



● **Board of Directors**  
***Engineering and Operations Committee***

1/11/2011 Board Meeting

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**8-2**

**Subject**

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Appropriate \$5.9 million; and award (1) \$1,414,818 contract to EAR Engineering, Construction, & Support Services; (2) \$1,167,535 contract to Cedro Construction, Inc.; and (3) \$1,289,178 contract to Environmental Construction, Inc. for the Cross Connection Prevention Program (Approp. 15171)

**Description**

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This action awards three construction contracts to relocate 79 air release/vacuum valve assemblies within Metropolitan's treated water distribution system. Relocation of these facilities aboveground will bring them into compliance with current state water quality regulations by eliminating the potential for cross connections. Upon completion of these three construction contracts, the 8-year Cross Connection Prevention Program will be concluded. The successful completion of this program demonstrates Metropolitan's continued commitment to deliver high-quality water and to protect its distribution system.

**Timing and Urgency**

The California Department of Public Health (CDPH) requires that all treated water supply systems be protected from potential contamination through blow-offs, air release/vacuum valves, and other vulnerable piping configurations. Metropolitan has surveyed its distribution system for potential cross connections and has established a priority ranking to address the approximately 300 identified sites requiring modification. Of these sites, 221 have already been completed or are in the process of being modified. As a result of this action, all 300 sites will have been brought into compliance, which will complete the Cross Connection Prevention Program.

This project has been reviewed with Metropolitan's updated Capital Investment Plan (CIP) prioritization criteria and is categorized as a Water Quality project. The project is budgeted within Metropolitan's CIP for fiscal year 2010/11.

**Background**

In January 2002, Metropolitan's Board authorized detailed site investigations of all locations within the treated water distribution system with potential cross connections. A detailed assessment of the 1,270 potential sites was conducted to distinguish those which pose a potential hazard from those that pose little or no risk. The assessment recommended that modifications proceed for 300 sites. This recommendation was subsequently approved by the CDPH, as the remaining 970 sites present much lower risk and do not need to be modified. Metropolitan then initiated a program to modify the identified 300 sites in order to comply with CDPH requirements.

The Cross Connection Prevention Program has been planned to utilize 12 construction contracts, each with a moderate number of sites (approximately 25 to 27 sites per contract), to achieve the goals of: (1) increasing competition by sizing the contracts to attract more potential bidders, and (2) increasing opportunities for participation by Small Business Enterprise (SBE) firms. The 12 contracts have been staged to minimize operational disruptions to Metropolitan's distribution system, to effectively manage the geographically diverse projects, and to resolve local agency permitting issues on a case-by-case basis. In order to minimize change

orders and avoid construction delays, extensive coordination and permitting have been performed with local agencies prior to award of the construction contracts.

The program features four stages, with approximately 75 sites per stage. The Stage 1 modifications, which addressed the first 74 sites, were completed in March 2008. The Stage 2 modifications, which addressed an additional 79 sites, were completed in December 2009. A total of 68 sites are currently being modified under Stage 3. The final stage, which is the subject of this action, will address the remaining 79 sites and will complete the program. See [Attachment 3](#) for the Stage 4 location map.

Upon completion of these three remaining construction contracts, this 8-year program will be concluded. The successful completion of this program demonstrates Metropolitan's continued commitment to deliver high-quality water and to protect its distribution system. In the future, staff will continue to assess the 970 low-risk valve assemblies. If any of those locations experience a change of condition which leads to a higher risk of potential hazard, staff will return to the Board on a case-by-case basis to address that risk.

#### **Cross Connection Prevention Program Stage 4 - Construction (\$5,900,000)**

Specifications No. 1624A for the Air Release and Vacuum Valve Relocation for Treated Water Pipelines, Construction Package No. 9, was advertised for bids on October 25, 2010. The project consists of relocating 28 air release/vacuum relief valves from underground vaults along five feeders located within 12 cities. The work also includes removal of lead and PCB-containing materials, and asbestos flange gaskets. As shown in [Attachment 2](#), 8 bids were received and opened on December 1, 2010. The low bid from EAR Engineering, Construction, & Support Services, in the amount of \$1,414,818, complies with the requirements of the specifications. The 7 higher bids ranged from approximately \$1.43 million to \$1.82 million. The engineer's estimate was \$1.5 million. For this contract, Metropolitan has established an SBE participation level of at least 30 percent of the bid amount. EAR Engineering, Construction, & Support Services is an SBE firm, and thus have achieved 100 percent participation. This project was previously advertised for bids under Specifications No. 1624; all bids were rejected on October 14, 2010.

Specifications No. 1626 for the Air Release and Vacuum Valve Relocation for Treated Water Pipelines, Construction Package No. 11, was advertised for bids on October 6, 2010. The project consists of relocating 25 air release/vacuum relief valves from underground vaults along three feeders located within 8 cities. The work also includes removal of lead and PCB-containing materials, and asbestos flange gaskets. As shown in [Attachment 2](#), 14 bids were received and opened on November 17, 2010. The low bid was deemed to be nonresponsive. The second low bid from Cedro Construction, Inc., in the amount of \$1,167,535, complies with the requirements of the specifications. The 12 higher bids ranged from approximately \$1.2 million to \$1.78 million. The engineer's estimate was \$1.3 million. For this contract, Metropolitan has established an SBE participation level of at least 30 percent of the bid amount. Cedro Construction, Inc. is an SBE firm, and thus has achieved 100 percent participation.

Specifications No. 1627 for the Air Release and Vacuum Valve Relocation for Treated Water Pipelines, Construction Package No. 12, was advertised for bids on October 20, 2010. The project consists of relocating 26 air release/vacuum relief valves from underground vaults along five feeders located within 11 cities. The work also includes removal of lead and PCB-containing materials, and asbestos flange gaskets. As shown in [Attachment 2](#), 12 bids were received and opened on December 2, 2010. The low bid was deemed to be nonresponsive. The second low bid from Environmental Construction, Inc., in the amount of \$1,289,178, complies with the requirements of the specifications. The 10 higher bids ranged from approximately \$1.34 million to \$1.85 million. The engineer's estimate was \$1.4 million. For this contract, Metropolitan has established an SBE participation level of at least 30 percent of the bid amount. Environmental Construction, Inc. is an SBE firm, and thus has achieved 100 percent participation.

Construction inspection of the three contracts will be performed by Metropolitan staff. The anticipated cost of inspection as a percentage of the total construction cost is approximately 14.9 percent. Engineering Services' goal for inspection of contracts with construction cost less than \$3 million is 9 to 15 percent. The inspection budget is at the higher end of the range due to multiple construction sites located over a diverse geographic area,

the large number of agencies requiring coordination, and additional effort needed to address local neighbor concerns.

This action appropriates \$5.9 million in budgeted funds; awards a \$1,414,818 contract to EAR Engineering, Construction, & Support Services; awards a \$1,167,535 contract to Cedro Construction, Inc.; and awards a \$1,289,178 contract to Environmental Construction, Inc. In addition to the amount of the contracts, the requested funds include \$428,000 for construction support by Metropolitan forces, which includes shutdown activities, dewatering, disinfection, water quality sampling and laboratory testing, hazardous materials manifest tracking, and return to service. The total cost of construction is \$4.3 million. The appropriated funds also include \$639,000 for construction inspection and support; \$269,000 for Metropolitan staff to review submittals received from the contractors, respond to request for information, advise inspection staff on technical issues, and prepare record drawings; \$178,000 for project management; and external relations with adjacent businesses and property owners \$32,000 for environmental monitoring; \$83,000 for permitting with the cities and other local agencies; and \$399,469 for remaining budget.

### **Summary**

This action appropriates \$5.9 million and awards three construction contracts to relocate 79 air release/vacuum valves within Metropolitan's treated water distribution system. This project has been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds have been included in the fiscal year 2010/11 capital budget. See [Attachment 1](#) for the Financial Statement, [Attachment 2](#) for the Abstracts of Bids, and [Attachment 3](#) for the Location Map.

These projects are included within capital Appropriation No. 15171, the Treated Water Cross Connection Prevention Program, which was initiated in fiscal year 1990/91. Appropriation No. 15171 also includes the nine other construction contracts that previously relocated 221 air release/vacuum valves. With the current action to award the three Stage 4 contracts, the total funding for Appropriation No. 15171 will increase from \$38,176,000 to \$44,076,000.

This project is consistent with Metropolitan's goals for sustainability by protecting distribution system water quality in order to maintain safe water deliveries in the future.

### ***Project Milestone***

October 2012 – Completion of Stage 4 construction contracts, and completion of the program

### **Policy**

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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)**

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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 Cross Connection Prevention Program. The MND was distributed for a 30-day public review period that began on November 3, 2003. The Board later adopted the MND and the Mitigation Monitoring and Reporting Program (MMRP) on September 14, 2004. The present board action is solely based on authorizing construction 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.

The CEQA determination is: Determine that the proposed action has been previously addressed in the adopted 2004 MND and the MMRP and that no further environmental analysis or documentation is required.

CEQA determination for Option #2:

None required

**Board Options**

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**Option #1**

Adopt the CEQA determination and

- a. Appropriate \$5.9 million;
- b. Award \$1,414,818 construction contract to EAR Engineering, Construction, & Support Services;
- c. Award \$1,167,535 construction contract to Cedro Construction, Inc.; and
- d. Award \$1,289,178 construction contract to Environmental Construction, Inc.

**Fiscal Impact:** \$5.9 million of budgeted funds under Approp. 15171

**Business Analysis:** This option will complete Metropolitan’s program to achieve compliance with CDPH requirements for cross connection prevention.

**Option #2**

Do not award the construction contracts and re-advertise in an attempt to receive more favorable bids.

**Fiscal Impact:** None

**Business Analysis:** This option would delay completion of the Stage 4 construction and may or may not result in more favorable bids. Compliance with CDPH requirements for cross connection prevention would be delayed.

**Staff Recommendation**

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Option #1

  
 \_\_\_\_\_ 12/22/2010  
 Roy L. Wolfe Date  
 Manager, Corporate Resources

  
 \_\_\_\_\_ 12/28/2010  
 Jeffrey Lightlinger Date  
 General Manager

[Attachment 1 – Financial Statement](#)

[Attachment 2 – Abstracts of Bids](#)

[Attachment 3 – Location Map](#)

### Financial Statement for Cross Connection Prevention Program

A breakdown of Board Action No. 9 for Appropriation No. 15171 for the Cross Connection Prevention Program\* is as follows:

	<b>Previous Total Appropriated Amount (Feb. 2010)</b>	<b>Current Board Action No. 9 (Jan. 2011)</b>	<b>New Total Appropriated Amount</b>
Labor			
Studies and Investigations	\$ 1,981,300	\$ -	\$ 1,981,300
Owner Costs (Program mgmt., local agency coord., env. monitoring)	5,615,145	271,000	5,886,145
Submittal Review & Record Drawings		269,000	269,000
Construction Inspection and Support	1,705,700	639,000	2,344,700
Metropolitan Force Construction	2,404,750	428,000	2,832,750
Materials and Supplies	763,250	-	763,250
Incidental Expenses (Permit fees)	161,000	22,000	183,000
Professional/Technical Services	9,367,800	-	9,367,800
Right of Way	301,000	-	301,000
Equipment Use	326,300	-	326,300
Contracts	13,941,276	3,871,531	17,812,807
Remaining Budget	1,608,479	399,469	2,007,948
<b>Total</b>	<b>\$ 38,176,000</b>	<b>\$ 5,900,000</b>	<b>\$ 44,076,000</b>

### Funding Request

<b>Program Name:</b>	Cross Connection Prevention Program		
<b>Source of Funds:</b>	Revenue Bonds, Replacement and Refurbishment or General Funds		
<b>Appropriation No.:</b>	15171	<b>Board Action No.:</b>	9
<b>Requested Amount:</b>	\$ 5,900,000	<b>Capital Program No.:</b>	15171-W
<b>Total Appropriated Amount:</b>	\$ 44,076,000	<b>Capital Program Page No.:</b>	292
<b>Total Program Estimate:</b>	\$ 53,400,000	<b>Program Goal:</b>	Regulatory – Water Quality

\*Total amount expended to date on the Cross Connection Prevention Program is approximately \$34,057,291.

**The Metropolitan Water District of Southern California**

**Abstract of Bids Received on December 1, 2010 at 2:00 P.M.**

**Specifications No. 1624A**

**Air Release and Vacuum Valve Relocation for Treated  
Water Pipelines, Construction Package No. 9**

This package relocates existing air release and vacuum valves from subsurface vaults at 28 sites on the treated water distribution system to aboveground locations to prevent potential cross connections.

**Engineer's Estimate: \$1.5 million**

<b>Bidder and Location</b>	<b>Total Bid</b>	<b>SBE \$</b>	<b>SBE %</b>	<b>Met SBE*</b>
<b>Environmental Assessment and Remediation Management, Inc., (dba EAR Engineering, Construction, &amp; Support Services), Riverside, CA</b>	<b>\$ 1,414,818</b>	<b>\$1,414,818</b>	<b>100%</b>	<b>yes</b>
Minako America Corporation (dba Minco Construction), Gardena, CA	\$ 1,433,770	-	-	-
Rock Structures Construction Company, Corona, CA	\$ 1,524,162	-	-	-
Cedro Construction Inc., Santa Paula, CA	\$ 1,541,820	-	-	-
Abhe & Svoboda, Inc., Alpine, CA	\$ 1,630,150	-	-	-
United Engineering & Construction, Inc., Glendale, CA	\$ 1,672,000	-	-	-
Mladen Buntich Construction Co., Inc., Upland, CA	\$ 1,739,000	-	-	-
Mike Bubalo Construction Co., Inc., Baldwin Park, CA	\$ 1,820,000	-	-	-

\* SBE (Small Business Enterprise) participation set at 30 percent

**The Metropolitan Water District of Southern California**

**Abstract of Bids Received on November 17, 2010 at 2:00 P.M.**

**Specifications No. 1626**

**Air Release and Vacuum Valve Relocation for Treated  
Water Pipelines, Construction Package No. 11**

This package relocates existing air release and vacuum valves from subsurface vaults at 25 sites on the treated water distribution system to above-ground locations to prevent potential cross connections.

**Engineer's Estimate: \$1.3 million**

<b>Bidder and Location</b>	<b>Total Bid</b>	<b>SBE \$</b>	<b>SBE %</b>	<b>Met SBE*</b>
Environmental Const., Inc., Woodland Hills, CA **	\$1,026,147	-	-	-
<b>Cedro Construction Inc., Santa Paula, CA</b>	<b>\$1,167,535</b>	<b>\$1,167,535</b>	<b>100%</b>	<b>Yes</b>
Zusser Company, Inc., Los Angeles, CA	\$1,199,000	-	-	-
Garcia Juarez Construction Inc., Brea, CA	\$1,260,000	-	-	-
Minako America Corporation dba Minco Construction, Gardena, CA	\$1,373,770	-	-	-
Mehta Mechanical Company Inc. dba MMC, La Palma, CA	\$1,378,501	-	-	-
Rock Structures Construction Co., Corona, CA	\$1,394,217	-	-	-
Abhe & Svoboda, Inc., Prior Lake, MN	\$1,429,100	-	-	-
Doty Bros. Equipment Company, Norwalk, CA	\$1,448,500	-	-	-
Spiniello Companies, Livingston, NJ	\$1,520,000	-	-	-
Vido Artukovich & Son, Inc./Vidmar, Inc. A JV, So. El Monte, CA	\$1,535,000	-	-	-
United Engineering, Glendale, CA	\$1,584,577	-	-	-
J.A. Salazar Construction & Supply Corp., La Habra, CA	\$1,635,000	-	-	-
Mike Bubalo Const., Co., Inc., Baldwin Park, CA	\$1,780,000	-	-	-

\*SBE (Small Business Enterprise) participation set at 30 percent; \*\* Nonresponsive bid

**The Metropolitan Water District of Southern California**

**Abstract of Bids Received on December 2, 2010 at 2:00 P.M.**

**Specifications No. 1627**

**Air Release and Vacuum Valve Relocation for Treated  
Water Pipelines, Construction Package No. 12**

This package relocates existing air release and vacuum valves from subsurface vaults at 26 sites on the treated water distribution system to aboveground locations to prevent potential cross connections.

**Engineer's Estimate: \$1.4 million**

<b>Bidder and Location</b>	<b>Total Bid</b>	<b>SBE \$</b>	<b>SBE %</b>	<b>Met SBE*</b>
Sepulveda Construction Inc., Anaheim, CA **	\$1,200,500	-	-	-
<b>Environmental Const., Inc., Woodland Hills, CA</b>	<b>\$1,289,178</b>	<b>\$1,289,178</b>	<b>100%</b>	<b>Yes</b>
Rock Structures Construction Company, Corona, CA	\$1,344,800	-	-	-
Garcia Juarez Construction Inc., Brea, CA	\$1,360,000	-	-	-
Zusser Company, Inc., Los Angeles, CA	\$1,384,000	-	-	-
Environmental Assessment and Remediation Management, Inc. dba EAR Engineering, Construction & Support Services, Riverside, CA	\$1,408,820	-	-	-
Minako America Corporation dba Minco Construction, Gardena, CA	\$1,437,000	-	-	-
Cedro Construction Inc., Santa Paula, CA	\$1,540,655	-	-	-
J.A. Salazar Construction & Supply Corp., La Habra, CA	\$ 1,620,000	-	-	-
Mike Bubalo Construction Co., Inc., Baldwin Park, CA	\$1,638,000	-	-	-
United Engineering & Construction, Inc., Glendale, CA	\$1,678,500	-	-	-
Mladen Buntich Construction Co., Inc., Upland, CA	\$1,849,000	-	-	-

\* SBE (Small Business Enterprise) participation set at 30 percent

\*\* Nonresponsive bid



