



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

4/11/2023 Board Meeting

7-1

Subject

Adopt CEQA determination that the proposed action was previously addressed in the Mitigated Negative Declaration and related CEQA actions, and award an \$8,656,568 contract to Granite Construction Company for construction of structural protection measures at 24 cut-and-cover conduit locations along the Colorado River Aqueduct; authorize agreements with: (1) Environmental Science Associates in an amount not to exceed \$1,200,000 for biological surveys and environmental monitoring; and (2) Deto, Inc. in an amount not to exceed \$325,000 for compensatory environmental mitigation credits

Executive Summary

The Colorado River Aqueduct (CRA) has 55 miles of cut-and-cover conduits where vehicles and stormwater flows can cross over the aqueduct. These conduits were not designed to accommodate loads from the heavy equipment used to conduct current operations and maintenance activities. The CRA Conduit Structural Protection Project will protect the CRA conduits from potential structural damage resulting from repeated heavy equipment loading. This action awards a contract to construct structural protection measures over the aqueduct's cut-and-cover conduits at 24 of the most vulnerable locations. This action also authorizes two agreements to support the construction phase of the project, including environmental monitoring and compensatory mitigation credit purchase, as required by the Mitigated Negative Declaration (MND).

Details

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 consists of five pumping plants; 124 miles of tunnels, siphons, and reservoirs; 63 miles of canals; and 55 miles of cut-and-cover conduits. The aqueduct was constructed in the late 1930s and was placed into service in 1941.

The CRA's cut-and-cover conduits are unreinforced concrete horseshoe-shaped structures that are 16-feet high and vary in width from 22.5 feet to 30.5 feet. The conduits vary in length from 890 feet to 34,870 feet and were constructed in areas where heavy stormflows, flooding, and sandstorms were expected. These conduits were originally constructed with a minimum 3 feet of soil cover. While burying the conduits offered protection from the elements, these conduits are not designed to support heavy equipment that are now part of routine operations and maintenance activities.

Operation and maintenance activities include regular cleaning of the conveyance system to remove algae and deposits that can reduce the flow of water within the CRA. These activities have become more frequent because of warmer aqueduct temperatures and increased biological fouling of concrete surfaces. During cleaning activities and other maintenance work, Metropolitan staff transports large equipment such as the tunnel cleaning machine, blowers, dewatering pumps, and 30-ton cranes over the cut-and-cover conduits at several locations. At some locations where dirt access roads cross the aqueduct and there is minimal soil cover, the conduits are vulnerable to damage when heavy equipment crosses over the conduit or is placed near the conduit for access into tunnels or siphons. If structural enhancements are not constructed, the conduits could be unintentionally damaged during maintenance activities, and an unplanned shutdown of the CRA could be required to make repairs.

In January 2021, Metropolitan's Board adopted a Mitigated Negative Declaration for the installation of structural protection at 24 locations along the CRA conveyance system. Design for the project is complete, and staff recommends proceeding with award of a construction contract at this time.

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 construction of the CRA Conduit Structural Protection, pending board award of the construction contract described below. Based on the current Capital Investment Plan expenditure forecast, funds for the work to be performed pursuant to this action during the current biennium are available within the Capital Investment Plan Appropriation for Fiscal Years 2022/23 and 2023/24 (Appropriation No. 15525). 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.

CRA Conduit Structural Protection – Construction

The scope of the contract consists of constructing structural protection measures at 24 locations along the CRA conveyance system. The improvements include: (1) reinforced concrete slabs at access road crossings; (2) concrete retaining walls; (3) re-aligning dirt access roads; (4) structural pads to support heavy equipment operations; (5) transition structure concrete repairs and cover replacement; (6) grading and drainage improvements; and (7) new road signage indicating load restrictions.

A total of \$13.3 million is allocated for this work. In addition to the construction contract amount, other agreement costs include \$1,200,000 for environmental monitoring by Environmental Science Associates; \$85,000 for tribal cultural monitoring by the Soboba Band of Luiseño Indians; and \$325,000 for the purchase of compensatory mitigation credits from Deto, Inc. Additional details of the construction contract and agreements are provided below. Other allocated funds for Metropolitan staff work include: \$1,150,000 for construction management and inspections; \$450,000 for submittals review, responding to requests for information, and preparation of record drawings; \$760,000 for contract administration, environmental monitoring support, Project Labor Agreement (PLA) administration, and project management; and \$673,432 for remaining budget. **Attachment 1** provides the allocation of the required funds. The total estimated cost to complete construction of the CRA Structural Protection Project, including the amount appropriated to date, and funds allocated for work described in this action, is \$15.8 million.

Award of Construction Contract (Granite Construction Company)

Specification No. 1878 for the construction of the CRA Conduit Structural Protection was advertised on January 25, 2023. As shown in **Attachment 2**, three bids were received and opened on March 1, 2023. The low bid from Granite Construction Company in the amount of \$8,656,568 complies with the requirements of the specifications. The other bids were \$9,965,927 and \$14,650,000, and the engineer's estimate for this project was \$10,750,000. For this contract, Metropolitan established a Small Business Enterprise participation level of at least 25 percent of the bid amount. Granite Construction Company has committed to meeting this participation level. 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 goal for inspection of projects with construction greater than \$3 million is between 9 to 12 percent. For this project, the performance metric for inspection is 13.3 percent of the total construction cost. The inspection costs for this project are expected to exceed the goal due to the remote locations of the 24 sites, which stretch across 60 miles of the aqueduct.

Environmental Monitoring Services (Environmental Science Associates) – New Agreement

Environmental Science Associates is recommended to perform pre- and post-construction biological surveys and environmental monitoring during construction activities. Environmental Science Associates was prequalified through Request for Qualification No. 1265. Environmental Science Associates was selected for this project based on the firm's extensive experience with environmental monitoring and compliance.

The planned activities include conducting biological surveys ahead of the construction activities, environmental monitoring at each of the 24 remote sites for the entire duration of construction activities, and biological surveys following completion of construction activities, as well as monitoring for compliance with regulatory permitting

including permits from the California Department of Fish and Wildlife (CDFW) and Colorado River Basin Regional Water Quality Control Board (RWQCB).

This action authorizes an agreement with Environmental Science Associates for a not-to-exceed amount of \$1,200,000 to provide environmental monitoring services before, during, and following completion of construction of the CRA Structural Protection project. For this agreement, Metropolitan has established a Small Business Enterprise participation level of 15 percent. Environmental Science Associates has agreed to meet this level of participation. The planned subconsultants for this work are Blackhawk Environmental, Mountainview Biological Consulting, and Artemis Environmental.

Compensatory Mitigation Credit Purchase (Deto, Inc.) – New Agreement

The construction of this project will affect 1.76 acres of environmentally protected habitats. The permits issued by CDFW and RWQCB require a purchase of 5.35 acres of Ephemeral Intermittent Stream Habitat Credits to compensate for any loss of habitats associated with the project. Deto, Inc. was approved by CDFW for the purchase of the required mitigation credits. This action authorizes an agreement with Deto, Inc. for a not-to-exceed amount of \$325,000 to purchase the required compensatory mitigation credits.

Tribal Cultural Monitoring (Soboba Band of Luiseño Indians) – New Agreement

As part of the project's Mitigation Monitoring and Reporting Program, Metropolitan prepared a tribal cultural resources management plan to reduce potential impacts to tribal cultural resources as the project is located within the Soboba Band of Luiseño Indians' ancestral tribal territory. The plan requires tribal monitoring and treatment of finds during construction. Long-term curation options will also be prepared as part of this effort based on the cultural finds.

An agreement under the General Manager's Authority will be awarded to the Soboba Band of Luiseño Indians for a not-to-exceed amount of \$85,000 to provide tribal cultural resource monitoring services during the construction for the CRA Structural Protection project.

Alternatives Considered

During planning and design of this project, staff considered prioritizing construction of the sites, based on their existing conditions and constructing one at a time to expedite construction of individual sites. However, this option would require multiple years to complete the work and would delay addressing known vulnerabilities. In addition, these sites are remotely located, which limits the number of contractors willing to bid on a small-value contract for a small number of sites. The selected option to group the sites into a single contract will allow construction to be completed efficiently and attract a larger, more experienced pool of contractors, thus allowing for more competitive bids and lower aggregate construction costs.

Summary

This action awards an \$8,656,568 construction contract for conduit structural protection measures at 24 locations along the CRA conveyance system and authorizes new agreements with Environmental Science Associates for environmental monitoring and a purchase agreement for compensatory mitigation credits with Deto, Inc. See **Attachment 1** for the Allocation of Funds, **Attachment 2** for the Abstract of Bids, **Attachment 3** for the Listing of Subcontractors for the Low Bidder, and **Attachment 4** for the Location Map.

Project Milestone

November 2024 – Complete construction of CRA conduit structural protection

Policy

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 52244, dated January 12, 2021, the Board adopted a Mitigated Negative Declaration and a Mitigation Monitoring and Reporting Plan for the CRA Conduit Structural Protection Project.

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)

CEQA determination for Option #1:

To comply with CEQA and the State CEQA Guidelines, Metropolitan as the Lead Agency prepared a Mitigated Negative Declaration (MND) for the CRA Conduit Structural Protection Project. The MND was distributed for a 30-day public review period that began on October 26, 2020. On January 12, 2021, the Board adopted the MND and the Mitigation Monitoring and Reporting Program (MMRP). The present board action is based on awarding a construction contract and not on any changes to the approved project itself. Hence, the previously adopted environmental documentation in conjunction with the current action, fully complies with CEQA and the State CEQA Guidelines. Accordingly, no further environmental documentation is necessary for the Board to act on with respect to the proposed action.

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt CEQA determination that the proposed action was previously addressed in the Mitigated Negative Declaration and related CEQA actions, and

- a. Award an \$8,656,568 contract to Granite Construction Company for construction of structural protection measures at 24 cut-and-cover conduit locations along the Colorado River Aqueduct;
- b. Authorize an agreement with Environmental Science Associates in an amount not to exceed \$1,200,000 for biological surveys and environmental monitoring; and
- c. Authorize an agreement with Deto, Inc. in an amount not to exceed \$325,000 for compensatory environmental mitigation credits.

Fiscal Impact: Expenditure of \$13.3 million in capital funds. Approximately \$9.5 million will be incurred in the current biennium and have been previously authorized. The remaining funds from this action will be accounted for and appropriated under the next biennial budget.

Business Analysis: This option will enhance reliability of the CRA and reduce the risk of unplanned outages.

Option #2


Do not proceed with this project at this time.

Fiscal Impact: None

Business Analysis: This option would forego an opportunity to reduce the risk of damage to the CRA conveyance system.

Staff Recommendation


Option # 1



John V. Bednarski
Manager/Chief Engineer

3/23/2023

Date



Adel Hagekhalil
General Manager

3/24/2023

Date

Attachment 1 – Allocation of Funds

Attachment 2 – Abstract of Bids

Attachment 3 – Listing of Subcontractors for the Low Bidder

Attachment 4 – Location Map

Ref# 12687394

Allocation of Funds for CRA Structural Protection Project

	Current Board Action (Apr. 2023)
Labor	
Studies & Investigations	\$ -
Final Design	-
Owner Costs (Program mgmt., envir. monitoring)	740,000
Submittals Review & Record Drwgs.	450,000
Construction Inspection & Support	1,150,000
Metropolitan Force Construction	-
Materials & Supplies	-
Incidental Expenses	20,000
Professional/Technical Services	
Environmental Science Associates	1,200,000
Soboba Band of Luiseño Indians	85,000
Deto, Inc.	325,000
Right-of-Way	-
Contracts	
Granite Construction Company	8,656,568
Remaining Budget	673,432
Total	\$ 13,300,000

The total amount expended to date for the CRA Structural Protection Project is approximately \$2.5 million. The total estimated cost to complete, including the amount appropriated to date and funds allocated for the work described in this action, is \$15.8 million.

The Metropolitan Water District of Southern California

Abstract of Bids Received on March 1, 2023, at 2:00 P.M.

**Specifications No. 1878
CRA Conduit Structural Protection**

The work includes installing reinforced concrete slab protection crossings over portions of the Colorado River Aqueduct (CRA), crushed aggregate base pads for heavy equipment setup areas, segmental concrete retaining walls; transition structure concrete repairs and cover replacement; re-aligning dirt access roads; performing grading and drainage improvements; and new road signage indicating load restrictions.

Engineer's estimate: \$10,750,000

Bidder and Location	Total	SBE \$	SBE %	Met SBE¹
Granite Construction Company Indio, CA	\$8,656,568	\$2,225,415.87	25.7%	Yes
Miller Equipment Company, Inc. Lancaster, CA	\$9,965,927	-	-	-
J. F. Shea Construction, Inc. Walnut, CA	\$14,650,000	-	-	-

¹ 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. 1878
CRA Conduit Structural Protection**

Low Bidder: Granite Construction Company

Subcontractor and Location	Service Category; Specialty
DRS Rebar, Inc. Corona, CA	Rebar
Hydrospout, Inc. Escondido, CA	Hydroseed
GeoX, Inc. Vista, CA	Retaining Walls
Cell-Crete Corporation Monrovia, CA	Lightweight Cellular Concrete
Miller Equipment Company, Inc.	Operated Equipment Rental
Crown Fence Company Santa Fe Springs, CA	Guardrail

Location Map

