THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

BOARD ACTION

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

4/11/2023 Board Meeting

7-2

Subject

Award a $6,174,000 contract to West Valley Investment Group for seismic upgrades to the Foothill Hydroelectric Plant and Control Building; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

Executive Summary

A key component of Metropolitan's seismic resiliency strategy includes seismic evaluation and upgrade of its facilities. Recent structural analyses of the Foothill Hydroelectric and Control Building (Foothill Control Building) that houses the pressure control structure (PCS) and the Hydroelectric Power Plant (HEP) concluded that the structure requires strengthening to withstand a major earthquake. This action awards a construction contract for seismic upgrades to the Foothill Control Building.

Details

Background

The Foothill Control Building is located on the Foothill Feeder, immediately downstream of the California Department of Water Resources' Castaic Lake. The Foothill Feeder delivers State Project Water from Castaic Lake to the Joseph Jensen Water Treatment Plant (Jensen plant). The Foothill Control Building is comprised of two facilities erected in two phases: the PCS portion of the building was constructed in 1975, and the adjacent HEP was constructed in 1981. The HEP includes two turbine/generators that can produce up to 9.1 megawatts of electricity. When the HEP is not operating, flow is diverted through the PCS to maintain continuous water deliveries to the Jensen plant. The Foothill Control Building is a 48-foot-long by 56-foot-wide with concrete masonry walls and a precast concrete roof, which is supported by exterior columns. The integrated structure features a 14-foot-high upper level and a basement level that extends 45 feet below grade.

The Foothill Control Building is located about 13 miles from the San Andreas Fault, which can generate an 8.1 magnitude earthquake. Metropolitan facilities like the Foothill Control Building have always been designed to meet codes that were in place at the time of their construction. However, structural evaluations conducted by staff under Metropolitan's seismic assessment program concluded that the building must be strengthened to withstand a significant earthquake and retain its functionality as an essential facility. This recommendation reflects current industry practices and building codes, which are periodically updated, and is consistent with Metropolitan's seismic resilience program.

In December 2014, Metropolitan's Board authorized design of seismic upgrades to the Foothill Control Building. Final design is now complete, and staff recommends proceeding with construction of structural upgrades at this time. The work associated with the structural upgrades will require relocation of some existing mechanical and electrical equipment, as well as minor architectural modifications near the work areas.

In accordance with the April 2022 action on the biennial budget for fiscal years 2022/23 and 2023/24, the General Manager will authorize staff to proceed with the construction of the seismic upgrades to the Foothill Control Building, pending board award of the 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). Funds required for work to be performed pursuant to the subject contract after fiscal year 2023/24 will be

budgeted within the CIP Appropriation for fiscal years 2024/25 and 2025/26. 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 Distribution System Reliability Program.

Foothill Hydroelectric Plant and Control Building Seismic Upgrade – Construction

The scope of the construction contract consists of removal and replacement of the roofing system; addition of encasements to enlarge and strengthen concrete columns above grade and below grade; reinforcing shallow foundations; temporary relocation of existing fire-water lines; and minor surficial site grading. Metropolitan force activities will include shutdown of the hydroelectric units, establishment of clearances, and return of the pipeline to service.

A total of $8.65 million has been budgeted for this work. In addition to the amount of the contract described below, other funds to be allocated include $126,000 for Metropolitan force activities and shutdown-related activities as described above; $712,000 for construction management and inspection; $439,000 for submittals review, technical support during construction, responding to requests for information, and preparation of record drawings; $483,000 for contract administration, environmental monitoring support, project controls, Project Labor Agreement (PLA) administration, and project management; and $716,000 for the remaining budget.

Attachment 1 provides the allocation of the required funds. The total estimated cost to upgrade the Foothill HEP's control building, including the amount allocated to date and funds allocated for the work described in this action, is $9.82 million.

Award of Construction Contract (West Valley Investment Group)

Specifications No. 1999 for seismic upgrades to the Foothill Control Building was advertised for bids on December 13, 2022. As shown in **Attachment 2**, five bids were received and opened on February 14, 2023. The low bid from West Valley Investment Group in the amount of $6,174,000 complies with the requirements of the specifications. The four other bids ranged between approximately $7.75 million and $8.73 million, while the engineer's estimate was $8.0 million. Staff investigated why the low bid was significantly lower than the four other bids and attributes the difference to reduced costs due to West Valley Investments Group's self-performance of all heavy civil and structural concrete work. For this contract, Metropolitan established a Small Business Enterprise (SBE) participation level of at least 25 percent of the bid amount. West Valley Investment Group is an SBE firm and thus achieves 100 percent 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. The total cost of construction for this project is $6,300,000, which includes the amount of the contract ($6,174,000) and Metropolitan force activities ($126,000). 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 inspection is 11.3 percent of the total construction cost.

Alternatives Considered

During design, staff considered delaying the Foothill Control Building seismic upgrade to incorporate the scope of work for a second project at this facility, the Foothill HEP Control Systems upgrade. This project will replace electrical and control components at the HEP. Board award of this contract is currently planned for mid-2024. Completing all of the Foothill HEP rehabilitation work (seismic and control systems) under a single construction contract has the potential to reduce some project costs, such as contractor mobilization as well as construction contract administration. However, the scope of each contract is distinctly different, requiring contractors with different specialized areas of expertise. Due to these differences, it is expected that any potential cost savings of combining the two projects would be reduced. With the classification of the Foothill Control Building as an essential facility, staff recommends completing the required seismic upgrades at this time rather than postponing this work until the control system project design is completed. This approach will allow for efficient and timely execution of the overall infrastructure needs in addition to expediting critical portions of the upgrades.

Summary

This action awards a $6,174,000 contract to West Valley Investment Group for seismic upgrades to the control Foothill Control Building. 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

December 2024 – Completion of construction

Policy

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

Metropolitan Water District Administrative Code Section 8140: Competitive Procurement

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minutes Item 49977, dated December 9, 2014, the Board authorized the design of Foothill Hydroelectric Power Plant Seismic Upgrades.

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)

CEQA determination for Option #1:

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. Accordingly, the proposed action qualifies under Class 1 and Class 2 Categorical Exemptions (Sections 15301 and 15302 of the State CEQA Guidelines).

CEQA determination for Option #2:

None required

Board Options

Option #1

Award a $6,174,000 contract to West Valley Investment Group for seismic upgrades to the Foothill Hydroelectric Plant and Control Building.

Fiscal Impact: Expenditure of $8.65 million in capital funds. Approximately $7.5 million will be incurred in the current biennium and has been previously authorized. The remaining funds from this action are accounted for in the next biennial budget. The remaining capital expenditures will be funded from future CIP budgets following board approval of those budgets.

Business Analysis: This option will protect Metropolitan's assets and help maintain the reliability and safety of the plant.

Option #2

Do not proceed with the project at this time.

Fiscal Impact: None

Business Analysis: This option would forgo an opportunity to reduce the risk of damage from an earthquake to critical facilities within the distribution system.

Staff Recommendation

Option #1

3/23/2023

John V. Bednarski *Date*
Chief Engineer/Manager
Engineering Services Group

3/24/2023

Adel Hagekhalil *Date*
General Manager

Attachment 1 – Allocation of Funds

Attachment 2 – Abstract of Bids

Attachment 3 – Subcontractors for Low Bidder

Attachment 4 – Location Map

Ref# ES12689724

Allocation of Funds for the Foothill Control Building Seismic Upgrade

	Current Board Action (April 2023)
Labor	
Studies & Investigations	$ -
Final Design	-
Owner Costs (Program mgmt., contract admin., & envir.monitoring)	443,000
Submittals Review & Record Drwgs.	439,000
Construction Inspection & Support	712,000
Metropolitan Force Construction	126,000
Materials & Supplies	-
Incidental Expenses	-
Professional/Technical Services	-
PLA Administration	40,000
Right-of-Way	-
Equipment Use	-
Contracts	-
West Valley Investment Group	6,174,000
Remaining Budget	716,000
Total	**$ 8,650,000**

The total amount expended to date to upgrade the control building at the Foothill Hydroelectric Power Plant/ Pressure Control Structure is approximately $1.171 million. The total estimated cost to complete the construction including the amount appropriated to date and funds allocated for the work described in this action is $9.82 million.

The Metropolitan Water District of Southern California

Abstract of Bids Received on February 14, 2023, at 2:00 P.M.

Specifications No. 1999
Foothill Control Building Seismic Upgrade

The work includes the addition of steel components to the roof, roof-beam, and roof-column connecting elements; enlargement and strengthening of concrete columns above grade and below grade; shallow foundation retrofit; removal, temporary relocation, and reconstruction of the fire-water line; and minor surficial site grading.

Engineer's estimate: $8,000,000

Bidder and Location	Total	SBE $	SBE %	Met SBE[1]
West Valley Investment Group Tarzana, CA	**$6,174,000**	**$1,870,661**	**100%**	**Yes**
MMC, Inc. La Palma, CA	$7,754, 000	-	-	-
Woodcliff Corporation Los Angeles, CA	$7,891,000	-	-	-
PCN3, Inc. Los Alamitos, CA	$8,444,000	-	-	-
Nationwide Contracting Service, Inc. Fountain Valley, CA	$8,727,720	-	-	-

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

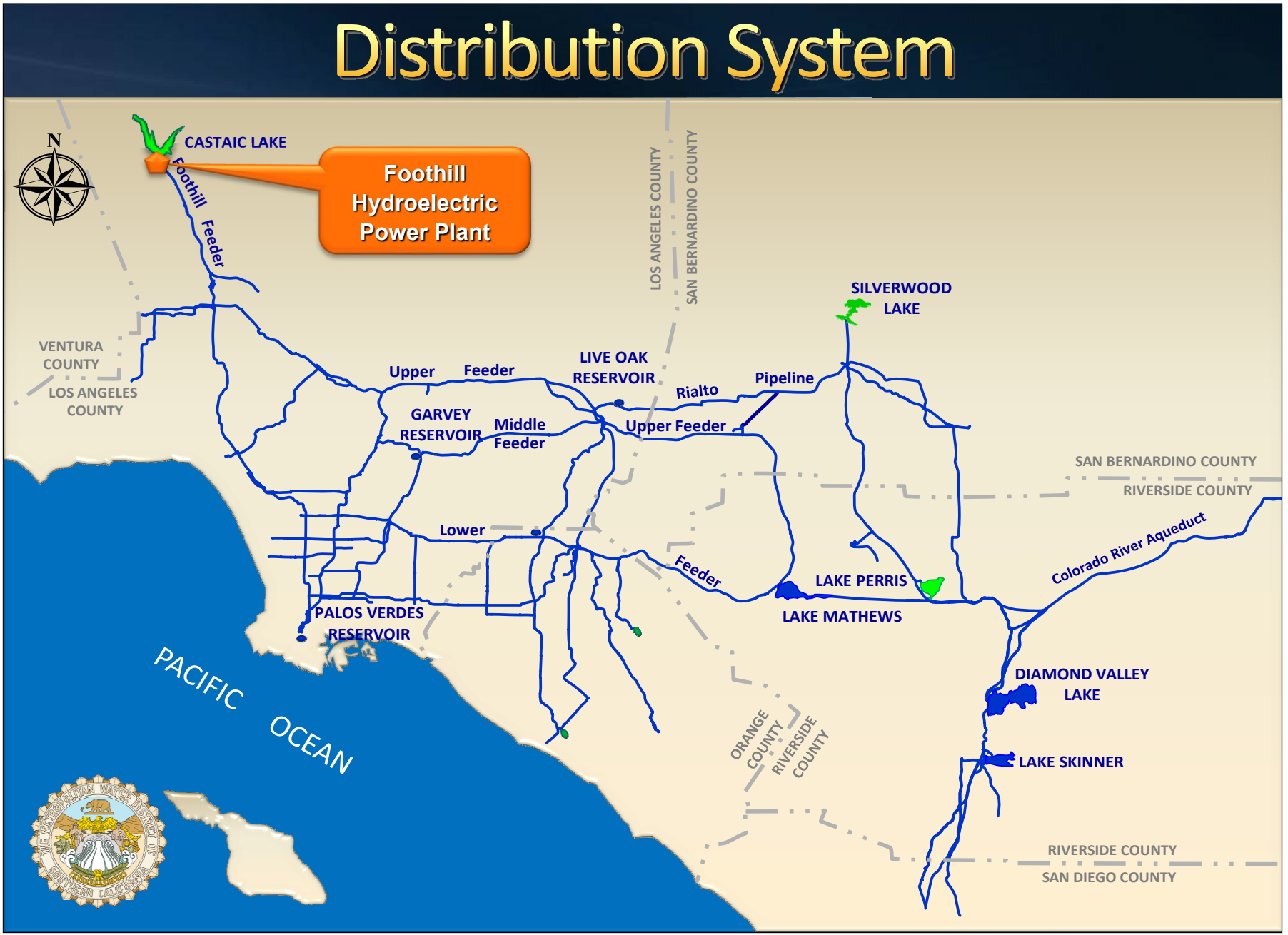
The Metropolitan Water District of Southern California

Subcontractors for Low Bidder

Specifications No. 1999
Foothill Control Building Seismic Upgrade

Low bidder: West Valley Investment Group

Subcontractor	Service Category; Specialty
Leed Electric, Inc. Santa Fe Springs, CA	Electrical
Kiss Enterprise, Inc., dba Golden State Roofing Carson, CA	Single Ply Roof
Calex Engineering Company Newhall, CA	Shoring and Excavation
Cell-Crete Corporation Monrovia, CA	Lightweight Insulating Concrete
Cosco Fire Protection, Inc. Brea, CA	Fire Hydrant Relocation/Installation
Karcher Environmental, Inc. Anaheim, CA	Asbestos Removal
Next Century Rebar San Bernardino, CA	Rebar Cage


Distribution System
N
CASTAIC LAKE
Foothill Feeder
Foothill Hydroelectric Power Plant
LOS ANGELES COUNTY
SAN BERNARDINO COUNTY
SILVERWOOD LAKE
VENTURA COUNTY
LOS ANGELES COUNTY
Upper Feeder
LIVE OAK RESERVOIR
Rialto Pipeline
GARVEY RESERVOIR
Middle Feeder
Upper Feeder
SAN BERNARDINO COUNTY
RIVERSIDE COUNTY
Lower Feeder
Colorado River Aqueduct
LAKE PERRIS
LAKE MATHEWS
PALOS VERDES RESERVOIR
PACIFIC OCEAN
DIAMOND VALLEY LAKE
ORANGE COUNTY
RIVERSIDE COUNTY
LAKE SKINNER
RIVERSIDE COUNTY
SAN DIEGO COUNTY