

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

February 12, 2008 Board Meeting

**7-2**
**Subject**

Authorize increase in Approps. 15365 and 15410, and decrease in Approp. 15388, for three Skinner Plant capital programs

**Description**

The Robert A. Skinner Water Treatment Plant has undergone a major construction program over the past four years. While operating throughout this period at its full hydraulic capacity, the plant has successfully been expanded, its chemical feed systems have been replaced and upgraded, and significant rehabilitation work has been performed. Further, the addition of ozonation is currently underway and is anticipated to be complete in early 2009. The Skinner construction program is on track to be completed within the board-authorized total budget. The cost of work performed through December 2007 is \$431,152,464, while the total appropriated amount for work authorized to date is \$525,582,300.

To most efficiently meet the planned on-line dates for the Skinner Expansion No. 4 and the Oxidation Retrofit Program (ORP), staff developed multiple phased procurement and construction contracts. These contracts were designed to minimize overlap of contractor work areas and any impacts to the operating treatment facilities. As a result of the multiple contracts and capital programs, charges have accrued under multiple appropriations. At this time, three of the four major construction contracts issued to date are complete, while the fourth (Skinner ORP) is approximately 72 percent complete. Final costs for Module No. 7 and other plant improvement projects are known, and may be estimated for remaining work under the ORP. Staff recommends that adjustments be performed between the individual capital appropriations to reflect actual costs incurred and to allocate costs to their final accounts.

The recommended adjustments to the Skinner Improvements, Expansion No. 4, and ORP appropriations are shown in the table below. No additional funds are required, as the adjustments reflect previously appropriated funds.

**Proposed Adjustment of Appropriations**

	<b>Skinner ORP (Approp. 15388)</b>	<b>Skinner Expansion No. 4 (Approp. 15410)</b>	<b>Skinner Improvements (Approp. 15365)</b>	<b>Total</b>
Current Appropriated Amount	\$244,262,000	\$146,993,600	\$134,326,700	\$525,582,300
Adjustment	(\$9,000,000)	\$4,650,000	\$4,350,000	
New Total Appropriated Amount	\$235,262,000	\$151,643,600	\$138,676,700	\$525,582,300

This action authorizes an increase of \$4.65 million in Approp. 15410, an increase of \$4.35 million in Approp. 15365, and a decrease of \$9 million in Approp. 15388. No new funds are required. See [Attachment 1](#) for the Detailed Report, [Attachment 2](#) for the Financial Statements, and [Attachment 3](#) for the Location Maps.

## Policy

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Metropolitan Water District Administrative Code Section 5108: Appropriations

### California Environmental Quality Act (CEQA)

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CEQA determination for Option #1:

The environmental effects from the funding, design, procurement of equipment, construction, and operation of the Skinner Module No. 7, Oxidation Retrofit Program, Chemical Systems Modifications, and Wastewater Reclamation Plant programs (Program) were evaluated in the “Robert A. Skinner Filtration Plant Reliability and Quality Program Final Program Environmental Impact Report” (Final PEIR). The Final PEIR was certified by the Board on July 8, 2003. The Board also approved the Findings of Fact (Findings), the Statement of Overriding Considerations (SOC), the Mitigation Monitoring and Reporting Program (MMRP), and the Program itself.

Subsequent to the certification of the 2003 Final PEIR for the Program, to comply with CEQA and the State CEQA Guidelines, Metropolitan as the Lead Agency prepared a Mitigated Negative Declaration (MND) entitled “Robert A. Skinner Filtration Plant Reliability and Quality Program, Additional Construction Use Area and Creek Crossing” to address the environmental impacts of establishing an additional construction use area for the Program. The MND was adopted by the Board on May 11, 2004. Additionally, further refinements were found to be required thus modifying the original Program description. Metropolitan prepared a Negative Declaration (ND) entitled “Robert A. Skinner Filtration Plant Reliability and Quality Program Refinements to the Program” to address these refinements. The ND was adopted by the Board on November 9, 2004. Addendum No. 1 to the MND was prepared in July 2006, for installation and use of a temporary metal storage building during Program construction. The current proposed actions would not result in any new significant environmental impacts, nor result in substantial changes to the approved Program. Hence, the previously adopted environmental documentation in conjunction with the current board actions 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 actions.

The CEQA determination is: Determine that the proposed actions have been previously addressed in the certified 2003 Final PEIR and related documents, the adopted 2004 MND and 2006 Addendum No. 1 to the MND, and the adopted 2004 ND, 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 authorize increase of \$4.65 million in Approp. 15410, increase of \$4.35 million in Approp. 15365, and decrease of \$9 million in Approp. 15388.

**Fiscal Impact:** None – involves previously appropriated funds

**Business Analysis:** Adjustment of appropriation amounts will reflect actual costs of construction.

#### Option #2

Do not authorize adjustment of appropriated funds among three Skinner capital programs at this time.

**Fiscal Impact:** None

**Business Analysis:** Future board action will be required to appropriate additional funds for the Skinner Expansion No. 4 and Skinner Improvements capital programs (Approps. 15410 and 15365), while the Skinner ORP program (Approp. 15388) would have a surplus of appropriated funds.

**Staff Recommendation**

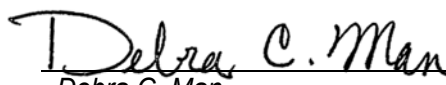
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Option #1

  
Roy L. Wolfe  
Manager, Corporate Resources

1/28/2008

Date

  
Debra C. Man  
for Jeffrey Kightlinger  
General Manager

1/28/2008

Date

**Attachment 1 – Detailed Report**

**Attachment 2 – Financial Statements**

**Attachment 3 – Location Maps**

BLA #5875

## **Detailed Report**

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The Robert A. Skinner Water Treatment Plant was placed into service in 1976 to supply treated water to Riverside and San Diego Counties. Since its original construction, the plant has been expanded four times and now consists of seven treatment modules that are operated as three distinct facilities (Plants Nos. 1, 2 and 3). With Module No. 7 now fully operational, the Skinner plant has a total treatment capacity of 630 mgd. The plant delivers a blend of waters from the Colorado River and State Water Project to Eastern Municipal Water District, Western Municipal Water District of Riverside County, and San Diego County Water Authority.

Over the past four years, the Skinner plant has undergone a major construction program, much of which is now complete. A number of issues such as additional rock excavation and unanticipated relocation work have stretched across several construction contracts and capital programs. Now that the final construction costs of Module No. 7 and other Skinner improvement projects are known, staff recommends adjustment of the appropriated funds for three Skinner capital programs to reflect actual costs incurred and to allocate costs to their final accounts. No additional funds are required. The combined cost of work through December 2007 is \$431,152,464, which is within the total appropriated amount of \$525,582,300 for the three programs.

### **Skinner Construction Program**

To most efficiently meet the planned on-line dates for Skinner Expansion No. 4 and the Skinner Oxidation Retrofit Program (ORP), staff developed multiple phased procurement and construction contracts. This large Skinner construction program involved four major construction contracts. A fifth contract is planned and is the subject of a separate Board action this month.

Each of the four contracts issued to date has included several projects that were combined under a single contract to increase overall efficiency and to ensure coordinated construction activities due to overlapping schedules and work areas. The contract work undertaken thus far exceeds \$381 million and has been funded under four Capital Investment Plan programs: Skinner Expansion No. 4, Skinner ORP, Skinner Improvements, and the Chlorine Containment and Handling Facilities capital programs. The initial apportionment of costs to each program occurred when the designs commenced and at the time each of the four contracts was awarded, based on the anticipated work breakdown from the engineer's estimates created prior to receipt of bids. Actual costs incurred have been distributed to each capital program based on bid breakdowns, final design costs, earthwork volumes encountered, quantities of unit-price work, geographic areas or facilities affected by change order work, and levels of engineering support required.

An example of a cost which impacted several programs is for the excavation of rock which underlies much of the Skinner site. In February 2007, Metropolitan's Board appropriated funds for unit-price unrippable rock excavation because significantly more unrippable rock was encountered for Expansion No. 4-related work than was originally anticipated, while lower quantities of rock were encountered for the other Skinner programs. At that time, staff informed the Board that reallocation of appropriated funds among the Skinner capital programs would be recommended at a later date. This action authorizes this reallocation of appropriated funds.

### **Contract No. 1: Site Preparation for Skinner Expansion No. 4 and Skinner ORP**

In May 2004, Metropolitan's Board awarded a \$5,448,100 construction contract for preparation of the Skinner plant site for subsequent major construction contracts. The work was completed in August 2005. Funding for the construction was apportioned among the Skinner Expansion No. 4 and Skinner ORP capital programs.

### **Contract No. 2: Module No. 7**

In November 2004, the Board awarded a \$76,383,645 contract for construction of Module No. 7, which was placed into full operation in July 2007. Funding for the construction was apportioned among the Skinner Expansion No. 4 and Skinner ORP capital programs.

### **Contract No. 3: ORP and Washwater Reclamation Plant No. 3**

In June 2005, the Board awarded a \$184,650,000 contract for construction of the Skinner ORP facilities, Washwater Reclamation Plant (WWRP) No. 3, a reclaimed washwater pumping station, and WWRP No. 2 improvements. Currently, the contract is approximately 72 percent complete overall, while the facilities

necessary to support Module No. 7 (e.g., WWRP No. 3) are operational. The balance of contract work is anticipated to be completed in early 2009. Funding for the construction is being apportioned among the Skinner Expansion No. 4, Skinner ORP, and Skinner Improvements capital programs.

**Contract No. 4: Skinner Chemical Systems Modifications**

In November 2005, the Board awarded a \$109,944,000 contract for the Skinner Chemical Systems Modifications. The work was completed in October 2007. Funding for the construction was apportioned among the Skinner Expansion No. 4, Skinner Improvements, and Chlorine Containment and Handling Facilities capital programs.

**Adjustment of Appropriated Funds for Three Capital Programs (No New Funds Required)**

Final construction costs (including change orders and unit-price work) and engineering support costs are now available for the Site Preparation, Module No. 7, and Chemical Systems Modifications construction contracts. As a result, costs have been distributed among each of the four capital programs based on their work scopes. In addition, costs for work performed to date and estimated to be required for completion of remaining work in the Skinner construction program have also been distributed.

Based on Metropolitan’s Administrative Code Section 5108(c), unused appropriation balances shall be returned to the funds available (Remaining Budget) for the appropriation. At this time, staff recommends an adjustment of appropriated funds for three capital programs to reflect actual costs: an increase of \$4.65 million in Approp. 15410 for the Skinner Expansion No. 4; an increase of \$4.35 million in Approp. 15365 for the Skinner Improvements programs; and a decrease of \$9 million in Approp. 15388 for the Skinner ORP. This adjustment of appropriated funds will reflect the actual costs of these three programs after completion of the major Skinner construction work described above. The adjustment also accounts for anticipated work remaining in the Skinner ORP construction contract. No adjustment is necessary for the Chlorine Containment and Handling Facilities program.

This action authorizes an increase in appropriated funds for the Skinner Expansion No. 4 and Skinner Improvements capital programs, and a decrease in appropriated funds for the Skinner ORP. The recommended amounts are summarized in the table below and are shown on the Financial Statements in Attachment 2. No additional funds are required, as sufficient funds are available within the three existing appropriations.

**Proposed Adjustment of Appropriations**

	<b>Skinner ORP (Approp. 15388)</b>	<b>Skinner Expansion No. 4 (Approp. 15410)</b>	<b>Skinner Improvements (Approp. 15365)</b>	<b>Total</b>
Current Appropriated Amount	\$244,262,000	\$146,993,600	\$134,326,700	\$525,582,300
Adjustment	(\$9,000,000)	\$4,650,000	\$4,350,000	
New Total Appropriated Amount	\$235,262,000	\$151,643,600	\$138,676,700	\$525,582,300

The increase to the Skinner Expansion No. 4 program includes: Chemical Systems Modifications scope of work added to the Module No. 7 construction contract to support Module No. 7, as authorized by the Board in November 2005 (\$400,000); Module No. 7 change orders (\$2.6 million); Chemical Systems Modifications change orders (\$800,000); and anticipated work remaining in the Skinner ORP construction contract (\$850,000). The increase to the Skinner Improvements program includes: additional unrippable rock excavation (\$1.65 million); and Chemical Systems Modifications scope of work, such as chemical trenches, chemical injection stand pipes, and water quality sampling systems, as authorized by the Board in November 2005 (\$2.7 million).

The final Board action planned for the Skinner construction program will be for award of the fifth construction contract, which is scheduled for early 2009.

## Financial Statement for Skinner Expansion No. 4 Program

A breakdown of Board Action No. 8 for Appropriation No. 15410 is as follows:

	<b>Previous Total Appropriated Amount (Feb. 2007)</b>	<b>Current Board Action No. 8 (Feb. 2008)</b>	<b>New Total Appropriated Amount</b>
Labor			
Studies and Investigations	\$ 580,000	\$ -	\$ 580,000
Final Design	13,189,000 *	-	13,189,000
Owner Costs	5,419,200	-	5,419,200
Construction Inspection and Support	7,381,000	1,150,000 **	8,531,000
Metropolitan Force Construction	1,362,000	500,000 **	1,862,000
Materials and Supplies	1,940,400	-	1,940,400
Incidental Expenses	452,000	-	452,000
Professional/Technical Services	6,441,000	-	6,441,000
Equipment Use	297,000	-	297,000
Contracts	109,932,000 *	3,000,000 **	112,932,000
Remaining Budget	-	-	-
<b>Total</b>	<b>\$ 146,993,600</b>	<b>\$ 4,650,000</b>	<b>\$ 151,643,600</b>

## Funding Request

<b>Program Name:</b>	Skinner Expansion No. 4 Program		
<b>Source of Funds:</b>	Revenue Bonds, Replacement and Refurbishment or General Funds		
<b>Appropriation No.:</b>	15410	<b>Board Action No.:</b>	8
<b>Requested Amount:</b>	\$ 4,650,000	<b>Capital Program No.:</b>	15410-S
<b>Total Appropriated Amount:</b>	\$ 151,643,600	<b>Capital Program Page No.:</b>	E-57
<b>Total Program Estimate:</b>	\$ 153,430,000	<b>Program Goal:</b>	S-Supply and Delivery Reliability

\* Includes previous reallocation of \$7,058,430 from Remaining Budget to Final Design and Contracts for additional rock excavation and differing site conditions during the major Skinner construction work.

\*\* Reallocation of \$4.65 million from the Skinner ORP Program (Approp. 15388) to Skinner Expansion No. 4 (Approp. 15410) to reflect actual costs after completion of the major Skinner construction work.

## Financial Statement for Skinner Oxidation Retrofit Program

A breakdown of Board Action No. 9 for Appropriation No. 15388 is as follows:

	<b>Previous Total Appropriated Amount (Feb. 2007)</b>	<b>Current Board Action No. 9 (Feb. 2008)</b>	<b>New Total Appropriated Amount</b>
Labor			
Studies and Investigations	\$ 1,540,000	\$ -	\$ 1,540,000
Final Design	136,000	-	136,000
Owner Costs	6,851,536	-	6,851,536
Submittals Review	608,000	-	608,000
Metropolitan Force Construction	2,036,000	-	2,036,000
Construction Inspection and Support	2,385,000	-	2,385,000
Control System Integration	1,077,000	-	1,077,000
Materials and Supplies	18,918,000	-	18,918,000
Incidental Expenses	696,000	-	696,000
Professional/Technical Services	34,369,801	-	34,369,801
Equipment Use	476,000	-	476,000
Contracts	158,073,000	-	158,073,000
Remaining Budget	17,095,663	(9,000,000) *	8,095,663
<b>Total</b>	<b>\$ 244,262,000</b>	<b>\$ (9,000,000)</b>	<b>\$ 235,262,000</b>

## Funding Request

<b>Program Name:</b>	Skinner Oxidation Retrofit Program		
<b>Source of Funds:</b>	Revenue Bonds, Replacement and Refurbishment or General Funds		
<b>Appropriation No.:</b>	15388	<b>Board Action No.:</b>	9
<b>Requested Amount:</b>	\$ (9,000,000)	<b>Capital Program No.:</b>	15388-W
<b>Total Appropriated Amount:</b>	\$ 235,262,000	<b>Capital Program Page No.:</b>	E-60
<b>Total Program Estimate:</b>	\$ 237,022,000	<b>Program Goal:</b>	WQ/Compliance

\* Reallocation of \$9.0 million from the Skinner ORP Program (Approp. 15388) to Skinner Expansion No. 4 (Approp. 15410) and Skinner Improvements (Approp. 15365) to reflect actual costs after completion of the major Skinner construction work.

## Financial Statement for Skinner Improvements Program

A breakdown of Board Action No. 15 for Appropriation No. 15365 is as follows:

	<b>Previous Total Appropriated Amount (Aug. 2007)</b>	<b>Current Board Action No. 15 (Feb. 2008)</b>	<b>New Total Appropriated Amount</b>
Labor			
Studies and Investigations	\$ 787,000	\$ -	\$ 787,000
Final Design	1,919,500	-	1,919,500
Owner Costs	3,879,500	-	3,879,500
Construction Inspection and Support	8,527,600	-	8,527,600
Metropolitan Force Construction	2,846,300	-	2,846,300
Materials and Supplies	2,479,000	-	2,479,000
Incidental Expenses	357,000	-	357,000
Professional/Technical Services	4,088,000	-	4,088,000
Equipment Use	278,000	-	278,000
Contracts	109,164,800 *	4,350,000 **	113,514,800
Remaining Budget	- *	-	-
<b>Total</b>	<b>\$ 134,326,700</b>	<b>\$ 4,350,000</b>	<b>\$ 138,676,700</b>

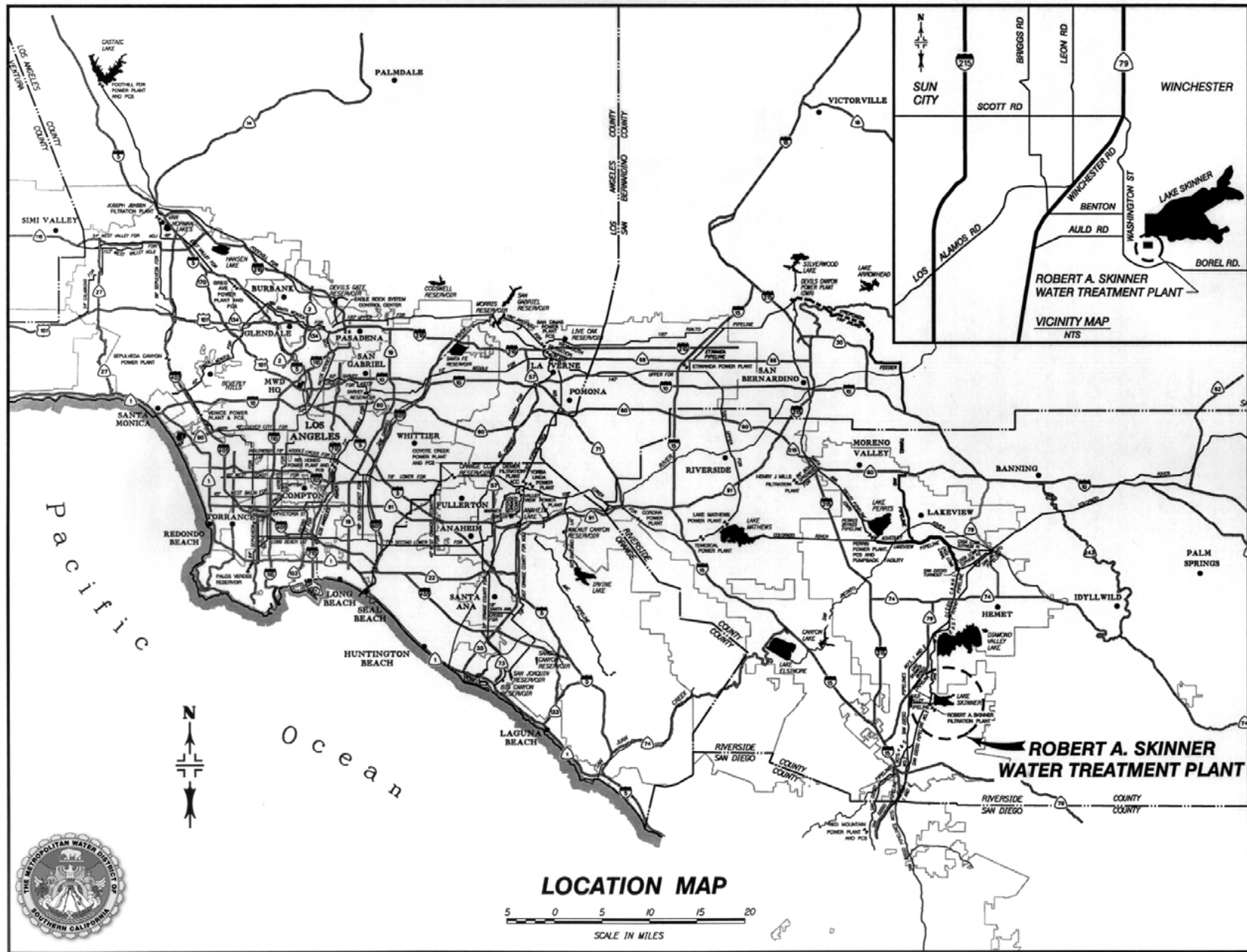
## Funding Request

<b>Program Name:</b>	Skinner Improvements Program		
<b>Source of Funds:</b>	Revenue Bonds, Replacement and Refurbishment or General Funds		
<b>Appropriation No.:</b>	15365	<b>Board Action No.:</b>	15
<b>Requested Amount:</b>	\$ 4,350,000	<b>Capital Program No.:</b>	15365-I
<b>Total Appropriated Amount:</b>	\$ 138,676,700	<b>Capital Program Page No.:</b>	E-58
<b>Total Program Estimate:</b>	\$ 158,116,000	<b>Program Goal:</b>	I-Infrastructure Reliability

\* Includes previous reallocation of \$7,501,300 from Remaining Budget to Contracts for additional rock excavation and differing site conditions during the major Skinner construction work.

\*\* Reallocation of \$4.35 million from the Skinner ORP Program (Approp. 15388) to Skinner Improvements (Approp. 15365) to reflect actual costs after completion of the major Skinner construction work.





# Skinner Water Treatment Plant

