



- Board of Directors
Engineering and Operations Committee

3/11/2014 Board Meeting

8-1

Subject

Appropriate \$32.5 million; and award \$22,888,888 contract to S. J. Amoroso Construction Co., Inc. to construct a chlorine containment system at Metropolitan's Chemical Unloading Facility (Approp. 15346)

Executive Summary

This action awards a contract to construct a chlorine containment and handling system at Metropolitan's Chemical Unloading Facility (CUF) in Riverside County. The project will enhance safety and security at this location, and will improve supply-chain reliability. This facility is the final chlorine containment and handling system to be constructed by Metropolitan.

Timing and Urgency

Metropolitan transfers liquid chlorine from vendor-supplied rail cars to its own cargo trailers at the CUF location. These trailers are then delivered to Metropolitan's treatment plants where they are housed within chlorine containment facilities. Chlorine withdrawn from these trailers is used within the plants for disinfection and to maintain the required disinfectant residual throughout the distribution system.

Metropolitan's Board has adopted a policy to provide containment facilities where chlorine is handled or stored in order to meet up-to-date fire code requirements, to provide a consistent level of safety, and to enhance security measures. Chlorine containment facilities have been completed at each of Metropolitan's five water treatment plants. The final location to be addressed is the CUF.

This project has been reviewed with Metropolitan's Capital Investment Plan (CIP) prioritization criteria, and is categorized as a Regulatory project. Funds for this action are available within Metropolitan's capital expenditure plan for fiscal year 2013/14.

Details

The CUF was constructed in 1975 and is used to transfer liquid chlorine from vendor-supplied rail cars to Metropolitan-owned cargo trailers. These cargo trailers are then delivered by truck to the three treatment plants which do not receive chlorine deliveries directly by rail. While ozone will soon be used as the primary disinfectant at all of Metropolitan's treatment plants, chlorine is still required for post-disinfection and for backup of the ozonation process.

In April 1999, the multiphased Chlorine Containment and Handling Facilities Appropriation was initiated to construct containment systems at each of Metropolitan's five water treatment plants and at the CUF. Chlorine containment facilities have been completed at each of the treatment plants, and all are fully operational.

In February 2011, the Board authorized final design phase of chlorine containment for the CUF. Final design has been completed, and staff recommends moving forward at this time with award of the construction contract.

CUF Chlorine Containment and Handling – Construction (\$32,500,000)

The planned project includes construction of an enclosed building that will house chlorine rail cars and cargo trailers, trans-loading equipment, chlorinators and evaporators, a chlorine neutralization system, and a leak

detection system. The project also includes a new control building, standby generator, septic tank and leach field system, site utilities, security system, railroad tracks, new 12 kV electrical service from Southern California Edison, and new potable water connection from Eastern MWD. The new system will provide a consistent level of chlorine safety across Metropolitan facilities and will incorporate greater access control, boundary protection, and surveillance equipment to enhance security.

Specifications No. 1709 for the CUF Chlorine Containment and Handling Facilities was advertised for bids on December 5, 2013. As shown in [Attachment 2](#), 11 bids were received on January 23, 2014. The low bid from S. J. Amoroso Construction Co., Inc. in the amount of \$22,888,888 complies with the requirements of the specifications. The ten higher bids ranged from approximately \$24.6 million to \$29.2 million. The engineer's estimate was \$22.5 million. For this contract, Metropolitan established a Small Business Enterprise (SBE) participation level of at least 24 percent of the total bid amount.

This action appropriates \$32.5 million and awards a \$22,888,888 contract to S. J. Amoroso Construction Co., Inc. to construct chlorine containment and handling facilities at the CUF. In addition to the amount of the contract, the requested funds include \$2,291,000 for construction support by Metropolitan forces, which includes SCADA system integration; installation of microwave tower and telecommunication equipment; and equipment start-up and testing. The requested funds also include \$3,023,000 for construction inspection; \$1,694,000 for submittals review, LEED certification, and record drawing preparation by Metropolitan staff; \$803,000 for permitting and project management; \$200,000 for local water and power utilities for higher capacity services to the site; and \$1,600,112 for remaining budget.

Metropolitan staff will perform inspection of the construction contract. The anticipated cost of inspection is approximately 11.9 percent of the total construction cost. Engineering Services' goal for inspection of projects with construction cost greater than \$3 million is 9 to 12 percent. For this project, the total cost of construction, which includes the construction contract, Metropolitan force support, and utility construction, is \$25,379,000.

This project has been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds are available within the fiscal year 2013/14 capital expenditure plan. See [Attachment 1](#) for the Financial Statement and [Attachment 2](#) for the Abstract of Bids.

This project is included within capital Appropriation No. 15346, the Chlorine Containment and Handling Facilities Appropriation, which was initiated in fiscal year 1998/99. With the present action, the total funding for Appropriation No. 15346 will increase from \$129,870,000 to \$162,370,000.

The total estimated cost to complete this project, including the amount authorized to date and current funds requested, is \$39 million.

Project Milestone

March 2017 – Completion of construction of the chlorine containment facility at the CUF

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 project was previously determined by the Board to be categorically exempt under Classes 1, 2, 3, 4 and 11 (Sections 15301, 15302, 15303, 15304 and 15311 of the State CEQA Guidelines) on February, 2, 2011. Since that time, the statute of limitations on the project has ended. With the current board action, there is no substantial change proposed since the original project was first approved in 2011. Hence, the previous environmental documentation in conjunction with the project fully complies with CEQA and the State CEQA Guidelines.

Accordingly, no further CEQA documentation is necessary for the Board to act with regards to the proposed action.

The CEQA determination is: Determine that the proposed action has been previously addressed in the 2011 categorical exemptions (Classes 1, 2, 3, 4, 11; Sections 15301, 15302, 1503, 15304, and 15311 of the State CEQA Guidelines) and that no further environmental analysis or documentation is required.

CEQA determination for Option #2:

None required

Board Options

Option #1

Determine that the proposed action has been previously addressed in the 2011 categorical exemptions, and

- a. Appropriate \$32.5 million; and
- b. Award \$22,888,888 contract to S. J. Amoroso Construction Co., Inc. to construct a containment system at the Chemical Unloading Facility.

Fiscal Impact: \$32.5 million of capital funds under Approp. 15346

Business Analysis: This option will enhance safety and security, and will improve supply-chain reliability at the CUF.

Option #2

Do not proceed with a containment system at the Chemical Unloading Facility.

Fiscal Impact: None

Business Analysis: This option would forgo an opportunity to enhance safety and security, and to improve supply-chain reliability at the CUF.

Staff Recommendation

Option #1


 _____ 2/12/2014
 Gordon Johnson Date
 Manager/Chief Engineer
 Engineering Services


 _____ 2/24/2014
 Jeffrey Nightlinger Date
 General Manager

Attachment 1 – Financial Statement

Attachment 2 – Abstract of Bids

Financial Statement for Chlorine Containment and Handling Facilities Appropriation

A breakdown of Board Action No. 22 for Appropriation No. 15346 for chlorine containment at the CUF¹ is as follows:

	Previous Total Appropriated Amount (Feb. 2011)	Current Board Action No. 22 (Mar. 2014)	New Total Appropriated Amount
Labor			
Studies and Investigations	\$ 2,385,000	\$ -	\$ 2,385,000
Final Design	6,275,650	-	6,275,650
Owner Costs (Program mgmt., permitting)	4,588,162	803,000	5,391,162
Submittals Review & Record Drwgs	-	1,694,000	1,694,000
Construction Inspection and Support	11,419,858	3,023,000	14,442,858
Metropolitan Force Construction	8,853,750	2,011,000	10,864,750
Materials and Supplies	4,272,327	280,000	4,552,327
Incidental Expenses	634,653	-	634,653
S. C. Edison	-	150,000	150,000
Eastern MWD	-	50,000	50,000
Professional/Technical Services	9,282,517	-	9,282,517
Right of Way Fees	118,000	-	118,000
Land Acquisition	3,448,863	-	3,448,863
Equipment Use	497,223	-	497,223
Contracts	74,254,603	22,888,888	97,143,491
Remaining Budget	3,839,394 ²	1,600,112	5,439,506
Total	\$ 129,870,000	\$ 32,500,000	\$ 162,370,000

Funding Request

Appropriation Name:	Chlorine Containment and Handling Facilities Appropriation		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15346	Board Action No.:	22
Requested Amount:	\$ 32,500,000	Budget Page No.:	282
Total Appropriated Amount:	\$ 162,370,000	Total Program Estimate:	\$162,410,000

¹ The total amount expended to date on the CUF Chlorine Containment project is approximately \$6.4 million. The total estimated cost to complete this project, including the amount authorized to date and current funds requested, is approximately \$39 million.

² Includes previous reallocation of \$4,537,341 to Remaining Budget from cancellation of land acquisition adjacent to the CUF, and completion of several projects under budget; and from Remaining Budget for the following: (1) \$3,024,150 for award of a construction contract to increase chlorination capacity at the Jensen plant. This contract was awarded by the Board in October 2011 without appropriating funds because sufficient funds were previously appropriated; (2) \$478,984 for utility relocations, control system upgrades, and additional security features as part of construction contract change order for Mills chlorine containment project; (3) \$217,000 for additional procurement and Metropolitan force construction for the chlorine ejector cabinets and evaporators for the Diemer chlorination capacity increase project; (4) \$384,000 for safety enhancements for the Skinner chlorine containment system including airflow, chlorine gas monitors, and chlorine concentration display monitors; and (5) \$2.22 million for evaluation of dechlorination system options; design of additional site security, control system improvements, LEED certification, railroad track modifications, electrical system design for new S. C. Edison 12 kV service; and design to minimize CUF outage during construction of the chlorine containment project.

The Metropolitan Water District of Southern California
Abstract of Bids Received on January 23, 2014 at 2:00 P.M.
Specifications No. 1709
CUF Chlorine Containment and Handling Facilities

The project consists of construction of new chlorine unloading, containment, and handling facilities at the Chemical Unloading Facility.

Engineer's Estimate: \$22,500,000

Bidder and Location	Total	SBE Amount	SBE %	Met SBE¹
S. J. Amoroso Const. Co., Inc. Costa Mesa, CA	\$22,888,888	\$8,025,034	35.06%	Yes
Straub - Brutoco a Joint Venture Fallbrook, CA	\$24,635,000	-	-	-
J. F. Shea Const., Inc. Walnut, CA	\$25,164,159	-	-	-
Stronghold Engineering, Inc. Riverside, CA	\$25,532,217	-	-	-
Steve P. Rados, Inc. Santa Ana, CA	\$25,681,975	-	-	-
Archer Western Const. LLC San Diego, CA	\$25,811,000	-	-	-
Environmental Const., Inc. Woodland Hills, CA	\$26,230,000	-	-	-
Minako America Corporation dba Minco Construction Gardena, CA	\$27,150,000	-	-	-
USS Cal Builders, Inc. Stanton, CA	\$27,550,000	-	-	-
Kemp Bros. Const., Inc. Santa Fe Springs, CA	\$28,987,400	-	-	-
T. P. Penick & Sons, Inc. San Diego, CA	\$29,217,827	-	-	-

¹SBE (Small Business Enterprise) participation level was established at 24 percent for this contract.