

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

April 11, 2000 Board Meeting

8-10

Subject

Authorization to prepare a study of protection alternatives for Metropolitan's Colorado River Aqueduct – Whitewater Siphons, and remediation of the recently purchased adjacent mining pit.

Description

The Whitewater River siphons of the Colorado River Aqueduct are subject to potential damage due to periodic erosive flood flows. On August 11, 1998, the Board of Directors appropriated funds to purchase 115 acres of land adjacent to and downstream of Metropolitan's Colorado River Aqueduct. This purchase was necessary to protect the aqueduct from anticipated erosion in the Whitewater River canyon from a proposed enlargement of an active mining pit. The previous owner, Granite Construction Company, had submitted plans in 1992 to enlarge their gravel mining pit on the property, based on property rights predating Metropolitan's. The open mining pit, now owned by Metropolitan, needs to be remediated in order to protect the siphons and to bring the pit into conformance with State and County regulations. Additionally, a recent collapse of a steep wall of the mining pit exposed an active water line owned and operated by the Whitewater Mutual Water Company. Metropolitan's responsibility for protection or relocation of this line is under review.

Approval of the recommendation will authorize the completion of studies that will develop alternatives and cost estimates for the protection of the siphons, remediation of the mining pit, environmental mitigation, and evaluation of the property rights of the Whitewater Mutual Water Company's adjacent pipeline and right-of-way, with options for its potential relocation and/or protection, if required. Funds for this study were included in the Colorado River Aqueduct - Whitewater Siphon Protection Program budget.

Upon conclusion of the study, options will be presented for the Board's consideration and, if necessary, requesting authorization to proceed with the preparation of environmental documents and preliminary design for the protection of the Colorado River Aqueduct - Whitewater River siphons and the remediation of the mining pit. The environmental documentation will be prepared pursuant to the requirements of the California Environmental Quality Act and submitted for approval by the Board prior to project implementation. (See [Attachment 1](#) for a detailed report, [Attachment 2](#) for a financial statement, [Attachment 3](#) for a vicinity map, and [Attachment 4](#) for a site map.)

Policy

In accordance with Section 5115 of the Administrative Code, the Board shall appropriate amounts for initial planning and feasibility studies for capital projects.

Board Options/Fiscal Impacts

Option #1

Appropriate \$240,000 to fund \$124,000 of costs previously incurred in property negotiations and preliminary protection assessment of the gravel mining pit, and the remainder to authorize the completion of a study that will develop alternatives and cost estimates for the protection of the Whitewater River siphons, remediation of the mining pit, and evaluation of the Whitewater Mutual Water Company's adjacent pipeline.

Fiscal Impact: Appropriate \$240,000 of budgeted funds.

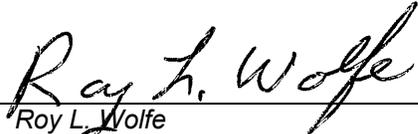
Option #2

Do not fund the study. The risk for failure of the aqueduct will increase with the continued erosion within the river course; with the location of the adjacent mining pit, that risk increases further. Also, failure to initiate studies to investigate the scope of potential remediation of the mining pit could invoke action by various permitting agencies.

Fiscal Impact: Expenditures would be deferred, but total costs would likely increase due to the potential that a storm event would require the aqueduct to be protected on an emergency basis or require the aqueduct to be reconstructed after a failure.

Staff Recommendation

Option #1.

 _____ Roy L. Wolfe Acting Manager, Corporate Resources	3/24/2000 Date
 _____ Ronald R. Jester General Manager	3/29/2000 Date

- [Attachment 1 \(Detailed Report\)](#)
- [Attachment 2 \(Financial Statement\)](#)
- [Attachment 3 \(Vicinity Map\)](#)
- [Attachment 4 \(Site Map\)](#)

Detailed Report

In March 1992, the Whitewater River siphons of the Colorado River Aqueduct (CRA) were exposed by erosion of the overlying cover during a moderate storm event in the Whitewater River Canyon. Metropolitan's forces performed emergency work to modify the topography of the existing channel to help protect the siphons from catastrophic failure. However, the work undertaken was intended to be a temporary solution. As a result, a capital program was established to design and construct a more permanent protection system for the siphons. In January 1995, an infrastructure review report of the structural integrity of Metropolitan's distribution system provided further justification for the program with a recommendation that additional studies be undertaken to review options for protection of the aqueduct.

Also in 1995, Metropolitan received notice of a proposal from an adjacent property owner to significantly expand a surface mining operation within the Whitewater River canyon. Funds were allocated from the capital suspense account in February 1996, in order to conduct a study of the potential combined impacts of future flood flows and the mining operation. The review indicated that should the expansion occur, the perimeter of the mine would extend across the full width of the canyon directly downstream of the siphons. Studies indicated that erosion of the riverbed in the vicinity of the siphons, exacerbated by water flowing into the proposed expanded mining pit, would significantly accelerate erosion of the siphons. After two and one half years of detailed analysis and negotiations with the property owner and regulatory agencies, Metropolitan's legal department recommended settlement based on mining rights predating the CRA installation. On August 11, 1998, the Board of Directors appropriated \$815,000 to purchase the existing mining site, covering 115 acres, from the Granite Construction Company.

The mining pit, now owned by Metropolitan, is a potential hazard because of the instability of the steep walls of the pit, and needs to be remediated in order for the property to conform with State and County regulations. This concern was identified in the August 1998 board action. In addition, a portion of the wall of the pit has recently failed, exposing an active pipeline owned by the Whitewater Mutual Water Company, a local water agency. A revision to the existing board authorization is needed in order to: 1) proceed with the evaluation of protection alternatives for the siphons; 2) establish appropriate remediation measures for the mining pit; and 3) assess property rights concerning the impacted water line and, if necessary, study alternatives for its protection or relocation. Completion of this study will also produce a cost estimate of potential environmental mitigation costs associated with each of the proposed alternatives. This study will also permit staff to develop a more accurate program estimate, due to the change in project scope with the acquisition of the mining site property and potential impacts from the local water pipeline. Costs incurred during the previous property negotiations and preliminary protection assessment of the gravel mining pit (\$124,000) are also included in this increase to the appropriation.

Upon conclusion of the study, a number of options will be presented for the Board's consideration and authorization prior to proceeding with planning, preliminary design and environmental mitigation for the project.

CEQA Compliance/Environmental Documentation

The environmental documentation will be prepared pursuant to the requirements of the California Environmental Quality Act during the preliminary design phase, and submitted to the Board for approval prior to project implementation.

Actions and Milestones

- January 1995 - Completed Infrastructure Review Study
- February 1996 – Initiated Mining Pit Study
- August 1998 – Board Authorization to Purchase Property
- April 2000 – Board Authorization for Study and Cost Estimates
- Early 2001 – Revision to Board Authorization to Begin Preliminary Design

FINANCIAL STATEMENT

Board Action No. 2 for Appropriation No. 15341 to finance a study and development of a cost estimate for the protection of existing facilities and the remediation of property adjacent to the Colorado River Aqueduct – Whitewater River Siphons:

	BOARD ACTION NO. 1 (Aug. 1998)	BOARD ACTION No. 2 (Apr. 2000)
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Owner Costs:		
Negotiations and Analyses (Capital Suspense Account) \$	0	124,000*
Right-of-Way & Land (Land Acquisition)	815,000	815,000
Siphon Protection Study	0	53,000
Preliminary Environmental Review	0	25,000
Mine Site Remediation Study	0	29,000
Utility Relocation and Protection Study	0	9,000
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Total	\$ 815,000	\$ 1,055,000

*Note: These are existing costs incurred in a Capital Suspense Account for property negotiations and analyses of potential impacts to the CRA - Whitewater Siphons

FUNDING REQUEST

Program Name: Whitewater Siphon Protection			
Source of Funds: Pay-As-You-Go Fund			
Appropriation No.: 15341	Board Action No.: 2	FY 99/00 Budget: \$1,176,900	
Requested Amount: \$ 240,000	Capital Program No.: 97817-A		
Total Appropriated Amount: \$ 1,055,000	Capital Program Page No.: N/A		
Total Program Estimate: \$ 2,650,000**	Program Category: Asset/System Integrity		

**Note: Pending the results of this study, the Total Program Estimate is subject to revision.

