

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

January 8, 2002 Board Meeting

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**9-2**

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**Subject**

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Authorize \$5.92 million and delegate authority to enter into contracts in excess of \$250,000 for preliminary design and preparation of environmental documentation for the Cross Connection Prevention Program (Approp. 15171)

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**Description**

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Metropolitan is required by the State of California Code of Regulations to protect its treated water supply systems from potential contamination by the implementation of a cross connection program. An effective cross connection program is comprised of two primary components: (a) survey of existing installations to identify potential cross connection sites and (b) correction of identified cross connections.

Various surveys of Metropolitan's treated water distribution system have confirmed that potential cross connections exist at the Diemer, Skinner, Mills, and Jensen plants, La Verne facilities, and approximately 1,350 locations along various feeders. In Phase 1 of the program, corrections were made to the potential cross connections at Diemer, Skinner, Mills, and Jensen plants, La Verne facilities, and 70 highest priority sites along various feeders. For Phase 2, approximately 1,280 remaining sites have been identified for modification/relocation to eliminate potential cross connections. The identified sites are primarily located at air release valves and combination air release and vacuum valves in subsurface vaults/manholes, blowoff structures, and air stacks. At these locations, treated water in the distribution systems could become exposed to contaminants under certain operating conditions. Correction of the cross connection elements at each site will result in eliminating the potential cross connections. Completion of this program will also serve to satisfy the compliance requirements of the California Department of Health Services for drinking water.

This board action will authorize funding for implementation of the initial efforts, which involve field survey, site investigations, preliminary design, and preparation of environmental documentation to comply with the California Environmental Quality Act (CEQA). Consistent with Metropolitan's approach of managing projects in the most cost-effective manner and providing opportunities for staff, Metropolitan forces will perform those tasks that are critical to overall program success including project management, field coordination, data collection, site selection, substructure investigation and approximately 50 percent of field survey. Consultant agreements will be used for preparation of the CEQA documentation, site layout, field investigations, preliminary design, project controls and the remaining field survey. At the completion of these initial efforts, staff will return to the Board to certify the CEQA documentation and to appropriate funding for Phase 2 activities for final design and construction. The Phase 2 work is anticipated to complete in the year 2007, conditioned upon CEQA compliance.

A detailed report addressing the purpose/background, project description/implementation and schedule/milestones is provided in [Attachment 1](#). A map of the program locations is provided in [Attachment 2](#). The financial statement is provided in [Attachment 3](#).

This program was evaluated and recommended by the Capital Investment Plan (CIP) Evaluation Team and is included in the fiscal year 2001/02 Capital Investment Plan (CIP) Budget.

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**Policy**

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Metropolitan Water District Administrative Code § 5108: Capital Project Appropriation  
Metropolitan Water District Administrative Code § 8117: Professional and Technical Consultants

**California Environmental Quality Act (CEQA)**

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The proposed action, i.e., to appropriate funding for the planning, field survey, site investigation, preliminary design and preparation of environmental documentation for the Phase 2 program, will consist of basic data collection 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 which a public agency has not yet approved, adopted, or funded. As such, the proposed action qualifies under a Class 6 Categorical Exemption (Section 15306 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed action qualifies under a Categorical Exemption (Class 6, Section 15306 of the State CEQA Guidelines).

**Board Options/Fiscal Impacts**

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**Option #1**

Adopt the CEQA determination and

- a. Appropriate \$5.92 million in budgeted funds and
- b. Authorize the CEO to enter into contracts in excess of \$250,000 to have all preliminary design work and environmental documentation performed.

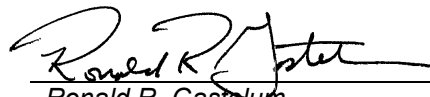
**Fiscal Impact:** \$5.92 million of budgeted CIP funds.

**Staff Recommendation**

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Option #1 is the only viable option for maintaining Metropolitan’s effort in complying with the permit requirements of the California Department of Health Services.

	12/10/2001
Roy L. Wolfe Manager, Corporate Resources	Date

	12/17/2001
Ronald R. Gastelum Chief Executive Officer	Date

[Attachment 1 - Detailed Report](#)

[Attachment 2 - Project Location](#)

[Attachment 3 - Financial Statement](#)

## Detailed Report

**Purpose/Background** - Metropolitan's water supply permit, issued November 9, 1992, by the state of California Department of Health Services (CDHS), Division of Drinking Water and Environmental Management, and Titles 17 and 22 of the California Code of Regulations require that all potential cross connections and sanitary hazards to the water supply and delivery systems be eliminated.

Item 9a of the permit states that by January 8, 1993, Metropolitan shall develop and submit to CDHS for review and approval a priority schedule for correction of backflow hazards as identified in a survey of the distribution systems for potential cross connections. This requirement has been satisfied in a timely manner.

Item 9b of the permit states that Metropolitan shall submit to CDHS a Cross Connection Program Progress Report on the status of the correction of backflow hazards in the distribution systems, as identified in the priority schedule, and at treatment plants by January 1, 1994, and every year thereafter until all identified hazards have been addressed. To date, cross connections at Diemer, Skinner, Mills, and Jensen plants, La Verne facilities, and 70 structures along various feeders have been modified/relocated under Phase 1 of the program and a progress report has been forwarded to CDHS every year. These structures had the highest potential for allowing contaminated water to enter the distribution system undetected which could result in contamination of the treated water.

**Project Description and Implementation** - An ongoing survey of Metropolitan's treated water distribution system has identified approximately 1,280 additional structures needing modification/relocation under Phase 2 of the program. These structures consist of air release valves and combination air release and vacuum valves located inside subsurface vaults/manholes, blowoff structures, and air stacks scattered over a vast area in 77 cities. In order to maintain our efforts in complying with Item 9b of the CDHS permit, it is imperative to undertake a comprehensive Cross Connection Prevention Program to investigate, plan, design and construct the modifications/relocations needed to eliminate cross connection potentials at each of the identified additional structures.

This program was evaluated and recommended by the Capital Investment Plan (CIP) Evaluation Team and is included in the fiscal year 2001/02 CIP Budget.

This board action will authorize funding for implementation of the initial efforts, which involve field survey, site investigations, preliminary design, and preparation of environmental documentation to comply with CEQA. Consistent with Metropolitan's approach of managing projects in the most cost-effective manner and providing opportunities for staff, Metropolitan forces will perform those tasks that are critical to overall program success including project management, field coordination, data collection, site selection, substructure investigation and approximately 50 percent of field survey. Consultant agreements will be used for preparation of the CEQA documentation, site layout, field investigations, preliminary design, project controls and the remaining field survey.

Upon completion of the initial phase of the program, staff will return to the Board to certify the CEQA documentation and obtain funding and authorization for final design and construction.

**Schedule/Milestones** - The Phase 2 activities will start following the initial board action. The milestones and their estimated completion schedule are as follows.

- January 2002 – Board action for preliminary design
- April 2003 – Complete preliminary design and CEQA documentation
- July 2003 – Board action to certify CEQA documentation and obtain funding for final design and construction
- December 2007 – Complete Phase 2

# Project Location



Cross Connection Prevention Program

**Financial Statement for Cross Connection Prevention Program**

The total estimated cost breakdown for June 1999 board action and January 2002 board action is as follows. The January 2002 board action is for preliminary design and CEQA documentation for elimination of potential cross connections at approximately 1,280 sites along various feeders carrying treated water.

	<b>Board Action No. 2 <u>June 1999</u></b>	<b>Board Action No. 3 <u>Jan. 2002</u></b>
Labor:		
Studies and Investigations	\$ 324,000	\$ 936,000
Preliminary Design	85,000	767,000
Field Survey	115,000	776,000
Owner Costs (Program Management, Environmental Docs)	187,000	937,000
Water System Operations (Field Support, Coordination, Water Quality)	1,013,000	1,437,000
Material and Supplies	755,000	773,000
Incidental Expenses	22,000	36,000
Professional/Technical Services	0	2,436,000
Right of Way and Land	301,000	301,000
Equipment	22,000	282,000
Contracts	214,000	214,000
Remaining Budget	687,000	750,000
<b>Total</b>	<b>\$ <u>3,725,000</u></b>	<b>\$ <u>9,645,000</u></b>

**FUNDING REQUEST**

<b>Program Name:</b>	Cross Connection Prevention Program		
<b>Source of Funds:</b>	Construction Funds (possibly General Obligation, Revenue Bonds, Pay-As-You-Go Fund)		
<b>Appropriation No.:</b>	15171	<b>Board Action No.:</b>	3
<b>Requested Amount:</b>	\$ 5,920,000	<b>Capital Program No.:</b>	15171-W
<b>Total Appropriated Amount:</b>	\$ 9,645,000	<b>Capital Program Page No.:</b>	E-25
<b>Total Program Estimate:</b>	\$ 55,500,000	<b>Project Goal:</b>	Regulatory-Water Quality