MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

9-7

September 30, 1997

To: Board of Directors (Budget and Finance Committee--Information)

From: for General Manager

Submitted by: Lambertus H. Becker
Chief Financial Officer

Subject: Report on the MWD/Member Agency Finance Work Group Analysis of the Assessments of Metropolitan's Financial Policies Prepared by KPMG Peat Marwick and The Barrington-Wellesley Group

RECOMMENDATION

For information only.

REPORT

The MWD/Member Agency Finance Work Group (Work Group) has held numerous meetings since its formation in October 1996. Representatives of Metropolitan and the following member agencies have attended one or more of these meetings:

City of Los Angeles	San Diego County Water Authority
Calleguas MWD	MWD of Orange County
City of Pasadena	City of Glendale
City of Burbank	City of Anaheim
Eastern MWD	City of Torrance
City of Long Beach	Central Basin MWD
West Basin MWD	Three Valleys MWD
City of Fullerton	City of Santa Ana

The focus of the Work Group's efforts has been on discussing and analyzing the financial assessments of Metropolitan prepared by KPMG Peat Marwick (KPMG) and the Barrington-Wellesley Group (BWG). Mr. John DiRenzo of KPMG and Mr. John Heaton of BWG have made presentations to the Work Group and participated in discussions concerning their reports and recommendations.

The Work Group did not address Metropolitan's future water rates, alternative revenue structures or any form of new or increased firm revenues. The purpose of the Work Group was to discuss the technical details of the various issues and prepare a report back to Metropolitan's Board and the member agencies. The Work Group did not necessarily have to come to conclusions or recommendations. Instead, the Work Group's objective was to amplify the differing positions on the issues and provide an understanding of the pros and cons or advantages and disadvantages of pursuing one position versus another, from a technical standpoint, to provide Metropolitan staff, the member agency managers and Board members background information for decision making purposes. With some exceptions, the Work Group has developed consensus responses to the recommendations made in the KPMG and BWG reports.

Transmitted with this letter is the report prepared by the Work Group, including six position papers on the major policy issues. The position papers were prepared to focus the Work Group on the key issues discussed in the BWG and KPMG reports, and covered the following topics:

1. Working Capital Policy
2. Water Rate Stabilization Fund
3. Pay-As-You-Go Policy
4. Water Transfer Fund
5. Financial Modeling / Reporting
6. Capital Financing

Initially, the position papers described Metropolitan's current policy, the BWG position, the KPMG position and MWD staff comments for each topic. Each position paper also contained a section for the member agencies to provide input on the Work Group's position. Each position paper presents Metropolitan's current financial policy, the BWG position on the issue, the KPMG position and proposals from the member agency representatives on their positions on each issue. The report and the position papers were reviewed with the Rate Refinement Work Group at their meeting held on August 28, 1997. Comments from the Rate Refinement group have been included in the report attached to this letter.

During June 1997, the member agency representatives of the Work Group met twice to develop consensus positions on the issues contained in the position papers. At the request of the member agency representatives, Metropolitan's staff did not actively participate in these discussions, but were available for technical assistance, if needed. These independent meetings of the member agency staff members were an important part of the overall process to ensure that the final report would reflect the member agencies' perspective.

The major areas of developing consensus were as follows:

- Many of Metropolitan's reserve policies need to be redefined for clarity, particularly "working capital".
- The Water Rate Stabilization Fund (WRSF) should be the "last bucket" in the flow of funds so that reserves are not accumulated in the Pay-As-You-Go (PAYG) Fund.
- Reserves for revenue shortfalls should have a minimum and maximum balance as a guideline to trigger Board consideration on rates, cost control or other actions, and the $200 million cap on the (WRSF) should be eliminated.
- The PAYG Fund should be restricted for capital purposes only and the year-end balance in the fund should be 1/2 of the following year's projected PAYG expenditures.
- Documentation and communication of assumptions used in financial modeling should be improved.

Other areas involving further discussion include:

- Consideration should be given to increasing the use of variable rate debt as part of the capital financing mix above the current 15 percent policy limit, within an acceptable range of risk.
- The PAYG percentage should be re-evaluated to determine if it is still appropriate given changed conditions since the 20 percent policy was adopted in 1988.

The information presented in the report and the position papers will be considered as a part of the update of Metropolitan's Long Range Finance Plan (LRFP). Draft chapters of the updated LRFP will be reviewed and discussed with the Budget and Finance Committee. The Work Group will have additional opportunities for input during this process. It is expected that final recommendations for changes in Metropolitan's financial policies will be brought to the Board through the Budget and Finance Committee in early to mid 1998.

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Attachment

97-WGRPT

REPORT FROM THE MWD / MEMBER AGENCY FINANCE WORK GROUP

October 1997

EXECUTIVE SUMMARY

The MWD/ Member Agency Finance Work Group (Work Group) was established in October 1996 to promote better communication of Metropolitan's financial planning and reporting activities to the member agencies. To date the Work Group has held numerous meetings from November 1996 through July 1997. Representatives of Metropolitan and the following member agencies have attended one or more of these meetings:

City of Los Angeles	San Diego County Water Authority
Calleguas MWD	MWD of Orange County
City of Pasadena	City of Glendale
City of Burbank	City of Anaheim
Eastern MWD	City of Torrance
City of Long Beach	Central Basin MWD
West Basin MWD	Three Valleys MWD
City of Fullerton	City of Santa Ana

The initial focus of the Work Group has been on the financial assessments of Metropolitan performed by KPMG Peat Marwick (KPMG) and the Barrington-Wellesley Group (BWG). The Work Group studied the reports to identify positive and useful aspects that can be incorporated, as appropriate, into Metropolitan's financial policies and capital financing plans. **The Work Group has not addressed Metropolitan's future water rates, alternative revenue structures or any form of new or increased firm revenues.** The purpose of the Work Group is to discuss the technical details of the various issues and prepare a report back to the Rate Refinement Task Force, the member agencies and Metropolitan's Board. The Work Group does not necessarily have to come to conclusions or recommendations, but should be able to amplify the differing positions on the issues and provide an understanding of the pros and cons or advantages and disadvantages of pursuing one position versus another, from a technical standpoint, to provide the managers and Board members background information for decision making purposes.

Representatives from both BWG and KPMG made presentations on their respective reports to the Work Group at the meeting held February 12, 1997. Mr. John Heaton of BWG presented an overview of the financial assessment of Metropolitan he prepared for the City of Burbank. His main points centered around Metropolitan's use of reserve funds and his view was that most of the available funds should be held in the Water Rate Stabilization Fund and

used to avoid rate increases for the next ten years. He pointed out that he did not recommend that any of Metropolitan's reserve funds should be returned to the member agencies.

Mr. John DiRenzo of KPMG summarized the findings of his firm's financial assessment of Metropolitan. Mr. DiRenzo stressed the importance of maintaining a strong financial position and high credit ratings to support Metropolitan's major Capital Improvement Program. He noted that overall MWD's projections show increasing costs with decreasing reserves. He referred to the variability of MWD's water sales and cautioned against the risk associated with significantly reducing reserve levels. In general, Mr. DiRenzo felt that his research indicated that Metropolitan's financial policies are prudent and meet all tests of sound utility management.

In order to focus the Work Group on the key issues discussed in the BWG and KPMG reports, six position papers were prepared covering the following topics:

1. Working Capital Policy
2. Water Rate Stabilization Fund
3. Pay-As-You-Go Policy
4. Water Transfer Fund
5. Financial Modeling / Reporting
6. Capital Financing

Initially, the position papers described Metropolitan's current policy, the BWG position, the KPMG position and MWD staff comments for each topic. Each position paper contained a section for the member agencies to provide input on the Work Group's position.

During June 1997, the member agency representatives of the Work Group met twice to develop their consensus positions on the issues contained in the position papers. At the request of the member agency representatives, Metropolitan's staff did not actively participate in these discussions, but were available for technical assistance, if needed. These independent meetings of the member agency staff members were an important part of the overall process to ensure that the final report would reflect the member agencies' perspective.

Copies of the position papers, with the member agency representatives' positions, are included as Attachment A. The major areas of developing consensus are the following:

- Many of Metropolitan's reserve policies need to be redefined for clarity, particularly "working capital".
- The Water Rate Stabilization Fund (WRSF) should be the "last bucket" in the flow of funds so that excess reserves are not accumulated in the Pay-As-You-Go (PAYG) Fund.
- Reserves for revenue shortfalls should have a minimum and maximum balance as a guideline to trigger Board consideration on rates, cost control or other action, and the $200 million cap on the (WRSF) should be eliminated.

- The PAYG Fund should be restricted for capital purposes only and the year-end balance in the fund should be 1/2 of the following year's projected PAYG expenditures, to provide adequate cashflow for the subsequent year.
- Documentation and communication of assumptions used in financial modeling should be improved.

Other areas involving further discussion include:

- Consideration should be given to increasing the use of variable rate debt as part of the capital financing mix above the current 15 percent policy limit, within an acceptable range of risk, with the goal being to lower the overall cost of debt.
- The PAYG percentage should be re-evaluated to determine if it is still appropriate given changed conditions since the 20 percent policy was adopted in 1988.

During discussions of the position papers and following a meeting with the Rate Refinement Task Force on August 28, 1997, the following main topics emerged and form the basis of this report:

Working Cash

The Work Group determined that Metropolitan's current definition of working capital was possibly inconsistent with established industry norms. The concept of working cash was developed as an alternative. The O&M Fund was identified as Metropolitan's true working cash. The O&M Fund, required under revenue bond covenants, holds funds to cover two months of O&M expenditures and is used to handle timing mismatches between receipt of revenues and payments of expenses.

Self-Insured Retention

Metropolitan currently maintains a self-insured retention reserve of $25 million for emergency repairs and claims. The monies are held in the Revenue Remainder Fund and have been considered part of the working capital reserve. The Work Group, as part of the redefining of working capital, feels that the self-insured retention should be held in a separate fund and clearly identified as a reserve for this purpose.

Water Transfer Fund

The Water Transfer Fund is maintained to purchase water for storage programs, to purchase options for future water purchases, and to fund the filling of the Eastside Reservoir Project. The fund is currently scheduled to sunset in the year 2004. The Work Group with the exception of the San Diego County Water Authority, is in agreement with the purpose and management of the fund but feels that it needs to be re-evaluated after the Eastside Reservoir Project becomes operational.

Revenue Shortfall Reserves

As an alternative to the current working capital policy, the Work Group feels that a current year revenue shortfall reserve be established based on a minimum revenue shortfall reserve level determined to cover reasonably expected revenue shortfalls over an 18-month period. These monies would be held in the Revenue Remainder Fund. A maximum revenue shortfall reserve level would be established based on a 2 or 3 year water sales shortfall and held in the Water Rate Stabilization Fund and Revenue Remainder Fund. The Board will make the determination of whether the 2 or the 3 year level of the maximum reserve is more appropriate. The minimum and maximum levels would serve as triggers for Board consideration of options when reserve levels fall below the minimum or exceed the maximum.

If the revenue shortfall reserves fall below the minimum the Board should consider the following options:

- Reduce capital costs and/or operating costs (including PAYG).
- Raise water rates.
- Hold reserves at the reduced level and rely on future revenues.
- Issue debt to cover fixed cost obligations.

If the revenue shortfall reserves exceed the maximum the Board should consider the following options:

- Fund additional PAYG expenditures.
- Reduce water rates.
- Retire outstanding debt to reduce future water revenue requirements.
- Offset or reduce Readiness-to-Serve charges.
- Hold the monies in the WRSF for unexpected needs.
- Refund monies to the member agencies.
- Use the monies for any other lawful purpose of the District.

Structural Risk Factors

While the minimum and maximum revenue shortfall reserve levels would be set based on estimated water sales variability and revenue shortfalls, it is recognized that certain structural risk factors must also be considered for their potential financial effects. These factors include:

- Economic growth trends and their impact on future water sales.
- Uncertainty of future capital requirements.
- Additional water supply costs.
- Salinity management.

- Restructuring of the electric power industry.

The Work Group did not feel that these factors should increase reserve levels because of the lead time generally available to include these factors into the water rate setting process. However, the Board should take them into account when considering actions to be taken if and when reserve levels fall below the minimum or exceed the maximum levels established.

Capital Financing

Metropolitan's current PAYG policy for financing capital projects is 20 percent of ongoing capital expenditures. It was agreed that an appropriate level of PAYG financing is needed to stabilize capital spending by reducing the amount of debt financing in order to balance the repayment burden placed on future beneficiaries with the benefits to be received by current ratepayers. Staff, working with the member agencies is reviewing the PAYG methodology to determine if the PAYG percentage should be revised based on changed conditions since the 1988 establishment of the current policy.

Most of the Work Group members were supportive of the current policy 15 percent ceiling for variable rate financing. However, other members of the Work Group felt that Metropolitan should increase its variable rate debt exposure to a level of up to 25 percent. Market conditions should dictate the decision on the issuance of variable vs. fixed-rate debt with the over riding consideration being the lowest overall cost of outstanding debt over the long term. This issue will be the subject of further deliberations.

Flow of Funds

Metropolitan's current flow of funds ends with the Pay-As-You-Go Fund into which remaining monies on hand at year-end are placed after all other reserve requirements are satisfied. The Water Rate Stabilization Fund (WRSF) has been capped at $200 million with monies above this level flowing to the PAYG Fund. An alternative flow of funds has been suggested by the Work Group. The alternative would remove the cap from the WRSF and make this fund the last in the flow of funds, after the required balance in the PAYG Fund has been met. This alternative flow of funds will be analyzed as part of the update of the Long Range Finance Plan. The following table shows how the actual June 30, 1997 cash balances would have looked under the alternative flow based on either a 2-year or 3-year maximum reserve level:

CASH BALANCES
June 30, 1997
($ in Millions)

FUND DESCRIPTION	Current Policy	2-Year Policy	3-Year Policy
O&M Fund (Working Cash)	$ 66	$ 66	$ 66
Working Capital (1)	$ 175	$ 0	$ 0
Minimum Revenue Shortfall Reserve Level	$ 0	$ 134 (5)	$ 134 (6)
- Self Insured Retention	$ 0	$ 25	$ 25
Water Rate Stabilization Fund Cap (2)	$ 200	$ 0	$ 0
- Required to meet Maximum	$ 0	$ 166 (5)	$ 216 (6)
- Remainder (3)	$ 0	$ 139	$ 89
Pay-As-You-Go Fund (4)	$ 159	$ 70	$ 70
Water Transfer Fund	$ 32	$ 32	$ 32
Sub-Total	$ 632	$ 632	$ 632
Other Restricted & Construction Funds	$ 566	$ 566	$ 566
Total	$1,198	$1,198	$1,198

(1) Current policy includes balances in the Revenue Remainder and General Funds of $150M based on a 500,000 AF shortfall in water sales.

(2) Current policy is a $200M cap on the Water Rate Stabilization Fund.

(3) Remainder represents funds available above the maximum reserve level. MWD Board to determine use of funds. During FY 97-98 Metropolitan has budgeted a draw of $73M from the WRSF and a draw of $50M from the PAYG Fund that will partially offset the June 30, 1997 remainder under the 2-year policy, and fully offset the remainder under the 3-year policy. However, during FY 1998-99 monies currently being used to fund the construction of the headquarters building may be reimbursed if the Metropolitan Water District Asset Financing Corporation (MWDAFC) issues approximately $135M of debt to reimburse Metropolitan's General Fund (the MWDAFC financing in 1998-99 is currently part of Metropolitan's financial forecast).

(4) The alternative policy would be that the PAYG Fund year-end balance would be one-half of projected expenditures for the next year.

(5) Sum total of minimum reserve level and amount required to meet maximum equals $300M (the maximum reserve level for the two year alternative).

(6) Sum total of minimum reserve level and amount required to meet maximum equals $350M (the maximum reserve level for the three year alternative).

Next Steps

The information presented in the report and the position papers will be considered as a part of the update of Metropolitan's Long Range Finance Plan (LRFP). Draft chapters of the updated LRFP will be reviewed and discussed with the Budget and Finance Committee. The Work Group will have additional opportunities for input during this process. It is expected that final recommendations for changes in Metropolitan's financial policies will be brought to the Board through the Budget and Finance Committee in early to mid 1998. Metropolitan's staff will continue to work with the member agencies on remaining issues as discussed in the report.

I. INTRODUCTION

A. Purpose of the Finance Work Group and the Report

The MWD/ Member Agency Finance Work Group ("Work Group") was established in October 1996 to promote better communication of Metropolitan's ("Metropolitan") financial planning and reporting activities to the member agencies. To date the Work Group has met numerous times from November 1996 through August 1997. Representatives of Metropolitan and the following member agencies have attended one or more of these meetings:

City of Los Angeles	San Diego County Water Authority
Calleguas MWD	MWD of Orange County
City of Pasadena	City of Glendale
City of Burbank	City of Anaheim
Eastern MWD	City of Torrance
City of Long Beach	Central Basin MWD
West Basin MWD	Three Valleys MWD
City of Fullerton	City of Santa Ana
Las Virgenes MWD	Foothill MWD

The initial focus of the Work Group has been on the financial assessments of Metropolitan performed by KPMG Peat Marwick (KPMG) and the Barrington-Wellesley Group (BWG). Representatives from both BWG and KPMG made presentations on their respective reports to the Work Group at the meeting held February 12, 1997. The Work Group has studied the reports to identify positive and useful aspects that can be incorporated, as appropriate, into Metropolitan's financial policies and capital financing plans as part of the update to Metropolitan's Long Range Finance Plan. **The Work Group has not addressed Metropolitan's future water rates, alternative revenue structures or any form of new or increased firm revenues.**

In order to focus the Work Group on the key issues discussed in the BWG and KPMG reports, six position papers were prepared (see Appendix 1) covering the following topics:

1. Working Capital Policy
2. Water Rate Stabilization Fund
3. Pay-As-You-Go Policy
4. Water Transfer Fund
5. Financial Modeling / Reporting
6. Capital Financing

The position papers describe Metropolitan's current policy, the BWG position, the KPMG position, MWD staff comments, and the Member Agency Work Group position for each topic. Representatives of the member agencies met separately to formulate their position for each topic. These independent meetings of the member agency staff members were an important part of the overall process to ensure that the final report would receive wide acceptance. This report is

based on the Work Group's efforts to develop positions on the issues contained in the position papers, and is intended to provide perspective and guidance to the MWD staff and Board of Directors in updating of the MWD Long Range Finance Plan.

The Work Group identified a perception problem between MWD's definition of working capital and the industry or traditional definition of working capital. In their view there may be some overlap among the O&M Fund, the Water Rate Stabilization Fund (WRSF) and the working capital reserve. Section III of this report examines an alternative flow of funds that redefines the reserve structure, designates the O&M Fund as MWD's working cash, would create a fund category entitled "current year revenue shortfall reserve", and would make the Water Rate Stabilization Fund the "last bucket" in the flow of funds.

The Work Group noted that there was a lack of understanding of District finances partly due to terminology associated with financial information. In order to assist the reader with certain terminology used throughout this report, the following is a selected list of terms and their meaning that are used in the report:

1. **"Assumptions Manager" -** term used to describe a report that lists financial assumptions used for a given financial analysis or projection.
2. **"Current Year Revenue Shortfall Reserve"** - term used to designate the reserve level required for 18 months of a two or three year reserve level. May also be viewed as the minimum reserve required.
3. **"Fund Categories" -** Current fund categories of Metropolitan are as follows:
    - **"Operating Funds"** - term used to designate a fund category of Metropolitan for all funds that are used for revenues and expenditures associated with operations of Metropolitan.
    - **"Debt Service Funds" -** designation includes all funds associated interest payments, principal payments, and reserve requirements for general obligation bonds, revenue bonds, commercial paper notes, and any other outstanding debt of Metropolitan.
    - **"Construction Funds" -** designation for all funds used to fund the capital improvement program including general obligation bond construction, revenue bond construction, commercial paper note construction, revolving construction, and pay-as-you-go funds.
    - **"Rate Stabilization Funds" -** designation for funds used to mitigate future rate increases including the water treatment surcharge.
    - **"State Contract Fund" -** designation for fund used to pay capital obligations of Metropolitan under the state water contract.
    - **"Trust and Other Funds" -** designation includes employees deferred compensation, excess earnings, and various other trust funds of Metropolitan.
4. **"Last Bucket"** - term used to designate the Fund whereby residual reserves in a given year are deposited after all revenue bond covenants and Administrative Code policies are satisfied.
5. **"Pay-As-You-Go Fund (PAYG)" -** current fund established by Metropolitan's Board used to provide funding for the capital improvement program. Monies available are not restricted as to use and may be used for any lawful purpose. Currently designated as "Last Bucket" in flow of funds.

6. **"Revenue Remainder Fund"** - current fund of Metropolitan established in 1975. Monies remaining at month end after all expenditures have been met in accordance with revenue bond covenants and Administrative Code policies are transferred to the Revenue Remainder Fund and may be used for any lawful purpose of Metropolitan. The Revenue Remainder Fund and the General Fund are currently designated as the "working capital" of Metropolitan.
7. **"Water Rate Stabilization Fund" -** established by the Metropolitan Board to hold monies after other funding and reserve requirements are met. Funds are to be used to mitigate future rate increases. Current balance for the fund is capped at $200 million.
8. **"Working Capital"** - Cash balances in the Revenue Remainder and General Funds of Metropolitan. Per the Administrative Code, a $150 million minimum is required in working capital at the end of the fiscal year.
9. **"Working Cash"** - Monies available in the Operations and Maintenance Fund. Funds are restricted as to use, and may only be used to pay for operations and maintenance expenditures of Metropolitan and the State Water Project.

II. WORKING CASH

A. Current Policy

The O&M Fund is considered an operating fund of Metropolitan. In accordance with Section 5201(f) of the MWD Administrative Code, cash and securities shall be at least equal to the minimum required by the resolutions of issuance for revenue bonds. Metropolitan covenants in the Master Resolution for Water Revenue Bonds to have at least two months of projected operation and maintenance expenditures available in the O&M Fund by the end of the current calendar month. Once funds are transferred into the O&M Fund, the monies are restricted as to use, and may only be used to pay operations and maintenance expenditures of Metropolitan and the State Water Project.

B. Issue

The following key questions were raised by BWG, KPMG and/or the Work Group:

1. Does the current O&M Fund policy provide adequate working cash for Metropolitan?

2. Is the O&M Fund held for the same purpose as Metropolitan's working capital reserve?

3. Is Metropolitan's 2-months O&M Fund requirement comparable to methods recommended by the California Public Utilities Commission (PUC)?

C. Discussion

In response to these questions a presentation was made to the Work Group which included an example of Metropolitan's monthly requirements for the O&M Fund (working cash) based on the 2-month requirement.

The Work Group also reviewed and discussed information related to the working cash allowance methods established by the PUC. The PUC provides three methods that may be used by a utility to determine working cash levels. The three methods include a detailed method, a simplified method, and a new simplified method to assist a utility in determining the working cash allowance needed to maintain the operations of a utility and allow a return to the owners of a utility on funds invested. Generally, the PUC concluded that a utility's working cash allowance method should be based on what is considered fair and reasonable for the operations of the utility. Metropolitan's current O&M Fund policy (as required by revenue bond covenants) is comparable to the PUC's new simplified method.

There was support by the Work Group to maintain the current policy for determining working cash requirements for the O&M Fund, that is to have at least two months of

projected operation and maintenance expenditures available in the O&M Fund by the end of the current calendar month. More importantly, the cash balance required to be on hand in the O&M Fund at the end of each month is governed by Metropolitan's revenue bond covenants. This requirement was determined by the Work Group to be adequate for working cash purposes of Metropolitan.

The work group felt that for presentation purposes funds held in the O&M Fund should be designated as "working cash". Working cash is separate from Metropolitan's current working capital balances.

Position Paper 1 in Appendix 1 summarizes the positions and comments of BWG, KPMG, MWD staff, and the Member Agency Work Group related to working capital and working cash policies of Metropolitan.

III. ALTERNATIVE FLOW OF FUNDS

A. Current Policy

A major focus of the Work Group's efforts has been to examine MWD's cash flow to understand how the various funds relate to each other and how reserve levels are established. Operating revenues are first used to satisfy revenue bond covenants which require that all operations and maintenance costs, MWD and State Water Project, be paid first. Net operating revenues are then used to fund debt service payments and reserve requirements for both revenue bonds and commercial paper.

Tax revenues are first used to pay debt service on MWD general obligation bonds. Remaining tax revenues flow to the State Contract Fund to pay capital charges under the State contract. Water revenues also flow to the State Contract Fund to the extent that tax revenues are not sufficient to cover all of the State capital charges. Water revenues are then used to fund working capital and other reserves such as trust funds and certain General Fund requirements. Remaining water revenues, if any, flow to the Water Rate Stabilization Fund up to the current cap of $200 million. Any water revenues remaining after the WRSF cap is met then flow to the PAYG Fund. Under the current flow of funds the PAYG Fund is the "last bucket", meaning funds accumulate in the PAYG Fund without an upper limit. Monies in the PAYG Fund may be used for funding the capital improvement program, but are not restricted as to use.

B. Issue

The concept of the "last bucket", which would be the fund where residual revenues end up after all other reserve requirements and policies have been met was an issue of great interest to the Work Group. Currently, the PAYG Fund is the "last bucket" in the flow of funds. This has been the case since the $200 million cap was placed on the Water Rate Stabilization Fund (WRSF) in 1995.

Of the various issues and concepts considered by the Work Group, the following would provide better understanding of and impact the flow of funds:

- Removing the cap on the WRSF
- Making the WRSF the last cash flow "bucket"
- Keeping the O&M Fund level at 2-months expenditures.
- Establishing a current year revenue shortfall reserve in the Revenue Remainder Fund and a maximum reserve level in the WRSF to replace the current "working capital" policy.
- Establishing a separate $25 million reserve fund for the MWD self-insured retention (SIR) (this is currently part of working capital).
- Designating the PAYG Fund as "restricted" for capital purposes and changing the year-end balance requirement to 1/2 of the next year's projected PAYG expenditures.
- Continue to evaluate the methodology to determine the appropriate PAYG percentage.

Of these items, it appears that removing the cap on the WRSF would have the most significant impact on MWD's flow of funds. An alternative flow of funds that redefines the reserve structure, designates the O&M Fund as MWD's working cash, creates a current year revenue shortfall reserve, and makes the Water Rate Stabilization Fund the "last bucket" in the flow of funds was considered by the Work Group.

C. Discussion

As in the current flow of funds, operating revenues would first be used to satisfy revenue bond covenants which require that all operations and maintenance costs, MWD and State Water Project, be paid first. Net operating revenues would then used to fund debt service payments and reserve requirements for both revenue bonds and commercial paper.

Tax revenues would remain committed to pay debt service on MWD general obligation bonds. Remaining tax revenues would flow to the State Contract Fund to pay capital charges under the State contract. Operating revenues would also flow to the State Contract Fund to the extent that tax revenues are not sufficient to cover all of the State capital charges. However, at this point the current flow of funds and the alternative flow of funds would differ.

For the alternative flow of funds, water revenues would be used to fund a current-year revenue shortfall reserve (in place of the old working capital reserve), the self insured retention reserve discussed in Section IV, and other reserves such as trust funds and certain General Fund requirements. Remaining water revenues would flow to the PAYG Fund up to the year-end requirement. Any water revenues remaining after the PAYG Fund requirement is met would then flow to the Water Rate Stabilization Fund. Under this alternative flow of funds, the Water Rate Stabilization Fund becomes the "last bucket" in the flow of funds. The diagrams at the end of this section show the current flow of funds and the proposed alternative flow of funds.

The following table shows cash balances for June 30, 1997, under both the current flow of funds structure and the alternative flow of funds structure described above. In addition, the minimum reserve level calculation for a two year wet period and a three year wet period as discussed in Section VI of this report entitled "Mitigating Future Rate Increases With Reserves" is included.

CASH BALANCES
June 30, 1997
($ in Millions)

FUND DESCRIPTION	Current Policy	2-Year Policy	3-Year Policy
O&M Fund (Working Cash)	$ 66	$ 66	$ 66
Working Capital (1)	$ 175	$ 0	$ 0
Minimum Reserve Level	$ 0	$ 134 (5)	$ 134 (6)
- Self Insured Retention	$ 0	$ 25	$ 25
Water Rate Stabilization Fund Cap (2)	$ 200	$ 0	$ 0
- Required to meet Maximum	$ 0	$ 166 (5)	$ 216 (6)
- Remainder (3)	$ 0	$ 139	$ 89
Pay-As-You-Go Fund (4)	$ 159	$ 70	$ 70
Water Transfer Fund	$ 32	$ 32	$ 32
Sub-Total	$ 632	$ 632	$ 632
Other Restricted & Construction Funds	$ 566	$ 566	$ 566
Total	$1,198	$1,198	$1,198

(1) Current policy includes balances in the Revenue Remainder and General Funds of $150M based on a 500,000 AF shortfall in water sales.

(2) Current policy assumes $200M cap in Water Rate Stabilization Fund.

(3) Remainder represents funds available above the maximum reserve level. MWD Board to determine use of funds. During FY 97-98 Metropolitan has budgeted a draw of $73M from the WRSF and a draw of $50M from the PAYG Fund that will partially offset the June 30, 1997 remainder under the 2-year policy, and fully offset the remainder under the 3-year policy. However, during FY 1998-99 monies currently being used to fund the construction of the headquarters building may be reimbursed if the Metropolitan Water District Asset Financing Corporation (MWDAFC) issues approximately $135M of debt to reimburse Metropolitan's General Fund (the MWDAFC financing in 1998-99 is currently part of Metropolitan's financial forecast).

(4) The alternative policy would be that the PAYG Fund year-end balance would be one-half of projected expenditures for the next year.

(5) Sum total of minimum reserve level and amount required to meet maximum equals $300M (the maximum reserve level for the two year alternative).

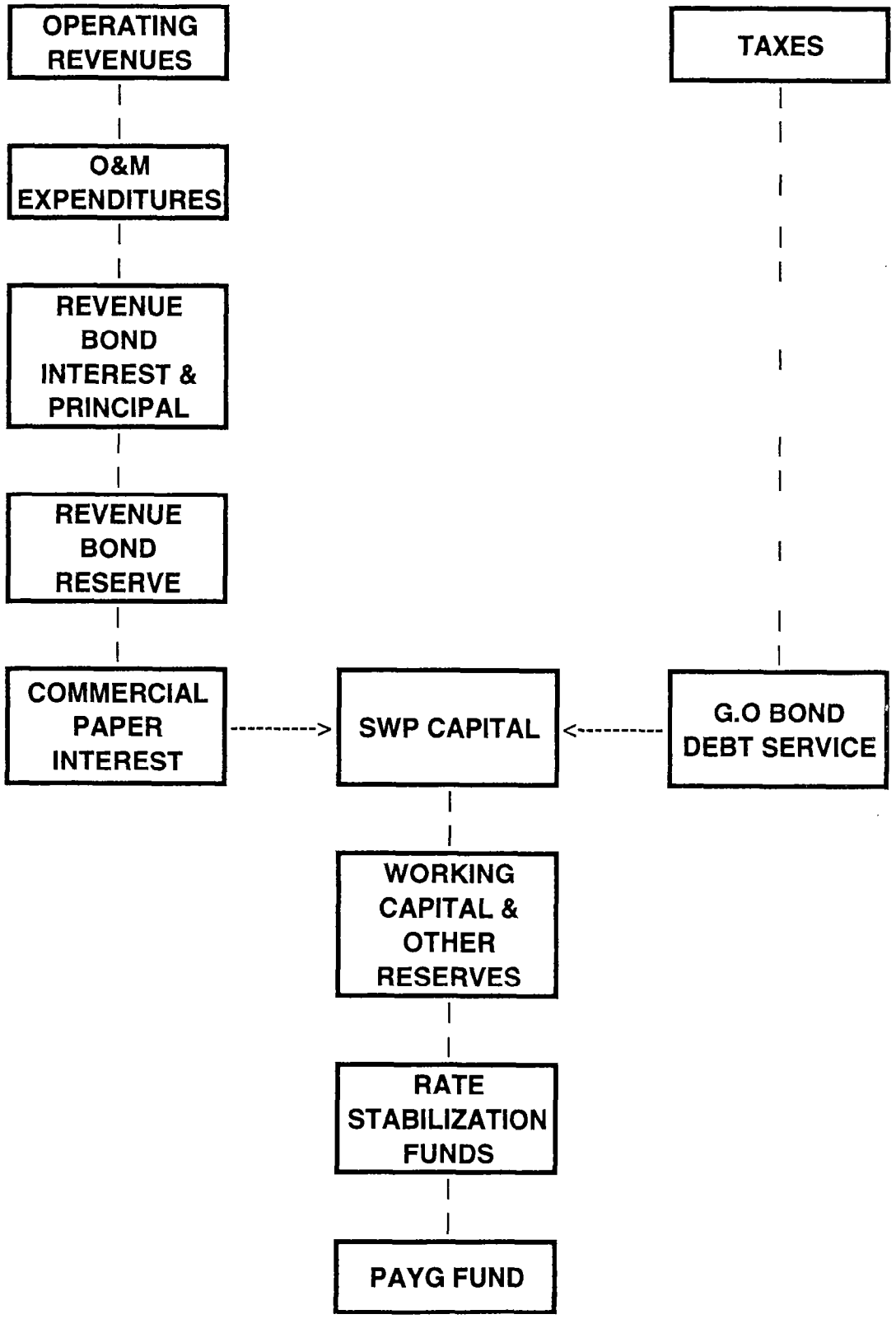
(6) Sum total of minimum reserve level and amount required to meet maximum equals $350M (the maximum reserve level for the three year alternative).

The San Diego County Water Authority believes that consideration should be given to determining the level of maximum funding for the WRSF in fiscal year 1997-98. Metropolitan may issue approximately $135M in tax-exempt debt through the MWDAFC in fiscal year 1998-99 to reimburse Metropolitan's General Fund for costs associated with construction of the new headquarters building.

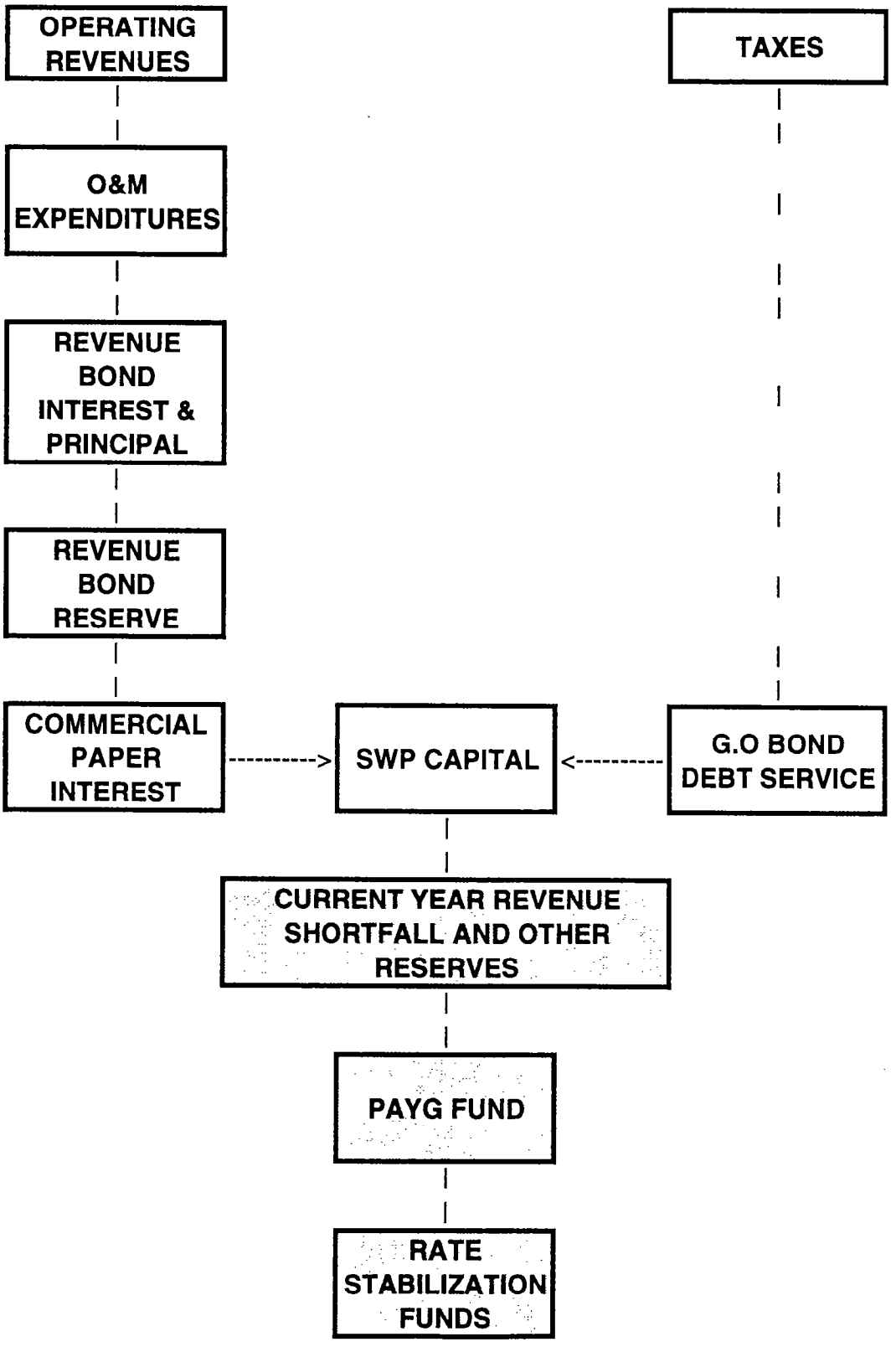
Currently, Metropolitan is forecasting that a MWDAFC tax-exempt financing will occur in fiscal year 1998-99. If this financing does occur, and all or a portion of the proceeds of such a financing are used to reimburse Metropolitan's General Fund, then the SDCWA believes that the cash balance in the WRSF should be reduced by a like amount during fiscal year 1997-98 since the inflow of funds from the MWDAFC financing will eventually be transferred to the WRSF.

Position Papers 2 and 3 in Appendix 1 include the positions and comments of BWG, KPMG, MWD staff, and the Member Agency Work Group related to the impact a change in the flow of funds would have on the PAYG Fund and the WRSF.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
CURRENT FLOW OF FUNDS



THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA ALTERNATIVE FLOW OF FUNDS



IV. SELF INSURED RETENTION FUND

A. Current Policy

MWD currently maintains a self insured retention (SIR) of $25 million for emergency repairs and claims. The SIR is held as part of the current working capital reserve and the $25 million is kept on deposit in the Revenue Remainder Fund. MWD is subject to certain legal disclosure requirements involving workers' compensation and public liability claims. These requirements have been met by reference to the $25 million SIR portion of the working capital.

B. Issue

MWD's outside auditors, KPMG Peat Marwick, have recommended that the insurance and claim reserve give greater consideration to other factors such as:

- Catastrophic events and inaccuracies inherent in the estimation process.
- Large, unusual known claims.
- Equal employment opportunity and fair housing and employment claims.
- Eminent domain, condemnation, breach of contract, environmental liabilities, earthquakes, other MWD property damage events and goodwill claims

C. Discussion

The Work Group feels that the $25 million SIR should be held as a separate fund. The establishment of a separate Self Insured Retention Fund will facilitate compliance reporting for legal reserve requirements and give additional comfort to bondholders by clearly showing that MWD is maintaining an adequate and appropriate reserve for unforeseen events. An actuarial study is being to conducted to review the self insured reserve level. The results of the study will be available in early 1998.

V. WATER TRANSFER FUND

A. Current Policy

The Water Transfer Fund is a restricted fund used to mitigate rate impacts caused by the purchase of water transfers, participation in water storage programs and the costs of the initial fill of the Eastside Reservoir Project. The Transfer Fund was established in Fiscal Year 1995-96 with an initial deposit of $14 million. Currently, the fund has a sunset clause that will transfer any remaining balances at the end of Fiscal Year 2003-04 to the Water Rate Stabilization Fund (WRSF). Between Fiscal Year 1995-96 and Fiscal Year 2003-04 a total of $160 million is expected to be expended from the Transfer Fund.

B. Issue

Eastside Reservoir Project fill costs could range from about $50 million to $80 million depending upon the cost of power during the fill period and the operation of the Metropolitan system. Current estimates include about $78 million for the initial fill costs. This estimate assumes that the Reservoir will be filled over a four year period between 1999 and 2002 and includes allowances for seepage losses and evaporation.

The costs of developing several transfer programs are also funded from the Transfer Fund and are estimated to account for an additional $82 million in disbursements by Fiscal Year 2003-04. These estimates are based on expected normal weather conditions and could change substantially depending on the availability and cost of supplies. Table 1 summarizes the estimated cumulative receipts and disbursements to and from the fund for the period 1995-96 through 2003-04.

Table 1.
TRANSFER FUND CUMULATIVE RECEIPTS AND DISBURSEMENTS
FY 1995-96 THROUGH FY 2003-04

Receipts	
Deposits from Water Revenues	$ 160 M
Disbursements	
Semi-Tropic	$ 25 M
Friant-Kern	$ 23 M
Eastside Fill	$ 78 M
Other (a)	$ 33 M
Total Disbursements	$ 160 M
Remainder	**$ 0 M**

(a) Other disbursements are estimated costs from 2002 to 2004 for as yet unidentified future projects.

C. Discussion

The Work Group discussed the purpose for the Water Transfer Fund, and the need for the fund to be re-evaluated once the initial fill of the Eastside Reservoir is completed. A presentation was made by MWD staff on various levels of initial fill to be financed from the Fund. It was agreed by most members of the Work Group that the full fill of the reservoir from monies deposited in the Fund was appropriate to avoid undesirable water rate impacts that could occur based on hydrologic conditions during the fill period.

The San Diego County Water Authority (SDCWA) raised questions regarding the need for the Water Transfer Fund considering that the Integrated Resources Plan has yet to be revised to reflect updated future demand projections. The SDCWA expects that many agencies will develop transfers on their own. The impact of such plans on Metropolitan in developing future transfers has not yet been determined. Another issue the SDCWA believes should be considered is the shifting of costs from future ratepayers to current ratepayers. The SDCWA feels that the creation of a water transfer fund to provide for future supplies shifts the costs from future ratepayers to current ratepayers.

The SDCWA believes that in order to better label the purpose of the monies held in the fund, an Eastside Fill Fund should be created. This fund should sunset in 2002 after the initial fill has been completed. The actual balance in the fund should be at a "mid-range level" rather than a funding level that reflects maximum power rate assumptions. In addition, the SDCWA feels that the monies in this fund should be used for extraordinary reservoir costs rather than costs that will continue to occur once the reservoir is in operation.

Position Paper 4 in Appendix 1 includes the positions and comments of BWG, KPMG, MWD staff, and the Member Agency Work Group related to the purpose and future use of the Water Transfer Fund.

VI. MITIGATING POTENTIAL FUTURE RATE INCREASES WITH RESERVES

A. Current Policy

Currently, Metropolitan reserves a total of up to $350 million for the purpose of mitigating the need for water rate increases due to periods of low sales and other unexpected factors that may lead to higher water rates. These reserves are referred to as the "Working Capital Requirement," and the "Water Rate Stabilization Fund".

The "Working Capital Requirement" is held in the Revenue Remainder and General Funds. Citing a one year sales shortfall of up to 500,000 acre-feet, previous studies established the "Working Capital Requirement" at a level of $150 million. In addition to the "Working Capital Requirement," up to $200 million is held in the Water Rate Stabilization Fund to mitigate future rate increases that could be caused by lower than expected revenues (due to lower demands) or higher than expected costs (due to power costs, supply costs etc.).

If the WRSF is at the $200 million maximum balance, unused revenue flows into the PAYG Fund and is used to finance capital projects. If lower demands or other factors completely deplete the WRSF, the Working Capital Requirement would be used to meet expenses and the Board would need to make a decision regarding replenishment of reserve levels. In effect, the current procedure means the Working Capital Requirement acts as a minimum reserve level with the additional $200 million cap in the WRSF included as a maximum reserve level.

B. Issue

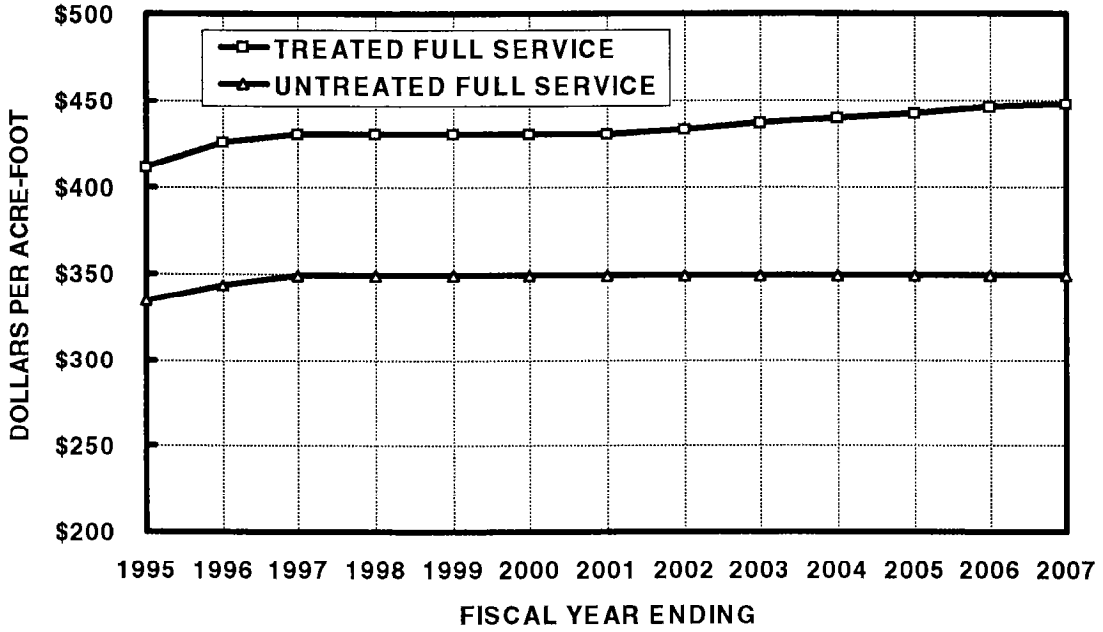
There is a need to establish an alternative methodology for determining an appropriate level of reserves to mitigate future rate increases due to periods of low water sales. The following section reviews an alternative method for setting minimum and maximum reserve levels.

C. Discussion

Projected Water Rate

Due to the deferral of capital projects, cost containment efforts and revised cost estimates, Metropolitan's most recent financial forecast indicates a slower rate of growth in future costs than previously projected. If actual costs approximate this forecast, and sales grow as expected, Metropolitan may be able to maintain its current Full Service Untreated water rate of $349 per acre-foot through year 2007 (See Figure 1). The Treatment Surcharge is expected to increase by $17 per acre-foot over this same period. The level of rate stabilization reserves is an important management tool that can be utilized to ensure that this rate objective will be met, despite known variances in water sales and other variables.

Figure 1.
Full Service Untreated Water Rate ($/AF)



Alternative Methodology

An alternative methodology for determining an appropriate level of reserves also includes a minimum reserve level and maximum reserve level. But, as part of the annual budget process, this alternative procedure relies on the Board to set the minimum reserve level and maximum reserve level to reflect changing financial conditions and assessments of future risks.

The minimum revenue shortfall reserve level and maximum revenue shortfall reserve level are defined as parameters that indicate appropriate levels of reserves required to mitigate the risk of low water sales or other risk factors.

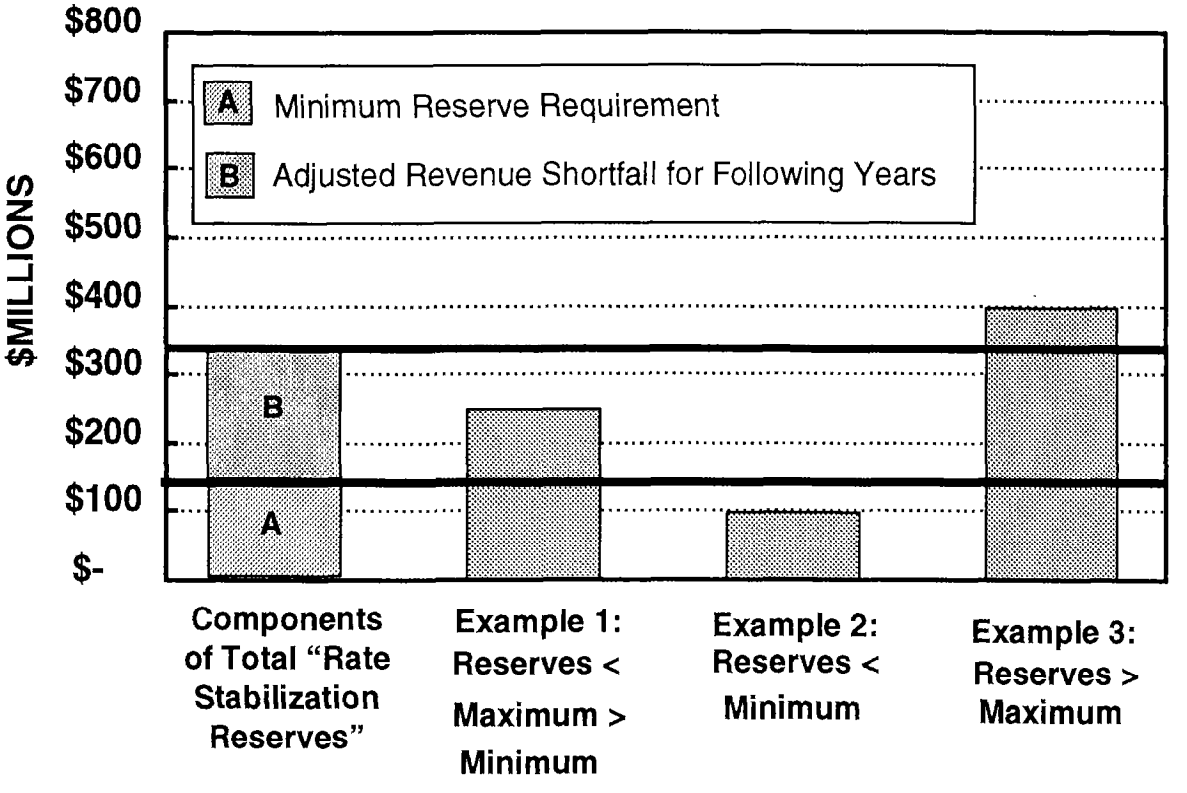
Minimum Revenue Shortfall Reserve Level - at the end of each fiscal year the minimum reserve level would be determined as the difference between the expected water rate revenue requirement and low water rate revenue for the following 18 months. This amount would be adjusted for reductions in variable power costs and offsetting reductions in interest income.

Maximum Revenue Shortfall Reserve Level - at the end of each fiscal year the sum of the difference between the expected water rate revenue requirement and low water rate revenues for the following two or more years would be estimated and adjusted for reductions in variable power costs and offsetting reductions in interest income.

Figure 2 illustrates how these parameters would work under different situations that may occur in any given year.

In Figure 2 it is assumed that the Board determines that $350 million is an appropriate maximum reserve level to insure the water rate against rate increases caused by reductions in revenues due to wet weather and that structural risk factors should not be reserved for. The minimum reserve level is determined to be approximately $130 million. In Example 1, the reserves are greater than the minimum level and less than the maximum reserve level indicating that the reserves are within an acceptable range and are effectively in balance. In Example 2, however, the reserves have fallen below the minimum level either due to an extended period of low sales or other factors and the Board, based on staff recommendations, must decide whether or not minimum reserve levels need to be replenished or if some other action is appropriate. Finally, in Example 3, reserves are greater than the maximum level thereby providing the Board with a decision point to determine how best to use the additional reserves.

Figure 2.
Minimum Reserve Level and Maximum Reserve Level



The following logic also helps illustrates how the annual review of the reserve funds would work.

A = Minimum Revenue Shortfall Reserve Level.

B = Difference between minimum level and total reserves held to insure water rate against 2 or more years of low sales.

If reserve funds are:

Greater than **A** but less than (**A** + **B**), then the reserve system is in balance.

Less than **A**, then the Board is provided a decision point to determine if reserve levels should be restored, or if some other course of action is appropriate.

Greater than (**A** + **B**), Board is provided a decision point to determine how best to use the additional reserves.

Defining the Maximum Reserve Level

Because the reserve system exists to insure the water rate against unforeseen rate increases, the maximum reserve level should reflect the risk of unexpected water rate increases and the degree to which the Board wants to protect the rate from these risks. Periods of low sales revenue caused by wet weather is the principle factor that could cause unexpected increases in the water rate and is therefore used to define the maximum reserve level. Due to investments in storage programs, water transfers, and the Eastside Reservoir Project it is more likely that Metropolitan will have sufficient supplies under drought conditions in the future and the financial impact of drought shortages is therefore considered to be less of a risk.

Periods of Low Sales Revenue Caused by Wet Weather

The risk of periods of low sales revenue is defined differently from current policy in three important ways. First, the magnitude of the potential annual decrease in demands is reduced from 500,000 acre-feet (current policy) to the difference between expected normal weather demands and low demands caused by wet weather conditions that occur about 5 percent of the time. Over the next four to five years this difference is expected to range from 350,000 to 400,000 acre-feet or about 20 percent of total demands. This acknowledges that even during an extremely wet year there is a base level of water demand and sales revenue available to MWD (currently estimated to be approximately 1.4 million acre-feet per year). However, because Metropolitan is the supplemental supplier for its member agencies, large decreases in Metropolitan's water sales occur when wet weather decreases retail level demands and increases local supplies through the natural replenishment of local groundwater basins, surface reservoirs, and higher Los Angeles Aqueduct deliveries.

Adjustments made to account for lower variable power costs and lower interest income make up the second difference from the current methodology. When sales decrease, Metropolitan's variable power costs for pumping on the State Water Project and the Colorado River Aqueduct are reduced. An estimate of these avoided variable power costs is therefore used to reduce the maximum reserve level. However, the maximum reserve level is also adjusted upward to account for decreases in interest income that will occur as reserves are used over time to meet expenditures.

Third, because historical rainfall and hydrologic data indicates that wet years are more likely to occur consecutively or within at least one year of each other, the alternative methodology also examines extending the duration of a low sales period from 1 year to a range of 2 to 4 years. To determine a reasonable range for the duration of a wet period, probabilities of wet periods consisting of 2, 3 and 4 consecutive wet years were estimated from 118 years of Los Angeles Civic Center rainfall data. The effect on retail demands and local supplies is distinguishable when annual rainfall exceeds 18 inches. Therefore, years when annual rainfall exceeds 18 inches are considered to be "wet". Los Angeles Civic Center rainfall data was used for a proxy measure of regional weather because it is strongly correlated with rainfall data from other parts of the service area and the Eastern Sierra snowpack, an indicator of Los Angeles Aqueduct deliveries. Table 1 shows that the probability of two consecutive years being wet is 23 percent. The probability that 3 years in a row will be wet is 2 percent. The data set did not indicate the probability of 4 wet years in a row. This does not mean that such an event is impossible only that it is very unlikely. Although not used to do a probabilistic risk analysis these probabilities do indicate the historic frequency of certain events.

Table 1.
Probabilities of Consecutive Wet Years
Los Angeles Civic Center Rainfall (1879-1996)

2 in 2 Years Wet	3 in 3 Years Wet	4 in 4 Years Wet
23 percent	2 percent	? percent

To determine the appropriate level of reserves to insure the water rate against periods of low sales revenue, the duration and probability of the period of low sales revenue is the most important variable for the Board to consider. A longer duration is more likely to insure the water rate against any increases caused by wet weather but will result in a high maximum reserve balance. A shorter duration is more likely to lead to rate increases caused by wet weather alone but will result in a lower maximum reserve balance. Several sensitivity analyses that test different reserve levels and the potential rate increases under wet periods of different duration's are presented later in this section. Although the Work Group did not agree on a single definition for the duration of a period of low sales, it was generally agreed that the duration of a period of low sales should be defined as being either 2 or 3 years, with the Board to determine the appropriate level. In all cases the probability of consecutive wet periods should be balanced against the number of years being reserved against.

Structural Risk Factors

In addition to reductions in revenues caused by weather, there are several structural factors (e.g. slower growth in sales, higher capital costs etc.), that may unexpectedly affect the water rate. The Work Group considered including structural factors in the reserve calculation, but it was decided that Metropolitan should account for other reductions in revenues through the annual rate setting process and not as part of Metropolitan's reserve structure. The potential impact of structural risk factors is more difficult to quantify than the risk of revenue shortfalls due to weather because of the uncertainty surrounding the magnitude and timing of cost and revenue impacts and the probability that one or more of the factors will occur. To provide an indication of the different structural risks facing Metropolitan the following sensitivities are provided as general rules of thumb that are helpful in understanding potential impacts.

- If *regional economic growth* is slower than current estimates, reducing projected sales by 50,000 acre-feet per year, annual water rate revenues could be $18 million lower per year.

- For every $100 million that *debt financed capital costs exceed current estimates*, annual debt service costs could be $8 million more per year. The uncertainty surrounding future capital costs is due to the fact that although an estimate has been included in the current rate forecast, Metropolitan's ultimate share of the costs for the Bay-Delta solution are unknown at this time, the potential for system replacement costs beyond those currently budgeted for both the MWD and SWP systems exists, and construction costs for the remainder of the MWD Capital Program may be higher than current estimates.

- Each $100 per acre-foot of *additional supply costs* results in $10 million in higher annual costs for every 100,000 acre-feet of supply. Issues surrounding the proposed SDCWA/IID transfer and the Colorado River are examples of Metropolitan's supply cost uncertainty.

- *Salinity management issues* that could raise operating costs and capital investments may raise annual costs.

- For every $10 per acre-foot that *electric industry restructuring* increases or decreases Metropolitan's average unit power cost, annual costs could increase or decrease by $18 to $22 million. Electric industry restructuring could eventually lead to a reduction in Metropolitan's power costs if increased competition drives down power generation prices or leads to opportunities to negotiate power supply contracts with more favorable terms.

Defining the Minimum Reserve Level

Similar to the current policy of maintaining at least $150 million in "Working Capital Reserves," the alternative methodology maintains a minimum reserve level that is referred to as the "Current Year Revenue Shortfall Reserve." This minimum reserve level would continue to be held in the Revenue Remainder Fund. The minimum reserve level is calculated as the potential annual revenue shortfall for the twelve months of the budget year and six months of the following year. An additional six months is included in the minimum level to provide adequate time for the Board to consider alternatives to replenish reserve levels in the event that total reserves are less than the minimum level. The shortfall amount is adjusted for changes in variable power costs and interest income. The difference between the minimum reserve level and the maximum reserve balance would be held in the WRSF to absorb annual revenue shortfalls that may occur in the following years. Table 2 summarizes how the minimum reserve level would be calculated for Fiscal Year 1997-98.

Table 2.
Calculation of the Minimum Reserve Level FY 1997-98
($ in Millions)

Expected Water Rate Revenue Requirement	$	580
less Estimated Reduction in Variable Power Costs due to Lower Demands		(11)
Addback Estimated Reduction in Interest Income From Use of Reserves		5
Net Adjusted Revenue Requirement		573
Net Adjusted Revenue Requirement		573
less Low Sale Revenue		(484)
Current Year Revenue Shortfall		89
Factor for Cost Decrease and/or Rate Increase Implementation*		1.5
Revenue Shortfall Minimum Reserve Level	**$**	**134**

* The factor accounts for the 12 months of the budget year and the first 6 months of the following year to allow time for the implementation of cost decreases and/or rate increases.

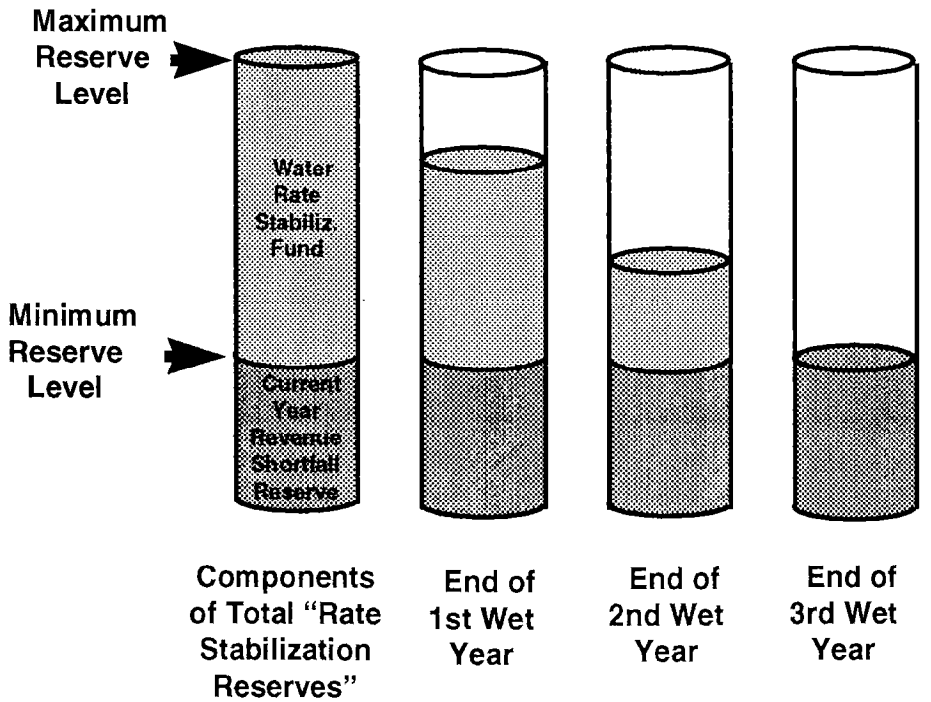
The Relationship Between the Maximum and Minimum Reserve Levels

To not trigger board action (i.e. such as not raising rates or decreasing operating costs) within the wet period, the Maximum Reserve Level includes sufficient reserves to fund the Minimum Reserve Level for the duration of a wet period plus one additional year. In other

words, reserving for a 3 year wet period will fund the Minimum Reserve Requirement for 3 years and meet the Minimum Reserve Level at the beginning of the fourth year, thereby giving the Board time to consider if any cost reductions or rate increases would be required during the next fiscal year. The two or three year reserve level provides for no increases in the full service untreated water rate during the two or three year wet period.

Figure 3 illustrates the use of reserves over a three year wet period. At the end of the first wet year, low water sales revenues cause a transfer of funds from the WRSF to the Current Year Revenue Shortfall Reserve to meet the Minimum Reserve Requirement. At the end of the second wet year the transfer repeats, further decreasing the balance of the WRSF. By the end of the third wet year all of the WRSF has been used and remaining reserves equal balances in the Current Year Revenue Shortfall Reserve. Although the board may elect to take action prior to the end of the third wet year, no action is required because sufficient reserves were held in the initial Maximum Reserve Level to fund the Minimum Reserve Requirement for the beginning of the fourth year.

Figure 3.
Use of Rate Stabilization Funds



Sensitivity Analysis

To demonstrate the relationship between different reserve levels and potential rate impacts due to weather a two step sensitivity analysis was conducted. In the first step, the current water rate of $349 per acre-foot was held constant through 2006 and ending year reserve balances were calculated for combinations of wet periods of 2, 3 and 4 consecutive years and June 30, 1997 reserve levels of $200 million, $250 million, $300 million and $350 million. The results of

the analysis indicate that if $350 million is held in reserve as of June 30, 1997, the risk that the current water rate will have to increase in the future due solely to decreases in revenues caused by wet periods of up to 3 consecutive years, is significantly less than if only $200 million is reserved.

Figure 4 illustrates that if 2 consecutive wet years were to occur beginning in Fiscal Year 1997-98, an initial reserve level of $200 million results in reserves falling below the minimum reserve level in Fiscal Year 1997-98, triggering a Board decision. An initial reserve level of $250 million also results in reserves falling below the estimated minimum level although not until Fiscal Year 1999-00 and the magnitude of the difference between the minimum level and the reserve balance is smaller. However, an initial reserve level of $300 million results in reserve balances in excess of the minimum level through Fiscal Year 2005-06. The same is true of the $350 million initial reserve level.

Figure 4.
Annual Reserve Balances For a 2 Year Wet Period

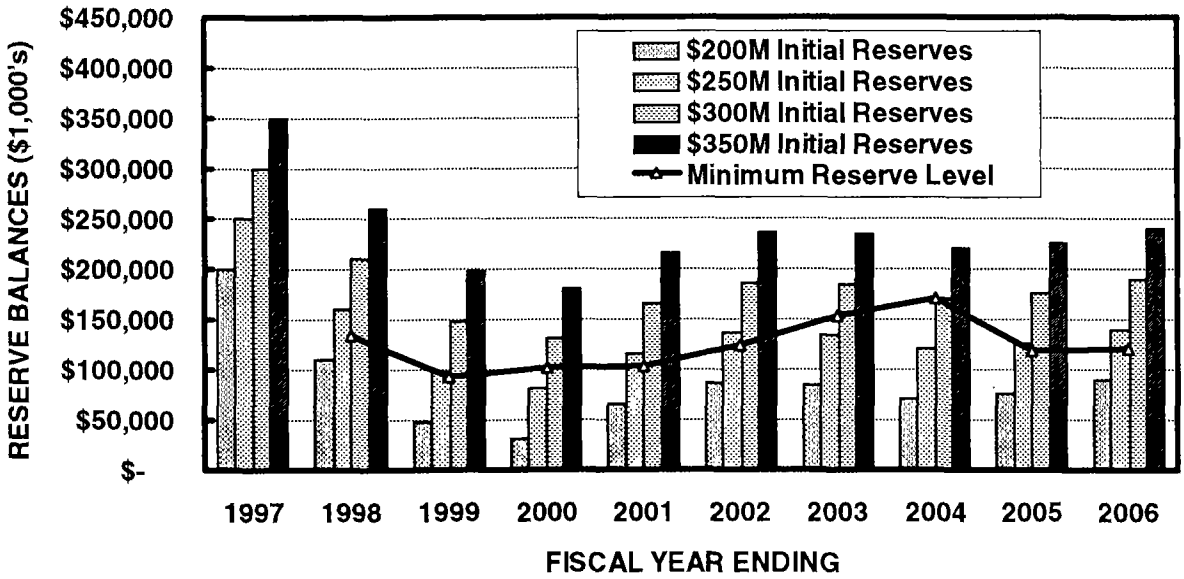
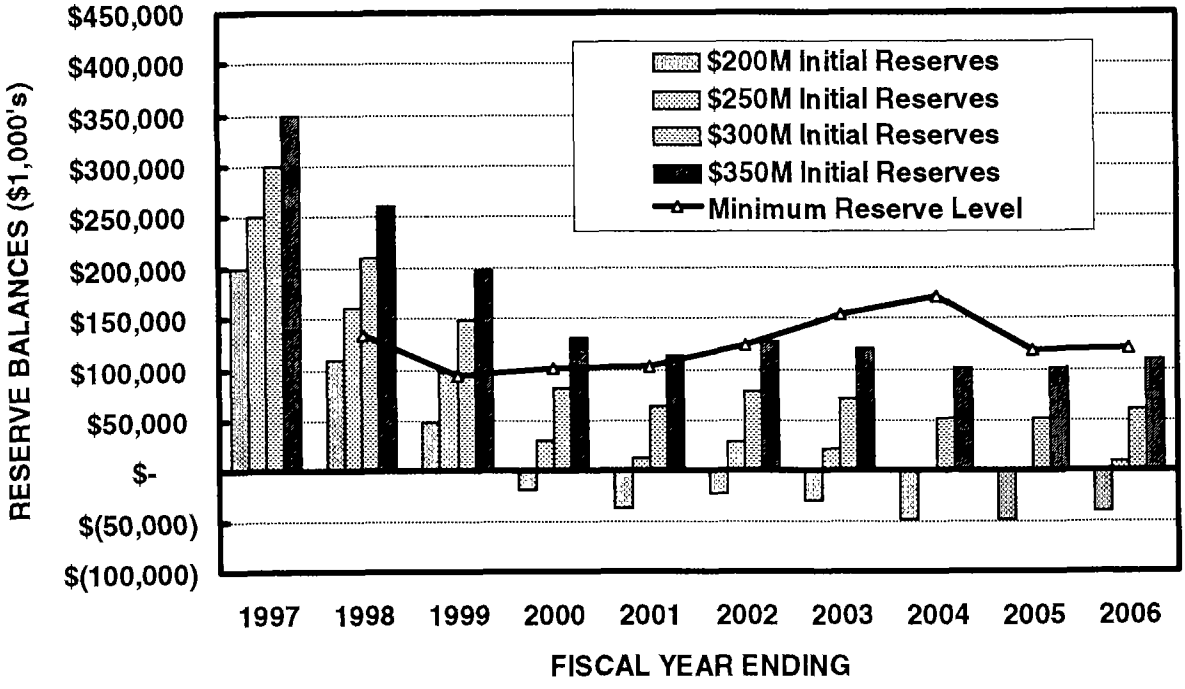


Figure 5 illustrates the effect of extending the duration of the wet period from 2 to 3 years. The result for the initial reserve level of $200 million is identical to that shown in Figure 3. Initial reserve levels of $250 million and $300 million fall below the minimum level by Fiscal Year 1999-00. However, in the event of a 3 year wet period, an initial reserve level of $350 million would not call for the Board to consider rate increases, cost decreases or other actions until Fiscal Year 2002-03 assuming no other factors adversely impacted expected costs or revenues.

Figure 5.
Annual Reserve Balances for a 3 year Wet Period



The second step in the sensitivity analysis estimated rate increases required to fund the minimum reserve level in years when the reserves fell below the minimum. Table 3 summarizes the relationship between the different beginning reserve levels and water rate increases caused by wet periods of different duration's. For example, if an initial reserve level of $200 million were established for June 30, 1997, and 3 consecutive wet years were to occur beginning in 1998, the current water rate would have to increase by $27 per acre-foot by Fiscal Year 2001-02 in order to maintain the minimum reserve level. However, if $300 million is held in reserve the water rate will most likely not have to increase before Year 2002 due to a 2 year wet period. Similarly, if $350 million is initially held in reserve, the water rate would most likely not have to increase in the event of 3 year wet period.

Table 3.
Increase In Water Rate by Year 2002
Required to Maintain Minimum Reserve Level

	Duration of Wet Period (Beginning 1998)		
June 30, 1997 Reserve Balances ($Millions)	2yrs. (23%)	3yrs. (2%)	4yrs. (?%)
$200M	$24	$27	$52
$250M	$7	$23	$57
$300M	$0	$14	$53
$350M	$0	$0	$45

Possible Board Actions

The Board will make the determination of whether the 2 or the 3 year level of the maximum reserve is more appropriate. The minimum and maximum levels would serve as triggers for Board consideration of options when reserve levels fall below the minimum or exceed the maximum.

If the revenue shortfall reserves fall below the minimum the Board should consider the following options:

- Reduce capital costs and/or operating costs.
- Raise water rates.
- Hold reserves at the reduced level and rely on future revenues.
- Issue debt to cover fixed cost obligations.

If the revenue shortfall reserves exceed the maximum the Board should consider the following options:

- Fund additional PAYG expenditures.
- Reduce water rates.
- Retire outstanding debt to reduce future water revenue requirements.

- Offset or reduce Readiness-to-Serve charges.
- Hold the monies in the WRSF for unexpected needs.
- Refund monies to the member agencies.
- Use the monies for any other lawful purpose of the District.

VII. CAPITAL FINANCING

Metropolitan's capital financing strategy is to provide funding for the capital improvement program in a cost effective, low risk, and flexible manner, while adhering to the financial objectives and parameters established by the Board. A detailed discussion of this strategy along with various financing alternatives available to Metropolitan are included in the Long Range Finance Plan. The Work Group focused on two financing alternatives: pay-as-you-go financing and the use of variable rate debt. In addition, a discussion of the use and importance of financial indicators was discussed with the Work Group as well as replacement funding for capital projects.

1. Pay-As-You-Go

A. Current Policy

The Board has established a policy objective to fund twenty percent of capital improvement program expenditures on a pay-as-you-go basis. This includes the costs of the following:

- Capital facilities or projects totaling $1 million or less;
- Capital assets with estimated payback periods or useful lives shorter than the calculated average life of alternative long term bond financing;
- Capital improvement program studies; and
- Any other lawful purposes as determined by the Board.

B. Issue

The PAYG program at Metropolitan is an important component of financing Metropolitan's capital improvement program. The balance between PAYG financing and debt financing has been instrumental in preserving debt capacity and strong credit ratings for Metropolitan. The following issues regarding PAYG financing at Metropolitan were discussed with the Work Group, they were as follows:

1. The cumulative PAYG percentage (the current policy is 20 percent of cumulative capital improvement program expenditures up to an annual maximum of $90 million).
2. The designation of the PAYG Fund as a restricted reserve fund to be used exclusively for funding capital projects vs. an unrestricted fund whereby additional reserves are deposited into the fund.
3. The use of the PAYG Fund as the "last bucket" in the flow of funds at Metropolitan.
4. The policy to determine the cash balance in the PAYG Fund at the end of the fiscal year.
5. Equity considerations between current and future users (rate payers) of the system.

C. Discussion

1. PAYG Cumulative Percentage

The current methodology to determine the portion of the capital improvement program to be financed from PAYG (the PAYG percentage) was developed by Metropolitan in 1988. In fiscal year 1988-89 the Board approved the current PAYG percentage of 20 percent after consideration of various PAYG funding levels of 10 percent, 20 percent, and 40 percent of the capital improvement program. Through June 30, 1997, cumulative PAYG expenditures are 20 percent of the capital improvement program. The constraints in 1988 that were used to determine the PAYG percentage included the following:

- Revenue Bond Debt to Equity Limitation = 1.0X
- No water rate spikes
- Revenue Bond Debt Service Coverage = at least 2.0X
- Capital Improvement Program expenditures

Based on these constraints it was determined by staff that PAYG of 10 percent would force the revenue bond debt to equity ratio above 1.0X; and PAYG of 40 percent would cause unacceptable rate spikes. PAYG of 20 percent was approved by the Board because it met all constraints and still offered the Board additional financial flexibility so desired.

If the PAYG constraints that were used to determine the PAYG percentage in 1988 were used to determine the PAYG percentage at the present time, the PAYG percentage could be lowered to 13.5 percent of annual capital expenditures. The cumulative PAYG percentage would gradually be reduced from the present 20 percent as annual expenditures would total 13.5 percent. The reduction in the PAYG percentage is primarily the result of reduced projections for capital improvement program expenditures and increased financial flexibility available to MWD that was not available in 1988. However, the constraints used in 1988 to determine the PAYG percentage did not take into account the use of prior period reserves (as are currently available to Metropolitan) that could be used to partially fund a PAYG program. In fact the Board through the annual budget process for fiscal year 1997-98 approved the use of $50 million of PAYG reserves to partially fund the PAYG program.

In order to assist the Work Group in its discussion of PAYG financing information regarding the PAYG policies of various water and wastewater utilities throughout the United States were presented. Reported PAYG policies ranged from a low of 10 percent to a high of 55 percent of capital program expenditures.

The following table summarizes the information on PAYG percentages and bond credit ratings presented to the Work Group:

PAYG Percentages
MWD and Other Utilities

Utility	PAYG Percentage	Bond Rating
MWDSC	20 percent	AA/Aa
City of Chicago	50 percent	AA/Aa
East Bay MUD	24 percent	AA/Aa
Houston Water & Sewer	10 percent	A-/A
LA-DWP	55 percent	AA/Aa
Philadelphia Water & Sewer	15 percent	BBB/Baa
San Diego CWA (a)	17.5 -20 percent	AA-/Aa
Santa Clara Valley	20 percent	AA-/Aa

(a) Per MWD/MA Finance Work Group Survey (March 1997).

It was noted that the level of pay-as-you-go contributes to a strong credit rating for a utility. Generally, those utilities surveyed with pay-as-you-go programs of at least 20 percent of the capital program have credit ratings of at least AA-.

As discussed with the Work Group, increasing the PAYG program of Metropolitan would increase near term revenue requirements thereby shifting costs to current rate payers, but would reduce the overall financing costs of the capital program. Conversely, decreasing the PAYG program would reduce near term revenue requirements, but increase the overall financing costs of the capital program thereby shifting costs to future rate payers. From a credit analysis perspective, higher levels of debt are viewed with caution since a greater portion of current revenues would be required to pay for past borrowing practices. In either case, changing the PAYG policy to less than or greater than 20 percent of the CIP would not impact Metropolitan's ability to finance the CIP with revenue bonds.

Increasing levels of debt may limit Metropolitan's financial flexibility in the future. Unforeseen costs to Metropolitan may include increased costs due to more stringent water quality requirements; costs for major system renovations currently not included in the CIP; increased payments to the Department of Water Resources due to system improvements and/or replacements; higher power costs due to deregulation; and increased costs due to increased competition or deregulation in the water industry. Reducing or mitigating increases in fixed costs in the future will become more and more critical to Metropolitan as the water industry becomes increasingly competitive.

Staff, working with the member agencies will continue to review the PAYG methodology to determine if the PAYG percentage should be revised. The results of the study and any recommendations to change the policy will be presented to the Board during the update of the Long Range Finance Plan. One of the member agencies suggested that Metropolitan

review its financing mix (cash, long-term debt, and commercial paper) by performing an analysis similar to an "optimization method" of the financial structure used by the member agency. This method of determining the percentage mix of each funding source would attempt to provide the overall lowest and smoothest rate pattern given existing constraints. With a method similar to this "optimization method" the funding mix may be updated periodically to account for changes in capital cash flows, sales estimates and other modeling constraints. This process may provide MWD with a quantitative method for determining the PAYG percentage.

2. Restricted Fund / Unrestricted Fund

The Work Group discussed the possibility of revising the designation of the PAYG Fund from unrestricted to restricted. There was a feeling expressed by certain members of the Work Group that funds transferred to the PAYG Fund should be restricted as to use whereby the monies available in the fund were used solely for financing the capital improvement program, and not available to use for any other lawful purpose of Metropolitan. Although the PAYG Fund has been used exclusively for construction purposes to date, certain members of the Work Group were concerned that the perception of the fund was such that monies could be used for other purposes. Therefore, certain members of the Work Group felt that consideration should be given to designating the PAYG Fund as restricted to use for capital purposes only.

3. PAYG Fund as "Last Bucket"

The Work Group discussed the current policy of having the PAYG Fund as the "last bucket" in the flow of funds if the balance in the WRSF is greater than $200 million. Certain members of the Work Group felt that the WRSF should be the "last bucket" in the flow of funds whereby additional reserves at the end of the fiscal year are transferred to the WRSF. Other members of the Work Group expressed their preference to maintain the PAYG Fund as the "last bucket" in the flow of funds whereby any additional funds would be used to finance the capital improvement program or provide Metropolitan with the flexibility to use PAYG funds for any lawful purpose of Metropolitan.

4. PAYG Fund Fiscal Year-End Cash Balance

The Work Group reviewed alternatives to the Administrative Code requirement to have the PAYG Fund balance at the end of a fiscal year equal to the next years projected expenditures. A revised calculation to determine the year end cash balance in the PAYG Fund was suggested by the Work Group whereby the PAYG Fund balance at year end is determined by taking the greater of the amount required to arrive at the cumulative PAYG percentage or 50 percent of the annual projected PAYG expenditures for the next fiscal year. The PAYG Fund balance determined in this manner would provide MWD with improved cash flow and not impact the PAYG program.

Position Paper 3 in Appendix 1 includes the positions and comments of BWG, KPMG, MWD staff, and the Member Agency Work Group related to the PAYG issues discussed in this section of the report.

2. Variable Rate Debt Financing

A. Current Policy

Metropolitan uses a mix of fixed rate debt and variable rate debt financing as part of the overall CIP financing strategy. The current goal is to issue up to 15 percent of total debt in variable rate mode. Included within the 15 percent would be the commercial paper program and variable rate debt obligations (VRDO's). Currently, Metropolitan has $300 million of commercial paper outstanding, with authorization to issue an additional $100 million. Metropolitan has not issued any VRDO's to date.

B. Issue

The issue discussed by the Work Group was determination of the appropriate level of variable rate debt in Metropolitan's capital financing mix. Variable rate debt levels of 15 percent, 20 percent, and 25 percent of total debt were discussed. Projected revenue requirements could be decreased with higher variable rate debt levels, assuming a relatively constant rate environment over a given period. Should interest rates decline over a given period, debt costs would decrease without the additional costs of refundings. In addition, VRDO's can be converted to fixed rate debt for the remaining life of the debt if interest rates begin to rise.

The main risks to Metropolitan in issuing variable rate debt are as follows:

- Interest rate risk;
- Liquidity facility renewal risk - if liquidity facility can not be renewed may be forced to convert to fixed rate debt at an unfavorable time;
- Liquidity facility market risk - credit decline of provider or capital market disruption;
- for commercial paper, the liquidity risk due to a constant rollover of outstanding commercial paper.

The main benefits to issuing variable rate debt are as follows:

- Opportunity for lower interest costs to Metropolitan even after remarketing and liquidity facility costs;
- If interest rates should further decline, Metropolitan would benefit without the costs associated with refunding of the debt;
- The takedown portion of the underwriter's discount on VRDO's is lower than the takedown on fixed rate debt which may mean lower issuing costs overall;
- Variable rate debt is typically prepaid without the cost of premium;
- Increased flexibility in the timing of an issuance of debt;
- Commercial Paper is not counted as part of the debt to equity financing limitation.

C. Discussion

Currently, it is the goal of the Board to have variable rate debt outstanding be no more than 15 percent of total debt outstanding at any given time. Historically, Metropolitan has issued variable rate debt when market conditions favored such an issuance. In general the Work Group supported in concept the mix of variable rate and fixed rate debt based on market conditions and the cost of financing to Metropolitan.

However, representatives from the San Diego County Water Authority (SDCWA) expressed an interest in increasing the variable rate debt exposure of Metropolitan up to 25 percent of total debt outstanding (the maximum exposure recommended by the rating agencies). The SDCWA felt that current cash reserves of Metropolitan are high enough to mitigate the risk of interest rates rising for MWD's $300 million of outstanding commercial paper. When short term rates rise, the interest cost on short term borrowings increase but Metropolitan will also earn more interest revenue on reserve funds (providing a "hedge" against rising rates). However, if Metropolitan's variable rate debt approaches levels up to 25 percent of total outstanding debt, interest earnings on cash reserves will provide a partial hedge against rising interest rates. Based on current projections, if variable rate debt is increased to 25 percent of total debt, by fiscal year 2002-03 Metropolitan would have over $1 billion of outstanding variable rate debt.

The spread between commercial paper rates and the cost to Metropolitan for revenue bonds since 1989 has been between 200 and 250 basis points due to Metropolitan's favorable credit ratings thereby enabling Metropolitan to issue revenue bond debt at lower costs to the rate payers. SDCWA feels that increasing short term debt should be considered under all reserve alternatives, but especially if the current policies are maintained or the three year low sales period is used to determine the maximum reserve level. If variable rate debt outstanding is increased to 25 percent of total debt outstanding, projected average water rates may be reduced by $3 to $4 per acre-foot by fiscal year 2002-03. This assumes a constant 200 basis point spread between the cost of fixed rate debt and variable rate debt over the next ten year period.

Other members of the Work Group were more comfortable with lower levels of variable rate debt exposure, but all members agreed that the decision to issue variable rate debt should be based on market conditions and costs to Metropolitan. It was noted that the bond rating agencies review the impact of variable rate exposure on a case by case basis depending upon the financial condition of the issuer. The decision to increase or decrease variable rate debt exposure for Metropolitan is not based upon the levels of variable rate debt exposure of member agencies or other municipalities. Instead the decision to increase or decrease variable rate debt exposure is based solely upon the financial condition of Metropolitan at a given point in time, with input from financial advisors and the financial community.

Position Paper 6 in Appendix 1 includes the positions and comments of BWG, KPMG, MWD staff, and the Member Agency Work Group related to variable rate debt financing.

3. Discussion of Financial Indicators

A. Current Policy

Financial performance indicators are used to assist Metropolitan in its financial planning efforts. Two such indicators, revenue bond debt service coverage and fixed charge coverage, were discussed with the Work Group.

It is the objective of the Board to maintain at least 2.0 times coverage for Metropolitan's junior lien water revenue bonds. As a legal covenant to ensure that bondholder security is not reduced, and in order for Metropolitan to issue additional revenue bonds, a revenue bond debt service coverage of 1.2 times is required.

There is no specific ratio for fixed charge coverage required for Metropolitan. However, obligations to bondholders as well as contractual obligations under the State Water Contract must be met, therefore, revenues must be available to cover all fixed obligations after payment of operations and maintenance expenditures. Fixed obligations of Metropolitan include debt service payments, capital payments under the State Water Contract, and other capital payments not paid by tax revenues. Due to Metropolitan's fixed charge obligations, revenue bond debt service coverage is enhanced by revenues raised to pay a portion of the capital obligations (fixed obligations) due under the State Water Contract.

B. Issue

The Work Group discussed the objective of 2.0 times revenue bond debt service coverage for Metropolitan. From a credit agency perspective, revenue bond debt service coverage is the primary indicator of credit quality for an issuer. The greater the coverage, the greater the ability of the municipality to handle revenue or cost uncertainty in the future. The credit agencies have indicated that two times coverage for Metropolitan is an appropriate level for a credit with our financial commitments and revenue uncertainty. In general, AA credits have coverage's of at least 2.0 times, with an average coverage in the range of 2.17 times. Although there is no standard median for revenue bond debt service coverage that relates to Metropolitan, the credit rating of Metropolitan has an impact on the credit ratings of many municipalities throughout the state of California.

The Work Group discussed the various fixed obligations of Metropolitan that are not paid by tax revenues. From a credit perspective, fixed charge coverage is more important than revenue bond debt service coverage because of Metropolitan's obligations under its take or pay State Water Contract with the Department of Water Resources. The credit agencies consider Metropolitan capital obligations under the State Water Contract to be subordinate operating expenditures. In addition to Metropolitan's obligations to its bondholders, Metropolitan must meet its other contractual obligations that include the State Water Contract. Projections show MWD's fixed charge coverage declining over the next 10 years from about 1.9 times to about 1.1 times.

C. Discussion

The Work Group agreed with the importance of and the need for Metropolitan to have strong financial performance indicators, especially as the financing requirements for the capital improvement program increase, and as other fixed obligations to Metropolitan continue to increase.

4. Replacement Funding for Capital Projects

A. Current Policy

Accounting records of Metropolitan recognize depreciation; however, an account to replace depreciated capital is not explicitly funded. A capital replacement fund was created in 1960, however, no deposits to replace capital facilities have been made to the fund since 1967.

The Controller follows standard accounting practices to depreciate Metropolitan's assets over the expected economic or useful life of each asset with the straight-line depreciation method. Economic life for plant facilities is assumed to be 50 years, while storage and distribution facilities are depreciated over 80 years. Annual depreciation reported in the Annual Reports currently reduces Annual Plant and Equipment Value (recorded at cost) by approximately 15 percent.

At the present time, specific replacements, upgrades, and rehabilitation projects are included in the annual Capital Improvement Plan submitted by the Engineering Division to Metropolitan's Board for approval. Amounts projected to be included in the future are as follows:

Future System Reliability Projects
CIP March 26, 1997

Fiscal Year	($000s)
1998/99	$38,311.2
1999/00	$40,226.8
2000/01	$42,238.1
2001/02	$44,350.0
2002/03	$46,567.6
2003/04	$48,895.9
2004/05	$51,340.7
2005/06	$53,907.8
2006/07	$51,340.7

Approved projects are funded through PAYG, commercial paper, or revenue bond proceeds.

B. Issue

Is MWD currently funding system replacements at an appropriate level?

If replacement funding is inadequate, then the costs of rehabilitating the distribution system will cause future water rates increase when unfunded costs are incurred. Records of Metropolitan's distribution system indicate that approximately one-third of the system is over 40 years old. If economic or physical obsolescence is consistent with the economic life of distribution facilities recognized by standard accounting methods, then 20 percent of Metropolitan's storage and distribution facilities are scheduled to be replaced in less than 30 years at an approximate cost of $2 billion.

Metropolitan Pipeline Facilities Age (1930-1992)

Age	Length in Feet	Percent Total
>50 years	951,327	20.7 percent
>40 years	1,470,888	32.0 percent
>30 years	2,795,834	60.8 percent
>20 years	3,951,686	85.9 percent
>10 years	4,476,218	97.3 percent

C. Discussion

In order to investigate this issue, an Infrastructure Review Study has been initiated to identify those facilities which may experience structural or operational failures that could result in significant loss of property, endanger safety, erode public confidence, and/or disrupt Metropolitan's ability to deliver water.[1] In addition, $1.9 million has been approved to evaluate the condition of prestressed concrete pipe in Metropolitan's system.[2]

Engineering analyses will establish a reasonable replacement schedule for Metropolitan's capital facilities. Metropolitan's Board of Directors may want to review alternative capital replacement funding mechanisms that will mitigate sharp increases in capital costs and avoid costly emergency repairs and liability losses.

[1] Proposed Capital Program Appendix for FY 1997/98

[2] Program 15297; to be expended FY 1996/97 - FY 1999/2000.

Appendix 1

MWD/Member Agency Finance Work Group

POSITION PAPERS

1. Working Capital Policy
2. Water Rate Stabilization Fund
3. Pay-As-You-Go Policy
4. Water Transfer Fund
5. Financial Modeling / Reporting
6. Capital Financing

DRAFT POSITION PAPER 1

WORKING CAPITAL POLICY

Current Metropolitan policy:

Metropolitan's current working capital policy, as defined in Section 5109 of the Administrative Code, calls for a total of $175 million ($25 million for repairs and claims plus $150 million to pay costs when revenues are below projections) to be held in aggregate in the Revenue Remainder Fund and the General Fund as of June 30 each fiscal year. The $150 million reserve level represents a 500,000 acre-foot shortfall in water sales.

BWG Position:

The BWG report states that Metropolitan's working capital reserve is based on faulty logic and is at least $95 million in excess of needs. Working capital reserve should be based on sales shortfall of 300,000 AF offset by power cost savings of $40 to $70 per AF. The O&M Fund should be included in working capital. The working capital reserve should be re-evaluated after the East side Reservoir Project is in operation.

KPMG Position:

MWD must maintain sufficient reserve funds for periods of significant revenue shortfalls in order to maintain its strong credit-worthiness. Water utilities typically provide for a 3-month operating reserve to provide needed funding during minimal sales periods. MWD should consider the time periods between billing and collections and periods between incurring expenditures and payments to assess working capital needs. MWD should evaluate the need for additional working capital associated with increased risks due to the Eastside Reservoir Project (ERP).

MWD Staff comments:

The history of MWD's working capital policy shows that revisions are made as financial conditions change. The policy is periodically reviewed by staff for adequacy. The current level of $175 million was re-affirmed in the 1995 Long Range Finance Plan, but we acknowledge the need to continue to review the policy in light of the projected decreases in CIP expenditures and the additional security of the ERP.

According to the recommendation in the 1992 Black & Veatch report, MWD's current working capital level should be approximately $250 million (500,000 AF revenue shortfall + 6 weeks of O&M expenditures + $25 million self insurance reserve).

Any reduction in working capital should be phased in as the CIP declines and as the ERP comes onto operation.

Member Agency Work Group Position:

1. This category would be defined as "Operating Funds".
2. The elements of this fund would include: 60 days of O&M (current "O&M" Fund monthly requirement), self insurance retention, additional O&M to meet cash flow needs to be proposed by MWD staff (current "revenue remainder" Fund) and also "general funds".
3. This would be the year end requirement (2 above).
4. The monthly minimum would be 60 days of O&M plus the self insurance retention.

DRAFT POSITION PAPER 2

WATER RATE STABILIZATION FUND

Current Metropolitan policy:

The Water Rate Stabilization Fund (WRSF) was established to hold monies available after all other funding and reserve requirements are met, to be used to smooth future rate increases. The fund has been capped at $200 million, an amount projected to be sufficient to smooth rate increases for approximately 5 years. Monies available in excess of the cap flow to the Pay-As-You-Go Fund.

BWG Position:

The WRSF balance should be increased to approximately $500 million using funds available in PAYG and working capital. This will negate the need for planned rate increases for more than the ten-year period shown in the Finance Plan and the Budget.

MWD's current policy creates an inequitable condition for current customers.

KPMG Position:

Under the current WRSF policy, and as a result of the rate refinement process, MWD's rates are projected to increase at no more than 3 percent in any year for the next five years. The latest water rate projections of Metropolitan indicate that required water rate increases over the next ten year period may be much less than the 3 percent maximum limitation.

MWD should consider linking the WRSF to a percentage of the budget or revenue requirements to synchronize the reserve level with the rising cost of service.

On an annual basis MWD should calculate the impact on rates if a period of drought similar to the 1991 to 1995 period should occur. This procedure will demonstrate the adequacy of the WRSF on an annual basis.

MWD Staff comments:

The current policy needs to be reviewed in light of recent reductions in the CIP which have resulted in lower projected levels of pay-as-you -go expenditures. It may be appropriate to raise or eliminate the cap on the WRSF.

Member Agency Work Group Position:

1. This should be the last bucket in the flow of funds, exception Anaheim.
2. The methodology for establishing targeted minimum and maximum reserve levels is supported by the workgroup.
3. The WRSF should have a minimum and maximum guideline that would trigger Board action. There should also be a reserve target determined by MWD staff.
4. The minimum would be calculated on 1.5 times the estimated reduction in revenue due to a wet year, as proposed by MWD staff.
5. The maximum reserve balance should be based on a 2-3 year wet years sales reductions plus an adjustment for "other" reserve needs as determined in item 6.
6. Other reserve needs should be targeted between $0 and ? as determined through a review of the assumptions that are used in the annual revenue requirement forecast.
7. Board action in August to determine what to "do" if WRSF Fund balance at June 30 of each year is less than minimum or greater than maximum.
8. The $200 million cap should be eliminated.

DRAFT POSITION PAPER 3

PAY-AS-YOU-GO POLICY

Current Metropolitan policy:

To preserve debt capacity for evolving or unexpected financial needs, the Board's objective shall be to fund on a pay-as-you-go basis 20 percent of capital program expenditures of Metropolitan, including the costs of:

(a) Capital facilities or projects totaling $1,000,000 or less.

(b) Capital assets with estimated payback periods or useful lives shorter than the calculated average life of alternative long-term bond financing.

(c) Capital improvement program studies.

(d) Other lawful purposes as determined by the Board.

The costs relating to provisions (a) through (c) above shall be paid from operating revenues, including revenues derived from water standby or availability service charges or benefit assessments, and proceeds from disposals of surplus property made available for expenditure by the Board in the Pay-As-You-Go Fund

The 20 percent goal is based on the balance between PAYG and debt that will keep revenue bond debt/equity ratios below 80 percent. Current projections show that the 20 percent goal appears to be appropriate to achieve this objective.

BWG Position:

Use of the PAYG Fund as the repository for cash in excess of established working capital and rate stabilization requirements violates the rationale for PAYG and results in higher water rates than are necessary. In addition, PAYG financing should come only from current revenues. Year-end balances should not be accumulated in this fund, but instead accumulated in the WRSF to be used to mitigate future rate increases.

KPMG Position:

MWD' PAYG policy is an important component of MWD's strong credit rating.

PAYG funding should at least be sufficient to keep the revenue bond debt/equity ratio below 90 percent.

To continue to maintain a reliable water system and a strong credit rating, the MWD should fund PAYG at a level approximately equal to 75 percent to 100 percent of its annual depreciation. Using this methodology and based on the 1994-95 information, the PAYG level would have been $97 to $129 million.

MWD Staff comments:

PAYG is an important component of our strong credit rating which reduces borrowing costs for the benefit of all ratepayers. The PAYG Fund provides additional financial flexibility since expenditures can be adjusted according to financial conditions. In the past PAYG levels have been significantly reduced in years when large rate increases were implemented. The balance between PAYG and debt issuance (20 percent / 80 percent) has been instrumental in preserving revenue bond capacity and holding MWD's debt/equity ratio to a reasonable level.

Due to impending restructuring and deregulation, the electric industry is moving to increased levels of PAYG while reducing debt. MWD must be cognizant of similar uncertainties facing us that argue against reducing PAYG levels. Greater levels of debt reduce financial flexibility to deal with major issues such as restructuring and deregulation.

Member Agency Work Group Position:

1. Not the last bucket, Anaheim exception.
2. Not a reserve fund.
3. Defined as a restricted "capital fund" to be used specifically for financing the Capital Improvement Program.
4. The target for the year end balance should be the greater of the amount required to arrive at the 20percent goal or one half of annual projected PAYG expenditures (PAYG expended to date through June 30, 1997 is 20percent).
5. MWD staff to return with methodology to arrive at a PAYG percentage target.

DRAFT POSITION PAPER 4

WATER TRANSFER FUND

Current Metropolitan policy:

The Water Transfer Fund was established to provide funding for the purchase of water transfer options and, when needed, the purchase of transfer water. Monies are also accumulating in the Water Transfer Fund to finance the fill of the Eastside Reservoir Project.

The Water Transfer Fund is scheduled to "sunset" in the year 2004, to coincide with the beginning of ERP operations. The need for water transfer purchases will be built into future water rate forecasts.

BWG Position:

MWD has not made a compelling case for the Water Transfer Fund. Only small payments have been made from this fund and this fund is less likely to be needed upon completion of the ERP.

KPMG Position:

MWD should use the Water Transfer Fund to purchase water options to minimize the cost of water during peak use periods.

The Water Transfer Fund will permit Metropolitan to have available funding to pay for filling the ERP with minimal impact on water rates.

MWD Staff comments:

The Water Transfer Fund should be used for its stated purposes so as to minimize rate impacts. The need for and size of the fund will be evaluated after the ERP comes into operation. The fund's availability provides MWD the ability to purchase water and/or options for water when they are relatively inexpensive during wet periods and utilizes reserves thereby relieving the pressure to generate transfer funds during an Annual Budget cycle.

Member Agency Work Group Position:

1. General consensus, except for the San Diego County Water Authority was reached in support of the current funding policy .
2. Need for the fund should be re-evaluated once the initial fill of the Eastside Reservoir is completed.

DRAFT POSITION PAPER 5

FINANCIAL MODELING / REPORTING

Current Metropolitan policy:

MWD has developed a sophisticated financial model that is maintained jointly by the Finance and Business Services Division and the Planning and Resources Division. The model is used regularly to run "what-if" scenarios based on various assumptions about the future.

Financial reporting is done in accordance with accepted accounting principles where appropriate. Financial reporting to the Board of Directors is the main focus of staff, with the Board as the main audience. Assumptions for levels of risk, targets, etc. are developed by MWD staff.

BWG Position:

Use the Long Range Financial Planning Process as the basis for rate setting. Modify the planning process to include timely annual assessments of the CIP, current assessment of reserve requirements, projections of use of available reserves in excess of requirements and a more customer focused approach to financial planning.

Use the financial planning model to examine a wider range of planning parameters focused on lowering the present value cost to the customer of revenue requirements, consistent with the financial and management practices of utilities maintaining A to AA bond ratings.

Develop a formal assumptions management process and clearly display a table of assumptions in all planning documents.

Have the Audit Department review financial reporting to improve the content, consistency and continuity of flow of information in various financial reports and planning documents.

KPMG Position:

Most of the financial documents produced by MWD are prepared primarily for the Board of Directors and not directly for the public. As consequence some customer groups may not fully understand the results and impacts of some of the Board's decisions.

MWD should simplify the presentation of uses of Metropolitan's financial statement net income in financial statements.

Preparation of revenue requirements should specify services provided to customers.

Reconciliation reports (showing adjustment to previous reports) should be prepared to demonstrate links to previous presentations.

MWD Staff comments:

The financial model is periodically revised and improved by staff as required by changing conditions.

Use of present value analysis is not currently part of our financial planning. In an effort to research the use of present value analysis by other utilities we contacted other utilities and also requested our financial advisor to research the issue. We were unable to find any utility currently using present value analysis in their financial planning.

Improvements are needed in financial reporting to ensure that customers understand the reasons behind Board decisions that affect them financially. The Chief Financial Officer has established an internal work group to recommend improvements in financial reporting. This group will also analyze to creation of a report entitled "assumptions manager" as recommended by BWG.

Member Agency Work Group Position:

1. Support for an open collaborative process with member agencies:
    - input from Board and member agencies
    - keep work group together
    - quarterly meetings of work group
2. Improved documentation of assumptions with graphic representations would improve process.
3. Better communication and justification of assumptions needed.
4. Annual ten year water rate projection and projection of fund balances for: Rate Stabilization Funds; Pay-As-You-Go Fund; and Current Year Revenue Shortfall.
5. Presentation of financial information needs to be more easily understood by member agencies.

DRAFT POSITION PAPER 6

CAPITAL FINANCING

Current Metropolitan policy:

MWD uses a mix of long-term fixed rate revenue bonds, short-term commercial paper and pay-as-you-go from current revenues to finance the CIP.

Credit ratings are: AAA/Aaa for general obligation bonds
AA/Aa for revenue bonds
A-1+/P1 for

Pay-As-You-Go is targeted at 20percent of CIP expenditures, with an overall goal of achieving an optimum mix of PAYG, commercial paper and revenue bonds that will keep the revenue bond debt/equity ratio below 80percent.

The goal for junior lien revenue bond debt service coverage is to maintain at least 2 times coverage.

The goal for issuance of short-term debt is to have approximately 15percent of outstanding debt in short-term mode.

The MWD Asset Financing Corporation (MWDAFC) has been established to provide additional financing flexibility. It is planned to use the MWDAFC to issue debt that will be used to reimburse the General Fund which is currently the source of funding for the Headquarters Building Project.

BWG Position:

MWD should make greater use of short-term commercial paper (but not for non-construction purposes such as retirement of the Allen-McCulloch Pipeline COP's).

MWD should issue longer term fixed rate debt (40 to 50 years) to better match long term liabilities to the useful life of the facilities being financed.

MWD should make an adequate effort to shift expenditures into the future to more appropriately match revenue requirements and benefits to be derived from the completion of major construction projects.

The revenue bond limitation in the MWD Act is not a significant constraint on the ability to finance the CIP.

Construction expenditure estimates are not sufficiently accurate in support of the rate setting process.

KPMG Position:

A 2:1 coverage ratio is normal for a large established water utility. According to Moody's, the median debt service for municipal water utilities is 2.17:1.

In order to maintain the minimum required debt to equity ratio and to reserve part of Metropolitan's debt capacity, MWD should provide funds for PAYG financing sufficient to limit the revenue bond debt/equity ratio to 90:1 for the maximum projected debt.

MWD Staff comments:

Key parameters used to develop the capital financing strategy are projected rates and charges, the revenue bond debt equity ratio, debt service coverage and preservation of high credit ratings. The above stated current policy is designed to use existing financing tools in a balanced manner to achieve the parameters in the lowest cost manner.

The General Manager has Board-approved authorization to issue up to $400 million in commercial paper. To date, $200 million has been issued, with plans to issue an additional $100 million in fiscal year 1997-98. The remaining capacity will be reserved for unanticipated needs.

Our 1996 Series C revenue bond issue included $15 million in 40-year bonds. We found that the market for such "long bonds" was very limited. We will continue to monitor this market and , when appropriate, include longer-term bonds in future issues. However, it is important to balance the financing of longer-life capital projects with the higher total interest costs of longer-term bonds.

In the 1987 Long Range Finance Plan, the Board set a goal of holding the revenue bond debt/equity ratio at or below 80 percent to preserve flexibility for future unknown requirements.

MWD is closely monitoring the increasing trend in the electric industry to pay down debt as quickly as possible to insure flexibility in pricing structures.

MWD's record of capital expenditures compared to projections has been steadily improving as large fixed-payment contracts are awarded for the ERP. In recent months actual capital expenditures have been running 75 percent to 80 percent of projections.

Member Agency Work Group Position:

1. Support to set a maximum ceiling for variable rate debt exposure (change terminology from "goal" to "ceiling" or "maximum").
2. Support in concept the use of a mix of variable rate and fixed rate debt based on market conditions and the cost of the financing to MWD.
3. The San Diego County Water Authority supports an increase in variable rate debt exposure.
4. Capital financing policies should be developed with input from member agencies and continually reviewed with member agencies and the Board.
5. PAYG percentage needs to continue to be reviewed.
6. The overall capital financing objective of Metropolitan should be to balance the cost of borrowed funds and rate increases to provide equity between current and future users of the system.

Appendix 2

Member Agency Finance Survey

To provide background information and to share information to enhance the Work Group process, a finance survey was sent to all the member agencies requesting information on financial condition and financial policies and practices. The information requested in the survey was divided into the following categories:

- Agency
- Financial Information (As of latest fiscal year-end)
- Financial Authority
- Financial Policies or Practices (Whichever is applicable)
- Capital Improvement Program Expenditure Forecasts
- Debt Issuance Policies
- Limitations

Nineteen of the 27 member agencies responded to the survey:

City of Los Angeles
MWD of Orange County
City of Pasadena
City of Burbank
Eastern MWD
City of Long Beach
West Basin MWD
Foothill MWD
Chino Basin MWD
City of San Marino
San Diego County Water Authority
Las Virgenes MWD
City of Glendale
City of Anaheim
City of Torrance
Central Basin MWD
Coastal MWD
City of Santa Monica
City of Beverly Hills

The survey responses have been consolidated into the summary document included at the end of this section. Responses for MWD have also been included for comparative purposes.

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MWD/MEMBER AGENCY FINANCE WORK GROUP
(ALL DOLLAR FIGURES ARE IN MILLIONS.)

	PERCENT OF WATER SOLD WHOLESALE	PERCENT OF WATER SOLD RETAIL	AGENCY SUBJECT TO CPUC REGULATIONS	TOTAL ASSETS, AS OF END OF FY 1996 ($MIL.)	EQUITY, AS OF END OF FY 1996	C.I.P. EXPENDITURE PROJECTIONS (1-YEAR)	C.I.P. EXPENDITURE PROJECTIONS (5-YEARS)	C.I.P. EXPENDITURE PROJECTIONS (10-YEAR)	G.O. BOND AUTHORITY	REVENUE BOND AUTHORITY	COMMERCIAL PAPER AUTHORITY
MWD OF SOUTHERN CALIFORNIA	100%	0%	N	$6,115.0	$3,363.0	$468.2	$2,384.0	$3,598.0	Y	Y	Y
CENTRAL BASIN MWD	97%	3%	N	$80.7	$22.6	$1.4	$5.0	---	Y	Y	Y
CHINO BASIN MWD	100%	0%	N	$331.0	$225.0	---	---	---	Y	Y	N
CITY OF ANAHEIM	0%	100%	N	$211.2	$158.3	$13.6	$43.8	$75.0	N	Y	Y
CITY OF BEVERLY HILLS	---	Y	N	$61.2	$36.2	$4.6	$32.1	---	N	Y	N
CITY OF BURBANK	---	Y	N	$36.2	$18.5	---	---	---	N	Y	N
CITY OF GLENDALE	---	---	N	$82.0	$82.0	$3.0	$3.0	$3.0	Y	Y	---
CITY OF LONG BEACH	---	100%	N	$203.5	$137.5	$34.5	$97.8	---	N	Y	N
CITY OF PASADENA	0%	100%	N	$82.3	$45.2	$4.0	$20.0	$40.0	N	Y	Y
CITY OF SAN MARINO	---	Y	Y	---	42%	---	---	---	N	N	---
CITY OF SANTA MONICA	---	Y	N	$29.8	$28.2	---	---	---	Y	Y	N
CITY OF TORRANCE	---	Y	N	$123.0	---	$2.3	$15.0	$30.0	Y	N	Y
COASTAL MWD	Y	---	N	$6.7	$0.6	---	---	---	N	N	N
EASTERN MWD	10%	90%	N	$1,089.0	$717.5	$40.0	$125.0	---	Y	Y	---
FOOTHILL MWD	100%	0%	N	$5.6	$4.8	$0.3	$1.8	$3.5	Y	Y	Y
LAS VIRGENES MWD	---	Y	N	$241.1	$169.1	$2.3	$11.8	---	Y	Y	N
LOS ANGELES--DWP	0%	100%	N	$2,332.5	$1,305.2	$174.0	$1,551.0	$2,200.0	N	Y	Y
MWD ORANGE COUNTY	Y	---	N	$31.6	$7.8	---	---	---	N	Y	Y
SAN DIEGO CWA	100%	---	N	$904.3	$394.5	$70.0	$186.3	$291.9	Y	N	Y
WEST BASIN MWD	93%	7%	N	$301.9	$67.8	$50.0	$114.0	---	Y	Y	Y

"---" INDICATES NO RESPONSE OR NOT APPLICABLE.

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MWD/MEMBER AGENCY FINANCE WORK GROUP
(ALL DOLLAR FIGURES ARE IN MILLIONS.)

	CERTIFICATES OF PARTICIPATION AUTHORITY	TOTAL ANNUAL OPERATING REVENUE	ANNUAL OPERATING EXPENSES	LONG-TERM DEBT OUTSTANDING	SHORT-TERM DEBT OUTSTANDING	SENIOR LIEN DEBT SERVICE COVERAGE (MIN.)	JUNIOR LIEN DEBT SERVICE COVERAGE (MIN.)	DEBT TO EQUITY RATIO	BOND RATING OF SENIOR, LONG-TERM DEBT	BOND RATING OF JUNIOR, LONG-TERM DEBT	BOND RATING OF SHORT-TERM DEBT
MWD OF SOUTHERN CALIFORNIA	Y	$690.3	$328.8	$2,055.3	$43.6	---	---	0.62	AA+	AA	A-1+
CENTRAL BASIN MWD	Y	$44.0	$44.4	$58.0	$7.0	1.15	---	2.56	AAA	---	---
CHINO BASIN MWD	Y	$38.9	$49.0	$85.9	$1.7	1.2	---	0.39	AAA	---	---
CITY OF ANAHEIM	Y	$36.5	$27.0	$44.6	$0.0	---	---	0.29	AA	---	---
CITY OF BEVERLY HILLS	Y	$13.6	$13.3	$21.2	$1.0	1.1	---	0.69	AA	---	---
CITY OF BURBANK	N	$14.1	$14.0	$9.8	---	---	---	1.20	---	---	---
CITY OF GLENDALE	---	$25.0	$25.0	$5.6	$3.4	---	---	---	---	---	---
CITY OF LONG BEACH	N	$70.8	$60.6	$51.0	$2.6	1.1	---	0.44	AA	---	---
CITY OF PASADENA	Y	$22.5	$20.4	$28.6	$0.6	---	---	0.64	AA	---	---
CITY OF SAN MARINO	---	$14.1	$8.6	---	---	---	---	0.58	A	---	---
CITY OF SANTA MONICA	Y	$13.1	$10.4	$0.0	$0.0	---	---	---	---	---	---
CITY OF TORRANCE	Y	$20.0	$17.0	$8.0	$0.0	1.2	---	---	AAA	---	---
COASTAL MWD	N	$30.4	$0.4	---	---	---	---	---	---	---	---
EASTERN MWD	Y	$67.7	$89.9	$288.1	$6.2	1.1	---	1.10	A1	---	---
FOOTHILL MWD	N	$4.9	$4.8	$0.0	$0.0	---	---	0.15	---	---	---
LAS VIRGENES MWD	Y	$28.4	$21.6	$60.1	$11.9	---	---	2.35	AAA	---	---
LOS ANGELES--DWP	N	$422.9	$271.0	$697.0	$0.0	1.25	0	1.70	AA	---	---
MWD ORANGE COUNTY	Y	$81.2	$81.0	$0.0	$0.0	---	---	---	---	---	---
SAN DIEGO CWA	Y	$229.5	$178.5	$457.2	$40.0	1.2	1	1.16	AA	---	A1
WEST BASIN MWD	Y	$82.7	$83.4	$207.0	$75.0	1.15	---	3.46	AAA	---	---

"---" INDICATES NO RESPONSE OR NOT APPLICABLE.

MWD/MEMBER AGENCY FINANCE WORK GROUP
(ALL DOLLAR FIGURES ARE IN MILLIONS.)

	OPERATING RATIO	EFFECTIVE RATE (OPERATING REVENUE/TOTAL WATER SALES)	AUTOMATIC PASS THROUGH OF MWD RATES	BOARD OF DIRECTORS OR COUNCIL REQUIRED TO APPROVE PASSING ON MWD RATE HIKES	PROPERTY TAXING AUTHORITY	1995-96 TAX COLLECTIONS	STANDBY CHARGE AUTHORITY	1995-96 STANDBY COLLECTIONS
MWD OF SOUTHERN CALIFORNIA	0.476	1.11	----	----	Y	$71.1	Y	$51.5
CENTRAL BASIN MWD	---	1.05	Y	N	N	---	Y	$3.1
CHINO BASIN MWD	1.017	340.00	N	N	Y	$12.6	Y	$0.0
CITY OF ANAHEIM	4.7X	---	Y	N	N	---	N	N/A
CITY OF BEVERLY HILLS	1.1	13.80	N	---	N	---	N	N/A
CITY OF BURBANK	---	---	Y	N	---	---	---	---
CITY OF GLENDALE	---	---	Y	---	N	---	N	---
CITY OF LONG BEACH	18.6	107.00	Y	N	N	---	N	---
CITY OF PASADENA	0.33	1.60	Y	---	N	---	Y	$7.6
CITY OF SAN MARINO	---	---	Y	---	N	---	N	---
CITY OF SANTA MONICA	---	1.12	N	Y	N	---	Y	$4.0
CITY OF TORRANCE	---	---	Y	N	N	---	N	---
COASTAL MWD	---	---	Y	---	N	---	Y	---
EASTERN MWD	---	---	N	---	Y	$9.6	Y	$3.8
FOOTHILL MWD	---	1.00	N	Y	Y	$31.3	N	$0.0
LAS VIRGENES MWD	0.75	---	Y	N	Y	$0.2	Y	$0.5
LOS ANGELES--DWP	0.49	---	Y	N	N	---	N	---
MWD ORANGE COUNTY	99.8	377.00	Y	---	N	$0.0	Y	$0.0
SAN DIEGO CWA	1.28	---	Y	N	Y	$5.5	Y	$10.5
WEST BASIN MWD	---	1.08	Y	N	N	---	Y	$9.7

*"---" INDICATES NO RESPONSE OR NOT APPLICABLE.

	DEBT SERVICE COVERAGE REQUIRED	FIXED VS. VARIABLE RATE DEBT POLICY	NEGOTIATED VS. COMPETITIVE DEBT SALES	WORKING CAPITAL POLICY	PAY-AS-YOU-GO CONSTRUCTION POLICY	LIMITATIONS ON TAXING AUTHORITY	LIMITATIONS ON REVENUE BONDS	LIMITATIONS ON COMMERCIAL PAPER
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	AT LEAST 2.00 TO 1 COVERAGE RATIO	NOT TO EXCEED 15% OF ALL OUTSTANDING DEBT. USE OF FIXED-RATE DEBT IS DISTRICT'S PRIMARY METHOD.	DEPENDS ON THE MARKET.	EQUAL TO THE SUM OF $25M FOR EMERGENCY REPAIRS PLUS $150M FOR GENERAL PURPOSES IN EVENT OF INSUFFICIENT REVENUES TO PAY COSTS OF DISTRICT.	TO PAY APPROXIMATELY 20% OF THE CIP ON A PAYGO BASIS.	WITHIN LIMITS OF MWD ACT, CALIFORNIA REV AND TAX CODE, AND CALIFORNIA CONSTITUTION. FUTURE TAXES ARE RESTRICTED TO AMOUNT NEEDED TO PAY SERVICE OF G.O BONDS.	TOTAL OF REVENUE BONDS OUTSTANDING CANNOT EXCEED THE EQUITY OF THE DISTRICT, AS OF FISCAL YEAR END PRIOR TO ISSUANCE. MWD BOARD GUIDELINE IS NOT TO EXCEED 80% OF ABOVE.	$400 MILLION MAXIMUM.
CENTRAL BASIN MWD	DISTRICT IS REQUIRED TO MAINTAIN A 1.15 TO 1.00 DEBT SERVICE RATIO	---	DEPENDS ON THE MARKET	---	---	---	ASSIST IN REFINANCING THE ACQUISITION, CONSTRUCTION AND IMPROVEMENT OF WATER RECLAMATION FACILITIES.	---
CHINO BASIN MWD	MASTER RESOLUTION FOR $87.1 MILLION REVENUE BOND ISSUE. REQUIRES A 1.2 COVERAGE.	INDUSTRIAL DEVELOPMENT BONDS ARE VARIABLE RATE, WHEREAS REVENUE BONDS ARE FIXED RATE OBLIGATIONS.	THE DISTRICT WOULD NOT EXCLUDE EITHER OF THESE OPTIONS.	DISTRICT BOND COVENANTS REQUIRE 4 MONTHS OF OPERATING RESERVES.	CONNECTION FEES AND PROPERTY TAX RECEIPTS ARE SUPPLEMENTED BY DEBT ISSUANCE TO FUND CAPITAL PROJECT CONSTRUCTION.	PROP 13.	MEMBER AGENCY APPROVAL.	---
CITY OF ANAHEIM	NOT FORMALIZED--TARGET OF 2.0X OR BETTER.	NOT FORMALIZED--ALL DEBT CURRENTLY FIXED.	COMPETITIVE	NOT FORMALIZED--TARGET OF 45 DAYS CASH ON HAND.	CONSTRUCTION FINANCED BY RATES, BONDS OR COMBINATION. NO CURRENT PLANS FOR ADDITIONAL BONDS.	UTILITY HAS NO TAXING AUTHORITY	LIMITED BY BOND COVENANTS.	$2.5 MILLION AUTHORIZED, NONE OUTSTANDING.

	DEBT SERVICE COVERAGE REQUIRED	FIXED VS. VARIABLE RATE DEBT POLICY	NEGOTIATED VS. COMPETITIVE DEBT SALES	WORKING CAPITAL POLICY	PAY-AS-YOU-GO CONSTRUCTION POLICY	LIMITATIONS ON TAXING AUTHORITY	LIMITATIONS ON REVENUE BONDS	LIMITATIONS ON COMMERCIAL PAPER
CITY OF BEVERLY HILLS	THE CITY'S BOND COVENANTS REQUIRE COVERAGE OF 110% OF BONDED DEBT SERVICE.	TO DATE, ALL DEBT ISSUES HAVE BEEN FIXED RATE--MAY CONSIDER VARIABLE IN THE FUTURE.	USE OF COMPETITIVE SALES, UNLESS THERE IS A COMPELLING REASON TO NEGOTIATE.	ATTEMPT TO MAINTAIN AT LEAST A FULL YEAR'S RESERVE IN UNRESTRICTED CASH. THIS PROVIDES INTEREST INCOME, SMOOTHES RATE ADJUSTMENTS, ALLOWS FOR DECISION MAKING.	ATTEMPT TO DEDICATE AT LEAST $1.5 MILLION OF CASH FLOW ANNUALLY TO CAPITAL PROJECTS.	NO TAXING AUTHORITY.	NONE, OTHER THAN BY A CASE BY CASE DECISION FROM THE CITY COUNCIL.	NONE OTHER THAN BY A CASE BY CASE DECISION FROM THE CITY COUNCIL.
CITY OF BURBANK	1.2 TO 1.0. RESERVE REQUIREMENTS INCLUDE ONE YEAR OF PRINCIPAL AND INTEREST.	---	COMPETITIVE.	---	---	---	---	---
CITY OF GLENDALE	---	---	---	---	---	---	---	---
CITY OF LONG BEACH	MINIMUM IS 1.10 TO 1.00. CURRENT SENIOR LIEN DEBT HAS A 6.97 RATIO.	---	---	---	---	"NOT SECURED BY A PLEDGE OF THE TAXING POWER OF THE CITY OF LONG BEACH."	---	---

	DEBT SERVICE COVERAGE REQUIRED	FIXED VS. VARIABLE RATE DEBT POLICY	NEGOTIATED VS. COMPETITIVE DEBT SALES	WORKING CAPITAL POLICY	PAY-AS-YOU-GO CONSTRUCTION POLICY	LIMITATIONS ON TAXING AUTHORITY	LIMITATIONS ON REVENUE BONDS	LIMITATIONS ON COMMERCIAL PAPER
COASTAL MWD	---	---	---	---	---	---	---	---
EASTERN MWD	BOND COVENANTS REQUIRE MINIMUM OF 1.10 TO 1.0.	NO WRITTEN POLICY. HAVE ISSUED SOME VARIABLE RATE DEBT WITH SWAP AGREEMENTS.	DICTATED BY MARKET CONDITIONS, HAS BEEN NEGOTIATED SINCE 1991.	OPERATING REVENUES = OPERATING COSTS, EXCLUDING DEPRECIATION. DEBT: ASSETS = MAX 1:3	$10/AF SOLD IS APPROPRIATED AND RESTRICTED TO REPLACEMENT FUND, EXCESS OPERATION FUND IS TRANSFERRED TO CONSTRUCTION FUND THEN TO CIP.	---	---	---
FOOTHILL MWD	N/A. CAPITAL IMPROVEMENTS ARE FUNDED BY PAYGO.	---	---	DESIRED LEVEL OF RESERVE WORKING CAPITAL TO BE EQUIVALENT OF THREE MONTHS OF BUDGETED ANNUAL OPERATING AND ADMIN EXPENSE, EXCLUDING DEPREC.	ALL CIP IS PAYGO.	PROP. 13	---	---
LAS VIRGENES MWD	REQUIRED TO MAINTAIN A RESERVE FUND AND A RATE STABILIZATION FUND, EACH EQUAL TO ANNUAL DEBT SERVICE REQUIREMENT AND INSTALLMENT PAYMENT FUND.	---	---	---	---	APPLICABLE ONLY TO VOTER APPROVED BONDED INDEBTEDNESS.	---	NOT PERMITTED FOR INVESTMENT BY BOARD POLICY.

	DEBT SERVICE COVERAGE REQUIRED	FIXED VS. VARIABLE RATE DEBT POLICY	NEGOTIATED VS. COMPETITIVE DEBT SALES	WORKING CAPITAL POLICY	PAY-AS-YOU-GO CONSTRUCTION POLICY	LIMITATIONS ON TAXING AUTHORITY	LIMITATIONS ON REVENUE BONDS	LIMITATIONS ON COMMERCIAL PAPER
CITY OF PASADENA	SENIOR LIEN COVERAGE IS CURRENTLY 2.55. MINIMUM REQUIREMENT IS NOT SPECIFIED.	N/A. NO VARIABLE RATE DEBT HAS BEEN USED.	DEPARTMENT POLICY SPECIFIES NEGOTIATED DEBT SALES.	NO STANDARD POLICY. COUNCIL APPROVES INVESTMENT POLICY, CONSISTENCY WITH GOVT. & INDUSTRY STANDARDS.	PAY AS YOU GO IS TO BE USED, AS NO ADDITIONAL ISSUANCE OF DEBT IS PLANNED IN THE NEAR FUTURE.	DEPARTMENT HAS NO AUTHORITY TO TAX.	LIMITED TO CHARTER SECTIONS 1411 ET. SEQ.	DEPARTMENT DOES NOT ISSUE COMMERCIAL PAPER.
CITY OF SAN MARINO	---	---	---	---	---	---	---	---
CITY OF SANTA MONICA	---	---	---	NO ADOPTED FORMAL POLICY	NO ADOPTED FORMAL POLICY	---	---	---
CITY OF TORRANCE	MAINTAIN MINIMUM DEBT SERVICE RATIO OF 2.0 TO 1.0.	---	COMBINATION OF NEGOTIATED AND COMPETITIVE.	TO MAINTAIN $5 MILLION AS UNENCUMBERED AVAILABLE WORKING CAPITAL.	CURRENTLY ALL CIP EFFORTS ARE FUNDED AT THE RATE OF $3 MILLION PER YEAR AS PAYGO.	TAXING AUTHORITY LIES WITH THE CITY OF TORRANCE	---	CITY HAS AUTHORITY, NOT WATER DEPARTMENT

	DEBT SERVICE COVERAGE REQUIRED	FIXED VS. VARIABLE RATE DEBT POLICY	NEGOTIATED VS. COMPETITIVE DEBT SALES	WORKING CAPITAL POLICY	PAY-AS-YOU-GO CONSTRUCTION POLICY	LIMITATIONS ON TAXING AUTHORITY	LIMITATIONS ON REVENUE BONDS	LIMITATIONS ON COMMERCIAL PAPER
LOS ANGELES--DWP	MAINTAIN A TARGET LEVEL OF AT LEAST 1.90. MINIMUM OF DEBT RATIO OF 1.25. EQUITY TO DEBT RATIO MINIMUM IS 60%	VARIABLE RATE DEBT CANNOT EXCEED 15% OF TOTAL DEBT OUTSTANDING.	COMPETITIVE SALES, UNLESS MARKET DICTATES OTHERWISE.	CURRENT POLICY REQUIRES A MINIMUM CASH BALANCE OF $30 MILLION, HOWEVER, THE POLICY IS UNDER REVIEW FOR POSSIBLE INCREASE TO $40 MILLION	POLICY HAS BEEN PAY AS YOU GO OF APPROXIMATELY 65%, WHICH WILL BE DECREASED TO 55% STARTING IN JANUARY 1997.	---	LIMITED BY MINIMUM EQUITY TO DEBT RATIO OF 60%, INTEREST COVERAGE OF 2.00 AND DEBT SERVICE COVERAGE OF 1.25.	LIMITED BY DEBT SERVICE RATIO OF 1.25.
MWD OF ORANGE COUNTY	---	---	---	NOT LESS THAN $3 MILLION.	---	PROPOSITIONS 13 & 14: MWDOC HAD NO AD VALOREM TAX TO PLACE PRIOR TO ENACTMENT OF THESE PROPOSITIONS. PROP 1`3-B SPENDING LIMIT EQUAL TO $0.	AS DEFINED BY THE 1991 REVENUE BOND LAW.	12% MAX INTEREST RATE, 5-YEAR MATURITY, CANNOT EXCEED $5MIL, $3 MIL IF USED FOR DISTRICT OFFICE, WITH A 10 -YEAR MATURITY.
SAN DIEGO CWA	NET WATER REVENUES AT 120% OF SENIOR LIEN DEBT SERVICE. 100% OF TOTAL DEBT SERVICE (INCLUDING COMM PAPER).	VARIABLE NOT TO EXCEED 25% OF TOTAL DEBT.	TRANSACTION DEPENDENT.	60 DAYS OF OPERATING BUDGET.	17.5% TO 20% OF THE CAPITAL NEEDS WILL BE FUNDED BY PAY AS YOU GO CONSTRUCTION.	STANDARD	VOTER APPROVAL	BOARD AUTHORITY UP TO $250 MILLION.
WEST BASIN MWD	DISTRICT IS REQUIRED TO MAINTAIN A 1.15 TO 1.00 DEBT SERVICE RATIO.	---	DEPENDS ON MARKET	---	---	---	ASSIST IN REFINANCING THE ACQUISITION, CONSTRUCTION AND IMPROVEMENT OF WATER RECLAMATION FACILITIES.	---

	LIMITATIONS ON REVENUE BONDS	LIMITATIONS ON COMMERCIAL PAPER	LIMITATIONS ON STANDBY CHARGES	LIMITATIONS ON TOTAL DEBT
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	TOTAL OF REVENUE BONDS OUTSTANDING CANNOT EXCEED THE EQUITY OF THE DISTRICT, AS OF FISCAL YEAR END PRIOR TO ISSUANCE. MWD BOARD GUIDELINE IS NOT TO EXCEED 80% OF ABOVE.	$400 MILLION MAXIMUM.	FUNDS CAN ONLY BE USED TO CAPITAL PAYMENTS ON THE SWP, OR WATER STORAGE (E.G., EASTSIDE RESERVOIR).	TOTAL DEBT LIMITED TO 15% OF THE ASSESSED VALUE OF ALL TAXABLE PROPERTY WITHIN DISTRICT.
CENTRAL BASIN MWD	ASSIST IN REFINANCING THE ACQUISITION, CONSTRUCTION AND IMPROVEMENT OF WATER RECLAMATION FACILITIES.	---	EARMARKED FOR DEBT SERVICE AND CAN BE USED FOR CONSTRUCTION	---
CHINO BASIN MWD	MEMBER AGENCY APPROVAL.	---	HAS NEVER BEEN USED, MEMBER AGENCY APPROVAL REQUIRED.	SERVICE AREA GROWTH AND DEVELOPMENT, TOGETHER WITH MARKET FORCES.
CITY OF ANAHEIM	LIMITED BY BOND COVENANTS.	$2.5 MILLION AUTHORIZED, NONE OUTSTANDING.	---	LIMITED BY BOND COVENANTS.

	LIMITATIONS ON REVENUE BONDS	LIMITATIONS ON COMMERCIAL PAPER	LIMITATIONS ON STANDBY CHARGES	LIMITATIONS ON TOTAL DEBT
CITY OF BEVERLY HILLS	NONE, OTHER THAN BY A CASE BY CASE DECISION FROM THE CITY COUNCIL.	NONE OTHER THAN BY A CASE BY CASE DECISION FROM THE CITY COUNCIL.	WOULD BE INCLUDED IN OPERATING EXPENSES AS A PART OF RATE BASIS.	NO FORMAL POLICY.
CITY OF BURBANK	---	---	---	---
CITY OF GLENDALE	---	---	---	---
CITY OF LONG BEACH	---	---	---	---

	LIMITATIONS ON REVENUE BONDS	LIMITATIONS ON COMMERCIAL PAPER	LIMITATIONS ON STANDBY CHARGES	LIMITATIONS ON TOTAL DEBT
COASTAL MWD	---	---	---	---
EASTERN MWD	---	---	SOME RESTRICTIONS, BUT NOT SPECIFIED IN SURVEY.	DEBT: ASSET = MAX 1:3.
FOOTHILL MWD	---	---	---	---
LAS VIRGENES MWD	---	NOT PERMITTED FOR INVESTMENT BY BOARD POLICY.	LIMITED CURRENTLY TO REPLACEMENT FUNDS RELATIVE TO POTABLE WATER SYSTEM FACILITIES.	---

	LIMITATIONS ON REVENUE BONDS	LIMITATIONS ON COMMERCIAL PAPER	LIMITATIONS ON STANDBY CHARGES	LIMITATIONS ON TOTAL DEBT
CITY OF PASADENA	LIMITED TO CHARTER SECTIONS 1411 ET. SEQ.	DEPARTMENT DOES NOT ISSUE COMMERCIAL PAPER.	CITY ORDINANCE STATES LIMITS FOR STANDBY CHARGES.	NONE. RATIOS AND CREDIT EVALUATIONS ARE MONITORED REGULARLY BY MANAGEMENT.
CITY OF SAN MARINO	---	---	---	---
CITY OF SANTA MONICA	---	---	---	---
CITY OF TORRANCE	---	CITY HAS AUTHORITY, NOT WATER DEPARTMENT	CITY HAS AUTHORITY, NOT WATER DEPARTMENT	CITY HAS AUTHORITY, NOT WATER DEPARTMENT

	LIMITATIONS ON REVENUE BONDS	LIMITATIONS ON COMMERCIAL PAPER	LIMITATIONS ON STANDBY CHARGES	LIMITATIONS ON TOTAL DEBT
LOS ANGELES--DWP	LIMITED BY MINIMUM EQUITY TO DEBT RATIO OF 60%, INTEREST COVERAGE OF 2.00 AND DEBT SERVICE COVERAGE OF 1.25.	LIMITED BY DEBT SERVICE RATIO OF 1.25.	---	UP TO 15% OF TOTAL DEBT WILL BE IN THE FORM OF VARIABLE RATES.
MWD OF ORANGE COUNTY	AS DEFINED BY THE 1991 REVENUE BOND LAW.	12% MAX INTEREST RATE, 5-YEAR MATURITY, CANNOT EXCEED $5MIL, $3 MIL IF USED FOR DISTRICT OFFICE, WITH A 10 -YEAR MATURITY.	$10 PER ACRE OR PARCEL LESS THAN AN ACRE.	---
SAN DIEGO CWA	VOTER APPROVAL	BOARD AUTHORITY UP TO $250 MILLION.	---	---
WEST BASIN MWD	ASSIST IN REFINANCING THE ACQUISITION, CONSTRUCTION AND IMPROVEMENT OF WATER RECLAMATION FACILITIES.	---	EARMARKED FOR DEBT SERVICE AND CAN BE USED FOR CONSTRUCTION.	---

	DEBT SERVICE COVERAGE REQUIRED	FIXED VS. VARIABLE RATE DEBT POLICY	NEGOTIATED VS. COMPETITIVE DEBT SALES	WORKING CAPITAL POLICY	PAY-AS-YOU-GO CONSTRUCTION POLICY	LIMITATIONS ON TAXING AUTHORITY
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	AT LEAST 2.00 TO 1 COVERAGE RATIO	NOT TO EXCEED 15% OF ALL OUTSTANDING DEBT. USE OF FIXED-RATE DEBT IS DISTRICT'S PRIMARY METHOD.	DEPENDS ON THE MARKET.	EQUAL TO THE SUM OF $25M FOR EMERGENCY REPAIRS PLUS $150M FOR GENERAL PURPOSES IN EVENT OF INSUFFICIENT REVENUES TO PAY COSTS OF DISTRICT.	TO PAY APPROXIMATELY 20% OF THE CIP ON A PAYGO BASIS.	WITHIN LIMITS OF MWD ACT, CALIFORNIA REV AND TAX CODE, AND CALIFORNIA CONSTITUTION. FUTURE TAXES ARE RESTRICTED TO AMOUNT NEEDED TO PAY SERVICE OF G.O BONDS.
CENTRAL BASIN MWD	DISTRICT IS REQUIRED TO MAINTAIN A 1.15 TO 1.00 DEBT SERVICE RATIO	---	DEPENDS ON THE MARKET	---	---	---
CHINO BASIN MWD	MASTER RESOLUTION FOR $87.1 MILLION REVENUE BOND ISSUE. REQUIRES A 1.2 COVERAGE.	INDUSTRIAL DEVELOPMENT BONDS ARE VARIABLE RATE, WHEREAS REVENUE BONDS ARE FIXED RATE OBLIGATIONS.	THE DISTRICT WOULD NOT EXCLUDE EITHER OF THESE OPTIONS.	DISTRICT BOND COVENANTS REQUIRE 4 MONTHS OF OPERATING RESERVES.	CONNECTION FEES AND PROPERTY TAX RECEIPTS ARE SUPPLEMENTED BY DEBT ISSUANCE TO FUND CAPITAL PROJECT CONSTRUCTION.	PROP 13.

	DEBT SERVICE COVERAGE REQUIRED	FIXED VS. VARIABLE RATE DEBT POLICY	NEGOTIATED VS. COMPETITIVE DEBT SALES	WORKING CAPITAL POLICY	PAY-AS-YOU-GO CONSTRUCTION POLICY	LIMITATIONS ON TAXING AUTHORITY
CITY OF ANAHEIM	NOT FORMALIZED--TARGET OF 2.0X OR BETTER.	NOT FORMALIZED--ALL DEBT CURRENTLY FIXED.	COMPETITIVE	NOT FORMALIZED--TARGET OF 45 DAYS CASH ON HAND.	CONSTRUCTION FINANCED BY RATES, BONDS OR COMBINATION. NO CURRENT PLANS FOR ADDITIONAL BONDS.	UTILITY HAS NO TAXING AUTHORITY
CITY OF BEVERLY HILLS	THE CITY'S BOND COVENANTS REQUIRE COVERAGE OF 110% OF BONDED DEBT SERVICE.	TO DATE, ALL DEBT ISSUES HAVE BEEN FIXED RATE--MAY CONSIDER VARIABLE IN THE FUTURE.	USE OF COMPETITIVE SALES, UNLESS THERE IS A COMPELLING REASON TO NEGOTIATE.	ATTEMPT TO MAINTAIN AT LEAST A FULL YEAR'S RESERVE IN UNRESTRICTED CASH. THIS PROVIDES INTEREST INCOME, SMOOTHES RATE ADJUSTMENTS, ALLOWS FOR DECISION MAKING.	ATTEMPT TO DEDICATE AT LEAST $1.5 MILLION OF CASH FLOW ANNUALLY TO CAPITAL PROJECTS.	NO TAXING AUTHORITY.
CITY OF BURBANK	1.2 TO 1.0. RESERVE REQUIREMENTS INCLUDE ONE YEAR OF PRINCIPAL AND INTEREST.	---	COMPETITIVE.	---	---	---

	DEBT SERVICE COVERAGE REQUIRED	FIXED VS. VARIABLE RATE DEBT POLICY	NEGOTIATED VS. COMPETITIVE DEBT SALES	WORKING CAPITAL POLICY	PAY-AS-YOU-GO CONSTRUCTION POLICY	LIMITATIONS ON TAXING AUTHORITY
CITY OF GLENDALE	---	---	---	---	---	---
CITY OF LONG BEACH	MINIMUM IS 1.10 TO 1.00. CURRENT SENIOR LIEN DEBT HAS A 6.97 RATIO.	---	---	---	---	"NOT SECURED BY A PLEDGE OF THE TAXING POWER OF THE CITY OF LONG BEACH."
CITY OF PASADENA	SENIOR LIEN COVERAGE IS CURRENTLY 2.55. MINIMUM REQUIREMENT IS NOT SPECIFIED.	N/A. NO VARIABLE RATE DEBT HAS BEEN USED.	DEPARTMENT POLICY SPECIFIES NEGOTIATED DEBT SALES.	NO STANDARD POLICY. COUNCIL APPROVES INVESTMENT POLICY, CONSISTENCY WITH GOVT. & INDUSTRY STANDARDS.	PAY AS YOU GO IS TO BE USED, AS NO ADDITIONAL ISSUANCE OF DEBT IS PLANNED IN THE NEAR FUTURE.	DEPARTMENT HAS NO AUTHORITY TO TAX.

	DEBT SERVICE COVERAGE REQUIRED	FIXED VS. VARIABLE RATE DEBT POLICY	NEGOTIATED VS. COMPETITIVE DEBT SALES	WORKING CAPITAL POLICY	PAY-AS-YOU-GO CONSTRUCTION POLICY	LIMITATIONS ON TAXING AUTHORITY
CITY OF SAN MARINO	---	---	---	---	---	---
CITY OF SANTA MONICA	---	---	---	NO ADOPTED FORMAL POLICY	NO ADOPTED FORMAL POLICY	---
CITY OF TORRANCE	MAINTAIN MINIMUM DEBT SERVICE RATIO OF 2.0 TO 1.0.	---	COMBINATION OF NEGOTIATED AND COMPETITIVE.	TO MAINTAIN $5 MILLION AS UNENCUMBERED AVAILABLE WORKING CAPITAL.	CURRENTLY ALL CIP EFFORTS ARE FUNDED AT THE RATE OF $3 MILLION PER YEAR AS PAYGO.	TAXING AUTHORITY LIES WITH THE CITY OF TORRANCE

	DEBT SERVICE COVERAGE REQUIRED	FIXED VS. VARIABLE RATE DEBT POLICY	NEGOTIATED VS. COMPETITIVE DEBT SALES	WORKING CAPITAL POLICY	PAY-AS-YOU-GO CONSTRUCTION POLICY	LIMITATIONS ON TAXING AUTHORITY
COASTAL MWD	---	---	---	---	---	---
EASTERN MWD	BOND COVENANTS REQUIRE MINIMUM OF 1.10 TO 1.0.	NO WRITTEN POLICY. HAVE ISSUED SOME VARIABLE RATE DEBT WITH SWAP AGREEMENTS.	DICTATED BY MARKET CONDITIONS, HAS BEEN NEGOTIATED SINCE 1991.	OPERATING REVENUES = OPERATING COSTS, EXCLUDING DEPRECIATION. DEBT: ASSETS = MAX 1:3	$10/AF SOLD IS APPROPRIATED AND RESTRICTED TO REPLACEMENT FUND, EXCESS OPERATION FUND IS TRANSFERRED TO CONSTRUCTION FUND THEN TO CIP.	---
FOOTHILL MWD	N/A. CAPITAL IMPROVEMENTS ARE FUNDED BY PAYGO.	---	---	DESIRED LEVEL OF RESERVE WORKING CAPITAL TO BE EQUIVALENT OF THREE MONTHS OF BUDGETED ANNUAL OPERATING AND ADMIN EXPENSE, EXCLUDING DEPREC.	ALL CIP IS PAYGO.	PROP. 13

	DEBT SERVICE COVERAGE REQUIRED	FIXED VS. VARIABLE RATE DEBT POLICY	NEGOTIATED VS. COMPETITIVE DEBT SALES	WORKING CAPITAL POLICY	PAY-AS-YOU-GO CONSTRUCTION POLICY	LIMITATIONS ON TAXING AUTHORITY
LAS VIRGENES MWD	REQUIRED TO MAINTAIN A RESERVE FUND AND A RATE STABILIZATION FUND, EACH EQUAL TO ANNUAL DEBT SERVICE REQUIREMENT AND INSTALLMENT PAYMENT FUND.	---	---	---	---	APPLICABLE ONLY TO VOTER APPROVED BONDED INDEBTEDNESS.
LOS ANGELES--DWP	MAINTAIN A TARGET LEVEL OF AT LEAST 1.90. MINIMUM OF DEBT RATIO OF 1.25. EQUITY TO DEBT RATIO MINIMUM IS 60%	VARIABLE RATE DEBT CANNOT EXCEED 15% OF TOTAL DEBT OUTSTANDING.	COMPETITIVE SALES, UNLESS MARKET DICTATES OTHERWISE.	CURRENT POLICY REQUIRES A MINIMUM CASH BALANCE OF $30 MILLION, HOWEVER, THE POLICY IS UNDER REVIEW FOR POSSIBLE INCREASE TO $40 MILLION	POLICY HAS BEEN PAY AS YOU GO OF APPROXIMATELY 65%, WHICH WILL BE DECREASED TO 55% STARTING IN JANUARY 1997.	---

	DEBT SERVICE COVERAGE REQUIRED	FIXED VS. VARIABLE RATE DEBT POLICY	NEGOTIATED VS. COMPETITIVE DEBT SALES	WORKING CAPITAL POLICY	PAY-AS-YOU-GO CONSTRUCTION POLICY	LIMITATIONS ON TAXING AUTHORITY
MWD OF ORANGE COUNTY	---	---	---	NOT LESS THAN $3 MILLION.	---	PROPOSITIONS 13 & 14: MWDOC HAD NO AD VALOREM TAX TO PLACE PRIOR TO ENACTMENT OF THESE PROPOSITIONS. PROP 13-B SPENDING LIMIT EQUAL TO $0.
SAN DIEGO CWA	NET WATER REVENUES AT 120% OF SENIOR LIEN DEBT SERVICE. 100% OF TOTAL DEBT SERVICE (INCLUDING COMM PAPER).	VARIABLE NOT TO EXCEED 25% OF TOTAL DEBT.	TRANSACTION DEPENDENT.	REFER TO OTHER RESERVE POLICIES.	17.5% TO 20% OF THE CAPITAL NEEDS WILL BE FUNDED BY PAY AS YOU GO CONSTRUCTION.	STANDARD
WEST BASIN MWD	DISTRICT IS REQUIRED TO MAINTAIN A 1.15 TO 1.00 DEBT SERVICE RATIO.	---	DEPENDS ON MARKET	---	---	---

	LIMITATIONS ON REVENUE BONDS	LIMITATIONS ON COMMERCIAL PAPER	LIMITATIONS ON STANDBY CHARGES	LIMITATIONS ON TOTAL DEBT
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	TOTAL OF REVENUE BONDS OUTSTANDING CANNOT EXCEED THE EQUITY OF THE DISTRICT, AS OF FISCAL YEAR END PRIOR TO ISSUANCE. MWD BOARD GUIDELINE IS NOT TO EXCEED 80% OF ABOVE.	$400 MILLION MAXIMUM.	FUNDS CAN ONLY BE USED TO CAPITAL PAYMENTS ON THE SWP, OR WATER STORAGE (E.G., EASTSIDE RESERVOIR).	TOTAL DEBT LIMITED TO 15% OF THE ASSESSED VALUE OF ALL TAXABLE PROPERTY WITHIN DISTRICT.
CENTRAL BASIN MWD	ASSIST IN REFINANCING THE ACQUISITION, CONSTRUCTION AND IMPROVEMENT OF WATER RECLAMATION FACILITIES.	---	EARMARKED FOR DEBT SERVICE AND CAN BE USED FOR CONSTRUCTION	---
CHINO BASIN MWD	MEMBER AGENCY APPROVAL.	---	HAS NEVER BEEN USED, MEMBER AGENCY APPROVAL REQUIRED.	SERVICE AREA GROWTH AND DEVELOPMENT, TOGETHER WITH MARKET FORCES.

	LIMITATIONS ON REVENUE BONDS	LIMITATIONS ON COMMERCIAL PAPER	LIMITATIONS ON STANDBY CHARGES	LIMITATIONS ON TOTAL DEBT
CITY OF ANAHEIM	LIMITED BY BOND COVENANTS.	$2.5 MILLION AUTHORIZED, NONE OUTSTANDING.	---	LIMITED BY BOND COVENANTS.
CITY OF BEVERLY HILLS	NONE, OTHER THAN BY A CASE BY CASE DECISION FROM THE CITY COUNCIL.	NONE OTHER THAN BY A CASE BY CASE DECISION FROM THE CITY COUNCIL.	WOULD BE INCLUDED IN OPERATING EXPENSES AS A PART OF RATE BASIS.	NO FORMAL POLICY.
CITY OF BURBANK	---	---	---	---

	LIMITATIONS ON REVENUE BONDS	LIMITATIONS ON COMMERCIAL PAPER	LIMITATIONS ON STANDBY CHARGES	LIMITATIONS ON TOTAL DEBT
CITY OF GLENDALE	---	---	---	---
CITY OF LONG BEACH	---	---	---	---
CITY OF PASADENA	LIMITED TO CHARTER SECTIONS 1411 ET. SEQ.	DEPARTMENT DOES NOT ISSUE COMMERCIAL PAPER.	CITY ORDINANCE STATES LIMITS FOR STANDBY CHARGES.	NONE. RATIOS AND CREDIT EVALUATIONS ARE MONITORED REGULARLY BY MANAGEMENT.

	LIMITATIONS ON REVENUE BONDS	LIMITATIONS ON COMMERCIAL PAPER	LIMITATIONS ON STANDBY CHARGES	LIMITATIONS ON TOTAL DEBT
CITY OF SAN MARINO	---	---	---	---
CITY OF SANTA MONICA	---	---	---	---
CITY OF TORRANCE	---	CITY HAS AUTHORITY, NOT WATER DEPARTMENT	CITY HAS AUTHORITY, NOT WATER DEPARTMENT	CITY HAS AUTHORITY, NOT WATER DEPARTMENT

	LIMITATIONS ON REVENUE BONDS	LIMITATIONS ON COMMERCIAL PAPER	LIMITATIONS ON STANDBY CHARGES	LIMITATIONS ON TOTAL DEBT
COASTAL MWD	---	---	---	---
EASTERN MWD	---	---	SOME RESTRICTIONS, BUT NOT SPECIFIED IN SURVEY.	DEBT: ASSET = MAX 1:3.
FOOTHILL MWD	---	---	---	---

	LIMITATIONS ON REVENUE BONDS	LIMITATIONS ON COMMERCIAL PAPER	LIMITATIONS ON STANDBY CHARGES	LIMITATIONS ON TOTAL DEBT
LAS VIRGENES MWD	---	NOT PERMITTED FOR INVESTMENT BY BOARD POLICY.	LIMITED CURRENTLY TO REPLACEMENT FUNDS RELATIVE TO POTABLE WATER SYSTEM FACILITIES.	---
LOS ANGELES--DWP	LIMITED BY MINIMUM EQUITY TO DEBT RATIO OF 60%, INTEREST COVERAGE OF 2.00 AND DEBT SERVICE COVERAGE OF 1.25.	LIMITED BY DEBT SERVICE RATIO OF 1.25.	---	UP TO 15% OF TOTAL DEBT WILL BE IN THE FORM OF VARIABLE RATES.

	LIMITATIONS ON REVENUE BONDS	LIMITATIONS ON COMMERCIAL PAPER	LIMITATIONS ON STANDBY CHARGES	LIMITATIONS ON TOTAL DEBT
MWD OF ORANGE COUNTY	AS DEFINED BY THE 1991 REVENUE BOND LAW.	12% MAX INTEREST RATE, 5-YEAR MATURITY, CANNOT EXCEED $5MIL, $3 MIL IF USED FOR DISTRICT OFFICE, WITH A 10 -YEAR MATURITY.	$10 PER ACRE OR PARCEL LESS THAN AN ACRE.	---
SAN DIEGO CWA	VOTER APPROVAL	BOARD AUTHORITY UP TO $250 MILLION.	---	---
WEST BASIN MWD	ASSIST IN REFINANCING THE ACQUISITION, CONSTRUCTION AND IMPROVEMENT OF WATER RECLAMATION FACILITIES.	---	EARMARKED FOR DEBT SERVICE AND CAN BE USED FOR CONSTRUCTION.	---