

- **Board of Directors**  
**Engineering and Capital Programs Committee**

October 14, 2008 Board Meeting

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**7-1**

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**Subject**

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Appropriate \$1.26 million; and authorize two rehabilitation projects for Lake Skinner facilities (Approps. 15377 and 15441)

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**Description**

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This action authorizes two rehabilitation projects upstream of the Robert A. Skinner Water Treatment Plant: (1) Construction of a sodium bisulfite feed system for the San Diego Canal; and (2) Preliminary design of the Lake Skinner Outlet Conduit Repairs. These projects are categorized as Infrastructure Upgrade and Rehabilitation Projects and are budgeted within Metropolitan's Capital Investment Plan (CIP).

**Background**

Metropolitan's conveyance system near the Skinner treatment plant was initially constructed in the 1970s. While Metropolitan staff conducts regular maintenance of the system's structures, mechanical components, and electrical equipment, portions of the system are exhibiting signs of normal wear and tear. Two rehabilitation projects are recommended to move forward at this time.

**Project No. 1 – San Diego Canal Sodium Bisulfite Feed System – Construction (\$1,100,000)**

Chlorine is currently added to the San Diego Canal upstream of Lake Skinner in order to control algae growth on the canal walls. Before the canal water enters Lake Skinner, it must be treated with sodium bisulfite to remove excess chlorine from the water so that it will not harm wildlife in the lake. A 6,000-gallon tank, which is located beside the San Diego Canal at its entrance into Lake Skinner, feeds sodium bisulfite into the canal. This existing tank has corroded and leaks sodium bisulfite into its secondary containment. The existing sodium bisulfite feed system does not meet current environmental and fire code requirements.

In January 2008, Metropolitan's Board authorized final design of an upgraded feed system that will include a new concrete secondary containment structure; a depressed tank loading area; a canopy roof; related valves, meters, and alarms; and a telemetry system to transmit information to the Skinner plant. The upgraded system will comply with current requirements of the Riverside County Department of Environmental Health and Safety, and with local fire codes. Final design has been completed and staff recommends that construction proceed at this time.

This action appropriates \$1.1 million for upgrades to the San Diego Canal Bisulfite Feed System. All construction activities will be performed by Metropolitan staff. Requested funds include \$921,000 for construction, \$71,000 for staff support activities, and \$108,000 for remaining budget. Support activities include project management, environmental monitoring, and permitting with Riverside County agencies.

**Project Milestone**

June 2009 – Completion of construction

**Project No. 2 – Lake Skinner Outlet Conduit Repairs – Preliminary Design Phase (\$160,000)**

The Lake Skinner Outlet Conduit is a 13.5-foot-diameter prestressed concrete cylinder pipeline (PCCP) which was built in 1971. This one-mile-long pipe conveys untreated water from Lake Skinner to the Skinner plant and to San Diego Pipelines No. 3 and No. 5.

Recent electromagnetic inspections revealed two distressed pipe segments with 25- and 15-prestressing wire breaks on the Lake Skinner Outlet Conduit. These two segments should be repaired in order to maintain reliable water deliveries through the line. Since the pipeline operates under relatively low pressure, a structural analysis has indicated that the repairs are not urgent enough to require immediate shutdown of the line. Accordingly, the repairs will be coordinated with other planned work near the Skinner plant as soon as practical. Staff recommends that the two pipe segments be repaired during the 2009/10 shutdown season to take advantage of planned shutdowns of the Skinner plant. Alternate pipe repair methods will be reviewed to determine whether preliminary design will proceed with carbon fiber lining repair or pipe removal and replacement.

This action appropriates \$160,000 and authorizes preliminary design phase activities for the repair of two distressed pipe segments on the Lake Skinner Outlet Conduit. Planned activities include engineering analyses and development of design criteria, preparation of the preliminary design report and environmental documentation, and development of a construction cost estimate. All preliminary design activities will be performed by Metropolitan staff.

### ***Project Milestones***

January 2009 – Completion of preliminary design

### **Summary**

This action appropriates \$1.26 million and authorizes two rehabilitation projects near the Skinner plant. These projects have been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds have been included within the fiscal year 2007/08 capital budget. See [Attachment 1](#) for the Financial Statements and [Attachment 2](#) for the Location Maps.

These projects are consistent with Metropolitan's goals for sustainability by enhancing reliability of the existing conveyance and distribution system in order to maintain reliable water deliveries in the future.

### **Policy**

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Metropolitan Water District Administrative Code Section 5108: Appropriations

### **California Environmental Quality Act (CEQA)**

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#### **Project No. 1 – San Diego Canal Sodium Bisulfite Feed System – Construction**

CEQA determination for Options #1 and #2:

The project was previously determined to be categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The Board found this project to be exempt under Class 1, Section 15301; Class 2, Section 15302; and Class 3, Section 15303 of the State CEQA Guidelines on November 18, 2003. A Notice of Exemption (NOE) was filed on the project at that time and the statute of limitations has ended. With the current board action, there are no substantial changes proposed to the project since the original NOE was filed. 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 2003 NOE (Class 1, Section 15301; Class 2, Section 15302; and Class 3, Section 15303 of the State CEQA Guidelines) and that no further environmental analysis or documentation is required.

#### **Project No. 2 – Lake Skinner Outlet Conduit Repairs – Preliminary Design Phase**

CEQA determination for Option #1:

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed action consists of basic data collection and resource evaluation activities, which do not result in a serious or major disturbance to an environmental resource. This 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. Accordingly, the proposed action qualifies as 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).

CEQA determination for Option #2:

None required

**Board Options**

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**Option #1**

Adopt the CEQA determinations and

- a. Appropriate \$1.26 million;
- b. Authorize construction of upgrades to the San Diego Canal sodium bisulfite feed system; and
- c. Authorize preliminary design of repairs to the Lake Skinner Outlet Conduit.

**Fiscal Impact:** \$1.1 million of budgeted funds under Approp. 15377 and \$160,000 of budgeted funds under Approp. 15441.

**Business Analysis:** These projects will protect Metropolitan’s assets, provide regulatory compliance, improve employee safety, increase service reliability to customers, and reduce the risk of costly emergency repairs.

**Option #2**

Adopt the CEQA determinations and

- a. Appropriate \$1.1 million;
- b. Authorize construction of upgrades to the San Diego Canal sodium bisulfite feed system; and
- c. Do not authorize preliminary design of repairs to the Lake Skinner Outlet Conduit

**Fiscal Impact:** \$1.1 million of budgeted funds under Approp. 15377.

**Business Analysis:** Under this option, the sodium bisulfite feed system is recommended to proceed as it is required for regulatory compliance. For the Lake Skinner Outlet Conduit project, staff will continue to monitor the line and perform an urgent repair if its condition deteriorates.

**Staff Recommendation**

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Option #1

  
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 Roy L. Wolfe  
 Manager, Corporate Resources

9/22/2008  
Date

  
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 Jeffrey Nightlinger  
 General Manager

9/27/2008  
Date

**Attachment 1 – Financial Statements**

**Attachment 2 – Location Map**

**Financial Statement for Conveyance and Distribution System Rehabilitation Program**

A breakdown of Board Action No. 27 for Appropriation No. 15377 for the San Diego Canal Bisulfite Feed System project is as follows:

	<b>Previous Total Appropriated Amount (Aug. 2008)</b>	<b>Current Board Action No. 27 (Oct. 2008)</b>	<b>New Total Appropriated Amount</b>
Labor			
Studies & Investigations	\$ 3,204,700	\$ -	\$ 3,204,700
Final Design	4,282,920	-	4,282,920
Owner Costs (Program mgmt, permitting, envir. monitoring)	4,470,050	71,000	4,541,050
Construction Inspection & Support	2,109,050	-	2,109,050
Metropolitan Force Construction	12,104,505	567,000	12,671,505
Materials and Supplies	4,935,075	285,000	5,220,075
Incidental Expenses	1,259,620	7,000	1,266,620
Professional/Technical Services	916,500	-	916,500
Equipment Use	772,350	25,000	797,350
Contracts	19,664,455	37,000	19,701,455
Remaining Budget	1,806,475	108,000	1,914,475
<b>Total</b>	<b>\$ 55,525,700</b>	<b>\$ 1,100,000</b>	<b>\$ 56,625,700</b>

**Funding Request**

<b>Program Name:</b>	Conveyance and Distribution System Rehabilitation Program		
<b>Source of Funds:</b>	Revenue Bonds, Replacement and Refurbishment or General Funds		
<b>Appropriation No.:</b>	15377	<b>Board Action No.:</b>	27
<b>Requested Amount:</b>	\$ 1,100,000	<b>Capital Program No.:</b>	15377-I
<b>Total Appropriated Amount:</b>	\$ 56,625,700	<b>Capital Program Page No.:</b>	E-14
<b>Total Program Estimate:</b>	\$ 63,790,000	<b>Program Goal:</b>	R-Reliability

**Financial Statement for Conveyance and Distribution System Rehabilitation Program – Phase II**

A breakdown of Board Action No. 10 for Appropriation No. 15441 for the Lake Skinner Outlet Conduit Repairs is as follows:

	<b>Previous Total Appropriated Amount (Aug. 2008)</b>	<b>Current Board Action No. 10 (Oct. 2008)</b>	<b>New Total Appropriated Amount</b>
Labor			
Studies & Investigations	\$ 460,000 *	\$ 85,000	\$ 545,000
Final Design	788,500 *	-	788,500
Owner Costs (Program mgmt, environmental doc.)	1,319,500 *	50,000	1,369,500
Construction Inspection & Support	328,500	-	328,500
Metropolitan Force Construction	2,841,000	-	2,841,000
Materials and Supplies	500,500	-	500,500
Incidental Expenses	368,500 *	5,000	373,500
Professional/Technical Services	383,500	6,000	389,500
Equipment Use	98,000	-	98,000
Contracts	2,221,000	-	2,221,000
Remaining Budget	1,318,000 *	14,000	1,332,000
<b>Total</b>	<b>\$ 10,627,000</b>	<b>\$ 160,000</b>	<b>\$ 10,787,000</b>

\*Reflects transfer of Enhanced Vapor Recovery project from Conveyance and Distribution System Rehabilitation Program – Phase II (Appropriation No. 15441) to Conveyance and Distribution System Environmental Compliance Program

**Funding Request**

<b>Program Name:</b>	Conveyance and Distribution System Rehabilitation Program - Phase II		
<b>Source of Funds:</b>	Revenue Bonds, Replacement and Refurbishment or General Funds		
<b>Appropriation No.:</b>	15441	<b>Board Action No.:</b>	10
<b>Requested Amount:</b>	\$ 160,000	<b>Capital Program No.:</b>	15441-I
<b>Total Appropriated Amount:</b>	\$ 10,787,000	<b>Capital Program Page No.:</b>	E-15
<b>Total Program Estimate:</b>	\$ 19,200,000	<b>Program Goal:</b>	R-Reliability

