



- Board of Directors
Finance and Insurance Committee

1/10/2012 Board Meeting

8-1

Subject

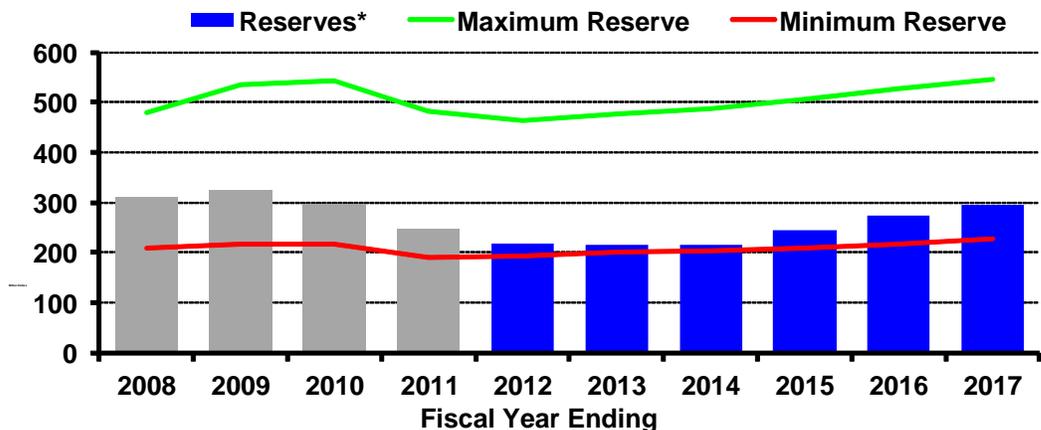
Present proposed biennial budget, revenue requirements, and water rates and charges for fiscal years 2012/13 and 2013/14, and set a public hearing date

Description

SUMMARY

The proposed biennial budget for fiscal years 2012/13 and 2013/14 (FY 2012/13 and FY 2013/14) continues to reflect Metropolitan’s key priorities while keeping proposed increases to water rates and charges as low as possible. This letter proposes a two-year (biennial) budget and corresponding two years of rates. Figure 1 below shows the proposed rate increases for FY 2012/13 and FY 2013/14 as well as historical and projected rate increases, the funding provided for key Metropolitan priorities, and progress towards meeting Metropolitan’s financial policy goals.

Figure 1. Historical and Projected Rates, Reserves, Financial Indicators and Water Supply and Conservation Spending



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Ave Rate Increase	5.8%	14.3%	19.7%	7.5%	7.5%	7.5%	5.0%	3.0%	3.0%	3.0%
Sales and Exchange, MAF	2.26	2.16	1.77	1.72	1.68	1.70	1.70	1.75	1.75	1.75
Revenue Bond Coverage	1.8	1.8	1.6	1.5	1.5	1.6	1.9	2.0	2.0	2.0
Fixed Charge Coverage	1.3	1.3	1.1	1.0	1.1	1.2	1.4	1.4	1.4	1.3
PAYGO, \$M	42.9	30.1	36.7	45.0	45.0	55.0	125.0	125.0	125.0	125.0
Conservation, \$M	16.0	36.2	22.3	12.9	15.8	20.0	20.0	20.0	20.7	21.4
Local Resources Program, \$M	32.5	39.4	40.1	35.2	39.4	33.2	33.6	41.2	46.2	52.2
Supply Programs, \$M	52.1	76.3	109.8	99.7	64.0	45.1	44.9	48.5	47.9	42.8
Retiree Health Care, \$M	-	-	-	-	-	5.0	10.0	15.0	20.0	25.0

* Reserves includes Water Rate Stabilization Fund (including SDCWA litigation account), Water Treatment Surcharge Stabilization Fund, Revenue Remainder, and Water Stewardship Fund.
FY 2008 to FY 2012 are based on cash, FY 2013 and beyond are based on modified accrual

The proposed biennial budget uses a more conservative water sales estimate of 1.70 million acre-feet (MAF) that is 5.6 percent lower than the previous projection of 1.8 MAF. The reduction in projected water sales combined with increased State Water Project (SWP) costs of \$85 million and increased debt service costs of \$10 million make it necessary to have a proposed rate increase of 7.5 percent in FY 2012/13 and 5 percent in FY 2013/14. In the three years beyond the proposed biennial budget, current projections are for rate increases in the 3 percent range with all financial policy goals met or exceeded.

STEPS TAKEN TO KEEP PROPOSED RATE INCREASES LOW

Over the past several years, staff has taken a number of steps to minimize the financial impacts resulting from a dramatic and sudden drop in projected water sales and increases in SWP and debt service costs. These steps are as outlined below.

Careful management of vacant positions - Since 2008, Metropolitan has been steadily reducing authorized positions and holding positions vacant whenever possible. In that time, 162 positions have been eliminated, of which 138 were regular employee positions. This was done by carefully assessing the need for each position vacated as employees retired from service. Over the last five years, 266 employees have retired. An examination of current workforce demographics indicates that the pace of retirements is expected to approximately double over the next five years. This will provide continuing opportunities to carefully consider each position before filling to optimize staffing levels while challenging Metropolitan to retain required skill sets needed to maintain operational efficiency.

Careful prioritization of capital program - Proposed capital spending over the biennial budget period totals \$552 million and would fund projects that are critical to maintaining water quality, reliability and worker safety. This is \$165 million less than in last year's estimates. The primary factors driving the projected decrease in capital expenditures are: (1) deferral of solar power projects that are not required for reliability and do not have an adequate return on investment; (2) rescheduling several rehabilitation/retrofit projects that are still being studied; (3) rescheduling of other rehabilitation projects to optimize contract work in coordination with day-to-day treatment plant operations; and (4) redesign of the Weymouth Oxidation Retrofit Program (ORP) to stage the constructed capacity of the new facilities.

FUNDING OF KEY PRIORITIES

While every effort has been made to keep spending as low as possible, many of Metropolitan's key priorities are funded in this budget as outlined below.

Prioritized Capital Investment Plan (CIP)

The CIP budget for FY 2012/13 and FY 2013/14 is estimated to be \$257 million and \$295 million, respectively, and is funded by a combination of debt and current operating revenues (PAYGO). The CIP will continue to reflect the deferral of facility expansion and other projects that neither enhance reliability nor provide an adequate return on investment while focusing on necessary refurbishment and replacement of aging infrastructure. Major expenditures on CIP projects that will be in design, construction, and/or start-up during the next two years include ORP projects at the Diemer and Weymouth treatment plants (\$143 million); Infrastructure Reliability projects at Metropolitan's five treatment plants, not including the ORP (\$140 million); and Infrastructure Reliability projects throughout Metropolitan's Colorado River Aqueduct, conveyance, and distribution systems (\$150 million). These projects account for almost 80 percent of the total CIP expenditures for fiscal years 2012/13 and 2013/14.

Rebuilding Water Storage Accounts

Supplies exceeding demands will allow Metropolitan to continue to increase storage reserves. The proposed biennial budget provides funding for continued maximization of storage agreements in the region, the Central Valley, and the Colorado River system. This initiative will help reduce the likelihood that Metropolitan will need to declare a Water Supply Allocation in coming years.

Conservation Programs

Funding is continued at the previously budgeted level of \$20 million in FY 2012/13 and FY 2013/14 to help ensure that our member agencies and retail water agencies meet the 20 percent by 2020 goal of reduced per capita water consumption. While conservation expenditures for FY 2011/12 are trending below budget, incentives could return to higher levels consistent with Metropolitan's long-term conservation plan adopted in August 2011, depending upon board approval of conservation projects pursuant to the long-term conservation plan.

Local Resources Program (LRP)

LRP expenditures for FY 2012/13 and FY 2013/14 reflect incentives for existing LRP and Groundwater Recovery Program projects. By FY 2016/17, it is anticipated that additional projects, which are eligible for incentives based on project cost, will come on-line to meet the 2010 Integrated Resources Plan Update goals for local resource development.

Focus on Bay-Delta/DHCCP

The proposed FY 2012/13 and FY 2013/14 biennial budget provides increased funding to aggressively pursue near-term and long-term Bay-Delta solutions that will ensure a greater degree of water supply reliability for Metropolitan's SWP supplies. Funding is directed at habitat restoration surveys and studies, environmental documentation activities, technical evaluations and science modeling to support the Bay Delta Conservation Plan and the Delta Habitat Conservation and Conveyance Program.

Workforce Planning/Succession

Metropolitan faces significant challenges in maintaining the required skills and capabilities needed to ensure quality operations as technology, workforce demographics, governmental and regulatory issues, and unplanned events evolve and unfold over the next decade. Current workforce demographic trends indicate that the pace of retirements is expected to about double over the next five years. To address the expected vacancies, Metropolitan has initiated a workforce planning/succession effort to ensure the availability of skilled employees needed to fill critical positions. This effort will include assessment of leadership competencies, executive development, use of disciplined workforce skill-gap analyses to understand critical skills at the various organizational levels, and creation of training programs to prepare existing staff to replace critical positions. In addition to improved tools for recruiting external talent, initiatives such as the Apprenticeship Program, Tuition Reimbursement, e-learning, cross-training, mentoring, internships, and other forms of learning and development will take on increasing importance as viable candidates are recruited, interviewed, and hired.

Addressing the Other Post Employment Benefits/Retiree Health Care (OPEB) Liability

Metropolitan has been funding the OPEB liability on a pay-as-you-go basis without setting aside assets to pay the present value of the future liability to active employees and retirees. This future liability exceeds \$400 million and will continue to grow if left unaddressed.

This biennial budget begins the process of funding the actuarial required contribution by phasing in, over a five-year period, the additional \$25 million that needs to be set aside annually thereafter. In FY 2012/13, \$5 million will be set aside, increasing to \$10 million in the second year of the biennial budget. This amount will increase by \$5 million each year until the \$25 million actuarial required contribution to the OPEB fund is reached in FY 2016/17.

Operations and Maintenance

The FY 2012/13 budget includes \$371.3 million for Operations and Maintenance (O&M), including labor and benefits, water treatment chemicals, power, solids handling, professional services, and operating equipment purchases. This is \$15 million higher than the 2011/12 revised 1.8 MAF budget of \$356.3 million reviewed by the Board in April 2011, due primarily to: initial funding of Metropolitan's OPEB obligation, variable treatment costs, initiation of the PC Replacement Program, an increase in employee medical insurance costs, promotion of key initiatives and legal costs related to the Bay-Delta, and water quality, employment, and water rates litigation costs.

As compared to the provisional 2012/13 budget of \$368 million approved by the Board in April 2011, the proposed 2012/13 budget is \$3.3 million higher due primarily to an increase in funding of the OPEB obligation, variable treatment costs, and operating equipment offset by a reduction in O&M labor and elimination of the budget contingency.

The proposed 2013/14 O&M budget is \$393.8 million, an increase of \$22.5 million as compared to the 2012/13 proposed budget. This is primarily due to merit increases for eligible employees, an increase in funding of OPEB, variable treatment costs, and completion of the PC Replacement Program.

A summary of Metropolitan's FY 2012/13 and FY 2013/14 biennial budget is presented in [Attachment 1](#).

RECOMMENDED FINANCIAL REPORTING CHANGE

The proposed biennial budget has been prepared on a modified-accrual basis instead of a cash basis. The modified-accrual basis of accounting is in accordance with Generally Accepted Accounting Principles and provides a better match of revenues and expenses for budgeting and reporting. This change in accounting basis allows the recognition of a full six months of rate increase revenues that take effect on January 1 of each fiscal year instead of only four months under the cash basis of accounting. As a result, revenues are \$17 million greater in FY 2012/13 and \$18 million greater in FY 2013/14 than under the previous cash basis of accounting resulting in a lower proposed rate increase. An added benefit is that a significant amount of staff time will be saved by not having to maintain and report on a separate set of cash basis accounting records. If approved by the Board pursuant to section 5106 of the Administrative Code, the adopted budget will reflect this change.

REVENUE REQUIREMENTS

To support the key priorities, the revenue requirements for FY 2012/13 and FY 2013/14 are estimated to be \$1.38 billion and \$1.46 billion, respectively. As shown in Table 1, the revenue requirement for FY 2012/13 is about \$112 million more than the projected revenue requirement in the current fiscal year. Costs are projected to increase from about \$1.43 billion in 2011/12 to about \$1.51 billion in FY 2012/13. The main driver for the increase is the substantial increase in SWP costs by \$85 million, mostly due to increases in variable power rates. Also increasing is debt service by \$10 million and pay-as-you-go funding of the CIP. Taxes, interest income, power, and miscellaneous income are expected to generate about \$125 million, reducing the revenue requirement from rates and charges in FY 2012/13 to about \$1.38 billion.

In FY 2013/14, costs are projected at \$1.58 billion, or \$74 million higher than FY 2012/13. The main driver for the increase is the substantial increase in pay-as-you-go funding of the CIP by \$70 million. With \$121 million in revenue offsets, the revenue requirement is \$1.46 billion in FY 2013/14.

Table 1. Revenue Requirements for FY 2012/13 and FY 2013/14

	\$ Millions		
	2011/12 Projected	2012/13 Test Year	2013/14 Test Year
Departmental & Other O&M (w/o Variable Treatment)	\$ 340.6	\$ 345.8	\$ 367.4
Chemicals, Sludge & Power for Treatment	32.2	25.5	26.4
State Water Project (without Variable Power)	373.1	392.8	364.0
SWP Variable Power	135.2	200.6	199.7
CRA Power	33.0	36.2	24.9
Supply Programs paid from O&M	64.0	45.1	44.9
Demand Management	55.1	53.2	53.6
Debt Service	333.3	343.3	352.3
PAYGO	45.0	55.0	125.0
Change in Required Reserves	18.2	11.0	24.2
Subtotal expenditures	1,429.7	1,508.6	1,582.5
Revenue Offsets	158.6	125.0	121.5
Total Revenue Requirement	\$ 1,271.1	\$ 1,383.6	\$ 1,461.0

Totals may not foot due to rounding

RATES AND CHARGES FOR 2013 AND 2014

Pursuant to Metropolitan's Administrative Code (section 4304), at its January meeting, the Finance and Insurance Committee will set a public hearing to receive input on Metropolitan's rates and charges. This hearing is to take place prior to the committee's regularly scheduled meeting in April. In addition to this action, the committee also reviews the General Manager's analysis of the revenue requirement for FY 2012/13 and FY 2013/14, and the rates and charges needed to meet the revenue requirement. The Cost of Service analysis detailed in [Attachment 2](#) and [Attachment 3](#) is consistent with the Cost of Service process used since the Board adopted the current rate structure in October 2001. This analysis shows that an overall rate increase of 7.5 percent in 2013 and 5 percent in 2014 would be necessary to achieve the Board direction of collecting the full Cost of Service in FY 2012/13 and FY 2013/14.

The specific elements of the rate increase effective January 1, 2013 and January 1, 2014, shown in Table 2, "Estimated Rates and Charges," were determined pursuant to the Cost of Service analysis shown in [Attachment 2](#) and [Attachment 3](#). The estimate of rates and charges for FY 2012/13 was based on a total revenue requirement of \$1.38 billion. The existing rates, which are effective through December 31, 2012, and the rates under a 7.5 percent increase, effective January 1, 2013, would generate combined revenue of \$1.37 billion based on total sales of 1.7 million acre-feet.

The estimate of rates and charges for FY 2013/14 was determined on a total revenue requirement of \$1.46 billion. Projected revenues from rates and charges in FY 2013/14 are \$1.46 billion on total sales of 1.7 million acre-feet.

Rate increases for FY 2014/15 to FY 2016/17 are projected to be 3 percent each year.

Table 2. Estimated Rates and Charges

Effective January 1	2012	2013	2014
Tier 1 Supply Rate (\$/AF)	\$95	\$149	\$157
Delta Supply Surcharge (\$/AF)	\$69	*	*
Tier 2 Supply Rate (\$/AF)	\$290	\$290	\$290
System Access Rate (\$/AF)	\$217	\$228	\$247
Water Stewardship Rate (\$/AF)	\$43	\$41	\$42
System Power Rate (\$/AF)	\$136	\$190	\$164
Full Service Untreated Volumetric Cost (\$/AF)			
Tier 1	\$560	\$608	\$610
Tier 2	\$686	\$749	\$743
Replenishment Water Rate Untreated (\$/AF)	\$442	**	**
Interim Agricultural Water Program Untreated (\$/AF)	\$537	***	***
Treatment Surcharge (\$/AF)	\$234	\$260	\$302
Full Service Treated Volumetric Cost (\$/AF)			
Tier 1	\$794	\$868	\$912
Tier 2	\$920	\$1,009	\$1,045
Treated Replenishment Water Rate (\$/AF)	\$651	**	**
Treated Interim Agricultural Water Program (\$/AF)	\$765	***	***
Readiness-to-Serve Charge (\$M)	\$146	\$146	\$169
Capacity Charge (\$/cfs)	\$7,400	\$6,600	\$8,900

* The Delta Supply Surcharge will be suspended after 2012.

** Under the current replenishment program proposal there would be no discounted replenishment rates after 2012.

*** The Interim Agricultural Water Program will be discontinued after 2012.

RECOMMENDATION

This letter requests that the Board set a public hearing for the March 2012 meeting of the Finance and Insurance Committee at which interested parties may provide input regarding Metropolitan's rates and charges to be effective January 1, 2013 and January 1, 2014; and approve the modified-accrual basis of accounting as described in this letter.

Policy

Metropolitan Water District Administrative Code Sections 4304 and 5107: Apportionment of Revenues and Setting of Water Rates and Charges to Raise Firm Revenues, and Biennial Budget Process

California Environmental Quality Act (CEQA)

CEQA determination for Options #1 and #2:

The proposed action is not defined as a project under CEQA, because it 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). For those anticipated projects listed in the budget that may require subsequent board approval, a CEQA review will be carried out and, if appropriate, environmental documentation for such projects will be prepared and processed in accordance with CEQA and the State CEQA Guidelines.

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

CEQA determination for Option #3:

None required

Board Options

Option #1

Adopt the CEQA determination and

- a. Set a public hearing for the March 2012 meeting of the Finance and Insurance Committee at which interested parties may provide input regarding Metropolitan's rates and charges to be effective January 1, 2013 and January 1, 2014; and
- b. Approve the modified-accrual basis of accounting as described in this letter.

Fiscal Impact: Recognition of a full six months of rate increase revenue instead of only four months, and some reduction in costs by eliminating the need to maintain a separate set of accounting records on the cash basis.

Option #2

Adopt the CEQA determination and

- a. Set a public hearing for the March 2012 meeting of the Finance and Insurance Committee at which interested parties may provide input regarding Metropolitan's rates and charges to be effective January 1, 2013 and January 1, 2014; and
- b. Do not approve the modified-accrual basis of accounting as described in this letter.

Fiscal Impact: Potentially higher required rate increases, or further cost reductions, and continued higher costs due to the need to maintain a separate set of accounting records on a cash basis.

Option #3

Take no action.

Fiscal Impact: Delay in rate setting process, and potentially no increase in revenues from rates and charges.

Staff Recommendation

Option #1



Gary Breaux
Chief Financial Officer

12/28/2011
Date



Jeffrey Knightlinger
General Manager

12/28/2011
Date

Attachment 1 – Biennial FY 2012/13 and FY 2013/14 Budget Summary

Attachment 2 – Metropolitan Water District of Southern California, FY 2012/13 Cost of Service

Attachment 3 – Metropolitan Water District of Southern California, FY 2013/14 Cost of Service

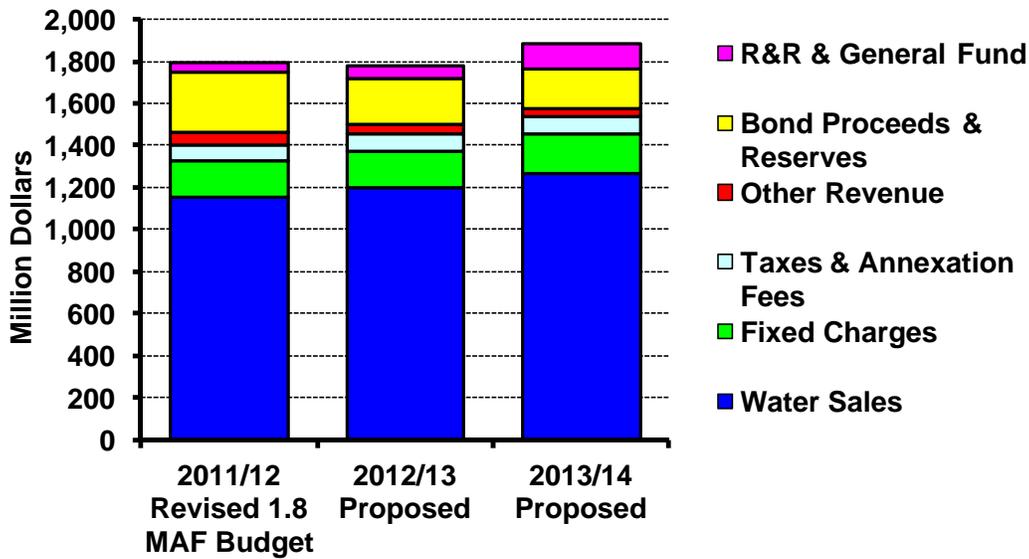
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**Biennial Budget Summary
FY 2012/13 & 2013/14**

The biennial budget includes a discussion of sources and uses of funds. The budget is developed and monitored on a modified-accrual basis. This means that revenues and expenses are recognized in the period they are earned and incurred regardless of whether cash has been received or disbursed.

The modified-accrual basis of accounting is in accordance with Generally Accepted Accounting Principles (GAAP) and provides a better match of revenues and expenses for budgeting and reporting.

Figure 1. Sources of Funds



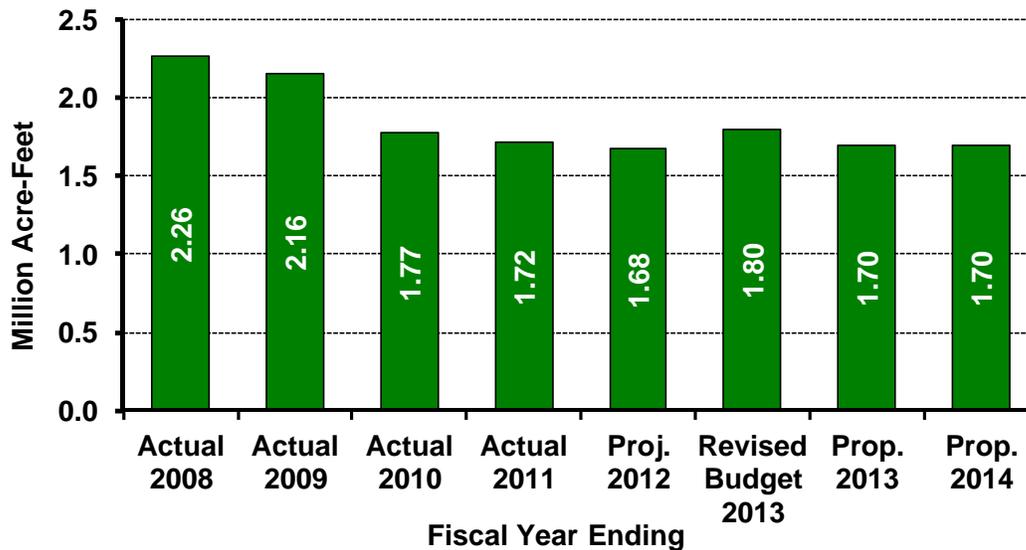
SOURCES OF FUNDS

Estimated revenues from water sales, fixed charges (readiness-to-serve charge and capacity charge), taxes and annexation fees, and other miscellaneous income (interest income, power recovery, etc.) are projected to be \$1.50 billion for fiscal year 2012/13 and \$1.58 billion for fiscal year 2013/14. For 2012/13 this is \$35.6 million more than the 2011/12 revised budget and for 2013/14 this is \$80.4 million more than 2012/13. The increase in revenues is due to increases in water rates and charges in 2012, and estimated increases in 2013 and 2014. Figure 1 shows the major sources of funds. Summaries of sources and uses of funds are shown in Tables 6, 7 and 8 at the end of this section. A description of each revenue source is included in the Glossary of Terms.

Water Sales

Revenues from water sales are budgeted at \$1,197.2 million in 2012/13 and \$1,271.3 million in 2013/14 and are based on rates and charges adopted by the Board for January 1, 2012, plus a 7.5 percent rate increase estimated for January 1, 2013 and 5 percent rate increase for January 1, 2014.

Water sales for both 2012/13 and 2013/14 are estimated to be 1.70 million acre-feet (MAF) during the July through June fiscal year period.

Figure 2. Water Sales Trend *

* Proposed budget for FY 2012/13 and FY 2013/14 are based on modified accrual and represent water sales for July through June, prior years are based on cash basis and represent water sales for May through April.

The 2012/13 fiscal year water sales include 1.52 MAF of firm sales, zero replenishment sales, zero agricultural sales, and 185 thousand acre-feet (TAF) of exchange sales. Treated sales are estimated to be 973 TAF or 57 percent of total sales in 2012/13. The 2013/14 fiscal year water sales include 1.50 MAF of firm sales, zero replenishment sales, zero agricultural sales, and 198 TAF of exchange sales. Treated sales are estimated to be 973 TAF or 57 percent of total sales in 2013/14. Figure 2 shows the trend of water sales.

Taxes and Annexation Fees

Revenues from taxes and annexation fees, which will be used to pay voter-approved debt service on general obligation bonds and a portion of the capital costs of the State Water Contract (SWC) are estimated to be \$82.6 million in 2012/13 and \$81.1 million in 2013/14.

Fixed Charges

The fixed charges are comprised of the Capacity Charge and Readiness-to-Serve Charge. In 2012/13 these charges are estimated to generate \$30.8 million and \$146.0 million, respectively. In 2013/14 these charges are estimated to generate \$29.1 million and \$157.5 million, respectively. In total this represents a \$6.5-million increase from the 2011/12 to the 2012/13 and a \$9.8 million increase from the 2012/13 to the 2013/14 budget.

Other Revenue

Interest earnings are estimated to total \$13.8 million and \$14.3 million for 2012/13 and 2013/14, respectively, (including trust accounts and construction funds).

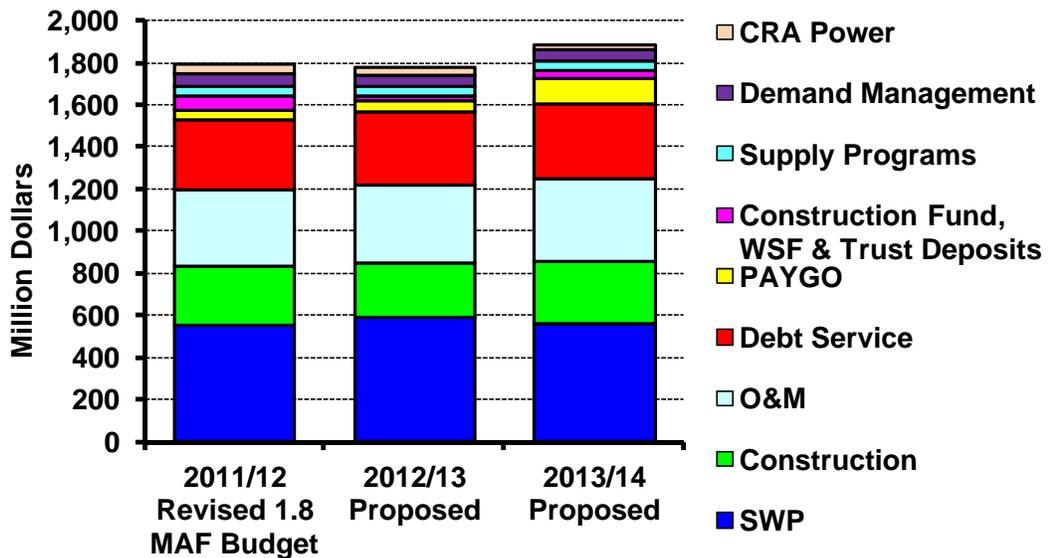
Receipts from hydroelectric and Colorado River Aqueduct (CRA) power sales are estimated to be \$23.6 million for 2012/13 and \$20.5 million for 2013/14.

Other Sources

To meet the ongoing funding requirements of the CIP, Metropolitan plans to issue \$190 million of fixed rate bonds in 2012/13 and \$180 million of fixed rate bonds in 2013/14. These bonds are expected to generate \$352.8 million in bond proceeds, after about \$3 million to cover the cost of

issuance and \$14 million to fund reserves. The remaining CIP funding requirements will be met from current operating funds (i.e., PAYGO from the R&R and General Fund). In 2012/13, a total of \$1.78 billion will be available for expenditures and other obligations and in 2013/14 this figure will increase to \$1.89 billion.

Figure 3. Uses of Funds



USES OF FUNDS

Total uses of funds are \$1.78 billion for 2012/13 and \$1.89 billion for 2013/14. Figure 3 shows the breakdown of expenditures and other obligations that make up the Uses of Funds for 2012/13 and 2013/14.

Colorado River Aqueduct Power

CRA power costs are projected to be \$36.2 million and \$24.9 million based on pumping 727 TAF and 890 TAF at Whitsett Intake Pumping Plant, respectively, in 2012/13 and 2013/14. 2013/14 is \$11.2 million lower despite the increase in pumping as a result of the expected use of exchange energy in 2013/14.

State Water Contract

State Water Contract (SWC) expenditures are budgeted at \$593.4 million for 2012/13 and \$563.8 million in 2013/14. This is based on

total deliveries of 1.26 MAF for 2012/13, of which 120 TAF are received via exchange, and 1.14 MAF for 2013/14, of which 108 TAF are received via exchange.

SWC power costs are expected to be \$270.7 million for 2012/13 and \$230.0 million for 2013/14 and include the cost of pumping 1.14 MAF and 1.03 MAF, respectively.

For 2012/13 the average total unit cost of SWC power is expected to be about \$238 per acre-foot, which includes \$61 per acre-foot for fixed power costs and \$176 per acre-foot for variable pumping costs. For 2013/14 the average total unit cost of SWC power is expected to be about \$223 per acre-foot, which includes \$29 per acre-foot for fixed power costs and \$193 per acre-foot for variable pumping costs.

SWC minimum operations, maintenance, power, and replacement charges are estimated to increase \$5.1 million to \$184.6 million in 2013/14. Capital charges are expected to increase \$5.9 million to \$149.2 million in 2013/14.

Demand Management Costs

Metropolitan provides financial assistance to its member agencies for the development of local water recycling and groundwater recovery projects through the Local Resource Program (LRP). Metropolitan also provides financial assistance for the development of conservation programs through the Conservation Credits Program (CCP).

As part of the LRP, Metropolitan has entered into agreements to provide financial assistance to water-recycling projects. Recycling projects that receive Metropolitan contributions are expected to produce 162 TAF of recycled water, principally for landscape irrigation, groundwater recharge, and industrial uses in 2012/13 and 169 TAF in 2013/14. Metropolitan is expected to spend \$24.7 million in 2012/13 and \$24.9 million on these efforts in 2013/14.

Metropolitan has also entered into agreements to provide financial assistance to projects to recover contaminated groundwater. These

groundwater recovery projects are expected to produce about 58 TAF in 2012/13 at a cost to Metropolitan of \$8.5 million. In 2013/14 groundwater recovery projects are expected to produce about 62 TAF at a cost to Metropolitan of \$8.7 million.

The CCP provides financial assistance to customers in Metropolitan's service area for water conservation programs. The budget for CCP provides rebate funding for residential, commercial, industrial, and landscape conservation activities. The 2012/13 and 2013/14 funding for CCP has been budgeted at \$20.0 million per year.

OPERATIONS AND MAINTENANCE

The proposed 2012/13 operations and maintenance (O&M) budget, including operating equipment purchases, is estimated to be \$371.3 million. This is \$15.0 million higher than the 2011/12 Revised 1.8 MAF budget of \$356.3 million presented to the Board in April 2011. The proposed 2013/14 O&M budget is \$393.8 million, an increase of \$22.5 million as compared to the 2012/13 proposed budget. Table 1 summarizes the O&M budget by expenditure type. A more detailed discussion of significant factors impacting the proposed O&M budgets follows Table 1.

Table 1. 2012/13 Operations & Maintenance Annual Budget (dollars) by Expenditure Type

	2011/12 Revised 1.8 MAF Budget	2012/13 Budget	2012/13 Proposed	2013/14 Proposed	2012/13 Budget vs. 2012/13 Proposed	2012/13 Proposed vs. 2013/14 Proposed
Salaries and Benefits*	224,881,800	229,248,400	226,059,500	238,244,500	(3,188,900)	12,185,000
Variable Treatment **	22,891,400	24,281,700	25,512,700	26,409,500	1,231,000	896,800
Outside Services	38,279,600	38,868,200	41,439,000	41,239,300	2,570,800	(199,700)
Materials & Supplies ***	46,657,200	48,106,900	47,616,400	49,795,400	(490,500)	2,179,000
Cargill Settlement & OPEB	500,000	-	5,000,000	10,000,000	5,000,000	5,000,000
Other	15,604,400	20,187,400	17,652,800	19,936,700	(2,534,600)	2,283,900
Operating Equipment	7,489,400	7,344,700	8,041,600	8,192,900	696,900	151,300
Total O&M	356,303,800	368,037,300	371,322,000	393,818,300	3,284,700	22,496,300
Total Budgeted Positions	1,921	1,921	1,907	1,907	(14)	-

* Includes Overhead Credit for Construction.

** Costs associated with treatment plants only.

*** Without chemicals associated with treatment plants.

2012/13 O&M Budget

The proposed 2012/13 O&M budget includes \$371.3 million for labor and benefits, water treatment chemicals, power, and solids handling, materials and supplies, professional services, and operating equipment purchases. This is \$15.0 million higher than the 2011/12 Revised 1.8 MAF budget of \$356.3 million reviewed by the Board in April 2011 due primarily to initial funding of Metropolitan's Other Post-Employment Benefits (OPEB) obligation; variable treatment costs; initiation of the PC Replacement Program; an increase in employee medical insurance costs; promotion of key initiatives and legal costs related to the Bay-Delta; and increased litigation costs related to water quality, employment, and water rates.

The proposed 2012/13 budget is \$3.3 million higher than the provisional 2012/13 budget of \$368.0 million approved by the Board in April 2011 due primarily to beginning the phasing in process towards full funding of the OPEB obligation.

Salaries and Benefits – Labor costs, not including those charged to construction, are \$226.7 million. Although the proposed 2012/13 budget assumes no across-the-board salary increases, consistent with the bargaining unit contracts approved by the Board, overall O&M labor is \$1.2 million higher than the Revised 1.8 MAF 2011/12 budget. This increase reflects a \$3.1-million increase in the cost of employee benefits as compared to the 2011/12 budget driven primarily by employee and retiree medical insurance cost increases. In addition, the O&M budget also reflects \$1.6 million for merit increases for eligible employees and a \$0.9-million increase in overtime for planned shutdown support offset by a reduction of \$2.4 million for elimination of 15 positions and an increase in the construction overhead applied as a credit reducing O&M labor by \$2.0 million.

The total personnel complement for 2012/13 is 1,907 positions, including 24 agency and district temporary full-time equivalents (FTEs), and reflects a decrease of 15 regular positions from the 2011/12 budget. Total

regular employee positions are 138 positions below the 2008/09 budget. The proposed 2012/13 budget assumes a vacancy rate of approximately 2.7 percent. Although this is slightly less than the 3.2 percent assumed for the 2011/12 budget, 10 regular employee positions are held unfunded in lieu of a vacancy rate. The value of these 10 positions is equivalent to an overall vacancy rate of about 3.3 percent.

Other O&M – As a result of reduced revenues from water sales, initial funding of Metropolitan's OPEB obligation to its current and future retirees was eliminated from the Revised 1.8 MAF 2011/12 budget. The proposed 2012/13 budget includes \$5 million to renew that commitment. Consistent with Metropolitan's IT Strategic Plan, the proposed 2012/13 budget includes \$1.4 million to initiate replacement of outdated desktop workstations at the end of their anticipated useful life as part of the two-year PC Replacement Program. This program was deferred one year beyond the planned refresh cycle to mitigate budget increases, but now needs to proceed since many computers will be about six years old by the time of replacement. The General Manager's costs in support of Bay-Delta activities for near-term and long-term activities and the General Counsel's legal costs related to water quality, employment, and water rates are expected to increase by \$2.2 million. Chemicals, solids, and power reflect the cost of the water treatment process and is anticipated to increase by \$1.2 million in 2012/13 driven primarily by an overall increase in chemical unit commodity prices, increased treated water volumes, higher electricity rates, and refined assumptions on solids removal.

2013/14 O&M Budget

The proposed 2013/14 O&M budget is \$393.8 million, an increase of \$22.5 million as compared to the 2012/13 proposed budget. This is primarily due to merit increases for eligible employees, an increase in funding of OPEB, variable treatment costs, and completion of the PC Replacement Program.

Salaries and Benefits – The proposed 2013/14 O&M labor budget is about

\$12.2 million higher than the proposed 2012/13 budget driven primarily by \$13.2 million in merit increases for eligible employees partially offset by an increase in the construction overhead applied as a credit reducing O&M labor by \$0.6 million and reductions in overtime, agency temporary, and district temporary employees.

The total personnel complement for 2013/14 remains at 1,907 positions, including 24 agency and district temporary FTEs. The proposed 2013/14 budget assumes a vacancy rate of approximately 2.9 percent. The 2013/14 budget retains 6 regular employee positions held unfunded in lieu of a vacancy rate, resulting in an effective vacancy rate of about 3.3 percent. Additional changes in personnel will depend on long-range staffing plan inputs related primarily to CIP impacts, a continued emphasis on maintenance

management best practices, and careful review of vacated positions as a result of increasing employee retirements.

Other O&M – The proposed 2013/14 budget increases the ongoing funding of Metropolitan's OPEB obligation to \$10 million, a \$5-million increase as compared to 2012/13. The proposed 2013/14 budget also funds \$3.5 million for completion of the two-year PC Replacement Program to replace outdated desktop workstations at the end of their anticipated useful life, an increase of \$2.1 million as compared to 2012/13. The cost of chemicals, power, and sludge disposal incurred in the water treatment process is anticipated to increase by \$0.9 million in 2013/14 driven primarily by modest inflationary pressure on chemical commodity prices and electricity rates.

Figure 4. Departmental Budget by Expenditure Type

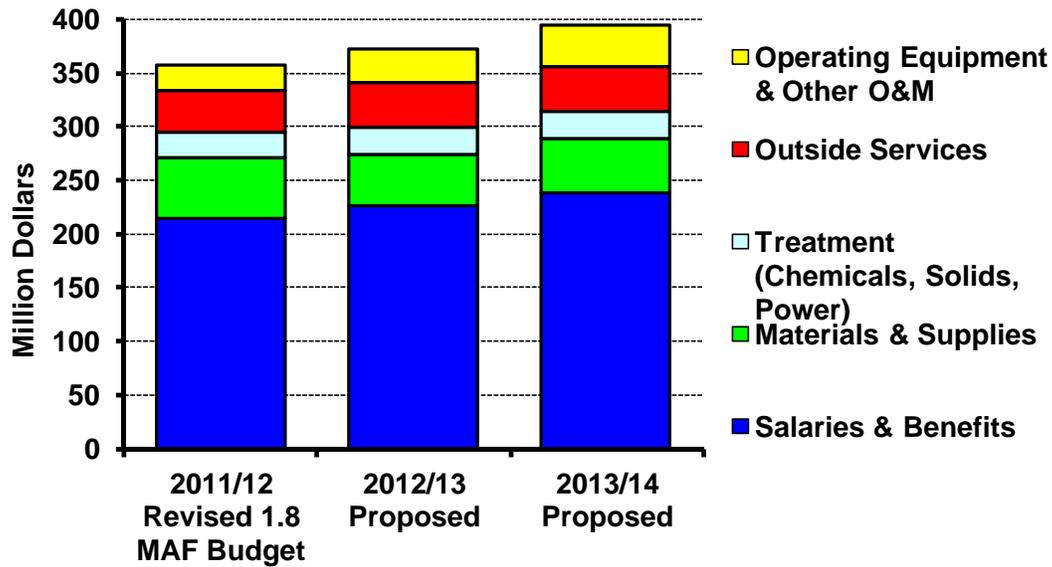


Figure 4 summarizes the total departmental O&M budget by expenditure type, of which 59 percent is for salaries and benefits.

Figure 5 depicts the distribution of the departmental O&M by organization without other O&M, the overhead credit, and operating equipment. Including treatment

costs, the Water System Operations (WSO) Group accounts for 59 percent of the total departmental budget for both 2011/12 and 2012/13.

A summary of the O&M budget by organization is shown in Table 2.

Figure 5. Departmental Budget by Organization (without Other O&M, operating equipment, and overhead credit)

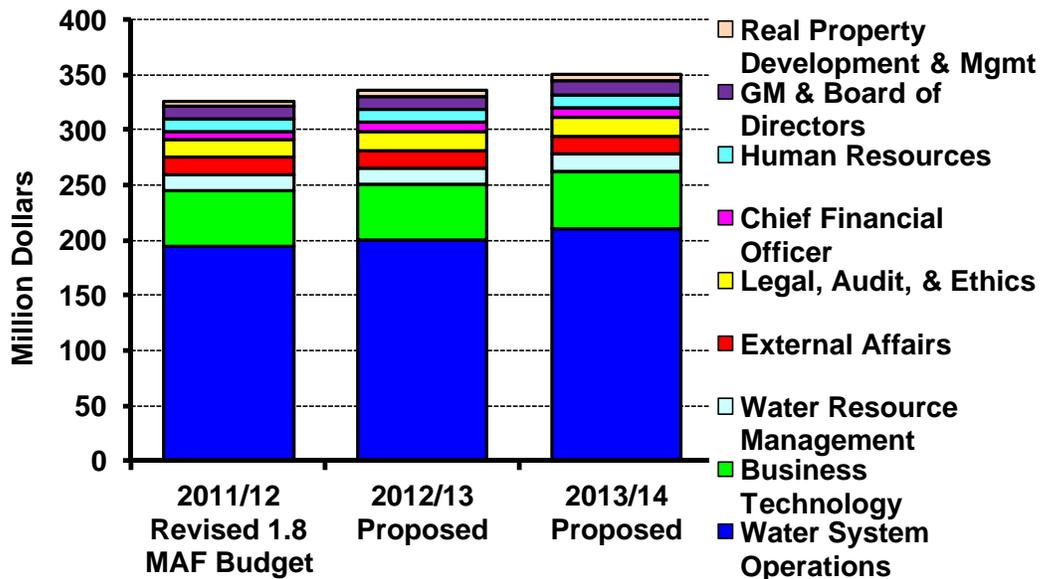


Table 2. Operations & Maintenance Budget by Organization

Departmental Units	2011/12 Revised 1.8 MAF Budget	2012/13 Budget	2012/13 Proposed	2013/14 Proposed	2012/13 Budget vs. 2012/13 Proposed	%	2012/13 Proposed vs. 2013/14 Proposed	%
Office of the General Manager	\$ 10,450,800	\$ 10,601,700	\$ 12,287,200	\$ 12,666,200	\$ 1,685,500	15.9%	\$ 379,000	3.1%
Water System Operations w/o Variable Treatment	172,304,600	176,710,700	175,947,200	184,581,500	(763,500)	(0.4%)	8,634,300	4.9%
Water Resource Management	14,470,700	15,444,900	14,903,500	15,197,200	(541,400)	(3.5%)	293,700	2.0%
Engineering Services	23,916,400	24,764,900	24,476,000	25,759,100	(288,900)	(1.2%)	1,283,100	5.2%
Business Technology	49,877,100	50,340,500	49,321,700	52,106,300	(1,018,800)	(2.0%)	2,784,600	5.6%
Real Property Development & Mgmt	5,560,900	5,839,600	5,021,000	5,288,300	(818,600)	(14.0%)	267,300	5.3%
Human Resources	11,477,400	11,672,800	11,545,800	11,853,000	(127,000)	(1.1%)	307,200	2.7%
Office of the Chief Financial Officer	8,262,300	8,385,200	8,396,500	8,728,600	11,300	0.1%	332,100	4.0%
External Affairs	15,920,600	16,079,900	15,521,800	15,998,100	(558,100)	(3.5%)	476,300	3.1%
Subtotal - General Manager's Dep.	312,240,800	319,840,200	317,420,700	332,178,300	(2,419,500)	(0.8%)	14,757,600	4.6%
General Counsel	12,552,600	12,535,900	14,666,300	14,555,900	2,130,400	17.0%	(110,400)	(0.8%)
General Auditor	2,682,000	2,682,000	2,688,500	2,759,500	6,500	0.2%	71,000	2.6%
Ethics Office	573,800	573,700	570,800	592,400	(2,900)	(0.5%)	21,600	3.8%
Overhead Credit from Construction	(18,230,600)	(19,408,300)	(20,231,400)	(20,806,900)	(823,100)	4.2%	(575,500)	2.8%
Total Departmental Budget	309,818,600	316,223,500	315,114,900	329,279,200	(1,108,600)	(0.4%)	14,164,300	4.5%
Other O&M								
Cargill Settlement	500,000	-	-	-	-	NA	-	NA
PC Replacement	-	1,400,000	1,400,000	3,525,000	-	NA	2,125,000	151.8%
CCP Vendor Administration	1,839,100	1,589,100	1,589,100	1,589,100	-	NA	-	NA
Performance Programs	673,000	673,000	673,000	673,000	-	NA	-	NA
Association Dues	4,432,500	4,849,700	4,849,700	4,981,000	-	NA	131,300	2.7%
OPEB Funding	-	-	5,000,000	10,000,000	5,000,000	NA	5,000,000	100.0%
Contingency	-	2,681,200	-	-	(2,681,200)	(100.0%)	-	NA
Insurance	7,504,000	7,766,600	7,766,600	7,766,600	-	NA	-	NA
Leases	600,000	630,000	776,600	790,000	146,600	23.3%	13,400	1.7%
Taxes	555,800	597,800	597,800	612,000	-	NA	14,200	2.4%
Subtotal - Other	16,104,400	20,187,400	22,652,800	29,936,700	2,465,400	12.2%	7,283,900	32.2%
TOTAL OPERATIONS & MAINTENANCE	325,923,000	336,410,900	337,767,700	359,215,900	1,356,800	0.4%	21,448,200	6.3%
Operating Equipment	7,489,400	7,344,700	8,041,600	8,192,900	696,900	9.5%	151,300	1.9%
Variable Treatment	22,891,400	24,281,700	25,512,700	26,409,500	1,231,000	5.1%	896,800	3.5%
GRAND TOTAL	\$ 356,303,800	\$ 368,037,300	\$ 371,322,000	\$ 393,818,300	\$ 3,284,700	0.9%	\$ 22,496,300	6.1%

Totals may not foot due to rounding

LABOR

The total personnel complement (including temporary workers) for 2012/13 and 2013/14 is 1,907 positions, a reduction of 15 regular full time equivalent positions from 2011/12. Total O&M personnel are down by 15 positions to 1,619 in 2012/13 and drop one more position to a total of 1,618 in 2013/14. Positions dedicated to capital work remain relatively flat during the biennium. The proposed 2012/13 budget assumes a vacancy rate of approximately 2.7 percent and holds 10 regular employee positions unfunded. When

the value of these 10 positions is taken into account, the effective overall vacancy rate is about 3.3 percent, which is about the same as the 3.2 percent rate assumed for the 2011/12 budget. Similarly, the proposed 2013/14 budget assumes a vacancy rate of approximately 2.9 percent and holds 6 regular employee positions unfunded in lieu of a vacancy rate, resulting in an effective vacancy rate of about 3.3 percent. The personnel complement is broken down on Tables 3 and 4.

Table 3. Regular and Temporary Positions

	2010/11 Budget	2011/12 Budget	2012/13 Proposed	2013/14 Proposed	2011/12 Budget vs. 2012/13 Proposed	2012/13 Proposed vs. 2013/14 Proposed
Regular Full Time Positions	1,899	1,898	1,883	1,883	-15	0
District Temporary Positions	22	18	18	18	1	0
Agency Temporary Positions	3	6	6	6	0	0
Total	1,924	1,921	1,907	1,907	-14	0

Totals may not foot due to rounding.

Table 4. O&M and Capital Staffing Levels

	2011/12 Budget	2012/13 Proposed	2013/14 Proposed
O&M Positions			
Regular Full Time Positions	1,613	1,599	1,598
District & Agency Temporary Positions	21	20	20
Total O&M	1,634	1,619	1,618
Capital Positions			
Regular Full Time Positions	285	284	285
District & Agency Temporary Positions	3	4	3
Total Capital	287	288	289
GRAND TOTAL	1,921	1,907	1,907

Totals may not foot due to rounding.

Supply Programs

Major supply program expenditures for 2012/13 and 2013/14 are estimated to be \$45.1 million and \$44.9 million, respectively, and include (may not foot due to rounding):

- \$13.7 million in 2012/13 and \$13.4 million in 2013/14 for Central Valley Storage Programs;
- \$13.0 million in 2012/13 and \$13.7 million in 2013/14 for operating and maintaining the IID/MWD conservation agreement;
- \$13.3 million in 2012/13 and \$12.2 million in 2013/14 for Colorado Programs;
- \$4.8 million in 2012/13 and \$4.7 million in 2013/14 for the Palo Verde Irrigation District (PVID) Land Management Program;
- \$0.1 million in 2012/13 and \$0.6 million in 2013/14 for State Water Project Transfer Programs; and
- \$0.3 million in 2012/13 and \$0.3 million in 2013/14 for In-Basin Programs.

ANNUAL CAPITAL INVESTMENT PLAN

The CIP budget for 2012/13 and 2013/14 is estimated to be \$257.3 million and \$294.6 million in 2013/14 and is funded by a combination of debt and current operating revenues (R&R and General Fund). The 2012/13 capital budget is \$89.5 million lower than the 2011/12 budget and the 2013/14 capital budget is \$37.3 million higher than the 2012/13 budget.

The CIP is funded by a combination of debt and current operating revenues (PAYGO). The two largest areas of expenditures in the 2012/13 and 2013/14 CIP are Infrastructure Reliability and Water Quality. It is currently anticipated that infrastructure expenditures will continue to grow as more facilities reach the end of their service life.

Cash Funded Capital

The CIP includes R&R and other projects that are funded from current operating revenues in the R&R and General Fund. In total these funds

are commonly referred to as Pay-As-You-Go (PAYGO) funding. The PAYGO funding for 2012/13 has been budgeted at \$55 million. In 2013/14 PAYGO funding has been budgeted at \$125 million and enables the majority of R&R projects to be funded from PAYGO in 2013/14.

Debt Service

The portion of the CIP that is not funded from cash will be funded from bond proceeds. In 2012/13, \$202.3 million of capital will be funded with bond proceeds. In 2013/14, \$169.6 million of capital will be funded with bond proceeds. Metropolitan plans to issue \$190 million in new debt in 2012/13 and an additional \$180 million in 2013/14. This will result in construction proceeds of \$352.8 million, after allowing for about \$3 million to cover the cost of issuance and \$14 million to fund reserves.

Debt service payments in 2012/13 are budgeted to be \$343.3 million and include \$40.4 million in G.O. bond debt service, \$293.6 million in revenue bond debt service, \$8.1 million in variable rate debt administration costs (liquidity, remarketing fees, and broker-dealer fees), and \$1.3 million for State Revolving Fund Loan payments. Total debt service costs in 2012/13 are expected to be \$10.5 million more than the revised 2011/12 budget.

Debt service payments in 2013/14 are budgeted to be \$352.3 million and include \$40.4 million in G.O. bond debt service, \$302.3 million in revenue bond debt service, \$8.4 million in variable rate debt administration costs (liquidity, remarketing fees, and broker-dealer fees), and \$1.3 million for State Revolving Fund Loan payments. Total debt service costs in 2013/14 are expected to be \$9.0 million more than the 2012/13 budget.

Metropolitan currently has \$4.8 billion in outstanding debt. Of this amount, \$4.6 billion is revenue bond debt, of which 11 percent is in a variable rate mode.

Reserve Transfers

The 2012/13 budget forecasts a \$3.4-million decrease in reserves by June 30, 2013. The Water Rate Stabilization Fund (WRSF) and the Treatment Surcharge Stabilization Fund (TSSF)

are expected to be drawn down \$13.2 million. The Revenue Remainder Fund is expected to increase by \$6.2 million and the Water Stewardship Fund (WSF) is expected to increase by \$3.8 million.

The 2013/14 budget forecasts a \$0.5-million decrease in reserves by June 30, 2014. The WRSF and the TSSF are expected to be drawn down \$4.1 million. The Revenue Remainder Fund is expected to increase by \$2.6 million and the Water Stewardship Fund (WSF) is expected to increase by \$1.0 million.

FUND BALANCES AND RESERVE LEVELS

Metropolitan operates as a single enterprise fund for financial statements and budgeting purposes. Through its Administrative Code, Metropolitan identifies a number of accounts, which are referred to as funds, to separately track uses of monies for specific purposes as summarized in Table 5. Figure 6 shows the distribution of these funds by type.

Fund balances are budgeted to be \$975.8 million at June 30, 2013. Of that total, \$734.1 million is restricted by bond covenants, contracts, or board policy, and \$241.7 million is unrestricted. In addition, fund balances are budgeted to be \$1,006.8 million at June 30, 2014. Of that total, \$766.6 million is restricted by bond covenants, contracts, or board policy, and \$240.2 million is unrestricted.

On June 30, 2013 the minimum and maximum reserve fund targets are estimated to be \$199.8 million and \$475.6 million, respectively. Based on projected revenues and expenditures, it is estimated that the balance in the WRSF, TSSF, Revenue Remainder Fund, and WSF will total about \$215.6 million, about \$15.8 million over the minimum target.

On June 30, 2014 the minimum and maximum reserve fund targets are estimated to be \$202.4 million and \$487.5 million, respectively. Based on projected revenues and expenditures, it is estimated that the balance in the WRSF, TSSF, Revenue Remainder Fund, and WSF will total about \$215.1 million, about \$12.7 million over the minimum target.

Table 5. Projected Fund Balances (dollars in millions)

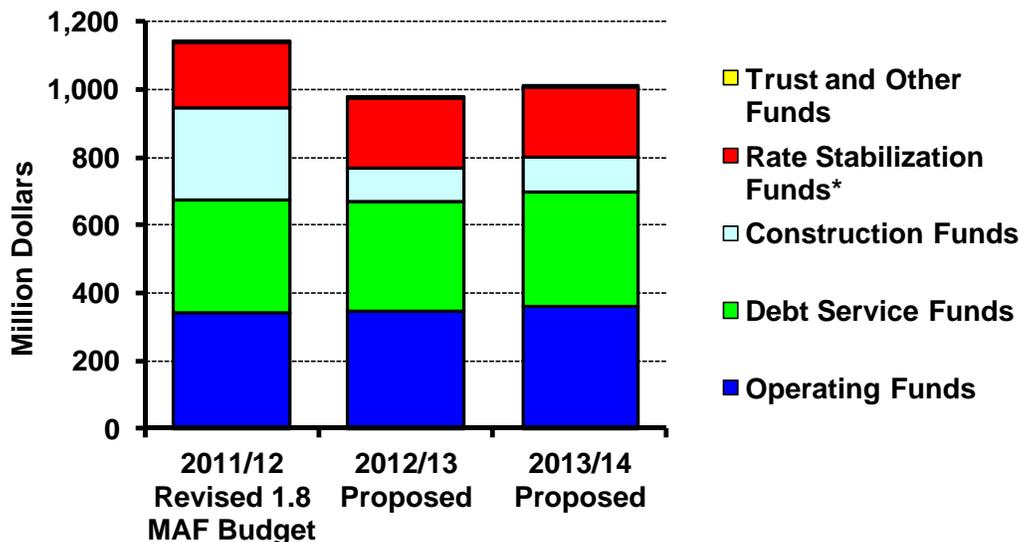
	Restricted		Unrestricted	Total
	Contractual	Board		
2012/13 Proposed				
Operating Funds	231.0	114.6		345.7
Debt Service Funds	322.7			322.7
Construction Funds	64.7		33.8	98.5
Rate Stabilization Funds*			208.0	208.0
Trust and Other Funds	1.0			1.0
Total June 30, 2013	619.4	114.6	241.7	975.8
2013/14 Proposed				
Operating Funds	238.8	122.9		361.7
Debt Service Funds	336.2			336.2
Construction Funds	67.7		33.8	101.5
Rate Stabilization Funds*			206.4	206.4
Trust and Other Funds	1.0			1.0
Total June 30, 2014	643.8	122.9	240.2	1,006.8

Based on modified accrual accounting.

Totals may not foot due to rounding.

* includes Water Rate Stabilization Fund (including SDCWA litigation account), Water Treatment Surcharge Stabilization Fund and Revenue Remainder.

Figure 6. Fund Distribution by Type



* Includes Water Rate Stabilization Fund (including SDCWA litigation account), Water Treatment Surcharge Stabilization Fund and Revenue Remainder.

Table 6. Sources and Uses of Funds (dollars in millions)

	2010/11 Actual	2011/12 Revised 1.8 MAF Budget	2011/12 Projected	2012/13 Budget	2012/13 Proposed	2013/14 Proposed	2012/13	2013/14
							Proposed Compared to	Proposed Compared to
							2011/12 Revised 1.8 MAF Budget	2012/13 Proposed
USES OF FUNDS								
Expenditures								
State Water Contract	\$ 491.9	\$ 557.5	\$ 508.3	\$ 552.7	\$ 593.4	\$ 563.8	\$ 36.0	\$ (29.7)
Supply Programs	101.5	47.5	64.0	45.4	45.1	44.9	(2.4)	(0.2)
Colorado River Power	46.9	45.4	33.0	46.5	36.2	24.9	(9.2)	(11.3)
Debt Service	314.0	332.8	333.3	355.3	343.3	352.3	10.5	9.0
Demand Management	48.2	59.1	55.1	60.7	53.2	53.6	(5.9)	0.4
Departmental O&M	296.7	309.8	317.9	316.2	315.1	329.3	5.4	14.2
Treatment Chemicals, Solids & Power	23.2	22.9	32.2	24.3	25.5	26.4	2.6	0.9
Other O&M	10.7	23.6	22.8	27.6	30.7	38.1	7.1	7.4
Sub-total Expenditures	1,333.1	1,398.5	1,366.5	1,428.6	1,442.6	1,433.3	44.0	(9.3)
Capital Investment Plan	250.4	281.9	192.5	346.8	257.3	294.6	(24.7)	37.3
Fund Deposits								
R&R and General Fund	45.0	45.0	45.0	60.0	55.0	125.0	10.0	70.0
Revenue Bond Construction	73.0	20.9	-	-	-	2.0	(20.9)	2.0
Water Stewardship Fund	1.6	-	2.3	-	3.7	1.0	3.7	(2.7)
Interest for Construction & Trust Funds	3.4	3.6	2.5	2.5	1.1	1.0	(2.6)	(0.1)
Increase in Required Reserves	-	44.5	18.2	58.2	18.3	31.1	(26.2)	12.8
Increase in Rate Stabilization Fund	-	-	-	11.3	-	-	-	-
Other Fund Activity	4.4	-	-	-	-	-	-	-
Sub-total Fund Deposits	127.4	114.0	68.1	132.0	78.1	160.2	(35.9)	82.1
TOTAL USES OF FUNDS	\$ 1,710.9	\$ 1,794.5	\$ 1,627.0	\$ 1,907.4	\$ 1,778.0	\$ 1,888.1	\$ (16.5)	\$ 110.1
SOURCES OF FUNDS								
Revenues								
Taxes	\$ 87.3	\$ 80.0	\$ 80.0	\$ 81.6	\$ 81.6	\$ 80.1	\$ 1.6	\$ (1.5)
Annexations	0.6	1.0	1.0	1.0	1.0	1.0	-	-
Interest Income	20.0	18.0	18.2	18.7	13.8	14.3	(4.2)	0.5
Hydro Power	22.1	21.5	26.0	20.5	23.6	20.9	2.1	(2.6)
Fixed Charges (RTS & Capacity Charge)	153.5	170.2	170.2	186.9	176.8	186.6	6.5	9.8
Water Sales Revenue	995.6	1,155.4	1,069.5	1,228.3	1,197.2	1,271.3	41.8	74.1
Miscellaneous Revenue	68.2	18.2	35.9	19.5	6.0	6.1	(12.2)	0.1
Bond Proceeds and Reimbursements	288.2	268.0	20.0	99.2	188.5	178.6	(79.5)	(9.9)
Sub-total Receipts	1,635.6	1,732.4	1,420.8	1,655.7	1,688.5	1,758.9	(43.9)	70.4
Fund Withdrawals								
R&R and General Fund	45.0	45.0	45.0	60.0	55.0	125.0	10.0	70.0
Bond Funds for Construction	-	-	127.5	191.7	21.1	-	21.1	(21.1)
Water Stewardship Fund	-	-	-	-	-	-	-	-
Decrease in Required Reserves	7.1	-	-	-	-	-	-	-
Decrease in Rate Stabilization Fund	23.2	17.1	33.7	-	13.4	4.2	(3.7)	(9.2)
Sub-total Fund Withdrawals	75.3	62.1	206.2	251.7	89.5	129.2	27.4	39.7
TOTAL SOURCES OF FUNDS	\$ 1,710.9	\$ 1,794.5	\$ 1,627.0	\$ 1,907.4	\$ 1,778.0	\$ 1,888.1	\$ (16.5)	\$ 110.1

FY2012 is based on cash, FY2013 and beyond are based on modified accrual accounting.

Totals may not foot due to rounding.

Table 7. June 30, 2013 Sources and Uses by Fund (dollars in millions)

Fiscal Year Ending June 30th, 2013 (\$ in Millions)	All Funds	Operating Funds							Debt Service Funds	Reserve Funds (1)	Construction Funds		Trust & Other Funds
		General	Water Revenue	O&M	Water Standby	Water Stewardship	Self-Insured Retention	State Contract			R&R	Revenue Bond Construction	
Beginning of Year Balance	987.2	64.4	-	169.2	1.1	3.9	25.1	79.8	309.0	215.2	33.8	84.8	1.0
USES OF FUNDS													
Expenditures													
State Water Contract	593.4	-	-	424.6	-	-	-	168.9	-	-	-	-	-
Supply Programs	45.1	-	-	45.1	-	-	-	-	-	-	-	-	-
Colorado River Power	36.2	-	-	36.2	-	-	-	-	-	-	-	-	-
Debt Service	343.3	1.3	-	8.1	-	-	-	-	333.9	-	-	-	-
Demand Management	53.2	-	-	53.2	-	-	-	-	-	-	-	-	-
Departmental O&M	315.1	-	-	315.1	-	-	-	-	-	-	-	-	-
Treatment Chemicals, Sludge & Power	25.5	-	-	25.5	-	-	-	-	-	-	-	-	-
Other O&M	30.7	8.0	-	22.7	-	-	-	-	-	-	-	-	-
Sub-total Expenditures	1,442.6	9.3	-	930.5	-	-	-	168.9	333.9	-	-	-	-
Capital Investment Plan	257.3	27.4	-	-	-	-	-	-	-	-	27.6	202.3	-
Fund Deposits													
R&R and General Fund	55.0	27.4	-	-	-	-	-	-	-	-	27.6	-	-
Revenue Bond Construction	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Stewardship Fund	3.7	-	-	-	-	3.7	-	-	-	-	-	-	-
Interest for Construction & Trust Funds	1.1	-	-	-	-	-	-	-	-	-	-	1.0	0.0
Increase in Required Reserves	18.3	-	-	(2.6)	-	-	-	1.0	13.7	6.2	-	-	-
Increase in Rate Stabilization Fund	-	-	-	-	-	-	-	-	-	-	-	-	-
Sub-total Fund Deposits	78.1	27.4	-	(2.6)	-	3.7	-	1.0	13.7	6.2	27.6	1.0	0.0
TOTAL USES OF FUNDS	1,778.0	64.2	-	927.9	-	3.7	-	169.9	347.6	6.2	55.1	203.3	0.0
SOURCES OF FUNDS													
Revenues													
Taxes	81.6	-	-	-	-	-	-	41.3	40.4	-	-	-	-
Annexations	1.0	-	-	-	-	-	-	1.0	-	-	-	-	-
Interest Income	13.8	0.9	-	2.4	0.0	0.1	0.4	1.1	4.5	3.0	0.5	1.0	0.0
Hydro Power	23.6	-	23.6	-	-	-	-	-	-	-	-	-	-
Fixed Charges (RTS & Capacity Charge)	176.8	-	176.8	-	-	-	-	-	-	-	-	-	-
Water Sales Revenue	1,197.2	-	1,197.2	-	-	-	-	-	-	-	-	-	-
Miscellaneous Revenue	6.0	6.0	-	-	-	-	-	-	-	-	-	-	-
Bond Proceeds	188.5	-	-	-	-	-	-	-	7.3	-	-	181.2	-
Sub-total Receipts	1,688.5	6.9	1,397.6	2.4	0.0	0.1	0.4	43.4	52.1	3.0	0.5	182.2	0.0
Fund Withdrawals													
Transfer Fund	-	-	-	-	-	-	-	-	-	-	-	-	-
R&R and General Fund	55.0	27.4	-	-	-	-	-	-	-	-	27.6	-	-
Bond Funds for Construction	21.1	-	-	-	-	-	-	-	-	-	-	21.1	-
Water Stewardship Fund	-	-	-	-	-	-	-	-	-	-	-	-	-
Decrease in Required Reserves	-	-	-	-	-	-	-	-	-	-	-	-	-
Decrease in Rate Stabilization Fund	13.4	-	-	-	-	-	-	-	-	13.4	-	-	-
Sub-total Fund Withdrawals	89.5	27.4	-	-	-	-	-	-	-	13.4	27.6	21.1	-
TOTAL SOURCES OF FUNDS	1,778.0	34.3	1,397.6	2.4	0.0	0.1	0.4	43.4	52.1	16.4	28.0	203.3	0.0
Inter-Fund Transfers	-	34.8	(1,397.6)	920.5	(0.0)	3.7	(0.4)	126.5	295.5	(10.2)	27.1	-	-
End of Year Balance	975.8	64.4	-	166.6	1.1	7.6	25.1	80.8	322.7	208.0	33.8	64.7	1.0

Based on modified accrual accounting.

Totals may not foot due to rounding.

(1) includes Water Rate Stabilization Fund (including SDCWA litigation account), Water Treatment Surcharge Stabilization Fund and Revenue Remainder.

Table 8. June 30, 2014 Sources and Uses by Fund (dollars in millions)

Fiscal Year Ending June 30th, 2014 (\$ in Millions)	All Funds	Operating Funds							Debt Service Funds	Reserve Funds (1)	Construction Funds		Trust & Other Funds
		General	Water Revenue	O&M	Water Standby	Water Stewardship	Self-Insured Retention	State Contract			R&R	Revenue Bond Construction	
Beginning of Year Balance (2)	975.8	64.4	-	166.6	1.1	7.6	25.1	80.8	322.7	208.0	33.8	64.7	1.0
USES OF FUNDS													
Expenditures													
State Water Contract	563.8	-	-	400.2	-	-	-	163.6	-	-	-	-	-
Supply Programs	44.9	-	-	44.9	-	-	-	-	-	-	-	-	-
Colorado River Power	24.9	-	-	24.9	-	-	-	-	-	-	-	-	-
Debt Service	352.3	1.3	-	8.4	-	-	-	-	342.7	-	-	-	-
Demand Management	53.6	-	-	53.6	-	-	-	-	-	-	-	-	-
Departmental O&M	329.3	-	-	329.3	-	-	-	-	-	-	-	-	-
Treatment Chemicals, Sludge & Power	26.4	-	-	26.4	-	-	-	-	-	-	-	-	-
Other O&M	38.1	8.2	-	29.9	-	-	-	-	-	-	-	-	-
Sub-total Expenditures	1,433.3	9.5	-	917.6	-	-	-	163.6	342.7	-	-	-	-
Capital Investment Plan	294.6	22.6	-	-	-	-	-	-	-	-	102.4	169.6	-
Fund Deposits													
R&R and General Fund	125.0	22.6	-	-	-	-	-	-	-	-	102.4	-	-
Revenue Bond Construction	2.0	-	-	-	-	-	-	-	-	-	-	2.0	-
Water Stewardship Fund	1.0	-	-	-	-	1.0	-	-	-	-	-	-	-
Interest for Construction & Trust Funds	1.0	-	-	-	-	-	-	-	-	-	-	1.0	0.0
Increase in Required Reserves	31.1	-	-	7.8	-	-	-	7.2	13.5	2.6	-	-	-
Increase in Rate Stabilization Fund	-	-	-	-	-	-	-	-	-	-	-	-	-
Sub-total Fund Deposits	160.2	22.6	-	7.8	-	1.0	-	7.2	13.5	2.6	102.4	3.0	0.0
TOTAL USES OF FUNDS	1,888.1	54.7	-	925.4	-	1.0	-	170.8	356.2	2.6	204.7	172.6	0.0
SOURCES OF FUNDS													
Revenues													
Taxes	80.1	-	-	-	-	-	-	39.7	40.4	-	-	-	-
Annexations	1.0	-	-	-	-	-	-	1.0	-	-	-	-	-
Interest Income	14.3	0.9	-	2.5	0.0	0.1	0.4	1.2	4.8	3.0	0.5	1.0	0.0
Hydro Power	20.9	-	20.9	-	-	-	-	-	-	-	-	-	-
Fixed Charges (RTS & Capacity Charge)	186.6	-	186.6	-	-	-	-	-	-	-	-	-	-
Water Sales Revenue	1,271.3	-	1,271.3	-	-	-	-	-	-	-	-	-	-
Miscellaneous Revenue	6.1	6.1	-	-	-	-	-	-	-	-	-	-	-
Bond Proceeds	178.6	-	-	-	-	-	-	-	6.9	-	-	171.7	-
Sub-total Receipts	1,758.9	7.1	1,478.8	2.5	0.0	0.1	0.4	41.9	52.1	3.0	0.5	172.6	0.0
Fund Withdrawals													
Transfer Fund	-	-	-	-	-	-	-	-	-	-	-	-	-
R&R and General Fund	125.0	22.6	-	-	-	-	-	-	-	-	102.4	-	-
Bond Funds for Construction	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Stewardship Fund	-	-	-	-	-	-	-	-	-	-	-	-	-
Decrease in Required Reserves	-	-	-	-	-	-	-	-	-	-	-	-	-
Decrease in Rate Stabilization Fund	4.2	-	-	-	-	-	-	-	-	4.2	-	-	-
Sub-total Fund Withdrawals	129.2	22.6	-	-	-	-	-	-	-	4.2	102.4	-	-
TOTAL SOURCES OF FUNDS	1,888.1	29.7	1,478.8	2.5	0.0	0.1	0.4	41.9	52.1	7.1	102.8	172.6	0.0
Inter-Fund Transfers	-	35.0	(1,478.8)	912.9	(0.0)	0.9	(0.4)	128.8	304.1	(4.5)	101.9	-	-
End of Year Balance	1,006.8	64.4	-	174.4	1.1	8.7	25.1	88.0	336.2	206.4	33.8	67.7	1.0

Based on modified accrual accounting.

Totals may not foot due to rounding.

(1) includes Water Rate Stabilization Fund (including SDCWA litigation account), Water Treatment Surcharge Stabilization Fund and Revenue Remainder.

Metropolitan Water District of Southern California
Fiscal Year 2012/13 Cost of Service

December 2011

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1 Cost of Service

Prior to discussing the specific rates and charges that make up the rate structure, it is important to understand the cost of service process that supports the rates and charges. The purpose of the cost of service process is to: (1) identify which costs should be recovered through rates and charges; (2) organize Metropolitan's costs into service functions; and (3) classify service function costs on the basis for which the cost was incurred. The purpose of sorting Metropolitan's costs in a manner that reflects the type of service provided (e.g., supply vs. conveyance), the characteristics of the cost (e.g., fixed or variable) and the reason why the cost was incurred (e.g. to meet peak or average demand) is to create logical cost of service "building blocks". The building blocks can then be arranged to design rates and charges with a reasonable nexus between costs and benefits.

1.1 Cost of Service Process

The general cost of service process involves the four basic steps outlined below.

Step 1 - Development Of Revenue Requirements

In the revenue requirement step, the costs that Metropolitan must recover through rates and charges, after consideration of revenue offsets, are identified. The cash needs approach, an accepted industry practice for government-owned utilities, has historically been used in identifying Metropolitan's revenue requirements and was applied for the purposes of this study. Under the cash needs approach, revenue requirements include operating costs and annual requirements for meeting financed capital items (debt service, funding of replacement and refurbishment from operating revenues, etc.).

Step 2 – Identification Of Service Function Costs

In the functional allocation step, revenue requirements are allocated to different categories based on the operational functions served by each cost. The functional categories are identified in such a way as to allow the development of logical allocation bases. The functional categories used in the cost of service process include:

- Supply
- Conveyance and Aqueduct
- Storage
- Treatment
- Distribution
- Demand Management
- Administrative and General
- Hydroelectric

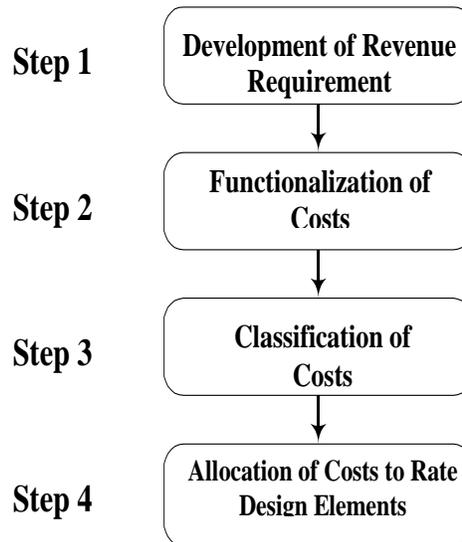
In order to provide more finite functional allocation, many of these functional categories are subdivided into more detailed sub-functions in the cost of service process. For example, costs for the Supply and Conveyance and Aqueduct functions are further subdivided into the sub-functions State Water Project (SWP), Colorado River Aqueduct (CRA), and Other. Similarly, costs in the Storage function are broken down into the sub-functions Emergency Storage, Drought Carryover Storage, and Regulatory Storage.

Step 3 - Classification Of Costs

In the cost classification step, functionalized costs are separated into categories according to their causes and behavioral characteristics. Proper cost classification is critical in developing a rate structure that recovers costs in a manner consistent with the causes and behaviors of those costs. Under American Water Works Association (AWWA) guidelines, cost classification may be done using either the Base/Extra-Capacity approach or the Commodity/Demand approach. In the simplest sense, these approaches offer alternative means of distinguishing between utility costs incurred to meet average or base demands and costs incurred to meet peak demands. The Commodity/Demand approach was modified for its application to Metropolitan's rate structure by adding a separate cost classification for costs related to providing standby service. Analysis of system operating data indicated that a modified Commodity/Demand approach was most appropriate for developing Metropolitan's cost of service classification bases.

Step 4 - Allocation Of Costs To Rate Design Elements

The allocation of costs to the rate design elements depends on the purpose for which the cost was incurred and the manner in which the member agencies use the Metropolitan system. For example, costs incurred to meet average system demands are typically recovered by dollar per acre-foot rates and are allocated based on the volume of water purchased by each agency. Rates that are levied on the amount or volume of water delivered are commonly referred to as volumetric rates as the customer's costs vary with the volume of water purchased. Costs incurred to meet peak demands (referred to in this report as demand costs) are recovered through a peaking charge (the Capacity Charge) and are allocated to agencies based on their peak demand behavior. Costs incurred to provide standby service in the event of an emergency are referred to here as standby costs. Differentiating between costs for average usage and peak usage is just one example of how the cost of service process allows for the design of rates and charges that improves overall customer equity and efficiency. Figure 1 summarizes the cost of service process.

Figure 1. The Cost of Service Process

1.2 Revenue Requirements

The estimated revenue requirements presented in this report are for FY 2012/13. Throughout the report, FY 2012/13 is used as the “test year” to demonstrate the application of the cost of service process. Schedule 1 summarizes the FY 2012/13 revenue requirement by the major budget line items used in Metropolitan’s budgeting process. Current estimates indicate Metropolitan’s annual cash expenditures (including capital financing costs, but not construction outlays financed with bond proceeds) will total approximately \$1.51 billion in FY 2012/13.

The rates and charges do not have to cover this entire amount. Metropolitan generates a significant amount of revenue from interest income, hydroelectric power sales and miscellaneous income. These internally generated revenues are referred to as revenue offsets and are expected to generate about \$42 million in FY 2012/13. It is expected that Metropolitan will also generate about \$82.6 million in ad valorem property tax revenues and annexation charges. Property tax revenues are used to pay for a portion of Metropolitan’s general obligation bond debt service, and a portion of Metropolitan’s obligation to pay for debt service on bonds issued to fund the State Water Project. The total revenue offsets for FY 2012/13 are estimated to be around \$125 million. Therefore, the revenue required from rates and charges is the difference between the total costs and the revenue offsets, or \$1.38 billion. Given an effective date of January 1, 2013, the rates and charges recommended in this report, combined with rates and charges effective through December 31, 2012 will generate a total of \$1.37 billion in 2012/13. The shortfall of \$10 million will be covered through withdrawals from the Water Rate Stabilization Fund during 2012/13.

All of Metropolitan’s costs fall under the broad categories of Departmental Costs or General District Requirements. Departmental Costs include budgeted items identified with specific organizational groups. General District Requirements consist of requirements associated with the Colorado River

Aqueduct, State Water Project, the capital financing costs associated with the Capital Investment Program (CIP), and Water Management Programs. General District Requirements also include reserve fund transfers required by bond covenants and Metropolitan's Administrative Code.

When considered in total, General District Requirements make up approximately 72 percent of the absolute value of the allocated costs. The largest component of the revenue requirement relates to SWP expenditures, which make up approximately 36 percent of Metropolitan's FY 2012/13 revenue requirements. Metropolitan's SWP contract requires Metropolitan to pay its allocated share of the capital, minimum operations, maintenance, power and replacement costs incurred to develop and convey its water supply entitlement, irrespective of the quantity of water Metropolitan takes delivery of in any given year. Metropolitan's capital financing program is the second largest component of the revenue requirement, constituting approximately 24 percent of the revenue requirement. Departmental O&M costs make up 21 percent of the total revenue requirement in FY 2012/13. Water System Operations is the largest single component of the Departmental Costs and accounts for 12 percent of the revenue requirements. Water System Operations responsibilities include operating and maintaining Metropolitan's pumping, storage, treatment, and hydroelectric facilities, as well as the Colorado River Aqueduct and other conveyance and supply facilities.

Schedule 1. Revenue Requirements (by budget line item)

	Fiscal Year Ending 2013	% of Revenue Requirements (1)
Departmental Operations & Maintenance		
Office of the General Manager & Human Resources	\$ 19,656,300	1.2%
External Affairs	15,521,800	1.0%
Water System Operations	201,459,900	12.3%
Chief Financial Officer	6,460,400	0.4%
Corporate Resources	63,365,100	3.9%
Real Property Development & Mgmt	5,021,000	0.3%
Water Resource Management	14,903,500	0.9%
Ethics Department	438,300	0.0%
General Counsel	11,741,300	0.7%
Audit Department	2,060,000	0.1%
Total	340,627,600	20.9%
General District Requirements		
State Water Project	593,444,201	36.3%
Colorado River Aqueduct	36,178,684	2.2%
Supply Program Costs paid from operating revenues	45,125,279	2.8%
Water Management Programs	53,205,188	3.3%
Capital Financing Program	398,314,175	24.4%
Other O&M	30,694,400	1.9%
Increase (Decrease) in Required Reserves	11,000,000	0.7%
Total	1,167,961,927	71.5%
Revenue Offsets	(124,965,018)	7.6%
Net Revenue Requirements	\$ 1,383,624,509	100.0%

(1) Given as a percentage of the absolute values of total dollars allocated.
Totals may not foot due to rounding

1.3 Service Function Costs

Several major service functions result in the delivery of water to Metropolitan's member agencies. These include the supply itself, the conveyance capacity and energy used to move the supply, storage of water, distribution of supplies within Metropolitan's system, and treatment of these supplies. Metropolitan's rate structure recovers the majority of the cost of providing these functions through rates and charges.

The functional categories developed for Metropolitan's cost of service process are consistent with the AWWA rate setting guidelines, a standard chart of accounts for utilities developed by the National Association of Regulatory Commissioners (NARUC), and the National Council of Governmental Accounting. Because all water utilities are not identical, the rate structure reflects Metropolitan's unique physical, financial, and institutional characteristics.

A key goal of functional allocation is to maximize the degree to which rates and charges reflect the costs of providing different types of service. For functional allocation to be of maximum benefit, two criteria must be kept in mind when establishing functional categories.

- The categories should correlate charges for different types of service with the costs of providing those different types of service; and
- Each function should include reasonable allocation bases by which costs may be allocated.

Each of the functions developed for the cost of service process is described below.

- *Supply.* This function includes costs for those SWP and CRA facilities and programs that relate to maintaining and developing supplies to meet the member agencies' demands. For example, Metropolitan's supply related costs include investments in the Conservation Agreement with the Imperial Irrigation District and the Palo Verde Irrigation District (PVID) Program from the Colorado River supply programs. The SWP programs include transfer programs such as Kern Delta Program, Semitropic Water Storage Program, Yuba Accord Program, and the Arvin-Edison Water Storage Program. Costs for in-basin programs within Metropolitan's service area, such as Proposition 13 are also included.
- *Conveyance and Aqueduct.* This function includes the capital, operations, maintenance, and overhead costs for SWP and CRA facilities that convey water through Metropolitan's internal distribution system. Variable power costs for the SWP and CRA are also considered to be Conveyance and Aqueduct costs but are separately reported under a "power" sub-function. Conveyance and Aqueduct facilities can be distinguished from Metropolitan's other facilities primarily by the fact that they do not typically include direct connections to the member agencies. For purposes of this study, the Inland Feeder Project functions as an extension of the SWP East Branch and is therefore considered a Conveyance and Aqueduct facility as well.
- *Storage.* Storage costs include the capital financing, operating, maintenance, and overhead costs for Diamond Valley Lake, Lake Mathews, Lake Skinner, and five smaller regulatory reservoirs within the distribution system. Metropolitan's larger storage facilities are operated to provide (1) emergency storage in the event of an earthquake or similar system outage; (2) drought storage that produces additional supplies during times of shortage; and (3) regulatory storage to balance system demands and supplies and provide for operating flexibility. To reasonably allocate the costs of storage capacity among member agencies, the

storage service function is categorized into sub-functions of emergency, drought, and regulatory storage.

- *Treatment.* This function includes capital financing, operating, maintenance, and overhead costs for Metropolitan's five treatment plants and is considered separately from other costs so that treated water service may be priced separately.
- *Distribution.* This function includes capital financing, operating, maintenance, and overhead costs for the "in-basin" feeders, canals, pipelines, laterals, and other appurtenant works. The "in-basin" facilities are distinguished from Conveyance and Aqueduct facilities at the point of connection to the SWP, Lake Mathews, and other major turnouts along the CRA facilities.
- *Demand Management.* A separate demand management service function has been used to clearly identify the cost of Metropolitan's investments in local resources like conservation, recycling, and desalination.
- *Administrative and General (A&G).* These costs occur in each of the Groups' departmental budgets and reflect overhead costs that cannot be directly functionalized. The cost-of-service process allocates A&G costs to the service functions based on the labor costs of non-A&G dollars allocated to each function.
- *Hydroelectric.* Hydroelectric costs include the capital financing, operating, maintenance, and overhead costs incurred to operate the 16 small hydroelectric plants located throughout the water distribution system.

1.3.1 Functional Allocation Bases

The functional allocation bases are used to allocate a cost to the various service functions. The primary functional allocation bases used in the cost-of-service process are listed below.

- Direct assignment
- Net Book Value plus Work-In-Progress
- Prorating in proportion to other allocations
- Manager analysis

Schedule 2 summarizes the amounts of total cost allocated using each of the above types of allocation bases.

Schedule 2. Summary of Functional Allocations by Type of Allocation Basis

Primary Functional Allocation Bases	Estimated for FY 2013	% of Allocated Dollars
Direct Assignment	\$ 1,056,969,297	64.7%
Work in Progress/Net Book Value	438,185,275	26.8%
Prorating	58,854,194	3.6%
Manager Analysis	34,420,500	2.1%
Other	\$ 45,125,279	2.8%
Total Dollars Allocated	\$ 1,633,554,545	100.0%
Portion of Above Allocations Relating to:		
Revenue Requirements before Offsets	1,508,589,527	
Revenue Offsets	124,965,018	
Total Dollars Allocated	\$ 1,633,554,545	

Totals may not foot due to rounding

Each of the primary allocation bases is discussed in detail in the remainder of this section. Discussion of each allocation basis includes examples of costs allocated using that particular basis.

(a) Direct assignment

Direct assignment makes use of a clear and direct connection between a revenue requirement and the function being served by that revenue requirement. Directly assigned costs typically include: costs associated with specific treatment plants, purely administrative costs, and certain distribution and conveyance departmental costs. Examples of costs that are directly assigned to specific functional categories are given below.

- * Water System Operations Group departmental costs for treatment plants are directly assigned to treatment.
- * Transmission charges for State Water Contract are directly assigned to conveyance SWP.

(b) Net Book Value Plus Work-In-Progress

Capital financing costs, including debt service and funding replacements and refurbishments from operating revenues, comprise about 24 percent of Metropolitan's annual revenue requirements. One approach would be to allocate payments on each debt issue in direct proportion to specific project expenditures made using bond proceeds. But, this approach would result in a high degree of volatility in relative capital cost allocations from year to year. The approach used in this analysis is one widely used in water industry cost of service studies. Capital and debt-related costs (including repair and replacement costs paid from current revenues) are allocated on the basis of the relative net book values of fixed assets within each functional category. This approach produces capital cost allocations that are consistent with the functional distribution of assets. Also, since the allocation basis is tied to fixed asset records

rather than debt payment records, the resulting allocations are more reflective of the true useful lives of assets. Use of net book values as an allocation basis provides an improved matching of functional costs with asset lives. A listing of fixed asset net book values summarized by asset function is shown in Schedule 3.

Schedule 3. Net Book Value and Work in Progress Allocation Base

Functional Categories	NBV for FY 2013	% of Total NBV
Source of Supply	\$ 23,297,862	0.3%
Conveyance & Aqueduct	1,864,648,314	20.8%
Storage	2,261,013,314	25.2%
Treatment	3,057,396,365	34.1%
Distribution	1,316,181,317	14.7%
Administrative & General	322,585,783	3.6%
Hydroelectric	115,593,239	1.3%
Total Fixed Assets Net Book Value	\$ 8,960,716,194	100.0%

Totals may not foot due to rounding

In most instances, the cost-of-service process uses net book value *plus* work-in-progress to develop allocation bases for debt and capital costs. For organizational units handling current construction activity, however, allocations are based on work-in-progress alone. For these organizational units, exclusion of net book value from the allocation basis is done because the costs being allocated relate directly to work in progress not yet reflected in the completed assets records.

Examples of revenue requirements allocated using these net book value and work-in-progress allocations are shown below.

- * Revenue Bond Debt Service: *allocated using Work In Progress plus Net Book Value.*
- * Annual deposit of operating revenue to replacement and refurbishment fund: *allocated using Work In Progress plus Net Book Value.*

To calculate the relative percentage of fixed assets in each functional category, Metropolitan staff conducted a detailed analysis of historical accounting records and built a database of fixed asset accounts that contains records for all facilities currently in service and under construction. Each facility was sorted into the major service function that best represented the facilities primary purpose and was then further categorized into the appropriate sub-functions described earlier.

(c) Prorating in proportion to other allocations

Utility cost of service studies frequently contain line items for which it would be difficult to identify an allocation basis specific to that line item. In these cases, the most logical allocation basis is often a prorata blend of allocation results calculated for other revenue requirements in the same departmental group, or general category. Reasonable prorata allocations are based on a

logical nexus between a cost and the purpose which it serves. For example: Human Resources Section costs are allocated using all labor costs, since Human Resources spends its time and resources attending to the labor force.

(d) Manager analyses

The functional interrelationships of some organizational units are so complex and/or dynamic that reliable allocation bases can only be developed with extensive input from the organization's managers. In these cases, managers use their first hand knowledge of the organization's internal operations to generate a functional analysis of departmental costs. An example of revenue requirements allocated based on manager analyses is: Water System Operations Group: Operations Planning Unit.

A summary of the functional allocation results is shown in Schedules 4 and 5. Schedule 4 provides a breakdown of the revenue requirement for FY 2012/13 into the major service functions and sub-functions prior to the redistribution of administrative and general costs. Schedule 5 serves as a cross-reference summarizing how the budget line items are distributed among the service functions. The largest functional component of Metropolitan's revenue requirement is the Conveyance and Aqueduct function, which constitutes approximately 44 percent of the allocated revenue requirement.

Schedule 4. Revenue Requirement (by service function)

Functional Categories	Fiscal Year Ending 2013	% of Allocated Dollars (1)
Source of Supply		
CRA	\$ 37,174,283	2.6%
SWP	107,004,590	7.6%
Other Supply	10,248,313	0.7%
Total	154,427,186	11.0%
Conveyance & Aqueduct		
CRA		
<i>CRA Power (net of sales)</i>	41,611,082	3.0%
<i>CRA All Other</i>	42,649,458	3.0%
SWP		
<i>SWP Power</i>	270,437,807	19.2%
<i>SWP All Other</i>	201,985,938	14.4%
Other Conveyance & Aqueduct	67,329,047	4.8%
Total	624,013,332	44.4%
Storage		
Storage Costs Other Than Power		
<i>Emergency</i>	52,748,160	3.8%
<i>Drought</i>	42,974,754	3.1%
<i>Regulatory</i>	12,864,227	0.9%
Wadsworth plant pumping/generation	(313,364)	0.0%
Total	108,273,777	7.7%
Treatment		
Jensen	40,749,041	2.9%
Weymouth	42,718,886	3.0%
Diemer	50,125,754	3.6%
Mills	30,052,124	2.1%
Skinner	63,228,909	4.5%
Total	226,874,714	16.1%
Distribution	119,296,103	8.5%
Demand Management	61,128,834	4.3%
Hydroelectric	(11,106,693)	0.8%
Administrative & General	100,717,257	7.2%
Total Functional Allocations:	\$ 1,383,624,509	100.0%

(1) Given as a percentage of the absolute values of total dollars allocated.

Totals may not foot due to rounding

Schedule 5. Service Function Revenue Requirements (by budget line item)

	Source of Supply	Conveyance & Aqueduct	Storage	Treatment	Distribution	Demand Management	Hydro Electric	Administrative & General	Total \$ Allocated
Departmental Operations & Maintenance									
Office of the General Manager & Human Resources	\$ 973,547	\$ 7,535,604	\$ 575,486	\$ 3,242,444	\$ 2,223,760	\$ 196,010	\$ 174,582	\$ 4,734,867	\$ 19,656,300
External Affairs	-	-	-	-	-	2,843,550	-	12,678,250	15,521,800
Water System Operations	12,250,467	35,011,017	3,418,916	92,038,406	53,778,592	8,426	4,033,386	920,690	201,459,900
Chief Financial Officer	-	-	-	-	-	-	-	6,460,400	6,460,400
Business Technology & Engineering Services	1,950,202	8,283,277	7,463,691	14,286,131	7,995,789	379,340	653,611	22,353,059	63,365,100
Real Property Development & Mgmt	-	-	5,021,000	-	-	-	-	-	5,021,000
Water Resource Management	10,186,819	5,776	-	236,832	1,184,509	3,289,564	-	-	14,903,500
Ethics Department	-	-	-	-	-	-	-	438,300	438,300
General Counsel	-	-	-	-	-	-	-	11,741,300	11,741,300
Audit Department	-	-	-	-	-	-	-	2,060,000	2,060,000
Total Departmental O&M	25,361,036	50,835,675	16,479,093	109,803,812	65,182,649	6,716,890	4,861,579	61,386,866	340,627,600
General District Requirements									
State Water Project	83,601,729	509,842,472	-	-	-	-	-	-	593,444,201
Colorado River Aqueduct	-	36,178,684	-	-	-	-	-	-	36,178,684
Water Transfers and Storage Programs	45,125,279	-	-	-	-	-	-	-	45,125,279
Demand Management	-	-	-	-	-	53,205,188	-	-	53,205,188
Capital Financing Program	966,434	75,817,745	92,862,039	130,368,230	81,154,467	-	4,617,409	12,527,853	398,314,175
Other Operating Costs	689,103	1,133,376	407,345	2,295,089	1,574,037	1,727,841	123,574	22,744,034	30,694,400
Increase (Decrease) in Required Reserves	-	-	-	-	-	-	-	11,000,000	11,000,000
Total General District Requirements	130,382,546	622,972,276	93,269,383	132,663,319	82,728,504	54,933,029	4,740,983	46,271,887	1,167,961,927
Revenue Offsets	(1,316,396)	(49,794,619)	(1,474,699)	(15,592,418)	(28,615,051)	(521,085)	(20,709,255)	(6,941,496)	(124,965,018)
Net Revenue Requirements	\$ 154,427,186	\$ 624,013,332	\$ 108,273,777	\$ 226,874,714	\$ 119,296,103	\$ 61,128,834	\$ (11,106,693)	\$ 100,717,257	\$ 1,383,624,509

Totals may not foot due to rounding

1.4 Classified Costs

In the cost classification step, functionalized costs are further categorized based on the causes and behavioral characteristics of these costs. An important part of the classification process is identifying which costs are incurred to meet average demands vs. peak demands and which costs are incurred to provide standby service. As with the functional allocation process, the proposed classification process is consistent with AWWA guidelines, but has been tailored to meet Metropolitan's specific operational structure and service environment.

In the cost of service process, cost classification is done using a hybrid of two methods discussed in the AWWA M1 Manual, Principles of Water Rates, Fees and Charges. These two methods are the Commodity/Demand method and the Base/Extra Capacity method.

The Commodity/Demand method allocates costs that vary with the amount of water produced to the commodity category with all other costs associated with water production allocated to the demand category. In the Base/Extra Capacity method, costs related to average demand conditions are allocated to the base category and capacity costs associated with meeting above average demand conditions are allocated to the extra capacity category.

The approach used to classify Metropolitan's costs differs from the Base/Extra Capacity method by the fact that costs are separated into a variable category and a fixed category. The Base/Extra Capacity method does not separate these costs into two categories but rather combines them into one category referred to as base costs. The approach used to classify Metropolitan's costs differs from the Commodity/Demand method in the fact that demand costs are separated into fixed commodity and fixed demand costs. The Commodity/Demand method would not make this distinction, but would combine these costs into the demand category. By using the hybrid method, costs are disaggregated to a lower level of detail, providing greater visibility to costs. Under the hybrid classification method, functional cost categories are reallocated into demand, commodity, or standby categories, which are discussed below. Classification of costs into these categories depends on an analysis of system capacity as well as actual system operating data.

Classification categories used in the analysis include:

- Fixed demand costs
- Fixed commodity costs
- Fixed standby costs
- Variable commodity costs
- Hydroelectric costs

Demand costs are incurred to meet peak demands. Only the direct capital financing costs were included in the demand classification category. A portion of capital financing costs was included in the demand cost category because in order to meet peak demands additional physical capacity is designed into the system and, therefore, additional capital costs are incurred. Commodity costs are generally associated with average system demands. Variable commodity costs include costs of chemicals, most power costs, and other cost components that increase or decrease in relation to the volume of water supplied. Fixed commodity costs include fixed operations and maintenance and capital financing costs that are not related to accommodating peak demands or standby service.

Standby service costs relate to Metropolitan's role in ensuring system reliability during emergencies such as an earthquake or an outage of a major facility like the Colorado River Aqueduct. The two principal components of the standby costs were identified as the emergency storage capacity within the system and the standby capacity within the State Water Project conveyance system.

An additional component used in Metropolitan's cost classification process is the hydroelectric component. While not a part of most water utilities' cost classification procedures, the hydroelectric classification component is necessary to segregate revenue requirements carried from the hydroelectric function established in the functional allocation process. Hydroelectric revenue requirements are later embedded in the distribution function. Any net revenues generated by the hydroelectric operations offset the distribution costs and reduce the System Access Rate. All users of the distribution system benefit proportionately from the revenue offset provided by the sale of hydroelectric energy.

Schedule 6 provides the classification percentages used to distribute the service function costs into demand, commodity and standby service classification categories. All of the supply costs are classified as fixed commodity costs. Because these particular supply costs have been incurred to provide an amount of annual reliable system yield and not to provide peak demand delivery capability or standby service, they are reasonably treated as fixed commodity costs.

Costs for the Conveyance and Aqueduct (C&A) service function are classified into demand, commodity, and standby categories. Because the capital costs for C&A were incurred to meet all three classification categories, an analysis of C&A capacity usage for the three years ending June 2013 was used to determine that 52 percent of the available conveyance capacity has been used to meet member agency demands on an average annual basis. A system peak factor¹ of 1.4 was applied to the average annual usage to determine that 22 percent of available capacity is used to meet peak monthly deliveries to the member agencies. The remaining portion of C&A, around 26 percent, is used for standby. The same classification percentages are applied to the CRA, SWP, and Other (Inland Feeder) Conveyance and Aqueduct sub-functions. The classification shares reflect the system average use of conveyance capacity and not the usage of individual facilities. All of the Conveyance and Aqueduct energy costs for pumping water to Southern California are classified as variable commodity costs and, therefore, are not shown in Schedule 6 because they carry through the classification step.

Storage service function costs for emergency, drought and regulatory storage are also distributed to the classification categories based on the type of service provided. Emergency storage costs are classified as 100 percent standby related. Emergency storage is a prime example of a cost Metropolitan incurs to ensure the reliability of deliveries to the member agencies. In effect, through the emergency storage capacity in the system, Metropolitan is "standing by" to provide service in the event of a catastrophe such as a major earthquake that disrupts regional conveyance capacity for an extended period of time. Drought carryover storage serves to provide reliable supplies by carrying over surplus supplies from periods of above normal precipitation and snow pack to drought periods when supplies decrease. Drought storage creates supply and is one component of the portfolio of resources that result in a reliable amount of annual system supplies. As a result, drought storage is classified as a fixed commodity cost, in the same manner as Metropolitan's supply costs. Regulatory storage within the Metropolitan system provides operational flexibility in meeting peak demands and

¹ Peak monthly deliveries to the member agencies average about 42 percent more than the average monthly deliveries.

flow requirements, essentially increasing the physical distribution capacity. Therefore, regulatory storage is classified in the same manner as distribution costs.

Distribution service function costs were classified using daily flow data for the three calendar years ending December 2013. During this period, the average annual volume of deliveries to the member agencies used 43 percent of the peak distribution capacity. The difference between the three-year average non-coincident peak and the commodity flows divided by the system capacity, or 37 percent of the distribution capacity, was used to meet peak day demands in excess of average annual flows. Although the Metropolitan distribution system has a great deal of operational flexibility, the total amount of distribution capacity was limited to the peak non-coincident² 24-hour daily flow of all the member agencies. The remaining 20 percent of distribution capacity is associated with standby service.

As presented in Schedule 6, treatment service function costs were also classified using daily flow data of deliveries to the member agencies for the three years ending December 2013. Total treated water capacity of 4,204 cfs, the total design capacity of all the treatment plants, was used in the calculation. Schedule 7 summarizes the service function revenue requirements by classification category. Administrative and general costs have been allocated to the classification categories by service function based on the ratio of classified non-A&G service function costs to total non-A&G service function costs.

² The term “non-coincident” means that the peak day flow for each agency may or may not coincide with the peak day system flow. Both non-coincident and coincident approaches to measuring peak demands are used in rate design approaches. A non-coincident approach is used in the rate design to capture the different operating characteristics of the member agencies (e.g., the distribution system is designed to meet peak demands in different load areas within the System that have non-coincident demands due to each member agencies unique operating characteristics).

Schedule 6. Classification Percentages

Function	Classification Percentages			Total % Classified	Comments
	Fixed				
	Commodity	Demand	Standby		
Source of Supply					
Colorado River Aqueduct	100%	0%	0%	100%	Supply costs classified as commodity
State Water Project	100%	0%	0%	100%	Supply costs classified as commodity
Conveyance & Aqueduct					
Colorado River Aqueduct	52%	22%	26%	100%	Demand (peaking) percentage represents application of system monthly peak factor of 1.4 to average monthly flow. Commodity percentage represents average flows. Remainder of capacity is for standby (expected growth). SWP and CRA are treated the same due to application of system wide uniform price.
State Water Project	52%	22%	26%	100%	
Other	52%	22%	26%	100%	
Storage					
Emergency	0%	0%	100%	100%	Standby service (recovered by RTS)
Drought	100%	0%	0%	100%	Recovered by Supply Rates
Regulatory	43%	37%	20%	100%	See distribution (below)
Treatment	32%	36%	32%	100%	Demand percentage represents amount of system treatment capacity used to meet peak day flows in excess of average. Commodity percentage represents amount of capacity used to meet average flows. Standby percentage is estimated as remaining total capacity. The same classification is applied to all five treatment plants due to the use of a uniform system wide treatment surcharge.
Distribution	43%	37%	20%	100%	Demand percentage represents amount of system distribution capacity used to meet peak day flows in excess of average. Commodity percentage represents amount of capacity used to meet average flows. Standby percentage is estimated as remaining total system capacity. The same classification is applied to all distribution facilities due to the use of a system wide uniform system access rate.

Totals may not foot due to rounding

A summary of cost classification results is shown in Schedule 7. The classification of the service function costs results in about 8 percent, or \$106 million of the total revenue requirements, being allocated to the demand classification category. This amount represents a reasonable estimate of the annual fixed capital financing costs incurred to meet peak demands (plus the allocated administrative and general costs). A portion of Metropolitan's property tax revenue is allocated to C&A fixed demand costs and offsets the amount that is recovered through rates. The taxes are used to pay for the general obligation bond debt service allocated to the C&A costs.

Schedule 7. Service Function Revenue Requirements (by classification category)

Functional Categories (by sub-Function)	Fixed Demand	Commodity	Standby	Variable Commodity	Hydroelectric	Total Classified
Source of Supply						
CRA	\$ -	\$ 41,072,458	\$ -	\$ -	\$ -	\$ 41,072,458
SWP	-	118,225,322	-	-	-	118,225,322
Other Supply	-	11,322,974	-	-	-	11,322,974
Subtotal: Source of Supply	-	170,620,754	-	-	-	170,620,754
Conveyance & Aqueduct						
CRA						
<i>CRA Power</i>	-	9,355,825	-	34,250,945	-	43,606,770
<i>CRA All Other</i>	2,040,117	42,444,666	2,406,646	-	-	46,891,429
SWP						
<i>SWP Power</i>	-	-	-	279,476,512	-	279,476,512
<i>SWP All Other</i>	16,740,326	184,788,293	19,747,905	-	-	221,276,525
Other Conveyance & Aqueduct	13,561,607	42,557,828	16,706,220	-	-	72,825,654
Subtotal: Conveyance & Aqueduct	32,342,050	279,146,613	38,860,771	313,727,457	-	664,076,891
Storage						
Storage Costs Other Than Power						
<i>Emergency</i>	-	-	55,724,590	-	-	55,724,590
<i>Drought</i>	-	47,481,180	-	-	-	47,481,180
<i>Regulatory</i>	4,295,343	7,210,458	2,347,126	-	-	13,852,928
Storage Power	-	-	-	(323,838)	-	(323,838)
Subtotal: Storage	4,295,343	54,691,638	58,071,717	(323,838)	-	116,734,860
Water Quality						
CRA	-	-	-	-	-	-
SWP	-	-	-	-	-	-
Other	-	-	-	-	-	-
Subtotal: Water Quality	-	-	-	-	-	-
Treatment	48,654,808	136,750,541	28,695,208	30,293,023	-	244,393,580
Distribution	21,013,981	97,546,452	11,482,778	-	-	130,043,210
Demand Management	-	67,538,935	-	-	-	67,538,935
Hydroelectric	-	-	-	-	(9,783,722)	(9,783,722)
Total Costs Classified	\$ 106,306,182	\$ 806,294,933	\$ 137,110,474	\$ 343,696,643	\$ (9,783,722)	\$ 1,383,624,509

Totals may not foot due to rounding

About 58 percent of the revenue requirement (\$806 million) is classified as “fixed commodity.” These fixed capital and operating costs are incurred by Metropolitan to meet annual average service needs and are typically recovered by a combination of fixed charges and volumetric rates. Fixed capital costs classified to the “Standby” category total about \$137 million and account for about 10 percent of the revenue requirements. Standby service costs are commonly recovered by a fixed charge allocated on a reasonable representation of a customer’s need for standby service. The variable commodity costs for power on the conveyance and aqueduct systems, and power, chemicals and solids handling at the treatment plants change with the amount of water delivered to the member agencies. These costs are classified as variable commodity costs, total about \$343 million, and account for about 25 percent of the total revenue requirement. Because of the variable nature of these costs, it is appropriate to recover them through volumetric rates.

2 Rates and Charges

Schedule 8 provides a cross-reference between the classified service function costs and their allocation to the rate design elements. The specifics of each rate design element are discussed in detail in the following section. Schedule 9 summarizes the rates and charges that would be effective on January 1, 2013 in order to collect all costs from rates and charges in fiscal year 2012/13, with the use of \$10 million draws from reserve funds. Average costs by member agency will vary depending upon an agency’s RTS allocation, capacity charge and relative proportions of treated and untreated Tier 1, and Tier 2 purchases.

Schedule 8. Classified Service Function Revenue Requirements (by rate design element)

Service Function by Classification Category	Rate Design Elements							Total Costs Allocated
	Supply Rates	System Access Rate	Water Stewardship Rate	System Power Rate	Capacity Charge	Readiness-to-Serve Charge	Treatment Surcharge	
Supply								
Fixed Demand	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Commodity	170,620,754	-	-	-	-	-	-	170,620,754
Fixed Standby	-	-	-	-	-	-	-	-
Variable Commodity	-	-	-	-	-	-	-	-
Hydroelectric	-	-	-	-	-	-	-	-
Subtotal: Supply	170,620,754	-	-	-	-	-	-	170,620,754
Conveyance and Aqueduct								
Fixed Demand	-	-	-	-	-	32,342,050	-	32,342,050
Fixed Commodity	-	279,146,613	-	-	-	-	-	279,146,613
Fixed Standby	-	-	-	-	-	38,860,771	-	38,860,771
Variable Commodity	-	-	-	313,727,457	-	-	-	313,727,457
Hydroelectric	-	-	-	-	-	-	-	-
Subtotal: Conveyance and Aqueduct	-	279,146,613	-	313,727,457	-	71,202,821	-	664,076,891
Storage								
Fixed Demand	-	-	-	-	4,295,343	-	-	4,295,343
Fixed Commodity	47,481,180	7,210,458	-	-	-	-	-	54,691,638
Fixed Standby	-	-	-	-	-	58,071,717	-	58,071,717
Variable Commodity	(323,838)	-	-	-	-	-	-	(323,838)
Hydroelectric	-	-	-	-	-	-	-	-
Subtotal: Storage	47,157,342	7,210,458	-	-	4,295,343	58,071,717	-	116,734,860
Treatment								
Fixed Demand	-	-	-	-	-	-	48,654,808	48,654,808
Fixed Commodity	-	-	-	-	-	-	136,750,541	136,750,541
Fixed Standby	-	-	-	-	-	-	28,695,208	28,695,208
Variable Commodity	-	-	-	-	-	-	30,293,023	30,293,023
Hydroelectric	-	-	-	-	-	-	-	-
Subtotal: Treatment	-	-	-	-	-	-	244,393,580	244,393,580
Distribution								
Fixed Demand	-	-	-	-	21,013,981	-	-	21,013,981
Fixed Commodity	-	97,546,452	-	-	-	-	-	97,546,452
Fixed Standby	-	-	-	-	-	11,482,778	-	11,482,778
Variable Commodity	-	-	-	-	-	-	-	-
Hydroelectric	-	(9,783,722)	-	-	-	-	-	(9,783,722)
Subtotal: Distribution	-	87,762,730	-	-	21,013,981	11,482,778	-	120,259,489
Demand Management								
Fixed Demand	-	-	-	-	-	-	-	-
Fixed Commodity	-	-	67,538,935	-	-	-	-	67,538,935
Fixed Standby	-	-	-	-	-	-	-	-
Variable Commodity	-	-	-	-	-	-	-	-
Hydroelectric	-	-	-	-	-	-	-	-
Subtotal: Demand Management	-	-	67,538,935	-	-	-	-	67,538,935
Total								
Fixed Demand	-	-	-	-	25,309,324	32,342,050	48,654,808	106,306,182
Fixed Commodity	218,101,934	383,903,523	67,538,935	-	-	-	136,750,541	806,294,933
Fixed Standby	-	-	-	-	-	108,415,266	28,695,208	137,110,474
Variable Commodity	(323,838)	-	-	313,727,457	-	-	30,293,023	343,696,643
Hydroelectric	-	(9,783,722)	-	-	-	-	-	(9,783,722)
Total	\$ 217,778,096	\$ 374,119,801	\$ 67,538,935	\$ 313,727,457	\$ 25,309,324	\$ 140,757,316	\$ 244,393,580	\$ 1,383,624,509

Totals may not foot due to rounding

Schedule 9. Rates and Charges Summary

Effective January 1st	2012	2013
Tier 1 Supply Rate (\$/AF)	\$95	\$149
Delta Supply Surcharge (\$/AF)	\$69	*
Tier 2 Supply Rate (\$/AF)	\$290	\$290
System Access Rate (\$/AF)	\$217	\$228
Water Stewardship Rate (\$/AF)	\$43	\$41
System Power Rate (\$/AF)	\$136	\$190
Full Service Untreated Volumetric Cost (\$/AF)		
Tier 1	\$560	\$608
Tier 2	\$686	\$749
Replenishment Water Rate Untreated (\$/AF)	\$442	**
Interim Agricultural Water Program Untreated (\$/AF)	\$537	***
Treatment Surcharge (\$/AF)	\$234	\$260
Full Service Treated Volumetric Cost (\$/AF)		
Tier 1	\$794	\$868
Tier 2	\$920	\$1,009
Treated Replenishment Water Rate (\$/AF)	\$651	**
Treated Interim Agricultural Water Program (\$/AF)	\$765	***
Readiness-to-Serve Charge (\$M)	\$146	\$146
Capacity Charge (\$/cfs)	\$7,400	\$6,600

* The Delta Supply Surcharge will be suspended after 2012.

** Under the current replenishment program proposal there would be no discounted replenishment rates after 2012.

*** The Interim Agricultural Water Program will be discontinued after 2012.

2.1 System Access Rate (SAR)

The SAR is a volumetric³ system-wide rate levied on each acre-foot of water that moves through the MWD system. All system users (member agency or third party) pay the SAR to use Metropolitan's conveyance and distribution system. To meet the board stated objective to collect all costs in 2012/13, the SAR would increase from its current level of \$217 per acre-foot to \$228 per acre-foot. The SAR recovers the cost of providing conveyance and distribution capacity to meet average annual demands. Current estimates indicate that the SAR revenue requirement will be about \$374 million in FY 2012/13, or 27 percent of the total revenue requirement.

2.2 Water Stewardship Rate (WSR)

The WSR would decrease from its current level of \$43 per acre-foot to \$41 per acre-foot. The WSR recovers the costs of providing financial incentives for existing and future investments in local resources including conservation and recycled water. These investments or incentive payments are identified as the "demand management" service function in the cost of service process. Demand management costs are classified as 100 percent fixed commodity costs and are estimated to be about \$67 million in FY 2012/13, about 4 percent of the revenue requirement. The WSR is a volumetric rate levied on each acre-foot of water that moves through the Metropolitan system. All system users (member agency or third parties) will pay the same proportional costs for existing and future conservation and recycling investments.

2.3 System Power Rate (SPR)

SPR would increase from \$136 per acre-foot to \$190 per acre-foot in 2013. The SPR is a volumetric rate that recovers the costs of pumping water to Southern California. The SPR recovers the cost of power for both the SWP and CRA. In FY 2012/13 the revenue requirement for the SPR is estimated to be about \$314 million, about 23 percent of the total revenue requirement.

2.4 Treatment Surcharge

The treatment surcharge would increase from its current level of \$234 per acre-foot to \$260 per acre-foot to collect all treatment costs in 2012/13. The treatment surcharge is a system-wide volumetric rate set to recover the cost of providing treated water service. The treatment surcharge revenue requirement is expected to be about \$244 million in FY 2012/13, almost 18 percent of the total revenue requirement. The treatment surcharge recovers all costs associated with providing treated water service, including commodity, demand and standby related costs. Significant capital improvements at Metropolitan's five treatment plants, such as the Ozone Retrofit Program, Skinner Filtration Plant Expansion Project, and improvement programs at all five treatment plants result in additional capital financing costs being allocated to the treatment surcharge.

2.5 Capacity Charge

The Capacity Charge would decrease from its current level of \$7,400 per cubic-foot-second to \$6,600 per cubic-foot-second of capacity during 2013. The capacity charge is levied on the maximum summer day demand placed on the system between May 1 and September 30 for a three-calendar year period. The three-year period ending December 31, 2011 is used to levy the capacity charge effective January 1, 2013 through December 31, 2013. Demands measured for the purposes of billing the capacity charge include all firm demand and agricultural demand, including wheeling service and exchanges. Replenishment service is not included in the measurement of peak day demand for purposes of billing the capacity charge.

³ A volumetric rate is a charge applied to the actual amount of water delivered.

The capacity charge is intended to pay for the cost of peaking capacity on Metropolitan's system, while providing an incentive for local agencies to decrease their use of the Metropolitan system to meet peak day demands and to shift demands into lower use time periods particularly October through April. Over time, a member agency will benefit from local supply investments and operational strategies that reduce its peak day demand on the system in the form of a lower total capacity charge. The estimated capacity charge to be paid by each member agency in calendar year 2013 (as of December 2011) is included in Schedule 10.

Schedule 10. Capacity Charge (by member agency)

AGENCY	Peak Day Demand (cfs)				Calendar Year 2013 Capacity Charge
	(May 1 through September 30)				
	Calendar Year				
	2009	2010	2011	3-Year Peak	
Anaheim	40.7	44.8	39.3	44.8	\$295,680
Beverly Hills	31.0	31.2	31.5	31.5	\$207,900
Burbank	21.6	22.3	21.4	22.3	\$147,180
Calleguas	192.8	208.9	210.1	210.1	\$1,386,660
Central Basin	94.7	74.2	79.2	94.7	\$625,020
Compton	5.9	3.3	2.4	5.9	\$38,940
Eastern	233.8	229.5	192.5	233.8	\$1,543,080
Foothill	24.3	20.2	19.0	24.3	\$160,380
Fullerton	37.4	32.2	27.4	37.4	\$246,840
Glendale	56.0	49.6	49.0	56.0	\$369,600
Inland Empire	106.1	124.2	138.0	138.0	\$910,800
Las Virgenes	42.7	43.9	43.4	43.9	\$289,740
Long Beach	67.2	61.2	51.5	67.2	\$443,520
Los Angeles	698.2	525.9	329.0	698.2	\$4,608,120
MWDOC	489.5	425.5	382.7	489.5	\$3,230,700
Pasadena	50.2	50.5	50.6	50.6	\$333,960
San Diego	1,055.3	949.5	760.7	1,055.3	\$6,964,980
San Fernando	-	4.1	1.6	4.1	\$27,060
San Marino	3.5	4.2	1.3	4.2	\$27,720
Santa Ana	16.4	20.0	20.0	20.0	\$132,000
Santa Monica	25.0	24.3	21.1	25.0	\$165,000
Three Valleys	132.7	139.4	122.7	139.4	\$920,040
Torrance	39.3	42.8	35.5	42.8	\$282,480
Upper San Gabriel	27.6	22.9	20.4	27.6	\$182,160
West Basin	221.3	221.2	214.6	221.3	\$1,460,580
Western	214.4	199.5	179.7	214.4	\$1,415,040
Total	3,927.6	3,575.3	3,044.6	4,002.3	\$26,415,180

Totals may not foot due to rounding

2.6 Readiness-to-Serve Charge (RTS)

The costs of providing standby service, such as emergency storage, are recovered by the RTS. Metropolitan's costs for providing emergency storage capacity within the system are estimated to be about \$58 million in FY 2012/13. In addition, to simplify the rate design by reducing the number of separate charges, the demand and standby related costs identified for the conveyance and aqueduct service function, and standby costs for the distribution function, are also allocated to the RTS. These costs are estimated to be about \$83 million in FY 2012/13. Currently the RTS recovers \$146 million, an amount that represents a portion of the capital financing costs for facilities that serve existing users. The RTS would remain at its current level in calendar year 2013.

The RTS is allocated to the member agencies based on each agency's proportional share of a ten-year rolling average of all firm deliveries (including water transfers and exchanges that use Metropolitan system capacity). The ten-year rolling average will not include replenishment service and interim agricultural deliveries because these deliveries will be the first to be curtailed in the event of an emergency. A ten-year rolling average leads to a relatively stable RTS allocation that reasonably represents an agency's potential long-term need for standby service under different demand conditions. Member agencies that so choose may have a portion of their total RTS obligation offset by standby charge collections levied by Metropolitan on behalf of the member agency. Schedule 11 provides an estimate as of December 2011 of each agency's total RTS obligation for calendar year 2013.

Schedule 11. Readiness-to-Serve Charge (by member agency)

Member Agency	Rolling Ten-Year Average Firm Deliveries (Acre-Feet) FY2001/02 - FY2010/11	RTS Share	12 months @ \$146 million per year (1/13-12/13)
Anaheim	21,892	1.20%	\$ 1,748,922
Beverly Hills	12,041	0.66%	961,903
Burbank	12,605	0.69%	1,006,985
Calleguas MWD	111,069	6.08%	8,873,166
Central Basin MWD	61,810	3.38%	4,937,906
Compton	2,832	0.15%	226,206
Eastern MWD	94,113	5.15%	7,518,552
Foothill MWD	11,169	0.61%	892,264
Fullerton	10,225	0.56%	816,833
Glendale	21,707	1.19%	1,734,142
Inland Empire Utilities Agency	61,330	3.36%	4,899,616
Las Virgenes MWD	22,730	1.24%	1,815,901
Long Beach	35,737	1.96%	2,854,961
Los Angeles	302,313	16.54%	24,151,463
Municipal Water District of Orange County	227,364	12.44%	18,163,856
Pasadena	22,799	1.25%	1,821,405
San Diego County Water Authority	449,537	24.60%	35,913,080
San Fernando	125	0.01%	9,946
San Marino	972	0.05%	77,612
Santa Ana	13,464	0.74%	1,075,617
Santa Monica	12,284	0.67%	981,316
Three Valleys MWD	70,981	3.88%	5,670,568
Torrance	19,931	1.09%	1,592,227
Upper San Gabriel Valley MWD	19,031	1.04%	1,520,335
West Basin MWD	135,862	7.43%	10,853,878
Western MWD	73,619	4.03%	5,881,339
MWD Total	1,827,536	100.00%	\$ 146,000,000

Totals may not foot due to rounding

2.7 Purchase Order

The potential extension of the Purchase Order is part of the Long Range Finance Plan workgroup discussions. A final decision is expected in 2012.

2.8 Tier 2 supply rate

The Tier 2 Supply Rate reflects Metropolitan's cost of developing long-term firm supplies. The Tier 2 Supply Rate encourages the member agencies and their customers to maintain existing local supplies and develop cost-effective local supply resources and conservation. The Tier 2 Supply Rate also recovers a greater proportion of the cost of developing additional supplies from member agencies that have increasing demands on the Metropolitan system. Because of the uncertainty about supply and critically dry conditions, Metropolitan will have to purchase water transfers in 2012/13, at a cost of as much as or more than \$290 per acre-foot. The Tier 2 Supply Rate would remain at its current level of \$290 per acre-foot.

The total revenue requirement for the supply service function is about \$218 million in FY 2012/13. At an expected average sales level of 1.7 million acre-feet (MAF) it is estimated that no acre-feet will be sold at the Tier 2 Supply Rate. The remaining supply costs are recovered by the Tier 1 Supply Rate and by the replenishment rate discussed below.

The two-tier pricing approach is closely linked to the Purchase Order and a base level of demand. Based on the outcome of the Long Range Finance Plan in 2012, a detailed table with Tier 1 limits will be provided to the Board in 2012.

2.9 Tier 1 supply rate

The Tier 1 Supply Rate would be reduced from its current level of \$164 per acre-foot to \$149 per acre-foot. The Tier 1 Supply Rate recovers the majority of the supply revenue requirement. The Tier 1 Supply Rate is simply calculated as the amount of the total supply revenue requirement that is not recovered by the Tier 2 Supply Rate divided by the estimated amount of Tier 1 water sales. At an expected demand level of about 1.7 MAF it is estimated that Metropolitan will sell about 1.51 MAF at the Tier 1 Supply Rate in 2012/13.

2.10 Replenishment water rates

The board is reviewing options for a new replenishment program. If adopted, the new replenishment program would replace the existing replenishment service program and the existing replenishment rate would be discontinued.

3 Sales

Staff estimates of water sales used for developing the rate recommendation were based on current member agency demands and information and an expectation that demands will trend to levels expected under normal weather conditions. Since 1989/90, total sales have averaged about 2.00 million acre-feet per year, ranging from a high of around 2.5 million acre-feet in 1989/90 to a low of about 1.5 million acre-feet in 1997/98. In 2011/12 water sales are projected to be around 1.7 million acre-feet. Water sales in 2012/13 are expected to be about 1.7 million acre-feet.

4 Proof of Revenue

Based on expected sales of 1.7 MAF the expected revenues would be about \$45 million higher than the total revenue requirement, if the rates and charges were in effect the entire test year period. The cost-of-service allocation assuming a full twelve months of revenue is used to allocate costs among the various rate elements, but should not be interpreted as over- or under-collection during a given fiscal year. However, because the recommended rates do not take effect until January 1, 2013, the expected revenues for 2012/13 will be about \$10 million (one percent) less than the total revenue requirement in 2012/13. The total revenue requirement includes a \$6-million increase in the required reserves for the Revenue Remainder Fund. Accounting for this adjustment, the required draw from reserves is almost \$3 million in 2012/13.

Schedule 12. FY 2012/13 Proof of Revenue if Rates Effective for Full Test Year (\$ millions)

	Revenues if Rates Effective July 1st	Revenue Requirements	Difference	% Over (Under) Collected
Supply	225.8	217.8	8.0	4%
System Access Rate	386.2	374.1	12.1	3%
Water Stewardship Rate	69.5	67.5	1.9	3%
System Power Rate	321.9	313.7	8.1	3%
Treatment Surcharge	252.9	244.4	8.5	3%
Readiness-to-serve Charge	146.0	140.8	5.2	4%
Capacity Charge	26.3	25.3	1.0	4%
Total	1,428.5	1,383.6	44.9	3%

Totals may not foot due to rounding

Schedule 13. FY 2012/13 Proof of Revenue if Rates Effective January 1 (\$ millions)

	Revenues if Rates Effective Jan 1	Revenue Requirements	Difference	% Over (Under) Collected
Supply	238.2	217.8	20.5	9%
System Access Rate	376.1	374.1	2.0	1%
Water Stewardship Rate	71.3	67.5	3.7	6%
System Power Rate	272.4	313.7	(41.4)	-13%
Treatment Surcharge	239.2	244.4	(5.2)	-2%
Readiness-to-serve Charge	146.0	140.8	5.2	4%
Capacity Charge	30.8	25.3	5.5	22%
Total	1,374.0	1,383.6	(9.6)	-1%

Totals may not foot due to rounding

Metropolitan Water District of Southern California
Fiscal Year 2013/14 Cost of Service

December 2011

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1 Cost of Service

Prior to discussing the specific rates and charges that make up the rate structure, it is important to understand the cost of service process that supports the rates and charges. The purpose of the cost of service process is to: (1) identify which costs should be recovered through rates and charges; (2) organize Metropolitan's costs into service functions; and (3) classify service function costs on the basis for which the cost was incurred. The purpose of sorting Metropolitan's costs in a manner that reflects the type of service provided (e.g., supply vs. conveyance), the characteristics of the cost (e.g., fixed or variable) and the reason why the cost was incurred (e.g., to meet peak or average demand) is to create logical cost of service "building blocks". The building blocks can then be arranged to design rates and charges with a reasonable nexus between costs and benefits.

1.1 Cost of Service Process

The general cost of service process involves the four basic steps outlined below.

Step 1 - Development Of Revenue Requirements

In the revenue requirement step, the costs that Metropolitan must recover through rates and charges, after consideration of revenue offsets, are identified. The cash needs approach, an accepted industry practice for government-owned utilities, has historically been used in identifying Metropolitan's revenue requirements and was applied for the purposes of this study. Under the cash needs approach, revenue requirements include operating costs and annual requirements for meeting financed capital items (debt service, funding of replacement and refurbishment from operating revenues, etc.).

Step 2 – Identification Of Service Function Costs

In the functional allocation step, revenue requirements are allocated to different categories based on the operational functions served by each cost. The functional categories are identified in such a way as to allow the development of logical allocation bases. The functional categories used in the cost of service process include:

- Supply
- Conveyance and Aqueduct
- Storage
- Treatment
- Distribution
- Demand Management
- Administrative and General
- Hydroelectric

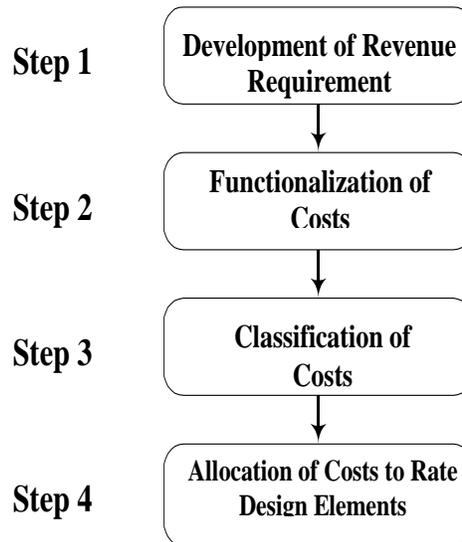
In order to provide more finite functional allocation, many of these functional categories are subdivided into more detailed sub-functions in the cost of service process. For example, costs for the Supply and Conveyance and Aqueduct functions are further subdivided into the sub-functions State Water Project (SWP), Colorado River Aqueduct (CRA), and Other. Similarly, costs in the Storage function are broken down into the sub-functions Emergency Storage, Drought Carryover Storage, and Regulatory Storage.

Step 3 - Classification Of Costs

In the cost classification step, functionalized costs are separated into categories according to their causes and behavioral characteristics. Proper cost classification is critical in developing a rate structure that recovers costs in a manner consistent with the causes and behaviors of those costs. Under American Water Works Association (AWWA) guidelines, cost classification may be done using either the Base/Extra-Capacity approach or the Commodity/Demand approach. In the simplest sense, these approaches offer alternative means of distinguishing between utility costs incurred to meet average or base demands and costs incurred to meet peak demands. The Commodity/Demand approach was modified for its application to Metropolitan's rate structure by adding a separate cost classification for costs related to providing standby service. Analysis of system operating data indicated that a modified Commodity/Demand approach was most appropriate for developing Metropolitan's cost of service classification bases.

Step 4 - Allocation Of Costs To Rate Design Elements

The allocation of costs to the rate design elements depends on the purpose for which the cost was incurred and the manner in which the member agencies use the Metropolitan system. For example, costs incurred to meet average system demands are typically recovered by dollar per acre-foot rates and are allocated based on the volume of water purchased by each agency. Rates that are levied on the amount or volume of water delivered are commonly referred to as volumetric rates as the customer's costs vary with the volume of water purchased. Costs incurred to meet peak demands (referred to in this report as demand costs) are recovered through a peaking charge (the Capacity Charge) and are allocated to agencies based on their peak demand behavior. Costs incurred to provide standby service in the event of an emergency are referred to here as standby costs. Differentiating between costs for average usage and peak usage is just one example of how the cost of service process allows for the design of rates and charges that improves overall customer equity and efficiency. Figure 1 summarizes the cost of service process.

Figure 1. The Cost of Service Process

1.2 Revenue Requirements

The estimated revenue requirements presented in this report are for FY 2013/14. Throughout the report, FY 2013/14 is used as the “test year” to demonstrate the application of the cost of service process. Schedule 1 summarizes the FY 2013/14 revenue requirement by the major budget line items used in Metropolitan’s budgeting process. Current estimates indicate Metropolitan’s annual cash expenditures (including capital financing costs, but not construction outlays financed with bond proceeds) will total approximately \$1.58 billion in FY 2013/14.

The rates and charges do not have to cover this entire amount. Metropolitan generates a significant amount of revenue from interest income, hydroelectric power sales and miscellaneous income. These internally generated revenues are referred to as revenue offsets and are expected to generate about \$40 million in FY 2013/14. It is expected that Metropolitan will also generate about \$81 million in ad valorem property tax revenues and annexation charges. Property tax revenues are used to pay for a portion of Metropolitan’s general obligation bond debt service, and a portion of Metropolitan’s obligation to pay for debt service on bonds issued to fund the State Water Project. The total revenue offsets for FY 2013/14 are estimated to be around \$121 million. Therefore, the revenue required from rates and charges is the difference between the total costs and the revenue offsets, or \$1.461 billion. Given an effective date of January 1, 2014, the rates and charges recommended in this report, combined with rates and charges effective through December 31, 2013 will generate a total of \$1.458 billion in 2013/14. The shortfall of \$3 million will be covered through withdrawals from the Water Rate Stabilization Fund during 2013/14.

All of Metropolitan’s costs fall under the broad categories of Departmental Costs or General District Requirements. Departmental Costs include budgeted items identified with specific organizational groups. General District Requirements consist of requirements associated with the Colorado River

Aqueduct, State Water Project, the capital financing costs associated with the Capital Investment Program (CIP), and Water Management Programs. General District Requirements also include reserve fund transfers required by bond covenants and Metropolitan's Administrative Code.

When considered in total, General District Requirements make up approximately 72 percent of the absolute value of the allocated costs. The largest component of the revenue requirement relates to SWP expenditures, which make up approximately 33 percent of Metropolitan's FY 2013/14 revenue requirements. Metropolitan's SWP contract requires Metropolitan to pay its allocated share of the capital, minimum operations, maintenance, power and replacement costs incurred to develop and convey its water supply entitlement, irrespective of the quantity of water Metropolitan takes delivery of in any given year. Metropolitan's capital financing program is the second largest component of the revenue requirement, constituting approximately 28 percent of the revenue requirement.

Departmental O&M costs make up 21 percent of the total revenue requirement in FY 2013/14. Water System Operations is the largest single component of the Departmental Costs and accounts for 12 percent of the revenue requirements. Water System Operations responsibilities include operating and maintaining Metropolitan's pumping, storage, treatment, and hydroelectric facilities, as well as the Colorado River Aqueduct and other conveyance and supply facilities.

Schedule 1. Revenue Requirements (by budget line item)

	Fiscal Year Ending 2014	% of Revenue Requirements (1)
Departmental Operations & Maintenance		
Office of the General Manager & Human Resources	\$ 20,318,700	1.2%
External Affairs	15,998,100	0.9%
Water System Operations	210,991,000	12.4%
Chief Financial Officer	6,781,500	0.4%
Corporate Resources	66,966,300	3.9%
Real Property Development & Mgmt	5,288,300	0.3%
Water Resource Management	15,197,200	0.9%
Ethics Department	459,200	0.0%
General Counsel	11,564,600	0.7%
Audit Department	2,123,800	0.1%
Total	355,688,700	20.9%
General District Requirements		
State Water Project	563,752,923	33.1%
Colorado River Aqueduct	24,926,279	1.5%
Supply Program Costs paid from operating revenues	44,883,518	2.6%
Water Management Programs	53,624,040	3.1%
Capital Financing Program	477,330,874	28.0%
Other O&M	38,129,600	2.2%
Increase (Decrease) in Required Reserves	24,200,000	1.4%
Total	1,226,847,234	72.0%
Revenue Offsets	(121,527,134)	7.1%
Net Revenue Requirements	\$ 1,461,008,799	100.0%

(1) Given as a percentage of the absolute values of total dollars allocated.

Totals may not foot due to rounding

1.3 Service Function Costs

Several major service functions result in the delivery of water to Metropolitan's member agencies. These include the supply itself, the conveyance capacity and energy used to move the supply, storage of water, distribution of supplies within Metropolitan's system, and treatment of these supplies. Metropolitan's rate structure recovers the majority of the cost of providing these functions through rates and charges.

The functional categories developed for Metropolitan's cost of service process are consistent with the AWWA rate setting guidelines, a standard chart of accounts for utilities developed by the National Association of Regulatory Commissioners (NARUC), and the National Council of Governmental Accounting. Because all water utilities are not identical, the rate structure reflects Metropolitan's unique physical, financial, and institutional characteristics.

A key goal of functional allocation is to maximize the degree to which rates and charges reflect the costs of providing different types of service. For functional allocation to be of maximum benefit, two criteria must be kept in mind when establishing functional categories.

- The categories should correlate charges for different types of service with the costs of providing those different types of service; and
- Each function should include reasonable allocation bases by which costs may be allocated.

Each of the functions developed for the cost of service process is described below.

- *Supply.* This function includes costs for those SWP and CRA facilities and programs that relate to maintaining and developing supplies to meet the member agencies' demands. For example, Metropolitan's supply related costs include investments in the Conservation Agreement with the Imperial Irrigation District and the Palo Verde Irrigation District (PVID) Program from the Colorado River supply programs. The SWP programs include transfer programs such as Kern Delta, Program, Semitropic Water Storage Program, Yuba Accord Program, and the Arvin-Edison Water Storage Program. Costs for in-basin programs within Metropolitan's service area, such as Proposition 13 are also included.
- *Conveyance and Aqueduct.* This function includes the capital, operations, maintenance, and overhead costs for SWP and CRA facilities that convey water through Metropolitan's internal distribution system. Variable power costs for the SWP and CRA are also considered to be Conveyance and Aqueduct costs but are separately reported under a "power" sub-function. Conveyance and Aqueduct facilities can be distinguished from Metropolitan's other facilities primarily by the fact that they do not typically include direct connections to the member agencies. For purposes of this study, the Inland Feeder Project functions as an extension of the SWP East Branch and is therefore considered a Conveyance and Aqueduct facility as well.
- *Storage.* Storage costs include the capital financing, operating, maintenance, and overhead costs for Diamond Valley Lake, Lake Mathews, Lake Skinner, and five smaller regulatory reservoirs within the distribution system. Metropolitan's larger storage facilities are operated to provide: (1) emergency storage in the event of an earthquake or similar system outage; (2) drought storage that produces additional supplies during times of shortage; and (3) regulatory storage to balance system demands and supplies and provide for operating flexibility. To reasonably allocate the costs of storage capacity among member agencies, the

storage service function is categorized into sub-functions of emergency, drought, and regulatory storage.

- *Treatment.* This function includes capital financing, operating, maintenance, and overhead costs for Metropolitan's five treatment plants and is considered separately from other costs so that treated water service may be priced separately.
- *Distribution.* This function includes capital financing, operating, maintenance, and overhead costs for the "in-basin" feeders, canals, pipelines, laterals, and other appurtenant works. The "in-basin" facilities are distinguished from Conveyance and Aqueduct facilities at the point of connection to the SWP, Lake Mathews, and other major turnouts along the CRA facilities.
- *Demand Management.* A separate demand management service function has been used to clearly identify the cost of Metropolitan's investments in local resources like conservation, recycling, and desalination.
- *Administrative and General (A&G).* These costs occur in each of the Groups' departmental budgets and reflect overhead costs that cannot be directly functionalized. The cost-of-service process allocates A&G costs to the service functions based on the labor costs of non-A&G dollars allocated to each function.
- *Hydroelectric.* Hydroelectric costs include the capital financing, operating, maintenance, and overhead costs incurred to operate the 16 small hydroelectric plants located throughout the water distribution system.

1.3.1 Functional Allocation Bases

The functional allocation bases are used to allocate a cost to the various service functions. The primary functional allocation bases used in the cost-of-service process are listed below.

- Direct assignment
- Net Book Value plus Work-In-Progress
- Prorating in proportion to other allocations
- Manager analysis

Schedule 2 summarizes the amounts of total cost allocated using each of the above types of allocation bases.

Schedule 2. Summary of Functional Allocations by Type of Allocation Basis

Primary Functional Allocation Bases	Estimated for FY 2014	% of Allocated Dollars
Direct Assignment	\$ 1,041,744,227	61.1%
Work in Progress/Net Book Value	518,649,374	30.4%
Prorating	63,006,348	3.7%
Manager Analysis	35,779,600	2.1%
Other	\$ 44,883,518	2.6%
Total Dollars Allocated	\$ 1,704,063,068	100.0%
Portion of Above Allocations Relating to:		
Revenue Requirements before Offsets	1,582,535,934	
Revenue Offsets	121,527,134	
Total Dollars Allocated	\$ 1,704,063,068	

Totals may not foot due to rounding

Each of the primary allocation bases is discussed in detail in the remainder of this section. Discussion of each allocation basis includes examples of costs allocated using that particular basis.

(a) Direct assignment

Direct assignment makes use of a clear and direct connection between a revenue requirement and the function being served by that revenue requirement. Directly assigned costs typically include: Costs associated with specific treatment plants, purely administrative costs, and certain distribution and conveyance departmental costs. Examples of costs that are directly assigned to specific functional categories are given below.

- * Water System Operations Group departmental costs for treatment plants are directly assigned to treatment.
- * Transmission charges for State Water Contract are directly assigned to conveyance SWP.

(b) Work-In-Progress; Net Book Value Plus Work-In-Progress

Capital financing costs, including debt service and funding replacements and refurbishments from operating revenues, comprise about 28 percent of Metropolitan's annual revenue requirements. One approach would be to allocate payments on each debt issue in direct proportion to specific project expenditures made using bond proceeds. But, this approach would result in a high degree of volatility in relative capital cost allocations from year to year. The approach used in this analysis is one widely used in water industry cost of service studies. Capital and debt-related costs (including repair and replacement costs paid from current revenues) are allocated on the basis of the relative net book values of fixed assets within each functional category. This approach produces capital cost allocations that are consistent with the functional distribution of assets. Also, since the allocation basis is tied to fixed asset records rather than debt payment records, the resulting allocations are more reflective of the true useful lives of assets. Use of net book values as an allocation basis provides an improved matching of functional costs with asset lives. A listing of fixed asset net book values summarized by asset function is shown in Schedule 3.

Schedule 3. Net Book Value and Work in Progress Allocation Base

Functional Categories	NBV for FY 2014	% of Total NBV
Source of Supply	\$ 22,855,983	0.3%
Conveyance & Aqueduct	1,849,143,743	20.2%
Storage	2,236,593,975	24.5%
Treatment	3,279,376,388	35.9%
Distribution	1,324,730,492	14.5%
Administrative & General	317,241,039	3.5%
Hydroelectric	112,451,435	1.2%
Total Fixed Assets Net Book Value	\$ 9,142,393,053	100.0%

Totals may not foot due to rounding

In most instances, the cost-of-service process uses net book value *plus* work-in-progress to develop allocation bases for debt and capital costs. For organizational units handling current construction activity, however, allocations are based on work-in-progress alone. For these organizational units, exclusion of net book value from the allocation basis is done because the costs being allocated relate directly to work in progress not yet reflected in the completed assets records.

Examples of revenue requirements allocated using these net book value and work-in-progress allocations are shown below.

- * Revenue Bond Debt Service: *allocated using Work In Progress plus Net Book Value.*
- * Annual deposit of operating revenue to replacement and refurbishment fund: *allocated using Work In Progress plus Net Book Value.*

To calculate the relative percentage of fixed assets in each functional category, Metropolitan staff conducted a detailed analysis of historical accounting records and built a database of fixed asset accounts that contains records for all facilities currently in service and under construction. Each facility was sorted into the major service function that best represented the facilities primary purpose and was then further categorized into the appropriate sub-functions described earlier.

(c) Prorating in proportion to other allocations

Utility cost of service studies frequently contain line items for which it would be difficult to identify an allocation basis specific to that line item. In these cases, the most logical allocation basis is often a prorata blend of allocation results calculated for other revenue requirements in the same departmental group, or general category. Reasonable prorata allocations are based on a logical nexus between a cost and the purpose which it serves. For example: Human Resources Section costs are allocated using all labor costs, since Human Resources spends its time and resources attending to the labor force.

(d) Manager analyses

The functional interrelationships of some organizational units are so complex and/or dynamic that reliable allocation bases can only be developed with extensive input from the organization's managers. In these cases, managers use their firsthand knowledge of the organization's internal operations to generate a functional analysis of departmental costs. An example of revenue requirements allocated based on manager analyses is: Water System Operations Group: Operations Planning Unit.

A summary of the functional allocation results is shown in Schedules 4 and 5. Schedule 4 provides a breakdown of the revenue requirement for FY 2013/14 into the major service functions and sub-functions prior to the redistribution of administrative and general costs. Schedule 5 serves as a cross-reference summarizing how the budget line items are distributed among the service functions. The largest functional component of Metropolitan's revenue requirement is the Conveyance and Aqueduct function, which constitutes approximately 41 percent of the allocated revenue requirement.

Schedule 4. Revenue Requirement (by service function)

Functional Categories	Fiscal Year Ending 2014	% of Allocated Dollars (1)
Source of Supply		
CRA	\$ 36,971,823	2.5%
SWP	108,983,937	7.4%
Other Supply	10,744,171	0.7%
Total	156,699,932	10.6%
Conveyance & Aqueduct		
CRA		
<i>CRA Power (net of sales)</i>	34,718,934	2.3%
<i>CRA All Other</i>	45,433,359	3.1%
SWP		
<i>SWP Power</i>	230,741,829	15.6%
<i>SWP All Other</i>	212,715,867	14.4%
Other Conveyance & Aqueduct	79,311,888	5.4%
Total	602,921,876	40.7%
Storage		
Storage Costs Other Than Power		
<i>Emergency</i>	61,016,031	4.1%
<i>Drought</i>	49,668,375	3.4%
<i>Regulatory</i>	15,652,846	1.1%
Wadsworth plant pumping/generation	(505,271)	0.0%
Total	125,831,981	8.6%
Treatment		
Jensen	47,460,371	3.2%
Weymouth	52,770,848	3.6%
Diemer	58,750,207	4.0%
Mills	34,302,398	2.3%
Skinner	71,278,776	4.8%
Total	264,562,599	17.9%
Distribution	132,472,705	8.9%
Demand Management	61,751,357	4.2%
Hydroelectric	(9,660,187)	0.7%
Administrative & General	126,428,537	8.5%
Total Functional Allocations:	\$ 1,461,008,799	100.0%

(1) Given as a percentage of the absolute values of total dollars allocated.

Totals may not foot due to rounding

Schedule 5. Service Function Revenue Requirements (by budget line item)

	Source of Supply	Conveyance & Aqueduct	Storage	Treatment	Distribution	Demand Management	Hydro Electric	Administrative & General	Total \$ Allocated
Departmental Operations & Maintenance									
Office of the General Manager & Human Resources	\$ 1,000,399	\$ 7,752,208	\$ 591,220	\$ 3,386,660	\$ 2,308,977	\$ 198,850	\$ 181,952	\$ 4,898,434	\$ 20,318,700
External Affairs	-	-	-	-	-	2,968,200	-	13,029,900	15,998,100
Water System Operations	12,925,414	36,212,956	3,447,068	96,781,777	56,410,059	8,745	4,249,447	955,534	210,991,000
Chief Financial Officer	-	-	-	-	-	-	-	6,781,500	6,781,500
Business Technology & Engineering Services	2,027,317	8,555,721	7,658,198	15,425,373	8,308,169	389,660	688,839	23,913,023	66,966,300
Real Property Development & Mgmt	-	-	5,288,300	-	-	-	-	-	5,288,300
Water Resource Management	10,386,182	5,871	-	240,698	1,204,198	3,360,251	-	-	15,197,200
Ethics Department	-	-	-	-	-	-	-	459,200	459,200
General Counsel	-	-	-	-	-	-	-	11,564,600	11,564,600
Audit Department	-	-	-	-	-	-	-	2,123,800	2,123,800
Total Departmental O&M	26,339,312	52,526,756	16,984,786	115,834,507	68,231,403	6,925,706	5,120,238	63,725,991	355,688,700
General District Requirements									
State Water Project	84,978,587	478,774,336	-	-	-	-	-	-	563,752,923
Colorado River Aqueduct	-	24,926,279	-	-	-	-	-	-	24,926,279
Water Transfers and Storage Programs	44,883,518	-	-	-	-	-	-	-	44,883,518
Demand Management	-	-	-	-	-	53,624,040	-	-	53,624,040
Capital Financing Program	1,136,036	90,922,827	110,250,132	162,865,294	90,790,370	-	5,636,486	15,729,728	477,330,874
Other Operating Costs	697,678	1,137,255	412,316	2,361,856	1,610,280	1,727,778	126,894	30,055,542	38,129,600
Increase (Decrease) in Required Reserves	-	-	-	-	-	-	-	24,200,000	24,200,000
Total General District Requirements	131,695,819	595,760,697	110,662,449	165,227,150	92,400,651	55,351,818	5,763,380	69,985,271	1,226,847,234
Revenue Offsets	(1,335,199)	(45,365,578)	(1,815,253)	(16,499,058)	(28,159,349)	(526,167)	(20,543,805)	(7,282,725)	(121,527,134)
Net Revenue Requirements	\$ 156,699,932	\$ 602,921,876	\$ 125,831,981	\$ 264,562,599	\$ 132,472,705	\$ 61,751,357	\$ (9,660,187)	\$ 126,428,537	\$ 1,461,008,799

Totals may not foot due to rounding

1.4 Classified Costs

In the cost classification step, functionalized costs are further categorized based on the causes and behavioral characteristics of these costs. An important part of the classification process is identifying which costs are incurred to meet average demands vs. peak demands and which costs are incurred to provide standby service. As with the functional allocation process, the proposed classification process is consistent with AWWA guidelines, but has been tailored to meet Metropolitan's specific operational structure and service environment.

In the cost of service process, cost classification is done using a hybrid of two methods discussed in the AWWA M1 Manual, Principles of Water Rates, Fees and Charges. These two methods are the Commodity/Demand method and the Base/Extra Capacity method.

The Commodity/Demand method allocates costs that vary with the amount of water produced to the commodity category with all other costs associated with water production allocated to the demand category. In the Base/Extra Capacity method, costs related to average demand conditions are allocated to the base category and capacity costs associated with meeting above average demand conditions are allocated to the extra capacity category.

The approach used to classify Metropolitan's costs differs from the Base/Extra Capacity method by the fact that costs are separated into a variable category and a fixed category. The Base/Extra Capacity method does not separate these costs into two categories but rather combines them into one category referred to as base costs. The approach used to classify Metropolitan's costs differs from the Commodity/Demand method in the fact that demand costs are separated into fixed commodity and fixed demand costs. The Commodity/Demand method would not make this distinction, but would combine these costs into the demand category. By using the hybrid method, costs are disaggregated to a lower level of detail, providing greater visibility to costs. Under the hybrid classification method, functional cost categories are reallocated into demand, commodity, or standby categories, which are discussed below. Classification of costs into these categories depends on an analysis of system capacity as well as actual system operating data.

Classification categories used in the analysis include:

- Fixed demand costs
- Fixed commodity costs
- Fixed standby costs
- Variable commodity costs
- Hydroelectric costs

Demand costs are incurred to meet peak demands. Only the direct capital financing costs were included in the demand classification category. A portion of capital financing costs was included in the demand cost category because in order to meet peak demands additional physical capacity is designed into the system and, therefore, additional capital costs are incurred. Commodity costs are generally associated with average system demands. Variable commodity costs include costs of chemicals, most power costs, and other cost components that increase or decrease in relation to the volume of water supplied. Fixed commodity costs include fixed operations and maintenance and capital financing costs that are not related to accommodating peak demands or standby service.

Standby service costs relate to Metropolitan's role in ensuring system reliability during emergencies such as an earthquake or an outage of a major facility like the Colorado River Aqueduct. The two principal components of the standby costs were identified as the emergency storage capacity within the system and the standby capacity within the State Water Project conveyance system.

An additional component used in Metropolitan's cost classification process is the hydroelectric component. While not a part of most water utilities' cost classification procedures, the hydroelectric classification component is necessary to segregate revenue requirements carried from the hydroelectric function established in the functional allocation process. Hydroelectric revenue requirements are later embedded in the distribution function. Any net revenues generated by the hydroelectric operations offset the distribution costs and reduce the System Access Rate. All users of the distribution system benefit proportionately from the revenue offset provided by the sale of hydroelectric energy.

Schedule 6 provides the classification percentages used to distribute the service function costs into demand, commodity and standby service classification categories. All of the supply costs are classified as fixed commodity costs. Because these particular supply costs have been incurred to provide an amount of annual reliable system yield and not to provide peak demand delivery capability or standby service, they are reasonably treated as fixed commodity costs.

Costs for the Conveyance and Aqueduct (C&A) service function are classified into demand, commodity, and standby categories. Because the capital costs for C&A were incurred to meet all three classification categories, an analysis of C&A capacity usage for the three years ending June 2014 was used to determine that 52 percent of the available conveyance capacity has been used to meet member agency demands on an average annual basis. A system peak factor¹ of 1.4 was applied to the average annual usage to determine that 22 percent of available capacity is used to meet peak monthly deliveries to the member agencies. The remaining portion of C&A, around 26 percent, is used for standby. The same classification percentages are applied to the CRA, SWP, and Other (Inland Feeder) Conveyance and Aqueduct sub-functions. The classification shares reflect the system average use of conveyance capacity and not the usage of individual facilities. All of the Conveyance and Aqueduct energy costs for pumping water to Southern California are classified as variable commodity costs and, therefore, are not shown in Schedule 6 because they carry through the classification step.

Storage service function costs for emergency, drought and regulatory storage are also distributed to the classification categories based on the type of service provided. Emergency storage costs are classified as 100 percent standby related. Emergency storage is a prime example of a cost Metropolitan incurs to ensure the reliability of deliveries to the member agencies. In effect, through the emergency storage capacity in the system, Metropolitan is "standing by" to provide service in the event of a catastrophe such as a major earthquake that disrupts regional conveyance capacity for an extended period of time. Drought carryover storage serves to provide reliable supplies by carrying over surplus supplies from periods of above normal precipitation and snow pack to drought periods when supplies decrease. Drought storage creates supply and is one component of the portfolio of resources that result in a reliable amount of annual system supplies. As a result, drought storage is classified as a fixed commodity cost, in the same manner as Metropolitan's supply costs. Regulatory storage within the Metropolitan system provides operational flexibility in meeting peak demands and

¹ Peak monthly deliveries to the member agencies average about 42 percent more than the average monthly deliveries.

flow requirements, essentially increasing the physical distribution capacity. Therefore, regulatory storage is classified in the same manner as distribution costs.

Distribution service function costs were classified using daily flow data for the three calendar years ending December 2014. During this period, the average annual volume of deliveries to the member agencies used 42 percent of the peak distribution capacity. The difference between the three-year average non-coincident peak and the commodity flows divided by the system capacity, or 38 percent of the distribution capacity, was used to meet peak day demands in excess of average annual flows. Although the Metropolitan distribution system has a great deal of operational flexibility, the total amount of distribution capacity was limited to the peak non-coincident² 24-hour daily flow of all the member agencies. The remaining 20 percent of distribution capacity is associated with standby service.

As presented in Schedule 6, treatment service function costs were also classified using daily flow data of deliveries to the member agencies for the three years ending December 2014. Total treated water capacity of 4,204 cfs, the total design capacity of all the treatment plants, was used in the calculation. Schedule 7 summarizes the service function revenue requirements by classification category. Administrative and general costs have been allocated to the classification categories by service function based on the ratio of classified non-A&G service function costs to total non-A&G service function costs.

² The term “non-coincident” means that the peak day flow for each agency may or may not coincide with the peak day system flow. Both non-coincident and coincident approaches to measuring peak demands are used in rate design approaches. A non-coincident approach is used in the rate design to capture the different operating characteristics of the member agencies (e.g., the distribution system is designed to meet peak demands in different load areas within the System that have non-coincident demands due to each member agencies unique operating characteristics).

Schedule 6. Classification Percentages

Function	Classification Percentages			Total % Classified	Comments
	Fixed				
	Commodity	Demand	Standby		
Source of Supply					
Colorado River Aqueduct	100%	0%	0%	100%	Supply costs classified as commodity
State Water Project	100%	0%	0%	100%	Supply costs classified as commodity
Conveyance & Aqueduct					
Colorado River Aqueduct	52%	22%	26%	100%	Demand (peaking) percentage represents application of system monthly peak factor of 1.4 to average monthly flow. Commodity percentage represents average flows. Remainder of capacity is for standby (expected growth). SWP and CRA are treated the same due to application of system wide uniform price.
State Water Project	52%	22%	26%	100%	
Other	52%	22%	26%	100%	
Storage					
Emergency	0%	0%	100%	100%	Standby service (recovered by RTS)
Drought	100%	0%	0%	100%	Recovered by Supply Rates
Regulatory	42%	37%	20%	100%	See distribution (below)
Treatment	32%	36%	32%	100%	Demand percentage represents amount of system treatment capacity used to meet peak day flows in excess of average. Commodity percentage represents amount of capacity used to meet average flows. Standby percentage is estimated as remaining total capacity. The same classification is applied to all five treatment plants due to the use of a uniform system wide treatment surcharge.
Distribution	42%	37%	20%	100%	Demand percentage represents amount of system distribution capacity used to meet peak day flows in excess of average. Commodity percentage represents amount of capacity used to meet average flows. Standby percentage is estimated as remaining total system capacity. The same classification is applied to all distribution facilities due to the use of a system wide uniform system access rate.

Totals may not foot due to rounding

A summary of cost classification results is shown in Schedule 7. The classification of the service function costs results in about 9 percent, or \$131 million of the total revenue requirements, being allocated to the demand classification category. This amount represents a reasonable estimate of the annual fixed capital financing costs incurred to meet peak demands (plus the allocated administrative and general costs). A portion of Metropolitan's property tax revenue is allocated to C&A fixed demand costs and offsets the amount that is recovered through rates. The taxes are used to pay for the general obligation bond debt service allocated to the C&A costs.

Schedule 7. Service Function Revenue Requirements (by classification category)

Functional Categories (by sub-Function)	Fixed Demand	Commodity	Standby	Variable Commodity	Hydroelectric	Total Classified
Source of Supply						
CRA	\$ -	\$ 41,284,351	\$ -	\$ -	\$ -	\$ 41,284,351
SWP	-	121,696,219	-	-	-	121,696,219
Other Supply	-	11,997,410	-	-	-	11,997,410
Subtotal: Source of Supply	-	174,977,980	-	-	-	174,977,980
Conveyance & Aqueduct						
CRA						
CRA Power	-	11,265,365	-	25,857,990	-	37,123,355
CRA All Other	2,483,559	45,073,449	2,941,460	-	-	50,498,468
SWP						
SWP Power	-	-	-	242,242,704	-	242,242,704
SWP All Other	18,730,357	194,845,930	22,183,724	-	-	235,760,011
Other Conveyance & Aqueduct	16,532,268	50,003,637	20,434,098	-	-	86,970,003
Subtotal: Conveyance & Aqueduct	37,746,185	301,188,382	45,559,281	268,100,694	-	652,594,541
Storage						
Storage Costs Other Than Power						
Emergency	-	-	65,614,980	-	-	65,614,980
Drought	-	55,461,874	-	-	-	55,461,874
Regulatory	5,473,802	8,648,797	2,974,091	-	-	17,096,690
Storage Power	-	-	-	(530,455)	-	(530,455)
Subtotal: Storage	5,473,802	64,110,672	68,589,070	(530,455)	-	137,643,089
Water Quality						
CRA	-	-	-	-	-	-
SWP	-	-	-	-	-	-
Other	-	-	-	-	-	-
Subtotal: Water Quality	-	-	-	-	-	-
Treatment	62,118,130	155,173,080	39,834,410	31,710,719	-	288,836,340
Distribution	25,571,061	106,675,824	13,893,570	-	-	146,140,456
Demand Management	-	68,954,260	-	-	-	68,954,260
Hydroelectric	-	-	-	-	(8,137,866)	(8,137,866)
Total Costs Classified	\$ 130,909,178	\$ 871,080,197	\$ 167,876,332	\$ 299,280,958	\$ (8,137,866)	\$ 1,461,008,799

Totals may not foot due to rounding

About 60 percent of the revenue requirement (\$871 million) is classified as “fixed commodity.” These fixed capital and operating costs are incurred by Metropolitan to meet annual average service needs and are typically recovered by a combination of fixed charges and volumetric rates. Fixed capital costs classified to the “Standby” category total about \$168 million and account for about 11 percent of the revenue requirements. Standby service costs are commonly recovered by a fixed charge allocated on a reasonable representation of a customer’s need for standby service. The variable commodity costs for power on the conveyance and aqueduct systems, and power, chemicals and solids handling at the treatment plants change with the amount of water delivered to the member agencies. These costs are classified as variable commodity costs, total about \$299 million, and account for about 20 percent of the total revenue requirement. Because of the variable nature of these costs, it is appropriate to recover them through volumetric rates.

2 Rates and Charges

Schedule 8 provides a cross-reference between the classified service function costs and their allocation to the rate design elements. The specifics of each rate design element are discussed in detail in the following section. Schedule 9 summarizes the rates and charges that would be effective on January 1, 2014 in order to collect all costs from rates and charges in fiscal year 2013/14, with the use of \$3 million draws from reserve funds. Average costs by member agency will vary depending upon an agency’s RTS allocation, capacity charge and relative proportions of treated and untreated Tier 1, and Tier 2 purchases.

Schedule 8. Classified Service Function Revenue Requirements (by rate design element)

Service Function by Classification Category	Rate Design Elements							Total Costs Allocated
	Supply Rates	System Access Rate	Water Stewardship Rate	System Power Rate	Capacity Charge	Readiness-to-Serve Charge	Treatment Surcharge	
Supply								
Fixed Demand	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Commodity	174,977,980	-	-	-	-	-	-	174,977,980
Fixed Standby	-	-	-	-	-	-	-	-
Variable Commodity	-	-	-	-	-	-	-	-
Hydroelectric	-	-	-	-	-	-	-	-
Subtotal: Supply	174,977,980	-	-	-	-	-	-	174,977,980
Conveyance and Aqueduct								
Fixed Demand	-	-	-	-	-	37,746,185	-	37,746,185
Fixed Commodity	-	301,188,382	-	-	-	-	-	301,188,382
Fixed Standby	-	-	-	-	-	45,559,281	-	45,559,281
Variable Commodity	-	-	-	268,100,694	-	-	-	268,100,694
Hydroelectric	-	-	-	-	-	-	-	-
Subtotal: Conveyance and Aqueduct	-	301,188,382	-	268,100,694	-	83,305,466	-	652,594,541
Storage								
Fixed Demand	-	-	-	-	5,473,802	-	-	5,473,802
Fixed Commodity	55,461,874	8,648,797	-	-	-	-	-	64,110,672
Fixed Standby	-	-	-	-	-	68,589,070	-	68,589,070
Variable Commodity	(530,455)	-	-	-	-	-	-	(530,455)
Hydroelectric	-	-	-	-	-	-	-	-
Subtotal: Storage	54,931,419	8,648,797	-	-	5,473,802	68,589,070	-	137,643,089
Treatment								
Fixed Demand	-	-	-	-	-	-	62,118,130	62,118,130
Fixed Commodity	-	-	-	-	-	-	155,173,080	155,173,080
Fixed Standby	-	-	-	-	-	-	39,834,410	39,834,410
Variable Commodity	-	-	-	-	-	-	31,710,719	31,710,719
Hydroelectric	-	-	-	-	-	-	-	-
Subtotal: Treatment	-	-	-	-	-	-	288,836,340	288,836,340
Distribution								
Fixed Demand	-	-	-	-	25,571,061	-	-	25,571,061
Fixed Commodity	-	106,675,824	-	-	-	-	-	106,675,824
Fixed Standby	-	-	-	-	-	13,893,570	-	13,893,570
Variable Commodity	-	-	-	-	-	-	-	-
Hydroelectric	-	(8,137,866)	-	-	-	-	-	(8,137,866)
Subtotal: Distribution	-	98,537,958	-	-	25,571,061	13,893,570	-	138,002,589
Demand Management								
Fixed Demand	-	-	-	-	-	-	-	-
Fixed Commodity	-	-	68,954,260	-	-	-	-	68,954,260
Fixed Standby	-	-	-	-	-	-	-	-
Variable Commodity	-	-	-	-	-	-	-	-
Hydroelectric	-	-	-	-	-	-	-	-
Subtotal: Demand Management	-	-	68,954,260	-	-	-	-	68,954,260
Total								
Fixed Demand	-	-	-	-	31,044,863	37,746,185	62,118,130	130,909,178
Fixed Commodity	230,439,855	416,513,003	68,954,260	-	-	-	155,173,080	871,080,197
Fixed Standby	-	-	-	-	-	128,041,922	39,834,410	167,876,332
Variable Commodity	(530,455)	-	-	268,100,694	-	-	31,710,719	299,280,958
Hydroelectric	-	(8,137,866)	-	-	-	-	-	(8,137,866)
Total	\$ 229,909,400	\$ 408,375,137	\$ 68,954,260	\$ 268,100,694	\$ 31,044,863	\$ 165,788,107	\$ 288,836,340	\$ 1,461,008,799

Totals may not foot due to rounding

Schedule 9. Rates and Charges Summary

Effective January 1st	2012	2013	2014
Tier 1 Supply Rate (\$/AF)	\$95	\$149	\$157
Delta Supply Surcharge (\$/AF)	\$69	*	*
Tier 2 Supply Rate (\$/AF)	\$290	\$290	\$290
System Access Rate (\$/AF)	\$217	\$228	\$247
Water Stewardship Rate (\$/AF)	\$43	\$41	\$42
System Power Rate (\$/AF)	\$136	\$190	\$164
Full Service Untreated Volumetric Cost (\$/AF)			
Tier 1	\$560	\$608	\$610
Tier 2	\$686	\$749	\$743
Replenishment Water Rate Untreated (\$/AF)	\$442	**	**
Interim Agricultural Water Program Untreated (\$/AF)	\$537	***	***
Treatment Surcharge (\$/AF)	\$234	\$260	\$302
Full Service Treated Volumetric Cost (\$/AF)			
Tier 1	\$794	\$868	\$912
Tier 2	\$920	\$1,009	\$1,045
Treated Replenishment Water Rate (\$/AF)	\$651	**	**
Treated Interim Agricultural Water Program (\$/AF)	\$765	***	***
Readiness-to-Serve Charge (\$M)	\$146	\$146	\$169
Capacity Charge (\$/cfs)	\$7,400	\$6,600	\$8,900

* The Delta Supply Surcharge will be suspended after 2012.

** Under the current replenishment program proposal there would be no discounted replenishment rates after 2012.

*** The Interim Agricultural Water Program will be discontinued after 2012.

2.1 System Access Rate (SAR)

The SAR is a volumetric³ system-wide rate levied on each acre-foot of water that moves through the MWD system. All system users (member agency or third party) pay the SAR to use Metropolitan's conveyance and distribution system. To meet the board stated objective to collect all costs in 2013/14, the SAR would increase to \$247 per acre-foot. The SAR recovers the cost of providing conveyance and distribution capacity to meet average annual demands. Current estimates indicate that the SAR revenue requirement will be about \$408 million in FY 2012/13, or 28 percent of the total revenue requirement.

2.2 Water Stewardship Rate (WSR)

The WSR would increase to \$42 per acre-foot. The WSR recovers the costs of providing financial incentives for existing and future investments in local resources including conservation and recycled water. These investments or incentive payments are identified as the "demand management" service function in the cost of service process. Demand management costs are classified as 100 percent fixed commodity costs and are estimated to be about \$69 million in FY 2013/14, about 5 percent of the revenue requirement. The WSR is a volumetric rate levied on each acre-foot of water that moves

³ A volumetric rate is a charge applied to the actual amount of water delivered.

through the Metropolitan system. All system users (member agency or third parties) will pay the same proportional costs for existing and future conservation and recycling investments.

2.3 System Power Rate (SPR)

SPR would decrease to \$164 per acre-foot in 2014. The SPR is a volumetric rate that recovers the costs of pumping water to Southern California. The SPR recovers the cost of power for both the SWP and CRA. In FY 2013/14 the revenue requirement for the SPR is estimated to be about \$268 million, about 18 percent of the total revenue requirement.

2.4 Treatment Surcharge

The treatment surcharge would increase to \$302 per acre-foot to collect all treatment costs in 2013/14. The treatment surcharge is a system-wide volumetric rate set to recover the cost of providing treated water service. The treatment surcharge revenue requirement is expected to be about \$288 million in FY 2013/14, almost 20 percent of the total revenue requirement. The treatment surcharge recovers all costs associated with providing treated water service, including commodity, demand and standby related costs. Significant capital improvements at Metropolitan's five treatment plants, such as the Ozone Retrofit Program, Skinner Filtration Plant Expansion Project, and improvement programs at all five treatment plants result in additional capital financing costs being allocated to the treatment surcharge.

2.5 Capacity Charge

The Capacity Charge would increase to \$8,900 per cubic-foot-second of capacity during 2014. The capacity charge is levied on the maximum summer day demand placed on the system between May 1 and September 30 for a three-calendar year period. The three-year period ending December 31, 2012 is used to levy the capacity charge effective January 1, 2014 through December 31, 2014. Demands measured for the purposes of billing the capacity charge include all firm demand and agricultural demand, including wheeling service and exchanges. Replenishment service is not included in the measurement of peak day demand for purposes of billing the capacity charge.

The capacity charge is intended to pay for the cost of peaking capacity on Metropolitan's system, while providing an incentive for local agencies to decrease their use of the Metropolitan system to meet peak day demands and to shift demands into lower use time periods particularly October through April. Over time, a member agency will benefit from local supply investments and operational strategies that reduce its peak day demand on the system in the form of a lower total capacity charge. The estimated capacity charge to be paid by each member agency in calendar year 2014 will be provided to the Board in April 2013.

2.6 Readiness-to-Serve Charge

The costs of providing standby service, such as emergency storage, are recovered by the RTS. Metropolitan's costs for providing emergency storage capacity within the system are estimated to be about \$69 million in FY 2013/14. In addition, to simplify the rate design by reducing the number of separate charges, the demand and standby related costs identified for the conveyance and aqueduct

service function, and standby costs for the distribution function, are also allocated to the RTS. These costs are estimated to be about \$97 million in FY 2013/14. The RTS would increase to \$169 million in calendar year 2014.

The RTS is allocated to the member agencies based on each agency's proportional share of a ten-year rolling average of all firm deliveries (including water transfers and exchanges that use Metropolitan system capacity). The ten-year rolling average will not include replenishment service and interim agricultural deliveries because these deliveries will be the first to be curtailed in the event of an emergency. A ten-year rolling average leads to a relatively stable RTS allocation that reasonably represents an agency's potential long-term need for standby service under different demand conditions. Member agencies that so choose may have a portion of their total RTS obligation offset by standby charge collections levied by Metropolitan on behalf of the member agency. The detailed schedule with an estimate of each agency's RTS obligation for calendar year 2014 will be provided to the Board in April 2013.

2.7 *Purchase Order*

The new Purchase Order is part of the discussions in the Long Range Finance Plan Workgroup, and a decision is expected in 2012. The 2014 Purchase Order Commitment quantity and the Tier 1 Annual Limit for all member agencies will be provided to the Board in April 2013.

2.8 *Tier 2 supply rate*

The Tier 2 Supply Rate reflects Metropolitan's cost of developing long-term firm supplies. The Tier 2 Supply Rate encourages the member agencies and their customers to maintain existing local supplies and develop cost-effective local supply resources and conservation. The Tier 2 Supply Rate also recovers a greater proportion of the cost of developing additional supplies from member agencies that have increasing demands on the Metropolitan system. The Tier 2 Supply Rate would remain at its current level of \$290 per acre-foot.

The total revenue requirement for the supply service function is about \$230 million in FY 2013/14. At an expected average sales level of 1.7 million acre-feet it is estimated that no acre-feet will be sold at the Tier 2 Supply Rate.

The two-tier pricing approach is closely linked to the Purchase Order and a base level of demand. The Purchase Order is part of the Long Range Finance Plan forum and a decision is expected in 2012.

2.9 *Tier 1 supply rate*

The Tier 1 Supply Rate would be increased to \$157 per acre-foot in 2014. The Tier 1 Supply Rate recovers the majority of the supply revenue requirement. The Tier 1 Supply Rate is simply calculated as the amount of the total supply revenue requirement that is not recovered by the Tier 2 Supply Rate divided by the estimated amount of Tier 1 water sales. At an expected demand level of about

1.7 MAF, it is estimated that Metropolitan will sell about 1.5 MAF at the Tier 1 Supply Rate in 2013/14.

2.10 Replenishment water rates

The board is reviewing options for a new replenishment program. If adopted, the new replenishment program would replace the existing replenishment service program and the existing replenishment rate would be discontinued.

3 Sales

Staff estimates of water sales used for developing the rate recommendation were based on current member agency demands and information and an expectation that demands will trend to levels expected under normal weather conditions. Since 1989/90, total sales have averaged about 2.00 MAF per year, ranging from a high of around 2.5 MAF in 1989/90 to a low of about 1.5 MAF in 1997/98. In 2013/14, water sales are projected to be around 1.7 MAF.

4 Proof of Revenue

Based on expected sales of 1.7 MAF the expected revenues would be about \$34 million higher than the total revenue requirement, if the rates and charges were in effect the entire test year period. The cost-of-service allocation assuming a full twelve months of revenue is used to allocate costs among the various rate elements, but should not be interpreted as over- or under-collection during a given fiscal year. However, because the recommended rates do not take effect until January 1, 2014, the expected revenues for 2013/14 will be about \$3 million less than the total revenue requirement in 2013/14. The total revenue requirement includes a \$3-million increase in the required reserves for the Revenue Remainder Fund. Accounting for this adjustment, the required draw from reserves is almost zero in 2013/14.

Schedule 10. FY 2013/14 Proof of Revenue if Rates Effective for Full Test Year (\$ millions)

	Revenues if Rates Effective July 1st	Revenue Requirements	Difference	% Over (Under) Collected
Supply	235.9	229.9	6.0	3%
System Access Rate	417.0	408.4	8.6	2%
Water Stewardship Rate	70.9	69.0	1.9	3%
System Power Rate	276.8	268.1	8.7	3%
Treatment Surcharge	293.8	288.8	4.9	2%
Readiness-to-serve Charge	169.0	165.8	3.2	2%
Capacity Charge	31.8	31.0	0.8	2%
Total	1,495.2	1,461.0	34.2	2%

Totals may not foot due to rounding

Schedule 11. FY 2013/14 Proof of Revenue if Rates Effective January 1 (\$ millions)

	Revenues if Rates Effective Jan 1	Revenue Requirements	Difference	% Over (Under) Collected
Supply	229.4	229.9	(0.5)	0%
System Access Rate	399.8	408.4	(8.6)	-2%
Water Stewardship Rate	70.0	69.0	1.0	2%
System Power Rate	300.3	268.1	32.2	12%
Treatment Surcharge	271.8	288.8	(17.0)	-6%
Readiness-to-serve Charge	157.5	165.8	(8.3)	-5%
Capacity Charge	29.1	31.0	(2.0)	-6%
Total	1,457.9	1,461.0	(3.1)	0%

Totals may not foot due to rounding