



- Board of Directors
Engineering and Operations Committee

8/19/2014 Board Meeting

7-1

Subject

Appropriate \$680,000; and award \$428,280 contract to Kaveh Engineering & Construction, Inc. for solids handling area improvements at the Robert A. Skinner Water Treatment Plant (Approp. 15365)

Executive Summary

This action awards a construction contract to rehabilitate portions of the solids handling area at the Robert A. Skinner Water Treatment Plant. The solids handling system dewateres wet solids from the plant's sedimentation basins and reclamation plants, allowing the Skinner plant to maximize treated water production and minimize waste discharges.

Timing and Urgency

Several components of the Skinner plant's solids handling system need to be upgraded to improve reliability and enhance compliance with waste discharge regulations. Replacement of the Solids Handling Building's bridge crane is needed to properly maintain the system's mechanical belt presses. Improvements to the exterior solids storage and truck loading area are needed to fully contain dewatered solids and contaminated rainwater. Currently, solids at the truck loading area are not contained and rainwater runoff could potentially flow into a nearby storm drain system.

This project has been reviewed with Metropolitan's Capital Investment Plan (CIP) prioritization criteria and is categorized as an Infrastructure Reliability project. Funds for this action are available within Metropolitan's capital expenditure plan for fiscal year 2014/15.

Details

Background

The Skinner plant was placed into service in 1976 and currently has a treatment capacity of 630 million gallons per day (mgd). The plant delivers a blend of waters from the Colorado River and State Water Project to Eastern Municipal Water District, Western Municipal Water District of Riverside County, and the San Diego County Water Authority. The facility is located north of Temecula in Riverside County.

Settled solids removed from the Skinner plant's sedimentation basins and reclamation plants are thickened on-site and then mechanically dewatered in the Solids Handling Building, which was built in 1989. This uninsulated building is constructed of painted corrugated sheet metal attached to metal framing. The building houses three belt press units and a polymer delivery system used to aid the solids dewatering process. Dewatered solids are conveyed to an exterior solids storage and truck loading area adjacent to the building.

The Solids Handling Building contains a one-ton overhead bridge crane, which is used to lift and remove belt press parts for cleaning, servicing, or replacement. Over time, the bridge's drive mechanism has deteriorated through use. The drive wheels no longer engage the bridge rails evenly, causing misalignment of the bridge. The crane frequently could not move along the rails during recent years. Without an operable crane system, Skinner plant staff is not able to maintain and repair the belt press units.

The uncovered solids storage and truck loading area consists of a concrete pad with curbing on three sides where the dewatered solids are temporarily stored, along with an adjacent 1,600-square-foot asphalt parking area for haul trucks. Front end loaders scoop the dewatered solids off the concrete pad and dump them onto haul trucks. Solids being lifted into the truck beds often spill onto the asphalt pavement. During heavy rains, the storm water runoff from this area could potentially flow into a nearby storm drain. To remain in compliance with the plant's National Pollutant Discharge Elimination System (NPDES) general permit requirements, drainage and containment improvements are needed.

In February 2012, Metropolitan's Board authorized final design of improvements to the Skinner solids handling area. Final design has been completed, and staff recommends moving forward with construction at this time. The planned work includes replacing the bridge crane with a new unit featuring a more robust drive mechanism. Drainage will be improved to manage and control rainwater runoff, and the asphalt pavement will be replaced with a concrete containment pad, sump and curbing at the Solids Handling Building and truck loading areas.

Skinner Solids Handling Area Improvements – Construction (\$680,000)

Specifications No. 1728 for the Skinner Solids Handling Area Improvements was advertised for bids on May 12, 2014. As shown in [Attachment 2](#), three bids were received and opened on June 24, 2014. The low bid from Kaveh Engineering & Construction, Inc. in the amount of \$428,280 complies with the requirements of the specifications. The two higher bids were \$476,054 and \$579,000, while the engineer's estimate was \$552,000. For this contract, Metropolitan established a Small Business Enterprise (SBE) participation level of at least 20 percent of the total bid amount. Kaveh Engineering & Construction, Inc. is an SBE firm and thus achieves 100 percent participation.

This action appropriates \$680,000 and awards a \$428,280 contract to Kaveh Engineering & Construction, Inc. to construct the Skinner Solids Handling Area Improvements. In addition to the amount of the contract, the requested funds include \$93,920 for construction support by Metropolitan forces, which includes removal and reinstallation of existing piping and pumps; and isolation and dewatering of the solids handling equipment. The requested funds also include \$76,800 for construction inspection; \$36,350 for submittals review and record drawing preparation by Metropolitan staff; \$34,650 for project management and contract administration; and \$10,000 for remaining budget.

Metropolitan staff will perform inspection of the construction contract. For this project, the anticipated cost of inspection is approximately 14.7 percent of the total construction cost. Engineering Services' goal for inspection of construction contracts less than \$3 million is 9 to 15 percent. For this project, the total cost of construction, which includes the construction contract and Metropolitan force activities, is \$522,200.

The total estimated cost to complete the Skinner Solids Handling Area Improvements, including the amount authorized to date and current funds requested, is approximately \$940,000.

This project has been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds are available within the fiscal year 2014/15 capital expenditure plan. See [Attachment 1](#) for the Financial Statement, [Attachment 2](#) for the Abstract of Bids, and [Attachment 3](#) for the Location Map.

The Skinner Solids Handling Area Improvements project is included within capital Appropriation No. 15365, the Skinner Improvements Appropriation, which was initiated in fiscal year 2000/01. With the present action, the total funding for Appropriation No. 15365 will increase from \$154,375,700 to \$155,055,700.

Project Milestone

June 2015 – Completion of construction of the Skinner Solids Handling Area Improvements

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

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed action involves the funding and minor alterations, reconstruction or replacement of existing public facilities along with the construction of minor appurtenant structures with no expansion of use and no possibility of significantly impacting the physical environment. In addition, the proposed action involves minor modifications in the condition of land, water, and/or vegetation which does not involve removal of healthy, mature, scenic trees. Accordingly, the proposed action qualifies under Class 1, Class 2, Class 3, and Class 4 Categorical Exemptions (Section 15301, 15302, 15303, and 15304 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed action qualifies under four Categorical Exemptions (Class 1, Section 15301; Class 2, Section 15302; Class 3, Section 15303; and Class 4, Section 15304 of the State CEQA Guidelines).

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination that the proposed action is categorically exempt, and

- a. Appropriate \$680,000; and
- b. Award \$428,280 contract to Kaveh Engineering & Construction, Inc. for the Skinner Solids Handling Area Improvements.

Fiscal Impact: \$680,000 in capital funds under Approp. 15365

Business Analysis: This option will enhance the reliability of the Skinner plant and reduce the risk of noncompliance with waste discharge regulations.

Option #2

Do not proceed with the project at this time.

Fiscal Impact: None

Business Analysis: This option would forgo an opportunity to enhance the reliability of the Skinner plant and to reduce the risk of violating waste discharge regulations.

Staff Recommendation

Option #1


 _____ 7/25/2014
 Gordon Johnson Date
 Manager/Chief Engineer,
 Engineering Services


 _____ 8/5/2014
 Jeffrey Lightlinger Date
 General Manager

[Attachment 1 – Financial Statement](#)

[Attachment 2 – Abstract of Bids](#)

[Attachment 3 – Location Map](#)

Financial Statement for Skinner Improvements Appropriation

A breakdown of Board Action No. 22 for Appropriation No. 15365 for the Skinner Solids Handling Area Improvements¹ is as follows:

	Previous Total Appropriated Amount (Feb. 2012)	Current Board Action No. 22 (Aug. 2014)	New Total Appropriated Amount
Labor			
Studies & Investigations	\$ 806,000	\$ -	\$ 806,000
Final Design	2,553,700	-	2,553,700
Owner Costs (Program mgmt.)	4,605,930	34,650	4,640,580
Submittals Review & Record Drawings	314,000	36,350	350,350
Construction Inspection & Support	9,609,000	76,800	9,685,800
Metropolitan Force Construction	4,621,900	88,920	4,710,820
Materials & Supplies	5,989,150	5,000	5,994,150
Incidental Expenses	503,500		503,500
Professional/Technical Services	5,334,000	-	5,334,000
Equipment Use	333,000	-	333,000
Contracts	116,946,680	428,280	117,374,960
Remaining Budget	2,758,840 ²	10,000	2,768,840
Total	\$ 154,375,700	\$ 680,000	\$ 155,055,700

Funding Request

Appropriation Name:	Skinner Improvements Appropriation		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15365	Board Action No.:	22
Requested Amount:	\$ 680,000	Budget Page No.:	165
Total Appropriated Amount:	\$ 155,055,700	Total Appropriation Estimate:	\$156,136,000

¹The total amount expended to date on the Skinner Solids Handling Area Improvements is approximately \$260,000. The total estimated cost to complete this project, including the amount authorized to date and current funds requested, is \$940,000.

²Includes previous reallocation of \$631,470 to Remaining Budget from four projects that were completed under budget.

The Metropolitan Water District of Southern California

Abstract of Bids Received on June 24, 2014 at 2:00 P.M.

Specifications No. 1728

Skinner Solids Handling Area Improvements

The work consists of replacing an existing bridge crane system, constructing a concrete containment pad, re-grading and replacing existing asphalt pavement, and performing related site work.

Engineer's Estimate: \$552,000

Bidder and Location	Total	SBE Amount	SBE %	Met SBE¹
Kaveh Engineering & Construction, Inc., Anaheim, California	\$428,280	\$428,280	100	Yes
Environmental Construction, Inc., Woodland Hills, California	\$476,054	-	-	-
The Richards Group, Escondido, California	\$579,000	-	-	-

¹ SBE (Small Business Enterprise) participation level was established at 20 percent for this contract.

Distribution System

