

MWD

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

8-2

December 1, 1993

To: Board of Directors (Special Comm. on Financial Policy--Action)
(Finance and Insurance Committee--Action)
(Water Problems Committee--Action)

From: General Manager

Subject: Financial Structure Study Recommendations of Rate Structure
and Additional Revenue Sources

Summary

One year ago, staff was directed by your Board to develop a water rate structure that would provide for stable water rates while securing revenues, retaining operating flexibility and resource management incentives, and distributing costs in an equitable manner. With policy direction from the Special Committee on Financial Policy, input from our Member Agency Managers, and advice from rate and financial experts, a rate structure and additional revenue sources have been developed for your review and approval. This structure meets the goals established by your Board and consists of the current noninterruptible water rate structure with seasonal storage, a readiness-to-serve charge, a new demand charge (formerly the capacity acquisition charge), a treated water peaking charge, and a connection maintenance charge; and eliminates the standby charge. The recommended financial structure for fiscal year 1995-96 is summarized in Table 1. In order to allow time for member agencies to incorporate the new charges on the retail level, the recommended financial structure would not be implemented until fiscal year 1995-96. However, your approval of the recommended structure is requested this month so that the transition process may begin.

Water Rate (Commodity)--The current noninterruptible water rate structure with seasonal storage service would be continued. The seasonal storage service program will be analyzed in detail over the next year to determine the adjustments (if any) necessary to improve the program.

Readiness-to-Serve Charge--A readiness-to-serve charge (RTS) would be set to recover the debt service

not paid from taxes necessary to meet reliability and quality needs of existing users. The charge would be allocated to each member agency on the basis of a rolling average of historic water purchases from Metropolitan. The RTS assures that all member agencies pay a share of the fixed costs necessary to meet their reliability and quality needs. In fiscal year 1995-96, the RTS charge would be about \$66 million and would replace the standby (parcel) charge. In the future, a treated water RTS charge would be considered to cover the debt service related to water treatment for existing users.

New Demand Charge--The new demand charge (formerly called the capacity acquisition charge) would recover the costs associated with accommodating new demands on Metropolitan's system. The charge would be based on water use, thus those users creating increases in demand on Metropolitan's system would pay for the cost of new facilities necessary to meet those demands. The initial charge, to be implemented in fiscal year 1995-96, would collect \$1,000 per acre-foot of new demand and then increase over five years to reflect the full cost of new capacity. The charge would be allocated to each member agency based on the increase in a rolling four year average of historic water purchases above a base four year average.

Treated Water Peaking Charge--The treated water peaking charge would be a relatively modest charge to encourage agencies that peak off Metropolitan's treatment facilities during the summer to change their behavior or more equitably share in the cost of facilities to meet their needs. This charge would be based on behavior in calendar year 1996 with the first revenue collected in fiscal year 1997-98.

Connection Maintenance Charge--The connection maintenance charge is intended to recover a portion of the costs associated with maintaining service connections. Initially, the charge would collect \$50 per cubic-foot per second (cfs) up to a maximum of \$5,000 per connection per month.

With implementation of the proposed rate structure in fiscal year 1995-96, member agency water bills would increase as a result of a move from the standby charge (currently collected on the tax bill) to a RTS charge collected from our member agencies. With the recommended additional revenue sources in place, the base rate and the

treatment surcharge would not increase. However, the replacement of the standby charge with a RTS charge most likely will create a retail water rate impact because of the transfer of charges from property tax bills to the member agencies. The estimated average rate impact on the retail level in fiscal year 1995-96 has been held to about 10 percent, with an offsetting average reduction of about 7 percent due to the elimination of the standby charge.

Metropolitan's legal advisors have noted that both the RTS charge and the connection maintenance charge could be characterized as "availability of service" charges under the Metropolitan Water District Act. Metropolitan would therefore be precluded from levying the RTS and connection maintenance charges in the same fiscal year in which the standby charge is imposed.

Benefits of the New Financial Structure

The proposed financial structure provides a more equitable method of allocating costs between existing and new demands, establishes a commitment to the Capital Improvement Program (CIP), and provides revenue stability.

With the RTS charge, member agencies would share in funding the debt service associated with maintaining quality and reliability for existing users in proportion to their respective demands on Metropolitan. Those agencies that create increases in demand would be responsible for paying the portion of the CIP designed to accommodate that increase through the new demand charge. In addition, the connection maintenance charge would assure a more equitable distribution of the costs of maintaining those connections. Likewise, the treated water peaking charge would recover some of the costs of meeting peak demand from those agencies that display summertime peaking behavior.

By tying the debt service to the RTS and new demand charges, the member agencies would proportionately share in commitment toward capital expenditures necessary to meet demands. The RTS charge would provide stability and predictability in the overall revenue stream since, in total, the revenue generated from this charge would not vary with water sales. By providing for debt repayment from a fixed revenue source, Metropolitan's arguments for high debt ratings would be strengthened with the goal of accessing capital markets at the lowest possible interest rates.

Detailed Report

This letter describes the recommended financial structure, indicates the rate impact of implementation, shows how the recommended structure achieves the Financial Structure Study (Study) objectives, describes the need to implement the recommended structure, and lists additional steps for implementation.

Rate Structure

It is recommended that the current noninterruptible water rate structure with seasonal storage service be continued. There was consensus with our member agencies that this rate structure generally works well, promotes system operating flexibility, and provides regional water resource management incentives. Recognizing the additional benefit that long-term seasonal storage water provides compared to short-term (shift) seasonal water, staff will analyze the seasonal storage program next year to determine what adjustments are necessary to improve the program.

Additional Revenue Sources

Seven methods of generating additional revenue (other than water rates) were considered and analyzed. Four methods are recommended. A readiness-to-serve charge, a new demand charge, a treated water peaking charge and a connection maintenance charge are described in more detail below. Detailed calculation methods for each revenue source are included in Attachment 1.

Readiness-to-Serve Charge

A RTS charge would be set to recover the debt service, not paid from taxes, for meeting the reliability and quality needs of existing users. That portion of the debt service necessary to meet growing demands would not be met through the RTS charge but rather through the new demand charge described below. In fiscal year 1995-96, the RTS charge would generate about \$66 million in revenues and would replace the standby (parcel) charge. Your Board would directly control the size of the RTS charge through approval or disapproval of future capital projects and programs.

Metropolitan's member agencies would share proportionately in a commitment toward Metropolitan's capital projects and programs to ensure water supplies and

reliability for existing users. This charge would provide stability and predictability in the overall revenue stream since, in total, the revenue generated from this charge would not vary with water sales. By providing for debt repayment from a fixed revenue source, Metropolitan's arguments for high debt ratings would be strengthened with the goal of accessing capital markets at the lowest possible interest rates.

The charge would be allocated to each member agency on the basis of a rolling average of historic water purchases from Metropolitan. Although a member agency may develop enough local supplies to become "independent" of Metropolitan, that agency would still be required to pay a minimum portion of the RTS charge since Metropolitan's water serves as a supplemental source in case of a local supply outage. This minimum amount would be based on 50 percent of each agency's base two year historic average water purchases from Metropolitan, and would be revisited after the completion of the Integrated Resources Planning Process.

It is recommended that a treated water RTS charge be developed in the future. This charge would be tied to debt service (not paid by taxes) related to water treatment and would be used to offset costs paid through the treated water surcharge.

New Demand Charge

One of the major objectives of the Financial Structure Study is to incorporate provisions for growth to pay its fair share. The new demand charge (formerly called the capacity acquisition charge) would recover the costs associated with accommodating new demands on Metropolitan. The proceeds from the charge would be used to reduce outstanding debt or offset non-tax supported debt service requirements. These charges would be based on increased water use above a four-year base. Details of this calculation are included in Attachment 1.

The initial charge would collect \$1,000 per acre-foot (AF) of new demand and increase over five years to reflect the full cost of new capacity (the current estimate based on the existing CIP is about \$2,480 per AF). The charge would be implemented in fiscal year 1995-96 to allow our member agencies and subagencies the opportunity to establish mechanisms, such as a connection fee, to collect these charges outside of their water rates. The charge

would be calculated and reviewed annually to reflect any changes in the capital projects and programs designed to accommodate growth. The charge would be paid over 15 years, a period that is reflective of the average weighted life of Metropolitan's outstanding long-term debt. The payments would include carrying costs.

A nexus study will be conducted to document the allocation of capital projects and program costs to accommodate new demands as it relates to implementation of the new demand charge. This study will be completed in June 1994.

Treated Water Peaking Charge

The treated water peaking charge would be a relatively modest charge to encourage agencies that peak off Metropolitan's treatment facilities during the summer to change their behavior or share more equitably in the cost of facilities necessary to provide this service. A tiered peaking charge would be based on levels of treated water peaking during May through September. The revenue (if any) collected would be used to reduce the treated water surcharge in the following fiscal year. This charge would be implemented in January 1996 with the first revenue (if any) collected in fiscal year 1997-98. With a three year lead time, agencies would be able to add storage facilities and/or modify their operations in order to minimize or avoid peaking charges. Metropolitan would be able to assist agencies in analyzing their peaking practices and recommend modifications to reduce peaking.

Connection Maintenance Charge

The connection maintenance charge is intended to recover a portion of the costs associated with maintaining service connections. This charge would be implemented in fiscal year 1995-96 and would initially collect \$50 per cfs up to a maximum of \$5,000 per connection per month. Since some connections provide benefits to Metropolitan as well as the member agency, the charge would be allocated to the portion of flow that services the agency exclusively. Each connection would be reviewed to determine its level of use and the portion of flow (if any) that accommodates Metropolitan's needs.

Rate Implications

The impacts of the new revenue sources in fiscal year 1995-96 and the subsequent three years are summarized in Table 2 and graphically depicted in Figure 1. With the recommended additional revenue sources in place in fiscal year 1995-96, the base rate and treatment surcharge would not increase. The replacement of the standby charge with a RTS charge will create a water rate impact on our member agencies because of the transfer of charges from property tax bills to the member agencies' water bills. The average rate increase at the retail level in fiscal year 1995-96 is estimated to be about 10 percent, with an offsetting decrease of about 7 percent from the removal of the standby charge.

For fiscal year 1994-95, it is recommended that a standby charge of \$50 million be continued. Through reductions in our operations and maintenance costs, refinements in our projected costs, and low interest rate financing, the average retail rate increase for fiscal year 1994-95 has been held to less than 6.5 percent.

Financial Structure Study Goals

Throughout the evolutionary process of reaching the proposed structure, the goals and objectives of the Study have driven the selection process. In particular, the recommended financial structure provides: (1) revenue stability through the RTS charge; (2) requires agencies that are increasing their demands on Metropolitan to pay its fair share, encourages conservation, and stimulates local resource development through the new demand charge; (3) provides system operating flexibility and water management incentives by continuing the seasonal storage service and adding a treated water peaking charge; and (4) provides an equitable distribution of costs through the RTS, new demand, connection maintenance, and treated water peaking charges. A summary of how the recommended financial structure meets the Study's objectives is shown in Table 3.

Next Steps

In order to implement such an important restructuring, meet our member agencies' financial needs, and allow time for complete analysis, certain items will require additional analysis. Areas for further refinement include the following: (1) seasonal storage pricing for short-term and long-term water; (2) a long-term seasonal storage program that provides contractual conditions for

utilizing that water; (3) peaking management assistance to member agencies; and (4) a nexus study for the new demand charge. In addition, a Comprehensive Drought Management Program that considers the interrelationship between the Seasonal Storage Service Program, the Incremental Interruption and Conservation Plan (IICP), and the recommended financial structure will be developed with input from the member agencies. The recommended financial structure can be adopted without the above elements.

In January, a Resolution of Intent for the readiness-to-serve charge, new demand charge, treated water peaking charge, and connection maintenance charge will be brought to your Board for approval.

The recommendations made in this letter are exempt from the California Environmental Quality Act by Public Resources Code Section 21080 (b)(8) since it recommends restructuring of rates and other charges which are for the purposes of: (1) meeting operating expenses, (2) purchasing or leasing supplies, equipment or materials, (3) meeting financial reserve needs and requirements, and (4) obtaining funds for capital projects necessary to maintain service within existing service areas.

Board Committee Assignments

SPECIAL COMMITTEE ON FINANCIAL POLICY, FINANCE AND INSURANCE, AND WATER PROBLEMS COMMITTEES FOR ACTION.

This letter is referred for action to:

The Special Committee on Financial Policy pursuant to its authority to study and make recommendations with regard to alternative rate structures and revenue sources;

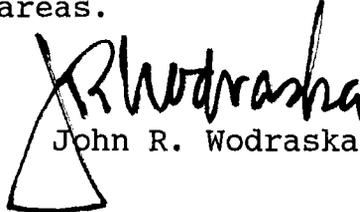
The Finance and Insurance Committee because of its authority to determine revenues to be obtained through sales of water, water standby or availability of service charges, and the levying of taxes, pursuant to Administrative Code Section 2441(e); and

The Water Problems Committee because of its authority to study, revise, and make recommendations with regard to the selling prices of water and conditions governing sales and exchanges of water, and to the allocation of water standby or availability of service

revenue requirements, pursuant to Administrative Code Sections 2481(c) and (e).

Recommendation

It is recommended that the Board approve the rate structure and additional revenue sources from a readiness-to-serve charge, new demand charge, treated water peaking charge, and connection maintenance charge, summarized in Table 1 and described in this Board letter, with implementation to be in fiscal year 1995-96. It is additionally recommended that the Board find that the recommendation of the proposed revisions to Metropolitan's rate structure and additional revenue sources is exempt from the provisions of the California Environmental Quality Act since it recommends restructuring of rates and other charges which are for the purposes of meeting operating expenses; purchasing or leasing supplies, equipment or materials; meeting financial reserve needs and requirements; and obtaining funds for capital projects necessary to maintain service within existing service areas.



John R. Wodraska

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Attachments

TABLE 1

RECOMMENDED FINANCIAL STRUCTURE

<u>Component</u>	<u>Description</u>	<u>Effective Date</u>
Noninterruptible/ Seasonal Rates	Maintain Current Structure	
Readiness-to-Serve Charge	Recovers Debt Service Associated with Reliability and Quality for Existing Users Estimated Initial Revenues Equal to \$66 Million Allocated on the Basis of Percent of Two-Year Average Sales During FY 1992-93 and FY 1993-94 Minimum Charge Equal to 50 Percent of Base Allocation	July 1, 1995
New Demand Charge (Capacity Acquisition Charge)	Recovers Capital and Carrying Costs Associated with Meeting New Demands Initial Charge Equal to \$1,000/AF for (Every Acre-Foot) over Base Period Use Base Period Equal to Four-Year Average FY 1989-90 thru FY 1992-93 15-Year Repayment Period, Carrying Cost at MWD Cost of Capital First Collection in FY 1996-97	July 1, 1995
Connection Maintenance Charge	Recovers Some of the Costs Associated with Maintaining Connections Initial Charge Equal to \$50/cfs Connected Capacity; \$5,000 Maximum per Month Estimated Revenues of \$7 Million	July 1, 1995
Treated Water Peaking Charge	Recovers Some of the Costs Associated with Peaking Amount Collected Dependent on Peaking Behavior Used to Reduce Treated Water Surcharge First Collection in FY 1997-98 Based on Tiered Rate Structure	January 1, 1996
Taxes	Maintain Current Tax Rate	
Standby Charge	Delete in Fiscal Year 1995-96	July 1, 1995

ATTACHMENT 1

ADDITIONAL REVENUE SOURCES

CALCULATION METHODOLOGY

Readiness-to-Serve Charge - A charge allocated on the basis of historical water usage to recover the annual non-tax supported debt service that is needed to meet the reliability and quality needs of existing users. The water usage would be calculated initially by averaging the total water sales by agency for the past two years beginning in fiscal year 1992-93. Long-term seasonal storage service (LTSSS) deliveries during May through September 1993 and water taken under the one-time drought storage agreements (OTDS), Cooperative Storage Program (COOP), and 1993 Demonstration Program (DEMO) would be subtracted from the water sales calculations. The calculation of historic water usage would become a prospective, four-year rolling average. Future LTSSS deliveries would be subtracted from the RTS calculation only if contractual arrangements had been made for utilization of that water in the future. Development of a LTSSS program would be developed next year with input from our member agencies.

The minimum amount to be paid by each agency would be based on 50 percent of the base two year average calculation. This minimum amount would be refined next year when Metropolitan and the member agencies would be able to more accurately assess future demands on the system after completion of the Integrated Resources Planning (IRP) process, as well as evaluate appropriate levels of reliability.

In equation form (initially):

$$\frac{((\text{FY 1992-93 Sales less } ((\text{LTSSS allocated to May and June 1993}) + \text{OTDS} + \text{COOP} + \text{DEMO})) + (\text{FY 1993-94 Sales less } ((\text{LTSSS allocated to July, August, and September 1993}) + \text{OTDS} + \text{COOP} + \text{DEMO})))}{2} = \text{Annual Average Water Deliveries}$$
$$\frac{\text{RTS Revenue Requirements}}{\text{Annual Average Water Deliveries}} = \text{RTS per AF}$$
$$\text{RTS Per AF} * \text{Agency's Annual Average Water Deliveries} = \text{Agency's Total RTS Charge}$$

The charge would be based on the average prior two fiscal year water sales, and would eventually be based on a four-year rolling average.

New Demand Charge - Revenues received from a charge placed on water usage above historical water usage. The revenues generated would be used to recover the capital and carrying costs associated with accommodating new demands on Metropolitan. The base water use would be calculated by averaging each agency's total water sales for the four years beginning fiscal year 1989-90. A rolling historic four year average would be compared to the base amount. In the calculation of the base year and rolling four year averages, LTSSS, OTDS, COOP, and DEMO would be handled the same way as with the RTS. Any volume of water from the rolling average that is above the base amount would result in a new demand charge (NDC). The amount to be charged for each acre-foot of water used above the highest historic four year average (base amount) would equal the dollar amount to develop an extra foot of water for household consumption. This amount in equation form:

$$\frac{(\text{FY 1989-90 Sales} + \text{FY 1990-91 Sales}) + (\text{FY 1991-92 Sales less OTDS}) + (\text{FY 1992-93 Sales less } ((\text{LTSSS allocated to May and June 1993}) + \text{OTDS} + \text{COOP} + \text{DEMO})))}{4} = \text{Base Annual Average Water Deliveries in AF or Base Amount}$$
$$\frac{(((\text{FY 1991-92 Sales less OTDS}) + (\text{FY 1992-93 Sales less } ((\text{LTSSS allocated to May and June 1993}) + \text{OTDS} + \text{COOP} + \text{DEMO}))) + (\text{FY 1993-94 Sales less } ((\text{LTSSS allocated to July, August, and September 1993}) + \text{OTDS} + \text{COOP} + \text{DEMO}))) + (\text{FY 1994-95 Sales less contractual LTSSS}))}{4} - \text{Base Annual Average Water Deliveries}) * \text{NDC per AF} = \text{NDC Revenues}$$

Once an agency exceeds its highest historic four year average, then that new four year average would become its base. The charge would be \$1,000 per AF in fiscal year 1995-96 and gradually increase over five years to the full cost of meeting growth. The amount of the charge would be calculated and reviewed annually. Payment of the new demand charge would be over a 15 year period. Carrying costs would be added.

Treated Water Peaking Charge - Revenues received from a charge placed on peak week treated flow in the summer season (May through September) in excess of 130 percent of annual average week treated flow by agency. Seasonal storage service deliveries would be deleted from the calculations. This moderate charge would be calculated in equation form as follows:

$$\text{Summer Peak Week Flow less SSS} - (130 \text{ percent} * \text{Annual Average Week Flow less SSS}) = \text{CFS of Peaking}$$

CFS of Peaking * Rate per CFS = Treated Peaking
Revenues

This would be calculated based on peaking during calendar year 1996. The revenues (if any) generated would be used to reduce the treatment surcharge in fiscal year 1997-98.

Staff will be analyzing inclining block charges for different levels of treated water peaking. In addition, staff will be analyzing whether 130 percent or some other percentage of annual average week flow is appropriate.

Connection Maintenance Charge - Revenues received from a charge placed on a connection to pay for a portion of the costs of maintaining that connection. Initially, in equation form:

$\$50/\text{CFS} * \text{CFS}/\text{Connection} = \text{Charge per Connection}^*$

*Maximum of \$5000 per connection per month.

The charge per cfs would be subject to annual review. The charge would be assessed on the portion of flow in each connection that services the agency exclusively.

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TABLE 2

IMPACTS OF NEW REVENUE CHARGES

(\$ in Millions)

1994-95 thru
1998-99

	94-95	95-96	96-97	97-98	98-99	
Water Revenue - Base	575	629	654	751	787	
Treatment Surcharge Revenue	80	89	101	114	128	
Taxes	91	94	97	100	102	
Interest	22	24	25	27	29	
Standby Charge	50	0	0	0	0	
Power & Misc.	23	26	26	26	26	
Connection Maintenance Charge	0	7	7	7	7	
Readiness-to-Serve Charge	0	66	87	108	124	
New Demand Charge	0	0	3	11	38	
Use of WRSF/Other	15	20	71	56	17	
Total	856	955	1,071	1,200	1,258	
Treated Peaking Charge	0	0	6	7	8	
Rate Effects:						
Base Rate Change	17	0	9	17	12	
Treatment Surcharge Increase	10	0	11	0	12	
Member Agency Impact	Rates & Charges Standby Charge	6.48%	10.16% -6.96%	6.52%	6.43%	5.95%

FIGURE 1

REVENUE PLAN 1994-95 THROUGH 2002-03

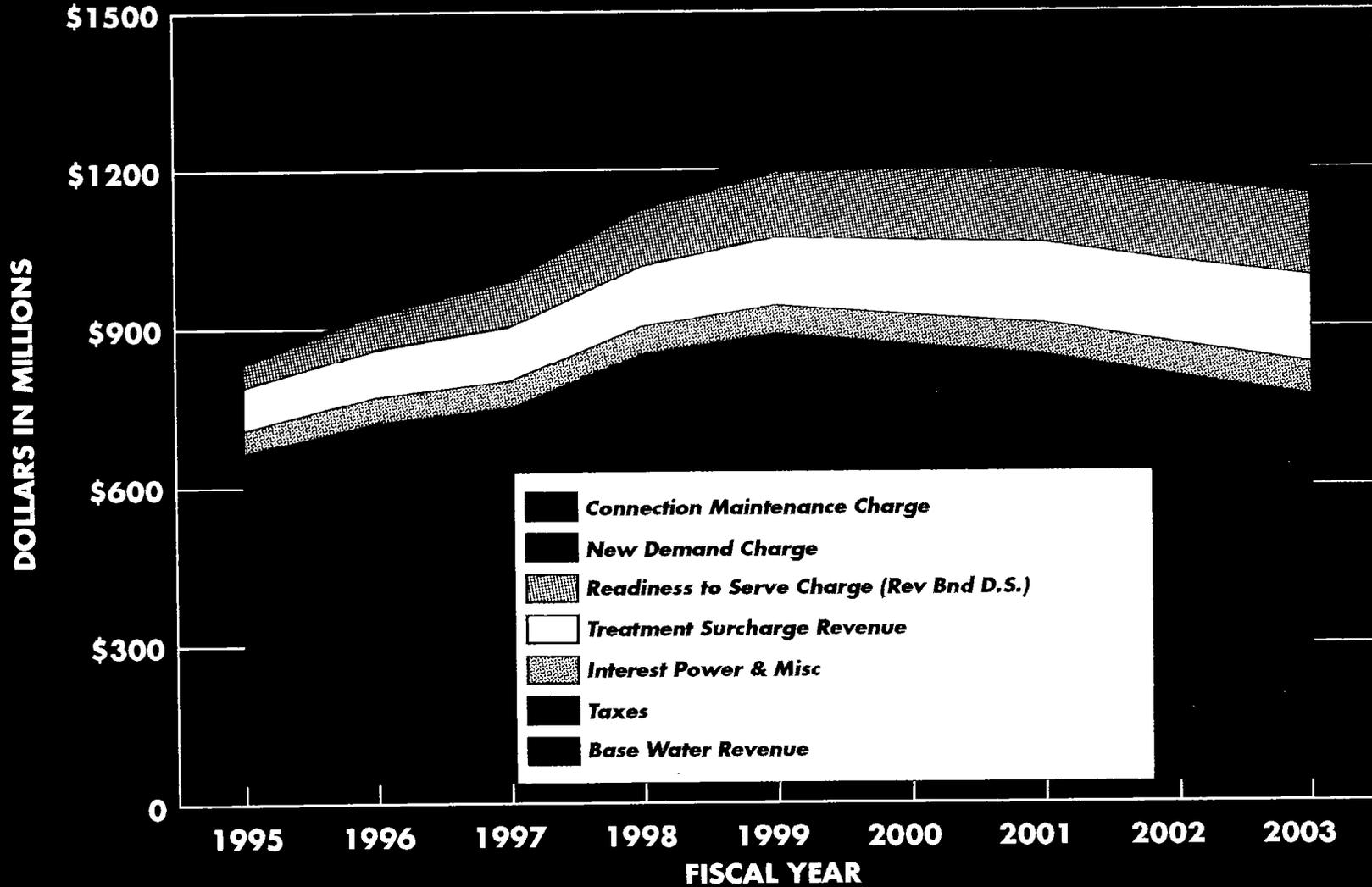


TABLE 3

ABILITY OF PROPOSED FINANCIAL STRUCTURE
TO MEET BOARD OBJECTIVES

RECOMMENDATION

- Basic/Seasonal Rates
- Readiness-to-Serve Charge
- New Demand Charge
- Connection Maintenance Charge
- Treated Water Peaking Charge

BOARD OBJECTIVES

Reliably Generate Needed Revenue	+
Provide Revenue Stability	+
Growth to Pay Fair Share	+
Maintain Financial Ratings	+
Minimize Rate Shock	+/-
Simple to Administer, Easy to Implement	+/-
Provide Equity in Rates for Classes of Service	+
Provide System Operating Flexibility	+
Provide Regional Water Resource Management Incentives	+
Lend Itself to a Shortage Allocation Plan	+
Encourage Water Conservation	+