6. Managing Debt and Funding Future Capital Projects

- **Even with the sewer service charge increase to meet an 11 percent increase in FY 2004-2005 revenue requirements and the recommended sewer service charge increases in FY 2005-2006 and FY 2006-2007 to meet 11 percent increases in annual revenue requirements, projected Clean Water Enterprise Fund operating reserves in most years would still be less than the Public Utilities Commission's policy of maintaining a reserve equal to 25 percent of operating and maintenance costs. The Clean Water Enterprise Fund may need sewer service charge increases beyond the proposed FY 2005-2006 and FY 2006-2007 sewer service charge increases to fund interim capital needs prior to commencement of construction of Clean Water Master Plan Capital Improvement Program projects in FY 2009-2010 at the earliest.**

- **Both water and sewer service charges will need to increase to pay for Water and Clean Water Master Plan Capital Improvement Program projects over the coming fiscal years. Because construction of improvements to water and clean water infrastructure will impact all San Francisco rate payers, the Public Utilities Commission needs to assess the alternatives of annual incremental sewer service charge increases compared to larger periodic sewer service charge increases to meet ongoing operating and capital needs. The advantage of such an approach would be to reduce the risk of sudden large rate increases in future years and to meet current revenue needs. Annual incremental rate increases would stabilize revenues and better match operating revenues to meet operating needs.**

- **Public Utilities Commission Financial Services staff present ten-year Clean Water Enterprise financial projections to the Public Utilities Commission each year, pursuant to Proposition E. The General Manager of the Public Utilities Commission should present this annual report to the Board of Supervisors prior to May 31 each year, including (i) Clean Water Enterprise program revenue and expenditure projections, (ii) the projected need for sewer service charge increases, the impact of smaller incremental sewer service charge increases compared to larger periodic increases, and the impact of combined water and sewer service charge increases, (iii) the status and an evaluation of implementing the asset management program, and (iv) the status of the capital planning process and proposed funding for both interim capital projects and Clean Water Capital Improvement Program projects.**

The Clean Water Enterprise Fund's Outstanding Debt

The Board of Supervisors adopted a motion (M04-77) on June 29, 2004, directing the Budget Analyst to conduct an analysis of sewer service charges and the financial condition of the Clean Water Enterprise Fund. The Public Utilities Commission adopted sewer service charge increases, effective July 15, 2004, to meet an 11 percent increase in FY 2004-2005 revenue requirement. Prior to the FY 2004-2005 sewer service charge increase, the Public Utilities Commission had not increased sewer service charges for the eight-year period from 1996 until 2004 due to the approval of Proposition H by the voters in 1998, which froze the sewer service charges. Sewer service charges were last increased prior to the transfer of the Clean Water Enterprise program from the Department of Public Works to the Public Utilities Commission between 1996 and 1997.

According to the Clean Water Enterprise Fund's audited financial statements, between FY 1999-2000, after the voter approval of Proposition H implementing the sewer service charge freeze, and FY 2002-2003, the Clean Water Enterprise Fund's operating and maintenance expenses and debt service payments increased compared to revenues. As a result, in FY 2001-2002 and FY 2002-2003, the change in the Clean Water Enterprise Fund's net assets was negative. Overall, between FY 1999-2000 and FY 2002-2003 net assets declined by $19,581,000, from $954,396,000 in the FY 1999-2000 audited financial statement to $934,815,000 in the FY 2002-2003 audited financial statement.[1]

In a report to the Board of Supervisors in June of 2002, entitled "Review of Best Practices for Financing Large Capital Improvement Projects at Municipal Utilities in the State of California", the Budget Analyst projected that total annual revenues would not be sufficient to pay both operating and maintenance costs, as well as the revenue funded capital projects and debt service. The Budget Analyst projected that unappropriated surplus funds would be available to fund operating expenditures and debt service on outstanding debt through FY 2004-2005, but without an increase in the sewer service charges, the Clean Water Enterprise Fund would exhaust its fund balance by FY 2005-2006.

According to the Public Utilities Commission Financial Services staff, the unappropriated fund balance as of July 1, 2004 was $15.97 million, a decrease of approximately $4.2 million from the unappropriated fund balance as of July 1, 2003 of approximately $20.8 million. The projected unappropriated fund balance for FY 2005-2006, as of July 1, 2005, is approximately $14.4 million.

Both Moody's and Standard and Poors rating agencies had issued a negative credit outlook for the Clean Water Enterprise Fund. In June of 2002, both rating agencies considered that the Clean Water Enterprise Fund had strong credit factors that included its large customer base within an economically viable region and relatively low sewer

[1] Net assets equal current assets, including cash deposits and investments, interest income, receivables, capital assets net of depreciation, and other assets, less current and long-term liabilities, such as accrued payroll, sick leave and vacation time, payable interest on outstanding bonds, State revolving fund loans and other liabilities.

service rates. However, the freeze on sewer service charges caused concern because of the negative impact on the Clean Water Enterprise Fund's financial profile and the long term ability of the Public Utilities Commission to fund essential capital improvements. After the voters approved Proposition E in November of 2002, which authorized increases in the sewer service charges, both Moody's and Standard and Poors changed their ratings outlook for the Clean Water Enterprise Fund from negative to stable.

Between FY 1998-1999, after the implementation of the sewer service charge freeze, and FY 2002-2003, the Clean Water Enterprise Fund's debt service ratio, or the ratio of net revenues to the annual debt service, declined from 2.34 to 1.58. The FY 2002-2003 debt service ratio of 1.58 still exceeded the minimum requirement of 1.25 in the Clean Water Enterprise Fund's bond covenants. However, the Clean Water Enterprise Fund's bond covenants are weaker than those of its counterparts in California. The Clean Water Enterprise Fund includes the unappropriated fund balance with net revenues in calculating the ratio of revenues to annual debt service payments.

Clean Water Enterprise Debt

Between 1992 and 1995, the Clean Water Enterprise Fund issued $561 million in revenue bonds, of which $396 million were outstanding in January of 2003. The Clean Water Enterprise Fund refunded and restructured these bonds in January of 2003, as discussed below.

The Clean Water Enterprise Fund also has an outstanding series of low-interest State Revolving Fund loans, through the California Water Resources Control Board. The original principal amount of the State Revolving Loans was $281,855,361. As of December 31, 2002, the State Revolving Fund loans outstanding balance was $172,658,080, with annual debt service payments through FY 2020-2021 as shown in Table 6.1.

Refunding and Restructuring of Outstanding Debt

In January of 2003, the Clean Water Enterprise Fund refunded all of its outstanding revenue bonds, totaling $396,270,000. These outstanding bonds had interest rates, ranging from 4.7 percent to 6.0 percent, and the refunding bonds had lower interest rates, ranging from 3.0 percent to 5.25 percent. The refunding resulted in total net present value savings of approximately $32.5 million. At the time of the refunding, the Clean Water Enterprise Fund restructured the debt payments to reduce the annual debt service payments in FY 2002-2003 through FY 2005-2006. Total debt service extends through FY 2025-2026, as shown in Table 6.1.

Table 6.1

State Loan and Refunding Bond Annual Debt Service Payments FY 2002-2003 through FY 2025-2026

		Refunding Bonds			
	State Loan	Bond Interest	Bond Principal	Subtotal Interest and Principal on Refunding Bonds	Total State Loan and Refunding Bond Interest and Principal Payments
FY 2002-2003	$20,132,647	-	-	-	$20,132,647
FY 2003-2004	20,132,647	20,232,618	-	20,232,618	40,365,265
FY 2004-2005	20,132,646	17,219,250	-	17,219,250	37,351,896
FY 2005-2006	20,132,647	17,219,250	-	17,219,250	37,351,897
FY 2006-2007	20,132,647	16,717,575	33,445,000	50,162,575	70,295,222
FY 2007-2008	16,505,490	15,698,400	34,500,000	50,198,400	66,703,890
FY 2008-2009	16,505,490	14,645,925	35,665,000	50,310,925	66,816,415
FY 2009-2010	16,505,490	13,182,700	37,130,000	50,312,700	66,818,190
FY 2010-2011	16,505,490	11,826,750	26,320,000	38,146,750	54,652,240
FY 2011-2012	10,983,062	10,958,850	22,010,000	32,968,850	43,951,912
FY 2012-2013	9,423,615	9,941,275	23,095,000	33,036,275	42,459,890
FY 2013-2014	9,040,594	8,754,025	24,395,000	33,149,025	42,189,619
FY 2014-2015	6,287,641	7,467,162	25,790,000	33,257,162	39,544,803
FY 2015-2016	5,267,762	6,072,894	27,325,000	33,397,894	38,665,656
FY 2016-2017	3,619,205	5,102,312	11,920,000	17,022,312	20,641,517
FY 2017-2018	1,751,470	4,518,919	12,575,000	17,093,919	18,845,389
FY 2018-2019	1,751,470	3,839,306	13,315,000	17,154,306	18,905,776
FY 2019-2020	1,751,470	3,119,137	14,120,000	17,239,137	18,990,607
FY 2020-2021	1,751,470	2,355,787	14,960,000	17,315,787	19,067,257
FY 2021-2022	-	1,567,212	15,835,000	17,402,212	17,402,212
FY 2022-2023	-	796,212	15,005,000	15,801,212	15,801,212
FY 2023-2024	-	359,100	2,610,000	2,969,100	2,969,100
FY 2024-2025	-	231,919	2,745,000	2,976,919	2,976,919
FY 2025-2026	-	83,362	3,510,000	3,593,362	3,593,362
Total	**218,312,953**	**191,909,940**	**396,270,000**	**588,179,940**	**806,492,893**

Source: 2003 Refunding Bond Official Statement

Annual debt service payments on existing debt will peak in FY 2006-2007 and decrease annually thereafter. In FY 2006-2007, total annual debt service payments will be $70.3 million compared to $40.3 million in FY 2003-2004. In FY 2011-2012, annual debt service payments will be approximately $43.9 million, which is approximately 10 percent more than annual debt service payments in FY 2004-2005.

Sewer Service Charges and Future Debt

In the February 23, 2004, Public Utilities Commission Financial Services report on proposed sewer service charge increases, the Financial Services staff analyzed proposed sewer service charge increases based on expected annual debt service payments of $70,295,222 in FY 2006-2007. The Financial Services staff recommended that sewer service charges be increased annually from FY 2004-2005 through FY 2006-2007 to meet 11 percent increases in annual revenue requirements. The Public Utilities Commission adopted FY 2004-2005 sewer service charge increases to meet an 11 percent increase in revenue requirements in FY 2004-2005 and is considering future sewer service charge increases. According to the February 23, 2004, report, the increased sewer service charges are intended to meet the following conditions:

- Clean Water Enterprise Fund operating and maintenance costs will increase by approximately 3 percent per year.
- Wastewater volume will increase by approximately 0.5 percent.
- The debt service coverage ratio will be at least 1.25.
- The Clean Water Enterprise Fund will maintain an operating reserve of 25 percent of annual operating and maintenance costs.
- Revenues are sufficient to provide adequate funding for recurring capital needs on a pay-as-you-go basis.
- Sufficient revenues are available to increase the annual funding for repair and replacement of assets by 5 percent per year.

Operations and Maintenance Reserve

According to the Public Utilities Commission Financial Services staff's financial projections for the Clean Water Enterprise program, based on current revenue and expenditure expectations, the operating and maintenance reserve will fall below 25 percent of operating and maintenance costs. Based on the FY 2004-2005 sewer service charge increase to meet an 11 percent increase in FY 2004-2005 revenue requirements and proposed annual sewer service charge increases to meet 11 percent increases in revenue requirements in FY 2005-2006 and FY 2006-2007 and on projected expenditures, operating reserves will equal 14 percent of operating and maintenance costs in FY 2005-2006, increase to 27 percent of operating and maintenance costs in FY 2006-2007, and decrease in subsequent fiscal years. Table 6.2 shows the Public Utilities Commission Financial Services projections for Clean Water Enterprise Fund revenues and expenditures, FY 2004-2005 through FY 2008-2009, which were reviewed by the Budget Analyst and found to be reasonable.

Table 6.2

Public Utilities Commission Financial Services Projections for Clean Water Enterprise Fund Revenues and Expenditures, Including Proposed Sewer Service Charge Increases in FY 2005-2006 and FY 2006-2007 to Meet 11 Percent Increases in Annual Revenue Requirements

FY 2004-2005 through FY 2008-2009

	FY 2004-2005	FY 2005-2006	FY 2006-2007	FY 2007-2008	FY 2008-2009
Beginning Fund Balances as of July 1	$15,974,690	$14,429,109	$28,719,272	$26,814,107	$25,364,574
Revenues	153,862,899	171,546,632	191,458,218	192,350,696	193,183,064
Total	169,837,589	185,975,741	220,177,490	219,164,803	218,547,638
Operating and Maintenance Expenditures	100,196,118	103,926,191	106,290,820	109,479,544	112,763,931
Debt Service and Loan Payments	37,351,062	37,351,062	70,294,387	66,703,600	66,816,125
Revenue Funded Repair and Replacement Projects	17,861,300	15,979,215	16,778,176	17,617,085	18,497,939
Total Expenditures	155,408,480	157,256,468	193,363,383	193,800,229	198,077,995
Ending Fund Balance as of June 30	$14,429,109	$28,719,272	$26,814,107	$25,364,574	$20,469,643
Beginning Fund Balance as a Percentage of Operating and Maintenance Expenditures	15.9%	13.9%	27.0%	24.5%	22.5%

Source: Public Utilities Commission Financial Services Section

Funding for Capital Needs

The Financial Services' Clean Water Enterprise program revenue and expenditure projections include 5 percent annual increases to pay for revenue funded repair and replacement projects. The Clean Water Enterprise program has identified approximately $100 million to $150 million in repair and replacement projects in the coming years that exceed the available funding for revenue funded repair and replacement projects. The Public Utilities Commission has begun the planning process for the Clean Water Master Plan, which is the foundation of the proposed Clean Water Capital Improvement Program. The Clean Water Master Plan is expected to be completed in September of 2007. Construction of the clean water capital projects is not expected to commence until

FY 2009-2010 at the earliest, although the Clean Water Enterprise Fund will incur costs for planning, design, environmental review, and other pre-construction costs prior to that time. Prior to completion of the Clean Water Master Plan and commencement of construction in FY 2009-2010 at the earliest, the Clean Water Enterprise program staff anticipate approximately $100 million to $150 million in interim capital projects. According to the Public Utilities Commission Financial Services staff, the Public Utilities Commission has various options for issuing debt to finance interim clean water capital needs, including issuing revenue bonds under existing voter authorization[2], Proposition E authorization, or issuing commercial paper.

Implementation of an Asset Management Program

In addition to planning for major capital improvements and identifying interim capital needs, the Public Utilities Commission is in the preliminary stages of developing an asset management program for the Water, Clean Water, and Hetch Hetchy Enterprises. According to Public Utilities Commission staff, the asset management program includes developing and improving systems to track and evaluate existing assets. With improved data and monitoring, the Public Utilities Commission staff anticipate (i) improved knowledge of the existing infrastructure, including improvements in maintenance and repair and replacement practices, (ii) reductions in unexpected infrastructure failures, (iii) improved planning for capital improvements to ensure funding for priority and necessary projects, and (iv) better matching of revenues and funding with capital projects. The Budget Analyst will review and report on the Public Utilities Commission's asset management program in Phase IV of the management audit.

Impact of Capital Improvement Programs on Water and Sewer Service Charges

Both the Water Enterprise and the Clean Water Enterprise are planning major capital improvement projects. Water rates are projected to increase by an estimated 5 to 12 percent per year, commencing in FY 2005-2006, to fund the Water System Capital Improvement Program in addition to expected sewer service charge increases between FY 2004-2005 and FY 2006-2007. The combined impact of funding water and clean water capital improvement programs will have a significant impact on water and sewer service charges. Analysis of future clean water capital needs and the impact on sewer service charges will have to include an analysis of both Water Enterprise and Clean Water Enterprise capital needs and potential water and sewer service charge increases to pay for capital projects. Pursuant to Proposition E, the Public Utilities Commission Financial Services staff annually prepare 10-year Clean Water Enterprise program revenue and expenditure projections that evaluate future operating, debt service, repair and replacement, and operating reserve requirements, and have evaluated alternative sewer service charge scenarios to identify needed increases in sewer service charges to meet future revenue requirements.

[2] The Clean Water Enterprise Fund has prior voter authorization to issue $70 million in revenue bonds that remain unissued.

Even with the sewer service charge increase to meet an 11 percent increase in FY 2004-2005 revenue requirements and the recommended sewer service charge increases in FY 2005-2006 and FY 2006-2007 to meet 11 percent increases in annual revenue requirements, Clean Water Enterprise Fund operating reserves are less than 25 percent of operating and maintenance costs in most years, as shown in Table 6.2. The Clean Water Enterprise Fund may need sewer service charge increases beyond the proposed sewer service charge increases in FY 2005-2006 and FY 2006-2007 to fund interim capital needs prior to commencement of construction of Clean Water Master Plan Capital Improvement Program projects in FY 2009-2010 at the earliest.

The Public Utilities Commission Financial Services staff should continue to evaluate the need for sewer service charge increases over time to meet the operational and capital needs for the Clean Water Enterprise program, beyond the sewer service charge increase to meet an 11 percent increase in FY 2004-2005 revenue requirements and the recommended sewer service charge increases in FY 2005-2006 and FY 2006-2007 to meet 11 percent increases in annual revenue requirements. Evaluation of sewer service charges should include the impact on clean water customers of annual incremental rate increases compared to larger periodic rate increases to fund capital needs, noting that large increases in FY 2005-2006 and FY 2006-2007 will probably need to occur. The advantage of such an approach would be to reduce the risk of sudden large rate increases in future years and to meet current revenue needs. Smaller incremental rate increases would stabilize revenues and better match operating revenues to meet operating needs.

The Budget Analyst's analysis suggests that annual incremental sewer service charge increases would yield the same total revenues to the Clean Water Enterprise over time as less frequent but larger periodic sewer service charge increases. The Clean Water Enterprise Fund would receive a stable increase in annual revenues to meet operating, maintenance, and ongoing capital needs, but the rate payer would not be confronted all at once with large increases in the monthly sewer service bill. For example, annual incremental sewer service charge increases of 1.25 percent annually from FY 1997-1998 through FY 2005-2006 would have yielded the same total revenues over ten years as sewer service charges with no increases from FY 1997-1999 through FY 2003-2004 and three annual increases of 11 percent from FY 2004-2005 through FY 2006-2007.

Implementing annual incremental sewer service charge increases results in lower cumulative sewer service charges for the rate payer also. If the sewer service charges increased incrementally by 1.25 percent annually over ten years, the cumulative sewer service charge increase to the rate payer over ten years would be 13.2 percent, but if sewer service charges did not increase for seven years and then increased by 11 percent annually for three years, the cumulative increase to the rate payer over ten years would be 36.9 percent. In comparing the two scenarios, rate payers who had received incremental rate increases of 1.25 percent between FY 1997-1998 and FY 2006-2007 would pay FY 2006-2007 rates that were 17.3 lower than the FY 2006-2007 rates of rate payers who had received three larger rate increases of 11 percent in FY 2004-2005 through FY 2006-2007.

Because of the 1998 Proposition H rate freeze, the Public Utilities Commission was not able to implement incremental sewer service charge increases from 1998 through 2004, resulting in the need to implement a larger increase in FY 2004-2005 to meet an 11 percent increase in FY 2004-2005 revenue requirements and consideration of further increases in FY 2005-2006 and FY 2006-2007. Going forward, the Public Utilities Commission needs to consider annual incremental increases in sewer service charges to meet revenue requirements.

Conclusion

Even with the sewer service charge increase to meet an 11 percent increase in FY 2004-2005 revenue requirements and the recommended sewer service charge increases in FY 2005-2006 and FY 2006-2007 to meet 11 percent increases in annual revenue requirements, projected Clean Water Enterprise Fund operating reserves in most years would still be less than the Public Utilities Commission’s policy of maintaining a reserve equal to 25 percent of operating and maintenance costs. The Clean Water Enterprise Fund may need sewer service charge increases beyond the proposed FY 2005-2006 and FY 2006-2007 sewer service charge increases to fund interim capital needs prior to commencement of construction of Clean Water Master Plan Capital Improvement Program projects in FY 2009-2010 at the earliest.

Both water and sewer service charges will need to increase to pay for Water and Clean Water Master Plan Capital Improvement Program projects over the coming fiscal years. Because construction of improvements to water and clean water infrastructure will impact all San Francisco rate payers, the Public Utilities Commission needs to assess the alternatives of annual incremental sewer service charge increases compared to larger periodic sewer service charge increases to meet ongoing operating and capital needs. The advantage of such an approach would be to reduce the risk of sudden large rate increases in future years and to meet current revenue needs. Annual incremental rate increases would stabilize revenues and better match operating revenues to meet operating needs.

Currently, Public Utilities Commission Financial Services staff prepare a long range financial plan, presenting ten-year financial projections that include estimates of operation and maintenance expenses, repair and replacement costs, debt costs and rate increase requirements to the Public Utilities Commission, pursuant to Proposition E. The General Manager of the Public Utilities Commission should present this annual report to the Board of Supervisors prior to May 31 each year, including (i) current Clean Water Enterprise program revenue and expenditure projections, (ii) the projected need for sewer service charge increases, the impact of smaller incremental sewer service charge increases compared to larger periodic increases, and the impact of combined water and sewer service charge increases, (iii) the status of implementation of the asset management program and an evaluation of the asset management program’s effectiveness, and (iv) the status of the capital planning process and proposed funding for both interim capital projects and Clean Water Capital Improvement Program projects.

Recommendations

The Public Utilities Commission General Manager should:

6.1 Present the annual report, prepared by the Public Utilities Commission Financial Services staff pursuant to Proposition E, to the Board of Supervisors prior to May 31 each year, that includes (i) current Clean Water Enterprise program revenue and expenditure projections, (ii) the projected need for sewer service charge increases, the impact of smaller incremental sewer service charge increases compared to larger periodic increases, and the impact of combined water and sewer service charge increases, (iii) the status of implementation of the asset management program and an evaluation of the asset management program's effectiveness, and (iv) the status of the capital planning process and proposed funding for both interim capital projects and Clean Water Capital Improvement Program projects.

Costs and Benefits

The benefit of this recommendation is to provide the Public Utilities Commission with sufficient information to assess the Clean Water Enterprise Fund's interim capital needs, project ongoing revenue requirements, and analyze and recommend sewer service charges to meet the Clean Water Enterprise Fund's ongoing maintenance, operating, and capital needs, including maintaining an operating reserve fund equal to 25 percent of annual operating and maintenance expenditures.