

3. Opportunities to Improve Management Control of Clean Water Enterprise Fund Expenditures

- **The Clean Water Enterprise program's expenditures for providing sewer collection and wastewater treatment services have increased by approximately 18 percent between FY 1998-1999 and FY 2002-2003. The Clean Water Enterprise program's operating costs for chemicals and electricity have increased at a higher rate than other costs. Electricity costs have increased by approximately 44 percent and chemical costs have increased by 49.7 percent.**
- **One of the main increases in expenditures has been administrative overhead. Budgeted overhead expenditures for Public Utilities Administration increased by 47.8 percent between FY 2001-2002 and FY 2004-2005.**
- **The Public Utilities Commission Financial Services section, in conjunction with the Clean Water Enterprise program management, should implement budgetary benchmarks and performance matrices for administrative functions, and should assess potential cost savings for electricity and chemical purchases.**
- **Decreasing electricity costs by 1.0 percent would result in annual savings of \$122,380 and decreasing administrative overhead by 5.0 percent would result in annual savings of \$917,060, for total cost savings of \$1,039,440.**

To contain the pace of further sewer service charge increases, the Public Utilities Commission needs to contain the growth in the Clean Water Enterprise Fund expenditures. Although some growth in Clean Water Enterprise program expenditures is necessary to operate and maintain the sewer collection and wastewater systems, meet capital program needs, and comply with federal and state requirements, other causes of expenditure growth are more discretionary.

The main source of revenues for the Clean Water Enterprise Fund are sewer service charges. The Clean Water Enterprise Fund also receives some revenues from charges for services to special districts, property rentals, recoveries from other City agencies, interest earned on cash accounts, and other miscellaneous sources.

The Clean Water Enterprise Fund expenditures are made up of:

- The operating and maintenance expenditures of the Water Pollution Control Division, which operates and maintains the sewer collection and wastewater treatment systems;

- Direct funding for the Bureau of Environmental and Regulatory Management Pretreatment, Pollution Prevention, and Storm Water Program, and the Water Quality Bureau Laboratories for services provided directly to the Clean Water program;
- The Public Utilities Commission's Administration overhead charges;
- Annual State Revolving Loans and Revenue Bond debt service payments, and
- The repair and replacement of clean water facilities capital assets.

The Clean Water Enterprise Fund's Growth in Expenditures

The Clean Water Enterprise Fund actual operating expenditures grew by an approximately 3.4 percent compounded annual growth rate between FY 1998-1999, the year in which the voters approved Proposition H, freezing sewer service rates, through FY 2002-2003, with total growth in operating and maintenance expenditures over the five-year period of approximately 18.4 percent. The largest areas of expenditure growth were salaries and fringe benefits, chemical costs, and services to other departments, including increases in information technology and power.

Table 3.1
Comparison of the Clean Water Enterprise Fund Actual Expenditures
FY 1998-1999 through FY 2002-2003

	FY 1998-1999	FY 1999-2000	FY 2000-2001	FY 2001-2002	FY 2002-2003	Percent Increase/ (Decrease) from FY 1998-1999 to FY 2002-2003
Salaries and benefits	\$22,809,526	\$25,398,459	\$27,025,565	\$28,971,808	\$29,558,760	29.6%
Citywide overhead	1,734,838	1,786,718	2,046,455	1,961,565	1,730,293	(0.26%)
Sludge hauling contract	2,593,347	2,539,859	2,750,463	2,602,767	2,716,885	4.8%
Other contractual services	3,725,398	2,555,017	2,591,573	3,114,583	3,078,364	(17.4%)
Travel and training	121,731	144,989	129,339	128,322	137,892	13.3%
Chemicals	2,581,636	2,985,102	3,620,533	3,774,202	3,865,143	49.7%
Other materials and supplies	2,791,755	2,575,819	2,851,032	3,424,639	2,800,137	0.3%
Equipment	463,091	340,395	1,371,986	821,105	754,261	62.9%
Services of DPW	10,463,300	8,182,840	8,449,835	7,127,513	8,185,193	(21.8%)
Services of other departments	8,025,278	7,994,373	9,051,824	10,998,100	12,647,262	57.6%
Subtotal	55,309,900	54,503,571	59,888,605	62,924,604	65,474,190	18.4%
Public Utilities Commission Administration overhead	13,122,099	14,983,807	17,041,239	21,655,213	22,773,506	73.6%
Subtotal	68,431,999	69,487,378	76,929,844	84,579,817	88,247,696	29.0%
Debt service	64,677,595	65,303,331	65,790,434	68,435,795	44,028,817	(31.9%)
Subtotal	133,109,594	134,790,709	142,720,278	153,015,612	132,276,513	(0.6%)
Revenue funded capital	11,091,421	11,925,800	18,932,541	14,035,000	14,633,175	31.9%
Total Expenses	144,201,015	146,716,509	161,652,819	167,050,612	146,909,688	1.9%

Source: Public Utilities Commission Financial Services

The Clean Water Enterprise Fund has experienced expenditure growth in most areas of the budget. The growth in salaries and benefits has resulted primarily from mandated salary and fringe benefit costs. The total number of Clean Water Enterprise Fund positions has remained relatively stable over the past five years.

Major components of the Clean Water Enterprise Fund's operating expenditures are chemical, power, and sludge hauling costs, information technology, and services performed by the Department of Public Works. In 1999 twenty-six janitors and crafts workers transferred from the Department of Public Works to the Clean Water Enterprise program, resulting in a \$2.3 million dollar reduction in the work order between the Clean Water Enterprise Fund and the Department of Public Works in FY 1999-2000. The Department of Public Works work orders are discussed in Section 8 of this report.

The Clean Water Enterprise Fund's annual expenditures also include expenditures for Public Utilities Commission Administration overhead, debt service, and revenue funded capital projects.

Growth in Public Utilities Commission Administration Overhead

Table 3.1, which is based on actual expenditure data provided by the Public Utilities Commission Financial Services staff, shows a 73.6 percent increase in Public Utilities Commission Administration overhead costs that were allocated to the Clean Water Enterprise Fund between FY 1998-1999 and FY 2002-2003. The increases in Public Utilities Commission Administration overhead costs are overstated, because these costs include direct operating costs charged to the Clean Water Enterprise Fund for the Bureau of Environmental and Regulatory Management Pretreatment, Pollution Control, and Storm Water Program, and the Water Quality Bureau Laboratories. Prior to FY 2000-2001, Bureau of Environmental and Regulatory Management and Water Quality Bureau Laboratories direct costs for the Clean Water Enterprise program were allocated to the Clean Water Enterprise Fund through administrative overhead, but in FY 2000-2001, these costs were included directly in the Clean Water Enterprise Fund budget. According to the Public Utilities Commission Financial Services staff, due to system and data limitations, the Financial Services staff were unable to separate Bureau of Environmental and Regulatory Management and Water Quality Bureau Laboratories direct costs from Public Utilities Commission Administration overhead to prepare the five-year historical comparison. Table 3.2 shows the growth in Public Utilities Commission Administration overhead that was allocated to the Clean Water Enterprise Fund in the annual budget, from FY 2001-2002 through FY 2004-2005, the period in which the Bureau of Environmental and Regulatory Management and Water Quality Bureau Laboratories direct costs for the Clean Water Enterprise program were removed from the Public Utilities Commission Administration overhead allocation and charged directly to the Clean Water Enterprise Fund. As shown in Table 3.2, the Public Utilities Commission Administration budgeted overhead costs increased by 47.8 percent over the four-year period.

Table 3.2

**Public Utilities Commission’s Administration Budgeted Overhead Costs
Allocated to the Clean Water Enterprise Fund**

FY 2002-2003 through FY 2004-2005

	FY 2001- 2002	FY 2002- 2003	FY 2003- 2004	FY 2004- 2005	Percent Increase in Costs from FY 2002- 2003 to FY 2004-2005
Public Utilities Commission Administration Overhead ¹	\$12,880,664	\$16,473,542	\$19,295,940	\$19,036,886	47.8%

Source: Annual Appropriation Ordinance

The Clean Water Enterprise Fund pays for three layers of administrative costs and overhead:

- The Water Pollution Control Division’s expenditures for its own administration;
- Transfers of revenue to the Public Utilities Commission’s Administration for overhead charges to the Clean Water Enterprise Fund; and
- Citywide overhead.

Citywide overhead pays for the indirect costs of services provided by the City’s central service departments to the Clean Water Enterprise Fund, such as the Controller’s costs for administering payroll. These costs are calculated by the Controller’s Office, based on the formula established by the Federal Office of Management and Budget.

The Public Utilities Commission’s Administration overhead is allocated to the three enterprises based on a methodology established by an outside financial consultant. The Public Utilities Commission Financial Services staff calculate the cost allocation plan annually. Currently, the Public Utilities Commission allocates approximately \$55 million in costs to the three enterprises through the Public Utilities Commission’s cost allocation plan, which includes the costs for:

- The General Manager’s office;

¹ Administration overhead charges allocated to the Clean Water Enterprise Fund are included in the Annual Appropriation Ordinance under Source of Funds as an expenditure recovery.

- The Public Utilities Commission's Planning Bureau;
- Human Resource Services;
- Administrative costs for the Water Quality Bureau Laboratories and the Bureau of Environmental and Regulatory Management, which are not included as direct costs in the Clean Water Enterprise Fund budget;
- The Health and Safety and Environmental Compliance sections of the Bureau of Environmental and Regulatory Management; and
- Business Services, including Financial Services, Information Technology Services, and Customer Services.

Between FY 1998-1999 and FY 2002-2003, Public Utilities Commission Information Technology Services expenditures increased from \$5.7 million to \$10.4 million annually, an increase over five years of approximately 84 percent. According to the Public Utilities Commission Financial Services staff, these increases were the result of a multi-year investment in desktop and network technology. The Budget Analyst will review Information Technology Services in Phase IV of the management audit.

Increases in Chemical and Power Costs for Operating the Treatment Plants

The Water Pollution Control Division, which provides sewer collection and wastewater treatment services for the Clean Water Enterprise program, has increasing costs for power and for chemicals used in wastewater treatment.

Potential Savings in Electricity Costs

The Water Pollution Control Division's expenditures for electricity have increased by 44 percent in the past five years. In FY 1999-2000, total Water Pollution Control Division electricity expenditures were \$5,650,804, which increased to \$9,335,099 in FY 2002-2003, before declining to \$8,158,683 in FY 2003-2004. The Water Pollution Control Division purchases electricity from the Hetch Hetchy Enterprise, which charges the City's enterprise departments for electricity at the market rate established by the California Public Utilities Commission. The Hetch Hetchy Enterprise is currently constrained from reducing the rates charged to the Water Pollution Control Division, the result of a legal settlement with the airlines, in which the City may not charge a higher rate to airline tenants at the San Francisco International Airport than it charges to City enterprise departments for a like class of service.

According to the Hetch Hetchy Acting Director of Power Operations, the Water Pollution Control Division would not achieve cost savings by purchasing power through a private operator because the Hetch Hetchy rates are equivalent to rates from private operators. Although the rates charged to the Water Pollution Control Division exceed the costs of providing power, the difference between costs and net revenues is available for use by

Hetch Hetchy, or in accordance with Proposition E of November of 2002, can be transferred among the three Public Utilities Commission enterprises.

It may be possible to operate the treatment plants during off-peak hours to achieve energy savings. However, this needs to be balanced with the operational capacity of storing wastewater for off-peak treatment. The Water Pollution Control Division should evaluate the feasibility of operating the treatment plants during off-peak hours, which includes an assessment of storage capacity and odor control at different levels of storage and off-peak operations and the potential associated cost savings. This analysis should be part of the Public Utilities Commission's FY 2005-2006 budget preparation and review.

Potential Savings in Chemical Costs

Costs for chemicals used in the wastewater treatment process increased by 49.7 percent between FY 1998-1999 through FY 2002-2003. Increases in chemical costs resulted from overall increases in the price of chemicals and in increased chemical requirements to meet operating needs. Financial Services staff should work with the Water Pollution Control Division to assess the options for reducing or limiting increases in chemical costs, including revised vendor contracts, prior to the Public Utilities Commission's FY 2005-2006 budget preparation and review.

Establishing Budgetary Controls

Implementing Service Measures for Administration Functions

As noted in Sections 9 and 10 of this report, because responsibility for Clean Water Enterprise programs and expenditures are dispersed among the Water Pollution Control Division, the Pretreatment, Pollution Prevention, and Storm Water Program, and the Clean Water functions of the Water Quality Bureau Laboratories, no specific manager is responsible for the Clean Water Enterprise Fund budget. Consequently, no one manager exerts oversight over Clean Water Enterprise Fund expenditures. Further, there is no formal mechanism for the Water Pollution Control Division and other programs funded by the Clean Water Enterprise Fund to determine how the Public Utilities Commission's Administration functions serve the mission of the Clean Water Enterprise programs or for evaluating the cost efficiency of Public Utilities Commission's Administration functions. As a result, the Public Utilities Commission Administration determines the Clean Water Enterprise Fund's contribution to the Department's overhead costs without the benefit of a full analysis of the Clean Water Enterprise programs' actual administrative support needs.

The Public Utilities Commission's Administration does not have service measures that allow the Clean Water Enterprise programs to assess the cost effectiveness of the overhead functions provided to the Clean Water Enterprise programs. According to the performance assessment interim draft report, prepared by the consulting firm, Red Oak, although it is understood that Administration overhead costs are allocated to the enterprises, the overhead functions should have metrics that would allow the Public

Utilities Commission’s Administration to measure the effectiveness and efficiency of its overhead functions.

All of the Public Utilities Commission’s Administration overhead expenditures are allocated to the three enterprises through the Public Utilities Commission’s cost allocation plan. The cost allocation plan is solely a tool to determine the percentage of overhead costs that each enterprise will bear. Budgetary decisions to allocate Public Utilities Commission Administration overhead are made outside of the Clean Water Enterprise program’s management decision making process. The Public Utilities Commission’s Administration, in conjunction with the three enterprises, should develop service measures for each of the Administration functions. These service measures should determine the level of services provided by the Administration functions and the funding levels, and should include deliverables and performance evaluations. For example, Human Resource Services should have clearly defined levels of service that are provided to each of the three enterprises and funding of positions should be directly linked to the level of service. Preparation of each year’s budget for Administration functions should include an assessment of the current year’s deliverables and performance.

Establishing Budgetary Benchmarks

In a national survey of wastewater agencies, which included the San Francisco Public Utilities Commission, conducted by the Association of Metropolitan Sewerage Agencies, almost one half of the agencies surveyed reported the use of one or more performance benchmarks. The most frequently used benchmark was “total cost per million gallons treated”. The other frequently used benchmark was “operating and maintenance costs per million gallons treated”. In the survey, the San Francisco Public Utilities Commission reported that they did not benchmark performance. The Public Utilities Commission Financial Services staff should assist the Water Pollution Control Division and other Clean Water program managers to establish budgetary benchmarks to evaluate the changes in costs for providing sewer collection and wastewater treatment services. For example, as shown in Table 3.3, the annual increase in costs per million gallons treated have ranged from 5 percent to 8.7 percent between FY 1999-2000 and FY 2002-2003.

Table 3.3

Total Costs per Million Gallons Treated FY 1999-2000 though FY 2002-2003

	FY 2002-2003	FY 2001-2002	FY 2000-2001	FY 1999-2000
Total Operating Expenses	\$129,177,000	\$128,948,000	\$117,840,000	\$115,273,000
Million Gallons	33,050	34,732	34,489	35,413
Total Cost per Million Gallons	\$3,909	\$3,713	\$3,417	\$3,255
Percent Increase in Costs	5.3%	8.7%	5.0%	n/a

Source: Pretreatment Program Annual Reports and Clean Water Enterprise Fund Financial Statements

To better identify the source of the cost increases, the Public Utilities Commission Financial Services staff should work with Water Pollution Control Division and Clean Water program managers to develop additional benchmarks, including “operating and maintenance costs per million gallons treated”, “chemical cost per million gallons treated”, and “electric costs per million gallons treated”.

Conclusion

The Clean Water Enterprise Fund’s costs for providing sewer collection and wastewater treatment services have increased over the past several years. Some of these cost increases result from operational increases, especially electricity and chemical costs, but much of the increase is due to administrative overhead.

Developing performance standards for Administration functions are a concern for all three Public Utilities Commission enterprises. Administrative overhead costs, including implementation of service measures and cost controls, will be evaluated further in Phases II through IV of the management audit.

Recommendations

The Public Utilities Commission General Manager should:

- 3.1 Direct the development of service measures for each of the Administration functions in conjunction with the three enterprises, which determine (a) the level of services provided by the Administration functions and (b) the funding levels. Service measures should include deliverables and performance evaluations. Preparation of each year’s budget for Administration functions should include an assessment of the current year’s deliverables and performance.

The Director of Financial Services should:

- 3.2 In conjunction with the Water Pollution Control Division Manager, assess the options for reducing or limiting increases in chemical costs, such as revised vendor contracts, prior to the Public Utilities Commission’s FY 2005-2006 budget preparation and review.
- 3.3 In conjunction with Financial Services, evaluate the feasibility of operating the treatment plants during off-peak hours, which includes an assessment of storage capacity and odor control at different levels of storage and off-peak operations and the potential associated cost savings. This analysis should be part of the FY 2005-2006 budget preparation and review.
- 3.4 In conjunction with the Water Pollution Control Division Manager, the Pretreatment, Pollution Prevention, and Storm Water Manager, and the Water Quality Bureau Laboratories Manager, develop budgetary benchmarks for the Clean Water Enterprise Fund.

Costs and Benefits

These recommendations are intended to increase the level of budgetary controls for Clean Water Enterprise Fund expenditures. Decreasing electricity costs by 1.0 percent would result in annual savings of \$122,380 and decreasing administrative overhead by 5.0 percent would result in annual savings of \$917,060, for total cost savings of \$1,039,440.