THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Board Action

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

3/12/2024 Board Meeting

7-3

Subject

Award a $1,779,174 procurement contract to Vogt Valves, Inc. for a 132-inch diameter butterfly valve to be installed at the Foothill Pump Station Intertie as part of water supply reliability improvements in the Rialto Pipeline service area; and authorize an increase of $260,000 to an agreement with HDR Engineering Inc. for a new not-to-exceed amount of $1,560,000 for design services; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA (This action is part of a series of projects that are being undertaken to improve the supply reliability for State Water Project dependent member agencies)

Executive Summary

The recent statewide drought and the resulting low allocation of State Water Project (SWP) supplies by the California Department of Water Resources (DWR) directly impacted Metropolitan's ability to deliver water to the Rialto Pipeline service area. Four ongoing projects will expand Metropolitan's ability to deliver supplies from Diamond Valley Lake (DVL) through the Inland Feeder to the Rialto Pipeline service area. Collectively, these projects will significantly reduce the dependency of the member agencies on the Rialto Pipeline to SWP supplies.

This action awards a $1,779,174 procurement contract to Vogt Valves Inc. for furnishing a large-diameter butterfly valve to be installed at the San Bernardino Valley Municipal Water District (SBVMWD) Foothill Pump Station as part of water supply reliability improvements in the Rialto Pipeline service area; and authorizes an increase of $260,000 to an existing agreement with HDR Engineering Inc. for a new amount not to exceed $1,560,000 for the design of the Inland Feeder/SBVMWD Foothill Pump Station Intertie project as two separate construction contracts. See **Attachment 1** for the allocation of funds, **Attachment 2** for the Abstract of Bids, **Attachment 3** for the list of subconsultants, and **Attachment 4** for the Location Map.

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

Staff Recommendation: Option #1

Option #1

a. Award a $1,779,174 procurement contract to Vogt Valves Inc. for a 132-inch diameter butterfly valve to be installed at the Foothill Pump Station as part of water supply reliability improvements in the Rialto Pipeline service area; and
b. Authorize an increase of $260,000 to an existing agreement with HDR Engineering Inc. for a new not-to-exceed amount of $1,560,000 for design of Stage 2 for the Inland Feeder/San Bernardino Valley Municipal Water District Foothill Pump Station Intertie.

Fiscal Impact: Expenditure of $2,950,000 in capital funds. All expenditures will be incurred in the next biennium and will be accounted for in the Capital Investment Plan (CIP) budget for the next biennium following board approval of the budget.
Business Analysis: This option will improve water supply reliability in the Rialto Pipeline service area.

Option #2

Do not proceed with the project at this time.

Fiscal Impact: None

Business Analysis: This option would forego the opportunity to improve the reliability of service to those member agencies with connections to the Rialto Feeder.

Alternatives Considered

During the planning phase of this project, staff considered using different types of valves for isolation at this location, such as conical plug and spherical ball valves. These valves are robust and have a full port opening, thereby reducing pressure losses. However, these valves are larger, more expensive, and take longer to fabricate than butterfly valves. The much larger size of either the conical plug or spherical ball valve, and the actuator needed to operate the valve, would also result in a significantly larger structure to house the valve, increasing construction costs and prolonging construction time. These types of valves are utilized in situations where the valve controls the flow, or the allowable loss of pressure across the valve is very limited. In the current application, where the valve is used solely for isolation and pressure losses are acceptable, a butterfly valve is more appropriate and cost-effective. The recommended action allows Metropolitan to procure the valve needed for isolation on the Inland Feeder in a timely and cost-effective manner.

Staff also considered using a single construction package after completion of the CEQA and permitting process for the project instead of preparing two separate packages. The biological assessment for the CEQA and permitting processes for this project are complex due to the presence of a protected species on a portion of the site. To keep all of the work in one contract would require waiting up to two years to receive all required permits for the project. This approach would delay construction. The selected option of using two construction packages expedites the overall construction schedule by completing most of the construction during Stage 1 work.

Applicable Policy

Metropolitan Water District Administrative Code Section 5108: Appropriations

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

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

By Minute Item 52626, dated December 14, 2021, the Board authorized amending the current CIP to include projects to improve water supply reliability in the Rialto Pipeline service area.

By Minute Item 52937, dated August 16, 2022, the Board authorized an agreement with HDR Engineering, Inc. for a not-to-exceed amount of $1,300,000 for final design of the Inland Feeder/Foothill Pump Station Intertie.

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action to enter into a procurement contract is not defined as a project under CEQA because it involves organizational, maintenance, or administrative activities that will not result in direct or indirect physical changes in the environment. (Public Resources Code Section 21065; State CEQA Guidelines Section 15378(b)(2) and (5).) The proposed action related to the existing final design agreement is exempt from CEQA because it consists of basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. These may be strictly for information gathering purposes or as part of a study leading to an action that a public agency has not yet approved, adopted, or funded. (State CEQA Guidelines Section 15306.)

CEQA determination for Option #2:

None required

Details and Background

Background

The Rialto Pipeline, constructed in 1972, is approximately 30 miles long with a diameter ranging from 96 to 144 inches. It conveys untreated water from DWR's Lake Silverwood to Metropolitan's Live Oak Reservoir in La Verne. Under normal conditions, the Rialto Pipeline relies on raw water deliveries from the East Branch of the SWP via DWR's Devil Canyon Afterbay. Member agencies with service connections on the Rialto Pipeline include the Inland Empire Utilities Agency, Three Valleys Municipal Water District, and the Upper San Gabriel Valley Municipal Water District.

DVL is Metropolitan's largest reservoir, with a maximum storage capacity of 810,000 acre-feet. It provides emergency storage in the event of a major earthquake, storage as a reserve for drought conditions, and seasonal storage to meet annual member agency demands. The Rialto Pipeline cannot access the water stored in DVL due to infrastructure and operational constraints.

The Board authorized the Rialto Pipeline water supply reliability improvements in December 2021. It consists of four separate projects: Wadsworth Pumping Plant Bypass Pipeline, Inland Feeder/Rialto Pipeline Intertie, Inland Feeder – Badlands Tunnel Surge Protection, and Inland Feeder/SBVMWD Foothill Pump Station Intertie. These incremental infrastructure improvements will greatly increase operational flexibility and enhance the ability to move water from DVL, and potentially the Colorado River Aqueduct, into the Rialto Pipeline. Completion of these projects will significantly reduce the dependency of member agencies on the Rialto Pipeline and SWP supplies.

The Inland Feeder/SBVMWD Foothill Pump Station Intertie is an important component of this four-project effort. Without this project, the Rialto Pipeline water supply reliability benefits would be limited to a series of low-volume water exchanges between Metropolitan and SBVMWD. The Foothill Pump Station is in the city of Highland and is connected to SBVMWD's Foothill Pipeline, which usually delivers water for groundwater recharge during high SWP supplies and is therefore available in times of drought. This pump station will provide the lift needed to permit the direct delivery of approximately 107 cubic feet per second (cfs) from DVL to the Rialto Pipeline.

The planned improvement includes pipeline interties and valve installations to connect Metropolitan's Inland Feeder to the existing in-line booster pumps at the Foothill Pump Station. Specific project components include the construction of 450 feet of 54-inch bypass supply pipe; 800 feet of 54-inch bypass discharge line; isolation valves; temporary spool pieces and bulkheads; vaults to support the new valves; surge tanks to mitigate hydraulic surges; and associated electrical, instrumentation, piping system, and appurtenance to support the new equipment.

Final design of the Inland Feeder/SBVMWD Foothill Pump Station Intertie is currently underway. Due to the long lead-time needed to procure a 132-inch diameter butterfly valve, staff recommends award of a procurement contract at this time. This valve will provide isolation capabilities on the 144-inch diameter Inland Feeder when the pumping operation is in effect.

Inland Feeder/SBVMWD Foothill Pump Station Intertie – Valve Procurement

The scope of the valve procurement contract includes furnishing a 132-inch butterfly valve, associated fittings, and accessories. Metropolitan forces will receive, offload, and place the valve in storage at Metropolitan's Cone Camp Yard. The valve will be installed under an upcoming construction contract.

A total of $2,950,000 is required for this work. In addition to the amount of the valve procurement contract, allocated funds include an increase of $260,000 for final design activities by HDR as described below and $250,000 for environmental support by ESA to be performed under an existing board authorized agreement. Allocated funds for Metropolitan staff activities include $92,000 for factory fabrication inspection and functional testing; $20,000 for Metropolitan force activities described above; $118,000 for submittals review, technical support, and responding to manufacturer requests for information to support the valve procurement; $207,000 for contract administration, environmental documentation, regulatory agency coordination, shutdown planning, right-of-way support, and project management; $111,000 for design support and reorganizing instrumentation and

controls design drawings for Stage 2, technical oversight, and review of consultant's work; and $112,826 for the remaining budget. The total estimated cost to complete this project, including the amount appropriated to date, funds allocated for the work described in this action, and future construction costs, is anticipated to range from $29 million to $33 million.

Award of Procurement Contract (Vogt Valves Inc.)

Specifications No. 2096 for furnishing a butterfly valve for the Inland Feeder/SBVMWD Foothill Pump Station Intertie was advertised for bids on September 19, 2023. As shown in **Attachment 2**, three bids were received and opened on December 19, 2023. The bid from Vogt Valves Inc. in the amount of $1,779,174 complies with the requirements of the specifications. This amount includes all sales and use taxes imposed by the state of California.

Proceeding with a contract at this time will enable completion of improvements to the Inland Feeder/SBVMWD Foothill Pump Station Intertie with minimal operational impacts and will allow for reliable water exchanges between Metropolitan and SBVMWD. This action awards a $1,779,174 procurement contract to Vogt Valves Inc. to furnish a large-diameter butterfly valve for the Inland Feeder/SBVMWD Foothill Pump Station Intertie. As a procurement contract, there are no subcontracting opportunities, and a Small Business Enterprise participation level was not established for this contract.

Inland Feeder/SBVMWD Foothill Pump Station Intertie – Stage 2 Final Design

In August 2022, Metropolitan's Board authorized a professional services agreement with HDR Engineering Inc. (HDR) for the design of the Inland Feeder/SBVMWD Foothill Pump Station Intertie project. HDR had completed final design; however, during a recent biological survey of the project site, it was determined that additional CEQA and permit work is required for the project to avoid disruption to a sensitive species, the San Bernardino Kangaroo Rat. To expedite the project's construction, the project will be advertised and constructed in two stages.

Stage 1 work is located north of the habitat area, which includes connecting pipelines to SBVMWD's Foothill Pump Station, procurement, and installation of long lead equipment such as the surge protection tanks, and associated civil, electrical, and instrumentation work necessary to support the new infrastructure. Stage 2 work will include construction of the tie-in to the Inland Feeder, a valve vault along the Inland Feeder, and connection to the piping installed under Stage 1. Stage 2 work will also include piping which crosses the habitat area. This two-staged construction approach will require two separate construction packages and an amendment to the existing agreement with HDR for the design of the separate construction package for Stage 2 construction.

Amendment to Existing Agreement (HDR Engineering Inc.)

HDR is recommended to provide engineering services for final design of Stage 2 for the Inland Feeder/ SBVMWD Foothill Pump Station Intertie. The planned activities for HDR include separating drawings and specifications into two contract packages; development of drawings and specifications for the protection of the San Bernardino Kangaroo Rat during construction; development of the engineer's estimates, and performing bid phase assistance for both Stage 1 and Stage 2 construction packages.

This action authorizes an increase of $260,000 to an existing agreement with HDR Engineering Inc. for a new not-to-exceed amount of $1,560,000 to provide engineering design services for final design of Stage 2 for the Inland Feeder/SBVMWD Foothill Pump Station Intertie. For this agreement, Metropolitan has established a Small Business Enterprise participation level of 13 percent. HDR Engineering Inc. has agreed to meet this level of participation. The planned subconsultants for this work are listed in **Attachment 3**.

Project Milestones

May 2024 – Board action to adopt CEQA document for Inland Feeder/SBVMWD Foothill Pump Station Intertie

August 2024 – Board action to award construction contract for the Inland Feeder/SBVMWD Foothill Pump Station Intertie Stage 1

2/20/2024

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

2/27/2024

Adel Hagekhalil *Date*
General Manager

Attachment 1 – Allocation of Funds

Attachment 2 – Abstract of Bids

Attachment 3 – Listing of Subconsultants

Attachment 4 – Location Map

Ref# es12697614

Allocation of Funds for Inland Feeder - SBVMWD Foothill Pump Station Intertie

	Current Board Action (Mar. 2024)
Labor	
Studies & Investigations	$ -
Final Design (Stage 2)	111,000
Owner Costs (Program mgmt., envir. monitoring, procurement)	207,000
Submittals Review & Record Drwgs.	118,000
Construction Inspection & Support	92,000
Metropolitan Force Construction	20,000
Materials & Supplies	-
Incidental Expenses	-
Professional/Technical Services	
HDR Engineering Inc.	260,000
ESA (Environmental Services)	250,000
Right-of-Way	-
Equipment Use	-
Contracts (Vogt Valves Inc.)	1,779,174
Remaining Budget	112,826
Total	**$ 2,950,000**

The total amount expended to date on the Inland Feeder – SBVMWD Foothill Pump Station Intertie is approximately $3.8 million. The total estimated cost to complete the project, including the amount appropriated to date, funds allocated for the work described in this action, and future construction costs, is anticipated to range from $29 million to $33 million.

The Metropolitan Water District of Southern California

Abstract of Bids Received on December 19, 2023, at 2:00 P.M.

Specifications No. 2096
Furnishing a 132" Butterfly Valve for Foothill PS Intertie

The work includes furnishing and delivery of a 132-inch butterfly valve for the Foothill Pump Station Intertie.

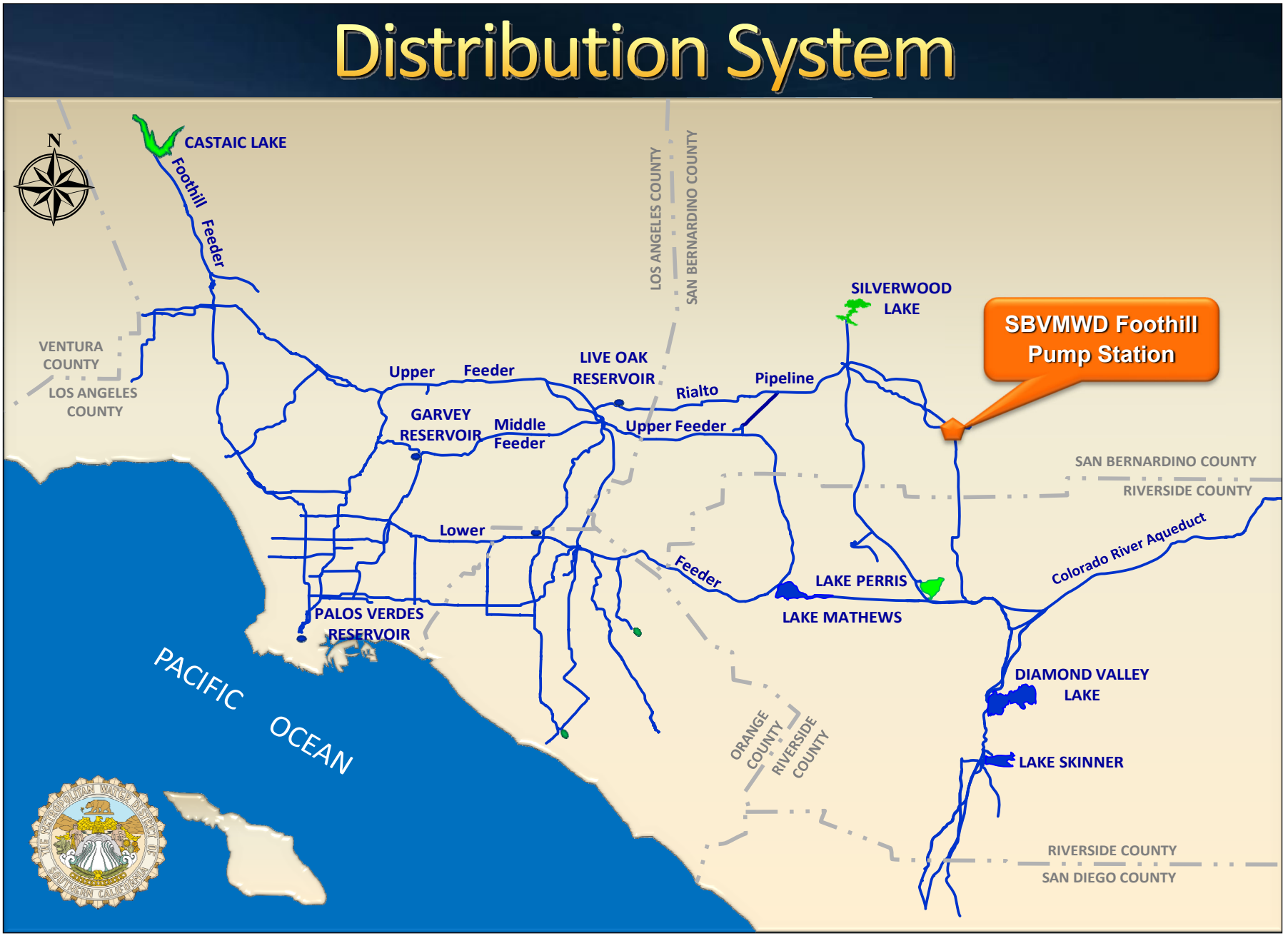
Bidder and Location	Base Bid Price Total [1,2]
Vogt Valves **Stafford, TX**	**$1,779,174**
Santa Fe Win Water Santa Fe Springs, CA	$4,799,070
Sojitz Machinery Corporation of America Farmington Hills, MI	$5,911,461

[1] As a procurement contract, there are no subcontracting opportunities.
[2] Includes sales and use taxes of 7.75 percent imposed by the state of California

The Metropolitan Water District of Southern California

Subconsultants for Agreement with HDR Engineering Inc.

Subconsultant and Location	Service Category; Specialty
DRP Engineering Inc. Alhambra, CA	CAD support


Distribution System
N
CASTAIC LAKE
Foothill Feeder
VENTURA COUNTY
LOS ANGELES COUNTY
LOS ANGELES COUNTY
SAN BERNARDINO COUNTY
SILVERWOOD LAKE
SBVMWD Foothill Pump Station
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