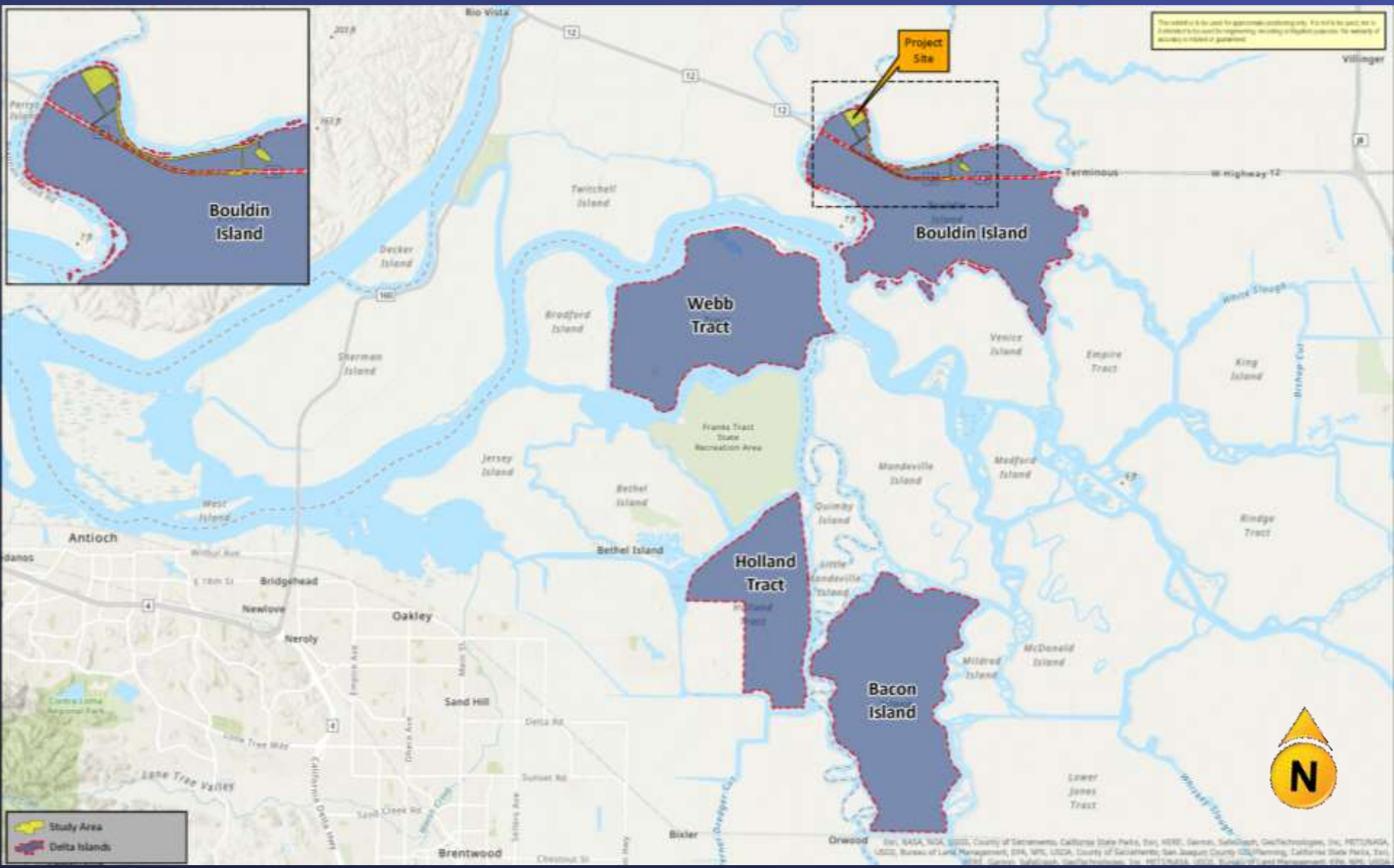


## Delta Smelt and Native Species Preservation Project

### Current Action

- Adopt Mitigated Negative Declaration for Delta Smelt and Native Species Preservation Project
- No funds required

# Project Location



# Delta Smelt and Native Species Preservation Project



## Background

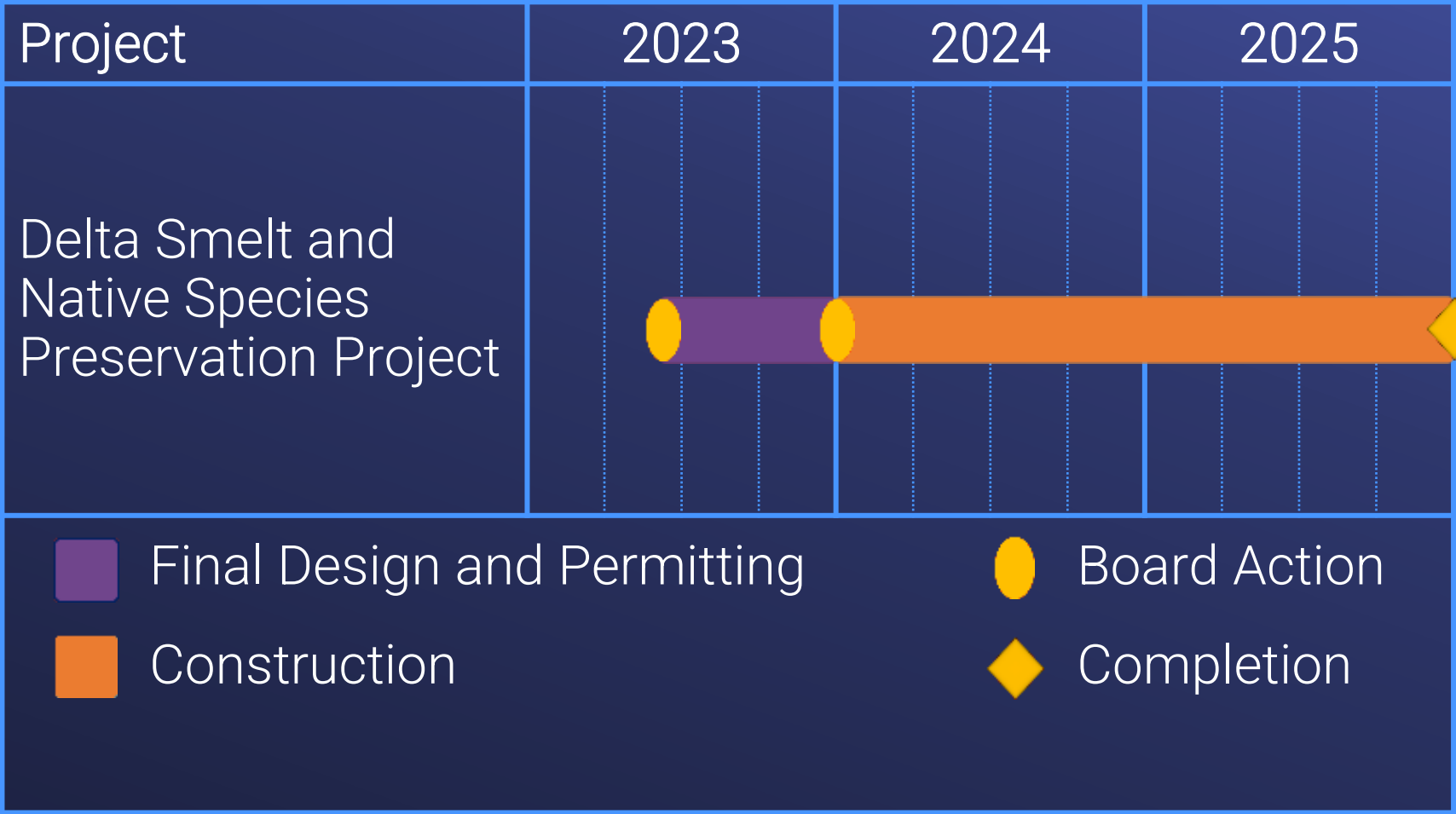
- Delta smelt and native species research
- Interagency cooperation
  - USFWS, DWR, CDFW, USGS

## Delta Smelt and Native Species Preservation Project

### Adopt Mitigated Negative Declaration

- Evaluated activities
  - Marsh-pond complexes
  - Tule harvest area
  - Access roads
  - Operations and maintenance of facilities
- Biological Resources impacts
  - Less Than Significant with mitigation
- Public Comment Letters

# Project Schedule



# Board Options

- Option #1
  - Adopt Mitigated Negative Declaration for the Delta Smelt and Native Species Preservation Project and take related CEQA actions
- Option #2
  - Do not adopt the Mitigated Negative Declaration at this time

# Staff Recommendation

- Option #1







● **Board of Directors**  
***Ethics, Operations, and Personnel Committee***

6/13/2023 Board Meeting

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**7-9**

**Subject**

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Authorize adding a \$500,000 line item to the fiscal year 2023/2024 Equal Employment Opportunity Office budget to cover outside legal services; and authorize an agreement with Meyers Nave in an amount not to exceed \$500,000 for ongoing legal advice in support of Equal Employment Opportunity Office activities and Equal Employment Opportunity related personnel and compliance matters; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

**Executive Summary**

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In February 2022, Meyers Nave began providing Metropolitan with legal advice and support services for the General Manager and Equal Employment Opportunity (EEO) Office. Currently, EEO utilizes Meyers Nave for legal services and support, including case consultation on EEO investigations and other personnel-related matters. To continue supporting these critical and ongoing efforts and ensure service is not interrupted, we request board authorization to add a line item to the FY 2023/2024 EEO budget and authorize an agreement for legal services with Meyers Nave in an amount not to exceed \$500,000.

**Details**

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**Background**

On August 17, 2021, the Board adopted all recommendations of the Shaw Law Group, which included “eliminating Legal’s direct involvement in most investigations” as it related to EEO investigations and employing outside counsel to assist with these investigations. In response, the General Manager retained Meyers Nave, an external law firm, in February 2022 to support the transition of EEO cases to the newly established EEO Office. The initial agreement authorized a not-to-exceed amount of \$225,000. In July 2022, the General Manager authorized an increase of \$24,000 to the agreement, and in September 2022, the Board authorized an increase in the maximum amount payable under the existing agreement to \$439,000.

Currently, the EEO Office continues to utilize Meyers Nave for ongoing assistance and advice to the Chief EEO Officer regarding compliance regulations, management of transitioned EEO investigations from Legal, review of EEO investigation reports, legal advice on discipline related to EEO findings, and other EEO personnel and compliance related matters. However, the maximum amount payable under the agreement will soon be reached. Due to the ongoing nature of EEO matters and the direction of the Board to utilize an external law firm for these matters, the General Manager requests the addition of a \$500,000 line item to the FY 2023/24 EEO budget and authorization of a new agreement for legal services with Meyers Nave in an amount not to exceed \$500,000.

**Policy**

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Metropolitan Water District Administrative Code Section 2131: [Discrimination, Harassment, and Retaliation by Directors], and 2416 [Duties of Executive Committee]

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

## California Environmental Quality Act (CEQA)

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### CEQA determination for Option #1:

The proposed action is not defined as a project under CEQA (Public Resources Code Section 21065, State CEQA Guidelines Section 15378) because it involves continuing administrative or maintenance activities that will not cause either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment (Section 15378(b)(2) of the State CEQA Guidelines). In addition, the proposed action is not defined as a project under CEQA because it involves the creation of government funding mechanisms or other government fiscal activities which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment (Section 15378(b)(4) of the State CEQA Guidelines).

### CEQA determination for Option #2:

None required

## Board Options

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### Option #1

Authorize adding a \$500,000 line item to the fiscal year 2023/2024 Equal Employment Opportunity Office budget to cover outside legal services; and authorize an agreement with Meyers Nave in an amount not to exceed \$500,000 for ongoing legal advice in support of Equal Employment Opportunity Office activities and Equal Employment Opportunity related personnel and compliance matters.

**Fiscal Impact:** An amount not to exceed \$500,000 for professional services. These funds are budgeted in the General Manager's budget.

**Business Analysis:** This option would comply with the Board's direction to engage outside counsel to assist with EEO-related policies and procedures.

### Option #2

Do not authorize adding a line item to the fiscal year 2023/24 EEO budget for ongoing outside legal services, and do not authorize an agreement for legal services with Meyers Nave in an amount not to exceed \$500,000.

**Fiscal Impact:** Not applicable

**Business Analysis:** This option would prevent the General Manager from complying with the Board's direction to engage outside counsel to assist with EEO-related policies and procedures.

## Staff Recommendation

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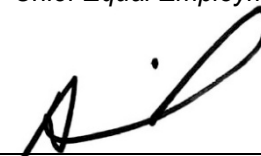
Option #1



Jonaura Wisdom  
Chief Equal Employment Opportunity Officer

6/6/2023

Date



Adel Hagekhalil  
General Manager

6/6/2023

Date



• **Board of Directors**  
***Engineering, Operations, and Technology Committee***

6/13/2023 Board Meeting

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**8-1**

**Subject**

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Authorize on-call agreements with Kennedy Jenks Consultants Inc., Lee & Ro Inc., and Stantec Consulting Services Inc., in amounts not to exceed \$10 million each, for a maximum of five years for engineering services; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

**Executive Summary**

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Staff's strategy for the management of capital and O & M work is to rely on in-house engineering staff to accomplish the base load of projects, while professional services agreements are selectively utilized to handle projects above this base load or where specialized services are required. This action authorizes three new professional services agreements to provide engineering support for capital and O & M projects. The three new agreements will be the on-call type, which are typically used for shorter-term assignments, urgent projects, and projects with specialized technical needs. The recommended maximum amounts of these agreements are \$10 million each for Kennedy Jenks Consultants Inc., Lee & Ro Inc., and Stantec Consulting Services Inc. The maximum duration of these engineering services agreements will be five years.

**Details**

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**Background**

Metropolitan's Board adopts an operating budget biennially that includes planned expenditures for capital programs, which are aggregated within the Capital Investment Plan (CIP). The CIP contains the programs and projects necessary for ensuring the reliability of Metropolitan's infrastructure, operating systems, and other assets. Staff's approach for the design of capital projects is to use available in-house staff first, with professional consultant services used only where appropriate. This approach maintains a stable, responsive, and experienced in-house workforce, and is consistent with Metropolitan's succession planning efforts.

When resource needs exceed available in-house staffing or require specialized technical expertise, Metropolitan uses a combination of project-specific and on-call professional services agreements. Firms are competitively evaluated, resulting in a list from which both project-specific and on-call agreements are executed as capital project needs are identified. Project-specific agreements are negotiated for an amount needed to cover specific tasks on a specific project, with agreements over \$250,000 approved by the Board. By contrast, on-call agreements are multi-year agreements with not-to-exceed limits. These types of agreements have been used extensively in the past and provide a high degree of flexibility to respond to schedule or scope adjustments, allow quicker delivery times, and lower administrative costs for both Metropolitan and the consultants. For these types of agreements, consultants are assigned work only after specific tasks are identified by staff, up to the not-to-exceed amounts of the contracts. These on-call agreements have been successfully relied upon for over 15 years for the efficient execution of capital projects. Typically, Engineering Services has ten or more on-call agreements for design services available for use at any one time and has utilized approximately 60 percent of the agreement capacities since inception.

Over the next several fiscal years, a number of projects have been identified that will require engineering services beyond the level that can be supported by in-house staff. These projects will be located along the Colorado River Aqueduct (CRA), within the conveyance and distribution system, and at Metropolitan's treatment plants, and will address critical programs such as rehabilitation of the CRA electrical systems, hydroelectric plants, valves

structures, and infrastructure modifications needed to improve water reliability and address water supply equity. For these projects, it is anticipated that supplemental engineering support will be needed in the areas of: (1) electrical systems; (2) instrumentation and controls; (3) communications; (4) security systems; (5) mechanical equipment refurbishment; (6) pipeline and valve structure rehabilitation; (7) heating, ventilation, and air conditioning improvements; (8) site and erosion protection improvements; (9) treatment processes and chemical feed systems; (10) seismic and other structural upgrades; and (11) preparation of record drawings.

Multiple five-year on-call agreements are recommended to ensure that staff can execute the planned work in the CIP over the upcoming fiscal years. Staff recommends board authorization of three new multi-year agreements to replace agreements that have already expired or will soon expire in order to ensure the timely execution of the CIP over the next several years.

In support of Metropolitan's goal of increasing business opportunities for Small Business Enterprise (SBE) firms, staff establishes SBE participation levels for the vast majority of professional services agreements for capital projects. The only exceptions are for highly specialized areas of expertise, or for the uncommon occasions when sub-consulting opportunities are limited.

### **Budget Impact**

Funding for the work to be assigned to the consultants under on-call agreements and performed this biennium has been previously authorized. Future costs will be accounted for and appropriated under subsequent biennial budgets. In addition, no work is guaranteed to the consultants under these agreements.

### **Agreements for Engineering Services – Kennedy Jenks Consultants Inc., Lee & Ro Inc., and Stantec Consulting Services Inc.**

Request for Qualifications (RFQ) No. 1305 was issued in March 2022 to establish a pool of qualified firms to support projects related to Metropolitan's conveyance, distribution, storage, and treatment facilities. Planned engineering services to be provided under the resulting agreements were identified in the RFQ and include conceptual, preliminary, and final design support for new facilities and rehabilitation of existing facilities; field investigations; planning studies; specialized technical analyses and reviews; cost estimating; engineering support during bid, advertisement, and construction; and project controls. The RFQ covered services in four categories: water treatment facilities, conveyance and distribution facilities, large rotating equipment, and power distribution. The consultants submitted Statements of Qualifications (SOQs) for one or more of these four categories. Twenty-one firms submitted SOQs, which were then evaluated based on qualifications, key personnel, experience related to planned projects, past performance, environmental sensitivity, and business outreach. All of the 21 firms were prequalified to provide services under one or more of the above categories through this process and will be eligible to submit proposals on project-specific agreements within the categories of work for which they were prequalified.

Agreements are currently in place with 19 of the 21 prequalified firms, with a combined total of approximately \$144 million in authorized agreements to date. Sixteen of these existing agreements are on-call agreements, and the remaining are project-specific agreements. Three of the existing on-call agreements will expire soon or have insufficient remaining contracting capacity to conduct the required activities. New on-call agreements are recommended to be awarded at this time to three prequalified firms based on staff's current assessment of technical resources needed for capital projects over the next several fiscal years. New agreements are recommended with Kennedy Jenks Consultants Inc., Lee & Ro Inc., and Stantec Consulting Services Inc. These firms were selected through the evaluation process described above.

This action authorizes on-call agreements with Kennedy Jenks Consultants Inc., Lee & Ro Inc., and Stantec Consulting Services Inc., in an amount not to exceed \$10 million each per contract. The maximum duration of the agreements will be five years. Staff will return to the Board in the future to authorize additional agreements if a need for such work is identified.

For each of the agreements, Metropolitan has established an SBE participation level of 25 percent of the amount of the agreement. Kennedy Jenks Consultants Inc. and Stantec Consulting Services Inc. have committed to meet this level of participation. Lee & Ro Inc. is an SBE firm, thus achieving 100 percent participation.

## **Alternatives Considered**

Staff considered using the on-call agreements as they have typically been structured, with yearly annual limits on the expenditures over a specified duration of time. In the past, when planned expenditures on the CIP were lower, this approach of having annual expenditure limits was acceptable as staff could successfully manage the consultant's work assignments versus expected project schedules. Since the Board approved the current CIP appropriation process in October 2018, staff has been more effective at utilizing budgeted CIP funds in the execution of projects. This enhanced efficiency, however, has not worked well with the current structure of the on-call agreements with annual expenditure limits. On several occasions over the last three years, the annual expenditure caps on these agreements have limited timely progress on projects. When the annual expenditure limit for an agreement is reached, work on several projects has been suspended until such time as the annual on-call agreement rolls over to the next agreement year, and the annual agreement expenditure limit is reset.

With the recommended approach to structuring the agreements, the three recommended on-call agreements will be modified from previous practice. Instead of utilizing annual expenditure limits on the agreements, agreements will be set with a specific time limit of five years and a maximum expenditure for that five-year period of time. Under the recommended approach, there would no longer be an annual expenditure limit on each agreement. Staff will manage the expenditures for each consultant on a task order basis such that those specific deliverables and other measurable products are delivered by the consultant during the life of the contract. This approach will enable staff to ensure the timely completion of specific engineering work on projects.

## **Summary**

This action authorizes a total of three on-call agreements for engineering services with Kennedy Jenks Consultants Inc., Lee & Ro Inc., and Stantec Consulting Services, in an amount not to exceed \$10 million each per contract for a maximum duration of five years.

## **Policy**

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

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minute Item 52778, dated April 12, 2022, the Board appropriated a total of \$600 million for projects identified in the Capital Investment Plan for Fiscal Years 2022/23 and 2023/24.

## **California Environmental Quality Act (CEQA)**

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### **CEQA determination for Option #1:**

The proposed actions are not defined as a project under CEQA because they involve continuing administrative activities that will not cause either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment (Section 15378(b)(2) of the State CEQA Guidelines). In addition, the proposed actions are not defined as a project under CEQA because they involve other government fiscal activities, which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment (Section 15378(b)(4) of the State of CEQA Guidelines).

### **CEQA determination for Option #2:**

None required

## Board Options

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### Option #1

Authorize on-call agreements with Kennedy Jenks Consultants Inc., Lee & Ro Inc., and Stantec Consulting Services Inc., in amounts not to exceed \$10 million each, for a maximum period of five years for engineering services.

**Fiscal Impact:** None; funding for the work to be assigned to the consultants under on-call agreements and performed this biennium has been previously authorized. Future costs will be accounted for and appropriated under subsequent biennial budgets. In addition, no work is guaranteed to the consultants under these agreements.

**Business Analysis:** Contracting with multiple firms provides flexibility and an efficient means for Metropolitan to obtain needed technical services and to complete capital projects in accordance with board-adopted schedules.

### Option #2

Do not authorize the consulting agreements at this time.

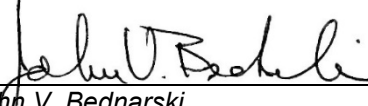

**Fiscal Impact:** None

**Business Analysis:** Under this option, Metropolitan staff would perform the engineering activities, or would request board authorization for agreements on a project-specific basis. This option would forego an opportunity to reduce administrative costs or address urgent projects promptly.

## Staff Recommendation

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### Option # 1

 _____ John V. Bednarski Manager/Chief Engineer Engineering Services	5/17/2023 Date
 _____ Adel Hagekhalil General Manager	5/23/2023 Date





Engineering, Operations, & Technology Committee

# Professional Services Agreements for Engineering Services

Item 8-1

June 12, 2023

## Professional Services Agreements for Engineering Services

### Current Action

- Authorize on-call agreements in amounts not to exceed \$10 million each, for a maximum of five years for engineering services
  - Kennedy Jenks Consultants Inc.
  - Lee & Ro Inc.
  - Stantec Consulting Services Inc.

## Professional Services Agreements for Engineering Services

### Staffing Strategy for Capital Programs

- Rely on in-house labor to fullest extent possible
- Use consultants:
  - When capital resource needs exceed available staffing
  - For specialized technical expertise/skills
  - For independent/3rd party review
- Planned CIP expenditures for current biennium—\$600M
- Funding available within Metropolitan capital expenditure plan

## Professional Services Agreements for Engineering Services

### Professional Services Agreements

- Project-Specific Agreements
  - Used for projects with extended duration or larger scope
- On-Call Agreements
  - Typically utilized for short-term assignments, urgent projects, etc.
  - Allows for flexibility & expedited project delivery
  - Work is not guaranteed to consultants
- Approved individually by the Board over \$250K

# Professional Services Agreements for Engineering Services

## Example Projects

- Treatment plant facilities
  - Diemer filter valve replacement
- Conveyance & Distribution facilities
  - Hydroelectric plants upgrades



Diemer filter valve replacement



Hydroelectric plant upgrades



# Professional Services Agreements for Engineering Services

## Example Projects

- Security Upgrades
  - Camera replacements
  - Perimeter fencing improvements



Etiwanda Reservoir - Security Improvements - Perris Control Facility

## Professional Services Agreements for Engineering Services

### Request for Qualifications (RFQ) 1305

- Issued March 2022 to establish pool of qualified firms
  - 21 firms responded
  - All firms were determined to be “qualified” in one specialized category or multiple categories
  - Oct. 2022 – Board awarded five on-call agreements
- Agreements currently in place for 19 of 21 qualified firms
  - 63 agreements
    - 16 on-call agreements
    - 47 project specific
  - Combination of Board & General Manager awarded agreements
- Agreements in process for two remaining prequalified firms without agreements



## Professional Services Agreements for Engineering Services

### Request for Qualifications (RFQ) 1305

- Three firms recommended for agreements at this time
- Covered services in four categories:
  - Water treatment facilities
  - Conveyance & distribution facilities
  - Large rotating equipment
  - Power distribution
- Services to be provided include:
  - Conceptual, preliminary & final designs
  - Specialized technical analyses
  - Support during bid, advertisement & construction
  - SBE participation level – 25% of agreement amount

## Professional Services Agreements for Engineering Services

### Alternatives Considered

- Utilize on-call agreements
  - Yearly annual limit
  - May require pausing consultant support if annual expenditure limit reached
- Selected Alternative – On-call agreements with a maximum expenditure for the term
  - Allows timely completion of work
  - Lowers administrative costs

# Board Options

- Option #1

Authorize on-call agreements with Kennedy Jenks Consultants Inc., Lee & Ro Inc., and Stantec Consulting Services Inc., in amounts not to exceed \$10 million each, for a maximum period of five years for engineering services.

- Option #2

Do not authorize the consulting agreements at this time.

# Staff Recommendation

- Option #1





• **Board of Directors**  
***Engineering, Operations, and Technology Committee***

6/13/2023 Board Meeting

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**8-2**

**Subject**

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Award a \$16,490,000 contract to J. F. Shea Construction Inc. to replace equipment storage buildings at three Colorado River Aqueduct pumping plants; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

**Executive Summary**

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Storage buildings at the Colorado River Aqueduct (CRA) pumping plants are used to protect and secure supplies and equipment from the extreme desert environment. The original 70-year-old storage buildings at three pumping plants (Hinds, Eagle Mountain, and Iron Mountain) have deteriorated due to corrosion and structural deficiencies and are no longer usable. Replacement of these original buildings is needed to protect equipment, parts, and other mechanical/electrical supplies which are stored at each site from premature deterioration due to weather damage. This action awards a construction contract to furnish and install a total of six new pre-engineered metal buildings, two each at three pumping plants.

**Details**

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**Background**

The CRA is a 242-mile-long conveyance system that transports water from the Colorado River to Lake Mathews in Riverside County. The CRA was placed into service in 1941. It consists of five pumping plants, 124 miles of tunnels, 63 miles of canals, and 55 miles of conduits, siphons, and reservoirs.

Between 1950 and 1955, several metal storage buildings with timber frames and a storage capacity of less than 2,000 square feet each were built at the Gene, Hinds, Eagle Mountain, and Iron Mountain pumping plants to store, protect, and secure CRA-related material and maintenance equipment from the extreme desert environment. Items stored at these buildings include portable equipment; large mechanical and electrical parts such as circuit breakers, disconnect switches, and pumps; spooled wire and cable; lifting fixtures used for maintenance of motors and valves; and general tools and supplies for various maintenance specialties such as plumbing, electrical, carpentry, paint, welding, construction, and vehicle/equipment maintenance.

The storage buildings have deteriorated after 70 years of service. The wooden frames have decayed due to fungal dry rot, and the metal walls and roof panels are significantly rusted. The storage buildings no longer seal properly to prevent rain and dust from entering the interiors and are not insulated. These buildings are not equipped with lights, fans, or electrical service. Following a comprehensive assessment of CRA storage needs, it was determined that refurbishment of the existing buildings is impractical, and staff recommends the replacement of these original storage buildings with new prefabricated, code-compliant buildings.

In October 2014, Metropolitan's Board authorized the replacement of two of these existing storage buildings at Gene Pumping Plant, which at the time were the most deteriorated structures, and construction was completed in 2015. The current project will replace the remaining deteriorated storage buildings with two new storage buildings at each of the three CRA pumping plants: Hinds, Eagle Mountain, and Iron Mountain. The new prefabricated buildings will be constructed of steel and installed on concrete slab foundations. Each new building will have approximately 4,000 square feet of interior storage space. The improved storage space will support ongoing maintenance activities along the CRA and upcoming capital rehabilitation work at the pumping plants.

Design of the new storage buildings is complete, and staff recommends award of a construction contract at this time.

### **Budget Impact**

In accordance with the April 2022 action on the biennial budget for fiscal years 2022/23 and 2023/24, the General Manager authorized staff to proceed with installation of the storage buildings, pending board award of the construction contract described below. Based on the current Capital Investment Plan (CIP) expenditure forecast, funds for the work to be performed pursuant to this action during the current biennium are available within the CIP Appropriation for Fiscal Years 2022/23 and 2023/24 (Appropriation No. 15525). This project anticipates an expenditure of \$20.8 million in capital funds. Approximately \$4.0 million will be incurred in the current biennium and has been previously authorized. The remaining funds from this action will be accounted for in the next biennial budget. This project has been reviewed in accordance with Metropolitan's CIP prioritization criteria and was approved by Metropolitan's CIP evaluation team to be included in the CRA Reliability Program.

### **Hinds, Eagle Mountain, and Iron Mountain Pumping Plants Storage Buildings – Construction**

The scope of the contract includes: (1) site work, including grading of the sites to provide access and improve drainage, asphalt paving around the new buildings, replacement of security fencing near the building sites, and new concrete foundation pads; (2) installation of a firewater line and fire hydrant at each building for fire protection; (3) demolition of existing storage buildings at the Hinds and Eagle Mountain pumping plants to provide space for the new buildings; and (4) procurement and installation of six pre-engineered metal storage buildings, two at each pumping plant. Metropolitan forces will perform site clearing in advance of the contract; integrate the fire alarm system into the Supervisory Control and Data Acquisition system; and procure and install ventilation exhaust fans in each building to accommodate the desert environment.

A total of \$20.8 million is required to perform this work. In addition to the amount of the contract described below, other funds to be allocated include \$159,000 for Metropolitan force activities as described above; \$1,830,000 for construction management and inspection; \$617,000 for submittal review, technical support during construction, responding to requests for information, and preparation of record drawings; \$680,000 for environmental monitoring, contract administration, Project Labor Agreement (PLA) administration, and project management; and \$1,024,000 for remaining budget.

**Attachment 1** provides the allocation of the required funds. The total estimated cost to complete the storage buildings installation, including the amount allocated to date and funds allocated for the work described in this action, is approximately \$22.8 million.

### ***Award of Construction Contract (J. F. Shea Construction Inc)***

Specifications No. 2000A for the furnishing and installation of storage buildings at Hinds, Eagle Mountain, and Iron Mountain was advertised for bids on March 10, 2023. As shown in **Attachment 2**, two bids were received and opened on April 20, 2023. The low bid from J. F. Shea Construction Inc. in the amount of \$16,490,000 complies with the requirements of the specifications. The other bid was approximately \$19.7 million, while the engineer's estimate for this project was \$17,500,000. For this contract, Metropolitan established a Small Business Enterprise participation level of at least 25 percent of the bid amount. J. F. Shea Construction Inc. has committed to meet this level of participation. The subcontractors for this contract are listed in **Attachment 3**. This contract will be conducted under the terms of Metropolitan's PLA.

As described above, Metropolitan staff will perform construction management and inspection. Engineering Services' performance metric target range for construction management and inspection of projects with construction greater than \$3 million is 9 to 12 percent. For this project, the performance metric goal for construction management and inspection is 11.0 percent of the total construction cost. The total cost of construction for this project is \$16,649,000, which includes the amount of the contract (\$16.49 million), and Metropolitan force activities and supplies (\$159,000).

### **Alternatives Considered**

Staff considered providing one large building instead of two smaller buildings at each pumping plant. The advantages of one large building include possibly reduced construction costs and reduced building erection durations. However, due to existing infrastructure at each site, a single large building is difficult to construct near



the center of the pumping plants and would need to be located on the outskirts of the facility. This approach increases the time needed to retrieve stored parts and leads to inefficient work practices. As a result, staff recommends to proceed with two centrally located buildings at each pump plant.

Staff also considered various building types, including tilt-up concrete, masonry, and steel buildings to use in the building construction. Staff recommends proceeding with pre-engineered metal buildings because they are a cost-effective alternative, can be quickly installed, and have insulated wall and roof panels to reduce the temperature inside of the buildings.

### **Summary**

This action awards a \$16,490,000 contract to J. F. Shea Construction Inc. for furnishing and installation of pre-engineered metal storage buildings at the Hinds, Eagle Mountain, and Iron Mountain pump plants.

See **Attachment 1** for the Allocation of Funds, **Attachment 2** for the Abstract of Bids, **Attachment 3** for the Listing of Subcontractors for Low Bidder, and **Attachment 4** for the Location Map.

### **Project Milestone**

November 2025 – Completion of construction

### **Policy**

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

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minute Item 52778, dated April 12, 2022, the Board appropriated a total of \$600 million for projects identified in the Capital Investment Plan for Fiscal Years 2022/2023 and 2023/2024.

### **California Environmental Quality Act (CEQA)**

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#### **Option #1:**

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed action involves operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use and no possibility of significantly impacting the physical environment. In addition, the proposed action includes the replacement and reconstruction of existing structures and facilities where the new structure will be located on the same site and as the structure replaced and will have the same purpose and capacity as the structure replaced. Further, the proposed action includes construction of limited numbers of new, small facilities or structures. Finally, the proposed action includes minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry or agricultural purposes. Accordingly, the proposed action qualifies under Class 1, Class 2, Class 3, and Class 4 (Sections 15301, 15302, 15303, and 15304 of the State CEQA Guidelines).

#### **Option #2:**

None required

## Board Options

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### Option #1

Award a \$16,490,000 contract to J. F. Shea Construction Inc. for furnishing and installation of pre-engineered storage buildings at the Hinds, Eagle Mountain, and Iron Mountain pumping plants.

**Fiscal Impact:** Expenditure of \$20.8 million in capital funds. Approximately \$4.0 million will be incurred in the current biennium and has been previously authorized. The remaining funds from this action will be accounted for in the next biennial budget.

**Business Analysis:** This option will protect important CRA maintenance equipment and supplies from premature deterioration. Recent supply chain issues have demonstrated the importance of stocking critical maintenance material and equipment spares near the operating facility.

### Option #2

Do not proceed with the project at this time.

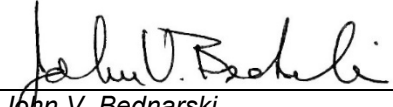

**Fiscal Impact:** None

**Business Analysis:** This option would forgo an opportunity to protect Metropolitan's assets and may result in premature deterioration of equipment and increased replacement costs.

## Staff Recommendation

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### Option #1

 _____ John V. Bednarski Manager/Chief Engineer Engineering Services	5/18/2023 _____ Date
 _____ Adel Hagekhalil General Manager	5/23/2023 _____ Date

**Attachment 1 – Allocation of Funds**

**Attachment 2 – Abstract of Bids**

**Attachment 3 – Listing of Subcontractors**

**Attachment 4 – Location Map**

Ref# es12694785

## Allocation of Funds for Hinds, Eagle Mountain, and Iron Mountain Pumping Plants Storage Buildings

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	<b>Current Board Action (Jun. 2023)</b>
Labor	
Studies & Investigations	\$ -
Final Design	-
Owner Costs (Program mgmt., envir. monitoring)	680,000
Submittals Review & Record Drwgs.	617,000
Construction Inspection & Support	1,830,000
Metropolitan Force Construction	128,000
Materials & Supplies	20,000
Incidental Expenses	11,000
Professional/Technical Services	-
Right-of-Way	-
Equipment Use	-
Contracts	-
J. F. Shea Construction, Inc.	16,490,000
Remaining Budget	1,024,000
<b>Total</b>	<b>\$ 20,800,000</b>

The total amount expended to date for the Hinds, Eagle Mountain, and Iron Mountain Pumping Plants Storage Buildings Project is approximately \$2.0 million. The total estimated cost to complete, including the amount appropriated to date and funds allocated for the work described in this action, is \$22.8 million.

**The Metropolitan Water District of Southern California**

**Abstract of Bids Received on April 20, 2023, at 2:00 P.M.**

**Specifications No. 2000A**

**Hinds, Eagle Mountain, and Iron Mountain Pumping Plants Storage Buildings**

The work includes furnishing and constructing six prefabricated buildings, two at each pumping plant, on new slab foundations; demolition of existing storage buildings; grading; utility installation; installation of fire sprinkler systems; asphalt paving; and replacement of security fencing.

Engineer's estimate: \$17,460,000

<b>Bidder and Location</b>	<b>Total</b>	<b>SBE \$</b>	<b>SBE %</b>	<b>Met SBE<sup>1</sup></b>
J. F. Shea Construction Inc. Walnut, CA	<b>\$16,490,000</b>	<b>\$5,462,384</b>	<b>33%</b>	<b>Yes</b>
Cattrac Construction, Inc Fontana, CA	\$19,668,656	-	-	-

<sup>1</sup> Small Business Enterprise (SBE) participation level established at 25% for this contract.

**The Metropolitan Water District of Southern California**

**Subcontractors for Low Bidder**

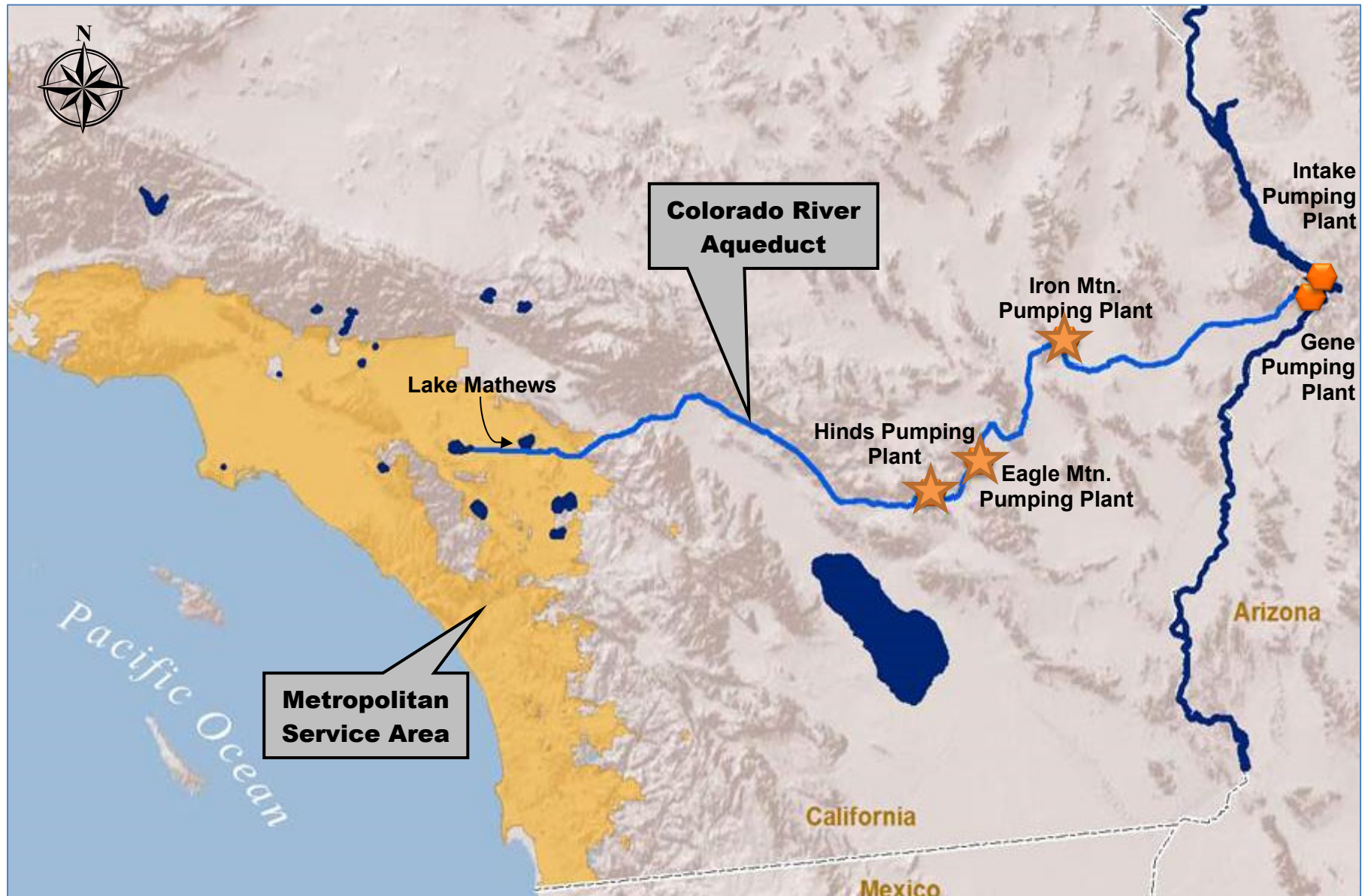
**Specifications No. 2000A**

**Hinds, Eagle Mountain, and Iron Mountain Pumping Plants Storage Buildings**

Low bidder: J. F. Shea Construction Inc.

<b>Subcontractor</b>	<b>Service Category; Specialty</b>
Hardy & Harper Inc. Lake Forest, CA	Paving
Environmental Construction Group Inc. Signal Hill, CA	Demo & Abatement
MDB General Engineering Inc Irvine, CA	Earthwork
Crown Fence Santa Fe Springs, CA	Fencing
EBS General Engineering Inc. Corona, CA	Sitework Concrete
Southwest V-Ditch Inc. Riverside, CA	Gunite
Qualco Fire Protection Inc. Santa Fe Springs, CA	Fire Protection
K&S Excavating Inc. Anaheim, CA	Trenching & Backfill
South Valley Construction and Develop. Inc. Murrieta, CA	Pre-Engineered Metal Building
Overhead Door Company of Inland Empire Colton, CA	Overhead Doors
Techno Coatings Anaheim, CA	Paint
LA Steel Services Corona, CA	Rebar
Leed Electric Inc. Santa Fe Springs, CA	Electrical

# Location Map





Engineering, Operations, & Technology Committee

# Colorado River Aqueduct Pumping Plants Storage Buildings

Item 8-2

June 12, 2023

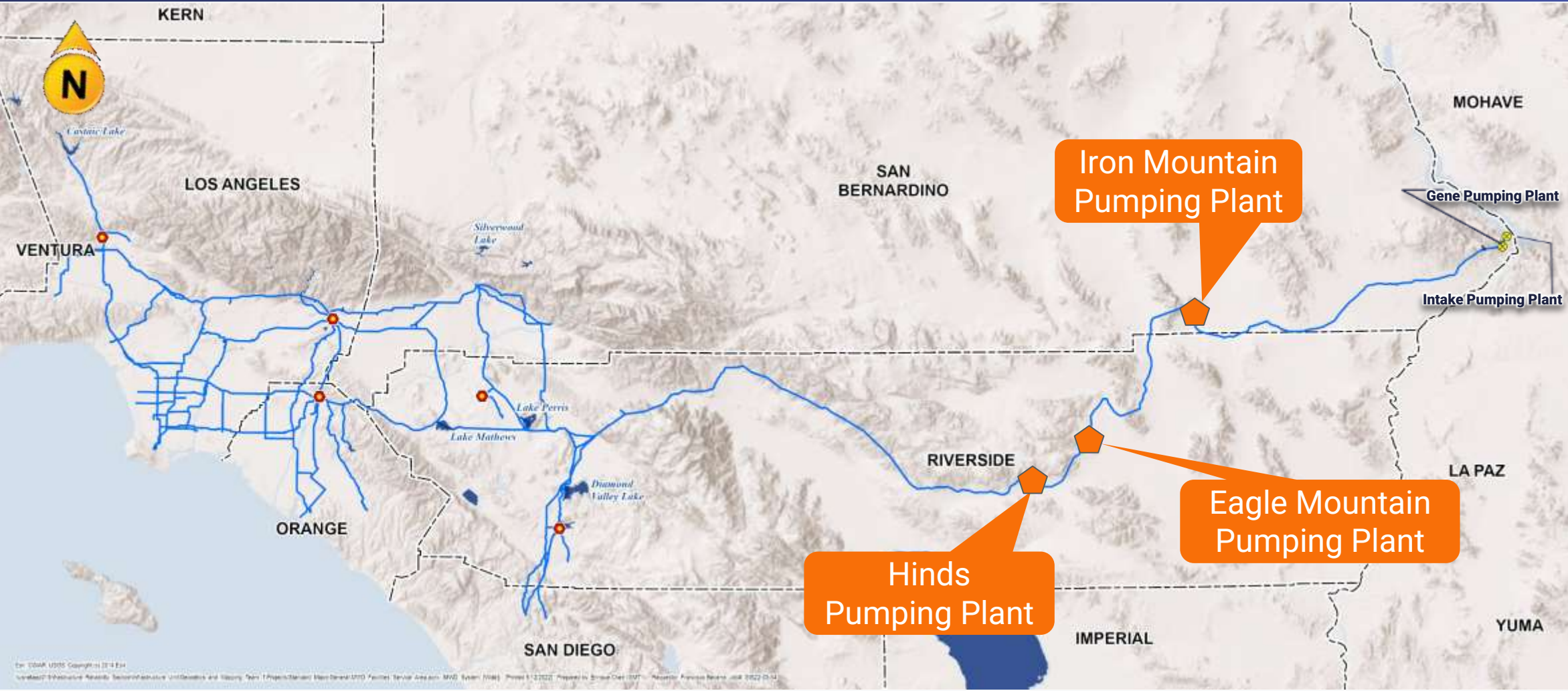


## Colorado River Aqueduct Equipment Storage Buildings

### Current Action

- Award a \$16,490,000 contract to J. F. Shea Construction Inc. to replace storage buildings at Hinds, Eagle Mountain, & Iron Mountain pumping plants

# Project Location



# Background

- Metal storage buildings built in 1950s
  - Decayed wooden frames
  - Metal walls & roof panels deteriorated
  - Limited storage capacity
- Gene Pumping Plant storage buildings were replaced in 2015
- Final design complete for replacement of storage buildings at Hinds, Eagle & Iron Mtn. pumping plants
  - Value engineering conducted to identify & implement cost saving measures for project



Iron Mtn. Storage Building (Existing)



Gene Storage Building (New)

## Colorado River Aqueduct Equipment Storage Buildings

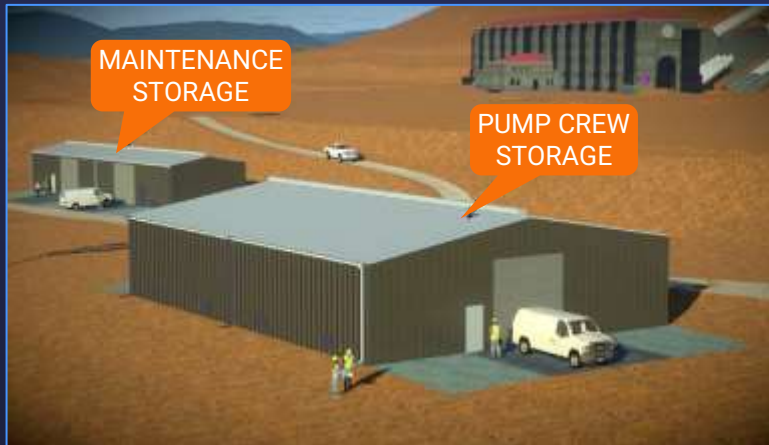
### Alternatives Considered

- Provide one large building instead of two
  - Limited space near pumping plants
  - Would increase retrieval time for parts
- Building types (tilt-up, masonry & steel)
  - Longer construction period
  - Costly materials
- Selected Alternative – Replace single building with two pre-engineered buildings
  - Easier to site
  - Faster installation



# Contractor – Scope of Work

- Demolish existing storage buildings
- Procure & install six pre-engineered metal storage buildings
- Grading for access & drainage improvements
- Construct concrete foundation pads, asphalt paving & fencing
- Install fire protection system – new firewater lines & hydrants



Hinds Storage Buildings



Eagle Mtn. Storage Buildings



Iron Mtn. Storage Buildings

# Bid Results

## Specifications No. 2000A\*

Bids Received	April 20, 2023
No. of Bidders	2
Lowest Responsible Bidder	J. F. Shea Construction Inc.
Low Bid	\$16,490,000
Other Bid	\$19,668,656
Engineer's Estimate	\$17,460,000
SBE Participation**	33%

\* This contract will be conducted under the terms of Metropolitan's project labor agreement

\*\* SBE (Small Business Enterprise) participation level set at 25%

# Comparison of Recent Storage Building Projects

## Cost Analysis Findings - CRA Storage Buildings

- 6 buildings across 3 separate facilities
- Extensive site work required for CRA buildings
  - Extensive site grading & erosion control
  - Electrical & water source farther from new buildings
  - Fire protection systems & hydrants needed for 3 separate buildings
  - Environmental fencing
- Demolition of existing buildings
- Remote Desert locations

Contract Cost Comparison	CRA Storage Buildings (2023)	Lake Mathews Storage Building (2021)
Contract cost	\$16,490,000	\$4,759,000
Sitework & demo. cost	\$8,436,000	\$2,075,000
Building cost	\$8,054,000	\$2,684,000
Total building area, sq. ft.	27,660	18,200
\$ per sq. ft.	\$291	\$147



## Colorado River Aqueduct Equipment Storage Buildings

### Metropolitan - Scope of Work

- Integration of fire alarm system with SCADA
- Installation of ventilation exhaust fans
- Construction management & inspection
- Submittals review & preparation of record drawings
- Environmental monitoring
- Project management, project labor agreement administration & project controls

# Allocation of Funds

## CRA Storage Buildings at Hinds, Eagle Mtn. & Iron Mtn.

### Metropolitan Labor

Owners Costs (Proj. Mgmt., Contract Admin., Envir. Support) \$ 680,000

Construction Inspection & Support 1,830,000

Force Construction 128,000

Submittals Review, Tech. Support, Record Dwgs. 617,000

Materials & Incidentals 31,000

### Contracts

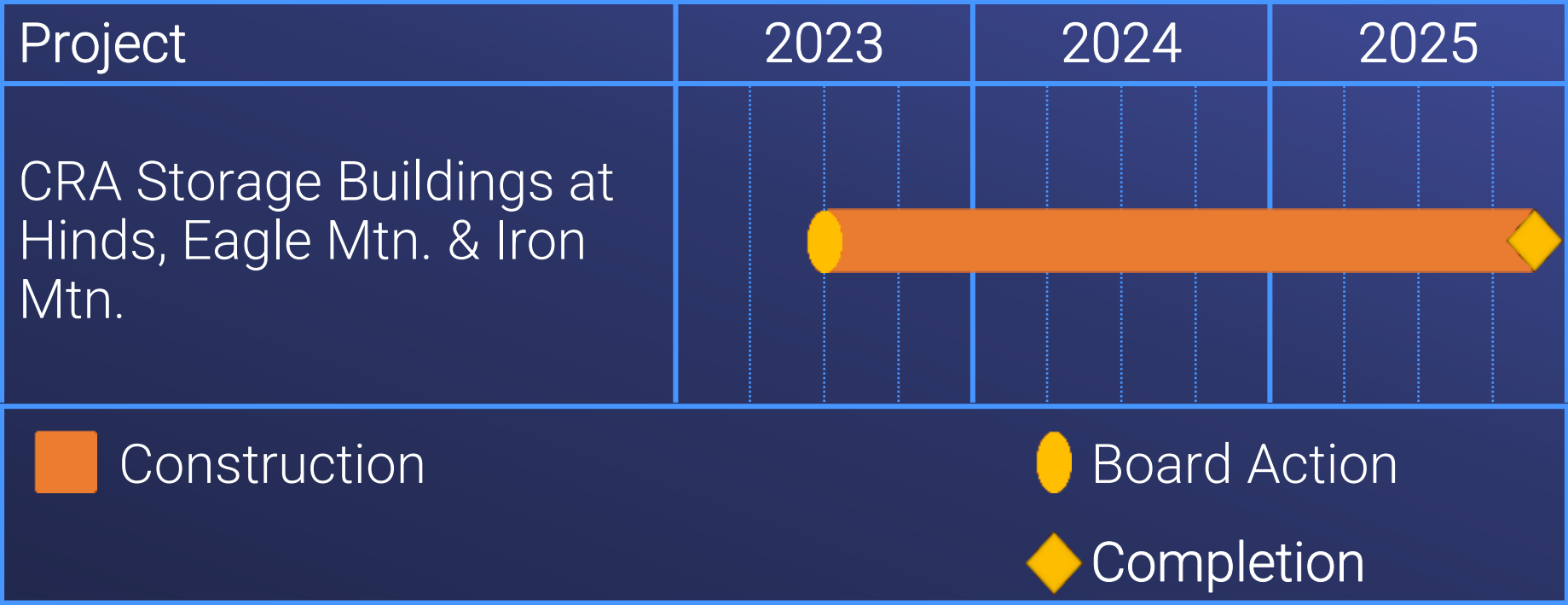
J. F. Shea Construction Inc. 16,490,000

Remaining Budget 1,024,000

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Total \$ 20,800,000

# Project Schedule



# Board Options

- Option #1

Award a \$16,490,000 contract to J. F. Shea Construction Inc. for furnishing and installation of pre-engineered storage buildings at the Hinds, Eagle Mountain, and Iron Mountain pumping plants.

- Option #2

Do not proceed with the project at this time.

# Staff Recommendation

- Option #1





• **Board of Directors**

***Legislation, Regulatory Affairs, and Communications Committee***

6/13/2023 Board Meeting

**Revised 8-3**

**Subject**

Express support, if amended, on two legislative bond proposals, Assembly Bill 1567 (Garcia) and Senate Bill 867 (Allen), to provide funding for water projects to address climate change impacts; the General Manager has determined that the action is exempt or otherwise not subject to CEQA

**Executive Summary**

Two climate change general obligation bond measures have been introduced in the current legislative session in Sacramento that will provide funding for several resource-related objectives, including water:

- AB 1567 (Garcia, D – Coachella): Safe Drinking Water, Wildfire Prevention, Drought Preparation, Flood Protection, Extreme Heat Mitigation, Clean Energy, and Workforce Development Bond Act of 2024. (A-5/26/2023) (**Attachment 1**)
- SB 867 (Allen, D – Santa Monica): Drought, Flood, and Water Resilience, Wildfire and Forest Resilience, Coastal Resilience, Extreme Heat Mitigation, Biodiversity and Nature-Based Climate Solutions, Climate Smart Agriculture, Park Creation and Outdoor Access, and Clean Energy Bond Act of 2024. (A-5/18/2023) (**Attachment 2**).

The proposed bonds are intended to provide funding that will make California more climate resilient in addressing the severity and frequency of challenges that include wildfire, drought, flood, extreme heat, coastal resilience, clean energy, and workforce development.

Staff recommends the Board adopt a position of support, if amended, to authorize staff to work collaboratively with other statewide associations to seek amendments that would increase funding in the bills for recycled water, dam safety, regional conveyance, drought and conservation projects that will directly assist Southern California's regional sustainability.

**Timing and Urgency**

To effectively influence the funding categories, Metropolitan will need to actively engage on both bills in a timely way. AB 1567 and SB 867 have moved from their house of origin and are in the second house for consideration. Discussions are expected to continue through the legislative summer recess in July. Immediate direction and positions on the bills are important to identify board priorities and ensure the time needed to obtain amendments that are reflective of Metropolitan and regional priorities.

**Details**

**Background**

Climate sustainability is a top priority for Governor Newsom and the Legislature. Over the past two years, the state budget allocated \$54 billion over five years to advance the state's climate agenda. However, in fall 2022, the Legislative Analyst's Office identified a pending revenue shortfall of \$24 billion. In January 2023, Governor Newsom expressed his commitment to prioritize climate sustainability and interest in pursuing a resources bond to address long-standing needs that would strengthen California's ability to adapt to the changing climate.



A water bond is both timely and urgently needed. Metropolitan and its member agencies have invested heavily in projects and programs to advance local water resource projects and regional conservation to ensure water supply reliability and resiliency. Water recycling and water conservation are important cornerstones of Metropolitan, and regional water supply management plans to meet current and future needs. State funding is needed to supplement local investments, modernize aging infrastructure, and build new projects to ensure regional reliability and adapt to the challenges of climate change.

Two climate-resilient bond measures were introduced this session; the current proposed funding in each bill is detailed below:

AB 1567 (as amended on May 26, 2023), if passed, would be on the ballot for the March 5, 2024, statewide primary election. The \$15.995 billion general obligation bond includes the following:

Category	Proposed Funding
Wildfire prevention	\$2.275 billion
Protection of coastal lands, bays, and oceans	\$1.655 billion
Safe drinking water, drought preparation and response, and flood protection	\$5.255 billion
Protection of natural lands and biodiversity and preserving fish and wildlife	\$1.5 billion
Protection of agricultural resources, communities, and open spaces	\$520 million
Extreme heat mitigation	\$1.59 billion
Strengthen regional climate resilience	\$1.2 billion
Clean energy	\$2 billion

SB 867 (as amended May 18, 2023) has an unspecified date for voter approval. The \$15.5 billion general obligation bond includes the following:

Category	Proposed Funding
Drought, flood, and water resilience	\$5.2 billion
Wildfire and forest resilience	\$3 billion
Increase coastal and ocean resilience	\$2 billion
Extreme heat mitigation	\$500 million
Biodiversity protection and nature-based solutions	\$2 billion
Improving climate smart agriculture	\$300 million
Park creation and outdoor access	\$500 million
Clean energy	\$2 billion

Both bond bills would authorize more than \$5 billion for water projects and programs. AB 1567 and SB 867 each allocate \$300 million for recycled water projects. In addition, SB 867 allocates \$100 million for conservation for urban and agriculture, and there is some potential funding for conservation in AB 1567. More funding is needed in these categories to ensure California can meet regional and state objectives with water efficiency and recycled water projects.

Staff respectfully recommends a position of support, if amended, to authorize collaborative work to support the needs of the Southern California region and to increase funding to board priority projects.

## Policy

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Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minute Item 53051, 2023 Metropolitan Legislative Priorities and Principles, Legislative Priority A.2, A.3, and Sections I.A, I.B, I.D, I.B.5, III.B., III.D.1, III.D.5, III.F.1, IV.A.3, VI.A, VII.A.3.

## California Environmental Quality Act (CEQA)

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### CEQA determination for Option #1:

The proposed action is not defined as a project under CEQA because it involves legislative proposals that do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment (Public Resources Code Section 21065 and Section 15378(b)(1) of the State CEQA Guidelines).

## Board Options

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### Option #1

Express support, if amended, on two legislative bond proposals, Assembly Bill 1567 (Garcia) and Senate Bill 867 (Allen), to provide funding for water projects to address climate change impacts

**Fiscal Impact:** Unknown at this time

**Business Analysis:** A support, if amended, position would authorize Metropolitan staff to work with the author, stakeholders, and statewide associations to obtain desired amendments that will ensure available funding reflects needs, and to increase funding amounts related to conservation and water recycling.

### Option #2

Do not express a support, if amended, position on both AB 1567 (Garcia) and SB 867 (Allen)

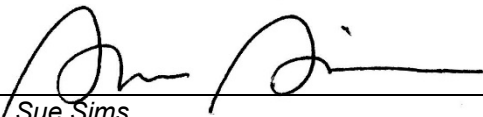
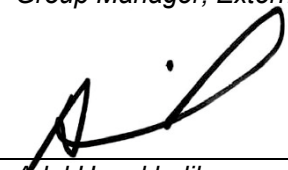
**Fiscal Impact:** Unknown at this time.

**Business Analysis:** Available funding currently authorized in the bills is limited and may not result in desired statewide benefits, including water conservation savings and recycled water that will support Southern California's regional reliability and resiliency.

## Staff Recommendation

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### Option #1

 _____ Sue Sims Group Manager, External Affairs	6/6/2023 _____ Date
 _____ Adel Hagekhalil General Manager	6/6/2023 _____ Date

**Attachment 1 – AB 1567 (Garcia, D – Coachella)**

**Attachment 2 – SB 867 (Allen, D – Santa Monica)**

AMENDED IN ASSEMBLY APRIL 26, 2023

AMENDED IN ASSEMBLY APRIL 7, 2023

CALIFORNIA LEGISLATURE—2023–24 REGULAR SESSION

## ASSEMBLY BILL

**No. 1567**

**Introduced by Assembly Members Garcia, Wendy Carrillo,  
Connolly, Friedman, and Papan Papan, Reyes, and Luz Rivas  
(Principal coauthors: Assembly Members Arambula, Lee, and  
McCarty)**

**(Coauthors: Assembly Members ~~Mike Fong, Haney, Lowenthal,~~  
~~Robert Rivas, and Schiavo~~) *Addis, Bryan, Calderon, Mike Fong,*  
*Haney, Holden, Kalra, Lowenthal, Muratsuchi, Ramos,*  
*Robert Rivas, Schiavo, and Wood*)**

February 17, 2023

An act to add Division 48 (commencing with Section 80500) to the Public Resources Code, relating to safe drinking water, wildfire prevention, drought preparation, flood protection, extreme heat mitigation, and workforce development programs, by providing the funds necessary therefor through an election of the issuance and sale of bonds of the State of California and for the handling and disposition of those funds.

### LEGISLATIVE COUNSEL'S DIGEST

AB 1567, as amended, Garcia. Safe Drinking Water, Wildfire Prevention, Drought Preparation, Flood Protection, Extreme Heat Mitigation, and Workforce Development Bond Act of 2024.

The California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018, approved by the voters as Proposition 68 at the June 5, 2018, statewide primary election, authorizes

AB 1567

— 2 —

the issuance of bonds in the amount of \$4,100,000,000 pursuant to the State General Obligation Bond Law to finance a drought, water, parks, climate, coastal protection, and outdoor access for all program. Article XVI of the California Constitution requires measures authorizing general obligation bonds to specify the single object or work to be funded by the bonds and further requires a bond act to be approved by a  $\frac{2}{3}$  vote of each house of the Legislature and a majority of the voters.

This bill would enact the Safe Drinking Water, Wildfire Prevention, Drought Preparation, Flood Protection, Extreme Heat Mitigation, and Workforce Development Bond Act of 2024, which, if approved by the voters, would authorize the issuance of bonds in the amount of \$15,105,000,000 pursuant to the State General Obligation Bond Law to finance projects for safe drinking water, wildfire prevention, drought preparation, flood protection, extreme heat mitigation, and workforce development programs.

This bill would provide for the submission of these provisions to the voters at the March 5, 2024, statewide primary election.

Vote:  $\frac{2}{3}$ . Appropriation: no. Fiscal committee: yes.  
State-mandated local program: no.

*The people of the State of California do enact as follows:*

- 1 SECTION 1. The people of California find and declare all of
- 2 the following:
- 3 (a) The climate crisis presents a significant threat to the health,
- 4 safety, and prosperity of the people of California. The changing
- 5 climate increases the risk of extreme weather events, biodiversity
- 6 loss, catastrophic wildfire, drought, rising temperatures and heat,
- 7 and sea level rise, resulting in harm to California's agricultural
- 8 industry, water supply, unique ecosystems, and economy.
- 9 (b) According to the state's Fourth Climate Change Assessment,
- 10 "[e]merging findings for California show that costs associated with
- 11 direct climate impacts by 2050 are dominated by human mortality,
- 12 damages to coastal properties, and the potential for droughts and
- 13 mega-floods," and could lead to economic costs to the economy
- 14 that exceed \$100 billion by midcentury.
- 15 (c) Low-income communities and communities of color are
- 16 already experiencing disproportionate effects of climate change
- 17 and will continue to bear the brunt of climate impacts going
- 18 forward unless the state prioritizes investments in these

1 communities. Investment in these communities can build resiliency,  
2 develop and harness local talent for quality jobs, and promote  
3 community-based leadership to withstand the shocks and stresses  
4 of future anticipated and unforeseen events, resulting in improved  
5 environmental conditions, better health outcomes, social cohesion,  
6 and increased economic opportunity.

7 (d) Improving climate resilience will require investments in  
8 planning and both capital and noncapital costs.

9 (e) Restoration and stewardship of California's ecosystems and  
10 natural infrastructure will increase the state's resilience to the  
11 changing climate and can prevent or reduce many of the forecasted  
12 impacts of climate change. Investment in improving California's  
13 ecosystems and natural infrastructure substantially benefits food  
14 and water systems, community health, and livelihoods.

15 (f) Climate risks and impacts vary by region so state investments  
16 to improve climate resilience must reflect the varying type and  
17 severity of climate impacts across the state.

18 (g) Planning, investment, and action to address current and  
19 future climate change impacts must be guided by the best available  
20 science, including local and traditional knowledge.

21 (h) The investment of public funds pursuant to Division 48  
22 (commencing with Section 80500) of the Public Resources Code  
23 will result in public benefits that will address the most critical  
24 statewide needs and priorities for public funding.

25 (i) It is the intent of the Legislature that agencies administering  
26 funds from Division 48 (commencing with Section 80500) of the  
27 Public Resources Code should not fund programs or projects that  
28 exacerbate, perpetuate, or sustain environmental injustice through  
29 air pollution, water contamination, or other forms of environmental  
30 degradation in already disproportionately affected communities  
31 or that will shift climate and environmental burdens to  
32 disadvantaged or otherwise disproportionately burdened  
33 communities.

34 (j) It is the intent of the Legislature that agencies administering  
35 funds from this act ensure investments create high-wage,  
36 high-quality jobs that comply with all laws, rules, and regulations,  
37 including labor, training, safety, contracting, and environmental  
38 requirements and standards.

39 (k) It is the intent of the Legislature that, in the interest of people  
40 of color, vulnerable communities, and indigenous populations, in

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1 meeting the climate and conservation objectives to contemplate  
2 investments beyond those specific to traditional conservation and  
3 protections, to look towards objectives that are transformative in  
4 nature in California's urban settings through the establishment of  
5 new paradigms for conservation that puts forth proactive and  
6 strategic restoration of degraded lands, especially in communities  
7 where vulnerable populations and environmental burdens are  
8 concentrated by virtue of, among *other* things, the development  
9 of new definitions and programmatic parameters to inform entities,  
10 such as the Wildlife Conservation Board, the State Coastal  
11 Conservancy, the Department of Parks and Recreation, and others,  
12 when allocating funding, and to direct proportionate shares toward  
13 investments in urban landscape and ecosystem restoration.

14 SEC. 2. Division 48 (commencing with Section 80500) is added  
15 to the Public Resources Code, to read:

16  
17 DIVISION 48. SAFE DRINKING WATER, WILDFIRE  
18 PREVENTION, DROUGHT PREPARATION, FLOOD  
19 PROTECTION, EXTREME HEAT MITIGATION, AND  
20 WORKFORCE DEVELOPMENT BOND ACT OF 2024

21  
22 CHAPTER 1. GENERAL PROVISIONS

23  
24 80500. This division shall be known, and may be cited, as the  
25 Safe Drinking Water, Wildfire Prevention, Drought Preparation,  
26 Flood Protection, Extreme Heat Mitigation, and Workforce  
27 Development Bond Act of 2024.

28 80501. (a) In expending funds pursuant to this division, an  
29 administering state agency shall give priority to projects that  
30 leverage private, federal, and local funding or produce the greatest  
31 public benefit.

32 (b) To the extent practicable, a project funded pursuant to this  
33 division shall include signage informing the public that the project  
34 received funding from the Safe Drinking Water, Wildfire  
35 Prevention, Drought Preparation, Flood Protection, Extreme Heat  
36 Mitigation, and Workforce Development Bond Act of 2024.

37 (c) Projects funded pursuant to this division shall include the  
38 planning, monitoring, and reporting necessary to ensure successful  
39 implementation of this division's objectives.

(d) When disbursing funds available pursuant to this division, an administering state agency shall give preference to projects that do any of the following:

(1) Reduce near-term risks of climate change impacts while promoting long-term resilience.

(2) Promote equity, foster community resilience, and protect the most vulnerable by prioritizing projects that meaningfully benefit disadvantaged communities, severely disadvantaged communities, and vulnerable populations.

(3) Avoid solutions that would likely worsen climate impacts or transfer risks unreasonably from one area, location, or social group, to another.

(4) Advance solutions to prevent displacement of low-income residents and businesses that could occur as an unintended consequence of a project that causes an increase in the cost of owning or renting property.

(5) Incorporate partnerships with community stakeholders, including community-based organizations, to ensure that projects have support from disproportionately affected communities, where applicable, develop and harness local talent for quality jobs, and promote community-based leadership.

(e) To the extent practicable, a project that receives moneys pursuant to this division shall provide workforce education and training, contractor, and job opportunities for vulnerable ~~populations~~ *populations or socially disadvantaged groups*.

80503. For purposes of this division, the following definitions apply:

(a) “Air board” means the State Air Resources Board.

(b) “Climate resilience” means the ability of an entity or system, including an individual, a community, an ecosystem, or a natural system, and its component parts, to absorb, accommodate, or recover from the effects of a climate event in a timely and efficient manner, including through ensuring the preservation, restoration, or improvement of its essential basic structures and functions. In the case of natural and working lands, climate resilience includes the preservation, restoration, or enhancement of the ability to sequester carbon.

(c) “Committee” means the Safe Drinking Water, Wildfire Prevention, Drought Preparation, Flood Protection, Extreme Heat



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1 Mitigation, and Workforce Development Bond Finance Committee  
2 created pursuant to Section 80602.

3 (d) “Critical community infrastructure” means infrastructure  
4 that is necessary to providing vital community and individual  
5 functions, including, but not limited to, drinking and wastewater  
6 infrastructure, emergency shelters, communication and warning  
7 systems, evacuation routes, emergency power and public medical  
8 facilities, schools, town halls, hospitals, health clinics, community  
9 centers, community nonprofit facilities providing essential services,  
10 libraries, homeless shelters, senior and youth centers, childcare  
11 facilities, food banks, grocery stores, and parks and recreation  
12 sites.

13 (e) “Disadvantaged community” means a community with a  
14 median household income that is less than 80 percent of the  
15 statewide average.

16 (f) “Economically distressed area” means a municipality with  
17 a population of 20,000 persons or fewer, a rural county, or a  
18 reasonably isolated and divisible segment of a larger municipality  
19 where the segment of the population is 20,000 persons or fewer,  
20 with an annual median household income that is less than 85  
21 percent of the statewide median household income and with one  
22 or more of the following conditions as determined by an agency  
23 administering funding under this division:

24 (1) Financial hardship.

25 (2) Unemployment rate at least 2 percent higher than the  
26 statewide average.

27 (3) Low population density.

28 (g) “Equity destination project” means a project located in a  
29 highly desired region of the state, including, but not limited to,  
30 coastal and mountainous park and nature settings that have a  
31 demonstrated history or, upon completion of the project, can  
32 demonstrate new or increased use and usership among California’s  
33 more marginalized populations through, among other things, the  
34 establishment of low-cost or subsidized camping or free and  
35 ~~reduced-rate~~ *reduced-rate* entry.

36 (h) “Fund” means the Safe Drinking Water, Wildfire Prevention,  
37 Drought Preparation, Flood Protection, Extreme Heat Mitigation,  
38 and Workforce Development Fund created pursuant to Section  
39 80518.

1 (i) “Groundwater sustainability agency” has the same meaning  
2 as defined in Section 10721 of the Water Code.

3 (j) “Interpretation” includes, but is not limited to, a  
4 visitor-serving amenity that enhances the ability to understand and  
5 appreciate the significance and value of natural, historical, and  
6 cultural resources and that may use educational materials in  
7 multiple languages, digital information in multiple languages, and  
8 the expertise of a naturalist or other skilled specialist.

9 (k) “Local agency” means a city, county, city and county, special  
10 district, joint powers authority, resource conservation district, or  
11 other political subdivision of the state.

12 (l) “Natural infrastructure” means a network of ecological areas,  
13 man-made systems, or practices that use or mimic natural processes  
14 to benefit people or wildlife. “Natural infrastructure” reduces  
15 vulnerability to the impacts of climate change and includes, but is  
16 not limited to, permeable pavements, bioswales, wetlands,  
17 floodplains, forests, urban forests, beaches, dunes, tidal marshes,  
18 reefs, seagrass, parks, rain gardens, and engineered systems, such  
19 as levees, that are combined with restored natural systems, to  
20 provide a wide array of benefits to people or wildlife.

21 (m) “Nonprofit organization” means a nonprofit corporation  
22 qualified to do business in California and qualified under Section  
23 501(c)(3) of the Internal Revenue Code.

24 (n) “Preservation” means rehabilitation, stabilization, restoration,  
25 conservation, development, and reconstruction, or any combination  
26 of those activities.

27 (o) “Protection” means those actions necessary to prevent harm  
28 or damage to persons, property, or natural, cultural, and historic  
29 resources, actions to improve access to public open-space areas,  
30 or actions to allow the continued use and enjoyment of property  
31 or natural, cultural, and historic resources. Protection includes site  
32 monitoring, acquisition, development, restoration, preservation,  
33 and interpretation.

34 (p) (1) “Restoration” means the improvement of physical  
35 structures or facilities and, in the case of natural systems and  
36 landscape features, includes, but is not limited to, any of the  
37 following:

38 (A) The control of erosion.

39 (B) Stormwater capture, treatment, reuse, and storage, or to  
40 otherwise reduce stormwater pollution.

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- 1 (C) The control and elimination of invasive species and harmful  
2 algal blooms.
- 3 (D) The planting of native species.
- 4 (E) The removal of waste and debris.
- 5 (F) Prescribed burning and other fuel hazard reduction measures.
- 6 (G) Fencing out threats to existing or restored natural resources.
- 7 (H) Improving instream, riparian, floodplain, or wetland habitat  
8 conditions.
- 9 (I) Other plant and wildlife habitat improvement to increase the  
10 natural system value of the property, or coastal or ocean resources.
- 11 (J) Activities described in subdivision (b) of Section 79737 of  
12 the Water Code.
- 13 (2) “Restoration” also includes activities, such as the planning,  
14 permitting, monitoring, and reporting that are necessary to ensure  
15 successful implementation of the restoration objectives.
- 16 (q) “Severely disadvantaged community” means a community  
17 with a median household income that is less than 60 percent of the  
18 statewide average.
- 19 (r) *“Socially disadvantaged group” means a group whose*  
20 *members have been subjected to racial, ethnic, or gender prejudice*  
21 *because of their identity as members of the group without regard*  
22 *to their individual qualities. These groups include all of the*  
23 *following:*
- 24 (1) *African Americans.*
- 25 (2) *Alaskan Natives.*
- 26 (3) *Asian Americans.*
- 27 (4) *Hispanics.*
- 28 (5) *Native Americans.*
- 29 (6) *Native Hawaiians and Pacific Islanders.*
- 30 (7) *Women.*
- 31 ~~(t)~~
- 32 (s) “Small- and medium-sized farms” means farms and ranches  
33 of 500 acres or less.
- 34 ~~(s)~~
- 35 (t) “Socially disadvantaged farmers and ranchers” has the same  
36 meaning as defined in Section 512 of the Food and Agricultural  
37 Code.
- 38 ~~(t)~~
- 39 (u) “Structure hardening” means the installation, replacement,  
40 or retrofitting of building materials, systems, or assemblies used

1 in the exterior design and construction of existing nonconforming  
2 structures with features that are in compliance with Chapter 7A  
3 (commencing with Section 701A.1) of Part 2 of Title 24 of the  
4 California Code of Regulations, or any appropriate successor  
5 regulatory code with the primary purpose of reducing risk to  
6 structures from wildfire or conforming to the low-cost retrofit list,  
7 and updates to that list, developed pursuant to paragraph (1) of  
8 subdivision (c) of Section 51189 of the Government Code.

9 ~~(u)~~

10 (v) “Tribe” means a federally recognized Native American tribe  
11 or a California Native American tribe that appears on the California  
12 Tribal Consultation List maintained by the Native American  
13 Heritage Commission.

14 ~~(v)~~

15 (w) “Under-resourced community” means either of the  
16 following:

17 (1) A community identified as a disadvantaged community  
18 pursuant to Section 39711 of the Health and Safety Code.

19 (2) A low-income community as defined in Section 39713 of  
20 the Health and Safety Code.

21 ~~(w)~~

22 (x) “Vulnerable population” means a subgroup of a population  
23 within a region or community that faces a disproportionately  
24 heightened risk or increased sensitivity to impacts of climate  
25 change and that lacks adequate resources to cope with, adapt to,  
26 or recover from such impacts.

27 ~~(x)~~

28 (y) “Water board” means the State Water Resources Control  
29 Board.

30 ~~(y)~~

31 (z) “Wildfire buffer” means greenspaces or open spaces that are  
32 managed to reduce the spread of wildfires, and are located between  
33 structures and wildlands in a community to reduce structure  
34 vulnerability to wildfire risks. Wildfire buffers shall be designed  
35 to provide additional benefits that may include shelter from natural  
36 disasters, recreation, habitat, stormwater capture, and active  
37 transportation.

38 80504. An amount that equals not more than 5 percent of the  
39 funds allocated for a program funded pursuant to this division may  
40 be used to pay the administrative costs of that program.

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1 80505. (a) The Department of Finance shall provide for an  
2 independent audit of expenditures pursuant to this division. The  
3 Secretary of the Natural Resources Agency shall publish a list of  
4 all program and project expenditures pursuant to this division not  
5 less than annually, in written form, and shall post an electronic  
6 form of the list on the agency's internet website in a downloadable  
7 spreadsheet format. The spreadsheet shall include information  
8 about the location and footprint of each funded project, the  
9 project's objectives, the status of the project, anticipated outcomes,  
10 the public benefits to be derived from the project, any matching  
11 moneys provided for the project by the grant recipient or other  
12 partners, and the applicable chapter of this division pursuant to  
13 which the grant recipient received moneys.

14 (b) If an audit, required by law, of any entity that receives  
15 funding authorized by this division is conducted pursuant to state  
16 law and reveals any impropriety, the California State Auditor or  
17 the Controller may conduct or arrange for a full audit of any or all  
18 of the activities funded pursuant to this division.

19 (c) The state agency issuing any grant with funding authorized  
20 by this division shall require adequate reporting of the expenditures  
21 of the funding from the grant.

22 (d) The costs associated with the publications, audits, statewide  
23 bond tracking, cash management, and related oversight activities  
24 provided for in this section shall be funded from the proceeds of  
25 bonds authorized by this division. These costs shall be shared  
26 proportionally by each program through this division. Actual costs  
27 incurred to administer nongrant programs authorized by this  
28 division shall be paid from the proceeds of bonds authorized by  
29 this division.

30 80506. If any moneys allocated pursuant to this division are  
31 not encumbered or expended by the recipient entity within the time  
32 period specified by the administering state agency, the unexpended  
33 moneys shall revert to the administering state agency for allocation  
34 consistent with the applicable chapter.

35 80507. Funds provided pursuant to this division, and any  
36 appropriation or transfer of those funds, shall not be deemed to be  
37 a transfer of funds for the purposes of Chapter 9 (commencing  
38 with Section 2780) of Division 3 of the Fish and Game Code.

39 80508. At least 35 percent of the funds available pursuant to  
40 this division shall be allocated for projects that provide meaningful

1 and direct benefits to at least one of the following: vulnerable  
2 populations, under-resourced communities, or disadvantaged  
3 communities. At least 10 percent of the moneys available pursuant  
4 to each chapter of this division shall be allocated for projects that  
5 provide meaningful and direct benefits to severely disadvantaged  
6 communities.

7 80509. For grants awarded for projects under this division, the  
8 administering state agency may provide advanced payments in the  
9 amount of 25 percent of the grant award to the recipient, including  
10 state-related entities, to initiate the project in a timely manner. The  
11 administering state agency shall adopt additional requirements for  
12 the recipient of the grant regarding the use of the advanced  
13 payments to ensure that the moneys are used properly.

14 80510. (a) Up to 10 percent of the funds available pursuant to  
15 each chapter of this division may be allocated for technical  
16 assistance and capacity building by the administering state agency.  
17 The administering state agency shall operate a multidisciplinary  
18 technical assistance program for these purposes.

19 (b) Funds used for providing technical assistance and capacity  
20 building for disadvantaged communities, severely disadvantaged  
21 communities, under-resourced communities, or vulnerable  
22 populations may exceed 10 percent if the administering state  
23 agency determines that there is a need for the additional funding.

24 80511. Projects funded under this division shall demonstrate  
25 ongoing monitoring and scientific review. Up to 5 percent of  
26 project funds may be used for this purpose.

27 80512. Funds provided by this division shall not be expended  
28 to fulfill any environmental mitigation requirements or compliance  
29 obligations imposed by law or to pay the costs of the design,  
30 construction, operation, mitigation, or maintenance of Delta  
31 conveyance facilities. Those costs shall be the responsibility of  
32 the entities that benefit from the design, construction, operation,  
33 mitigation, or maintenance of those facilities.

34 80513. Before disbursing grants through any new grant  
35 programs established pursuant to this division, each state agency  
36 that receives funding to administer a grant program under this  
37 division shall do all of the following:

38 (a) Develop and adopt project solicitation and evaluation  
39 guidelines. The guidelines shall include monitoring and reporting  
40 requirements and may include a limitation on the dollar amount

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1 of grants to be awarded. If the state agency has previously  
2 developed and adopted project solicitation and evaluation  
3 guidelines that comply with the requirements of this subdivision,  
4 the state agency may use those guidelines.

5 (b) Conduct at least one public meeting to consider public  
6 comments before finalizing the guidelines. The state agency shall  
7 publish the draft solicitation and evaluation guidelines on its  
8 internet website at least 30 days before the public meetings.

9 (c) Any public meetings held pursuant to this section shall allow  
10 for virtual attendance and public participation through any internet  
11 platform used to host the meeting.

12 (d) Guidelines shall be made available online and shall be  
13 consistent with all applicable statutes.

14 80514. An apprenticeship or preapprenticeship program funded  
15 pursuant to this division shall be approved by the Division of  
16 Apprenticeship Standards.

17 80515. To the extent feasible, a project whose application  
18 includes the use of services of the California Conservation Corps  
19 or certified community conservation corps, as defined in Section  
20 14507.5, shall be given preference for receipt of a grant under this  
21 division.

22 80516. An eligible applicant under this division is a public  
23 agency, local agency, nonprofit organization, park and open-space  
24 district and authority, resource conservation district, joint powers  
25 authority, tribe, public water agency, groundwater sustainability  
26 agency, or regional collaborative for climate adaptation.

27 80517. The Legislature may enact legislation necessary to  
28 implement programs funded by this division.

29 80518. (a) The proceeds of bonds issued and sold pursuant to  
30 this division, exclusive of refunding bonds issued and sold pursuant  
31 to Section 80612, shall be deposited in the Safe Drinking Water,  
32 Wildfire Prevention, Drought Preparation, Flood Protection,  
33 Extreme Heat Mitigation, and Workforce Development Fund,  
34 which is hereby created in the State Treasury. Moneys in the fund  
35 shall be available, upon appropriation by the Legislature, for  
36 purposes of this division.

37 (b) Proceeds of bonds issued and sold pursuant to this division  
38 shall be allocated according to the following schedule:



1 (1) Two billion one hundred eighty million dollars  
2 (\$2,180,000,000) for wildfire prevention and climate risk reduction,  
3 in accordance with Chapter 2 (commencing with Section 80520).

4 (2) One billion nine hundred twenty-five million dollars  
5 (\$1,925,000,000) for the protection of coastal lands, bays, and  
6 oceans from climate risks, in accordance with Chapter 3  
7 (commencing with Section 80530).

8 (3) Five billion fifteen million dollars (\$5,015,000,000) for the  
9 protection of California's water supplies from multiyear droughts,  
10 reducing flood risk from extreme events, and providing safe  
11 drinking water, in accordance with Chapter 4 (commencing with  
12 Section 80540).

13 (4) One billion six hundred twenty-five million dollars  
14 (\$1,625,000,000) for the protection of California's wildlife,  
15 biodiversity, and fisheries from climate risks, in accordance with  
16 Chapter 5 (commencing with Section 80560).

17 (5) Eight hundred twenty million dollars (\$820,000,000) for  
18 protecting farms, ranches, and working lands from the impacts of  
19 climate change in accordance with Chapter 6 (commencing with  
20 Section 80570).

21 (6) One billion seven hundred forty million dollars  
22 (\$1,740,000,000) for addressing extreme heat, community  
23 enhancement, and resiliency in accordance with Chapter 7  
24 (commencing with Section 80580).

25 (7) One billion eight hundred million dollars (\$1,800,000,000)  
26 for regional climate resilience projects that address multiple risks,  
27 in accordance with Chapter 8 (commencing with Section 80590).

28  
29 CHAPTER 2. WILDFIRE PREVENTION, CLIMATE RISK  
30 REDUCTION, AND PROTECTION AGAINST POWER SHUTOFFS

31  
32 80520. The sum of two billion one hundred eighty million  
33 dollars (\$2,180,000,000) shall be available, upon appropriation by  
34 the Legislature, for the prevention and reduction in the risk of  
35 wildfires to lives, properties, and natural resources.

36 80521. (a) Of the funds made available by Section 80520, four  
37 hundred million dollars (\$400,000,000) shall be available, upon  
38 appropriation by the Legislature, to the Office of Emergency  
39 Services for a pre-hazard mitigation grant program. The Office of  
40 Emergency Services shall coordinate with the Department of

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1 Forestry and Fire Protection in administering these moneys. The  
2 grant program shall assist local and state agencies to leverage  
3 additional funds, including matching grants from federal agencies.  
4 Funds may be used to provide loans, rebates, direct assistance, and  
5 matching funds for projects that prevent wildfires, increase  
6 resilience, reduce the risk of wildfires to communities, or increase  
7 community hardening. Eligible projects include, but are not limited  
8 to, the following:

9 (1) Grants to local agencies, state agencies, joint powers  
10 authorities, and tribes for projects that reduce wildfire risks to  
11 people and property consistent with an approved community  
12 wildfire protection plan.

13 (2) Grants to local agencies, state agencies, joint powers  
14 authorities, tribes, resource conservation districts, fire safe councils,  
15 and nonprofit organizations for structure hardening of critical  
16 community infrastructure, evacuation centers, structure hardening  
17 projects that reduce the risk of wildfire for entire neighborhoods  
18 and communities, wildfire buffers, and incentives to remove  
19 structures that significantly increase hazard risk.

20 (3) Grants, in coordination with the Public Utilities Commission,  
21 to local agencies, state agencies, special districts, joint powers  
22 authorities, tribes, and nonprofit organizations for zero-emission  
23 backup power, energy storage, and microgrids for critical  
24 community infrastructure in order to provide continuity of electrical  
25 service, and safeguard communities from disruption due to public  
26 safety power shutoffs, wildfire, or air pollution caused by wildfire,  
27 extreme heat, or other disaster.

28 (4) Grants to local agencies, state agencies, joint powers  
29 authorities, and tribes for water delivery system improvements for  
30 fire suppression purposes for communities in high fire hazard  
31 severity zones or very high fire hazard severity zones, as designated  
32 by the Director of Forestry and Fire Protection pursuant to Article  
33 9 (commencing with Section 4201) of Chapter 1 of Part 2 of  
34 Division 4 or by a local agency pursuant to Chapter 6.8  
35 (commencing with Section 51175) of Part 1 of Division 1 of Title  
36 5 of the Government Code.

37 (b) Not less than seventy-five million dollars (\$75,000,000)  
38 shall be allocated for each project described in subdivision (a).

39 (c) The Office of Emergency Services and the Department of  
40 Forestry and Fire Protection shall prioritize prehazard mitigation

1 grant funding applications from local agencies based on the “Fire  
2 Risk Reduction Community” list, upon development of that list,  
3 pursuant to Section 4290.1.

4 (d) The Office of Emergency Services and the Department of  
5 Forestry and Fire Protection shall provide technical assistance to  
6 disadvantaged communities, severely disadvantaged communities,  
7 or vulnerable populations, including those with access and  
8 functional needs, socially disadvantaged farmers or ranchers, and  
9 economically distressed areas to ensure the grant program reduces  
10 the vulnerability of those most in need.

11 80522. (a) Of the funds made available by Section 80520,  
12 seven hundred seventy-five million dollars (\$775,000,000) shall  
13 be available, upon appropriation by the Legislature, to the Natural  
14 Resources Agency and to its departments, boards, and  
15 conservancies for projects and grants to improve local fire  
16 prevention capacity, improve forest health and resilience, and  
17 reduce the risk of wildfire spreading into populated areas from  
18 wildlands. Where appropriate, projects may include activities on  
19 lands owned by the United States. The funding made available by  
20 this section shall be allocated as follows:

21 (1) One hundred fifty million dollars (\$150,000,000) shall be  
22 available to the Department of Conservation’s Regional Fire and  
23 Forest Capacity Program to increase regional capacity to prioritize,  
24 develop, and implement projects that improve forest health and  
25 fire resilience, implement community fire preparedness  
26 demonstration projects, facilitate greenhouse gas emissions  
27 reductions, and increase carbon sequestration in forests and other  
28 landscapes across regions and throughout the state. The funding  
29 shall be allocated based, to the extent feasible, on the findings of  
30 the review of the regional capacity required by Section 4123.7.

31 (2) Two hundred fifty million dollars (\$250,000,000) shall be  
32 available to the Department of Forestry and Fire Protection for  
33 long-term forest health projects, including reforestation;  
34 conservation easements; activities that promote long-term carbon  
35 storage and sequestration; upper watershed, riparian, and mountain  
36 meadow restoration; and prescribed burn.

37 (3) One hundred fifty million dollars (\$150,000,000) shall be  
38 available for watershed improvements projects in forests and other  
39 habitats, including, but not limited to, redwoods, conifers, oak  
40 woodlands, mountain meadows, chaparral, deserts, and coastal

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1 forests. Projects shall include the use of prescribed fire and improve  
2 water supply or water quality. Projects shall involve the restoration  
3 of natural ecosystem functions in high fire hazard areas and provide  
4 multiple benefits, including, but not limited to, habitat protection,  
5 science-based fuel reduction, watershed protection, carbon  
6 sequestration, protection of older fire-resistant trees, or improved  
7 forest health. The Natural Resources Agency shall give priority to  
8 projects with matching funds or in-kind work, as determined  
9 appropriate, from beneficiaries of the watershed, which may  
10 include, but are not limited to, water districts, public utilities, local  
11 agencies, or private users. The Natural Resources Agency shall  
12 ensure long-term benefits for projects funded pursuant to this  
13 subdivision, including through an ongoing commitment to future  
14 maintenance and a commitment to long-term forest resilience that  
15 reduces fire risk and enhances carbon sequestration capacity.

16 (4) Seventy-five million dollars (\$75,000,000) shall be available  
17 to the Sierra Nevada Conservancy for watershed improvement,  
18 forest health, biomass utilization, and forest restoration workforce  
19 development. At least 70 percent of the funds made available by  
20 this subdivision shall be available to the Sierra Nevada Watershed  
21 Improvement Program created by Section 33345.1.

22 (5) One hundred fifty million dollars (\$150,000,000) shall be  
23 available to the Department of Forestry and Fire Protection for the  
24 administration of grants pursuant to the Wildfire Prevention  
25 Program.

26 (b) State entities receiving funds pursuant to paragraphs (1) to  
27 (4), inclusive, of subdivision (a) may award grants pursuant to a  
28 competitive grant process or on a regional block grant basis to  
29 maximize landscape level wildfire resilience objectives.

30 80523. Of the funds made available by Section 80520, thirty  
31 million dollars (\$30,000,000) shall be available, upon appropriation  
32 by the Legislature, to the air board, in consultation with the Natural  
33 Resources Agency and the Department of Forestry and Fire  
34 Protection, to incentivize new projects in California that provide  
35 long-term capital infrastructure to convert forest and other  
36 vegetative waste removed for wildfire mitigation to uses that  
37 maximize reductions in greenhouse gas emissions, provide local  
38 air quality benefits, and increase local community resilience against  
39 climate change impacts.

1 80524. (a) Of the funds made available by Section 80520, two  
2 hundred million dollars (\$200,000,000) shall be available, upon  
3 appropriation by the Legislature, for allocation pursuant to  
4 subdivision (b).

5 (b) Of the funds made available pursuant to subdivision (a), 50  
6 percent shall be allocated to the Department of Parks and  
7 Recreation and 50 percent shall be allocated to regional park  
8 entities, including districts, counties, tribes, and authorities, and  
9 regional land trusts on a competitive basis administered by the  
10 Natural Resources Agency to plan for and implement projects to  
11 reduce the risks of fire and for the fire hardening of infrastructure  
12 for units of the state park system, and for grants to restore, enhance,  
13 and protect public lands and improve carbon sequestration through,  
14 among other things, ecologically sensitive vegetation management  
15 practices, or reduce black carbon emissions. A project funded  
16 pursuant to this section shall include at least two of the following  
17 public cobenefits:

- 18 (1) Fire risk reduction.
- 19 (2) Improved wildlife corridors.
- 20 (3) Improved ability for wildlife species to adapt to climate  
21 change.
- 22 (4) Reduced forest fragmentation.
- 23 (5) Improved public access, including for individuals with  
24 disabilities, as defined by the federal Americans with Disabilities  
25 Act of 1990 (42 U.S.C. Sec. 12101 et seq.), and outdoor recreation.
- 26 (6) Improved vegetation management associated with projects  
27 developed pursuant to Section 4123.5.
- 28 (7) Improved stormwater or groundwater benefits.

29 (c) Of the funds made available pursuant to subdivision (a), not  
30 less than fifty million dollars (\$50,000,000) shall be for equity  
31 destination projects located on the lands of regional park entities,  
32 including districts, counties, tribes, and authorities.

33 80525. (a) Of the funds made available by Section 80520,  
34 three hundred fifty million dollars (\$350,000,000) shall be  
35 available, upon appropriation by the Legislature, to the Natural  
36 Resources Agency for grants on a block grant basis to eligible city,  
37 county, district, and regional park and open-space entities for  
38 projects that do any of the following:

- 39 (1) Reduce the risk of fire, flood, or drought in order to  
40 safeguard public lands and communities.

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(2) Enhance water conservation or efficiencies for existing outdoor facilities.

(3) Promote access, including, where feasible, for individuals with disabilities, as defined by the federal Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12101 et seq.), and facilitate social distancing, as needed, among park users.

(b) Minimum awards for grants issued pursuant to this section are one hundred fifty thousand dollars (\$150,000) for cities and districts and three hundred thousand dollars (\$300,000) for counties and regional entities.

80526. (a) Of the funds made available by Section 80520, one hundred twenty-five million dollars (\$125,000,000) shall be available, upon appropriation by the Legislature, to the California Conservation Corps and certified community conservation corps, as defined in Section 14507.5, for demonstrated jobs projects, including either of the following:

(1) Projects to mitigate unemployment and assist the state with the implementation of critical natural resources, transportation, energy, and housing infrastructure.

(2) Projects to prepare for, prevent, respond to, and rehabilitate following natural disasters, declared emergencies, or climate-related impacts to communities, including, but not limited to, the following projects:

(A) Community greenspace improvements or restoration.

(B) Restoration of watersheds and riparian zones.

(C) Regional and community-level fuel load reduction.

(D) Development and maintenance of urban tree canopies.

(E) Post-wildfire restoration.

(F) Resource conservation and restoration projects.

(G) Construction of emergency housing.

(H) Construction of transition and affordable housing to protect vulnerable populations from the impacts of wildfire and other climate threats.

(I) Identified community emergency response support, such as construction and support at temporary evacuation centers, hospitals, housing, and shelters needed during emergencies and disasters.

(J) Facility or equipment acquisition, development, restoration, and rehabilitation.

(b) Not less than 30 percent of the amount available pursuant to subdivision (a) shall be available for the construction of



1 permanent California Conservation Corps and certified community  
2 conservation corps residential accommodations with not less than  
3 one established in northern California and one in southern  
4 California.

5 (c) At least 60 percent of the amount available pursuant to  
6 subdivision (a) shall be available to certified community  
7 conservation corps, as defined in Section 14507.5.

8 (d) Up to 5 percent of the amount available pursuant to  
9 subdivision (a) shall be available for training, support, recruitment,  
10 and retention, and other wraparound services for corps members.

11  
12 CHAPTER 3. PROTECTING COASTAL LANDS, BAYS, AND OCEANS  
13 FROM SEA LEVEL RISE AND OTHER CLIMATE RISKS  
14

15 80530. The sum of one billion nine hundred twenty-five million  
16 dollars (\$1,925,000,000) shall be available, upon appropriation by  
17 the Legislature, for protection of coastal communities from sea  
18 level rise, restoration of coastal and ocean resources, mitigation  
19 of ocean acidification, and addressing the impacts of climate  
20 change along California's coast. Projects funded pursuant to this  
21 chapter shall provide for public access to the shoreline and to inland  
22 and coastal waterways consistent with public safety needs.

23 80531. (a) Of the funds made available by Section 80530, one  
24 billion one hundred million dollars (\$1,100,000,000) shall be  
25 available, upon appropriation by the Legislature, to the State  
26 Coastal Conservancy for grants or expenditures to protect, restore,  
27 and increase the resilience of beaches, bays, coastal dunes,  
28 wetlands, coastal forests, watersheds, trails, and public access  
29 facilities, including, where feasible, for individuals with disabilities,  
30 as defined by the federal Americans with Disabilities Act of 1990  
31 (42 U.S.C. Sec. 12101 et seq.), pursuant to Division 21  
32 (commencing with Section 31000), including land acquisition, or  
33 conservation easements on land with open space, recreational,  
34 biological, cultural, scenic, or agricultural values, or lands adjacent  
35 to marine protected areas, whose preservation and continued  
36 operation will contribute to the ecological quality of those marine  
37 protected areas.

38 (b) Of the funds made available by subdivision (a), two hundred  
39 fifty million dollars (\$250,000,000) shall be available for projects  
40 that are consistent with the San Francisco Bay Restoration



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1 Authority Act (Title 7.25 (commencing with Section 66700) of  
2 the Government Code), including, but not limited to, projects that  
3 address sea level rise, flood management, and wetland restoration.

4 (c) Of the funds made available by subdivision (a), not less than  
5 two hundred fifty million dollars (\$250,000,000) shall be available  
6 for the San Francisco Bay Area Conservancy Program.

7 (d) Of the funds made available by subdivision (a), one hundred  
8 million dollars (\$100,000,000) shall be available for grants for  
9 projects that use natural infrastructure to promote climate resilience  
10 and protect critical infrastructure that is vulnerable to sea level rise  
11 and flooding.

12 (e) Of the funds made available by subdivision (a), sixty-five  
13 million dollars (\$65,000,000) shall be available for projects to  
14 remove outdated or obsolete dams and to upgrade associated  
15 downstream infrastructure to increase climate resilience, enhance  
16 natural sediment transport, improve wildlife and fish passage, and  
17 modernize associated infrastructure, including related planning,  
18 monitoring, permitting, habitat restoration, and recreational  
19 improvements.

20 80532. Of the funds made available by Section 80530, thirty  
21 million dollars (\$30,000,000) shall be available, upon appropriation  
22 by the Legislature, to the California Coastal Commission for grants  
23 for local adaptation planning and updating local coastal programs  
24 and twenty million dollars (\$20,000,000) shall be available, upon  
25 appropriation by the Legislature, to the San Francisco Bay  
26 Conservation and Development Commission for coastal planning  
27 and projects within its jurisdiction. Eligible activities include, but  
28 are not limited to, the development of, or updates to, relevant  
29 portions of a local hazard mitigation plan or local general plan to  
30 address sea level rise and coastal hazards pursuant to paragraph  
31 (4) of subdivision (g) of Section 65302 of the Government Code.

32 80533. Of the funds made available by Section 80530, three  
33 hundred million dollars (\$300,000,000) shall be available, upon  
34 appropriation by the Legislature, for deposit into the California  
35 Ocean Protection Trust Fund for grants consistent with Section  
36 35650. Priority shall be given to projects that assist coastal  
37 communities, including those reliant on commercial fisheries, with  
38 adaptation to climate change, including projects that address ocean  
39 acidification, increasing ocean temperatures, sea level rise,

1 stewardship of the state's marine protected areas, kelp restoration,  
2 or habitat restoration and protection.

3 80534. Of the funds made available by Section 80530, fifty  
4 million dollars (\$50,000,000) shall be available, upon appropriation  
5 by the Legislature, to the Department of Parks and Recreation to  
6 plan for and implement projects to reduce the risks of sea level  
7 rise for units of the state park system.

8 80535. Of the funds made available by Section 80530, fifty  
9 million dollars (\$50,000,000) shall be available, upon appropriation  
10 by the Legislature, for projects identified by the Natural Resource  
11 Agency and the Invasive Species Council of California to  
12 implement projects to protect and restore island ecosystems and  
13 prevent and mitigate island invasive species.

14 80536. Of the funds made available by Section 80530,  
15 twenty-five million dollars (\$25,000,000) shall be available, upon  
16 appropriation by the Legislature, for projects identified by the  
17 Department of Fish and Wildlife to implement climate-ready  
18 fisheries management approaches that expand opportunities for  
19 experimentation and adaptive cooperative management, and to  
20 implement modernized electronic fisheries data management  
21 systems and increase the use of electronic technologies to improve  
22 fisheries management responses and resiliency under changing  
23 ocean conditions.

24 80537. Of the funds made available by Section 80530, fifty  
25 million dollars (\$50,000,000) shall be available, upon appropriation  
26 by the Legislature, for projects identified by the Department of  
27 Fish and Wildlife to support the management of kelp ecosystems.  
28 Funds shall be used for the ongoing monitoring of kelp ecosystems  
29 and for the implementation of an adaptive kelp management plan.

30 80538. Projects funded pursuant to this chapter shall be  
31 consistent with climate and sea level rise policies and guidelines  
32 established by the California Coastal Commission, the Ocean  
33 Protection Council, the San Francisco Bay Conservation and  
34 Development Commission, and the State Coastal Conservancy, if  
35 applicable.

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1 CHAPTER 4. ENSURING SAFE DRINKING WATER, DROUGHT  
2 PREPARATION, AND ENHANCING THE STATE'S FLOOD PROTECTION

3  
4 80540. The sum of five billion fifteen million dollars  
5 (\$5,015,000,000) shall be available, upon appropriation by the  
6 Legislature, for the delivery of safe drinking water, drought  
7 preparation and response, and flood protection.

8 80541. Grant guidelines adopted pursuant to Section 80513  
9 for funding under this chapter shall encourage, where feasible, the  
10 inclusion of the following project components:

11 (a) Efficient use and conservation of water supplies.

12 (b) The capture of stormwater to reduce stormwater runoff,  
13 reduction of water pollution, or recharge of groundwater supplies,  
14 or a combination of those activities.

15 (c) Provision of safe and reliable drinking water supplies to park  
16 and open-space visitors, and state fairgrounds that serve as  
17 emergency evacuation facilities.

18 (d) Support to groundwater sustainability agencies for regional  
19 groundwater sustainability.

20 (e) Increased climate resilience for wildlife and fish species.

21 80542. Nothing in this chapter determines or alters water rights  
22 or water right priorities.

23 80543. (a) Of the funds made available by Section 80540, two  
24 hundred fifty million dollars (\$250,000,000) shall be available,  
25 upon appropriation by the Legislature, to the Department of Water  
26 Resources in collaboration with the water board, for grants and  
27 projects that advance groundwater sustainability consistent with  
28 the Sustainable Groundwater Management Act (Part 2.74  
29 (commencing with Section 10720) of Division 6 of the Water  
30 Code). Funds may be used for projects, including groundwater  
31 recharge or water banking projects, and management actions  
32 identified in a groundwater sustainability plan, an alternative plan  
33 submitted and approved pursuant to Section 10733.6 of the Water  
34 Code, or a judgment in an adjudication issued pursuant to Section  
35 850 of the Code of Civil Procedure.

36 (b) Funding preference shall be given to either of the following  
37 projects:

38 (1) Projects that address water quality and quantity needs of  
39 disadvantaged communities, including well mitigation programs,

1 short- and long-term drinking water quality and quantity projects,  
2 and projects that enhance drought and water shortage resiliency.

3 (2) Projects that provide multiple benefits or encourage local  
4 and regional coordination with land use planning agencies.

5 (c) At least 10 percent of the funds available pursuant to this  
6 section shall be allocated for grants that provide outreach and  
7 technical assistance that directly benefit disadvantaged  
8 communities, vulnerable communities, and under-resourced  
9 communities. An eligible applicant is a nonprofit organization,  
10 technical assistance provider, or tribe.

11 80543.5. Of the funds made available by Section 80540, two  
12 hundred million dollars (\$200,000,000) shall be available, upon  
13 appropriation by the Legislature, for expenditures on, and  
14 competitive grants and loans to, projects that are included in, and  
15 implemented in, an adopted integrated regional water management  
16 plan consistent with Part 2.2 (commencing with Section 10530)  
17 of Division 6 of the Water Code and that respond to climate change  
18 and contribute to regional water security.

19 80544. (a) Of the funds made available by Section 80540, four  
20 hundred million dollars (\$400,000,000) shall be available, upon  
21 appropriation by the Legislature, to the water board for competitive  
22 grants or loans for the purposes described in Chapter 5  
23 (commencing with Section 79720) of Division 26.7 of the Water  
24 Code to help provide clean, safe, and reliable drinking water to all  
25 Californians.

26 (b) Of the funds made available by subdivision (a), thirty million  
27 dollars (\$30,000,000) shall be available, upon appropriation by  
28 the Legislature, to the water board for competitive grants or loans  
29 to develop and implement regional or countywide drought and  
30 water shortage contingency plans, resilience measures, and  
31 programs, including those adopted according to the  
32 recommendations and guidance proposed by the Department of  
33 Water Resources pursuant to Chapter 10 (commencing with Section  
34 10609.40) of Part 2.55 of Division 6 of the Water Code.

35 80545. (a) Of the funds made available by Section 80540, one  
36 hundred million dollars (\$100,000,000) shall be available, upon  
37 appropriation by the Legislature, to the water board for loans or,  
38 subject to subdivision (b), grants or forgivable loans to public  
39 agencies or public-private partnerships for projects that will prevent  
40 or substantially reduce the contamination of groundwater or surface

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1 water supplies that serve as a source of drinking water and improve  
2 access to wastewater infrastructure.

3 (b) The water board may use grants or forgivable loans for  
4 projects that benefit vulnerable populations, under-resourced  
5 communities, disadvantaged communities, or severely  
6 disadvantaged communities.

7 (c) The water board shall give preference in the allocation of  
8 these grant or loan funds to one or both of the following:

9 (1) Projects that include the abandonment of onsite wastewater  
10 systems through connections with local sewer systems. Funding  
11 for these projects may include, but is not limited to, the cost of  
12 extensions needed to connect with the local sewer system, the cost  
13 of expanding the local sewer system to meet the additional need  
14 for treatment, and the cost of decommissioning existing onsite  
15 wastewater systems.

16 (2) Complete projects rather than incrementally funding phases  
17 of a single project.

18 (d) Grants or loans awarded under this section may be for any  
19 amount deemed appropriate by the water board, consistent with  
20 the purpose of providing safe and clean drinking water to all  
21 Californians.

22 (e) A public agency or a public-private partnership may receive  
23 more than one grant or loan for projects if the proposed projects  
24 meet the requirements of this section.

25 80545.5. (a) Of the funds made available by Section 80540,  
26 one hundred million dollars (\$100,000,000) shall be available,  
27 upon appropriation by the Legislature, to the water board for  
28 competitive grants or loans for projects that prevent, reduce, or  
29 treat the contamination of groundwater that serves as a major  
30 source of drinking water for a community.

31 (b) The water board shall prioritize project funding based on  
32 the following criteria:

33 (1) The threat posed by groundwater contamination to the  
34 affected community's overall drinking water supplies, including  
35 the need for the use of alternative supplies if groundwater is not  
36 available due to contamination.

37 (2) The potential for groundwater contamination to spread and  
38 reduce drinking water supply and water storage capacity for major  
39 population areas.

1 (3) The potential of the project, if fully implemented, to enhance  
2 local water supply reliability.

3 (4) The potential of the project to increase opportunities for  
4 groundwater recharge and optimization of groundwater supplies.

5 (5) The project is implemented pursuant to a comprehensive  
6 basinwide groundwater quality management and remediation plan  
7 or is necessary to develop a comprehensive groundwater plan.

8 (6) The affected groundwater provides a local supply that, if  
9 contaminated or left untreated, will require the importation of  
10 additional water from the Sacramento-San Joaquin Delta or the  
11 Colorado River.

12 80546. Of the funds made available by Section 80540, four  
13 hundred fifty million dollars (\$450,000,000) shall be available,  
14 upon appropriation by the Legislature, to the Natural Resources  
15 Agency and its departments, boards, and conservancies for the  
16 protection and restoration of rivers, lakes, and streams to improve  
17 climate resilience, water supplies, or water quality. To the extent  
18 feasible, preference shall be given to natural infrastructure projects.  
19 Eligible projects include, but are not limited to, any of the  
20 following:

21 (a) Multiple-benefit river and urban stream parkway projects  
22 that protect and restore riparian habitats, improve climate resilience,  
23 enhance natural drainages, protect and restore watersheds, and  
24 provide access, including for statewide obligations involving  
25 multistate agreements.

26 (b) Multiple-benefit watershed protection and climate resilience  
27 projects consistent with the Lake Tahoe Environmental  
28 Improvement Program.

29 (c) (1) At least two hundred forty million dollars (\$240,000,000)  
30 shall be available, upon appropriation by the Legislature, to the  
31 Natural Resources Agency for capital outlay projects that provide  
32 air quality, public health, and habitat benefits to the Salton Sea  
33 and surrounding communities.

34 (2) Of the amount available pursuant to paragraph (1), thirty  
35 million dollars (\$30,000,000) shall be available to the Salton Sea  
36 Authority for purposes consistent with this subdivision.

37 (3) Of the amount available pursuant to paragraph (1), a  
38 minimum of two million dollars (\$2,000,000) shall be for projects  
39 developed and prioritized using a public process that includes



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1 participatory budgeting. Projects shall be consistent with paragraph  
2 (1) and with priorities identified by the affected communities.

3 (d) At least fifty million dollars (\$50,000,000) shall be available,  
4 upon appropriation by the Legislature, to the Natural Resources  
5 Agency for the Tijuana River Border Pollution Control Project.

6 (e) (1) Notwithstanding subdivision (c) of Section 5753,  
7 twenty-five million dollars (\$25,000,000) shall be available, upon  
8 appropriation by the Legislature, to the Santa Monica Mountains  
9 Conservancy for projects within the San Fernando Valley that  
10 protect or enhance the Los Angeles River watershed and its  
11 tributaries or headwaters.

12 (2) Notwithstanding subdivision (c) of Section 5753, twenty-five  
13 million dollars (\$25,000,000) shall be available, upon appropriation  
14 by the Legislature, to the San Gabriel and Lower Los Angeles  
15 Rivers and Mountains Conservancy for projects that protect or  
16 enhance the Los Angeles River watershed and its tributaries.

17 (3) Funds allocated pursuant to this subdivision shall be  
18 expended pursuant to Section 79508 of the Water Code.

19 (f) Fifteen million dollars (\$15,000,000) shall be available, upon  
20 appropriation by the Legislature, for multiple-benefit watershed  
21 protection, restoration, and public access projects that improve  
22 climate resilience pursuant to the Lower American River  
23 Conservancy Program (Chapter 10.5 (commencing with Section  
24 5845) of Division 5).

25 (g) Fifteen million dollars (\$15,000,000) shall be available,  
26 upon appropriation by the Legislature, to the Natural Resources  
27 Agency for projects in and around Clear Lake and its watershed  
28 that demonstrate a comprehensive local and regional approach to  
29 restoration, remediation, water quality research, and management  
30 of the lake and its surrounding resources.

31 (h) Five million dollars (\$5,000,000) shall be available, upon  
32 appropriation by the Legislature, to the Natural Resources Agency  
33 for projects supporting a comprehensive regional use management  
34 plan for the Russian River to reduce conflict and promote water  
35 supply improvements, habitat restoration and protection,  
36 cooperative public recreation, and commercial activity.

37 (i) Five million dollars (\$5,000,000) shall be available, upon  
38 appropriation by the Legislature, to the Natural Resources Agency  
39 for projects within the County of Placer to promote habitat



1 restoration and protection and connect and expand trails and trail  
2 systems along county rivers, lakes, and waterways.

3 (j) Ten million dollars (\$10,000,000) shall be made available,  
4 upon appropriation by the Legislature, to the Department of Water  
5 Resources to implement the Urban Streams Restoration Program,  
6 established pursuant to Section 7048 of the Water Code.

7 80547. Of the funds made available by Section 80540, fifty  
8 million dollars (\$50,000,000) shall be available, upon appropriation  
9 by the Legislature, to the California Environmental Protection  
10 Agency for purposes consistent with the New River Water Quality,  
11 Public Health, and River Parkway Development Program, as  
12 described in Section 71103.6.

13 80548. (a) Of the funds made available by Section 80540, two  
14 hundred million dollars (\$200,000,000) shall be available, upon  
15 appropriation by the Legislature, to the Department of Water  
16 Resources for flood management projects that are components of  
17 multiple-benefit flood management system improvements that  
18 reduce risks to public safety and provide improvements to fish and  
19 wildlife habitat. Eligible project types include, but are not limited  
20 to, levee setbacks, projects connecting rivers with flood plains,  
21 enhancement of flood plains and bypasses, offstream groundwater  
22 recharge, and land acquisitions, easements, and improvements  
23 necessary for these project types to achieve both flood management  
24 and environmental benefits. To the extent feasible, project selection  
25 shall be guided by approved local hazard mitigation plans and  
26 preference shall be given to natural infrastructure projects. Eligible  
27 projects may include any of the following:

28 (1) Multiple-benefit flood management projects that reduce the  
29 impacts of climate change on inland or coastal infrastructure,  
30 communities, or ecosystems, and provide ecosystem, wildlife, or  
31 groundwater recharge benefits.

32 (2) Natural infrastructure projects to reduce flood intensity and  
33 slow watershed runoff.

34 (3) Projects that capture, clean, or otherwise productively use  
35 stormwater.

36 (4) Projects that provide matching grants for, or otherwise  
37 leverage funding from, the Federal Emergency Management  
38 Agency, the United States Army Corps of Engineers, or other  
39 federal mitigation and resilience funding.

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(5) Projects that provide benefits to fish, waterfowl, wildlife, and anadromous and other native fish species along migratory corridors.

(6) Projects that restore streams to a more natural state by removing drainage obstructions, culverts, and paved channels to enable more stormwater to be absorbed and gradually released by soil and plants.

(b) Of the funds made available pursuant to subdivision (a), at least fifty million dollars (\$50,000,000) shall be allocated for multiple-benefit flood management projects in urban coastal watersheds.

(c) (1) Of the funds made available pursuant to subdivision (a), fifty million dollars (\$50,000,000) shall be available for projects in the delta to improve existing levees to increase flood protection and climate resilience consistent with the Legislature's direction in Section 12981 of the Water Code. For purposes of this subdivision, "delta" has the same meaning as defined in subdivision (b) of Section 12980 of the Water Code.

(2) (A) For purposes of this subdivision, "project levee" has the same meaning as defined in subdivision (g) of Section 5096.805.

(B) The priority for projects that are not project levee projects undertaken pursuant to this subdivision shall be to preserve, protect, and improve the levees to meet the agricultural levee standards as provided in Department of Water Resources' Bulletin 192-82, and as may be adjusted by the Department of Water Resources to address increased flood risk due to sea level rise and climate change.

(C) The priority for project levee projects undertaken pursuant to this subdivision shall be to meet the operations, maintenance, repair, rehabilitation, and replacement standards established by the United States Army Corps of Engineers.

80549. Of the funds made available by Section 80540, seven hundred fifty million dollars (\$750,000,000) shall be available, upon appropriation by the Legislature, to the Department of Water Resources for all of the following:

(a) Four hundred million dollars (\$400,000,000) for projects related to the evaluation, repair, rehabilitation, reconstruction, expansion, or replacement of levees, weirs, bypasses, and facilities of the State Plan of Flood Control.

1 (b) Two hundred million dollars (\$200,000,000) for the Flood  
2 Control Subventions Program.

3 (c) One hundred fifty million dollars (\$150,000,000) for projects  
4 in the Sacramento-San Joaquin Delta to increase flood protection  
5 and climate resiliency.

6 80550. (a) Of the funds made available by Section 80540,  
7 three hundred million dollars (\$300,000,000) shall be available,  
8 upon appropriation by the Legislature, to the water board for grants  
9 or loans for water recycling projects, including all of the following:

10 (1) Treatment, storage, conveyance, and distribution facilities  
11 for potable and nonpotable recycling projects.

12 (2) Dedicated distribution infrastructure to serve residential,  
13 commercial, agricultural, and industrial end-user retrofit projects  
14 to allow use of recycled water.

15 (3) Multiple-benefit recycled water projects that improve water  
16 quality.

17 (b) At least a 50-percent local cost share shall be required for  
18 projects funded pursuant to this section. That cost share may be  
19 suspended or reduced for disadvantaged communities or severely  
20 disadvantaged communities.

21 (c) In allocating funding pursuant to this section, the water board  
22 shall prioritize all of the following:

23 (1) Cost effectiveness.

24 (2) Projects that serve a regional population.

25 (3) Projects that include one or more partnerships between a  
26 municipality, a regional sanitation district, or a regional water  
27 distribution agency.

28 (4) Projects that reduce the discharge of wastewater to the ocean  
29 and avoid or minimize adverse impacts to ocean resources.

30 (5) Projects that reduce reliance on water imports from the San  
31 Francisco Bay-Delta and the Colorado River.

32 (6) Projects that advance innovation in recycled water  
33 technology.

34 (7) Projects that use energy efficiently, avoid using excessive  
35 amounts of energy in relation to the amount of water supplied, and  
36 result in fewer greenhouse gas emissions as compared to competing  
37 technologies.

38 80551. Of the funds made available by Section 80540,  
39 twenty-five million dollars (\$25,000,000) shall be available, upon  
40 appropriation by the Legislature, to the Department of Water

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1 Resources for the implementation of the Open and Transparent  
2 Water Data Act (Part 4.9 (commencing with Section 12400) of  
3 Division 6 of the Water Code) to ensure data-informed water  
4 management decisions during climatic extremes and periods of  
5 scarcity. Funds may be used for grants to nonprofit organizations  
6 or public agencies to support ongoing cross-sector collaboration  
7 to advance open water data, identify critical water data gaps,  
8 develop pilot projects or case studies to support data-informed  
9 water management decisions, and develop best management  
10 practices for water data collection and standards.

11 80552. Of the funds made available by Section 80540, one  
12 hundred million dollars (\$100,000,000) shall be available, upon  
13 appropriation by the Legislature, to the water board for technical  
14 and financial assistance to address hexavalent chromium at drinking  
15 water systems with average annual systemwide residential customer  
16 charges for compliance exceeding 1.5 percent of the median  
17 household income for that jurisdiction.

18 80553. Of the funds made available by Section 80540, seventy  
19 million dollars (\$70,000,000) shall be available, upon appropriation  
20 by the Legislature, to the water board for technical and financial  
21 assistance for drinking water systems to address perfluoroalkyl  
22 and polyfluoroalkyl substances (PFAS).

23 80554. Of the funds made available by Section 80540, one  
24 hundred million dollars (\$100,000,000) shall be available, upon  
25 appropriation by the Legislature, to the Department of Water  
26 Resources and the water board to implement Section 144 of the  
27 Water Code to reactivate existing stream gauges and deploy new  
28 gauges.

29 80555. Of the funds made available by Section 80540, two  
30 hundred fifty million dollars (\$250,000,000) shall be available,  
31 upon appropriation by the Legislature, to the Wildlife Conservation  
32 Board for grants pursuant to the guidelines of the Stream Flow  
33 Enhancement Program for the purposes of protecting fish and  
34 wildlife from the impacts of drought, including for short-term  
35 acquisition and construction of transfer of water.

36 80556. Of the funds made available by Section 80540, two  
37 hundred million dollars (\$200,000,000) shall be available, upon  
38 appropriation by the Legislature, for tribal water infrastructure  
39 projects.

1 80557. Of the funds made available by Section 80540, one  
2 hundred fifty million dollars (\$150,000,000) shall be available,  
3 upon appropriation by the Legislature, to the Natural Resources  
4 Agency for competitive grants for the purposes of multibenefit  
5 projects in urbanized areas to address flooding. Eligible projects  
6 shall include, but are not limited to, stormwater capture and reuse,  
7 planning and implementation of low-impact development,  
8 restoration of urban streams and watersheds, and increasing  
9 permeable surfaces to help reduce flooding.

10 80558. *(a) Of the funds made available by Section 80540, one*  
11 *hundred million dollars (\$100,000,000) shall be available, upon*  
12 *appropriation by the Legislature, for capital investments in*  
13 *brackish desalination, seawater desalination, contaminant and*  
14 *salt removal, and salinity management projects to improve*  
15 *California water and drought resilience. Priority shall be given*  
16 *to projects that use renewable energy and reduce greenhouse gas*  
17 *emissions associated with their construction and operation.*

18 *(b) For ocean desalination projects, priority shall be given to*  
19 *projects that do both of the following:*

20 *(1) Incorporate measures to minimize the intake of all forms of*  
21 *marine, brackish, and freshwater life in their construction and*  
22 *operation.*

23 *(2) Incorporate measures to minimize the adverse impacts of*  
24 *outfalls on marine, brackish, and freshwater life in their*  
25 *construction and operation.*

26  
27 CHAPTER 5. PROTECTING FISH, WILDLIFE, AND NATURAL AREAS  
28 FROM CLIMATE RISKS  
29

30 80560. The sum of one billion six hundred twenty-five million  
31 dollars (\$1,625,000,000) shall be available, upon appropriation by  
32 the Legislature, to protect and restore natural lands to better  
33 maintain biodiversity and ecosystem benefits as climate conditions  
34 change and enhance fish and wildlife corridors and habitat linkages  
35 to increase the ability of wildlife to adapt to changing climate  
36 conditions.

37 80561. To the extent feasible in implementing this chapter, a  
38 state agency receiving funding under this chapter shall seek to  
39 achieve wildlife conservation objectives through projects on public  
40 lands or voluntary projects on private lands.

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1 80562. (a) Of the funds made available by Section 80560,  
2 seven hundred fifty million dollars (\$750,000,000) shall be  
3 available, upon appropriation by the Legislature, to the Wildlife  
4 Conservation Board for programs for the protection of California's  
5 fish and wildlife resources in response to changing climate  
6 conditions, as well as for restoration and stewardship projects that  
7 restore or manage land or habitat to improve its resilience to  
8 climate impacts and natural disasters. Eligible projects include,  
9 but are not limited to, the following:

- 10 (1) Land acquisition projects.  
11 (2) Habitat enhancement and restoration projects.  
12 (3) Rangeland, grazing land, and grassland protection projects.  
13 (4) Inland wetland conservation projects.  
14 (5) Ecosystem restoration on agricultural lands projects.  
15 (6) Climate adaptation and resiliency projects.  
16 (7) Monarch butterfly and pollinator rescue projects.  
17 (8) Projects for purposes of reimbursing the General Fund  
18 pursuant to the Natural Heritage Preservation Tax Credit Act of  
19 2000 (Division 28 (commencing with Section 37000)).

- 20 (9) Projects that protect, restore, and enhance desert habitat  
21 consistent with the California Desert Conservation Program.

22 (b) Of the amount specified in subdivision (a), not less than  
23 eighty million dollars (\$80,000,000) shall be available for the  
24 Cascades and High Sierra Upper Watersheds Program.

25 (c) The Wildlife Conservation Board shall prioritize projects  
26 that address the impacts of climate change; provide public access  
27 or recreational amenities; or reduce the threats of wildfire, drought,  
28 flood, and other catastrophic events.

29 (d) Funding made available by subdivision (a) shall not be used  
30 to offset environmental mitigation or compliance obligations  
31 otherwise required, but may be used as part of a funding partnership  
32 to enhance, expand, or augment conservation efforts required by  
33 mitigation.

34 80563. Of the funds made available by Section 80560, one  
35 hundred million dollars (\$100,000,000) shall be available, upon  
36 appropriation by the Legislature, to the Department of  
37 Conservation's Multibenefit Land Repurposing Program for  
38 groundwater sustainability projects that provide wildlife habitat.  
39 Projects may support implementation of the Sustainable  
40 Groundwater Management Act (Part 2.74 (commencing with



1 Section 10720) of Division 6 of the Water Code). Eligible projects  
2 include, but are not limited to, the following:

3 (a) Projects that create, protect, or restore permanent wildlife  
4 habitat.

5 (b) Projects that create, protect, or restore seasonal wetland  
6 habitat that provides aquifer replenishment.

7 (c) Projects that improve groundwater supply, including  
8 groundwater recharge, improved baseflows in rivers and streams,  
9 and groundwater supply improvement for fish and wildlife habitat.

10 (d) Projects that convert land to less intensive water uses while  
11 maintaining natural and working lands.

12 80564. Of the funds made available by Section 80560, fifty  
13 million dollars (\$50,000,000) shall be available, upon appropriation  
14 by the Legislature, to the Department of Fish and Wildlife to  
15 improve the climate resilience of fish and wildlife habitat. Eligible  
16 projects include, but are not limited to, the following:

17 (a) Projects on lands managed by the Department of Fish and  
18 Wildlife to reduce the risks of fire, drought, flood, inundation, sea  
19 level rise, and other risks associated with climate change and for  
20 the protection and restoration of infrastructure and natural  
21 resources.

22 (b) Competitive grants for projects that enhance or restore inland  
23 or anadromous native fish species habitat. Projects include, but  
24 are not limited to, enhanced stream flows, improved fish passage,  
25 reconnection of riverine and floodplain habitat, and other actions  
26 to help fish adapt to climate change.

27 (c) Projects for the cleanup, remediation, and restoration of  
28 environmental damage in watersheds affected by illegal cannabis  
29 cultivation and related activities.

30 (d) Salmon and other fishery preservation, enhancement, and  
31 habitat restoration projects.

32 80565. (a) Of the funds made available pursuant to Section  
33 80560, five hundred forty million dollars (\$540,000,000) shall be  
34 available, upon appropriation by the Legislature, for climate  
35 resilience and reducing the risks of climate change impacts upon  
36 communities, fish and wildlife, and natural resources allocated in  
37 accordance with the following schedule:

38 (1) Baldwin Hills Conservancy, fifteen million dollars  
39 (\$15,000,000).



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(2) State Coastal Conservancy, eighty million dollars (\$80,000,000), of which at least forty million dollars (\$40,000,000) shall be available for the Santa Ana River Conservancy Program and thirty million dollars (\$30,000,000) shall be available for the Coyote Valley Conservation Program.

(3) California Tahoe Conservancy, thirty-five million dollars (\$35,000,000).

(4) Coachella Valley Mountains Conservancy, thirty million dollars (\$30,000,000).

(5) Sacramento-San Joaquin Delta Conservancy, thirty-five million dollars (\$35,000,000).

(6) San Diego River Conservancy, fifty million dollars (\$50,000,000).

(7) San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, sixty-five million dollars (\$65,000,000).

(8) San Joaquin River Conservancy, fifteen million dollars (\$15,000,000).

(9) Santa Monica Mountains Conservancy, sixty-five million dollars (\$65,000,000).

(10) Sierra Nevada Conservancy, sixty-five million dollars (\$65,000,000).

(11) American River Conservancy, fifteen million dollars (\$15,000,000).

(12) Creation of new conservancies, seventy million dollars (\$70,000,000), of which fifteen million dollars (\$15,000,000) shall be available for the creation of a Salton Sea Conservancy and twenty-five million dollars (\$25,000,000) shall be available for the creation of a California Trails Conservancy.

(b) When issuing grants pursuant to this section, a conservancy identified in subdivision (a) shall give preference to one or more of the following:

(1) Projects that use natural infrastructure.

(2) Projects done jointly by more than one conservancy.

(3) Projects that maximize greenhouse gas reductions.

(4) The provision of technical assistance to disadvantaged communities, severely disadvantaged communities, vulnerable populations, including those with access and functional needs, or socially disadvantaged farmers or ranchers.

80566. (a) Before expending any of the funds allocated pursuant to Section 80565, the Baldwin Hills Conservancy, State

1 Coastal Conservancy, California Tahoe Conservancy, Coachella  
2 Valley Mountains Conservancy, Sacramento-San Joaquin Delta  
3 Conservancy, San Diego River Conservancy, San Gabriel and  
4 Lower Los Angeles Rivers and Mountains Conservancy, San  
5 Joaquin River Conservancy, Santa Monica Mountains  
6 Conservancy, and Sierra Nevada Conservancy shall develop a  
7 climate resilience plan that shall be adopted by each conservancy's  
8 governing board. Each climate resilience plan shall do all of the  
9 following:

10 (1) Describe how the impacts of climate change relate to the  
11 conservancy's mission and how they will affect the lands within  
12 its jurisdiction.

13 (2) Describe the conservancy's past investment and work  
14 addressing the impacts of climate change, reducing greenhouse  
15 gas emissions, and improving climate resilience.

16 (3) Outline a list of all projects or programs that the conservancy  
17 would propose to fund with an allocation pursuant to Section  
18 80565.

19 (4) Describe the potential benefits of each project or program  
20 in increasing climate resilience and reducing the risks of climate  
21 change impacts upon communities, fish and wildlife, and natural  
22 resources.

23 (b) Each conservancy shall make the climate resilience plan  
24 available on its internet website and provide the climate resilience  
25 plan to the Natural Resources Agency.

26 (c) The climate resilience plan shall be consistent with any  
27 related regional climate adaptation plans the conservancy is  
28 participating in.

29  
30 CHAPTER 6. ~~PROTECTING FARMS, RANCHES, FARMS, RANCHES~~  
31 ~~AND WORKING LANDS~~ WORKING LANDS FROM THE IMPACTS OF  
32 ~~CLIMATE CHANGE. IMPACTS OF CLIMATE CHANGE.~~  
33

34 80570. The sum of eight hundred twenty million dollars  
35 (\$820,000,000) shall be available, upon appropriation by the  
36 Legislature, for purposes of protecting California's agricultural  
37 resources, communities, open spaces, and lands from climate  
38 change impacts.

39 80571. Of the funds made available by Section 80570, two  
40 hundred sixty million dollars (\$260,000,000) shall be available,

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1 upon appropriation by the Legislature, to the Department of Food  
2 and Agriculture for improvements in climate resilience of  
3 agricultural lands and ecosystem health and allocated to eligible  
4 projects as follows:

5 (a) (1) One hundred million dollars (\$100,000,000) shall be  
6 available for grants to promote practices on farms and ranches that  
7 improve soil health, accelerate atmospheric carbon removal or soil  
8 carbon sequestration, improve air or water quality, enhance  
9 groundwater recharge or surface water supplies, or improve fish  
10 or wildlife habitat.

11 (2) At least 35 percent of the funds allocated pursuant to this  
12 subdivision shall be allocated to projects that provide direct and  
13 meaningful benefits to farmers and ranchers in disadvantaged  
14 communities or severely disadvantaged communities.

15 (3) Preference shall be given to small- and medium-sized farms  
16 and socially disadvantaged farmers and ranchers.

17 (b) (1) Fifty million dollars (\$50,000,000) shall be available  
18 for grants to promote on-farm water use efficiency with a focus  
19 on multiple-benefit projects that improve groundwater  
20 management, resilience to climate change, water quality, surface  
21 water use efficiency, drought tolerance and flood protection, or  
22 water supply and water quality conditions for fish and wildlife.

23 (2) At least 35 percent of the funds allocated pursuant to this  
24 subdivision shall be allocated to projects that provide direct and  
25 meaningful benefits to farmers and ranchers in disadvantaged  
26 communities or severely disadvantaged communities.

27 (3) Preference shall be given to small- and medium-sized farms  
28 and socially disadvantaged farmers and ranchers.

29 (c) (1) Eighty million dollars (\$80,000,000) shall be available  
30 for projects that promote the reduction of methane emissions from  
31 dairy and livestock operations and improved water quality through  
32 manure management and handling, including, but not limited to,  
33 the creation of composted manure products.

34 (2) Preference shall be given to small- and medium-sized farms  
35 and socially disadvantaged farmers and ranchers.

36 (d) Twenty million dollars (\$20,000,000) shall be deposited in  
37 the Invasive Species Account established pursuant to Section 7706  
38 of the Food and Agricultural Code for purposes of funding invasive  
39 species projects and activities recommended by the Invasive

1 Species Council of California. Priority shall be given to projects  
2 that restore and protect biodiversity and ecosystem health.

3 (e) Ten million dollars (\$10,000,000) shall be available to fund  
4 improvements and enhancements to pollinator habitat and forage.

5 80572. Of the funds made available by Section 80570, one  
6 hundred million dollars (\$100,000,000) shall be available, upon  
7 appropriation by the Legislature, to the Department of Food and  
8 Agriculture for grants that benefit small- and medium-sized farms  
9 and socially disadvantaged farmers, and increase the sustainability  
10 of agricultural infrastructure and facilities that support food  
11 systems, market access, agricultural workforce development,  
12 worker safety equipment, or job retention and growth.

13 80573. (a) Of the funds made available by Section 80570, one  
14 hundred million dollars (\$100,000,000) shall be available, upon  
15 appropriation by the Legislature, to the Department of Conservation  
16 for projects for the protection, restoration, and enhancement of  
17 farmland and rangeland, including, but not limited to, the  
18 acquisition of fee title or easements, that improve climate  
19 resilience, open-space soil health, atmospheric carbon removal,  
20 soil carbon sequestration, erosion control, watershed restoration,  
21 conservation projects, water quality, or water retention. Projects  
22 shall provide multiple benefits. In awarding funds for farmland  
23 and rangeland projects pursuant to this section, the Department of  
24 Conservation shall give preference to projects for small- and  
25 medium-sized farms.

26 (b) The Department of Conservation may develop guidelines  
27 to allow for innovative incentives to support multigenerational  
28 farmland transitions, entry of new farmers into the sector, or  
29 support for small or socially disadvantaged farms. The Department  
30 of Conservation may expend up to 20 percent of the funds made  
31 available pursuant to this section for projects funded under these  
32 guidelines.

33 (c) At least 35 percent of the funds allocated pursuant to this  
34 section shall be allocated to projects that provide direct and  
35 meaningful benefits to farmers and ranchers in disadvantaged  
36 communities or severely disadvantaged communities.

37 (d) The Department of Conservation shall maximize grant  
38 timeline flexibility for the funds made available pursuant to this  
39 section to ensure that applicants have multiple opportunities to  
40 apply for funding throughout each year.

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1 80574. Of the funds made available by Section 80570, ten  
2 million dollars (\$10,000,000) shall be available, upon appropriation  
3 by the Legislature, to the Wildlife Conservation Board for the  
4 purpose of recovering and sustaining populations of monarch  
5 butterflies and other pollinators.

6 80575. Of the funds made available by Section 80570, fifty  
7 million dollars (\$50,000,000) shall be available, upon appropriation  
8 by the Legislature, to the Department of Food and Agriculture for  
9 the administration of a resilient and higher welfare grant program.  
10 The department shall ensure the program does both of the  
11 following:

12 (a) Seeks to support the implementation of higher standards of  
13 care and more climate-smart farming practices by providing  
14 incentives, including grants, to producers and processors seeking  
15 to improve farm animal welfare and increase capacity to meet  
16 growing demand for higher welfare and welfare-certified products,  
17 to comply with regulatory requirements, to make necessary climate  
18 adaptations, or any combination of these things.

19 (b) Aligns with the Farmer Equity Act of 2017 (Article 6  
20 (commencing with Section 510) of Chapter 3 of Part 1 of Division  
21 1 of the Food and Agricultural Code).

22  
23 CHAPTER 7. RESPONDING TO EXTREME HEAT, COMMUNITY  
24 ENHANCEMENT, AND RESILIENCE  
25

26 80580. The sum of one billion seven hundred forty million  
27 dollars (\$1,740,000,000) shall be available, upon appropriation by  
28 the Legislature, for the purposes of strengthening California's  
29 climate resilience and mitigation strategies to address increasing  
30 temperatures and extreme heat events through investments in parks,  
31 urban green infrastructure, and community forestry projects.

32 80581. (a) Of the funds made available by Section 80580,  
33 eight hundred fifty million dollars (\$850,000,000) shall be  
34 available, upon appropriation by the Legislature, to the Department  
35 of Parks and Recreation for the creation and expansion of safe  
36 neighborhood parks in park-poor neighborhoods in accordance  
37 with the Statewide Park Development and Community  
38 Revitalization Act of 2008's competitive grant program described  
39 in Chapter 3.3 (commencing with Section 5640) of Division 5.

1 (1) When developing or revising criteria or guidelines for the  
2 grant program, the department may give additional consideration  
3 to projects that reduce urban heat island effect, mitigate extreme  
4 heat events, sea level rise, or flooding events, or promote heat  
5 avoidance or enhanced water capture for groundwater recharge,  
6 or other environmental benefits.

7 (2) The department shall perform its due diligence by conducting  
8 a rigorous prequalification process to determine the fiscal and  
9 operational capacity of a potential grant recipient to manage a  
10 project to do both of the following:

11 (A) Maximize the project's public benefit.

12 (B) Implement the project in a timely manner.

13 (b) Of the amount available pursuant to subdivision (a), not less  
14 than 20 percent shall be available for the rehabilitation,  
15 repurposing, or substantial improvement of existing park  
16 infrastructure in communities of the state that will lead to increased  
17 use and enhanced user experiences or increase access for  
18 individuals with disabilities, as defined by the federal Americans  
19 with Disabilities Act of 1990 (42 U.S.C. Sec. 12101 et seq.).

20 (c) Of the amount available pursuant to subdivision (a), to  
21 correct historic underinvestment in the central valley, Inland  
22 Empire, gateway, rural, and desert communities, fifty million  
23 dollars (\$50,000,000) shall be available for local park creation and  
24 improvement grants to the communities identified by the  
25 department as park deficient for active recreational projects,  
26 including aquatic centers, to encourage youth health, fitness, and  
27 recreational pursuits. Projects that include the partial or full  
28 donation of land, materials, or volunteer services and that  
29 demonstrate collaborations of multiple entities and the leveraging  
30 of scarce resources may be given special consideration. Entities  
31 that receive a grant under this section may also be eligible to  
32 receive other grants under subdivision (a) of Section 80526.

33 (d) Of the amount available pursuant to subdivision (a), in an  
34 effort to recognize differences in regional economic factors and  
35 median household incomes, one hundred twenty-five million  
36 dollars (\$125,000,000) may be awarded to communities with 125  
37 percent of the state median income average.

38 (e) Of the amount available pursuant to subdivision (a), up to  
39 one hundred twenty-five million dollars (\$125,000,000) shall be  
40 awarded to communities and projects seeking to restore blighted



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1 and degraded lands, including former industrial sites, landfills,  
2 and otherwise underutilized lands, for repurposing to parks, trails,  
3 and greenspaces.

4 80582. Of the funds made available by Section 80580, one  
5 hundred seventy-five million dollars (\$175,000,000) shall be  
6 available, upon appropriation by the Legislature, to the Natural  
7 Resources Agency for competitive grants for urban greening.  
8 Projects shall benefit vulnerable populations. These funds shall  
9 support projects that mitigate the urban heat island effect, rising  
10 temperatures, and extreme heat impacts. Eligible projects may  
11 include, but are not limited to, investments that support an  
12 expanded urban greening program that supports the creation of  
13 green recreational parks in park poor communities.

14 80583. Of the funds made available by Section 80580, one  
15 hundred fifty million dollars (\$150,000,000) shall be available,  
16 upon appropriation by the Legislature, to the Department of  
17 Forestry and Fire Protection to protect or augment California's  
18 urban forests pursuant to Section 4799.12. Projects shall contribute  
19 to mitigating the urban heat island effect and extreme heat impacts.

20 80584. Of the funds made available by Section 80580,  
21 seventy-five million dollars (\$75,000,000) shall be available, upon  
22 appropriation by the Legislature, to the Department of Community  
23 Services and Development for low-income weatherization projects  
24 consistent with Section 12087.5 of the Government Code.

25 80585. Of the funds made available by Section 80580, one  
26 hundred fifty million dollars (\$150,000,000) shall be available,  
27 upon appropriation by the Legislature, to the Strategic Growth  
28 Council for a grant program to reduce the urban heat island effect  
29 and other extreme heat impacts from climate change. Eligible  
30 projects shall mitigate the impacts of the urban heat island effect  
31 and extreme heat through any of the following: the use of reflective  
32 surface materials in the built environment, the capture and  
33 beneficial reuse of water for cooling, the increased use of natural  
34 or man-made shade, and the reduction of heat-trapping surfaces.  
35 Projects shall benefit disadvantaged communities, severely  
36 disadvantaged communities, or vulnerable populations. Priority  
37 shall be given to projects that provide multiple benefits, including,  
38 but not limited to, projects that do more than one of any of the  
39 following: capture rainwater, reduce stormwater pollution, use



1 cool roofs and pavements, use shade structures, or increase the use  
2 of natural spaces for urban vegetation and forestry.

3 80586. Of the funds made available by Section 80580, forty  
4 million dollars (\$40,000,000) shall be available, upon appropriation  
5 by the Legislature, to the Natural Resources Agency in an effort  
6 to provide fuel breaks, risk reduction buffers, and recreational  
7 corridors through investments in natural surface, multiuse trails,  
8 and trail systems pursuant to grants awarded through the  
9 Recreational Trails and Greenways Grant Program.

10 80587. At least 10 percent of the funds available pursuant to  
11 this chapter shall be allocated for grants that provide outreach and  
12 technical assistance that directly benefit disadvantaged  
13 communities and vulnerable communities. An eligible applicant  
14 is a nonprofit organization, technical assistance provider, or tribe.

15  
16 CHAPTER 8. STRENGTHENING CALIFORNIA'S REGIONAL CLIMATE  
17 RESILIENCE  
18

19 80590. The sum of one billion eight hundred million dollars  
20 (\$1,800,000,000) shall be made available, upon appropriation by  
21 the Legislature, for the purposes of strengthening California's  
22 climate resilience based on regional needs.

23 80591. (a) Of the funds made available by Section 80590, one  
24 billion dollars (\$1,000,000,000) shall be available, upon  
25 appropriation of by the Legislature, to the Strategic Growth Council  
26 for climate resilience and the reduction in the risk of climate  
27 impacts to communities, including, but not limited to, wildfire,  
28 sea level rise, drought, flood, increasing temperatures, and extreme  
29 heat events. The goal of these funds is to encourage the  
30 development and implementation of science- and research-informed  
31 multiple-benefit, cross-sector projects that respond to each region's  
32 greatest climate vulnerabilities.

33 (b) Funds shall be available to regional climate networks to  
34 implement the highest priority projects identified in approved  
35 regional climate adaptation action plans.

36 (c) Funds shall be for public benefits associated with climate  
37 resilience projects that reduce climate vulnerabilities.

38 (d) Funds shall be allocated to regional climate networks, as  
39 follows:

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(1) At least 60 percent of funds shall be available to regional climate networks based on the percentage of the state's population included in the jurisdiction of the network's regional climate adaptation action plan, but not less than two million dollars (\$2,000,000) per network.

(2) The remaining funds may be provided to increase the size of the awards under paragraph (1) to the extent the approved regional climate adaptation action plan does any of the following:

(A) Protects disadvantaged communities, severely disadvantaged communities, under-resourced communities, or vulnerable populations.

(B) Protects natural resources prioritized by the state.

(C) Enhances statewide climate adaptation and resilience strategies, as identified by the most recent update of the Safeguarding California Plan developed by the Natural Resources Agency.

(D) Reduces or sequesters carbon emissions.

(E) Scales to maximize effectiveness of response.

(F) Includes information regarding the regional climate network's ability to secure matching funds for projects identified within the plan.

(G) Prioritizes technical assistance to disadvantaged communities, severely disadvantaged communities, vulnerable populations, under-resourced communities, including those with access and functional needs or with at-risk infrastructure, or both, socially disadvantaged farmers or ranchers, and economically distressed areas.

80592. Of the funds made available by Section 80590, two hundred million dollars (\$200,000,000) shall be available, upon appropriation by the Legislature, to the Strategic Growth Council for the implementation of the Transformative Climate Communities Program established pursuant to Section 75240 for projects that address wildfire, flood, drought, heat, air pollution, and other climate risks and that improve the resilience of local communities.

80592.5. Of the funds made available by Section 80590, one hundred million dollars (\$100,000,000) shall be available, upon appropriation by the Legislature, to the Strategic Growth Council for implementation of multijurisdictional projects led by countywide special districts created for the purpose of building resiliency to the impacts of sea level rise and extreme storms.

1 80593. (a) Of the funds made available by Section 80590, one  
2 hundred million dollars (\$100,000,000) shall be available, upon  
3 appropriation by the Legislature, to the Office of Emergency  
4 Services and the Strategic Growth Council for competitive grants  
5 for the creation of strategically located community resilience  
6 centers across diverse regions of the state at eligible community  
7 facilities. These grants shall be awarded to eligible community  
8 facilities that model integrated delivery of emergency response  
9 services during disruptions, including zero-emission backup power,  
10 drinking water, clean air, cooling, food storage, shelter,  
11 telecommunications and broadband services, economic assistance,  
12 accommodation of pets, and other health protection measures and  
13 emergency resources during a disaster, state of emergency, local  
14 emergency, or public safety power shutoff event. Grants shall be  
15 prioritized to proposed centers that demonstrate involvement of  
16 community-based organizations and community residents within  
17 governance and decisionmaking processes.

18 (b) The Office of Emergency Services and the Strategic Growth  
19 Council shall coordinate with the Department of Food and  
20 Agriculture to ensure there is no duplication with funding awarded  
21 under Section 80594.

22 (c) For purposes of this section, the following definitions apply:

23 (1) “Eligible community facilities” include senior and youth  
24 centers, park and recreation sites, libraries, health clinics, hospitals,  
25 schools, town halls, food banks, homeless shelters, childcare  
26 facilities, community centers, community nonprofit facilities  
27 providing essential services, places of worship, grocery stores,  
28 mobile sites, community land trusts, and fairgrounds.

29 (2) “Public safety power shutoff” means a preventative measure  
30 to deenergize all, or a portion, of an electric generation,  
31 distribution, or transmission system when the electricity provider  
32 reasonably believes there is an imminent and significant risk that  
33 strong winds, or other extreme and potentially dangerous weather  
34 events, increase the probability of a wildfire.

35 80594. Of the funds made available by Section 80590, one  
36 hundred million dollars (\$100,000,000) shall be available, upon  
37 appropriation by the Legislature, to the Department of Food and  
38 Agriculture for grants to fairgrounds operated by the network of  
39 California fairs for modifications or upgrades that do one or both  
40 of the following activities:

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1 (a) Enhance the ability of those facilities to serve as multirole  
2 community, staging, and evacuation centers to provide community  
3 resilience benefits during a disaster, state of emergency, local  
4 emergency, or public safety power shutoff event.

5 (b) Deploy communications and broadband infrastructure at  
6 those facilities to improve their capability to serve as multirole  
7 community, staging, and evacuation centers and enhance local  
8 telecommunications service.

9 80595. Of the funds made available by Section 80590, fifty  
10 million dollars (\$50,000,000) shall be available, upon appropriation  
11 by the Legislature, to the Department of Resources Recycling and  
12 Recovery for the \_\_\_\_ Grant Program to provide funding for  
13 organic waste infrastructure.

14 80596. At least 10 percent of the funds available pursuant to  
15 this chapter shall be allocated for grants that provide outreach and  
16 technical assistance that directly benefit disadvantaged  
17 communities, under-resourced communities, and vulnerable  
18 communities. An eligible applicant is a nonprofit organization,  
19 technical assistance provider, or tribe.

20  
21 CHAPTER 9. FISCAL PROVISIONS  
22

23 80600. (a) Bonds in the total amount of fifteen billion one  
24 hundred five million dollars (\$15,105,000,000), not including the  
25 amount of any refunding bonds issued in accordance with Section  
26 80612, may be issued and sold for carrying out the purposes  
27 expressed in this division and to reimburse the General Obligation  
28 Bond Expense Revolving Fund pursuant to Section 16724.5 of the  
29 Government Code. The bonds, when sold, issued, and delivered,  
30 shall be and constitute a valid and binding obligation of the State  
31 of California, and the full faith and credit of the State of California  
32 is hereby pledged for the punctual payment of both the principal  
33 of, and interest on, the bonds as the principal and interest become  
34 due and payable.

35 (b) The Treasurer shall cause the issuance and sell the bonds  
36 authorized by the committee pursuant to subdivision (a) in the  
37 amount determined by the committee to be necessary or desirable  
38 pursuant to Section 80603. The bonds shall be issued and sold  
39 upon the terms and conditions specified in a resolution to be

1 adopted by the committee pursuant to Section 16731 of the  
2 Government Code.

3 80601. The bonds authorized by this division shall be prepared,  
4 executed, issued, sold, paid, and redeemed as provided in the State  
5 General Obligation Bond Law (Chapter 4 (commencing with  
6 Section 16720) of Part 3 of Division 4 of Title 2 of the Government  
7 Code), as amended from time to time, and all of the provisions of  
8 that law, except subdivisions (a) and (b) of Section 16727 of the  
9 Government Code, apply to the bonds and to this division and are  
10 hereby incorporated in this division as though set forth in full in  
11 this division.

12 80602. (a) Solely for the purpose of authorizing the issuance  
13 and sale, pursuant to the State General Obligation Bond Law  
14 (Chapter 4 (commencing with Section 16720) of Part 3 of Division  
15 4 of Title 2 of the Government Code), of the bonds authorized by  
16 this division, the Safe Drinking Water, Wildfire Prevention,  
17 Drought Preparation, Flood Protection, Extreme Heat Mitigation,  
18 and Workforce Development Bond Finance Committee is hereby  
19 created. For purposes of this division, the Safe Drinking Water,  
20 Wildfire Prevention, Drought Preparation, Flood Protection,  
21 Extreme Heat Mitigation, and Workforce Development Bond  
22 Finance Committee is the “committee,” as that term is used in the  
23 State General Obligation Bond Law.

24 (b) The committee consists of the Director of Finance, the  
25 Treasurer, the Controller, and the Secretary of the Natural  
26 Resources Agency. Notwithstanding any other law, any member  
27 may designate a representative to act as that member in that  
28 member’s place for all purposes, as though the member were  
29 personally present.

30 (c) The Treasurer shall serve as the chairperson of the  
31 committee.

32 (d) A majority of the committee may act for the committee.

33 80603. The committee shall by resolution determine whether  
34 or not it is necessary or desirable to issue and sell bonds authorized  
35 by this division in order to carry out the actions specified in this  
36 division and, if so, the amount of bonds to be issued and sold.  
37 Successive issues of bonds may be authorized and sold to carry  
38 out those actions progressively, and it is not necessary that all of  
39 the bonds authorized to be issued be sold at any one time.

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1 80604. For purposes of the State General Obligation Bond Law  
2 (Chapter 4 (commencing with Section 16720) of Part 3 of Division  
3 4 of Title 2 of the Government Code), “board,” as defined in  
4 Section 16722 of the Government Code, means the Secretary of  
5 the Natural Resources Agency.

6 80605. There shall be collected each year and in the same  
7 manner and at the same time as other state revenue is collected,  
8 in addition to the ordinary revenues of the state, a sum in an amount  
9 required to pay the principal of, and interest on, the bonds  
10 becoming due in that year. It is the duty of all officers charged by  
11 law with any duty regarding the collection of the revenue to do  
12 and perform each and every act that is necessary to collect that  
13 additional sum.

14 80606. Notwithstanding Section 13340 of the Government  
15 Code, there is hereby continuously appropriated from the General  
16 Fund in the State Treasury, for the purposes of this division, and  
17 without regard to fiscal years, an amount that will equal the total  
18 of the following:

19 (a) The sum annually necessary to pay the principal of, and  
20 interest on, bonds issued and sold pursuant to this division, as the  
21 principal and interest become due and payable.

22 (b) The sum that is necessary to carry out Section 80609.

23 80607. The board may request the Pooled Money Investment  
24 Board to make a loan from the Pooled Money Investment Account  
25 or any other form of interim financing in accordance with Section  
26 16312 of the Government Code, for the purpose of carrying out  
27 this division. The amount of the request shall not exceed the  
28 amount of the unsold bonds that the committee has, by resolution,  
29 authorized to be sold for the purpose of carrying out this division,  
30 excluding any refunding bonds authorized pursuant to Section  
31 80612, less any amount loaned and not yet repaid pursuant to this  
32 section and any amount withdrawn from the General Fund pursuant  
33 to Section 80609 and not yet returned to the General Fund. The  
34 board shall execute those documents required by the Pooled Money  
35 Investment Board to obtain and repay the loan. Any amounts  
36 loaned shall be deposited in the fund to be allocated in accordance  
37 with this division.

38 80608. Notwithstanding any other provision of this division,  
39 or of the State General Obligation Bond Law (Chapter 4  
40 (commencing with Section 16720) of Part 3 of Division 4 of Title



2 of the Government Code), if the Treasurer sells bonds pursuant to this chapter that include a bond counsel opinion to the effect that the interest on the bonds is excluded from gross income for federal tax purposes under designated conditions or is otherwise entitled to any federal tax advantage, the Treasurer may maintain separate accounts for the bond proceeds invested and for the investment earnings on those proceeds and may use or direct the use of those proceeds or earnings to pay any rebate, penalty, or other payment required under federal law or take any other action with respect to the investment and use of those bond proceeds, as may be required or desirable under federal law in order to maintain the tax-exempt status of those bonds and to obtain any other advantage under federal law on behalf of the funds of this state.

80609. For purposes of carrying out this division, the Director of Finance may authorize the withdrawal from the General Fund of an amount or amounts not to exceed the amount of the unsold bonds that have been authorized by the committee to be sold for the purpose of carrying out this division, excluding refunding bonds authorized pursuant to Section 80612, less any amount loaned pursuant to Section 80607 and not yet repaid and any amount withdrawn from the General Fund pursuant to this section and not yet returned to the General Fund. Any amounts withdrawn shall be deposited in the fund to be allocated in accordance with this division. Any moneys made available under this section shall be returned to the General Fund, with interest at the rate earned by the moneys in the Pooled Money Investment Account, from proceeds received from the sale of bonds for the purpose of carrying out this division.

80610. All moneys deposited in the fund that are derived from premiums and accrued interest on bonds sold pursuant to this division shall be reserved in the fund and shall be available for transfer to the General Fund as a credit to expenditures for bond interest, except that amounts derived from premiums may be reserved and used to pay costs of bond issuance before any transfer to the General Fund.

80611. Pursuant to the State General Obligation Bond Law (Chapter 4 (commencing with Section 16720) of Part 3 of Division 4 of Title 2 of the Government Code), the cost of bond issuance shall be paid or reimbursed out of the bond proceeds, including premiums, if any. To the extent the cost of bond issuance is not



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1 paid from premiums received from the sale of bonds, these costs  
2 shall be allocated proportionally to each program funded through  
3 this division by the applicable bond sale.

4 80612. The bonds issued and sold pursuant to this division  
5 may be refunded in accordance with Article 6 (commencing with  
6 Section 16780) of Chapter 4 of Part 3 of Division 4 of Title 2 of  
7 the Government Code, which is a part of the State General  
8 Obligation Bond Law, as amended. Approval by the voters of the  
9 state for the issuance of the bonds under this division shall include  
10 approval of the issuance, sale, or exchange of any bonds issued to  
11 refund any bonds originally issued under this division or any  
12 previously issued refunding bonds. Any bond refunded with the  
13 proceeds of a refunding bond as authorized by this section may be  
14 legally defeased to the extent permitted by law in the manner and  
15 to the extent set forth in the resolution, as amended from time to  
16 time, authorizing that refunded bond.

17 80613. Notwithstanding Section 16727 of the Government  
18 Code, funds provided pursuant to this division may be used for  
19 grants and loans to nonprofit organizations to repay financing  
20 described in Section 22064 of the Financial Code related to projects  
21 that are consistent with the purpose of the respective provisions  
22 of this division.

23 80614. The proceeds from the sale of bonds authorized by this  
24 division are not “proceeds of taxes” as that term is used in Article  
25 XIII B of the California Constitution, and the disbursement of  
26 these proceeds is not subject to the limitations imposed by that  
27 article.

28 80615. Bonds issued under this division shall, whenever  
29 practical, be aligned with generally recognized principles and best  
30 practice guidelines for financing climate mitigation, adaptation,  
31 or resilience projects.

32 SEC. 3. Section 2 of this act shall take effect upon the approval  
33 by the voters of the Safe Drinking Water, Wildfire Prevention,  
34 Drought Preparation, Flood Protection, Extreme Heat Mitigation,  
35 and Workforce Development Bond Act of 2024, as set forth in  
36 Section 2 of this act.

37 SEC. 4. (a) Notwithstanding Sections 9040, 9043, 9044, 9061,  
38 and 9082 of the Elections Code, or any other law, Section 2 of this  
39 act shall be submitted by the Secretary of State to the voters at the  
40 March 5, 2024, statewide primary election.

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1 (b) The Secretary of State shall include in the ballot pamphlets  
2 mailed pursuant to Section 9094 of the Elections Code the  
3 information specified in Section 9084 of the Elections Code  
4 regarding Section 2 of this act.

5 SEC. 5. The provisions of this act are severable. If any  
6 provision of this act or its application is held invalid, that invalidity  
7 shall not affect other provisions or applications that can be given  
8 effect without the invalid provision or application.

9

10

11 **REVISIONS:**12 **Heading—Lines 2, 5, and 6.**

13

O

AMENDED IN SENATE MAY 18, 2023

AMENDED IN SENATE APRIL 19, 2023

**SENATE BILL****No. 867**

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**Introduced by Senators Allen, Becker, Portantino, and Stern  
(Principal coauthor: Senator Dodd)**

February 17, 2023

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An act to add Division 50 (commencing with Section 90000) to the Public Resources Code, relating to drought, flood, and water resilience, wildfire and forest resilience, coastal resilience, extreme heat mitigation, biodiversity and nature-based climate solutions, climate smart agriculture, park creation and outdoor access, and clean energy programs, by providing the funds necessary therefor through an election of the issuance and sale of bonds of the State of California and for the handling and disposition of those funds.

LEGISLATIVE COUNSEL'S DIGEST

SB 867, as amended, Allen. Drought, Flood, and Water Resilience, Wildfire and Forest Resilience, Coastal Resilience, Extreme Heat Mitigation, Biodiversity and Nature-Based Climate Solutions, Climate Smart Agriculture, Park Creation and Outdoor Access, and Clean Energy Bond Act of 2024.

The California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018, approved by the voters as Proposition 68 at the June 5, 2018, statewide primary election, authorizes the issuance of bonds in the amount of \$4,100,000,000 pursuant to the State General Obligation Bond Law to finance a drought, water, parks, climate, coastal protection, and outdoor access for all program. Article XVI of the California Constitution requires measures authorizing general obligation bonds to specify the single object or work to be funded by

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the bonds and further requires a bond act to be approved by a  $\frac{2}{3}$  vote of each house of the Legislature and a majority of the voters.

This bill would enact the Drought, Flood, and Water Resilience, Wildfire and Forest Resilience, Coastal Resilience, Extreme Heat Mitigation, Biodiversity and Nature-Based Climate Solutions, Climate Smart Agriculture, Park Creation and Outdoor Access, and Clean Energy Bond Act of 2024, which, if approved by the voters, would authorize the issuance of bonds in the amount of \$15,500,000,000 pursuant to the State General Obligation Bond Law to finance projects for drought, flood, and water resilience, wildfire and forest resilience, coastal resilience, extreme heat mitigation, biodiversity and nature-based climate solutions, climate smart agriculture, park creation and outdoor access, and clean energy programs.

This bill would provide for the submission of these provisions to the voters at an unspecified statewide election.

*This bill would become operative only if SB 638 of the 2023–24 Regular Session is enacted and takes effect on or before January 1, 2024.*

Vote:  $\frac{2}{3}$ . Appropriation: no. Fiscal committee: yes.  
State-mandated local program: no.

*The people of the State of California do enact as follows:*

- 1 SECTION 1. The people of California find and declare all of
- 2 the following:
- 3 (a) California's changing climate creates increased risk of
- 4 catastrophic wildfires, drought, severe heat events, and sea level
- 5 rise, as well as impacts to agriculture, water supply and water
- 6 quality, and the health of the forests, watershed, and wildlife.
- 7 (b) These risks and impacts vary by region and can overwhelm
- 8 the resources of local governments that must cope with severe
- 9 climate change-related events.
- 10 (c) Reducing vulnerability to fire, flood, drought, and other
- 11 climate change-related events requires a statewide investment to
- 12 increase climate resilience of communities and natural systems.
- 13 (d) Governor Gavin Newsom has issued several reports and
- 14 executive orders that have created a roadmap to climate resiliency
- 15 in California that will help guide and direct investments.
- 16 (e) The California's Water Supply Strategy Adapting to a Hotter,
- 17 Drier Future outlines actions needed to take in order to recycle

1 and reuse at least 800,000 acre-feet of water per year by 2030,  
2 make available up to 500,000 acre-feet of water through more  
3 efficient water use and conservation, and make new water available  
4 for use by capturing storm water and desalinating brackish water  
5 in groundwater basins.

6 (f) The Water Resilience Portfolio serves as a blueprint for  
7 equipping California to cope with more extreme droughts and  
8 floods and rising temperatures, while addressing longstanding  
9 challenges that include declining fish populations, over-reliance  
10 on groundwater and lack of safe drinking water in many  
11 communities.

12 (g) The California's Wildfire and Forest Resilience Action Plan  
13 outlines a strategy to increase the pace and scale of forest health  
14 projects, strengthen protection of communities, and manage forests,  
15 to achieve the state's economic and environmental goals and drive  
16 innovation and measure progress.

17 (h) The Extreme Heat Action Plan outlines a strategy to protect  
18 communities from rising temperatures in order to accelerate  
19 readiness and protection of communities most impacted by extreme  
20 heat, including through cooling schools and homes, supporting  
21 community resilience centers, and expanding nature-based  
22 solutions.

23 (i) California's strategy for achieving the first-in-the-nation  
24 30x30 conservation goal is described in the Pathways to 30x30:  
25 Accelerating Conservation of California's Nature report, which  
26 outlines a vision to conserve an additional 6,000,000 acres of lands  
27 and 500,000 acres of coastal waters needed to reach 30 percent.

28 (j) Executive Order No. N-82-20 outlines a strategy to expand  
29 nature-based solutions across California. The executive order calls  
30 for restoring nature and landscape health to deliver on our climate  
31 change goals and other critical priorities, including improving  
32 public health and safety, securing our food and water supplies, and  
33 achieving greater equity across California.

34 (k) Governor Gavin Newsom signed Senate Bill 1 of the  
35 2021–22 Regular Session (Chapter 236 of the Statutes of 2021)  
36 that directed the California Coastal Commission to take sea level  
37 rise into account in its planning, policies, and activities, and  
38 established a cross-government group tasked with educating the  
39 public and advising local, regional, and state government on  
40 feasible sea level rise mitigation efforts.

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1 SEC. 2. Division 50 (commencing with Section 90000) is added  
2 to the Public Resources Code, to read:

3  
4 DIVISION 50. DROUGHT, FLOOD, AND WATER  
5 RESILIENCE, WILDFIRE AND FOREST RESILIENCE,  
6 COASTAL RESILIENCE, EXTREME HEAT MITIGATION,  
7 BIODIVERSITY AND NATURE-BASED CLIMATE  
8 SOLUTIONS, CLIMATE SMART AGRICULTURE, PARK  
9 CREATION AND OUTDOOR ACCESS, AND CLEAN ENERGY  
10 BOND ACT OF 2024

11  
12 CHAPTER 1. GENERAL PROVISIONS

13  
14 90000. This division shall be known, and may be cited, as the  
15 Drought, Flood, and Water Resilience, Wildfire and Forest  
16 Resilience, Coastal Resilience, Extreme Heat Mitigation,  
17 Biodiversity and Nature-Based Climate Solutions, Climate Smart  
18 Agriculture, Park Creation and Outdoor Access, and Clean Energy  
19 Bond Act of 2024.

20 90100. For purposes of this division, the following definitions  
21 apply:

22 (a) “Disadvantaged community” means a community with a  
23 median household income of less than 80 percent of the area  
24 average.

25 (b) “Economically distressed areas” has the same meaning set  
26 forth in Section 79702 of the Water Code.

27 (c) “Severely disadvantaged community” means a community  
28 with a median household income of less than 60 percent of the  
29 area average.

30 (d) “Socially disadvantaged farmer or rancher” has the same  
31 meaning set forth in Section 512 of the Food and Agricultural  
32 Code.

33 (e) “Tribe” means a federally recognized Native American tribe  
34 or a nonfederally recognized Native American tribe listed on the  
35 California Tribal Consultation List maintained by the Native  
36 American Heritage Commission.

37 (f) “Vulnerable population” means a subgroup of population  
38 within a region or community that faces a disproportionately  
39 heightened risk or increased sensitivity to impacts of climate

1 change and that lacks adequate resources to cope with, adapt to,  
2 or recover from such impacts.

3 90500. (a) The proceeds of bonds issued and sold pursuant to  
4 this division, exclusive of refunding bonds issued and sold pursuant  
5 to Section 95012, shall be deposited in the Drought, Flood, and  
6 Water Resilience, Wildfire and Forest Resilience, Coastal  
7 Resilience, Extreme Heat Mitigation, Biodiversity and  
8 Nature-Based Climate Solutions, Climate Smart Agriculture, Park  
9 Creation and Outdoor Access, and Clean Energy Fund, which is  
10 hereby created in the State Treasury. Moneys in the fund shall be  
11 available, upon appropriation by the Legislature, for purposes of  
12 this division.

13 (b) Proceeds of bonds issued and sold pursuant to this division  
14 shall be allocated according to the following schedule:

15 (1) Five billion two hundred million dollars (\$5,200,000,000)  
16 for drought, flood, and water resilience programs, in accordance  
17 with Chapter 2 (commencing with Section 91000).

18 (2) Three billion dollars (\$3,000,000,000) for wildfire and forest  
19 resilience programs, in accordance with Chapter 3 (commencing  
20 with Section 91500).

21 (3) Two billion dollars (\$2,000,000,000) for coastal resilience  
22 programs, in accordance with Chapter 4 (commencing with Section  
23 92000).

24 (4) Five hundred million dollars (\$500,000,000) for extreme  
25 heat mitigation programs, in accordance with Chapter 5  
26 (commencing with Section 92500).

27 (5) Two billion dollars (\$2,000,000,000) for biodiversity  
28 protection and nature-based climate solution programs, in  
29 accordance with Chapter 6 (commencing with Section 93000).

30 (6) Three hundred million dollars (\$300,000,000) for climate  
31 smart agriculture programs, in accordance with Chapter 7  
32 (commencing with Section 93500).

33 (7) Five hundred million dollars (\$500,000,000) for park creation  
34 and outdoor access programs, in accordance with Chapter 8  
35 (commencing with Section 94000).

36 (8) Two billion dollars (\$2,000,000,000) for clean energy  
37 programs, in accordance with Chapter 9 (commencing with Section  
38 94500).



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1     90600. *An amount that equals not more than 5 percent of the*  
2 *funds allocated for a grant program pursuant to this division may*  
3 *be used to pay the administrative costs of that program.*

4  
5     CHAPTER 2. DROUGHT, ~~FLOOD~~ FLOOD, AND WATER RESILIENCE

6  
7     91000. The sum of five billion two hundred million dollars  
8 (\$5,200,000,000) shall be available, upon appropriation by the  
9 Legislature, for drought, flood, and water resilience programs.

10    91010. Of the funds made available by Section 91000, two  
11 billion two hundred fifty million dollars (\$2,250,000,000) shall  
12 be available, upon appropriation by the Legislature, to protect and  
13 increase California water supply and water quality.

14    91011. Of the funds made available by Section 91010, four  
15 hundred million dollars (\$400,000,000) shall be available, upon  
16 appropriation by the Legislature, to the State Water Resources  
17 Control Board for projects that improve water quality or help  
18 provide clean, safe, and reliable drinking water. Eligible projects  
19 include, but are not limited to, any of the following:

20    (a) Competitive grants for projects that help to provide clean,  
21 safe, and reliable drinking water to disadvantaged communities.

22    (b) Competitive grants for projects that increase water quality  
23 monitoring and remediation of perfluoroalkyl and polyfluoroalkyl  
24 substances.

25    (c) Innovative projects to increase the affordability of safe  
26 drinking water for severely disadvantaged communities.

27    (d) Projects that implement countywide drought and water  
28 shortage contingency plans adopted pursuant to Chapter 10  
29 (commencing with Section 10609.40) of Part 2.55 of Division 6  
30 of the Water Code.

31    (e) Competitive grants or loans for projects that prevent, reduce,  
32 or treat the contamination of groundwater that serves as a major  
33 source of drinking water for a community.

34    91012. (a) Of the funds made available by Section 91010, four  
35 hundred million dollars (\$400,000,000) shall be available, upon  
36 appropriation by the Legislature, to the Department of Water  
37 Resources for projects related to groundwater storage, banking,  
38 conjunctive use, recharge, or other groundwater projects that  
39 improve water resilience. Projects funded pursuant to this  
40 subdivision shall provide multiple benefits, such as improved water

1 quality and supply, improved flood water management, and  
2 provision of wildlife habitat.

3 (b) Of the funds made available by subdivision (a), two hundred  
4 million dollars (\$200,000,000) shall be available for projects that  
5 increase groundwater storage.

6 (c) Of the funds made available by subdivision (a), two hundred  
7 million dollars (\$200,000,000) shall be available for projects that  
8 support groundwater banking, conjunctive use, recharge, or other  
9 groundwater projects that improve water resilience.

10 91013. Of the funds made available by Section 91010, three  
11 hundred million dollars (\$300,000,000) shall be available, upon  
12 appropriation by the Legislature, to the Department of  
13 Conservation's Multibenefit Land Repurposing Program for  
14 groundwater sustainability projects that provide wildlife habitat,  
15 drought resilience, improve flood water management, and support  
16 implementation of the Sustainable Groundwater Management Act  
17 (Part 2.74 (commencing with Section 10720) of Division 6 of the  
18 Water Code).

19 91014. Of the funds made available by Section 91010, three  
20 hundred million dollars (\$300,000,000) shall be available, upon  
21 appropriation by the Legislature, to the State Water Resources  
22 Control Board for grants and projects related to water reuse and  
23 recycling.

24 91015. Of the funds made available by Section 91010, one  
25 hundred million dollars (\$100,000,000) shall be available, upon  
26 appropriation by the Legislature, to the Department of Water  
27 Resources for competitive grants for projects related to contaminant  
28 and salt removal projects, including, but not limited to, groundwater  
29 and associated treatment, storage, conveyance, and distribution  
30 facilities.

31 91016. Of the funds made available by Section 91010, three  
32 hundred million dollars (\$300,000,000) shall be available, upon  
33 appropriation by the Legislature, to the California Water  
34 Commission for projects under the Water Storage Investment  
35 Program.

36 91017. Of the funds made available by Section 91010, one  
37 hundred million dollars (\$100,000,000) shall be available, upon  
38 appropriation by the Legislature, to the Department of Water  
39 Resources for projects that increase water conservation in  
40 agricultural and urban areas.

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1 91018. Of the funds made available by Section 91010, one  
2 hundred million dollars (\$100,000,000) shall be available, upon  
3 appropriation by the Legislature, to the Department of Water  
4 Resources and the State Water Resources Control Board to improve  
5 water data management and to implement Section 144 of the Water  
6 Code to reactivate existing stream gages and deploy new gages.

7 91019. (a) Of the funds made available by Section 91010, two  
8 hundred fifty million dollars (\$250,000,000) shall be available,  
9 upon appropriation by the Legislature, to the Natural Resources  
10 Agency and the Department of Water Resources for competitive  
11 grants for regional conveyance projects or repairs to existing  
12 conveyances. Priority shall be given to projects that provide one  
13 or more of the following benefits:

14 (1) Improvements in regional or interregional water supply or  
15 water supply reliability.

16 (2) Increased ~~ground-water~~ *groundwater* recharge or mitigation  
17 of conditions of groundwater overdraft, salinity intrusion, water  
18 quality degradation, or subsidence.

19 (3) Adaptation to the impacts of hydrologic changes.

20 (4) Improvements in water security from drought, natural  
21 disasters, or other events that could interrupt water supplies.

22 (5) Providing safe drinking water for disadvantaged communities  
23 and economically distressed areas.

24 (b) Of the funds made available by subdivision (a), one hundred  
25 million dollars (\$100,000,000) shall be available to the Natural  
26 Resources Agency for implementation of the settlement agreement  
27 to restore the San Joaquin River referenced in Section 2080.2 of  
28 the Fish and Game Code and allocated as follows:

29 (1) Fifty million dollars (\$50,000,000) shall be available for  
30 restoration of capacity of the Friant-Kern Canal that was lost due  
31 to subsidence, consistent with the water management goal under  
32 the Stipulation of Settlement entered September 13, 2006, in  
33 Natural Resources Defense Council v. Rodgers. For the purposes  
34 of awarding funding under this paragraph, a cost share from  
35 nonstate sources of not less than 50 percent of the total costs of  
36 the project shall be required.

37 (2) Fifty million dollars (\$50,000,000) shall be available to  
38 implement the restoration goal of the Stipulation of Settlement  
39 entered September 13, 2006, in Natural Resources Defense Council  
40 v. Rodgers, including funding for restoration projects identified

1 in paragraph 11 of the Stipulation of Settlement, and funding to  
2 support the work of the Restoration Administrator and Technical  
3 Advisory Committee. The Restoration Administrator and Technical  
4 Advisory Committee shall use these funds in part to review and  
5 provide input regarding the implementation of projects identified  
6 in paragraph 11 of the Stipulation of Settlement.

7 91020. Of the funds made available by Section 91000, one  
8 billion six hundred fifty million dollars (\$1,650,000,000) shall be  
9 available, upon appropriation by the Legislature, to reduce flood  
10 risk and improve stormwater management.

11 91021. Of the funds made available by Section 91020, one  
12 billion dollars (\$1,000,000,000) shall be available, upon  
13 appropriation by the Legislature, to the Natural Resources Agency  
14 and its departments, boards, and conservancies for flood  
15 management projects. Priority shall be given to projects designed  
16 and implemented to achieve the objectives of both flood safety  
17 and ecosystem functions, while providing additional benefits. At  
18 least 40 percent of the allocation made pursuant to this section  
19 shall benefit disadvantaged communities or vulnerable populations.  
20 Eligible projects include, but are not limited to, the following:

21 (a) Projects that implement the Central Valley Flood Protection  
22 Plan. To the maximum extent feasible, projects shall provide  
23 ecosystem benefits and groundwater recharge. The Department of  
24 Water Resources shall adopt guidelines and incentives to encourage  
25 cost-effective groundwater recharge and ecosystem benefits as  
26 part of flood risk reduction and management.

27 (b) Projects that implement the Coastal Watershed Flood Risk  
28 Reduction Program.

29 (c) Projects in the Sacramento-San Joaquin Delta to increase  
30 flood protection and climate resiliency.

31 (d) Projects that implement the Flood Control Subventions  
32 Program.

33 (e) Projects related to the systemwide evaluation, repair,  
34 rehabilitation, reconstruction, expansion, or replacement of levees,  
35 weirs, bypasses, and facilities of the State Plan of Flood Control.

36 91022. Of the funds made available by Section 91020, four  
37 hundred million dollars (\$400,000,000) shall be available, upon  
38 appropriation by the Legislature, to the Department of Water  
39 Resources for competitive grants for projects that enhance dam  
40 safety and reservoir operations and protect public benefits. Eligible

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1 projects include, but are not limited to, dam safety projects at high  
2 hazard dams in poor condition, new spillways and repairs at  
3 existing dams to facilitate implementation of Forecast-Informed  
4 Reservoir Operations, and reservoir seismic retrofit projects. A  
5 grant cost share of at least 50 percent shall be required for projects  
6 funded pursuant to this section.

7 91023. Of the funds *made* available by Section 91020, two  
8 hundred fifty million dollars (\$250,000,000) shall be available,  
9 upon appropriation by the Legislature, to the State Water Resources  
10 Control Board for grants for multibenefit storm water management  
11 projects. Preference shall be given to multibenefit and natural  
12 infrastructure projects.

13 91030. Of the funds made available by Section 91000, one  
14 billion dollars (\$1,000,000,000) shall be available, upon  
15 appropriation by the Legislature, to improve watershed resilience  
16 and to protect and restore rivers, lakes, and streams.

17 91031. (a) Of the funds made available by Section 91030,  
18 three hundred million dollars (\$300,000,000) shall be available,  
19 upon appropriation by the Legislature, to the Department of Water  
20 Resources for grants and direct expenditures related to integrated  
21 regional water management to improve climate resilience on a  
22 watershed basis.

23 (b) The Department of Water Resources shall develop standards  
24 and provide technical and financial support for the development  
25 of watershed climate risk assessments that do all of the following:

26 (1) Identify watershed scale climate resilience targets related  
27 to water supply, water quality, habitat protection and enhancement,  
28 flood protection, and other climate resilience targets appropriate  
29 for the watershed.

30 (2) Provide investment and implementation plans for projects  
31 to achieve the targets in the most cost-effective manner.

32 (3) Include uniform analytic standards to facilitate project  
33 selection and performance evaluation.

34 (4) Provide for the deployment of appropriate instrumentation,  
35 measurement, and monitoring to allow for evaluation of project  
36 effectiveness in achieving progress toward resilience targets.

37 (5) Include consideration of equity and environmental justice  
38 needs.

39 (6) Include requirements for adaptive management and  
40 refinement in project selection and implementation.

1 (7) Build on and coordinate with existing integrated regional  
2 water management plans.

3 (c) The Department of Water Resources may select pilot  
4 watersheds to test methods to improve watershed climate resilience  
5 and guide the implementation of this section including, but not  
6 limited to, both of the following:

7 (1) Development of standard models and analytic approaches  
8 that improve climate risk assessment, and project selection and  
9 evaluation.

10 (2) Methods to reduce the cost of achieving climate resilience  
11 targets and outcomes.

12 (d) (1) The Department of Water Resources shall make grants  
13 to public agencies for the implementation of projects identified in  
14 watershed climate risk assessments based on both of the following:

15 (A) The severity of the identified climate risk.

16 (B) The potential to reduce that risk in the most cost-effective  
17 manner.

18 (2) The Department of Water Resources shall consider the extent  
19 the project achieves multiple benefits, addresses equity issues, and  
20 provides a model for other watersheds.

21 (3) Existing plans that provide equivalent climate risk  
22 assessment may be used as the basis to fund grants that improve  
23 regional climate resilience, including conjunctive use projects,  
24 groundwater recharge projects, and other projects that provide  
25 increased water supply flexibility or other resilience benefits.

26 (e) The Department of Water Resources shall develop guidelines  
27 to improve governance of integrated regional water management  
28 plans and for program implementation of watershed climate  
29 resilience that facilitate multiple benefit projects, allow program  
30 funds to be used as matching funds for other funding sources, and  
31 ~~requires~~ *require* detailed reporting on project outcomes and  
32 progress toward achieving climate risk targets.

33 91032. (a) Of the funds made available by Section 91030, six  
34 hundred million dollars (\$600,000,000) shall be available, upon  
35 appropriation by the Legislature, for projects that protect and  
36 restore rivers, streams, lakes, and watersheds. Projects shall  
37 improve climate resilience, water supplies, or water quality. To  
38 the extent feasible, preference shall be given to natural  
39 infrastructure projects. At least 40 percent of the allocation made  
40 pursuant to this section shall benefit disadvantaged communities



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1 or vulnerable populations. The funds made available pursuant to  
2 this section shall be allocated to any of the following:

3 (1) Projects that protect and restore rivers, streams, and lakes  
4 to improve fish and wildlife habitat.

5 (2) Multibenefit watershed protection or restoration projects  
6 that improve climate resilience within the Los Angeles River  
7 Watershed and the San Gabriel River Watershed that are  
8 implemented pursuant to Section 79508 of the Water Code.

9 (3) Multibenefit urban stream and river parkway projects under  
10 the Urban Streams Restoration Program established pursuant to  
11 Section 7048 of the Water Code that protect and restore riparian  
12 habitats, improve climate resilience, enhance natural drainages,  
13 protect and restore watersheds, and provide public access.

14 (4) Projects that are included in the Lake Tahoe Environmental  
15 Improvement Program.

16 (b) Of the funds made available by subdivision (a), seventy-five  
17 million dollars (\$75,000,000) shall be available pursuant to  
18 Division 22.8 (commencing with Section 32600) for projects that  
19 improve the climate resiliency or the protection of the Los Angeles  
20 River Watershed or are consistent with the Lower Los Angeles  
21 River Revitalization Plan.

22 (c) (1) Of the funds made available by subdivision (a),  
23 seventy-five million dollars (\$75,000,000) shall be available  
24 pursuant to Division 23 (commencing with Section 33000) for  
25 projects that improve the climate resiliency or the protection of  
26 the Los Angeles River Watershed and are a part of the revitalization  
27 plan developed by the Upper Los Angeles River and Tributaries  
28 Working Group pursuant to Section 33220 or the Los Angeles  
29 River Master Plan.

30 (2) Of the funds made available by paragraph (1), forty million  
31 dollars (\$40,000,000) shall be allocated for projects that include,  
32 but are not limited to, projects that protect or enhance the Los  
33 Angeles River, parkway projects that include connectivity to parks  
34 and open space in neighboring communities within the San  
35 Fernando Valley, including Aliso Creek, and the Tujunga Wash,  
36 and projects along the Arroyo Seco waterway.

37 (d) Of the funds made available by subdivision (a), fifty million  
38 dollars (\$50,000,000) shall be available for projects that improve  
39 the climate resiliency or for the protection of the San Mateo Creek  
40 Watershed in the San Francisco Bay Area.



1 91033. Of the funds made available by Section 91030, one  
2 hundred million dollars (\$100,000,000) shall be available, upon  
3 appropriation by the Legislature, to implement the Salton Sea  
4 Management Program 10-year Plan to provide air quality, public  
5 health, and habitat benefits.

6 91040. Of the funds made available by Section 91000, three  
7 hundred million dollars (\$300,000,000) shall be available, upon  
8 appropriation by the Legislature, to the Wildlife Conservation  
9 Board for projects pursuant to the guidelines of the Stream Flow  
10 Enhancement Program, including the acquisition of water or water  
11 rights, acquisition of land that includes water rights or contractual  
12 rights to water, and short- or long-term water transfers and leases.

13 91050. Projects funded pursuant to this chapter shall be  
14 consistent with the policies and guidelines established by the Water  
15 Resilience Portfolio, California's Water Supply Strategy, the  
16 Central Valley Flood Protection Plan, and the Sustainable  
17 Groundwater Management Act (Part 2.74 (commencing with  
18 Section 10720) of Division 6 of the Water Code), if applicable.

19  
20 CHAPTER 3. WILDFIRE AND FOREST RESILIENCE  
21

22 91500. The sum of three billion dollars (\$3,000,000,000) shall  
23 be available, upon appropriation by the Legislature, for wildfire  
24 prevention, including reducing community wildfire risk and  
25 restoring the health and resilience of forests.

26 91510. (a) Of the funds made available by Section 91500, two  
27 hundred seventy-five million dollars (\$275,000,000) shall be  
28 available, upon appropriation by the Legislature, to the Office of  
29 Emergency Services for a prehazard mitigation grant program.  
30 The Office of Emergency Services shall coordinate with the  
31 Department of Forestry and Fire Protection in administering these  
32 moneys. The grant program shall assist local and state agencies to  
33 leverage additional funds, including matching grants from federal  
34 agencies. Funds may be used to provide loans, rebates, direct  
35 assistance, and matching funds for projects that prevent wildfires,  
36 increase resilience, reduce the risk of wildfires to communities, or  
37 increase community hardening. Eligible projects include, but are  
38 not limited to, any of the following:

39 (1) Grants to local agencies, state agencies, joint powers  
40 authorities, and tribes for projects that reduce wildfire risks to

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1 people and property consistent with an approved community  
2 wildfire protection plan.

3 (2) Grants to local agencies, state agencies, joint powers  
4 authorities, tribes, resource conservation districts, fire safe councils,  
5 and nonprofit organizations for structure hardening of critical  
6 community infrastructure, evacuation centers, structure hardening  
7 projects that reduce the risk of wildfire for entire neighborhoods  
8 and communities, water delivery system improvements for fire  
9 suppression purposes for communities in high fire hazard severity  
10 zones or very high fire hazard severity zones, as designated by the  
11 Director of Forestry and Fire Protection pursuant to Article 9  
12 (commencing with Section 4201) of Chapter 1 of Part 2 of Division  
13 4 or by a local agency pursuant to Chapter 6.8 (commencing with  
14 Section 51175) of Part 1 of Division 1 of Title 5 of the Government  
15 Code, wildfire buffers, and incentives to remove structures that  
16 significantly increase hazard risk.

17 (3) Grants, in coordination with the Public Utilities Commission,  
18 to local agencies, state agencies, special districts, joint powers  
19 authorities, tribes, and nonprofit organizations for zero-emission  
20 backup power, energy storage, and microgrids for critical  
21 community infrastructure in order to provide continuity of electrical  
22 service, reduced wildfire ignitions, and to safeguard communities  
23 from disruption due to public safety power shutoffs, wildfire, or  
24 air pollution caused by wildfire, extreme heat, or other disaster.

25 (b) The Office of Emergency Services and the Department of  
26 Forestry and Fire Protection shall prioritize prehazard mitigation  
27 grant funding applications from local agencies based on the Fire  
28 Risk Reduction Community list, upon development of that list,  
29 pursuant to Section 4290.1.

30 (c) The Office of Emergency Services and the Department of  
31 Forestry and Fire Protection shall provide technical assistance to  
32 disadvantaged communities, severely disadvantaged communities,  
33 or vulnerable populations, including those with access and  
34 functional needs, socially disadvantaged farmers or ranchers, and  
35 economically distressed areas to ensure the grant program reduces  
36 the vulnerability of those most in need.

37 91520. Of the funds made available by Section 91500, two  
38 billion five hundred million dollars (\$2,500,000,000) shall be  
39 available, upon appropriation by the Legislature, to the Natural  
40 Resources Agency and to its departments, boards, and

1 conservancies for projects and grants to improve local fire  
2 prevention capacity, improve forest health and resilience, and  
3 reduce the risk of wildfire spreading into populated areas from  
4 wildlands. Where appropriate, projects may include activities on  
5 lands owned by the United States. The funding made available by  
6 this section shall be allocated as follows:

7 (a) Three hundred million dollars (\$300,000,000) shall be  
8 available to the Department of Conservation's Regional Forest  
9 and Fire Capacity Program to increase regional capacity to  
10 prioritize, develop, and implement projects that improve forest  
11 health and fire resilience, implement community fire preparedness  
12 demonstration projects, facilitate greenhouse gas emissions  
13 reductions, and increase carbon sequestration in forests and other  
14 landscapes across regions and throughout the state. The funding  
15 shall be allocated based, to the extent feasible, on the Wildfire and  
16 Forest Resilience Action Plan.

17 (b) Five hundred million dollars (\$500,000,000) shall be  
18 available to implement regional strategies, including, but not  
19 limited to, strategies developed by forest collaboratives as defined  
20 in Section 4810 or regional entities as defined in Section 4208  
21 through block grants and direct appropriations by the Legislature.

22 (c) Three hundred million dollars (\$300,000,000) shall be  
23 available to the Department of Forestry and Fire Protection for  
24 long-term forest health projects, including improved forest  
25 management, prescribed fire, cultural fire, forest watershed  
26 restoration, and activities that promote long-term carbon storage  
27 and sequestration.

28 (d) Five hundred million dollars (\$500,000,000) shall be  
29 available to the Department of Forestry and Fire Protection for  
30 local fire prevention grants consistent with Article 2.5  
31 (commencing with Section 4124) of Chapter 1 of Part 2 of Division  
32 4 and for grants to conduct workforce development for fire  
33 prevention and wildfire resiliency work.

34 (e) Twenty-five million dollars (\$25,000,000) shall be available  
35 to the Department of Forestry and Fire Protection for the creation  
36 of a prescribed fire training center consistent with the proposal  
37 developed pursuant to Section 4477.

38 (f) Five hundred million dollars (\$500,000,000) shall be  
39 available for watershed improvement projects in forests and other  
40 habitats, including, but not limited to, redwoods, conifers, oak

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1 woodlands, mountain meadows, chaparral, and coastal forests.  
2 Projects shall involve the restoration of natural ecosystem functions  
3 in very high and high fire hazard areas and provide multiple  
4 benefits, including, but not limited to, prescribed fire, cultural fire,  
5 habitat protection, fuel reduction, watershed protection, carbon  
6 sequestration, protection of older fire-resistant trees, or improved  
7 forest health. The Natural Resources Agency shall give preference  
8 to projects that include matching funds or in-kind work, as  
9 determined appropriate, from beneficiaries of the watershed that  
10 may include, but are not limited to, water districts, public utilities,  
11 local agencies, or private users. The Natural Resources Agency  
12 shall ensure long-term benefits for projects funded pursuant to this  
13 subdivision, including through an ongoing commitment to future  
14 maintenance and a commitment to long-term forest resilience that  
15 reduces fire risk.

16 (g) One hundred million dollars (\$100,000,000) shall be  
17 available to conduct fuel reduction, structure hardening, create  
18 defensible space, reforestation, and targeted acquisitions to improve  
19 forest health and fire resilience on state-owned lands.

20 (h) Seventy-five million dollars (\$75,000,000) shall be available  
21 to the Sierra Nevada Conservancy for watershed improvement,  
22 forest health, biomass utilization, and forest restoration workforce  
23 development. At least 50 percent of the funds made available by  
24 this subdivision shall be available to the Sierra Nevada Watershed  
25 Improvement Program created by Section 33345.1.

26 (i) Fifty million dollars (\$50,000,000) shall be available to the  
27 California Tahoe Conservancy for watershed improvement, forest  
28 health, biomass utilization, and forest restoration workforce  
29 development.

30 (j) Seventy-five million dollars (\$75,000,000) shall be available  
31 to the Santa Monica Mountains Conservancy for watershed  
32 improvement, fire resilience, chaparral and forest restoration, and  
33 restoration workforce development.

34 (k) Seventy-five million dollars (\$75,000,000) shall be available  
35 to the State Coastal Conservancy for watershed improvement, fire  
36 resilience, forest health, and restoration workforce development.

37 91530. Of the funds made available by Section 91500, one  
38 hundred fifty million dollars (\$150,000,000) shall be available,  
39 upon appropriation by the Legislature, to the State Air Resources  
40 Board, in consultation with the Natural Resources Agency and the

1 Department of Forestry and Fire Protection, to incentivize new  
2 projects in California that provide long-term capital infrastructure  
3 to convert forest and other vegetative waste removed for wildfire  
4 mitigation to uses that maximize reductions in greenhouse gas  
5 emissions, provide local air quality benefits, and increase local  
6 community resilience against climate change impacts.

7 91540. Of the funds made available by Section 91500,  
8 seventy-five million dollars (\$75,000,000) shall be available, upon  
9 appropriation by the Legislature, to the Department of Forestry  
10 and Fire Protection to enhance California's fire prevention, fuel  
11 management, and fire response, as follows:

12 (a) Ten million dollars (\$10,000,000) shall be available to  
13 improve water quality at the Department of Forestry and Fire  
14 Protection facilities to enhance safe human use and consumption.

15 (b) Twenty million dollars (\$20,000,000) shall be available to  
16 upgrade existing infrastructure and for new Department of Forestry  
17 and Fire Protection facilities for suppression and fuel reduction  
18 crews.

19 (c) Twenty million dollars (\$20,000,000) shall be available for  
20 the purchase of Type 3 engines and related equipment to be used  
21 for fire suppression and fuel reduction.

22 (d) Five million dollars (\$5,000,000) shall be available to  
23 enhance the Department of Forestry and Fire Protection's  
24 communications centers and mobile communications, including  
25 the capacity to provide culturally relevant and multilingual  
26 communication services.

27 (e) Twenty million dollars (\$20,000,000) shall be available to  
28 the Department of Forestry and Fire Protection for grants to assist  
29 local agencies with equipment for wildland firefighting, fire  
30 prevention, and fuel management.

31 91550. Projects funded pursuant to this chapter shall be  
32 consistent with the policies and guidelines established by the  
33 California Wildfire and Forest Resilience Action Plan, and by the  
34 Natural Resources Agency and the Department of Forestry and  
35 Fire Protection, if applicable.

#### 36 CHAPTER 4. COASTAL RESILIENCE

37  
38  
39 92000. The sum of two billion dollars (\$2,000,000,000) shall  
40 be available, upon appropriation by the Legislature, to increase

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1 coastal and ocean resiliency and to protect coastal lands, waters,  
2 communities, natural resources, and urban waterfronts from climate  
3 impacts. Eligible projects include, but are not limited to, projects  
4 to restore coastal wetlands and projects to address sea level rise.

5 92010. Of the funds made available by Section 92000, five  
6 hundred million dollars (\$500,000,000) shall be available, upon  
7 appropriation by the Legislature, for projects identified by the State  
8 Coastal Conservancy for coastal resilience projects and programs  
9 identified in the 2023–2027 Strategic Plan. The funds made  
10 available pursuant to this section may be allocated to any of the  
11 following:

12 (a) Grants through the Climate Ready Program pursuant to  
13 Section 31113.

14 (b) Projects to protect coastal lands and restore habitats,  
15 including subtidal habitats, wetlands, riparian areas, redwood  
16 forests, oak woodlands, and other important wildlife habitats,  
17 including projects to protect and restore healthy sea otter  
18 populations.

19 (c) Natural infrastructure projects that use existing natural areas  
20 to minimize coastal flooding, erosion, and runoff.

21 (d) Projects to restore coastal land for public uses on surplus  
22 land for formerly fossil-fueled powerplants.

23 (e) Projects that are consistent with the San Francisco Bay  
24 Restoration Authority Act (Title 7.25 (commencing with Section  
25 66700) of the Government Code), including, but not limited to,  
26 projects that address sea level rise, flood management, and wetland  
27 restoration.

28 (f) Projects for purposes of the San Francisco Bay Area  
29 Conservancy Program established pursuant to Chapter 4.5  
30 (commencing with Section 31160) of Division 21.

31 (g) Lower cost coastal accommodation grants consistent with  
32 the Lower Cost Coastal Accommodations Program established  
33 pursuant to Section 31412.

34 92015. Of the funds made available by Section 92000, five  
35 hundred million dollars (\$500,000,000) shall be available, upon  
36 appropriation by the Legislature, to the State Coastal Conservancy  
37 for the purpose of coastal and combined flood management projects  
38 and activities for developed shoreline areas, including areas with  
39 critical infrastructure, including transportation and port  
40 infrastructure at risk of current flooding and flooding due to sea



1 level rise. Funds shall be allocated to multibenefit projects that  
2 improve public safety, including shoreline resilience projects  
3 designed to address flooding, sea level rise, and shoreline stability  
4 that include engineering with nature or nature-based features. These  
5 funds shall be available to local agencies as matching funds for  
6 federally funded coastal flood risk management and flood risk  
7 management projects.

8 92020. Of the funds made available by Section 92000, three  
9 hundred twenty-five million dollars (\$325,000,000) shall be  
10 available, upon appropriation by the Legislature, for deposit into  
11 the California Ocean Protection Trust Fund for grants to increase  
12 resilience from the impacts of climate change. Preference shall be  
13 given to projects that conserve, protect, and restore marine wildlife  
14 and healthy ocean and coastal ecosystems, including, but not  
15 limited to, estuarine habitat, kelp forests, eelgrass meadows, native  
16 oyster beds, or that maintain the state's system of marine protected  
17 areas, and support sustainable fisheries. Funding may be used to  
18 purchase and install ocean current mapping infrastructure and new  
19 maritime research infrastructure to reduce emissions.

20 92030. Of the funds made available by Section 92000, two  
21 hundred fifty million dollars (\$250,000,000) shall be available,  
22 upon appropriation by the Legislature, to implement the California  
23 Sea Level Rise Mitigation and Adaptation Act of 2021 (Division  
24 20.6.5 (commencing with Section 30970)).

25 92040. Of the funds made available by Section 92000, two  
26 hundred fifty million dollars (\$250,000,000) shall be available,  
27 upon appropriation by the Legislature, to the Department of Parks  
28 and Recreation to implement the Sea Level Rise Adaptation  
29 Strategy to address the impacts of sea level rise in coastal state  
30 parks, support continued access and recreational opportunities,  
31 and protect coastal natural and cultural resources.

32 92050. Of the funds made available by Section 92000,  
33 twenty-five million dollars (\$25,000,000) shall be available, upon  
34 appropriation by the Legislature, for projects identified by the  
35 Natural Resource Agency and the Invasive Species Council of  
36 California to implement projects to protect and restore island  
37 ecosystems by mitigating the threat of island invasive species and  
38 advancing biosecurity initiatives.

39 92060. Of the funds made available by Section 92000,  
40 twenty-five million dollars (\$25,000,000) shall be available, upon



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1 appropriation by the Legislature, for projects identified by the  
2 Department of Fish and Wildlife to advance climate-ready fisheries  
3 management by expanding opportunities for experimentation and  
4 adaptive cooperative management, modernizing electronic fisheries  
5 data management systems, and increasing the use of electronic  
6 technologies to facilitate more nimble decisionmaking and timely  
7 management responses under changing ocean conditions.

8 92070. Of the funds made available by Section 92000,  
9 twenty-five million dollars (\$25,000,000) shall be available, upon  
10 appropriation by the Legislature, for projects identified by the  
11 Department of Fish and Wildlife to support the restoration and  
12 management of kelp ecosystems. Funds shall be used to support  
13 ongoing research, restoration, and monitoring activities of kelp  
14 ecosystems and for the implementation of an adaptive kelp  
15 management plan.

16 92080. Of the funds made available by Section 92000, one  
17 hundred million dollars (\$100,000,000) shall be allocated, upon  
18 appropriation by the Legislature, to the State Coastal Conservancy  
19 for grants to remove or upgrade outdated or obsolete dams and  
20 water infrastructure. Projects may also install infrastructure to  
21 increase climate resilience, enhance sediment supply, improve  
22 wildlife and fish passage, and modernize water infrastructure,  
23 including related planning, permitting, habitat restoration, and  
24 recreational improvements. Funds for planning, monitoring, and  
25 implementation of projects pursuant to this section may exceed  
26 10 percent of the funds allocated if the State Coastal Conservancy  
27 determines there is a need for the additional funding.

28 92090. Projects funded pursuant to this chapter shall be  
29 consistent with the policies and guidelines established by the  
30 California Coastal Commission, the Ocean Protection Council,  
31 the State Lands Commission, the San Francisco Bay Conservation  
32 and Development Commission, and the State Coastal Conservancy,  
33 if applicable.

34  
35 CHAPTER 5. EXTREME HEAT MITIGATION  
36

37 92500. The sum of five hundred million dollars (\$500,000,000)  
38 shall be available, upon appropriation by the Legislature, to address  
39 extreme heat in communities.

1 92510. Of the funds made available by Section 92500, one  
2 hundred million dollars (\$100,000,000) shall be available, upon  
3 appropriation by the Legislature, to the Office of Planning and  
4 Research's Extreme Heat and Community Resilience Program to  
5 fund projects to reduce the urban heat island effect and other  
6 extreme heat impacts from climate change. Projects shall benefit  
7 disadvantaged communities and vulnerable populations.

8 92520. Of the funds made available by Section 92500, one  
9 hundred fifty million dollars (\$150,000,000) shall be available,  
10 upon appropriation by the Legislature, to the Natural Resources  
11 Agency to provide funds to state agencies identified in the extreme  
12 heat action plan, and any subsequent updates, in order to implement  
13 the plan and mitigate the impacts of extreme heat.

14 92530. Of the funds made available by Section 92500, fifty  
15 million dollars (\$50,000,000) shall be available, upon appropriation  
16 by the Legislature, to the Office of Planning and Research's  
17 Adaptation Planning Grant Program for regional climate resilience  
18 planning and demonstration projects.

19 92540. Of the funds made available by Section 92500, fifty  
20 million dollars (\$50,000,000) shall be available, upon appropriation  
21 by the Legislature, to the Strategic Growth Council's Community  
22 Resilience Centers Program for the construction or retrofit of  
23 facilities to serve as community resilience centers that mitigate  
24 the public health impacts of extreme heat and other emergency  
25 situations exacerbated by climate change. Projects shall benefit  
26 disadvantaged communities and vulnerable populations.

27 92550. Of the funds made available by Section 92500, one  
28 hundred million dollars (\$100,000,000) shall be available, upon  
29 appropriation by the Legislature, to the Natural Resources Agency  
30 for competitive grants for urban greening. Projects shall benefit  
31 disadvantaged communities and vulnerable populations. These  
32 funds shall support projects that mitigate the urban heat island  
33 effect, rising temperatures, and extreme heat impacts. Eligible  
34 projects may include, but are not limited to, investments that  
35 support an expanded urban greening program that supports the  
36 creation of green recreational parks in park-poor communities.

37 92560. Of the funds made available by Section 92500, fifty  
38 million dollars (\$50,000,000) shall be available, upon appropriation  
39 by the Legislature, to the Department of Forestry and Fire  
40 Protection to protect or augment California's urban forests pursuant

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1 to Section 4799.12. Projects shall contribute to mitigating the urban  
2 heat island effect and extreme heat impacts. Projects shall benefit  
3 disadvantaged communities and vulnerable populations.

4 92570. (a) At least 10 percent of the funds available pursuant  
5 to this chapter shall be allocated for grants that provide outreach  
6 and technical assistance that directly benefit disadvantaged  
7 communities and vulnerable populations. An eligible applicant is  
8 a nonprofit organization, technical assistance provider, or tribe.

9 (b) Projects funded pursuant to this chapter shall be consistent  
10 with the policies and guidelines established by the Protecting  
11 Californians From Extreme Heat: A State Action Plan to Build  
12 Community Resilience, and the Office of Planning and Research's  
13 Extreme Heat and Community Resilience Program, if applicable.

14  
15 CHAPTER 6. PROTECT BIODIVERSITY AND ACCELERATING  
16 NATURE-BASED CLIMATE SOLUTIONS  
17

18 93000. The sum of two billion dollars (\$2,000,000,000) shall  
19 be available, upon appropriation by the Legislature, for the  
20 protection of California's biodiversity and to protect nature and  
21 restore landscape health to achieve California's climate change  
22 goals.

23 93010. Of the funds made available by Section 93000, one  
24 billion dollars (\$1,000,000,000) shall be available, upon  
25 appropriation by the Legislature, to the Wildlife Conservation  
26 Board for existing grant programs to protect and enhance fish and  
27 wildlife habitat and achieve the state's biodiversity and  
28 conservation goals. Eligible programs include, but are not limited  
29 to, any of the following:

- 30 (a) Land acquisition.  
31 (b) Habitat enhancement and restoration.  
32 (c) Rangeland, grazing land, and grassland protection.  
33 (d) Inland wetland conservation.  
34 (e) Ecosystem restoration on agricultural lands.  
35 (f) Climate adaptation and resiliency.  
36 (g) Monarch butterfly and pollinator rescue.  
37 (h) Purposes of reimbursing the General Fund, pursuant to the  
38 Natural Heritage Preservation Tax Credit Act of 2000 (Division  
39 28 (commencing with Section 37000)).

1 93020. Of the funds made available by Section 93000, five  
2 hundred million dollars (\$500,000,000) shall be available, upon  
3 appropriation by the Legislature, to reduce the risks of climate  
4 change impacts upon communities, fish and wildlife, and natural  
5 resources allocated in accordance with the following schedule:

6 (a) Baldwin Hills Conservancy, fifty million dollars  
7 (\$50,000,000).

8 (b) California Tahoe Conservancy, fifty million dollars  
9 (\$50,000,000).

10 (c) Coachella Valley Mountains Conservancy, twenty-five  
11 million dollars (\$25,000,000).

12 (d) Sacramento-San Joaquin Delta Conservancy, fifty million  
13 dollars (\$50,000,000).

14 (e) San Diego River Conservancy, seventy-five million dollars  
15 (\$75,000,000).

16 (f) San Gabriel and Lower Los Angeles Rivers and Mountains  
17 Conservancy, seventy-five million dollars (\$75,000,000).

18 (g) San Joaquin River Conservancy, twenty-five million dollars  
19 (\$25,000,000).

20 (h) Santa Monica Mountains Conservancy, seventy-five million  
21 dollars (\$75,000,000).

22 (i) Sierra Nevada Conservancy, seventy-five million dollars  
23 (\$75,000,000).

24 93030. (a) Of the funds made available by Section 93000, four  
25 hundred million dollars (\$400,000,000) shall be available, upon  
26 appropriation by the Legislature, to the Natural Resources Agency  
27 and its departments, boards, and conservancies to protect and  
28 restore biodiversity, expand access to nature, and mitigate and  
29 build resilience to climate change using nature-based solutions,  
30 whenever possible. Eligible projects shall contribute to the goals  
31 established in the Pathways to 30x30 document, and biodiversity  
32 strategies established pursuant to Executive Order No. N-82-20.  
33 Eligible projects include any of the following:

34 (1) Projects to accelerate regionally led conservation.

35 (2) Strategic land acquisitions and voluntary conservation  
36 easements.

37 (3) Projects to enhance or restore the fish and wildlife habitat  
38 on public lands and coastal waters.

39 (4) Tribal nature-based solutions.

40 (5) Floodplain and wetland restoration.

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1 (6) Projects to improve forest and chaparral habitat.

2 (7) Reintroduction of migratory salmon to historic habitats and  
3 climate refugia.

4 (b) Of the funds made available by subdivision (a), two hundred  
5 million dollars (\$200,000,000) shall be available for projects to  
6 improve habitat connectivity.

7 (c) At least 10 percent of the funds made available by this  
8 section shall be available to provide grants for the purchase of  
9 facilities, equipment, and software and for projects and technical  
10 assistance by scientific academic institutions and nonprofits to  
11 better map, catalog, and understand the biodiversity in strategic  
12 areas of the state to further the purposes of this chapter.

13 93040. Of the funds made available by Section 93000, fifty  
14 million dollars (\$50,000,000) shall be available, upon appropriation  
15 by the Legislature, to the Department of Fish and Wildlife for  
16 nature-based solutions that improve the climate resilience of fish  
17 and wildlife habitat and improve fish and wildlife passage.

18 93050. Of the funds made available by Section 93000, fifty  
19 million dollars (\$50,000,000) shall be available, upon appropriation  
20 by the Legislature, to the Department of Fish and Wildlife to  
21 accredited California zoos and aquariums to advance conservation  
22 of California's species biodiversity to help ensure the viability and  
23 recovery of California's endangered and declining species,  
24 including, but not limited to, wildlife health monitoring and  
25 biodiversity reserve management.

26 93060. Projects funded pursuant to this chapter shall be  
27 consistent with the policies and guidelines established by the  
28 Wildlife Conservation Board, the Pathways to 30x30 document,  
29 the Natural and Working Lands Climate Smart Strategy,  
30 California's 2022 Scoping Plan for Achieving Carbon Neutrality,  
31 and the California Climate Adaptation Strategy, if applicable.

32  
33 CHAPTER 7. CLIMATE SMART AGRICULTURE FOR  
34 SUSTAINABILITY AND RESILIENCY  
35

36 93500. The sum of three hundred million dollars  
37 (\$300,000,000) shall be available, upon appropriation by the  
38 Legislature, for improving climate resilience of agricultural lands.

39 93510. Of the funds made available by Section 93500, one  
40 hundred fifty million dollars (\$150,000,000) shall be available,

1 upon appropriation by the Legislature, to the Department of Food  
2 and Agriculture's Office of Environmental Farming and Innovation  
3 for improvements in climate resilience of agricultural lands and  
4 ecosystem health and allocated to eligible projects as follows:

5 (a) (1) Fifty million dollars (\$50,000,000) shall be available to  
6 the healthy soils grant program to promote practices on farms and  
7 ranches that improve soil health, accelerate atmospheric carbon  
8 removal or soil carbon sequestration, enhance groundwater  
9 recharge, and improve habitat.

10 (2) At least 40 percent of the funds allocated pursuant to this  
11 subdivision shall be allocated to projects that provide direct and  
12 meaningful benefits to socially disadvantaged farmers and ranchers.

13 (b) (1) Twenty-five million dollars (\$25,000,000) shall be  
14 available for the State Water Efficiency and Enhancement Program  
15 to promote onfarm water use efficiency and reduce emissions of  
16 greenhouse gases.

17 (2) At least 40 percent of the funds allocated pursuant to this  
18 subdivision shall be allocated to projects that provide direct and  
19 meaningful benefits to socially disadvantaged farmers and ranchers.

20 (c) Twenty-five million dollars (\$25,000,000) shall be available  
21 to the pollinator habitat program.

22 (d) Fifty million dollars (\$50,000,000) shall be available to  
23 establish the Environmental Farming Incentive Program to address  
24 natural resource concerns on agricultural lands. Eligible projects  
25 include, but are not limited to, improved water and air quality,  
26 conserved groundwater and surface water, improved or created  
27 wildlife habitat, wildlife-friendly farming and ranching practices,  
28 drought and climate resilience, and other conservation practices.

29 93520. Of the funds made available by Section 93500,  
30 twenty-five million dollars (\$25,000,000) shall, upon appropriation  
31 by the Legislature, be deposited in the Invasive Species Account  
32 established pursuant to Section 7706 of the Food and Agricultural  
33 Code for purposes of funding invasive species projects and  
34 activities recommended by the Invasive Species Council of  
35 California. Preference shall be given to projects that restore and  
36 protect biodiversity and ecosystem health.

37 93530. Of the funds made available by Section 93500, one  
38 hundred twenty-five million dollars (\$125,000,000) shall be  
39 available, upon appropriation by the Legislature, to the Department  
40 of Conservation for projects for the protection, restoration, and

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1 enhancement of farmland and rangeland, including, but not limited  
2 to, the acquisition of fee title or easements on agricultural lands,  
3 and onfarm improvements that provide any of the following  
4 benefits:

- 5 (a) Climate resilience.
- 6 (b) Soil health.
- 7 (c) Atmospheric carbon removal.
- 8 (d) Soil carbon sequestration.
- 9 (e) Erosion control.
- 10 (f) Floodwater management.
- 11 (g) Watershed restoration.
- 12 (h) Habitat conservation.
- 13 (i) Water quality.
- 14 (j) Water retention.

15 93540. Projects funded pursuant to this chapter shall be  
16 consistent with the policies and guidelines established by the  
17 Department of Food and Agriculture and the Natural and Working  
18 Lands Climate Smart Strategy, if applicable.

19  
20 CHAPTER 8. PARK CREATION AND OUTDOOR ACCESS

21  
22 94000. The sum of five hundred million dollars (\$500,000,000)  
23 shall be available, upon appropriation by the Legislature, for the  
24 creation and protection of parks, outdoor access, and educational  
25 institutions.

26 94010. Of the funds made available by Section 94000, four  
27 hundred million dollars (\$400,000,000) shall be available, upon  
28 appropriation by the Legislature, to the Natural Resources Agency  
29 and its departments, boards, and conservancies for the reduction  
30 of climate impacts on disadvantaged communities and vulnerable  
31 populations and the creation, protection, and expansion of outdoor  
32 recreation opportunities. Eligible projects include, but are not  
33 limited to, any of the following:

- 34 (a) Improvements to city parks, county parks, regional parks,  
35 and open-space lands to preserve infrastructure, including natural  
36 infrastructure, to promote resilience and adaptation or the  
37 promotion and enhancement of natural resources and water  
38 conservation and efficiencies on local and regional public park  
39 lands and open-space lands.



1 (b) The creation and expansion of safe neighborhood parks in  
2 park-poor neighborhoods in accordance with the Statewide Park  
3 Development and Community Revitalization Act of 2008's  
4 competitive grant program described in Chapter 3.3 (commencing  
5 with Section 5640) of Division 5.

6 (c) Multiple benefit projects that reduce risks of exposure to  
7 toxic or hazardous materials that may increase as a result of  
8 wildfires, flooding, sea level rise, or reduced water flows to  
9 polluted bodies of water.

10 (d) Grants consistent with the California Cultural and Historical  
11 Endowment Act, established pursuant to Chapter 13 (commencing  
12 with Section 20050) of Part 11 of Division 1 of Title 1 of the  
13 Education Code, for projects that protect California's cultural and  
14 historic resources from climate impacts or inform the public about  
15 resiliency to climate change.

16 (e) Improved public access, including for individuals with  
17 disabilities, as defined by the federal Americans with Disabilities  
18 Act of 1990 (42 U.S.C. Sec. 12101 et seq.), and outdoor recreation  
19 at state parks, city parks, county parks, regional parks, and  
20 open-space preserves.

21 94020. Of the funds made available by Section 94000, one  
22 hundred million dollars (\$100,000,000) shall be available, upon  
23 appropriation by the Legislature, to the Department of Parks and  
24 Recreation for the protection, restoration, and enhancement of the  
25 natural resource values of the state park system and projects to  
26 expand public access for disadvantaged communities, including,  
27 but not limited to, the expansion of lower cost coastal  
28 accommodation project development.

29 94030. (a) At least 10 percent of the funds available pursuant  
30 to this chapter shall be allocated for grants that provide outreach  
31 and technical assistance that directly benefit disadvantaged  
32 communities and vulnerable populations. An eligible applicant is  
33 a nonprofit organization, technical assistance provider, or tribe.

34 (b) Projects funded pursuant to this chapter shall be consistent  
35 with the policies and guidelines established by the Natural  
36 Resources Agency and the Outdoors for All Strategy, if applicable.

## CHAPTER 9. CLEAN ENERGY

94500. The sum of two billion dollars (\$2,000,000,000) shall be available, upon appropriation by the Legislature, for clean energy projects.

94510. Of the funds made available by Section 94500, five hundred million dollars (\$500,000,000) shall be available, upon appropriation by the Legislature, to support the planning and development of new or expanded high-voltage electrical transmission lines that are necessary to meet the state's clean energy goals and have been identified by the Independent System Operator as required to achieve the state's policies identified in Section 454.53 of the Public Utilities Code.

94520. Of the funds made available by Section 94500, five hundred million dollars (\$500,000,000) shall be available, upon appropriation by the Legislature, to the State Energy Resources Conservation and Development Commission, in coordination with the State Air Resources Board, for grants to assist in obtaining, or as a match for, federal grants related to regional hubs in the federal Infrastructure Investment and Jobs Act (Public Law 117-58) and federal Inflation Reduction Act of 2022 (Public Law 117-169).

94530. Of the funds made available by Section 94500, five hundred million dollars (\$500,000,000) shall be available, upon appropriation by the Legislature, to the State Energy Resources Conservation and Development Commission for zero-emission vehicle charging infrastructure.

94540. Of the funds made available by Section 94500, five hundred million dollars (\$500,000,000) shall be available, upon appropriation by the Legislature, to the State Energy Resources Conservation and Development Commission for grants to support the Long-Duration Energy Storage Program.

## CHAPTER 10. FISCAL PROVISIONS

95000. (a) Bonds in the total amount of fifteen billion five hundred million dollars (\$15,500,000,000), not including the amount of any refunding bonds issued in accordance with Section 95012, may be issued and sold for carrying out the purposes expressed in this division and to reimburse the General Obligation Bond Expense Revolving Fund pursuant to Section 16724.5 of the

1 Government Code. The bonds, when sold, issued, and delivered,  
2 shall be and constitute a valid and binding obligation of the State  
3 of California, and the full faith and credit of the State of California  
4 is hereby pledged for the punctual payment of both the principal  
5 of, and interest on, the bonds as the principal and interest become  
6 due and payable.

7 (b) The Treasurer shall cause the issuance and sell the bonds  
8 authorized by the committee pursuant to subdivision (a) in the  
9 amount determined by the committee to be necessary or desirable  
10 pursuant to Section 95003. The bonds shall be issued and sold  
11 upon the terms and conditions specified in a resolution to be  
12 adopted by the committee pursuant to Section 16731 of the  
13 Government Code.

14 95001. The bonds authorized by this division shall be prepared,  
15 executed, issued, sold, paid, and redeemed as provided in the State  
16 General Obligation Bond Law (Chapter 4 (commencing with  
17 Section 16720) of Part 3 of Division 4 of Title 2 of the Government  
18 Code), as amended from time to time, and all of the provisions of  
19 that law, except subdivisions (a) and (b) of Section 16727 of the  
20 Government Code, apply to the bonds and to this division and are  
21 hereby incorporated in this division as though set forth in full in  
22 this division.

23 95002. (a) Solely for the purpose of authorizing the issuance  
24 and sale, pursuant to the State General Obligation Bond Law  
25 (Chapter 4 (commencing with Section 16720) of Part 3 of Division  
26 4 of Title 2 of the Government Code), of the bonds authorized by  
27 this division, the Drought, Flood, and Water Resilience, Wildfire  
28 and Forest Resilience, Coastal Resilience, Extreme Heat Mitigation,  
29 Biodiversity and Nature-Based Climate Solutions, Climate Smart  
30 Agriculture, Park Creation and Outdoor Access, and Clean Energy  
31 Bond Finance Committee is hereby created. For purposes of this  
32 division, the Drought, Flood, and Water Resilience, Wildfire and  
33 Forest Resilience, Coastal Resilience, Extreme Heat Mitigation,  
34 Biodiversity and Nature-Based Climate Solutions, Climate Smart  
35 Agriculture, Park Creation and Outdoor Access, and Clean Energy  
36 Bond Finance Committee is the “committee,” as that term is used  
37 in the State General Obligation Bond Law.

38 (b) The committee consists of the \_\_\_\_\_. Notwithstanding any  
39 other law, any member may designate a representative to act as

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1 that member in that member's place for all purposes, as though  
2 the member were personally present.

3 (c) The \_\_\_\_ shall serve as the chairperson of the committee.

4 (d) A majority of the committee may act for the committee.

5 95003. The committee shall by resolution determine whether  
6 or not it is necessary or desirable to issue and sell bonds authorized  
7 by this division in order to carry out the actions specified in this  
8 division and, if so, the amount of bonds to be issued and sold.  
9 Successive issues of bonds may be authorized and sold to carry  
10 out those actions progressively, and it is not necessary that all of  
11 the bonds authorized to be issued be sold at any one time.

12 95004. For purposes of the State General Obligation Bond Law  
13 (Chapter 4 (commencing with Section 16720) of Part 3 of Division  
14 4 of Title 2 of the Government Code), "board," as defined in  
15 Section 16722 of the Government Code, means the Secretary of  
16 the Natural Resources Agency.

17 95005. There shall be collected each year and in the same  
18 manner and at the same time as other state revenue is collected,  
19 in addition to the ordinary revenues of the state, a sum in an amount  
20 required to pay the principal of, and interest on, the bonds  
21 becoming due in that year. It is the duty of all officers charged by  
22 law with any duty regarding the collection of the revenue to do  
23 and perform each and every act that is necessary to collect that  
24 additional sum.

25 95006. Notwithstanding Section 13340 of the Government  
26 Code, there is hereby continuously appropriated from the General  
27 Fund in the State Treasury, for the purposes of this division, and  
28 without regard to fiscal years, an amount that will equal the total  
29 of the following:

30 (a) The sum annually necessary to pay the principal of, and  
31 interest on, bonds issued and sold pursuant to this division, as the  
32 principal and interest become due and payable.

33 (b) The sum that is necessary to carry out Section 95009.

34 95007. The board may request the Pooled Money Investment  
35 Board to make a loan from the Pooled Money Investment Account  
36 or any other form of interim financing in accordance with Section  
37 16312 of the Government Code, for the purpose of carrying out  
38 this division. The amount of the request shall not exceed the  
39 amount of the unsold bonds that the committee has, by resolution,  
40 authorized to be sold for the purpose of carrying out this division,

1 excluding any refunding bonds authorized pursuant to Section  
2 95012, less any amount loaned and not yet repaid pursuant to this  
3 section and any amount withdrawn from the General Fund pursuant  
4 to Section 95009 and not yet returned to the General Fund. The  
5 board shall execute those documents required by the Pooled Money  
6 Investment Board to obtain and repay the loan. Any amounts  
7 loaned shall be deposited in the fund to be allocated in accordance  
8 with this division.

9 95008. Notwithstanding any other provision of this division,  
10 or of the State General Obligation Bond Law (Chapter 4  
11 (commencing with Section 16720) of Part 3 of Division 4 of Title  
12 2 of the Government Code), if the Treasurer sells bonds pursuant  
13 to this chapter that include a bond counsel opinion to the effect  
14 that the interest on the bonds is excluded from gross income for  
15 federal tax purposes under designated conditions or is otherwise  
16 entitled to any federal tax advantage, the Treasurer may maintain  
17 separate accounts for the bond proceeds invested and for the  
18 investment earnings on those proceeds and may use or direct the  
19 use of those proceeds or earnings to pay any rebate, penalty, or  
20 other payment required under federal law or take any other action  
21 with respect to the investment and use of those bond proceeds, as  
22 may be required or desirable under federal law in order to maintain  
23 the tax-exempt status of those bonds and to obtain any other  
24 advantage under federal law on behalf of the funds of this state.

25 95009. For purposes of carrying out this division, the Director  
26 of Finance may authorize the withdrawal from the General Fund  
27 of an amount or amounts not to exceed the amount of the unsold  
28 bonds that have been authorized by the committee to be sold for  
29 the purpose of carrying out this division, excluding refunding  
30 bonds authorized pursuant to Section 95012, less any amount  
31 loaned pursuant to Section 95007 and not yet repaid and any  
32 amount withdrawn from the General Fund pursuant to this section  
33 and not yet returned to the General Fund. Any amounts withdrawn  
34 shall be deposited in the fund to be allocated in accordance with  
35 this division. Any moneys made available under this section shall  
36 be returned to the General Fund, with interest at the rate earned  
37 by the moneys in the Pooled Money Investment Account, from  
38 proceeds received from the sale of bonds for the purpose of  
39 carrying out this division.

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1 95010. All moneys deposited in the fund that are derived from  
2 premiums and accrued interest on bonds sold pursuant to this  
3 division shall be reserved in the fund and shall be available for  
4 transfer to the General Fund as a credit to expenditures for bond  
5 interest, except that amounts derived from premiums may be  
6 reserved and used to pay costs of bond issuance before any transfer  
7 to the General Fund.

8 95011. Pursuant to the State General Obligation Bond Law  
9 (Chapter 4 (commencing with Section 16720) of Part 3 of Division  
10 4 of Title 2 of the Government Code), the cost of bond issuance  
11 shall be paid or reimbursed out of the bond proceeds, including  
12 premiums, if any. To the extent the cost of bond issuance is not  
13 paid from premiums received from the sale of bonds, these costs  
14 shall be allocated proportionally to each program funded through  
15 this division by the applicable bond sale.

16 95012. The bonds issued and sold pursuant to this division  
17 may be refunded in accordance with Article 6 (commencing with  
18 Section 16780) of Chapter 4 of Part 3 of Division 4 of Title 2 of  
19 the Government Code, which is a part of the State General  
20 Obligation Bond Law, as amended. Approval by the voters of the  
21 state for the issuance of the bonds under this division shall include  
22 approval of the issuance, sale, or exchange of any bonds issued to  
23 refund any bonds originally issued under this division or any  
24 previously issued refunding bonds. Any bond refunded with the  
25 proceeds of a refunding bond as authorized by this section may be  
26 legally defeased to the extent permitted by law in the manner and  
27 to the extent set forth in the resolution, as amended from time to  
28 time, authorizing that refunded bond.

29 95013. Notwithstanding Section 16727 of the Government  
30 Code, funds provided pursuant to this division may be used for  
31 grants and loans to nonprofit organizations to repay financing  
32 described in Section 22064 of the Financial Code related to projects  
33 that are consistent with the purpose of the respective provisions  
34 of this division.

35 95014. The proceeds from the sale of bonds authorized by this  
36 division are not “proceeds of taxes” as that term is used in Article  
37 XIII B of the California Constitution, and the disbursement of  
38 these proceeds is not subject to the limitations imposed by that  
39 article.

1 95015. Bonds issued under this division shall, whenever  
2 practical, be aligned with generally recognized principles and best  
3 practice guidelines for financing drought, flood, and water  
4 resilience, wildfire and forest resilience, coastal resilience, extreme  
5 heat mitigation, biodiversity and nature-based climate solutions,  
6 climate smart agriculture, park creation and outdoor access, and  
7 clean energy projects.

8 SEC. 3. Section 2 of this act shall take effect upon the approval  
9 by the voters of the Drought, Flood, and Water Resilience, Wildfire  
10 and Forest Resilience, Coastal Resilience, Extreme Heat Mitigation,  
11 Biodiversity and Nature-Based Climate Solutions, Climate Smart  
12 Agriculture, Park Creation and Outdoor Access, and Clean Energy  
13 Bond Act of 2024, as set forth in Section 2 of this act.

14 SEC. 4. (a) Section 2 of this act shall be submitted by the  
15 Secretary of State to the voters at the \_\_\_\_\_, statewide \_\_\_\_\_ election.

16 (b) The Secretary of State shall include in the ballot pamphlets  
17 mailed pursuant to Section 9094 of the Elections Code the  
18 information specified in Section 9084 of the Elections Code  
19 regarding Section 2 of this act.

20 SEC. 5. The provisions of this act are severable. If any  
21 provision of this act or its application is held invalid, that invalidity  
22 shall not affect other provisions or applications that can be given  
23 effect without the invalid provision or application.

24 SEC. 6. *This act shall become operative only if Senate Bill 638*  
25 *of the 2023–24 Regular Session is enacted and takes effect on or*  
26 *before January 1, 2024.*





Legislation, Regulatory Affairs, and  
Communications Committee

# AB 1567 and SB 867: Bond Overview

Item 8-3  
June 12, 2023

## Active Resource Bond Measures

### AB 1567 (Garcia)

Safe Drinking Water, Wildfire Prevention, Drought Preparation, Flood Protection, Extreme Heat Mitigation, Clean Energy, and Workforce Development Bond Act of 2024

### SB 867 (Allen)

Drought, Flood and Water Resilience, Wildfire and Forest Resilience, Coastal Resilience, Extreme Heat Mitigation, Biodiversity and Nature-Based Climate Solutions, Climate Smart Agriculture, Park Creation and Outdoor Access, and Clean Energy Bond Act of 2024

Active  
Resource  
Bond  
Measures

AB 305 (Villapudua)  
California Flood Protection Bond Act of 2024

SB 638 (Eggman)  
Climate Resiliency and Flood Protection  
Bond Act of 2024

# Bond Comparisons

AB 1567 (Garcia), Amended May 26 \$15.995 Billion General Obligation Bond March 5, 2024, Primary Ballot	SB 867 (Allen), Amended May 18 \$15.5 Billion General Obligation Bond Unspecified Statewide Ballot	
Ch. 2 Wildfire Prevention, Climate Risk Reduction, and Protection Against Power Shutoffs \$2.275 Billion	Ch. 2 Drought, Flood, and Water Resilience	\$5.2 Billion
Ch. 3 Protecting Coastal Lands, Bays, and Oceans from Sea Level Rise and Other Climate Risks \$1.655 Billion	Ch. 3 Wildfire and Forest Resilience	\$3 Billion
Ch. 4 Ensuring Safe Drinking Water, Drought Preparation, and Enhancing the State's Flood Protection \$5.255 Billion	Ch. 4 Coastal Resilience	\$2 Billion
Ch. 5 Protecting Fish, Wildlife, and Natural Areas from Climate Risks \$1.5 Billion	Ch. 5 Extreme Heat Mitigation	\$500 Million
Ch.. 6 Protecting Farms, Ranches and Working Lands from the Impacts of Climate Change \$520 Million	Ch. 6 Protect Biodiversity and Accelerating Nature-Based Climate Solutions	\$2 Billion
Ch. 7 Responding to Extreme Heat, Community Enhancement, and Resilience \$1.59 Billion	Ch. 7 Climate Smart Agriculture for Sustainability and Resiliency	\$300 Million
Ch. 8 Strengthening California's Regional Climate Resilience \$1.2 Billion	Ch. 8 Park Creation and Outdoor Areas	\$500 Million
Ch. 9 Clean Energy \$2 Billion	Ch. 9 Clean Energy	\$2 Billion

# Bond Comparisons

	AB 1567 (Garcia)	SB 867 (Allen)
Recycling	<p>\$500 Million</p> <ul style="list-style-type: none"> <li>• \$300 Million for recycled water <ul style="list-style-type: none"> <li>• Prioritization Criteria favorable to Metropolitan Service Area</li> </ul> </li> <li>• \$200 Million for multi-benefit stormwater projects</li> </ul>	<p>\$550 Million</p> <ul style="list-style-type: none"> <li>• \$300 Million for recycled water</li> <li>• \$250 Million for multi-benefit stormwater projects</li> </ul>
Conservation/WUE	*No dedicated specific to conservation/WUE	\$100 Million for ag and urban water conservation
Groundwater	<p>\$350 Million</p> <ul style="list-style-type: none"> <li>• \$250 Million for SGMA projects</li> <li>• \$100 Million for multi-benefit groundwater sustainability</li> <li>• **\$275 million under Water Quality for groundwater remediation and treatment</li> </ul>	<p>\$250 Million</p> <ul style="list-style-type: none"> <li>• \$400 Million for groundwater projects that improve resiliency</li> <li>• \$300 Million for multi-benefit groundwater sustainability projects</li> <li>• \$100M for salt removal projects</li> </ul>
Surface Storage		<ul style="list-style-type: none"> <li>• \$300 Million for surface storage consistent with the Water Storage Investment Plan</li> </ul>

# Bond Comparisons

	AB 1567 (Garcia)	SB 867 (Allen)
SWP Resilience	<p>\$350 Million</p> <ul style="list-style-type: none"> <li>• \$100 Million for stream gauges</li> <li>• \$250 Million for Stream Flow Enhancement Program for drought impacts</li> </ul>	<p>\$500 Million</p> <ul style="list-style-type: none"> <li>• \$100 Million for stream gauges</li> <li>• \$100 Million for settlement agreements for the San Joaquin River</li> <li>• \$300 Million for Stream Flow Enhancement Program</li> </ul>
Regional Resilience	<p>\$350 Million for projects consistent with IRWMP</p>	<p>\$550 Million</p> <ul style="list-style-type: none"> <li>• \$300 Million for integrated regional water management</li> <li>• \$250 Million for regional conveyance</li> </ul>
Water Quality	<p>\$845 Million</p> <ul style="list-style-type: none"> <li>• \$400 Million for clean, safe, reliable water</li> <li>• \$175 Million for groundwater contamination and surface water supplies</li> <li>• \$100 Million for groundwater contamination for major source of drinking supplies</li> <li>• \$100 Million for Chrom6</li> <li>• \$70M for PFAS</li> </ul>	<p>\$400 Million for clean, safe, and reliable water</p>

# Bond Comparisons

	AB 1567 (Garcia)	SB 867 (Allen)
Dam Safety	<p>\$965 Million</p> <ul style="list-style-type: none"><li>• \$900 Million for dam safety and resilience</li><li>• \$65 Million for removal or upgrading of outdated dams</li></ul>	<p>\$500 Million</p> <ul style="list-style-type: none"><li>• \$400 Million for dam safety</li><li>• \$100 Million for removal or upgrading of outdated dams</li></ul>
Flood Protection	<p>\$1.1 Billion</p> <ul style="list-style-type: none"><li>• \$200 Million for multi-benefit flood management</li><li>• \$750 Million for flood control</li><li>• \$150 Million for urban flooding</li></ul>	<p>\$1.5 Billion</p> <ul style="list-style-type: none"><li>• \$1 Billion for flood management programs</li><li>• \$500 Million for coastal flood management</li></ul>



## Considerations

- Governor Newsom's May Revise added \$1.1 Billion to the bond discussions
- Summer Recess in July presents an opportunity for the legislature to identify a single comprehensive bond vehicle for a 2024 ballot
- Metropolitan staff are currently coordinating with its member agencies and statewide associations

## Proposed amendments to increase funding

- Recycled Water – continue to work with stakeholders and member agencies to identify an amount of funding to ensure Metropolitan and the Southern California region are responsive to climate challenges
- Dam Safety – work with stakeholders and member agencies to identify local priority projects that safeguard life, prevent reservoir failure, and ensures flood mitigation

## Proposed amendments to increase funding

- Regional Conveyance – work with stakeholders and member agencies to identify priority projects that ensure reliable delivery of needed water supplies, and bolster areas that have heightened risks when supplies are limited in Metropolitan’s service area
- Drought and Conservation – work with stakeholders and member agencies to identify priority projects that result in water savings, that also includes any obligation to accommodate reductions of imported water sources, such as the Colorado River

# Board Options:

- Option #1:  
Express support, if amended, on AB 1567 (Garcia) and SB 867 (Allen), to increase funding for water projects that address climate change impacts, such as recycled water, dam safety, regional conveyance, drought and conservation.
- Option #2:  
Do not express a support, if amended, position on AB 1567 (Garcia) and SB 867 (Allen)

# Staff recommendation:

- Option #1







• **Board of Directors**  
***Ethics, Organization, and Personnel Committee***

6/13/2023 Board Meeting

**CONFIDENTIAL 8-4**

**Subject**

Approve entering into fiscal years 2022-2026 Memorandum of Understanding between The Metropolitan Water District of Southern California and The Supervisors Association of The Metropolitan Water District of Southern California; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA [Conference with Labor Negotiators; to be heard in closed session pursuant to Gov. Code 54957.6. Metropolitan representatives: Katano Kasaine, Assistant General Manager, Chief Financial Officer and Gifty J. Beets, Human Resources Section Manager of Labor Relations. Employee organization: The Supervisors Association of The Metropolitan Water District of Southern California]

**Executive Summary**

The current Memorandum of Understanding (MOU) between Metropolitan and the Supervisors' Association expired on December 31, 2021. On April 21, 2023, the parties reached a tentative agreement on a successor MOU, the term of which will be January 1, 2022, through December 31, 2026. The tentative agreement has been ratified by the Supervisors' Association membership and is before the Board for approval and adoption.

**Details**

**Background**

The Supervisors' Association represents 104 budgeted positions, primarily in the Water System Operations Group. They serve as front-line supervisors and technical specialists. Classifications within their unit include Team Manager I - VI, Senior Environmental Specialist, Senior Resource Specialist, and Inventory Coordinator.

Key economic elements of the tentative agreement are as follows:

- The term of the MOU shall be five years, beginning January 1, 2022, and expiring December 31, 2026. Each year provides an across-the-board salary increase. Upon adoption of the MOU by the Board, Metropolitan will process a 3 percent increase for all members of the unit effective the first full pay period of July 2022. An across-the-board increase of 3 percent will be provided in the first full pay period of July 2023, and again in the first full pay period of July 2024.
- In the first full pay period of July 2025 and July 2026, an across-the-board increase will be provided based on Consumer Price Index (CPI), with a minimum increase of 3 percent and a maximum increase of 4 percent.
- Effective upon adoption of the MOU by the Board, a Disturbance Pay premium pay will be implemented in the amount of \$350 per week to be paid when a designated Facilities Operations Manager (FOM) is contacted while on off-duty hours to furnish information or to take action needed to maintain the continuity of Metropolitan's operations, which may include emergencies and other urgent assignments. There are 12 designated FOMs at Metropolitan, one at each pumping and treatment plant, plus one rotating Construction Services Unit Coordinator who serves as a liaison after hours. This premium pay will apply only to these 13 designated positions.
- The proposed MOU includes a timeline for Supervisors' Association employees to review and complete pending classification study materials. Upon timely completion, employees will receive a minimum



2.75 percent salary step increase. Metropolitan Human Resources staff will similarly follow a timeline to complete the study and make recommendations to update classifications, which may include additional compensation for specific positions based on operational need and other classification factors. This study has been pending for months and supports a high priority goal to update and modernize Metropolitan job descriptions.

- Upon adoption of the MOU by the Board, the Professional Development allowance will increase by \$100, to \$900 annually. This allowance may be used for memberships in job-related associations, books and journals, and training and conference attendance.
- Upon adoption of the MOU by the Board, the amount paid for daily premium for urgent work outside of the regular work schedule for exempt employees will increase by \$100 to a flat dollar amount of \$300 for working at least four hours outside of the work schedule and increase by \$200 to a flat dollar amount of \$600 for working eight hours or more outside of the regular schedule.
- Upon adoption of the MOU by the Board, the amount of commercial driver's license incentive will increase by \$25 to \$125 per month.
- Upon adoption of the MOU by the Board the annual leave cap will increase from 475 hours to 500 hours. For the six positions classified as non-exempt and eligible for overtime, their compensation time accrual cap will increase from 40 to 100 hours. Exempt employees will receive 40 hours per calendar year for Management Exempt Time Off.

The tentative agreement includes language to reopen 10 subjects, many of which are being discussed and impact employees District-wide, such as recruitment and selection processes, Rideshare benefits, and desert housing/compensation.

## **Policy**

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Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

Metropolitan Water District Administrative Code Section 6101(k): As a result of negotiations, as set forth in Section 6101 (k), the General Manager is authorized with Board approval to enter into a contractual agreement with the Supervisors' Association.

## **California Environmental Quality Act (CEQA)**

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### **CEQA determination for Option #1:**

The proposed action is not defined as a project under CEQA (Public Resources Code Section 21065, State CEQA Guidelines Section 15378) because it involves continuing administrative or maintenance activities which will not cause either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment (Section 15378(b)(2) of the State CEQA Guidelines). In addition, the proposed action is not defined as a project under CEQA because it involves the creation of government funding mechanisms or other government fiscal activities which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment (Section 15378(b)(4) of the State CEQA Guidelines).

### **Option #2:**

None required

## Board Options

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### Option #1

Authorize the General Manager to exercise discretion under Administrative Code Section 6101(k) to enter into a successor Memorandum of Understanding with the Supervisors' Association.

**Fiscal Impact:** The cost increase for the 104 Supervisors Association positions is estimated to range from \$1.5 Million to \$1.8 Million for FY 2022/23, \$3.0 Million to \$4.1 Million for FY 2023/24, \$3.8 Million to \$4.9 Million for FY 2024/25, \$4.7 Million to \$6.1 Million for FY 2025/26, and \$5.6 Million to \$7.3 Million for FY 2026/27. The budget impact for all employees is estimated to range from \$1.0 Million to \$3.4 Million for FY 2022/23 and \$1.7 Million to \$4.9 Million for FY 2023/24.

**Business Analysis:** If approved, a successor MOU with the Supervisors' Association will be implemented.

### Option #2

Do not authorize agreement; direct staff to continue negotiations with the Supervisors' Association.

**Fiscal Impact:** Unknown

**Business Analysis:** If the agreement is not approved, there will be no agreement with the Supervisors' Association, and the parties will resume negotiations. The Supervisors' Association will continue to be the one bargaining unit working under an expired MOU.

## Staff Recommendation

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### Option #1

  
\_\_\_\_\_  
Debra Gill  
Human Resources Group Manager

6/8/2023  
Date

  
\_\_\_\_\_  
Adel Hagekhalil  
General Manager

6/8/2023  
Date

**TENTATIVE AGREEMENTS MADE BETWEEN  
THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA  
AND THE SUPERVISORS ASSOCIATION OF  
THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA  
AFFILIATE OF IBEW LOCAL 11, UNIT 76  
JANUARY 1, 2022 TO DECEMBER 31, 2026**

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#### ARTICLE 1-- RECOGNITION

- 1.1 Pursuant to the Administrative Code of the Metropolitan Water District of Southern California (hereinafter "District"), the Supervisors Association of the Metropolitan Water District of Southern California (hereinafter Association) has been certified as the exclusive representative for employees in the Supervisors Association (Unit 03). The Association is an affiliate of the International Brotherhood of Electrical Workers (IBEW) Local 11, Unit 76.
- 1.2 This Unit (03) is currently comprised of employees occupying the classifications listed in Article 9:9 - Salary Schedule. Accordingly, it is agreed that the negotiated provisions of this MOU shall apply solely to employees of Unit (03). The Association maintains both the right and responsibility to deny any requests for representation, rights or benefits from any District employees who are not expressly covered by this MOU.
- 1.3 For purposes of this MOU, the term employee means an individual on the District's payroll in a regular full-time, regular part-time, temporary full-time, temporary part-time or recurrent position.

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**ARTICLE 2 -- AUTHORIZED AGENTS OF THE PARTIES**

- 2.1 For purposes of administering or modifying the terms and provisions of this MOU or receiving any notice to be given hereunder the parties' representatives shall be as follows: The District's representative shall be the District's Manager of Human Resources or designee (Address: The Metropolitan Water District of Southern California, Post Office Box 54153, Los Angeles, California 90054-0153).
- 2.2 Association's representative shall be the Association President or his designee (Address: The Metropolitan Water District of Southern California, Supervisors Association, Post Office Box 54153, Los Angeles, California 90054-0153).

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MWD to Supervisors Association

Article 3- Term

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The parties agree to a 5-year term successor agreement. Effective dates for the new MOU are 1/1/2022 through 12/31/2026.

#### Article 9 - Salaries

The parties agree to the following increases effective the first full pay period in July of each year:

July 2022 = 3% increase to base retroactively applied to the first pay period of July 2022

July 2023 = 3% increase to base

July 2024 = 3% increase to base

July 2025 = 3% min -4% max increase to base to be determined based on CPI

July 2026 = 3% min -4% max increase to base to be determined based on CPI

During the years of 2025 and 2026 of this MOU, should another bargaining unit negotiate across-the-board salary increases greater than the across-the-board salary increases outlined above in this Article, the difference shall be applied to all Supervisors Association member effective the same date and in the same manner as negotiated by the other bargaining unit. It is agreed and understood that this provision applies solely to across-the-board salary increases. This provision shall not apply to salary equity adjustments for individual job classifications, premium pays, or any other forms of compensation that another bargaining unit may negotiate.

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#### ARTICLE 4 -- IMPLEMENTATION

- 4.1 It is agreed that the provisions of this MOU are of no force or effect until ratified by Association and duly adopted by the Board of Directors.
- 4.2 Once ratified by the Association and then adopted by the Board, each provision of this MOU shall become effective on the date set forth in Article 3.1 -- Term, unless another implementation date is specified for a particular provision within the MOU.
- 4.3 Both parties agree that they have a legal and contractual obligation to comply with all terms of this MOU as written.



**ARTICLE 5 -- GENDER**

- 5.1 ~~Whenever the feminine or masculine form of any word is used in this MOU, it also includes the other gender unless the context clearly indicates a contrary intent. Whenever words denoting gender are used in this MOU, they are intended to apply equally to any gender.~~

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MWD to Supervisors Association  
April 18, 2023

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## ARTICLE 6 – RENEGOTIATIONS

- 6.1 In the event either party elects to renegotiate a successor agreement, then within 120 to 150 days prior to the expiration of this MOU, such party shall serve upon the other its written request to commence negotiations.
- 6.2 Negotiations shall begin no later than thirty (30) days from the date of the first written request. Each party shall submit written proposals no later than the first negotiation session.
- 6.3 In the event that neither group has served upon the other a written request to commence negotiations, the current MOU shall continue in full force and effect for one year from the expiration date unless both parties mutually agree to reopen.
- 6.4 The parties agree to reopen the following provisions upon adoption of the new MOU in 2023:

- Article 11 – Temporary Promotion
- Article 38 – Recruitment & Selection
- Article 42 – Classification Study/Bargaining Unit Realignment
- Article 50 – Grievance Procedure
- Article 67 – Rideshare
- Article 73 – Desert/Remote Location Pay/Benefits
- Article 74 – District Housing
- Article 75 – Peaceful Performance
- Time Sensitive Assignments
- Salary Note Certification

- 6.4.1 The parties agree to open the MOU at Article 9.9 when either party requests to meet and confer on the following items, to the extent such changes affect terms and conditions of employment:

- A. A revision of the duties of a current classification.
- B. The creation of a new classification.
- C. The elimination of a current classification.
- D. The salary of a new or revised classification.

No other Article, with the exception of those listed in Article 6.4 of this MOU, shall be reopened except by mutual agreement.

- 6.5 If no agreement is reached on A, B, C, or D above, either party may declare impasse and the dispute shall be submitted to the State Mediation Service. The parties shall mutually select a Mediator to whom they will present their respective last and final proposals. The Mediator shall meet with the parties in an effort to assist with a resolution to the dispute.
- A. If more than one classification is consolidated into a single classification, the new classification shall be paid no less than the highest salary from among the classifications included in the consolidation. If any changes made pursuant to

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MWD to Supervisors Association  
April 18, 2023

Article 6.4 causes an employee to be placed on a range that is lower than the employee's current range, such employee shall be Z-rated at his current salary.

- B. "Z" rate is applied to an individual and not to a class. If an employee is placed on a "Z" rate, it means the employee will move to the new lower classification, but will remain on the employee's current salary range at the current step and shall be eligible for merit increases and across-the-board increases according to normal pay rate administration rules as found in the Administrative Code and the applicable MOU. For purposes of performance review as provided in the Administrative Code Section 6208 (g), the employee shall be evaluated based on the requirements of the new lower classification on which the employee has been placed.
- C. "Z" rate shall remain in effect until an employee is, returned to the employee's former classification or its progeny, promoted, voluntarily demotes or voluntarily transfers; or until the current MOU expires. The extension of the "Z" rate beyond the current Agreement may be the subject of bargaining for a successor Agreement.

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#### ARTICLE 7 -- FULL UNDERSTANDING

- 7.1 This MOU sets forth the full and entire understanding of the parties regarding the matters set forth herein, and any other prior or existing understanding or agreements by the parties, whether formal or informal, regarding these matters are hereby superseded or terminated in their entirety. However, except as modified herein, existing Metropolitan Water District Administrative Code provision, resolutions, policies, general instructions, rules and regulations shall continue in full force and effect.
- 7.2 It is agreed and understood that during the term of this MOU, each party hereto voluntarily and unqualifiedly waives its right to negotiate, and agrees that the other shall not be required to negotiate, with respect to those matters covered herein.
- 7.3 No agreement, alteration, understanding, variation, waiver, or modification of any of the terms or provisions contained herein shall in any manner be binding upon the parties hereto unless made and executed in writing by both parties hereto, and if required, approved and implemented by the District's Board of Directors. In particular, whenever there is a provision herein that a section of the District's Administrative Code shall be added, amended, or deleted, such provision shall not be binding until such addition, amendment, or deletion is approved by the District's Board of Directors.
- 7.4 The waiver of any breach, term, or condition of this MOU by either party shall not constitute a precedent in the future enforcement of all of its terms and conditions.
- 7.5 Any agreements, side letters or addenda attached to this MOU are hereby incorporated and made a part thereof.

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#### ARTICLE 8 -- PROVISIONS OF LAW

- 8.1 It is understood and agreed that this Memorandum of Understanding is subject to all current and applicable federal and state laws and regulations in addition to District rules and regulations. The parties agree to abide by all such laws, rules, and regulations, subject to the obligation of the parties to meet and confer over any identified impacts which fall within the scope of bargaining.

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#### ARTICLE 10 – HOLIDAYS

10.1 Holidays will be administered as provided in the current Administrative Code Sections 1106 and 6225.

10.2 The District shall observe the holidays listed in the current Administrative Code Section 1106. For convenience, the holidays listed in Section 1106 are also listed below:

New Year's Day	1 January
Martin Luther King's Birthday	3rd Monday in January
President's Day	3rd Monday in February
Cesar Chavez Day	31 March
Friday before Easter	Friday before Easter
Memorial Day	Last Monday in May
Juneteenth	19 June
Independence Day	4 July
Labor Day	1st Monday in September
Veterans Day	11 November

Thanksgiving Day	November (as proclaimed by the State of California)
Day after Thanksgiving	November (as above)
Day before Christmas Day	24 December
Christmas Day	25 December
Day before New Year's Day	31 December

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10.3 A holiday that falls on an employee's workday shall be the same length as the workday.



Article 10: Holidays

Add the following article:

Article 10.4: "If a manager requests an exempt employee to work on their holiday day off, the employee is allowed to take a different day off as soon as practicable, with prior management approval."

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## ARTICLE 11-- TEMPORARY PROMOTION

- 11.1 For the purposes of this Article, Temporary Promotion is the full-time performance of a majority of the significant duties of a position in one classification by an individual in a lower paid classification. The Temporary Promotion shall be reflected in the employee's annual performance evaluation. The employee shall remain in the Supervisors Unit and shall continue to receive the benefits provided for his original classification. The types of Temporary Promotion shall be defined as below.

### 11.2 Short-Term Temporary Promotion

#### A. Non-Supervisory and Non-Managerial Position

The intent of this subsection 11.2A is to compensate any bargaining unit employee who is assigned to perform the majority of the duties of a higher-level non-supervisory/non-managerial position on a daily basis and to ensure that employees not be asked to perform a majority of the significant higher-level duties on days for which they are not receiving the premium.

-An employee assigned such duties by Management shall receive a premium in the amount of twelve percent (12%) of his normal hourly rate. Such premium shall only be provided in full-day increments for those days on which the employee is actually performing a majority of the duties of the higher-level position, including overtime hours worked. However, such premium shall not be reportable to PERS as compensation earned for retirement purposes. Management shall designate the expected duration of the assignment, but such duration shall be no more than three (3) weeks.

#### B. Lead Worker/Supervisory Pay


The intent of this subsection 11.2B is to compensate any bargaining unit employee who is assigned to perform a majority of the duties of a higher-level supervisory or managerial position on a daily basis and to ensure that employees not be asked to perform a majority of higher-level duties on days for which they are not receiving the premium.

-An employee assigned such duties by Management shall receive a premium in the amount of fifteen (15%) percent of his normal hourly rate. Such premium shall only be provided in full-day increments, for those days in which the employee is actually performing a majority of the duties of the higher-level position. Management shall specify the expected duration of the assignment, but such duration shall be no more than three (3) weeks.

### 11.3 Long-Term Temporary Promotion

An employee who is temporarily promoted to a higher-level position for a period that exceeds three (3) weeks shall receive additional pay equal to the first step of the higher-level position, or a three-step (8.25%) salary increase, whichever is higher, not to exceed the salary range maximum of the higher-level position. Such pay shall be processed using a District Employee Data Change Form (EDCF), and shall be paid for all hours during the period of Temporary Promotion designated on the EDCF.

- 11.4 With the exception of medical leave, a position shall not be filled by a Temporary Promotion for more than 12 months, except by mutual agreement of the parties. An employee who has been in Temporary Promotion for more than 12 months will receive a two-step increase (equivalent to 5.5%) for each year the employee is in that Temporary Promotion, provided that the regular hourly rate plus the premium pay has not already exceeded the range established for the job classification of the Temporary Promotion. The Human Resources Group shall meet with the employee's management at the conclusion of each 12 month interval, to determine whether the Temporary Promotion continues to be necessary.
- 11.5 O&M Supervisors reporting to Team Managers shall generally be offered Temporary Promotion assignments to those Team Manager positions to which they report, whether Short-Term (i.e., no more than three weeks) or Long-Term (i.e., longer than three weeks), prior to such assignments being offered to qualified employees in lower classifications either in this bargaining unit or other bargaining units. However, Management reserves the right to assign Temporary Promotions to meet its business needs.
- 11.6 For any Long-Term Temporary Promotion (i.e., longer than three weeks) opportunity anticipated to last six months or more, and where there is more than one employee with the qualifications and demonstrated required skills expressing interest in the opportunity, the Temporary Promotion assignment shall be fairly assigned to such employees on a rotational basis based on business need.
- Such rotational assignments shall not be limited to qualified employees within the immediate reporting structure of the Temporary Promotion position. However, Management, upon consulting with the Association, reserves the right to limit participation in the rotation to a reasonable number.
- Employees not selected for a rotation but who otherwise have the qualifications and demonstrated required skills, shall receive first priority for selection for rotation in the next temporary promotion to the same position, also anticipated to last six months or more.
- A Temporary Promotion rotational assignment shall not be offered to an employee with a current performance evaluation of less than Meets Standards, or who has received a disciplinary action within the preceding six months that is subject to appeal under Article 55.
- 11.7 An employee on a Temporary Promotion who receives a regular promotion to the same classification shall receive no less than a two-step increase above the previous classification, provided it does not exceed the top step of the new salary grade. After receiving a regular promotion, the anniversary date for determining eligibility for the next merit increase shall be the next July 1st common evaluation date.

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## ARTICLE 12 -- PREMIUM FOR SUPERVISION BY "EXEMPT" EMPLOYEES ON DAYS OFF

- 12.1 The intent of this provision is to compensate bargaining unit employees in FLSA "exempt" classifications for days worked outside of their regular work schedule, or on days during their regular work schedule (i.e., Monday through Thursday) when they are assigned shifts of 12 hours or more, when they are directed by Management at the Unit or Section level or higher to provide oversight of a work crew during Shutdowns, emergencies, or other urgent assignments as determined by the District.
- 12.2 For purposes of this section, a Shutdown is a project which is part of the District's annual Shutdown schedule, or which has been deemed by Management as requiring immediate attention. Emergencies and other urgent assignments include those which have been deemed by the District as requiring immediate attention due to operational impacts, impacts on public safety, or potential loss of property.
- 12.3. Hours of work for exempt employees shall be as defined in Section 6223 of the Administrative Code. Notwithstanding, for each day of the assignment that the employee works at least four (4), but less than eight (8) hours on a day outside of his regular work schedule as determined by the District, he shall receive a daily premium of \$2300. For each day of the assignment that the employee works eight (8) hours or more on a day outside of his regular work schedule as determined by the District, he shall receive a daily premium of \$600. In no instance shall an employee receive both the \$2300 and \$600 daily premiums for the same day of work. (Example: For a seven-day shutdown, commencing on Sunday and ending on Saturday, and assuming the employee is on a Monday through Thursday 4/10 schedule, if the employee is assigned to oversee a work crew and works for eight hours on Sunday, eight hours on Friday, and seven hours on Saturday, he would receive payments of \$600, \$600, and \$2300 respectively for those days, for a total of \$1,500.)
- 12.4 For shutdowns, emergencies, or other critical assignments occurring during an employee's regular work schedule, when the employee is directed to work at least a 12 hour shift providing oversight of a work crew, he shall receive a daily premium of \$300 for that day.
- 12.5 -For each day of a Shutdown, emergency, or other urgent assignment in which the employee is directed by Management at the Unit level or above to oversee a work crew and has not received the requisite amount of rest pursuant to Article 12.2 above, he shall receive a daily premium of \$600.
- 12.46: A Team Manager assigned to a Water Treatment Plant who is on a Monday through Thursday 4/10 schedule, shall receive the daily premium when assigned by Management at the Unit or Section level to report to the Plant on a Friday as part of regular and recurring coverage to oversee staff. Payment of the daily premium for any given Friday shall only be applicable to the Team Manager assigned for that Friday, and the number of assigned hours on a Friday shall be determined by Management at the Unit or Section level. For purposes of this subsection 4, such assignments shall be deemed as urgent assignments. This subsection 4 shall also apply to other days of the week in which a holiday that would otherwise fall on a Friday is being observed.

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#### ARTICLE 13 -- LEAD PAY

- 13.1 An employee in the classification of Inventory Coordinator shall be paid lead pay premium in the amount of ten (10%) percent of his normal hourly rate for those hours in which the employee is assigned by a supervisor at the level of Team Manager or above to be in responsible charge of a work activity involving two or more individuals.
- 13.2 Lead assignments shall be rotated fairly among all interested and eligible employees. An employee shall not receive lead pay for more than three (3) consecutive months, when there is more than one interested and eligible employee. It is the intent of the parties that the above shall ensure that all eligible employees in the classification shall have an opportunity to receive lead pay.
- 13.3 Such lead pay shall be provided only if the job activity is expected to exceed three or more consecutive hours in any one workday and where the supervisor has determined efficiency and safety necessitate a "lead" appointment.
- 13.4 A list of lead hours assigned to qualified employees shall be recorded by the supervisor and provided upon request for review by the employees and/or the Association.

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**ARTICLE 14 -- DIVING PAY**

- 14.1 Diving pay will be paid to an employee in addition to all other forms of compensation for a minimum of six (6) hours for time spent underwater in a given work day.
- 14.2 Diving hours are to be computed in whole hours. Therefore, any fraction of an hour spent underwater will be rounded up to a full hour.
- 14.3 Diving pay shall be paid in the amount of \$12.00 per hour.

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#### ARTICLE 15 -- COMMERCIAL DRIVER LICENSE INCENTIVE PAY

- 15.1 Employees in the classification of Team Manager or O&M Supervisor who are specifically designated by the District, at the level of Unit Manager or higher, in writing to obtain, maintain, and/or utilize a Class A or B driver's license, shall be eligible for a \$12500/month "good driver incentive." Team Managers or O&M Supervisors who may possess a Class A or B driver's license, but are not specifically designated by the District as being required to do so, shall not be eligible for the Commercial Driver License Incentive Pay. For purposes of this Article, effective upon adoption of the 2022-2 MOU, employees specifically designated to receive the Incentive Pay shall include: O&M Supervisors assigned to the Construction Services Unit who obtain and maintain a Class A or B driver's license, and Team Managers assigned to Fleet who obtain and maintain a Class A or B driver's license. Other bargaining unit employees may be specifically designated based on operational needs as determined by the District.
- 15.2 The District shall maintain a list of employees whose job duties require them to obtain, maintain and/or utilize a Commercial Driver's license. If an employee's duties change such that he is no longer required to hold a Commercial Driver's license, the employee shall no longer be eligible for the incentive.
- 15.3 An employee shall be ineligible for the incentive if:
- A. He tests positive on an alcohol and/or controlled substance test, or
  - B. He is involved in an accident that results in two or more points on his driving record, or
  - C. He receives a moving violation citation that results in two or more points on his driving record.
- 15.4 Employees who are not eligible due to having tested positive on an alcohol and/or controlled substance test or due to having received two or more points on their driving record may earn back their monthly incentive after a six (6) month waiting period in which the employee does not test positive for drugs or alcohol, does not receive a moving violation citation, and is not involved in an accident.
- 15.5 If an employee is receiving the incentive and is involved in an accident, or receives a traffic citation, he shall immediately upon return to work notify his supervisor.



**ARTICLE 16 – DIRECT DEPOSIT**

- 16.1 An employee shall directly deposit his net salary to a bank of his choice via direct electronic paycheck deposit.
- 16.2 The specific procedures for direct deposit shall be managed by the District.

*TA Current language*  
*2/10/22* *[Signature]*

TA Current Language

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#### ARTICLE 17 – OVERPAYMENTS

- 17.1 The parties agree that in the event of a payroll overpayment, Payroll will notify the employee of the overpayment prior to making any deductions to recover such overpayment. If the total overpayment is less than ten percent (10%) of the employee's pay period earnings, the amount of the overpayment will be deducted from the employee's next payroll payment after notification. If the total overpayment is in excess of ten percent (10%) of the employee's pay period earnings, a schedule of deductions will be established by the District to recover the overpayment. The maximum repayment each pay period will, however, not be more than ten percent (10%) of the employee's pay period earnings. For the purpose of this Article, "pay period earnings" is defined as the employee's straight time pay during the period, less deductions for retirement and income tax withholding purposes.
- 17.2 If the employee terminates employment with the District before repayment has been fully recovered, the balance due will be deducted from his final payroll payment.
- 17.3 The District shall hold the Association harmless with respect to any claim that might be filed by an employee as a result of action taken by the District pursuant to this Article.

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## NEW - Annual Leave TENTATIVE AGREEMENT

## ARTICLE 18 - ANNUAL LEAVE

18.1 The accrual schedule for annual leave shall be as follows:

RANGE OF HOURS		ACC. FACTOR FOR EACH HR.	APPROX. VAC. HOURS
From	Through		
1	8,352	.0386250	80
8,353	18,792	.0574720	120
18,793	20,880	.0616100	128
20,881	22,968	.0652880	136
22,969	25,056	.0689660	144
25,057	27,144	.0731040	152
27,145	39,672	.0767817	160

39,673	41,760	.0804597	168
41,761	43,848	.0841911	176
43,849	45,936	.0881225	184
45,937	48,024	.0919540	192
48,025	Last hour of total service	.0957854	200

- 18.2 The maximum accrual of annual leave shall be ~~475~~ 500 hours. There shall be no accrual over ~~475~~ 500 hours.
- 18.3 Once an employee's current credit of annual leave reaches ~~475~~ 500 hours, the employee shall accrue no additional annual leave until the current credit is reduced below ~~475~~ 500 hours.
- 18.4 If, on the last day of the payroll cycle that includes 15 May and 15 November, an employee has current credit for more than 400 hours, the employee shall be paid for all hours in between 400 and the maximum set forth at 18.3 above. Such payment shall be made with the pay periods which include 15 May and 15 November.
- 18.5 It is the responsibility of employees not to exceed their maximum accrual.
- 18.6 The District shall be responsible for scheduling the annual leave periods of employees in such a manner as to achieve the most efficient functioning of the District. The District shall determine whether or not a request for annual leave will be granted. However, an employee's timely request for annual leave shall only be denied for good and

- 18.7 If an employee's timely request to take annual leave is denied and such denial causes the employee's current credit for annual leave to exceed the applicable maximum, then the employee's accrual shall continue beyond the maximum for the next three months. At the

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end of three months the maximum shall apply. During the three months and with a timely request, the employee shall be allowed to take annual leave except in cases of extreme business emergencies.

18.8 If the employee should die before separation from employment, his estate shall be  
entitled to any severance value of his accumulated sick leave as if he had resigned on  
the date of death.

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4/20/23**NEW Management Exempt Time Off**

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Each calendar year, all exempt classifications in the Supervisors' Association shall receive an annual allotment 40 hours of Management Exempt Time Off to be used within the calendar year it is allotted. The annual allotment of Management Exempt Time Off becomes available for use the first District business day of the calendar year and shall not roll over into the following calendar year. Any unused portion of Management Exempt Time Off will be automatically cashed out by the District to the employee on the first paycheck following December 1 of each calendar year.

A member shall make a request for Management Exempt Time Off to their direct supervisor. The District shall determine whether or not a request for Management Exempt Time Off shall be granted. However, an employee's timely request for Management Exempt Time Off under this provision shall only be denied for good and sufficient business reasons.

Effective July 1, 2022 through December 31, 2022, all exempt classifications in the Supervisors' Association shall receive a retroactive allotment 24 hours of Management Exempt Time Off.

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#### ARTICLE 19 -- SICK LEAVE

19.1 All eligible employees shall accumulate sick leave with full pay at the rate of 0.0459780 hours for each hour of service. All temporary employees shall accumulate sick leave with full pay at the rate of 0.033333 hours for each hour of service.

**A. Such leave may be taken for absences from duty made necessary by an employee's:**

- (1) Incapacity due to illness.
- (2) Incapacity due to injury.
- (3) Incapacity due to pregnancy, childbirth, miscarriage, or abortion.
- (4) Medical, dental or ocular examination or treatment, without incapacity, for which appointment cannot be made outside working hours.


**B. Physician Certification**

- (1) Normally, verification will not be required for short-term absences. A doctor's certification or other acceptable form of verification shall be required for all sick leave absences exceeding two (2) calendar weeks, and may be required for absences where there is doubt as to the employee's fitness to return to work or the employee's supervisor has a reasonable suspicion that there may be sick leave abuse. Notice of this requirement shall be given in advance in all cases of prior leave abuse.
- (2) A physician's certification authorizing an employee's return to work from an incapacity covered by this Section shall be reviewed by the District's medical support in the Workers Comp/Medical Screening Unit prior to the employee's return to work. An additional medical examination or testing may be required in order to determine whether the employee can safely perform his or her duties, or to determine appropriate work restrictions. The employee will be given advance notice in writing of the date, time, and place of the examination/testing and a general description of, and reason for, it. Such examination/testing will be done at District expense and on District time if the District requires it be conducted.

**C. Notification of Sick Leave**

In order to receive compensation while absent because of illness, injury, disability or special leave, the employee shall notify his immediate supervisor or designee prior to the start of the work shift, or as soon as practicable if the employee is incapacitated or otherwise unable to provide notification immediately prior to the start of the work shift. The employee shall provide the reason for the absence and the estimated length of absence. If the length of the absence exceeds the original estimate, the employee shall promptly notify his supervisor or designee of the need for and length of additional leave.

**D. Accumulation of Sick Leave**

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- (1) Accumulation of sick leave as of the end of the 24th pay period of each annual payroll cycle shall be limited to 1,000 hours of sick leave.
  - (2) If at the end of the 24th pay period of any annual payroll cycle the total of accumulated sick leave exceeds the limitation on accumulation above, the excess accumulated sick leave shall, as soon as practicable after the end of the payroll period, be paid to the employee entitled thereto at the employee's hourly pay rate at the end of said payroll period for 52.2% of the excess accumulated hours of such sick leave.
  - (3) Employees on military leave, either reserve, National Guard, or extended military service does not lose their accumulated sick leave credit.

**E. Special Leave**

Special leave with pay may be taken and charged against sick leave credits for an employee to care for the employee's ill or injured spouse, domestic partner, child, stepchild, parent, stepparent, brother, or sister. The total of such leave for ~~each incident~~ (e.g., illness, operation, birth) shall not exceed 48 hours per calendar year. Satisfactory justification for the granting of special leave shall be as required by the Department Head or Group Manager.

- 19.2 Any employee who resigns, is laid off for lack of work or funds, or is removed for cause, or retires under the provisions of the Public Employees' Retirement Law and has completed 10,440 hours without an involuntary interruption in District service may elect one (1) of two (2) options pursuant to Article 35.7 of this Agreement. The employee may elect to be paid at the employee's hourly pay rate for 52.2% of accumulated hours of sick leave in full at the time of separation with the remaining 47.8% converted to additional service credit, or, the employee may elect to have 100% of such accumulated hours converted to additional service credit.
- 19.3 If the employee should die before separation from employment, his estate shall be entitled to any severance value of his accumulated sick leave as if he had resigned on the date of death.



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#### ARTICLE 20 - PERSONAL LEAVE

- 20.1 An employee who has been employed by the District for more than 1,044 hours of continuous current service; including military leave may take personal leave with pay up to 24 hours during the current calendar year. Said personal leave shall not be charged against the employee's accumulated sick leave. Such personal leave may be taken for any personal reason, so long as such leave does not interfere with the mission of the District.
- 20.2 Personal leave must be used in the calendar year in which it is received. Personal leave shall not be carried over into the calendar year following the year in which it is received.
- 20.3 One-time personal leave increase of 24 hours will be provided for non-exempt employees. The one-time personal leave increase will be available during calendar year 2023 only.

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#### ARTICLE 21 -- USE OF ACCUMULATED LEAVE -- INDUSTRIAL INJURY

- 21.1. An employee injured in the scope and course of employment with the District may elect to take as much of accumulated sick leave, or accumulated annual leave, or disability leave, as when added to disability indemnity under Division 4 of the State Labor Code will result in a payment to the employee of not more than the hourly rate for 40 hours each week provided that sick leave shall be applied first, and that the order of application of annual leave and disability leave shall be at the option of the employee.
- 21.2. An employee using disability leave because of such an injury shall not be subject to Article 26.4B. When an employee uses such accumulated leave because of such an injury and the District is reimbursed by a third person for its damages by reason of such use, there shall be granted, for credit to the employee's sick leave, annual leave, or disability leave, such sick leave, annual leave, or disability leave equivalent to the amount so used or proportionately if each is reimbursed only in part.
- 21.3. If the District does not collect from the third person the full amount of the compensation paid and other damages for which it is liable to the employee and if the amount collected is not itemized so that there may be ascertained the amount collected in reimbursement for the sick leave, annual leave, or disability leave used, the amount received shall be credited to annual leave, sick leave, and disability leave in that order.

#### ARTICLE 22 -- USE OF ACCUMULATED LEAVE -- QUARANTINE

- 22.1. An employee who is quarantined may elect to take as much of the employee's accumulated sick leave or accumulated annual leave or accumulated compensating time off as is necessary to avoid loss of pay. Should the time lost exceed the sick leave, annual leave, and accumulated compensating time off, such excess shall be leave without pay.

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#### ARTICLE 23 -- LEAVE WITHOUT PAY

- 23.1 Leave without pay, except when necessitated by illness, injury, pregnancy, childbirth, miscarriage or abortion, may be granted by the appropriate Department Head, Group Manager or designee to an employee only after exhaustion of all accumulated annual leave. Leave without pay granted pursuant to this Section may not exceed 120 consecutive calendar days unless authorized by the District for a longer period. Such leave may be terminated at any time by the employee's returning to work. An employee on such leave is entitled to the benefits of sick leave accumulated prior to his absence.
- 23.2 Leave without pay, when necessitated by illness, injury, pregnancy, childbirth, miscarriage or abortion, may be granted by the appropriate Department Head, Group Manager or designee to an employee for a period which, when added to the period of disability leave and to the interval between the exhaustion of accumulated sick leave and the beginning of disability leave, shall not exceed 3,132 hours, unless authorized by the District for a longer period. Such leave shall be granted only after exhaustion of accumulated sick and disability leave, except that disability leave need not be exhausted prior to the taking of leave without pay for the 40 hours which must elapse following the exhaustion of accumulated sick leave in instances of Industrial Injury. An employee who, due to illness or injury, has taken leave without pay under this Section in excess of 30 consecutive calendar days shall be required to provide a physician's statement attesting to his fitness, based upon his normal duties pursuant to his job description, before returning to work.
- 23.3 Insurance Coverage for Leave Without Pay
- A. Any employee who is on leave without pay for a period of 30 or more consecutive calendar days will be permitted to continue coverage under a group insurance program if permitted under the terms of the program and if the employee pays the premiums required to maintain coverage for the duration of the absence.
  - B. Notwithstanding 23.3A above, the District shall pay the premiums it would otherwise pay for any employee who is on leave without pay and is receiving temporary disability indemnity under Division 4 of the State Labor Code as a result of an injury incurred in the course and scope of District employment provided, however, said employee continues to pay his portion of said premiums. Any payment of premiums pursuant to this subsection shall terminate 30 calendar days after the final temporary disability indemnity payment is made.

**ARTICLE 24 -- BEREAVEMENT LEAVE**

- 24.1 Upon the death of a member of an employee's immediate family, he shall be allowed such bereavement leave with pay as is actually necessary to take care of funeral and related arrangements or to attend the funeral, but not to exceed three (3) working days, or, one workweek as determined by the employee's assigned work schedule if the death occurs 250 miles or more from the employee's place of residence.
- 24.2 For the purposes of this Article, "immediate family" means spouse/domestic partner, or the employee's or spouse's/domestic partner's child, parent, brother, sister stepparent, stepchild, grandparent, grandchild, aunt, or uncle. Domestic partner is defined under current Administrative Code Section 6234.

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# ARTICLE 25 - FAMILY AND MEDICAL LEAVE

- 25.1 The District will provide family and medical leave for an employee as required by state law, federal law, and current Administrative Code Section 6231.
- 25.2 For purposes of this Article, employee shall mean an employee who has at least one year of service with the District and at least 1250 hours active service during the one year period immediately preceding the commencement of the family and medical leave.
- 25.3 The following provisions set forth certain of the rights and obligations with respect to family and medical leave. Rights and obligations which are not specifically set forth or defined below are contained in the U.S. Department of Labor regulations implementing the Federal Family and Medical Leave Act of 1993 ("FMLA"), and the California Fair Employment and Housing Commission regulations implementing the California Family Rights Act ("CFRA") (Government Code 12945.2).
- 25.4 Unless otherwise provided by this Article, "Family and Medical Leave" and "Leave" under this Article shall mean leave pursuant to the FMLA and CFRA.
- 25.5 An employee is entitled to a total of 12 weeks of Leave during any 12-month period to care for a newborn child, due to the placement of an adopted or foster child, to care for a child, parent, parent-in-law, spouse or domestic partner, or domestic partner's child or parent who has a serious health condition, or because of the employee's own serious health condition that prevents the employee from performing any one or more of the essential functions of the employee's position. The 12-month period for calculating Leave entitlement will be the 12-month period measured backward from the date the employee uses any leave.
- 25.6 An employee's entitlement to Leave for the birth or placement of a child for adoption or foster care expires 12 months after the birth or placement.
- 25.7 An employee shall provide at least 30 calendar days written advance notice for foreseeable events. For events which are not foreseeable, the employee shall notify the District as soon as the employee learns of the need for the Leave, but no later than five (5) working days from learning of the event.
- 25.8 When the Leave is due to the health condition of the employee, the employee shall utilize Leave in the following order:
- A. All sick leave;
  - B. Forty (40) hours of annual leave; if annual leave is exhausted the employee must choose to use other paid or unpaid leave to complete the 40 hours;
  - C. The employee has the option of using additional paid leave at full pay. If the employee chooses to use additional paid leave at full pay, it must be used in the following order:
    - (1) The balance of employee's annual leave
    - (2) Other paid leave

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D. If the employee elects not to use additional paid leave at full pay, then the employee shall utilize leave in the following order:

- (1) 75% disability;
- (2) 50% disability;
- (3) Annual leave;
- (4) Other paid leave at the employee's option;
- (5) Unpaid leave

E. The exhaustion of the paid leave shall run concurrently with the Leave.

25.9 When the Leave is taken for the birth of a child of the employee, for the placement of a child with the employee for adoption or foster care or to care for a child, parent, parent-in-law, spouse or domestic partner, ~~or~~ domestic partner's child or parent, grandchild, or grandparent who has a serious health condition, the employee shall utilize accrued Leave that he/she has available in the following order:

A. Special Leave;

B. Up to 240 hours of Sick Leave;

~~BC.~~ Annual, Personal Leave, or Compensatory Time-Off;

~~CD.~~ After exhausting special and annual leave, the employee has the option of using any additional paid leave for which the employee is qualified;

~~DE.~~ Unpaid Leave;

~~EE.~~ The exhaustion of the paid leave shall run concurrently with the Leave.

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25.10 If an employee takes sick leave or partial pay disability leave without requesting Family and Medical Leave, within two days of the employee's return to work and advisement of the District concerning the purpose of the sick leave, the District shall make a determination as to whether the sick leave shall be considered Family and Medical Leave.

25.11 The District shall maintain coverage under any group health plan which it offers for the duration of the Leave at the level and under conditions that would have been provided had the employee been working. However, the District shall only maintain such group health plan coverage for such employee for up to 12 weeks within a 12-month period commencing with the start of the Leave.

25.12 An employee has the right to reinstatement to the same or a comparable position unless the employee is exempted from such right under the provisions of the FMLA or CFRA.

25.13 Any leave taken by an employee under the Fair Employment and Housing Act's provisions applicable to pregnancy-related disabilities cannot be counted against the 12-week limitation on family and medical leaves authorized under the CFRA.

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#### ARTICLE 26 -- DISABILITY LEAVE

- 26.1 Subject to the maximum accumulation stated below, employees shall accumulate disability leave with partial pay equal to the number of hours hereinafter indicated.

Working Hours Credited Not to Exceed the Maximum Hereinafter Stated:

At each of these service hour points	Hours of 75% Leave	Hours of 50% Leave
1,040 hours	48	48
2,080 hours	48	48
4,160 hours	48	48
6,240 hours	48	48
8,320 hours	88	88
10,400 hours	40	40
Each subsequent 2,080 hours	40	40

- 26.2 The total number of hours of accumulated disability leave shall not exceed 800 hours at 75% of full pay and 800 hours at 50% of full pay. Total service shall include all time spent in the employ of the District, excluding time spent on disability leave and leave without pay.
- 26.3 Employees returning from leave for military service shall earn disability at the rate appropriate to the total time of District employment plus military service. In addition, employees shall accrue disability leave at the rate appropriate to the total time of District employment provided they meet one (1) of the following conditions:
- A. Change from one (1) category of employment to another category of employment that is eligible for disability leave;
  - B. Return from a separation of employment from the District within 12 months of the separation; or
  - C. Return from a non-cause involuntary separation of employment from the District.
- 26.4 Disability leave may be taken only after exhaustion of all accumulated sick leave and subject to the following conditions:
- A. Disability leave may be taken only in the event of the employee's disability due to illness, injury, pregnancy, childbirth, miscarriage, or abortion.
  - B. Except as provided in Article 21 -- Use of Accumulated Leave -- Industrial Injury, an employee shall not be entitled to disability leave until 40 hours shall have elapsed following the exhaustion of accumulated sick leave.
  - C. Medical or other certification in form acceptable to the employee's Department Head shall be furnished within five (5) working days of the commencement of a period of claimed disability leave and shall be renewed at intervals not exceeding 30 calendar days after the date of the initial or any subsequent certification until



termination of the disability leave, or as otherwise determined by the Department Head.

- D. Disability leave shall be taken by first exhausting disability leave payable at the rate of 75% of full pay and thereafter exhausting disability leave payable at the rate of 50% of full pay.
  - E. No added disability leave shall be credited during any period when an employee is on disability leave.
  - F. Disability leave shall terminate on the date of retirement or on the date employment is terminated, whichever comes first.
  - G. Except as provided in Article 21 – Use of Accumulated Leave – Industrial Injury, an employee who is on disability shall not be entitled to take annual leave until the exhaustion of disability leave or the termination of disability, whichever comes first.
- 26.5 An employee who has taken less than all the accumulated disability leave and then returns to work, may, after using any accumulated sick leave and subject to the conditions of Section 26.4 above, take the remaining disability leave together with any disability leave credited since returning to work for a recurrence of the same disability or for any other disability.
- 26.6 An employee who has taken any part or all of accumulated leave shall, upon returning to work, accumulate disability leave as if the employee's total service, as that term is defined in Section 26.2 above, commenced on the date of return to work. In no event shall accumulated disability leave earned either at the rate of 75% of the hourly rate or at the rate of 50% of the hourly rate exceed the amount of accumulated disability leave in either category determined with regard to an employee's total service from the date of first employment with the District. Nevertheless, in the event that any employee with 4,160 or more hours of total service returns having exhausted all 75% and 50% disability leave allotment, said employee shall be credited with 48 hours disability leave payable at the rate of 75% of the hourly rate and 48 hours disability leave at the rate of 50% of the hourly rate on the day of returning to work provided such crediting of disability leave occurs only once in any 1,040 hours.
- 26.7 An employee who has been employed by the District and is re-employed shall not be entitled to disability leave prior to completion of 1,040 hours of total service after such reemployment. The employee shall then be credited with accumulated disability leave corresponding to the employee's total service, and shall thereafter accumulate disability leave corresponding to the employee's total service. In no event shall such employee have accumulated disability leave exceeding that which would have accumulated as determined under Section 26.6 above.
- 26.8 An employee who is on annual leave or leave without pay and who is authorized to take sick leave and who thereafter exhausts accumulated sick leave shall be entitled to disability leave in the same manner as if the employee had been on working status at the time sick leave commenced.

- 26.9 An employee who has taken disability leave in excess of 30 calendar days will be required to provide a physician's statement attesting to the employee's fitness, based upon the employee's normal duties stated in the job description, before returning to work, and may be subject to medical examination. Such examination will be done at District expense and on District time if the District requests that it be conducted by District-selected medical personnel.
- 26.10 For the purpose of this Article, a District Holiday falling within any period of disability leave shall be deemed to be a full working day.
- 26.11 Annual and sick leave shall not accrue during periods of disability leave.

#### ARTICLE 27 -- MILITARY LEAVE

- 27.1 Every employee who is a member of the National Guard or Naval Militia, or a member of the reserve corps or force in the federal military, naval or maritime service, shall be entitled to military leave in accordance with the applicable provisions of the Military and Veterans Code of the State of California and federal law. The present law provides, in general, that a person having one (1) year or more of service with the District is entitled to military leave with pay for a period not exceeding 30 calendar days per fiscal year. The military service time of a new employee who comes to the District directly from military service may be applied to the one (1) year employment requirement necessary to the granting of military leave.
- 27.2 Veterans are entitled to reinstatement if their service does not exceed five (5) years in the military (or longer if involuntarily retained). Employees on military leave do not lose their accumulated leave credits. The District shall restore the veteran to employment as though no interruption of District service has occurred. The District shall apply all general pay adjustments enacted by the Board to the old base salary as though the veteran had not been absent. The veteran need not be returned to the former position but shall be given a position of status and pay equivalent to the former position. Although the veteran earns no leave while absent on military leave, neither does the veteran lose any leave balances while absent on military leave. Military service time is added to the length of District service for purpose of computing the rate at which a returning veteran shall earn leave.

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## ARTICLE 28 -- LEAVE DONATION PROGRAM

### 28.1 Purpose:

- A. Eligible employees may participate in either the Employee Emergency Leave Relief Fund, which is set forth in the Human Resources Operating Procedures (current E-Form 2299, or its progeny), or the leave donation program set forth below
- B. General Provisions - the leave donation program is designed to provide a mechanism to assist employees who have exhausted paid leave due to a serious or catastrophic illness or injury. This program allows employees who accrue leave to donate accrued annual leave or sick leave hours to a specific employee who has exhausted his own available leave balances. Serious or catastrophic illness or injury is defined as an employee's own adverse medical condition which requires the employee to be absent from work for more than twenty (20) consecutive work days, or a similarly debilitating illness or injury of the employee's parent (including in-law), grandparent, child, spouse or domestic partner.

### 28.2 Conditions

To receive leave donations an employee:

- A. Must have been employed in a regular or defined-term position for a minimum of six-months or in a temporary/recurrent position for a minimum of 12 months and worked more than 1250 hours in the previous 12 months;
- B. Must be absent from work due to his own catastrophic illness or injury for more than twenty (20) consecutive work days (as verified by a physician's statement) or be absent from work for more than twenty (20) consecutive work days in order to attend to an ill or injured parent (including in-law), grandparent, child, spouse or domestic partner (as verified by a physician's statement); and,
- C. Must have exhausted all applicable leave balances, including sick leave (if related to an employee's own illness), personal leave, special leave, disability leave and annual leave; except however, the General Manager may approve the solicitation/acceptance of leave donations prior to all balances being exhausted, when the physician's statement and leave balances indicate the probable exhaustion of balances within two pay periods.
- D. Donations are:
  - (1) Voluntary;
  - (2) Made from accrued annual leave, personal leave, and sick leave balances in whole hour increments but for a minimum of eight (8) hours; A donor may donate all accrued annual leave and personal leave but must retain at least 80 hours of sick leave in his own sick leave account;
  - (3) Irrevocable. If any donated hours remain at the end of the recipient's

catastrophic leave, the recipient may retain up to 80 hours, and the remaining hours shall be transferred to the leave transfer pool; and,

- (4) Subject to taxes in accordance with applicable IRS and State law, and may be subject to withholdings as required by law.
- E. The total donations received into an employee's annual leave balance normally shall not exceed 320 hours; provided however, that donations in excess of 320 hours may be considered and approved by the General Manager or his designee. Donations attempted in excess of the maximum shall not be taken. Such donations shall not be eligible for payout above the maximum annual leave accrual.
- F. Upon approval of a request for donations from an employee or his guardian if the employee is incapacitated, Human Resources shall, at the employee's (or guardian's) request, post a notice of the eligible employee's need for donations on District bulletin boards accessible to employees and/or via e-mail. Confidential medical information shall not be included in the notice.
- G. Donations shall be administered according to procedures established by Human Resources and requested on a form prescribed by Human Resources. Signed approvals of the receiving and donating employees must be properly provided before a donation is processed.
- H. Nothing in this Article shall be construed to modify the employment relationship between the District and the receiving employee, or to restrict the District's management rights. Neither shall this Article modify existing District rules, policies or agreements regarding unpaid leaves of absence or family medical care leave.

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#### ARTICLE 29 -- FLEX PLANS

- 29.1 During open enrollment, the District shall offer a program that allows all employees to have a tax advantage in their medical contributions, provided they are eligible for medical insurance coverage, and any other insurance premiums that are eligible for tax advantages through payroll deduction. In addition, the District will allow eligible employees to participate in the District - sponsored Flexible Spending Account program, which includes the following salary reduction options: pre-tax dependent care spending account and pretax health care spending account, at no cost to the employee, to the extent permitted by law.

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## ARTICLE 30 – MEDICAL INSURANCE

- 30.1 The District shall continue to provide medical plans maintained by the Public Employees' Retirement System (PERS).
- 30.2 Effective January 1, 2022~~18~~, the District's monthly contribution shall be 100% of the total premium for the highest cost HMO basic medical plan for either PERS Region 24, or PERS Region 32, whichever is higher, Anthem Health Maintenance Organization (HMO) basic medical plan, for the Sacramento region, but shall not exceed the monthly premium for the medical plan selected by the employee. ~~Employees who retained PERS Care coverage and who retired on or before January 1, 2012 shall be kept whole for any out-of-pocket premium costs, up to 90% of the PERS Care premium.~~
- 30.3 ~~Effective January 1, 2019, the District's maximum monthly contribution shall be 100% of the total premium for the highest-cost HMO basic medical plan for either the Los Angeles region, or Other Southern California region, whichever is higher, but shall not exceed the monthly premium for the medical plan selected by the employee.~~

~~30.4 Non-Desert employees who were enrolled in PERS Care during 2011 and who switched to one of the HMO plans or PERS Choice shall receive a cash incentive through the first pay period following adoption of the 2017-21 MOU by the Board of Directors, at which time it shall terminate.~~

~~The cash incentive through termination shall be equal to:~~

~~Employee Only: \_\_\_\_\_ \$172/month~~

~~Employee +1 Dependent: \_\_\_\_\_ \$343/month~~

~~Employee + 2 or More Dependents: \$445/month~~

Desert employees enrolled in PERS Gold (formerly PERS Choice) will continue to receive the dollar amounts specified below above and shall continue receiving such amounts through the term of the MOU.

Employee Only: \_\_\_\_\_ \$172/month

Employee + 1 Dependent: \_\_\_\_\_ \$343/month

Employee + 2 or More Dependents: \$445/month

- 30.5 An employee who opts out of insurance will receive \$125 per month (\$1,500 per year), provided the employee provides proof of alternate insurance coverage.
- 30.6 If subsequent to December 31, 2021~~4~~, the insurance premium increases and the parties have not agreed to an increased District contribution, then the District's contribution shall remain at the dollar amount in effect on December 31, 2021~~4~~. Such contributions shall continue at that dollar amount until the parties agree in writing to change the District's contributions.
- 30.7 The parties shall establish a Health, Dental, Vision Benefits Advisory Committee, at the request of either party. The Committee will examine such issues as benefit levels, plan

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design, administration, and cost containment. Committee recommendations will be presented to the parties for their use in negotiations for a successor MOU.



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#### ARTICLE 31 – DENTAL INSURANCE

- 31.1 The District shall continue to provide dental insurance for the duration of this MOU, to a maximum of \$2,500 per year. The dental insurance provider shall not be changed without mutual agreement of parties.
- 31.2 The District shall pay the entire premium for each employee and qualified dependents to the age of 26.
- 31.3 Any reserve funds developed under the policy may be applied towards paying the premium of any policy obtained in accordance with this MOU.
- 31.4 Effective January 1, 2018, the District shall cover orthodontia benefits for all enrollees in the District's dental plan, up to a lifetime maximum benefit of \$2,000 per covered person.

design, administration, and cost containment. Committee recommendations will be presented to the parties for their use in negotiations for a successor MOU.

**ARTICLE 32 -- VISION INSURANCE**

32.1 The District shall continue to provide a vision care program at the benefit level in effect on December 31, 2000. The vision insurance provider shall not be changed without mutual agreement of parties.

32.2 The District shall pay the entire employee-only premium rate.

32.3 An employee has the option to purchase family coverage through the program at his own expense for dependents to the age of 26.

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**ARTICLE 33 -- LIFE INSURANCE**

- 33.1 The District shall provide \$100,000 of group life insurance for each regular full-time employee. Pursuant to the Internal Revenue Code, life insurance coverage above \$50,000 is taxable.
- 33.2 An employee shall continue to have the option of purchasing additional insurance at his own expense.

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#### ARTICLE 34 -- LONG-TERM DISABILITY INSURANCE

- 34.1 The District shall provide long-term disability insurance to all employees. The insurance shall provide a benefit of \$1,000 per month, but not to exceed 60 percent of the employee's monthly salary. The benefit shall commence 180 days after the employee's disability commences and shall expire 2-1/2 years after commencement, unless the employee's disability terminates sooner. The District's insurance carrier shall determine eligibility including whether an employee is disabled. Pre-existing conditions shall be excluded from coverage. The District shall have the right to change carriers and coverage so long as the replacement insurance is at least as advantageous as the initial insurance described above. Irrespective of any change, the District's obligations in regard to furnishing long-term disability insurance shall not be increased.
- 34.2 An employee shall have the option of purchasing additional insurance at his own expense.

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#### ARTICLE 35 -- RETIREMENT

- 35.1 An eligible employee shall have the option of retiring from the District according to the contract the District has with the Public Employees' Retirement System (PERS) to provide what is commonly called "Local Miscellaneous 2% @ 55" retirement, plus other contracted optional benefits. Employees hired on or after January 1, 2013 who are "new" PERS members as defined by the Public Employees' Pension Reform Act of 2013 (PEPRA) shall be eligible to retire under "Local Miscellaneous 2% @ 62" retirement formula.
- 35.2 Except as provided for below, the District shall contribute to PERS as Employer Paid Member Contribution (EPMC) seven (7) of the total seven (7) percent of normal member contributions to PERS for employee retirement. Further, such EPMC shall be reported to PERS as special compensation so that it will be included in "compensation earnable" for employee retirement purposes.
- Employees hired on or after January 1, 2012 shall contribute the full seven (7%) percent normal member contribution to PERS for the first five years of employment. For such employees, there shall be no EPMC reported to PERS as special compensation. Upon completion of five years of total service, as defined by "service date," the District shall pay the same contribution to PERS as EPMC as existing employees who are PERS "classic" members. A Benefits Service Date will be used to track an employee's anniversary "service date" for eligibility, and all time on the District's payroll as an employee (including "non-PERSable" time, such as working as a Student Intern, or as a Recurrent employee) will be counted towards the five years. Moreover, breaks in service, regardless of length, will be adjusted for under the Benefits Service Date to track all time worked.
- 35.3 Employees hired on or after January 1, 2013 and who are "new" PERS members as defined by PEPRA shall contribute a member contribution of fifty percent (50%) of the normal cost of the Local Miscellaneous 2% @ 62 retirement plan. For such employees, there shall be no EPMC reported to PERS as special compensation.
- 35.4 The contributions referenced above are based upon authority from PERS and upon tax treatment permitted by the Internal Revenue Service under Internal Revenue Code Section 414(h)(2) and revenue rulings related thereto, and by the California Franchise Tax Board. It is understood that the State Legislature or Congress may alter the statutory authority for this tax treatment, and the Franchise Tax Board or the IRS or the United States Department of the Treasury may alter the current revenue rulings, either by other rulings or by issuing new regulations.
- 35.5 Article 35.2 shall be operative only so long as the District's Employer Paid Member Contribution continues to be excluded from the gross income of the employee under the provisions of the Internal Revenue Code. If the aforesaid provision becomes inoperative, the District shall contribute to PERS on the same basis it contributed commencing on 1 January 1981.
- 35.6 Such contributions shall be paid from the same source of funds as used in paying wages to the affected employees. The employee does not have the option to receive the District

contributed amount paid pursuant to this Article directly instead of having it paid to PERS.

35.7 Conversion of sick leave to additional service credit:

- A. Effective December 1, 1990, the District amended its contract with the Public Employees' Retirement System to provide that the unused accumulated sick leave when certified by the District, at time of retirement may be converted to additional service credit (total number of unused hours divided by 8) at the rate of 0.004 year of service credit for each day of unused sick leave, as set forth in Government Code Section 20965.
- B. An employee eligible to obtain service credit under Government Code Section 20965 may substitute accumulated hours of sick leave for service credit for retirement purposes.

35.8 The District has amended its contract with PERS to provide the Level 4 Survivor Benefit.

35.9 Effective January 1, 2012 the District shall implement the schedule for post-retirement health benefits contained in Government Code Section 22893(a). The application of this schedule shall be subject to the provisions of Government Code Section 22893, and the schedule will solely apply to employees hired after the schedule becomes effective pursuant to PERS laws and regulations. Pursuant to Government Code Section 22893(a)(6), an employee hired prior to the schedule becoming effective may elect to be subject to the schedule.



## ARTICLE 36 -- DEFERRED COMPENSATION

36.1 The District shall provide a matching contribution, on behalf of each employee who is a participant in the savings plan provided for in Administrative Code, Division VI, Chapter 6, Article 6. The District's matching contribution shall be in the amount of one dollar for each dollar contributed by the employee in accordance with a compensation-reduction election made by the participant pursuant to Administrative Code Section 6785(a), subject to the following limits

36.2 During a calendar year the maximum District matching contribution shall not exceed four and one-half (4 ½ %) percent of the total of the employee's cash compensation and salary reductions permitted under sections 401(k), 414(h), and 457 of the Internal Revenue Code during that year (total cash compensation).

36.3 This Article shall only be operative to the extent that the District can make matching contributions and maintain compliance with the Internal Revenue Code and District's Savings Plan regulations. If this Article becomes inoperative, then either party may, on 30 days' notice, notify the other party of its desire to amend this MOU as a result of such event. Upon expiration of such notice, both parties shall meet and confer in good faith pursuant to division VI, Chapter 1 of the Administrative Code.

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# **ARTICLE 37 – CATEGORIES OF EMPLOYMENT**

37.1 The District agrees to the following categories of employment:

## **A. Regular full-time**

Employees working a 40-hour week for an indefinite period of time. A regular full-time employee shall receive all benefits for which he is eligible.

## **B. Regular part-time**

Regular employees who work a regular schedule of at least 20 hours per week but less than 40 hours per week. Employees in this category may job share. PERS membership and health benefit (Public Employees' Medical and Hospital Care Act ["PEMHCA"]) regulations are applicable. Regular part-time employees who are hired to work a 20 to 39-hour week shall be provided with all the terms and conditions of this Agreement unless otherwise specified, on a prorated basis (leave accrual shall be effectively prorated by the number of hours worked). Notwithstanding the above, a regular part-time employee who is employed as of the date of implementation of this Agreement and is receiving full health insurance benefits, shall continue to receive such benefits for the duration of his employment as a regular part-time employee.

## **C. Temporary full-time**

Employees who are hired for a specified limited time and who work a 40-hour week. PERS membership and health benefit (PEMHCA) regulations are applicable. Temporary full-time employees may participate in the 401(k) and/or 457 programs subject to meeting the eligibility criteria provided in the Administrative Code. All temporary employees are entitled to receive all Holidays as provided for by this Agreement. Temporary full-time employees are not eligible for any other benefits.

## **D. Temporary part-time**

Employees who are hired for a specified limited time and who work less than a 40-hour week. PERS membership and health benefit (PEMHCA) regulations are applicable. Temporary part-time employees may participate in the 401(k) and/or 457 programs subject to meeting the eligibility criteria provided in the Administrative Code. Temporary part-time employees are not eligible for any other benefits.

## **E. Recurrent employees**

Employees hired for an indefinite period of time on an irregular basis, such as intermittent, emergency, or on-call. PERS membership and health benefit (PEMHCA) regulations are applicable. Recurrent employees shall be provided with all the terms and conditions of this Agreement unless otherwise specified, on a prorated basis (leave accrual shall be effectively prorated by the number of hours worked). Notwithstanding the above, a recurrent employee who is employed as of the date of implementation of this Agreement and is receiving full

health insurance benefits, shall continue to receive such benefits for the duration of his employment as a recurrent employee.

- 37.2 Employees who move from one category of employment to another or who are involuntarily separated from service and return to service shall not have their service hours reset for the purposes of benefit accrual.

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#### ARTICLE 39 — PRODUCTIVITY & TELEWORKING

39.1 Both parties recognize that it is to their mutual interest and to the best interest of the community to continually strive to improve the quality, economy and efficiency of the District's work effort and work product, including an emphasis on a hybrid application of telework and traditional in-person work to accomplish the District's objectives.

39.2 Until such time that a District-wide policy, or alternative MOU provision on Teleworking has been negotiated, employees who have had the ability to telework as a result of the COVID-19 pandemic, shall have the choice to continue working a hybrid work schedule pursuant to direction from the General Manager or his designee.

For those employees not working a hybrid schedule, notwithstanding any days in which an employee is required to report to his regular work location, Subject to the approval of his immediate supervisor or manager, an employee may, subject to the approval of his immediate supervisor or manager, be allowed to work telework remotely on a day-to-day basis at a location other than his regular work location. Requests by employees to telework remotely shall be considered on a case-by-case basis, and shall not be granted in instances where teleworking remotely would have an adverse impact on District operations or productivity. Teleworking remotely at an employee's request shall not constitute a Temporary Work Location as defined in Section 65.2 of this MOU.

It is agreed and understood that this provision shall not specifically preclude any bargaining unit classification from telework, provided that the decision to grant a request for telework shall be at the discretion of Management based upon business needs and provided it is done in an equitable and fair manner.

39.3 In the event of a District-declared state of emergency (e.g., COVID-19 pandemic) in which employees are encouraged to work remotely due to concerns for health and safety, teleworking shall be offered to employees whose job duties can be performed remotely, and do not require reporting to a District work location.

#### Shutdown Scheduling:

39.4 It is the intent of the parties that bargaining unit employees have adequate rest between scheduled shifts during Shutdowns, as well as during emergencies, or other urgent assignments as determined by the District. Accordingly, the District shall make every effort to provide employees who have just completed a shift, with eight hours of rest plus commute time, before they are required to report for their next scheduled shift. This subsection 39.4 shall apply to FLSA "exempt" employees. For FLSA "non-exempt" employees, the provisions of Article 41E (Fatigue Time) shall continue to govern.

39.5 It is further the intent of this article to assure fair and equitable assignment of shutdown shifts. Shift assignments should be coordinated by the responsible bargaining unit employees based on consensus, fairness and operational needs.

In cases where there is a disagreement on the assignment of shifts, a written determination shall be made by Management, taking into consideration 1) the number and type of shifts previously assigned, and 2) applicable experience or expertise needed for that shift.

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Notwithstanding the above, the parties agree that Management retains the right to assign shutdown shifts in specific situations based on operational needs. Such decisions shall be articulated to employees in writing, except in the case of emergencies in which case decisions may be issued orally.

**Commented [LV6]:** The intent is that in most situations, shift assignments shall be worked out between the supervisors in charge of the shutdown shift. However, management can make shift assignments at its discretion, provided that it has a business justification.

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## ARTICLE 40 – MERIT INCREASES

### 40.1 Definition

A merit increase is a salary increase of one (1) or more steps within the salary range of a specified classification. This increase is awarded to employees who have performed their job duties in a manner that warrants such a merit increase.

### 40.2 Eligibility

#### Regulations

#### A. Probationary Employees:

The employee's eligibility date for a merit increase is the first day of the pay period following his completion of the six (6)-month probationary period. Employees who are in the midst of serving a probationary period on July 1st (i.e., the common District evaluation date) of a given year, shall not be eligible for an evaluation or merit step increase on that date. Such an employee shall be eligible for a merit increase upon successful completion of probation, not to exceed the salary range maximum for his classification, and will thereafter receive a common performance evaluation at the next July 1st date. If an employee is in the midst of serving a promotional probationary period on July 1st of a given year, and subsequently does not complete his promotional probation (whether by failing to pass probation or voluntarily demoting), he shall receive a regular evaluation for work performed in the previous lower classification during the regular evaluation period, and he shall be eligible to receive an evaluation and merit increase retroactive to July 1st of that year, contingent on the following:

- (1) The employee must have room within the salary range of his previous lower classification to receive a merit increase (i.e., the employee cannot exceed the salary range maximum for his classification).
- (2) The employee's performance must be rated as "Meets Standards" or higher based upon work that was performed during that evaluation period in the previous lower classification.

#### B. Regular and Recurrent Employees:

- (1) The employee's eligibility date for a merit increase shall be the first day of the pay period each year that includes the District common evaluation date of July 1st, provided such merit increase does not cause the employee to exceed the salary range maximum for his classification, or
- (2) If the employee was serving a probationary period, and completed probation during the same pay period that includes July 1<sup>st</sup>, the eligibility date for a merit increase following the merit increase specified in Article 40.2A above becomes one (1) year from that date, on the first day of the

pay period that includes the following July 1st, provided such merit increase does not cause the employee to exceed the salary range maximum for his classification.

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- (3) During the term of the 2022-20—MOU, the parties agree to utilize the Labor-Management Committee under Article 62 to explore the possibility of using the employee's anniversary date for the annual performance review. These discussions shall occur alongside the discussion of a new MyPerformance evaluation form.

40.3 An employee who has been promoted shall receive a promotional increase equivalent to at least two (2) salary steps effective the date of promotion, provided such increase does not cause the employee to exceed the salary range maximum of his classification.

40.4 Determination of Amount:

OVERALL PERFORMANCE RATING	MERIT INCREASE SCHEDULE
Outstanding	Three (3) or four (4) steps (8.25% or 11%)
Exceeds Standards	Two (2) or three (3) steps (5.5% or 8.25%)
Meets Standards	One (1) or two (2) steps (2.75% or 5.5%)
Improvement Needed	No merit increase
Unsatisfactory	No merit increase



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**Article 41 – SPECIAL PAY PRACTICES FOR NON-EXEMPT EMPLOYEES**

**A. OVERTIME PAY**

- (1) Overtime is defined as all hours worked in excess of forty (40) hours worked in a work week.
- (2) For purposes of computing overtime, hours worked shall include all paid hours except sick leave.
- (3) Overtime shall be compensated at the rate of one and one-half (1-1/2) times the employee's regular rate of pay, except that work beyond thirteen (13) consecutive hours shall be compensated at the rate of two (2) times the employee's regular rate.
- (4) Regular rate is defined as the sum of the compensation paid to an employee for hours actually worked at the employee's hourly rate, plus any premium pay, except overtime, earned by the employee, divided by the hours actually worked during the workweek. The regular rate shall be used only for computing overtime payment due under this MOU.

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- (5) Notwithstanding the provisions above, an employee may opt to be compensated at the rate of one hour of compensatory time (CTO) for each hour of overtime worked plus one-half hour at the regular rate for each hour of overtime worked. Such CTO may be accumulated up to a maximum current credit accumulation of forty (40) hours. one hundred (100) hours
- (6) It is agreed and understood that nothing herein is intended to limit or restrict the authority of the District to require any employee to perform overtime work, ~~whether or not eligible for overtime pay.~~ It is further agreed that overtime will be ordered and worked only when required to meet the District's needs.
- (7) Scheduled overtime occurring on an employee's regular day off shall be at least two (2) hours. Travel to the employee's regular work location doesn't count as time worked. Scheduled overtime shall be fairly assigned to qualified employees based on the skills and responsibilities needed to perform the assignment. Unscheduled overtime shall be governed under Article 41(D) Call Back Pay.

**B. SHIFT PAY**

1. On the effective date of this Agreement or as soon as administratively possible, an employee shall be paid shift pay premium in the amount of ten (10) percent of his normal hourly rate for qualifying hours.
2. Shift pay shall be paid for all hours worked between 6:00 p.m. and 6:00 a.m.
3. No shift pay shall be paid for overtime work performed as an extension of a day shift or as part of a call back pursuant to 41D, Call Back Pay.

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#### C. STANDBY PAY

- (1) An employee is on Standby when he is required by management to be available for a call for his services while in a non-working status during off-duty hours.
- (2) An employee placed on Standby duty shall be required to:
  - A. Be ready to respond in a reasonable time to calls for his service;
  - B. Be readily available and reachable at all hours by telephone, or other communication devices;
  - C. Refrain from activities during Standby, which might impair his assigned duties upon call.
- (3) Standby duty shall be assigned by management in writing.
- (4) Employees who are assigned to standby will be paid Standby Pay Premium in the amount of ten (10) percent of his normal hourly rate for qualifying hours. Employees who are assigned to standby and required to respond within fifteen (15) minutes will be paid Standby Pay Premium in the amount of fifteen (15) percent of his normal hourly rate for qualifying hours.
- (5) An employee shall not receive Standby Pay for hours during which the employee is being paid at the overtime rate.

#### D. CALL BACK PAY

- (1) An employee is called back if:
  - (a) He is unexpectedly required to leave home to return to duty because of unanticipated work requirements if notice to return is given to the employee following termination of his normal work shift and departure from his regular work location; or
  - (b) He is called and asked to work at home outside of normal work hours on District business because of unanticipated work requirements.
- (2) An employee, who is called back as defined above, is eligible to receive pay for a guaranteed minimum period of time or pay for the period of time worked, whichever produces larger compensation.
- (3) Time worked shall include the time spent performing the task requiring the call back and actual travel time from home to work and back.
- (4) Guaranteed Minimum Time Period for a Call Back
  - (a) Unexpectedly required to leave home to return to work duty:
    1. An employee residing within District-provided housing the camp or village, or on the same District property as the

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worksite shall receive a minimum of two (2) hours pay at his overtime rate for a call back.

2. An employee residing outside of District-provided housing ~~the camp or village, or off the same District property as the~~ worksite shall receive a minimum of four (4) hours pay at his overtime rate, for a call back.

(b) Unexpectedly required to work at home:

1. An employee shall receive a minimum of sixty (60) minutes pay at his overtime rate for a call back.
5. If an employee receives an additional call back within the previous guaranteed minimum period, the employee shall not receive another minimum but shall receive pay for time worked beyond the previous call back minimum period.
6. Notwithstanding D.4 and D.5 above, whenever an employee is unexpectedly required to return to duty as provided in D.4(a) and D.4(b) before the established starting time of the employee's next regular shift, it shall be deemed an early shift start. An employee shall not receive a guaranteed minimum for an early shift start. The employee shall be compensated for time worked at his overtime rate only for the hours between the time of the call back and the start of his regularly scheduled shift.

## ARTICLE 42 \_\_\_\_ CLASSIFICATION STUDY/JOB AUDIT

## Article 42.11

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Classification Study

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The Association and the District desire to complete a classification study to obtain accurate and descriptive information about the work in the Association-represented classified positions that are listed below and to ensure base pay for the listed classifications is appropriate.

Upon completing of the classification study, there shall be an equity adjustment in base pay for the classifications listed below. The equity adjustment shall be the greater of:

- 1) 2.75%; or
- 2) the classification study's recommended adjustment.

In no event shall this classification study result in a reduction of the base pay for the classifications listed below.

The Association is to fully complete and return their portion of this classification study to the District within three months of the date of this provision becoming effective. In any event, the Association must complete its portion of this classification study no later than December 30, 2023. Upon completion of the Association's portion of the classification study, the District must complete the classification study within six months. The equity adjustment in base pay provided herein shall be effective retroactively to the first full pay period after July 1, 2023.

If the Association fails to complete its portion of the classification study by December 30, 2023, no equity adjustment in base pay will be provided and these provisions will have no effect. If the District fails to complete the classification study in accordance with the above, the specified classifications below will automatically receive an equity adjustment in base pay of 2.75%, retroactively to the first full pay period effective July 1, 2023.

The specific classifications subject to this classification study are the following:

Title	Timeframe
Team Manager I	60-90 days
Team Manager II	60-90 days
Team Manager III	60-90 days
Team Manager IV	60-90 days
Team Manager V	60-90 days
Team Manager VI	60-90 days
Team Manager-Laboratory	60-90 days
Support	
Aircraft Pilot	90 days - 6 months
Inventory Coordinator	90 days - 6 months
Sr Research Chemist	90 days - 6 months
Microcomputer Technology	90 days - 6 months
Supervisor	
Sr Environmental Specialist	90 days - 6 months

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Sr Resources Specialist	90 days – 6 months
Chief of Party	90 days – 6 months
O&M Supervisor	90 days – 6 months

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#### ARTICLE 43 -- TRANSFERS

- 43.1 An employee may request a transfer to a vacant position in the same classification at the same rate of pay. Transfers can be either to a different geographic location or a different workgroup.
- 43.2 An employee who wishes to transfer to another position shall submit a written request for such transfer and have his name placed on a list to be kept by the Human Resources Group. The transfer request will be retained for one (1) year.
- 43.3 To be eligible for such a transfer, the employee must meet the following conditions:
- A. Meets the minimum qualifications for the position;
  - B. ~~Have a satisfactory attendance and~~ Has not received an appealable disciplinary action in the last six (6) months record, and;
  - C. Received a meets standards or higher performance evaluation on the most recent performance evaluation.
- 43.4 The transfer request will be considered by the District prior to recruitment for the vacancy.

In determining whether to grant a transfer request, the hiring manager shall consider the needs of the District/workgroup and whether employees on the transfer list have the demonstrated skills and experience necessary to perform the job duties. The hiring manager and/or Human Resources Group shall interview at least two (2) employees on the transfer list per vacancy who meet the minimum qualifications and have the demonstrated skills and experience. Such interviews may be conducted either in person or telephone/teleconference. The decision whether to grant a transfer is within the sole discretion of the District.

- 43.5 The District reserves the right to transfer individuals as, in the judgment of the appropriate manager(s), may be necessary for the good of the District. However, District-initiated transfers shall only be made with reasonable advance notice and explanation. In no instance shall a decision whether to transfer an employee be retaliatory, discriminatory, capricious or unreasonable.

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## ARTICLE 44 – LAYOFF

### 44.1 Definitions

- A. *Displacement* - shall mean the replacement by one employee of another employee with less District service.
- B. *Group* - shall mean a work unit that reports to the General Manager's Office, as indicated in the approved annual budget and, with respect to any other department, shall mean the entire department.
- C. *Organizational Unit* - shall mean a Section, Unit or Team within the Group, or the Group as a whole.
- D. *Layoff* - shall mean terminating an employee for non-disciplinary reasons.
- E. *Recall* - shall mean the notification of an employee who was laid off and is on the reinstatement list.
- F. *Reduction-in-force* - same as layoff.
- G. *Reinstatement* - shall mean the reemployment of an employee who was laid off.
- H. *Surplus* - shall mean a classification or skill not needed by the District.

### 44.2 Reason for Layoff

A layoff may be initiated within any group by the Group Manager with the approval of the General Manager, when necessary for reasons of lack of funds or lack of work.

### 44.3 Order of Layoff

- A. Prior to a layoff, the Human Resources Group Manager shall determine the total length of service in hours, including hours of paid leave, but excluding leave without pay and compensatory time earned, of each employee within the affected Group. A composite listing of all employees within the Group shall be prepared, listing their length of service in hours.
- A-B. As soon as practicable, the lists shall be distributed to the Association, managers, and supervisors of organizational units where a layoff or displacement could occur.
- B-C. In the event a tie exists between two or more employees having similar length of service, the Human Resources Group Manager shall use hire dates to distinguish ties. In the instance of ties, the employees with the earliest hire date shall be laid off last. In instances where the employees have the same hire date, the employee with the earliest birth date shall be laid off last.



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- C. ~~The lists shall be distributed to the Association, managers, and supervisors of organizational units where a layoff or displacement could occur.~~
- D. The Group Manager shall determine the organizational unit and classification or classifications to be affected by a layoff and the skills or skills within each classification determined to be surplus.
- E. The Human Resources Group shall then develop a seniority list, which shall show the length of service of employees within the organizational unit, as well as the Group as a whole. The Group Manager shall identify and separate the names of the employees by skill groups. The respective Group Manager and Human Resources shall then identify those employees to be declared surplus.
- F. In case there are two or more employees in the classification from which layoff is to be made, such employees shall be laid off on the basis of inverse order of seniority in District service. Except that, employees whose current performance evaluations are less than a "meets standards" rating with a Corrective Action Plan which have been on record in their personnel folder for at least 30 days, shall be laid off first.
- G. The respective Group Manager, with written approval from the General Manager, may specify employees within a classification exempt from layoff or displacement if loss of these employees shall seriously impair the function of the District.
- H. The parties recognize the Association's intent to continue its representational responsibilities as the certified bargaining representative for employees in Unit 03 in the event of layoffs. Accordingly, an employee serving as either President or Vice President of the Association at the time of the layoff, shall be granted "super seniority" for purposes of layoff or displacement. "Super seniority" shall be defined as seniority over any other employees in their respective classifications, and shall apply only during the employee's term as either President or Vice President. However, it is agreed and understood that "super seniority" shall not exempt an employee from layoff or displacement.
- In the event of a layoff, the Association reserves the right to re-open negotiations on this Paragraph H, to consider granting "super seniority" to elected additional bargaining unit officers or representatives. "Super seniority" shall be defined as seniority over any other employees in their respective classifications, and shall apply only during the employee's term as either an elected bargaining unit officer or representative. However, it is agreed and understood that the "super seniority" shall not exempt an employee from ultimate layoff due to the District's lack of funds or lack of work as defined in 44.2 above.
- HI. The results of Paragraphs D through G above shall be sent in writing to the Association.

#### 44.4 Notice of Layoff:

The Notice of Layoff shall include:

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- A. A statement that the employee's position is surplus or he is being laid off due to the exercise of displacement rights of another employee based on seniority.
- B. The effective date of the layoff;
- C. The length of service of the employee;
- D. A description of the employee's displacement rights.
- E. A description of the employee's reinstatement rights. A request for reinstatement form shall be provided with the layoff notice.
- F. A description of the employee's severance rights as stated in Articles 19.2, 35.7(B), and 44.7 in this Agreement and/or Administrative Code Section 6248.
- G. A description of the employee's right to receive assistance in pursuing outside employment opportunities by requesting a referral to an out-placement service firm for up to 40 hours ~~five days~~ of out-placement coaching and counseling service.
- H. A list of notices of layoffs within the bargaining unit shall be provided to the Association.

#### 44.5 Displacement

- A. Displacement shall be permitted provided the displacing employee has the skills required for that position and has demonstrated successful use of such skills in his employment with the District as determined by the group manager and the Human Resources Group Manager.
- B. A request for displacement ~~shall~~ must be made in writing to the Human Resources Group Manager within five (5) working days following delivery of the Notice of Layoff. An employee who is issued a Notice of Layoff while on a Leave of Absence shall have five (5) working days after returning to his position to submit said request.
- C. Because displacement by seniority is a sequential operation, and because of other factors affecting the timing of a reduction in force, it is anticipated that the Notices of Reduction In Force shall be furnished to affected employees at different times.
- D. The Human Resources Group Manager shall furnish to the affected group manager, as well as the Association, the names of those employees requesting displacement rights. Those employees who have not been exempted from displacement pursuant to Section 44.3 G above are subject to displacement by an employee with more District service.
- E. Displacement of an employee with less seniority shall be permitted within the same job family or in a classification previously held by the displacing employee. Displacement shall be limited to the group in which the reduction in force takes place.

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- F. Employees to be laid off due to the exercise of displacement rights by an employee with more District service shall be given a Notice of Layoff. Employees so notified shall have all rights to which employees who have received the Notice of Layoff are entitled.

#### 44.6 Reinstatement

- A. Employees who are laid off and desire to be reinstated at a later date must immediately request reinstatement in writing to the Human Resources Group Manager. Priority shall be given to the reemployment of each employee.
- B. The Human Resources Group Manager shall maintain a list of the names of laid-off employees who have requested reinstatement.
- C. Those employees on the reinstatement list shall be recalled only for available positions appropriate to their skills and/or for positions for which they meet the minimum requirements as stated in the job description. Recall of employees from the reinstatement list shall be made in reverse order of layoff based on seniority.
- D. Each employee shall be responsible for keeping the Human Resources Group office advised of his current home address and upon notification of reinstatement shall be required to respond in person or in writing within ten (10) working days following the notification of recall. Recalled employees shall be required to report for work within 30 calendar days following the date of notification. Failure to comply with these requirements shall result in the employee's name being removed from the reinstatement list.
- E. Prior to being reinstated, an employee shall be required to pass a physical examination to determine if he is physically qualified to perform the duties of the position if the previous District examination was made more than six months before the date of reinstatement.
- F. The name of a laid off employee shall be removed from the reinstatement list two years following the last day for which the employee was paid.

- 44.7 In the event an employee who has received a Notice of Reduction in Force declines to assert his displacement rights, or is unsuccessful in displacing another employee, the employee shall be placed on paid administrative leave for three months prior to being laid off. The employee shall be placed on the three months of administrative leave no sooner than 30 days after receipt of the Notice of Reduction in Force. Such employees shall receive full pay and benefits while on administrative leave, and they may continue to assert their displacement rights (subject to compliance with Article 44.5 above) until their employment is terminated and they are removed from Metropolitan's payroll. They shall continue to be eligible for appointment to vacant positions within the District without resort to a recruitment process at the discretion of a department head or group manager.

#### 44.8 Grievability

A group manager's determination made pursuant to 44.3 G hereof, with written approval from the General Manager, shall be deemed the exercise of a management right and shall not be subject to review under the District's grievance procedure. However, such determination is subject to appeal pursuant to Administrative Code Section 6218(b)

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within thirty (30) days of receipt of a Notice of Reduction in Force by any employee who is laid off as a result of the department head or group manager's determination as an abuse of discretion.

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#### ARTICLE 45 -- HEALTH AND SAFETY

- 45.1 The District shall provide a safe and healthful workplace for all employees by complying with all state and federal laws concerning health and safety.
- 45.2 Employees and the Association may exercise all their legal rights, as well as any rights afforded under applicable District Operating Policies and Administrative Code provisions, to secure a safe and healthy workplace without any reprisals.
- 45.3 The District and all employees shall comply with all state and federal laws concerning safety and health.
- 45.4 It is the legal and contractual duty of all employees in the course of performing their regularly assigned duties to be alert to unsafe practices, equipment and conditions and to report any such unsafe practices, equipment and conditions to their immediate supervisor and the District's Manager of the Safety and Regulatory Services Section (SRS) workplace health and safety. The employee has the right to submit the matter in writing personally or through the local Association President or his designee. The immediate supervisor and/or the SRS Manager District's manager of workplace health and safety will submit a written response to the employee as soon as practicable. On any matter not addressed by the immediate supervisor or the SRS Manager District's manager of workplace health and safety within what the employee reasonably believes was a sufficient reasonable period of time, the Association President or his designee may confer with the Group Manager.
- 45.5 The parties agree that the Supervisors Association/Management Committee established under Article 62 shall be utilized to address health and safety concerns upon the request of either the Association or the District appoint one representative to be a member of the Management Safety Committee.
- 45.6 In the event that employees are exposed while at work to carcinogens or other harmful substances exceeding Cal-OSHA Permissible Exposure Limits, medical care monitoring shall be provided through the Workers Compensation process. Medical monitoring shall be made available at no cost to the employee as long as medically necessary.

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#### ARTICLE 46 -- NO SMOKING POLICY

- 46.1 The parties agree there shall be no smoking in any District building or District vehicle. Smokers will be accommodated by designating smoking areas outside, and away from building entrances and air intakes in accordance with current MWD Operating Policy D-08.
- 46.2 ~~Because we have an interest in keeping our employees healthy and productive,~~ The District will encourage our smoking employees to quit by reimbursing them for the cost of an approved smoking cessation program to a maximum of \$100 per employee during the term of this Agreement, after successful completion of a program. The reimbursement will apply for only those employees whose medical plan under PERS does not provide coverage for such a cessation program.
- 46.3 The Human Resources Group shall assist any interested employees in locating an approved smoking cessation program.
- 46.3 ~~In addition, if, in the District's determination, there is sufficient interest, the District will arrange for lunchtime or after hours smoking cessation classes at work.~~



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#### ARTICLE 47 -- DRUG-FREE WORKPLACE

- 47.1 As provided by the Drug-Free Workplace Act of 1988, and in accordance with Operating Policy D-07 (Drug and Alcohol Free Workplace) the parties agreed declare that all locations where the District conducts business shall be considered an alcohol and drug-free workplace.
- 47.2 All employees are ~~absolutely~~ prohibited from the following two categories of activities involving alcohol, drugs, or controlled substances inclusive of marijuana, while in a District workplace.
- A. Unlawfully manufacturing, distributing, dispensing, and possessing.
  - B. Reporting to work or working under the influence.
- 47.3 The District will make available to employees information regarding:
- A. Medical insurance benefits provided through Public Employees' Retirement System under the provisions of the Public Employee's Medical and Hospital Care Act for substance abuse programs
  - B. Community resources for assessment and treatment.
  - C. Counseling program.
  - D. Employee assistance program.
- 47.4 The parties agree that assistance toward rehabilitation will be offered to any employee with an alcohol, drug, or substance abuse problem. This policy will apply whether the employee voluntarily admits to such a problem, or has violated the Alcohol and Drug-Free Workplace Policy.
- 47.5 Discipline:
- A. Any employee who violates Article 47.2 A of this MOU will be subject to discipline, up to and including termination.
  - B. Any employee who violates Article 47.2 B of this MOU for the first time ~~wish~~ shall be eligible for the benefits pursuant to Article 47.4 above and may be subject to discipline in accordance with District disciplinary procedures.

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#### ARTICLE 48 – WELLNESS ENHANCEMENT

- 48.1 The intent is to provide a wellness enhancement to promote the overall health status of employees. Accordingly, beginning the first pay period following adoption of this Agreement by the District's Board of Directors, each employee in a classification represented by the Association as of that date shall be eligible for a reimbursement of up to \$200, for qualifying wellness expenses incurred between that date and the end of the calendar year.

Thereafter, each calendar year, each employee shall be eligible for a reimbursement for qualifying wellness expenses of up to \$200.

- 48.2 Qualifying expenses include physical examinations or assessments not otherwise covered by an employee's health insurance plan; health/fitness equipment or classes; and/or health club/gym memberships. Reimbursement requests must include receipts, and are subject to approval by the Human Resources Group. Reimbursement requests for expenses incurred during a calendar year must be submitted by January 31st of the following year. Monies not used in a calendar year may not be rolled over into the next calendar year.

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#### ARTICLE 49 -- PERSONNEL FILE

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- 49.1 An employee, or an employee's representative with the written consent of the employee may inspect the employee's personnel file. The employee may choose to inspect his personnel file in a private area inat the offices of the Human Resources Group or may have his file sent electronically, or to his work location for inspection there. No derogatory information shall be placed into the personnel file unless it is associated with a formal action appropriate for the personnel file, and unless a copy has been provided to the employee and he has been given an opportunity to respond.
- 49.2 Employee personnel files and the information therein shall be held in strict confidence by the District and shall be subject to inspection only by officials of the District acting on official District business or otherwise as required by law. It shall be the responsibility of the Human Resources Group to ensure that individuals without a legitimate business need to inspect an employee's personnel file not be permitted to do so.
- 49.3 At the request of an employee, all disciplinary documents in the employee's personnel file shall be removed after three years ~~unless there has been further discipline regarding the work behavior that led to the discipline.~~ However, the parties agree to a pilot program whereby disciplinary documents that are in the employee's personnel file during the term of this 2022-202\* MOU, shall be removed after two (2) years, unless there has been further discipline regarding the work behavior that led to the discipline. As part of negotiations on a successor MOU in 202\*, the parties agree to discuss and evaluate any disciplinary impacts arising from this pilot program, and whether it should be continued into the next MOU term.

This provision shall not apply to performance evaluations.

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- A. A grievant is an employee, a group of employees, or the Association. Alleged grievances which affect more than one employee in a substantially similar manner normally will be consolidated.
- B. A grievance is an alleged misapplication by the District of a specific provision(s) of (1) this Agreement, (2) the Administrative Code, or (3) other rules or regulations governing personnel practices and other terms and conditions of employment within the scope of negotiations, which alleged misapplication adversely affects the grievant.  
  
 —A grievance also includes the following actions: (1) withholding of a merit step, (2) oral warning, (3) written warning (4) suspensions of less than forty (40) hours, and (5) a performance evaluation with an overall rating of less than Meets Standards (i.e., Improvement Needed or Unsatisfactory).
- C. A written grievance is a grievance as defined above, which has been reduced to writing on a standard form provided by the District. The written grievance shall include the employee's name, classification, group, immediate supervisor's name, and representative's name, if any. It must also include the specific section of the provision alleged to have been misapplied, a clear and concise description of the alleged grievance with the circumstances supporting the employee's allegation, and the specific remedy requested to resolve the grievance.
- D. A "day" is any day in which the Headquarters of the District is open for business. Unless specifically defined otherwise, this definition of "day" shall apply to all other MOU articles referencing deadlines or duration of time.

**50.2 Waivers and Time Limits:**

- A. Failure by the District management to reply to the grievance within the time limits specified in this Article automatically grants to the grievant the right to process the grievance to the next level within the time limits defined in the next level. It shall be the responsibility of the Human Resources Group to ensure timely District responses at each level of the Grievance Procedure, or to obtain mutual agreement between the parties to extend response deadlines.
- B. Any level of review or any time limits established in this Article may be waived or extended by mutual agreement confirmed in writing.
- C. If a grievant fails to appeal from one level to the next level within the time limits established in this grievance procedure, the grievance shall be considered closed/settled on the basis of the last response by the District management and the grievance shall not be subject to further appeal.

**50.3 General Provisions**

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- A. The Association agrees to use the District's standard grievance form when processing formal grievances.
- B. The grievant shall be bound by the statement of the grievance as originally defined. Non-related issues shall not be considered on appeal.

If the grievant is not represented by the Association, the Association shall be notified of a settlement proposed at any formal level of the procedure which settlement is acceptable to both the grievant and the District prior to the settlement being finalized. The purpose of this step is to allow the Association to state its position for the record.

If the Association does not provide a written response within seven (7) days after notification, such opportunity to respond shall be considered waived, and the proposed settlement shall be implemented and the matter closed. If a timely response is made, the District's representative shall give full consideration to the Association's position prior to settlement of the grievance.

C. Employees are encouraged prior to initiating the grievance procedure to avail themselves of the option to discuss issues and disputes in the Supervisors Association/Management Committee (Article 62) in an effort to bring about an informal resolution.

The authorized agents of both parties shall be authorized to resolve an issue prior to initiating the grievance procedure. It is agreed and understood that timelines for initiating the grievance procedure shall be held in abeyance until discussions in the Supervisors Association/Management Committee have been concluded.

#### 50.4 Informal Complaint

- A. Before filing a written grievance, the employee shall attempt to resolve the problem in meeting with his immediate supervisor.
- B. The immediate supervisor shall give an oral response to the employee within five (5) days of the date the issue was raised by the employee.

#### 50.5 Formal Grievance:

- A. Level I
  - (1) If the grievant is not satisfied with the resolution proposed at the informal level, he may, within thirty (30) days from the event giving rise to the grievance or from the date the grievant could reasonably have been expected to have had knowledge of such event, file a written grievance with his Unit Manager on the District's grievance form.

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- (2) The Unit Manager shall, within ten (10) days of receipt of the grievance, meet with the grievant and give a written response to the grievant on the original grievance form.

**B. Level II**

- (1) If the grievant is not satisfied with the written response of the Unit Manager, the grievant may, within ten (10) days from receipt of such response, file a grievance with his Group Manager on the original grievance form.
- (2) Within ten (10) days of receipt of the written appeal his Group Manager shall meet with the grievant and shall investigate the grievance, including meeting with the supervisor, and give a written response to the grievant on the original form.
- (3) Grievances concerning subjects listed in Article 55 -- Appeal Procedure, are appealable to that procedure. For all other grievances, the decision of the Group Manager is final.

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#### ARTICLE 51 – RIGHT TO ASSOCIATION REPRESENTATIVE

- 51.1 If an employee reasonably believes that a meeting with his supervisor, whether prior to that meeting, or in the course of, may result in disciplinary action against him, he shall be permitted, upon request, to have an Association representative in the meeting. If the meeting has already commenced when the request for representation is made, the meeting shall terminate until such time that he has obtained Association representation. If an Association representative is not available at the time of the meeting, the supervisor shall arrange an alternative meeting as soon as possible, but at least within 5 working days.
- 51.2 An employee who is not the subject of an investigation, but who is being questioned by District management as a witness shall also be permitted, upon request, to have the attendance of an Association representative in such meeting. If an Association representative is not available at the time of the meeting, the supervisor shall arrange an alternative meeting as soon as possible, but at least within 5 working days.
- 51.3 Only one Association representative shall be authorized to use District time to represent an employee as provided in this Article. However, the Association at its discretion may ~~have request that~~ one (1) additional representative be allowed to represent an employee (e.g., to provide subject matter expertise on the issue being discussed). Release time for such additional representative shall be at the discretion of the Employee Relations Officer. However, such release time shall only be denied for good and sufficient business reasons.
- 51.4 The parties jointly agree to inform employees of their representation rights pursuant to this Article.



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## ARTICLE 52 – GRIEVANCE REPRESENTATIVE

### 52.1 Grievance Assistance

- A. A bargaining unit employee as defined in Article 1-grievant may, at any step of the grievance procedure, be assisted in the preparation and presentation of his grievance by up to two (2) Association representatives selected by him, pursuant to Article 51.3.
- B. If the bargaining unit employee as defined in Article 1-grievant elects to be represented, the District may designate a management representative to be present at the grievance meeting to represent the District.

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#### ARTICLE 53 – PRE-DISCIPLINARY PROCEDURE

- 53.1 Before ~~if~~ a regular employee is to be suspended for forty hours or more, demoted, or discharged, he shall:
- A. Receive written notice of the intended action at least 14 days before the date it is intended to become effective, stating the specific justification grounds and the particular facts upon which the action is based;
  - B. Receive copies of any known related materials, reports or other documents upon which the intended action is based;
  - C. Be accorded the right to respond in writing within a reasonable mutually agreed upon period of time to the intended charges;
  - D. Be accorded the right to ~~meet~~ due process "Skelly" hearing within a reasonable period of time with the Human Resources Group Manager or designee who has the authority to recommend either uphold, modify, modification or rescind ~~elimination of~~ the intended disciplinary action; and
  - E. Be given the written decision of the Human Resources Group Manager or designee prior to the effective date of the disciplinary action.
- 53.2 Upon notification that the employee has elected to be represented by the Association, the District shall copy the Association representative on all documents listed above.

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## ARTICLE 54 – DISCIPLINE

### 54.1 Proper Cause and Progressive Discipline

Employees may only be disciplined for just (proper) cause. The District shall follow the principles of progressive discipline as contained in this Article, and shall apply discipline in a fair and equitable manner consistent with Article 59 (Non Discrimination, which is inclusive of the Board's October, 2021 statement on Diversity, Equity & Inclusion).

### 54.2 Examples of Employee Misconduct

Examples of employee misconduct are found in Appendix A.

54.3

### 54.34 Disciplinary Actions

Disciplinary actions ~~are~~ should be designed to fit the nature of the infraction problem and may progressively range from may include oral warning, written warning, demotion, suspension, to discharge. The particular action imposed shall depend on the severity of the misconduct and the particular factual circumstances involved.

### 54.54 Oral Warning

Oral warning consists of a discussion between an employee (who may request to be represented by the Association) and his supervisor or other manager concerning performance problems or minor instances of misconduct and may be initiated at any time. During this discussion, the supervisor or manager shall review with the employee both the specific deficiencies in question and District standards. The cause(s) of the deficiency shall be identified along with specific improvement needed. The employee shall be advised of the action that will be taken should he fail to achieve the improvement outlined within a reasonable time period as specified at the session. The substance of an oral warning shall be reduced to writing, placed in the supervisory file, and a copy shall be given to the employee. A written confirmation of oral warning shall not remain in the supervisory file after one year unless there have been further performance problems or instances of misconduct.

### 54.65 Written Warning

A written warning generally is appropriate to correct instances of more serious employee misconduct which do not warrant suspension or discharge, repeated instances of minor misconduct or identified performance problems. The purpose of a written warning is to put the employee on notice that the District shall take other disciplinary action against him unless immediate, real, and consistent improvement in performance is demonstrated.

Any decision to issue a written warning shall be reviewed by the Human Resources Group. The supervisor or manager issuing the written warning shall meet with the employee to discuss specific improvements required, over a defined time period, to avoid further disciplinary action. A copy of the record shall be given or sent to the

employee and the Association, unless the employee has not elected representation by the Association.

The employee may submit a written response on the record within 30 days, which shall be placed in the employee's official personnel file. The employee shall be asked to sign the record to signify receipt of the written warning. The written warning shall be placed in the employee's official personnel file. The employee's response shall be placed in the file if received within 30 days.

#### 54.76 Demotion

Demotion is the movement of an employee from his current classification to a new classification, either within this bargaining unit or another bargaining unit, having a lower salary grade.

#### 54.87 Suspension

Suspension is the temporary removal of an employee from his duties without pay for up to 30 calendar days, consistent with Article 54.3 above.

#### 54.8 Corrective Action Plan

An employee may be placed on a Corrective Action Plan ("CAP") to identify specific areas of improvement following a suspension or demotion, or a performance evaluation with an overall rating of less than Meets Standards. A CAP lasts for 90 calendar days, unless an extension is reasonably justified and provided in advance in writing.

Upon issuance of a CAP, Management and the employee shall meet to ensure that the expected areas of improvement are clear, and to allow the employee to seek any necessary clarification. The intent is for the employee to understand what is expected of him as a result of the CAP.

Upon successful completion of a 90 calendar day CAP, as needed, the supervising manager will continue to provide guidance to the employee and promptly address performance deficiencies should they arise.

For disciplinary actions involving written warnings, a CAP shall not be included. However, the written warning shall contain a plan for improvement which shall outline the expected area(s) of improvement.

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## ARTICLE 55 -- APPEAL PROCEDURE

55.1 The following subjects may be appealed pursuant to this Article if they have first met the requirements of Article 50 -- Grievance Procedure and Article 53 - Pre-Disciplinary Procedure:

- A. The following disciplinary actions imposed on regular, non-probationary employees:
  - (1) Suspensions of forty (40) hours or more,
  - (2) Demotions,
  - (3) Discharges,
- B. Alleged misapplication of a specific provision of this Agreement,
- C. Alleged misapplication of a specific provision of the Administrative Code, Operating Policies, or other
- C. D. Written rules or regulations governing personnel practices with the exception of rules and regulations concerning employee performance evaluation.

55.2 Hearing of a grievance by the Hearing Officer will be limited to the written grievance as originally filed by the employee to the extent that said grievance has not been satisfactorily resolved.

55.3 Appeal Procedure:

- A. A written request for a hearing must be filed by either the employee or Association with the Human Resources Group Manager within fifteen (15) days of:
  - (1) The date of the notice of disciplinary action; or,
  - (2) The last day a response was possible at the second level of Article 50 -- Grievance Procedure.
- B. The parties may mutually agree upon the selection of the Hearing Officer or shall jointly request a list of panel Hearing Officers as determined in Article 55.5, below.
- C. Within five (5) days following receipt of the above referenced list the parties shall confer to select the Hearing Officer. The obligation to strike the first name shall be determined by lot, and the parties shall alternately strike one name from the list until only one (1) name remains, and that person shall be the Hearing Officer.
- D. Within ten (10) days after the selection of the Hearing Officer, the hearing shall be scheduled or on a date mutually agreed upon by the parties.
- E. The Hearing Officer shall, within thirty (30) days of the conclusion of the aforementioned hearing, render his decision, in writing, and shall direct copies to

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the Human Resources Group Manager or designee, the grievant and the grievant's representative (if any).

#### 55.4 Hearing

- A. The fees and expenses of the Hearing Officer shall be shared equally by the District and the employee or Association (whoever files the request for the hearing), it being understood and agreed that all other expenses including, but not limited to, fees for non-District employee witnesses, transcripts, and similar costs incurred by the parties during such hearing, will be the responsibility of the individual party involved.
- B. The hearing may be public or private at the option of the grievant.
- C. The grievant may be represented by legal counsel.
- D. The hearing shall be informal and the rules of evidence prescribed for duly constituted courts shall not apply.
- E. Hearings shall be conducted in accordance with rules and procedures adopted or specified by the Hearing Officer, unless the parties hereto mutually agree to other rules or procedures for the conduct of such hearings.

#### 55.5 Pool of Hearing Officers

Hearing officers may be selected from a list of names provided by the State Mediation Service.

#### 55.6 Decision

- A. The decision of the Hearing Officer shall not add to, subtract from, or otherwise modify the terms and conditions of this Agreement.
- B. The decision of the Hearing Officer may sustain or revoke the disciplinary action or second level grievance response and shall be final and binding on the parties.
- C. The decision of the Hearing Officer can be appealed pursuant to Code of Civil Procedure Section 1094.5.

## ARTICLE 56 -- EMPLOYEE EVALUATION

### 56.1 DEFINITION:

Employee evaluation is a bidirectional communication process whereby of rating an employee's work performance, is rated based upon an objective, documented and factual appraisal of his job knowledge, skills, initiative, productivity, work habits, human relations and communication skills over the previous 12-month evaluation period.

-This process is not just an annual preparation of a formal report, but is a continuous process of training, guiding-assigning, coaching, observing, and evaluating employees towards obtaining the District's and the employee's goals.

56.2 ~~Within 60 days of~~ Following adoption of this Agreement by the Board of Directors, the parties shall continue to meet as a joint labor-management committee, pursuant to Article 62, to discuss streamlining the employee performance evaluation process. The intent shall be to provide those employees responsible for preparing evaluations and their managers, with information, resources and guidance to assist them. The parties' shared goal is to enable employees to complete performance evaluations as efficiently and expeditiously as possible. The parties also agree to ongoing discussions of potential revisions to the existing MyPerformance evaluation form, as well as extending deadlines for employees who have a large number of evaluations to prepare. Other issues pertaining to performance evaluations may be raised by either one or both of the parties.

56.3 The employee may submit a rebuttal to the evaluation for inclusion in their official personnel file, and may at their discretion forward a copy of such rebuttal to their respective Group Manager.



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#### ARTICLE 58 -- FAIR LABOR STANDARDS ACT

- 58.1 The parties agree that for the purposes of the Fair Labor Standards Act (FLSA), employees are salaried employees rather than hourly employees and are exempt from overtime except where noted in 9.9. Changes to this status shall be made by mutual agreement.
- 58.2 Notwithstanding FLSA exempt status, the parties agree to make every reasonable effort to allow employees to have an uninterrupted lunch period each day, at or near the midpoint of their shift.

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**ARTICLE 59 – NON-DISCRIMINATION**

59.1 There shall be no discrimination on the part of either the District or the Association towards any employee on any of the basis forbidden by any state or federal law applicable to the District which prohibits discrimination against any individual or group of individuals. This provision is exempt from the grievance procedure. A complaint may be filed through appropriate internal EEO channels, and/or State or Federal agencies.

59.2 The parties mutually agree to uphold the Board of Directors' Commitment to Diversity, Equity, and Inclusion, which shall include the Board' statement of October 12, 2021.

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#### ARTICLE 60 – EMPLOYEE LIST

- 60.1 Consistent with current Government Code Section 3558, Each six (6) months, the District shall be required to will provide the Association with a listing, by employee name, classification, and home address, of each employee in the Supervisors Association Bargaining Unit.

**ARTICLE 61 -- BULLETIN BOARDS**

- 61.1 The District ~~will~~ shall provide reasonable bulletin board space for the Association's use.
- 61.2 ~~Details, such as necessity of a~~ A separate bulletin board, size, and location, ~~will~~ shall be determined between the parties at each location.
- 61.3 Bulletin board space shall be used solely for information concerning Association activities and policies.
- 61.4 Any materials posted shall be dated and signed by the Association area representative responsible for the posting.
- 61.5 Information posted by the Association shall not contain anything which may reasonably be construed as maligning the District or any of its employees or agents.
- 61.6 The Association agrees that this Article provides the right to post materials only on designated bulletin board space.

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#### ARTICLE 62 – SUPERVISORS ASSOCIATION/MANAGEMENT COMMITTEE

- 62.1 The Parties agree that regular meetings to explore mutual problems will be beneficial to the relationship between the District and the Association. To promote a problem solving approach, the parties agree that decision-making shall be by consensus. For these purposes, consensus means that no meeting participant objects to a decision or course of action under consideration by the group.
- 62.2 The parties agree to meet up to once per month for the first six months following adoption of the 2017-2024 MOU by the Board of Directors, and thereafter at least quarterly on mutually agreed upon dates and times to discuss any issue concerning the rights of either party or the relationship between the District and the Association or the District and employees that the Association represents. The purpose of the meetings is to exchange information and to solve problems. The parties agree that upon adoption of the 2017-2024 MOU, issues of interest to either party pertaining to training shall be identified and agendaized a priority for discussion by the Committee.
- 62.3 The parties agree that such meetings shall not be negotiations and therefore the results of the meetings shall not be binding on the parties unless the Authorized Agents for each party develop and execute a Side Letter of Agreement document that memorializes their results.
- 62.4 Each of the parties will have four (4) representatives, plus additional people as reasonably needed for a specific topic.

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#### ARTICLE 63 -- MEMBERSHIP DUES DEDUCTION

- 63.1 The District agrees to deduct all authorized initiation fees, periodic dues, and special assessments, voluntary contributions, and agency fees, to the extent permitted by law, from Association members who have signed approved Association membership authorization documents ~~card or cards~~.
- 63.2 The District ~~shall~~will promptly remit such fees, dues and assessments to the Association, together with a list of effected dues-paying member~~employee~~.
- 63.3 The Association shall indemnify and save harmless the District, its officers, agents and employees from any and all claims, demands, damages, costs, expenses, or liability arising out of this Article.
- 63.4 In any case where any dues-paying member~~employee~~ does not have sufficient funds to provide for payment of authorized dues, the Association shall be responsible for collection from the dues-paying member~~employee~~.
- ~~63.5 The Association shall submit annual financial reports to the District and Unit employees to the extent required by Government Code Section 3502.6 or its amendments.~~

**Commented [LV8]:** District agrees to strike this language as proposed by the Association, with the understanding that the parties are still bound by any applicable provisions of the Government Code.

## ARTICLE 64 -- AGENCY SHOP

- 64.1 The parties recognize that due to the United States Supreme Court's ruling in Janus v. AFSCME (2018), the provisions of this Article 64 no longer have any legal force or effect. If, during the term of this MOU, any or all legal provisions of "Agency Shop" should change, such that "Agency Shop" provisions are again legally permissible, the parties agree to re-open negotiations on this Article. Subject to any applicable federal or state laws governing agency shop provisions, the parties recognize as of the effective date of this MOU, the Association's right pursuant to California Government Code Section 3502.5 to petition for, and conduct an election, to implement an Agency Shop. Upon receipt of a petition filed pursuant to Government Code 3502.5, the District shall meet with the Association to select a neutral entity to conduct the election.

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#### ARTICLE 65 -- TRAVEL EXPENSES AND TRAVEL TIME

Travel expenses shall be authorized and paid as provided in this Article and the relevant sections of the Administrative Code (see AC 6320 et. seq.). It is the intent of the parties to fairly and properly reimburse an employee for additional expenses and pay for additional travel time.

The following definitions shall apply to this Article.

- A. *Per Diem* — Paying the employee the negotiated dollar amount for room, board, and incidental expenses. Itemization of expenses is not required.
- B. *Actual Expenses* — Reimbursing the employee for the total actual costs for room, board and incidental expenses related to the conduct of District business in accordance with the District's Travel Guide and up to federally-set limits established by the Internal Revenue Service (IRS). Expenses of \$25 or less need not be accompanied by supporting documentation. An employee will not be reimbursed for alcohol.
- C. *Regular work location* — Primary assignment to a specific work location.
- D. *Temporary work location* — Any work location other than an employee's regular work location. An employee may be assigned to a temporary work location for more than three years by mutual agreement.
- E. *Incidental Expenses* — Other reasonable expenses while conducting District business including but not limited to transportation, tips, laundry services, telephone calls (including calls to family), conference room fees, fees for copying, parking fees, gasoline, fees for FAX machine or PC usage and toiletries.

##### 65.1 Work Location:

The District has the option to assign an employee to a temporary work location (65.2); or a new regular work location (65.3).

##### 65.2 Temporary Work Location:

If an employee is assigned to a temporary work location, the District has the option of:

- A. Requiring the employee to commute. For purposes of this section a commute is measured from home to the worksite (i.e., portal to portal).
- B. Providing room and board at a District facility or through assigned public accommodations with reimbursement of eligible expenses.
- C. Placing the employee on overnight travel status as provided in Article 2 of the Administrative Code and below at 65.2C(3).
  - (1) If an employee is required to commute from home to a new temporary work location, and the new work location causes a longer commute, then the District has the option of supplying a vehicle or paying mileage, as

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provided in Article 66 (Mileage Reimbursement) below, for the added distance.

- (2) If the commute referred to in 65.2C(1) above is done on non-work time, then the time needed for the added distance shall be reported as time worked. Such time shall be calculated by dividing the added distance by 40 mph. In special circumstances, e.g. the distance is shorter but the commute is longer, the added travel time shall be determined by agreement between the employee and the supervisor.
- (3) Overnight Travel Status:
  - (a) If the employee is placed on overnight travel status, the District must either reimburse the employee's actual expenses or pay "Per Diem Subsistence." The decision to reimburse for actual expenses, or pay Per Diem Subsistence shall be determined jointly by the employee and the manager, taking into consideration employee preference, ease of administration, and operational efficiencies.
  - (a)(b) -The District shall provide a cash advance upon an employee's request in an amount not to exceed that estimated for the expected length of the overnight travel status. In instances when travel is expected to exceed thirty (30) days, the approval of the Group Manager is required.
  - (b)(c) Per Diem Subsistence shall be ~~\$250~~~~480~~.00 for each day an employee is placed on overnight travel status. If an employee is not required to work for more than half of the day on the last day of the assignment, per diem subsistence shall be ~~\$90~~~~125~~.00 on the last day of travel status. Effective the first pay period that includes July 1, 2018, the Per Diem Subsistence shall be increased to \$200.00, or \$100.00 if an employee is not required to work for more than half the day on the last day of the assignment.
  - (c) An employee will be placed on overnight travel status at the start of the assignment and taken off at the end of the assignment.
  - (d) An employee on overnight travel status will be allowed one round trip per assignment. If the assignment lasts longer than one week, the employee will be allowed one round trip per week.
  - (e) If an employee brings a family member or guest on overnight travel status, the employee is responsible for payment of family member or guest's charges for lodging, meals, and incidental expenses.
  - (f) If an employee is not placed on overnight travel status, and is instead asked to commute pursuant to Article 65.2(A) above, the employee may request reconsideration from management, up to

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and including Section or Group level, either prior to the start of, or during the course of, the assignment.

- (g) In considering the employee's request to be placed on overnight travel status, Management shall consider the potential length and duration of the commute, the duration of the assignment at the temporary location, and whether the crew being supervised by the employee has been placed on overnight travel status.

During the course of the assignment, if the employee is unable to leave the jobsite as scheduled due to unanticipated work requirements, and does not receive a timely response to a request for overnight travel status, he shall be considered approved for one (1) night, provided that the crew being supervised by the employee has also been placed on overnight travel status, and the employee reasonably believes it is necessary due to the length or duration of the commute.

- (h) Submission of a Travel Authorization Request (TAR) must be completed by the end of the next business day. If an employee is working in a remote location without computer access, the TAR must be completed either by the end of that week, or no later than the end of the assignment.

- (i) While on overnight travel status, an employee shall be required to stay in an approved domicile, including a hotel, motel, Airbnb, or vacation rental by owner. A personal automobile, recreational vehicle or camper shall not be acceptable for purposes of overnight travel status.

- (j) Though not required for per diem compensation, employees are encouraged to retain receipts submitted for any actual expenses incurred.

### 65.3 Regular Work Location

- A. If an employee's regular work location is changed and the new work location causes a longer commute, then the District has the option of either providing a vehicle or paying mileage for the additional miles.
- B. The total period of transportation assistance, i.e. mileage or use of a District vehicle, to any employee reassigned to a new regular work location shall not exceed 12 months.
- C. The furnishing of transportation assistance shall not preclude reimbursement for relocation expenses.
- D. If the employee sells or vacates his residence of record during the 12-month period of eligibility for transportation assistance, such assistance shall immediately stop.

**ARTICLE 66 -- MILEAGE REIMBURSEMENT**

- 66.1 Mileage reimbursement for employees using their personal automobiles for District business shall be deemed to include all costs, but not be limited to, including gas, oil, tires, insurance, maintenance, and depreciation and shall be at the current IRS published rate.

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#### ARTICLE 68 -- USE OF DISTRICT VEHICLES

- 68.1 Employees in the bargaining unit shall have the right to use District vehicles, as described below, for travel to District facilities, response to urgent District needs including emergencies, or other business reasons as assigned by Management.
- 68.12 An employee shall be permitted to drive his District work group vehicle home at the end of a workday, if by the end of the workday, returning the vehicle to his regular work location would result in a significantly longer commute than driving to his home. Such permission shall be subject to the submission and approval of a Transportation Order. In instances where it is not practical for the employee to submit a Transportation Order in advance, permission may be given verbally by the employee's own manager, or another manager if the employee's own manager is not available.
- However, submission of a Transportation Order must be completed by the end of the next business day. If an employee is working in a remote location without computer access, the Transportation Order must be completed, or no later than either by the end of that week, or no later than the end of the following week if the employee is working in a remote location without computer access.
- Use of a District vehicle as described herein does not apply to those employees who ~~do not~~ already have a long-term vehicle assignment. Personal use of a District vehicle shall be subject to any applicable Internal Revenue Service regulations, and District rules and operating policies governing the use of its vehicles.

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#### ARTICLE 69 – PROFESSIONAL DEVELOPMENT AND PRODUCTIVITY ENHANCEMENT


69.1 The District shall reimburse employees for costs incurred for professional development. A list of eligible expenses shall be jointly developed by the Human Resources Group and the Association, and may include but is not limited to: seminars, journals, periodicals, and books; travel expenses, professional association fees and dues; pre-approved electronic software and hardware that is supported by the District's Information Technology Group. Such software and hardware may be installed on personally owned computers in order to enhance work productivity. The costs shall be reimbursed upon the supervisor's approval and receipt by the District of evidence that monies have been spent, and shall not exceed \$8900 annually. All or part of the \$8900 annual amount can be carried over one subsequent calendar year, so that the maximum reimbursement for any two-calendar year period is \$1,6800. No unused portion of monies accrued during that two-calendar year period shall be carried over any further, as described below.

- Professional development monies left over in odd-numbered years will be carried over into the next year ending in an even number.
- Professional development monies not used in that even-numbered year will not be carried over further.
- Employees who become eligible for professional development in an even-numbered year will not be able to carryover monies to the next year.
- Employees who become eligible for professional development in an odd-numbered year will be able to carry over monies to the next year.

Example A: Employee spends \$600 of his \$8900 in CY 2023-24, and carries over \$2300 into CY 2024-25. The employee now has up to \$1,0200 to use in CY 2024-25, but any monies not spent during CY 2024-25 will be lost.

Example B: Beginning in CY 2024-25, the same employee will once again earn \$8900, all or some of which may be carried over into, but not beyond, CY 2025-26.

69.2 During the term of this 2022-2025\* MOU, if another bargaining unit negotiates a maximum annual reimbursement greater than \$900, that maximum shall be applied to employees in Unit (3).

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#### ARTICLE 70 -- PAYMENT FOR LICENSES

- 70.1 The District shall reimburse employees for licenses or certification fees including renewals that are required by the District or the State for the performance of the employee's job duties, with the exception of Class C driver's licenses. Employees will also be paid for any time spent receiving instruction or taking tests to obtain a license or certificate required by the District for the performance of the employee's current job duties. Any payment for time or reimbursement of funds for testing and/or instruction shall require prior approval from the employee's immediate supervisor. The term "required by the District" as used in this provision includes requirements under an employee's job description and/or pursuant to an employee's job duties.
- 70.2 The District shall also reimburse employees for licenses or certification fees including renewals that the appropriate Group Manager or Department Head deems beneficial necessary for succession planning or career development.



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ARTICLE 71 — TOOLS & EQUIPMENT

- 71.1 The District shall provide employees with all tools and equipment necessary to perform their job duties and/or to work in a safe and ergonomic manner.

**ARTICLE 72 -- TUITION REIMBURSEMENT**

- 72.1 An employee shall be eligible for tuition reimbursement at the rate of 100 percent of the total costs of authorized expenses to a maximum of \$9,000 per calendar year., or, to a maximum of \$11,000 per calendar year for those employees enrolled in an accredited college or university pursuing a post-graduate degree (i.e. Master's Degree or higher) in a related field. Authorized expenses shall be for tuition, books, registration, and lab costs for all classes and/or degree curriculum programs related to District work.

*TA Current Language*

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### ARTICLE 73 -- DESERT REMOTE LOCATION PAY

The intent of this Article is to improve recruitment and retention at Metropolitan's remote desert facilities which are Hinds, Eagle Mountain and Iron Mountain Pumping Plants, (hereinafter referred to as "Remote Locations"). The terms of this Incentive Pay Program shall be as follows:

#### General:

- 73.1 Effective the first payroll period following approval by Metropolitan's Board of Directors, an Incentive Pay program shall be implemented, which will provide annual lump sum payments to qualifying employees as follows, subject to the provisions of paragraphs 73.5(D), 73.13, and 73.14:
- A. \$6,000 upon completion of one year's continuous service at a Remote Location.
  - B. \$8,000 upon completion of a second consecutive year of continuous service at a Remote Location.
  - C. \$10,000 upon completion of a third consecutive year of continuous service at a Remote Location.
- 73.2 Such payments shall be made by separate check(s) at the conclusion of each one year increment. Subsequent to the Board's approval of this Agreement, the parties shall meet to determine whether payments shall be made each year by a single separate check or multiple checks. Employees shall be given adequate notice prior to receiving payments, to allow them sufficient time to make any desired changes to payroll deductions and contributions. The payments shall not be reported as compensable earnings to the California Public Employees Retirement System for retirement purposes but are considered wages and therefore understood by the parties to be taxable.
- 73.3 This Incentive Payment Program applies specifically to regular full time employees at the Remote Locations, and does not apply to recurrent, part time, or temporary employees.
- 73.4 For all relevant purposes, an employee's service time for the incentive shall be divided into pay periods. A "year" or "twelve month" period shall be defined as twenty-six (26) bi-weekly pay periods and "six months" shall be defined as thirteen (13) bi-weekly pay periods.

#### Qualifying Service:

- 73.5 Qualifying service at a Remote Location shall include:
- A. Assignment to a Remote Location as the regular work location, even if for a portion of time, the employee is temporarily assigned by the District to a non-Remote Location.
  - B. Assignment by the District to a Remote Location as the temporary work location, provided such temporary assignment is for 12 consecutive months. An employee's temporary work location shall not be changed for the purpose of denying the employee the incentive pay.

- C. All regularly scheduled hours in a paid status, when assigned pursuant to subparagraphs (a) and (b) above, including authorized medical leaves.
- D. Examples of variations in qualifying service are shown in the attached program calendar which is attached to this Agreement as Appendix B.

- 73.6 An employee need not be assigned to the same Remote Location for an entire 12-month period in order to qualify for Incentive Pay. (Example: An employee assigned to the Hinds Pumping Plant is the successful bidder, or is transferred by the District, into a new position at (Eagle Mountain or Iron Mountain). The employee shall continue to qualify provided the employee's service at the new Remote Location continues for the remainder of the 12-month period.)
- 73.7 Employees assigned to a Remote Location after the date the Incentive Pay Program is implemented, shall begin qualifying on the first day of the pay period of assignment to the Remote Location.
- 73.8 An employee assigned to a Remote Location, who the District subsequently promotes through a Management-requested promotion to a position at a non-Remote Location, shall continue to qualify for Incentive Pay for the remainder of that 12-month period, after which he shall cease being eligible. (Example: An employee begins qualifying for Incentive Pay on 1/1/2246, but is promoted to a non-Remote Location on 7/1/2246. Effective 12/31/2246 the employee shall be eligible for the \$6,000 incentive payment, after which he shall receive no further payments unless subsequently assigned to a Remote Location.) This paragraph 8 shall not apply in instances of promotions achieved through a job bid.

**Breaks in Qualifying Service:**

- 73.9 If an employee retires, resigns, or transfers from a Remote Location in the middle of a 12-month qualifying period, or is discharged, he shall not be eligible for Incentive Pay for that year. (Example: An employee's 1st year at Remote Location is from 1/1/2246 – 12/31/2246, and he receives the \$6,000 incentive payment. He then works from 1/1/2347 at the Remote Location, but retires on 3/1/2347, and therefore is ineligible for any portion of the \$8,000 incentive payment.)
- 73.10 If an employee resigns, voluntarily transfers, or is discharged from a position at a Remote Location, and is subsequently reinstated to a position at a Remote Location, he shall be treated like a new employee in a Remote Location and qualification for the Incentive Pay Program shall restart as if there had been no prior qualifying service.

**Expiration and Renegotiation:**

- 73.11 This Incentive Pay provision shall "sunset" (i.e. expire) upon expiration of the 2022-23 MOU ~~three years from the date the Incentive Pay program is first implemented.~~
- 73.12 ~~No more than 120 days but no later than 60 days prior to the "sunset" date, the parties shall meet and confer upon the request of either party over whether to continue the Incentive Pay Program beyond the "sunset" date. As part of such negotiations, the parties shall review and consider any relevant data as to whether Incentive Pay has been effective in attracting and retaining personnel at the Remote Locations.~~
- 73.13 In the event no agreement is reached to extend Incentive Pay beyond its "sunset" date, then any employees who were in the midst of a qualifying period shall receive a pro-rated payment for that 12-month period. (Example: Employee begins his 2nd

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consecutive year on 3/1/2418, and the Incentive Pay provisions "sunset" and do not renew after 12/31/2418. The employee is entitled to a pro-rated 2nd year payment of \$4,000, which is 50% of the 2nd year \$8,000 payment.)

73.14 Management shall not be required to spend more than the following budgeted amounts during the first three years of this agreement:

- \_\_\_\_\_ A. \$300,000 for year 1
- \_\_\_\_\_ B. \$400,000 for year 2
- \_\_\_\_\_ C. \$500,000 for year 3.

\_\_\_\_\_ The maximum cumulative amount payable per this agreement is limited to \$1,200,000, unless the Incentive Pay program is extended pursuant to 73.11 and 73.12. Should this budgeted amount be projected to be exceeded, Management shall inform the bargaining unit of such and the parties will meet and confer to determine how the incentive will be paid to qualifying employees. Management may, in its discretion, seek Board authorization for additional funds.

# ARTICLE 74 -- DISTRICT HOUSING

- 74.1 Employees renting District-owned residences at Gene Village, shall pay a monthly rental calculated at 6.50 cents per square foot of living space. Employees renting District-owned residences at the Iron, Eagle and Hinds villages shall continue to pay a monthly rental calculated at 5 cents per square foot of living space. Employees renting District-owned residences at all locations other than those mentioned above shall pay a monthly rental calculated at 6.90 cents per square foot of living space. Living space is defined as the area within the outside perimeter of the house, excluding screened-in porches, garages, and cooler or air-conditioning rooms, but including service porches, enclosed porches and utility rooms.
- 74.2 In addition to the above-stated rental rates, employees renting District-owned garages at ~~Iron, Eagle, Hinds, and Gene villages~~ the Desert locations shall pay \$4.30 per month for such rental. Employees renting District-owned garages at all other locations shall pay \$4.50 per month for such rental.
- 74.3 Utility charges and costs incurred in all District housing shall be paid by the District. To the extent any monetary benefit is conferred on an employee by this Article, that benefit shall not be considered compensation for purposes of the Fair Labor Standards Act.

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District Proposal to Supervisors Association  
4/18/23  
New Article 76

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A. Disturbance Pay for Facility Operations Manager Positions

In recognition of exempt employees listed below being contacted while on off-duty hours to furnish information or to take action needed to maintain the continuity of District operations, which may include emergencies and other urgent assignments, and without the need of having to personally report for duty, such employees shall receive a premium pay of \$350 per week. Facility Operations Managers should be ready to respond in a reasonable time for calls for service. A Facility Operations Manager unavailable for the entire week due to leave or other reason will not be eligible for disturbance pay. This premium pay is non-PERSable.

Any employee receiving standby pay compensation in a pay period shall not be eligible to receive compensation under this article for that same pay period.

Job Code	Group	Title	Team	Assignment
Z06D	Water System Operations	Team Manager IV	Los Angeles Team	Facility Operations Manager
Z06D	Water System Operations	Team Manager IV	La Verne Team	Facility Operations Manager
Z06D	Water System Operations	Team Manager IV	Valley Team	Facility Operations Manager
Z06D	Water System Operations	Team Manager IV	Orange County Team	Facility Operations Manager
Z06D	Water System Operations	Team Manager IV	Riverside Team	Facility Operations Manager
Z06D	Water System Operations	Team Manager IV	Lake Skinner Team	Facility Operations Manager
Z06D	Water System Operations	Team Manager IV	Diamond Valley Lake Team	Facility Operations Manager
Z06F	Water System Operations	Team Manager VI	Jensen Treatment O&M Team	Facility Operations Manager
Z06F	Water System Operations	Team Manager VI	Weymouth Treatment O&M Team	Facility Operations Manager
Z06F	Water System Operations	Team Manager VI	Diemer Treatment O&M Team	Facility Operations Manager
Z06F	Water System Operations	Team Manager VI	Mills Treatment O&M Team	Facility Operations Manager
Z06F	Water System Operations	Team Manager VI	Skinner Treatment O&M Team	Facility Operations Manager



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EPZ**B. Emergency Coordinator Pay for Construction Services Unit (CSU)**

On a weekly basis, one CSU Team Manager or O&M Supervisor shall serve as the CSU Emergency Coordinator. One CSU Emergency Coordinator assignment will be rotated equitably to all CSU O&M Team Managers and O&M Supervisors. All calls outside normal working hours associated with emergencies or urgent needs will be routed to the CSU Emergency Coordinator for response and coordination. The CSU Emergency Coordinator shall receive a premium of \$350 per week. This premium is non-PERSable.

Job Code	Group	Title	Team	Assignment
Z06D	Water System Operations	Team Manager IV	Western Construction Team	CSU Emergency Coordination
Z06D	Water System Operations	Team Manager IV	Eastern Construction Team	CSU Emergency Coordination
Z06D	Water System Operations	Team Manager IV	Electrical Team	CSU Emergency Coordination
636	Water System Operations	O&M Supervisor	Western Construction Team	CSU Emergency Coordination
636	Water System Operations	O&M Supervisor	Eastern Construction Team	CSU Emergency Coordination
636	Water System Operations	O&M Supervisor	Electrical Team	CSU Emergency Coordination

**BOARD MEETING**  
**June 13, 2023 – 1:00 p.m.**  
**MWD Headquarters Building/Teleconference Meeting**

**NON-INTEREST DISCLOSURE NOTICE**  
**COMMITTEE ITEM 8-4**

COMMITTEE ITEM 8-4 – Approve entering into fiscal years 2022-2026 Memorandum of Understanding between The Metropolitan Water District of Southern California and The Supervisors Association of The Metropolitan Water District of Southern California; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA [Conference with Labor Negotiators; to be heard in closed session pursuant to Gov. Code 54957.6. Metropolitan representatives: Katano Kasaine, Assistant General Manager, Chief Financial Officer and Gifty J. Beets, Human Resources Section Manager of Labor Relations. Employee organization: The Supervisors Association of the Metropolitan Water District of Southern California]

This Non-Interest Disclosure Notice is being provided under the California Government Code: Pursuant to Government Code Section 1091.5(a)(9), a District officer or employee does not have a financial interest in a District contract if these conditions are satisfied: (i) his or her interest is that of a person receiving a salary, per diem or reimbursement for expenses from a government entity; (ii) the contract does not directly involve the department of the government entity that employs him or her; and (iii) the interest is disclosed to his or her body or board at the time the contract is considered and is noted in its official record. In accordance with this statute, the following District officers or employees have been, or may be, involved in the bargaining unit negotiations on behalf of management: Adel Hagekhalil, Marcia Scully, Abel Salinas, Katano Kasaine, Heather Beatty, Shane Chapman, Deven Upadhyay, Debra Gill, Gifty Beets, Henry Torres, Tony Zepeda, Gonzalo Barriga Jr., Arnout Van den Berg, Adam Benson, and Isamar Munoz Marroquin.

Heather Beatty and Isamar Munoz Marroquin are members of the Association of Confidential Employees (“ACE”), and Arnout Van den Berg is a member of Management And Professional Association (“MAPA”), which both have a salary provision in its Memorandum of Understanding that allows ACE and MAPA to select an annual salary adjustment from any one of the Memoranda of Understanding for the other bargaining units. Each of the remaining individuals is unrepresented. Under Administrative Code Section 6500(d), unless the Board directs otherwise, the pay rate range for each unrepresented individual except Adel Hagekhalil, Marcia Scully, and Abel Salinas will be adjusted annually to correspond with the annual across-the-board salary adjustment provided to the District’s management employees under the Memoranda of Understanding; although actual pay rates for these unrepresented individuals will be determined by their management. The other compensation and benefits for which the unrepresented individuals are eligible are set forth in the Administrative Code.

**ETHICS, ORGANIZATION, AND PERSONNEL**  
**COMMITTEE MEETING**  
**June 13, 2023 – 10:30 a.m.**  
**MWD Headquarters Building/Teleconference Meeting**

**NON-INTEREST DISCLOSURE NOTICE**  
**COMMITTEE ITEM 8-4**

COMMITTEE ITEM 8-4 – Approve entering into fiscal years 2022-2026 Memorandum of Understanding between The Metropolitan Water District of Southern California and The Supervisors Association of The Metropolitan Water District of Southern California; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA [Conference with Labor Negotiators; to be heard in closed session pursuant to Gov. Code 54957.6. Metropolitan representatives: Katano Kasaine, Assistant General Manager, Chief Financial Officer and Gifty J. Beets, Human Resources Section Manager of Labor Relations. Employee organization: The Supervisors Association of the Metropolitan Water District of Southern California]

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Gonzalo Barriga Jr., Arnout Van den Berg, Adam Benson, and Isamar Munoz Marroquin.

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## • Conservation Board Report June 2023

### Summary

This report provides a summary of conservation activity and expenditures for April 2023.

### Purpose

Informational

### Detailed Report

## Conservation Expenditures – FY2022/23 & FY2023/24 <sup>(1)</sup>

	Paid <sup>(2)</sup>	Committed <sup>(3)</sup>
Regional Devices	\$7.6 M	\$7.5 M
Member Agency Administered	\$6.7 M	\$5.3 M
Turf Replacement	\$17.0 M	\$38.3 M
Advertising	\$5.6 M	\$1.4 M
Other	\$1.7 M	\$1.5 M
<b>TOTAL</b>	<b>\$38.6 M</b>	<b>\$54.0 M</b>

(1) The Conservation Program biennial expenditure authorization is \$86 million.

(2) Paid as of 7/1/2022 - 4/30/2023. Financial reporting on cash basis.

(3) Committed dollars as of May 10, 2023

### Summary of Expenditures in April 2023: \$2,863,820 (1)

**Lifetime Water Savings to be achieved by all rebates in April 2023: 3,744 AF**

FY2022/23-FY2023/24: 49,255 AF lifetime water savings



#### Turf Replacement Rebates:

April: 540,854 ft<sup>2</sup> removed

FY2022/23-FY2023/24: 8,044,546 ft<sup>2</sup> removed



#### Clothes Washers:

April: 368 units rebated

FY2022/23-FY2023/24: 11,536 units rebated



#### Smart Controllers:

April: 392 units rebated

FY2022/23-FY2023/24: 8,273 units rebated



#### Toilets:

April: 462 units rebated

FY2022/23-FY2023/24: 21,804 units rebated



#### Rain Barrels and Cisterns:

April: 116 units rebated

FY2022/23-FY2023/24: 3,068 units rebated



#### Sprinkler Nozzles:

April: 677 units rebated

FY2022/23-FY2023/24: 18,870 units rebated

(1) Expenditures may include advertising and Water Savings Incentive Program activity in addition to the incentives highlighted above.



● **Board of Directors**

***Finance, Audit, Insurance, and Real Property Committee***

6/13/2023 Board Meeting

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**Subject**

Introduction of Ordinance No. 152: Determining that the Interests of Metropolitan Require the Use of Revenue Bonds in the Aggregate Principal Amount of \$500 Million to Finance a Portion of Capital Expenditures

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**Executive Summary**

Introduction of Ordinance No. 152 - Determining That The Interests Of The District Require The Use of Revenue Bonds In the Aggregate Principal Amount of \$500,000,000 To Finance A Portion Of Capital Expenditures (Ordinance) will allow the Board to consider the adoption of the Ordinance at the Board's July meeting.

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**Details**

**Background**

In 1974, the voters in Metropolitan's service area approved the use of long-term revenue bonds as an alternative to pay-as-you-go financing. Revenue bonds include bonds, notes, loans, or other evidences of indebtedness.

Pursuant to the approval of the voters and the Metropolitan Water District Act (MWD Act), the Board may authorize issuance of revenue bonds upon the adoption of an ordinance finding the interests of the District require their use for the purposes set forth in Section 237 of the MWD Act. These purposes include financing a portion of capital expenditures, should their costs be too great to be paid out of the operating revenues, in order to preserve the financial flexibility of the District.

The adoption of the Ordinance is the first step to subsequent and separate authorization of revenue bonds in an aggregate principal amount of up to \$500 million. Adoption of the Ordinance will not authorize any specific bond issuance. Separate board approval would be required for any bond issuance under this Ordinance.

Staff anticipates returning to the Board in July 2023 for consideration and adoption of the attached Ordinance. The MWD Act requires ordinances to be introduced on a day prior to the time of the Board's adoption of the ordinance. The MWD Act does not specify the method of introduction of ordinances. By introducing the Ordinance in June and seeking board approval in July, we are satisfying the requirements of the MWD Act. The analysis supporting that proposal will be presented to the Board at that time.

Sequence of Board actions:

- 1 Introduce the Ordinance by a reading of the title only of the Ordinance. (June – Board only.)
2. Vote whether the interests of the District require use of revenue bonds in the amount not to exceed \$500 million to finance a portion of capital expenditures and waive the full reading of the Ordinance. (Scheduled for July – Finance, Audit, Insurance, and Real Property Committee and Board.)
3. Adopt separate bond resolutions, as needed, up to an aggregate principal amount of \$500 million to authorize future bond issuance. Follows adoption of Ordinance.

**Attachment 1** provides the Board with the full text of the proposed Ordinance.



**Policy**

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Metropolitan Water District Act Section 61: Ordinances, Resolutions and Orders

Metropolitan Water District Act Section 63: Roll Call on Ordinances



Metropolitan Water District Act Section 64: Ordinances; Introduction; Adoption

Metropolitan Water District Act Section 237: Revenue Bond Purposes

**Fiscal Impact**

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None.

 Katano Kasaine Assistant General Manager/ Chief Financial Officer	6/1/2023 Date
 Adel Hagekhalil General Manager	6/2/2023 Date

**Attachment 1 – Ordinance of the Board of Directors of The Metropolitan Water District of Southern California Determining that the Interests of the District Require the Use of Revenue Bonds in the Aggregate Principal Amount of \$500,000,000 to Finance a Portion of Capital Expenditures**

Ref# cfo12693278

THE METROPOLITAN WATER DISTRICT OF  
SOUTHERN CALIFORNIA

ORDINANCE 152

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ORDINANCE OF THE BOARD OF DIRECTORS  
OF THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
DETERMINING THAT THE INTERESTS OF THE DISTRICT REQUIRE THE USE OF  
REVENUE BONDS IN THE AGGREGATE PRINCIPAL AMOUNT OF \$500,000,000 TO  
FINANCE A PORTION OF CAPITAL EXPENDITURES

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The Board of Directors of The Metropolitan Water District of Southern California (the “Board”) hereby finds that:

1. Pursuant to Chapter 1.6 of Part 5 of the Metropolitan Water District Act (California Statutes 1969, Chapter 209, as amended, hereinafter sometimes referred to as the “Act”), the Board of The Metropolitan Water District of Southern California (the “District”), on March 12, 1974, adopted Ordinance No. 126, calling a special election to be held within the District on June 4, 1974, for the purpose of submitting to the qualified voters of said District the following proposition:

To permit use of long-term bonds backed by water revenues as an alternative to pay-as-you-go financing, shall the Board of Directors of the Metropolitan Water District of Southern California be authorized to issue and sell revenue bonds under Chapter 1.6, Part 5, Metropolitan Water District Act?

2. Said election was duly and regularly held, and said proposition received the affirmative vote and assent of a majority of all of the qualified voters of the District voting on said proposition, and therefore the Board is authorized to issue and sell revenue bonds under Chapter 1.6 of Part 5 of the Act.

3. Revenue bonds means bonds, notes, loans, or other obligations or evidences of indebtedness, as provided for in the Act and California Government Code.

4. The ability to ensure a reliable supply of high-quality water for the District’s 26 member agencies depends upon the District’s ongoing ability to fund operations and maintenance, maintain and augment local and imported water supplies, fund replacements and refurbish existing infrastructure, and invest in system improvements.

5. Ordinance 151 was adopted by the Board on September 15, 2020, finding that the interests of Metropolitan require the use of revenue bonds in the aggregate principal amount of \$500,000,000 to fund a portion of the District’s capital investment plan expenditures, the cost of which is too great to be paid out of the ordinary annual income and revenue of the District.

6. Of the \$500,000,000 aggregate principal amount of revenue bonds authorized under Ordinance 151, all but \$396.155 million have been issued, and \$260 million is anticipated to be issued in fiscal year (FY) 2022/23 to finance a portion of the District's capital expenditures.

7. On April 12, 2022, the Board approved a biennial budget for FY 2022/23 and FY 2023/24, containing capital expenditures of \$300 and \$300 million, respectively, of which 55 percent is anticipated to be funded by debt proceeds.

8. On April 12, 2022, the Board approved a ten-year financial forecast for FY 2022/23 through FY 2031/32 (the "Ten-Year Financial Forecast"), forecasting annual capital expenditures of \$300 million for FY 2022/23 and FY 2023/24 and increasing from \$372 million up to \$1,202 million in FY 2024/25 through FY 2030/31, of which some portion of each year is anticipated to be funded by debt proceeds. The Ten-Year Financial Forecast provides an estimated forecast of future capital expenditures.

9. On April 12, 2022, the Board approved the use of \$270 million in operating revenues to partially fund the capital investment plan for FY 2022/23 and FY 2023/24. The capital investment plan identifies the capital priorities of the District for the fiscal years of the adopted budget.

10. In order to fully fund the capital investment plan and board-approved bond-financed projects for the Antelope Valley East Kern (AVEK) High Desert Water Banking Program and conservation program adopted by the Board on April 12, 2022, \$463.9 million in revenue bonds would be required in FY 2022/23 and FY 2023/24. To support the issuance of such \$463.9 million in revenue bonds, a capacity of \$396.155 million under Ordinance 151 is available. This Ordinance would provide support for these bond issues and provide capacity for debt issued in future years.

11. Debt financing in future FYs of the Ten-Year Financial Forecast is assumed at amounts ranging from \$165 million to \$1,002 million per fiscal year.

12. The Board may, from time to time, approve capital expenditures other than or in addition to those contemplated by the capital investment plan at the time of the then-current biennial budget.

13. From time to time, capital projects that have been undertaken are delayed, redesigned, or deferred by the District for various reasons.

14. This Ordinance would support future board actions for debt financing over several years for capital expenditures approved by the Board as provided in the then-current biennial budget, capital investment plan, ten-year financial forecast, and as otherwise approved by the Board, which collectively would not exceed \$500,000,000.

15. Using debt to finance a portion of capital expenditures will provide the District with additional financial flexibility to fund capital expenditures that are necessary or convenient to carry out the purposes of the District while mitigating increases in water rates and charges.

16. This Ordinance was introduced at the regular meeting of the Board held on June 13, 2023.

NOW, THEREFORE, the Board of Directors of the District, DOES HEREBY RESOLVE, DETERMINE AND ORDER as follows:

The interests of The Metropolitan Water District of Southern California require the use of revenue bonds in the aggregate principal amount of \$500,000,000 to finance a portion of the District's capital expenditures, the cost of which is too great to be paid out of the ordinary annual income and revenue of the District.

**I HEREBY CERTIFY** that the foregoing is a full, true and correct copy of an Ordinance adopted by a two-thirds (2/3) vote of the total vote of the Board of Directors of The Metropolitan Water District of Southern California at its meeting held on July 11, 2023.

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Secretary of the Board of Directors  
of the Metropolitan Water District  
of Southern California