- **Board of Directors**
  Budget, Finance and Investment Committee

June 11, 2002 Board Meeting

9-2

Subject

Adopt asset replacement funding methodology, reserve policy changes, and a resolution establishing guidelines for intended use of unreserved fund balances

Description

At the direction of the Subcommittee on Investments and Bond Financing and the Budget, Finance and Investment Committee, staff has completed an asset replacement funding study. The study's purpose was two-fold. First, the study forecast the annual amount of replacement and refurbishment (R&R) needed to maintain Metropolitan's system at its current reliability level. Second, various funding methods were evaluated in terms of rate impact and funding adequacy. In addition, staff evaluated necessary changes to existing reserve and capital funding strategies in light of Metropolitan's extensive R&R needs.

Asset replacement and refurbishment is a growing concern across the nation. Proposed federal legislation (S.1961) would require water utilities to establish prudent R&R policies and implement funding mechanisms to meet their R&R needs to qualify for state revolving fund (SRF) loans. As basic infrastructure ages, it is important to ensure that sufficient funding exists to maintain, replace and refurbish facilities on a timely basis. In Metropolitan's case, such a program will help ensure that reliable deliveries to member agencies continue at a high level.

The method used in the asset replacement study is consistent with that employed at a number of other water utilities, including the Orange County Water District, Irvine Ranch Water District and the Maui Board of Water Supply. An asset inventory was identified utilizing Metropolitan's fixed asset records. These assets were divided into asset classes, each with a designated economic life. The life of the asset classes was determined on the basis of engineering analysis by Metropolitan and the consultant on the study, Brown and Caldwell. Given these projected timelines, a computer model estimated the current replacement value of Metropolitan's capital assets and projected R&R funding needs by year. The planning horizon was 50 years, although funding needs were estimated for the next 30 years.

The replacement value of Metropolitan's system is estimated to be $12.6 billion. This does not include any obligation that Metropolitan may have with regard to the State Water Project. As shown in **Attachment 1**, annual R&R funding needs are estimated to be between $100 million and $150 million for the next 10 years, with annual expenditures forecast to increase to over $200 million in 20 years.

Given this forecasted need, alternative funding methodologies also were evaluated. Three traditional methods were evaluated, each designed to cash fund all R&R needs into the future, including pre-funding expenditures to avoid rate shock in the future. Each of these funding methods is summarized in **Attachment 2**.

After reviewing these funding alternatives with the Asset, Real Estate and Infrastructure Policy Committee and the Budget, Finance and Investment Committee, it was determined that such cash funding may not be the most effective methodology for Metropolitan. It was agreed that the most important aspect of R&R funding is that water rates reflect the "true" cost of use of the system. In other words, rates should include a component for R&R that is consistent with the replacement cost, not the original or depreciated cost of the facilities. Therefore, the model was used to determine the appropriate amount of capital funding to be included in current rates. This amount would be based on a rolling 10-year forecast of R&R needs. The asset replacement model assumes that plant and equipment replacement needs can be predicted with precision. But, the model is primarily a financing tool, not a capital project planning model. As such, a 10-year forecast combined with Metropolitan's Capital Investment Plan (CIP) provides a more accurate view of R&R needs to be recovered in current rates.

Proposed Funding Method

Clearly, R&R needs are growing. As shown in **Attachment 1**, R&R expenditures over the next 10 years will average around $115 million annually. R&R expenditures in the current CIP are about $90 million in fiscal year 2002/03. It is proposed that Metropolitan's existing Pay as You Go (PAYG) policy be revised so that the amount of PAYG included in rates in any year would reflect R&R needs. It is further proposed that PAYG funding be increased by $5 million per year for the next 10 years, raising PAYG amounts to the average R&R funding need. While it could be argued that PAYG should be increased to the $125 million level today, such an increase would mean an immediate rate increase of approximately $20 per acre-foot. Given that current R&R expenditures are short of the $115 million average, a more gradual increase is proposed.

Each year, a 10-year forecast of R&R needs would be used to establish necessary funding levels. In this manner, R&R needs would not place too much burden on current ratepayers, while ensuring that future ratepayers do not experience high rate increases as a result of current users' demands on the system.

Reserve Policy

Metropolitan's reserve policy guidelines are found in its Administrative Code § 5200. It is proposed that all funds collected for R&R purposes be expended through the PAYG fund and that any unexpended PAYG monies remain in the PAYG fund, rather than being transferred to the Water Rate Stabilization Fund. Under current policy, unexpended PAYG funds are transferred out of the PAYG fund even if the reason that the funds have not been spent is that the projects are behind schedule. Since R&R needs are not going to diminish over time, retaining funds collected for such purposes in the fund and utilizing them for the purpose they were collected is a consistent policy. **Attachment 3** shows projected R&R expenditures and PAYG amounts necessary to support this policy.

It is also proposed that Metropolitan's reserve policy be modified to include an allocation formula for unreserved funds in accordance with Section 125.5 of Metropolitan's Act. It is proposed that any unreserved funds distributed to the member agencies be allocated on the basis of all water sales during the previous fiscal year, such sales to include sales under the Interim Agricultural Water Program, Long-term Seasonal Storage Program and all Full Service water sales. No other changes are recommended to existing reserve policies.

It is recommended that the above R&R policy and modification to Metropolitan's reserve policy be adopted beginning in the 2002/03 fiscal year. **Attachment 4** is a resolution that affirms existing reserve policies and incorporates the allocation policy recommended above. Proposed amendments to the Metropolitan Water District Administrative Code are set forth on **Attachment 5**, with strikeouts showing deletions and underlining showing additions. **Attachment 6** shows the new version of the Metropolitan Water District Administrative Code as it would read upon board approval.

Policy

Request of the Subcommittee on Investments and Bond Financing

California Environmental Quality Act (CEQA)

CEQA determination for Options #1 and #2:

The proposed actions are not defined as a project under CEQA because they involve continuing administrative activities, such as general policy and procedure making (Section 15378(b)(2) of the State CEQA Guidelines). In addition, the proposed actions are not subject to CEQA because they involve the creation of government funding mechanisms or other government fiscal activities, which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment (Section 15378(b)(4) of the State CEQA Guidelines).

The CEQA determination is: Determine that the proposed actions are not subject to CEQA per Sections 15378(b)(2) and 15378(b)(4) of the State CEQA Guidelines.

Board Options/Fiscal Impacts

Option #1

Adopt the CEQA determination and

a. Approve PAYG policy and R&R funding mechanism;
b. Adopt resolution in accordance with § 125.5 of the Metropolitan Water District Act; and
c. Amend Administrative Code to reflect change in PAYG policy.

Fiscal Impact: Initial increase of $5 million for PAYG purposes

Option #2

Adopt the CEQA determination and

a. Affirm existing reserve and PAYG policy; and
b. Adopt resolution and amend R&R funding mechanism.

Fiscal Impact: No change in PAYG

Staff Recommendation

Option #1

Brian G. Thomas *Chief Financial Officer*	5/23/2002 *Date*
Ronald R. Gastelum *Chief Executive Officer*	5/23/2002 *Date*

Attachment 1 – Forecasted Pattern of R&R Costs

Attachment 2 – Alternative Funding Methods

Attachment 3 – R&R Expenditures and PAYG

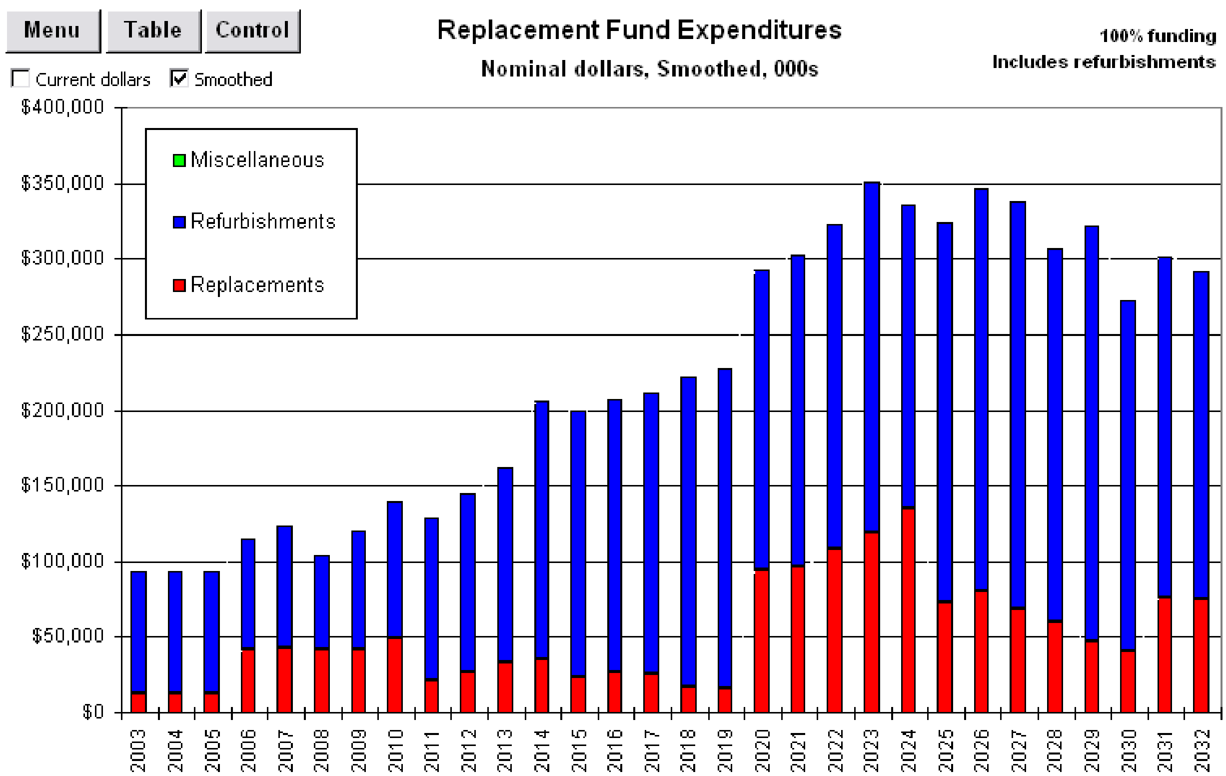
Attachment 4 – Resolution

Attachment 5 – Administrative Code Amendments showing additions and deletions

Attachment 6 – Administrative Code Amendments in final form

BLA #1766

FORECASTED PATTERN OF R&R COSTS



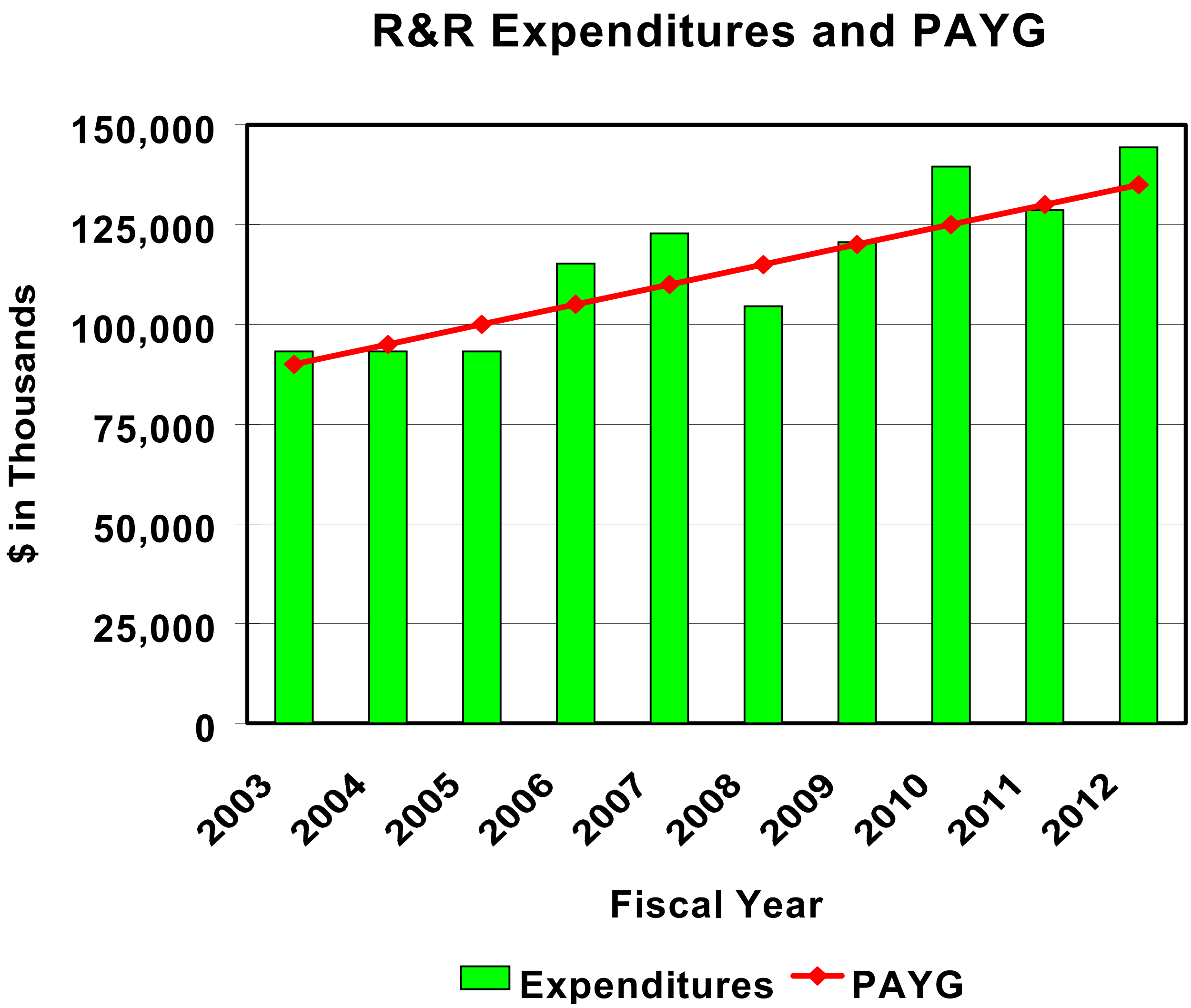
Alternative Funding Methods

The study included a limited sensitivity analysis of different funding alternatives. All options assumed that a Replacement Reserve Fund (RRF) would be pre-funded in the amount of $45 million.

Option 1 analyzed full funding based on a single-level smoothed appropriation. This option requires an initial appropriation of about $142.5 million with annual appropriations indexed for inflation. This option produced very large interim reserve balances and would require a large initial rate increase.

Option 2 analyzed full funding with stepped appropriations. This option starts with a smaller initial appropriation of $90 million increasing to $180 million by 2013. This option keeps interim reserve balance from becoming too large, but would require that policy decisions on appropriation levels be made at frequent and irregular intervals, requiring considerable Board time. Further, since there is no regularity in the appropriation patterns, this option is not really a long-term policy.

Option 3 assumed stepped funding tied to PAYG. This option assumes PAYG would increase $5 million per year starting at $90 million in fiscal year 2002/03. Option 3 will require further policy decisions, but the period during which the initial policy decision is valid is far greater with Option 3 than with Option 2. The adoption of this option will not have a significant immediate rate impact.


R&R Expenditures and PAYG
150,000
125,000
100,000
75,000
50,000
25,000
0
$ in Thousands
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Fiscal Year
Expenditures
PAYG

RESOLUTION

RESOLUTION OF THE BOARD OF DIRECTORS OF THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA PERTAINING TO THE USE OF UNRESERVED FUND BALANCES

WHEREAS, The Metropolitan Water District of Southern California ("Metropolitan") is a municipal water district organized and acting under the Metropolitan Water District Act (Chapter 209, Stats. 1969, as amended) (the "Act"); and

WHEREAS, Metropolitan's primary purpose was and is to provide a supplementary supply of water for domestic and municipal uses at wholesale rates to its member agencies; and

WHEREAS, in order to efficiently manage the operations at Metropolitan and to maintain stable water rates throughout its service area, Metropolitan maintains a variety of restricted reserve funds, including among others, a water treatment surcharge fund and a rate stabilization fund; and

WHEREAS, Metropolitan has also adopted a reserve policy for minimum unrestricted reserve balances at the end of each fiscal year based on an 18-month wet period reserve shortfall estimate and a maximum reserve level based on an additional two years' revenue shortfall estimate; and

WHEREAS, Section 125.5 of the Metropolitan Water District Act requires that on or before June 30, 2002 the board of directors of a district shall adopt a resolution establishing guidelines for the intended use of unreserved fund balances; and

WHEREAS, at the direction of the Subcommittee on Investments and Bond Financing and the Budget, Finance and Investment Committee, Metropolitan has completed an asset replacement study to forecast the annual amount of replacement and refurbishment to Metropolitan's system (the "Study"); and

WHEREAS, in order to provide a portion of the funds for required replacement and refurbishment of Metropolitan's facilities and other improvements, Metropolitan is required to make changes to its existing reserve policies, all as set forth in Board Letter 9-2 adopted on the date hereof.

NOW, THEREFORE, the Board of Directors of The Metropolitan Water District of Southern California DOES HEREBY RESOLVE, DETERMINE AND ORDER, as follows:

1. This Board hereby reaffirms its reserve policy guidelines as set forth in Metropolitan Water District Administrative Code Section 5200, which guidelines are incorporated by reference as if set forth in full herein.

2. This Board hereby declares that any unreserved funds distributed to the member public agencies shall be allocated on the basis of all water sales during the previous fiscal year, such sales to include sales under the Interim Agricultural Water Program, Long-term Seasonal Storage Program and all Full Service water sales.

3. This Board hereby finds that the guidelines for the intended use of unreserved fund balances, including provisions for use of such funds for replacement and refurbishment purposes, are in accordance with the requirements of Section 125.5 of the Metropolitan Water District Act.

4. This Board hereby finds that the use of unreserved fund balances provided in this Resolution is not defined as a project under the California Environmental Quality Act ("CEQA"), because the proposed action involves continuing administrative activities, such as general policy and procedure making (Section 15378(b)(2) of the State CEQA Guidelines). In addition, the proposed action is not subject to CEQA because it involves the creation of government funding mechanisms or other government fiscal activities which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment (Section 15378(b)(4) of the State CEQA Guidelines).

5. This Board hereby directs the Chief Executive Officer to develop all necessary rules and regulations to implement the guidelines set forth in Board Letter 9-2 and this Resolution, including necessary amendments to Metropolitan's Administrative Code to ensure that upon the refund of monies paid for the purchase of water that such amounts shall be based upon each member agency's purchase of water from Metropolitan during the previous fiscal year.

6. The Chairman of the Board, the Chief Executive Officer and the General Counsel of Metropolitan are each authorized and directed to take such other actions as they deem necessary or advisable in order to carry out and effectuate the purposes of this Resolution.

I HEREBY CERTIFY that the foregoing is a full, true and correct copy of a resolution adopted by the Board of Directors of The Metropolitan Water District of Southern California at its regular meeting held on June 11, 2002.

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Executive Secretary
The Metropolitan Water District of
Southern California

§ 5109. Pay-As-You-Go Funding.

To preserve debt capacity for evolving or unexpected financial needs, the Board's objective shall be to fund annually on a pay-as-you-go basis that portion of the capital program expenditures of the District sufficient to maintain stable water rates and charges, strong financial ratios and appropriate reserve levels. The amount of annual pay-as-you-go expenditures shall be determined by the Board as part of the annual budget process and shall include 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 capital facilities or projects, including replacements and refurbishment of Metropolitan facilities or portions thereof, as determined by the Board to meet the above objective.

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.

M.I. 37449 - December 13, 1988; paragraph (c) added and renumbered (d) by M.I. 37530 - February 14, 1989; amended by M.I. 37679 - May 9, 1989; amended by M.I. 41580 - September 12, 1995; first paragraph and (d) amended by M.I. 43434 - March 9, 1999.

§ 5202. Fund Parameters.

The minimum cash and securities to be held in the various ledger funds as of June 30 of each year shall be as follows:

(a) For the Revenue Remainder Fund cash and securities on hand of June 30 of each year shall be equal to the portion of fixed costs of the District estimated to be recovered by water sales revenues for the eighteen months beginning with the immediately succeeding July. Such funds are to be used in the event that revenues are insufficient to pay the costs of the District.

(b) For the Pay-As-You-Go Fund, cash and securities on hand on June 30 of each year shall be at least equal to one half of the estimated amount needed to fund pay-as-you-go expenditures, as defined in Section 5109, during the next fiscal year. In addition, any unexpended pay-as-you-go monies shall remain in the Pay-As-You-Go Fund for pay-as-you-go-expenditures, or shall otherwise be applied as the Board shall determine.

(c) Amounts remaining in the Revenue Remainder Fund ~~and Pay-As-You-Go Fund collectively~~ on June 30 of each year after meeting the requirements set forth in Section 5202(a) ~~and (b)~~ shall be transferred to the Water Rate Stabilization Fund and to the extent required under Section 5202(d), to the Water Treatment Surcharge Stabilization Fund.

(d) After making the transfer of funds as set forth in Section 5202(c), a determination shall be made to substantially identify the portion, if any, of such transferred funds attributable to collections of treatment surcharge revenue in excess of water treatment cost. Such funds shall be transferred to the Water Treatment Surcharge Stabilization Fund to be available for the principal purpose of mitigating required increases in the surcharge for water treatment. If such determination indicates a deficiency in treatment surcharge revenue occurred during the fiscal year, a transfer of funds shall be made from the Water Treatment Surcharge Stabilization Fund as needed to reimburse funds used for the deficiency. Notwithstanding the principal purpose of the Water Treatment Surcharge Stabilization Fund, amounts assigned to this fund shall be available for any other lawful purpose of the District.

(e) Amounts in the Water Rate Stabilization Fund shall be held for the principal purpose of maintaining stable and predictable water rates and charges. The amount to be held in the Water Rate Stabilization fund shall be targeted to be equal to the portion of the fixed costs of the District estimated to be recovered by water sales revenues during the two years immediately following the eighteen-month period referenced in Section 5202(a). Funds in excess of such targeted amount shall be utilized for capital expenditures of the District in lieu of the issuance of additional debt, or for the redemption, defeasance or purchase of outstanding bonds or commercial paper of the District as determined by the Board. Provided that the District's fixed charge coverage ratio is at or above 1.2 amounts in the Water Rate Stabilization Fund may be expended for any lawful purpose of the District, as determined by the Board of Directors, provided that any funds distributed to member agencies shall be allocated on the basis of all water sales during the previous fiscal year, such sales to include sales under the Interim Agricultural Water Program, Long-term Seasonal Storage Program and all Full Service water sales.

Section 331.2 - M.I. 32735 - May 8, 1979, effective July 1, 1979 [Supersedes M.I. 30984 - August 19, 1975; M.I. 31826 - June 14, 1977 and M.I. 32292 - June 13, 1978]; amended by M.I. 35309 - September 11, 1984; amended by M.I. 35730 - July 9, 1985. Section 331.2 repealed and Section 5201 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; paragraph (a) amended and paragraph (b) added by M.I. 36676 - June 9, 1987; paragraph (a) amended by M.I. 36731 - July 14, 1987; paragraph (b) amended and paragraph (c) added by M.I. 37007 - February 9, 1988; amended by M.I. 37449 - December 13, 1988; paragraph (a) amended by M.I. 37679 - May 9, 1989; renumbered to Section 5202 by M.I. 38241 - May 8, 1990; paragraphs (c) and (d) amended by M. I. 38304 - June 12, 1990; paragraph (a) amended by M.I. 39794 - August 20, 1992; paragraph (e) added by M.I. 41581 - September 12, 1995; Section renamed and paragraphs (a)-(c) and (e) amended by M.I.43434 - March 9, 1999; paragraph (e) amended by M.I. 43587 - June 8, 1999.

§ 5109. Pay-As-You-Go Funding.

To preserve debt capacity for evolving or unexpected financial needs, the Board's objective shall be to fund annually on a pay-as-you-go basis that portion of the capital program expenditures of the District sufficient to maintain stable water rates and charges, strong financial ratios and appropriate reserve levels. The amount of annual pay-as-you-go expenditures shall be determined by the Board as part of the annual budget process and shall include 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 capital facilities or projects, including replacements and refurbishment of Metropolitan facilities or portions thereof, as determined by the Board to meet the above objective.

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.

§ 5202. Fund Parameters.

The minimum cash and securities to be held in the various ledger funds as of June 30 of each year shall be as follows:

(a) For the Revenue Remainder Fund cash and securities on hand of June 30 of each year shall be equal to the portion of fixed costs of the District estimated to be recovered by water sale revenues for the eighteen months beginning with the immediately succeeding July. Such funds are to be used in the event that revenues are insufficient to pay the costs of the District.

(b) For the Pay-As-You-Go Fund, cash and securities on hand on June 30 of each year shall be at least equal to one-half of the estimated amount needed to fund pay-as-you-go expenditures, as defined in Section 5109 during the next fiscal year. In addition, any unexpended Pay-As-You-Go monies shall remain in the Pay-As-You Go Fund for pay-as-you-go-expenditures, or as shall be applied as the Board shall otherwise determine.

(c) Amounts remaining in the Revenue Remainder Fund on June 30 of each year after meeting the requirements set forth in Section 5202(a) shall be transferred to the Water Rate Stabilization Fund and to the extent required under Section 5202(d), to the Water Treatment Surcharge Stabilization Fund.

(d) After making the transfer of funds as set forth in Section 5202(c), a determination shall be made to substantially identify the portion, if any, of such transferred funds attributable to collections of treatment surcharge revenue in excess of water treatment cost. Such funds shall be transferred to the Water Treatment Surcharge Stabilization Fund to be available for the principal purpose of mitigating required increases in the surcharge for water treatment. If such determination indicates a deficiency in treatment surcharge revenue occurred during the fiscal year, a transfer of funds shall be made from the Water

Treatment Surcharge Stabilization Fund as needed to reimburse funds used for the deficiency. Notwithstanding the principal purpose of the Water Treatment Surcharge Stabilization Fund, amounts assigned to this fund shall be available for any other lawful purpose of the District.

(e) Amounts in the Water Rate Stabilization Fund shall be held for the principal purpose of maintaining stable and predictable water rates and charges. The amount to be held in the Water Rate Stabilization fund shall be targeted to be equal to the portion of the fixed costs of the District estimated to be recovered by water sales revenues during the two years immediately following the eighteen-month period referenced in Section 5202(a). Funds in excess of such targeted amount shall be utilized for capital expenditures of the District in lieu of the issuance of additional debt, or for the redemption, defeasance or purchase of outstanding bonds or commercial paper of the District as determined by the Board. Provided that the District's fixed charge coverage ratio is at or above 1.2 amounts in the Water Rate Stabilization Fund may be expended for any lawful purpose of the District, as determined by the Board of Directors; provided that any funds distributed to member agencies shall be allocated on the basis of all water sales during the previous fiscal year, such sales to include sales under the Interim Agricultural Water Program, Long-term Seasonal Storage Program and all Full Service water sales.