Phase III

Management Audit

of the

Public Utilities Commission –

Water Enterprise Fund

Prepared for the

Board of Supervisors
of the City & County of San Francisco

by the

San Francisco Budget Analyst

March 23, 2005

CITY AND COUNTY OF SAN FRANCISCO

BOARD OF SUPERVISORS

BUDGET ANALYST

1390 Market Street, Suite 1025, San Francisco, CA 94102 (415) 554-7642
FAX (415) 252-0461

March 23, 2005

Honorable Aaron Peskin, Chair of the Government Audits and Oversight Committee
and Members of the Board of Supervisors
City and County of San Francisco
Room 244, City Hall
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102-4689

Dear President Peskin and Members of the Board of Supervisors:

The Budget Analyst is pleased to submit this *Phase III Management Audit of the Public Utilities Commission, Water Enterprise Fund.* On May 18, 2004, the Board of Supervisors adopted a motion directing the Budget Analyst to conduct a management audit of the San Francisco Public Utilities Commission, pursuant to its powers of inquiry defined in Charter Section 16.114 (Motion No. M04-57). The purpose of the management audit has been to (i) evaluate the economy, efficiency and effectiveness of the Public Utilities Commission's programs, activities, and functions and the Public Utilities Commission's compliance with applicable State and Federal laws, local ordinances, and City policies and procedures; and (ii) assess the appropriateness of established goals and objectives, strategies and plans to accomplish such goals and objectives, the degree to which such goals and objectives are being accomplished, and the appropriateness of controls established to provide reasonable assurance that such goals and objectives will be accomplished. The scope of the management audit includes all of the Public Utilities Commission's programs, activities, and functions.

The results of the management audit are being presented in four phases:

- The *Phase I Management Audit of the Public Utilities Commission – Clean Water Enterprise Fund* report was submitted to the Board of Supervisors on September 27, 2004.

- The *Phase II Management Audit of the Public Utilities Commission – Hetch Hetchy Enterprise Fund* report was submitted to the Board of Supervisors on December 21, 2004.

- The *Phase III Management Audit of the Public Utilities Commission – Water Enterprise Fund* is the subject of this report.

- Phase IV will be a review of the programs, activities, and functions of the Public Utilities Commission as a whole, including the Water System Capital Improvement Program, administrative functions, and enterprise functions, such as asset management, that affect all three enterprise funds.

This Phase III report reviews the Water Enterprise in terms of:

- Setting suburban wholesale water rates.

- Capital planning and long range financial planning.

- Billing and collections for retail water and sewer customers.

- Water Quality Bureau Laboratories management and cost allocation.

- Regulatory risks for the Water Enterprise as a whole and Treasure Island in particular.

- Land and Real Estate management.

- Water Enterprise strategic and business planning and organization.

- Planning for programmatic environmental impact reports for the Water System Capital Improvement Program.

This management audit has been conducted in accordance with *Government Auditing Standards, 2003 Revision,* issued by the Comptroller General of the United States, U.S. General Accountability Office. As part of the management audit, the Budget Analyst interviewed the senior management and other Public Utilities Commission staff and representatives from other City and County departments. Additionally, the management audit staff reviewed various State statutes and local codes; examined various documents, reports and work products prepared by the Public Utilities Commission; reviewed the Water Enterprise Fund's audited financial statements and reports prepared by various consultants; obtained and analyzed various data and financial reports; and evaluated the effectiveness of the various tools used by Public Utilities Commission management to oversee the activities of the Water Enterprise program.

This management audit report of the Water Enterprise program includes 15 findings and 91 related recommendations prepared by the Budget Analyst, that encompass major areas of the Water Enterprise's operations. A list of the management audit recommendations are shown in the Attachment to this transmittal letter. Implementation of the Budget Analyst's recommendations would result in (a) estimated revenue increases of approximately $1.35 million annually from improved billing of retail water and sewer customers, increased Water Quality

Bureau Laboratories revenues from external clients, and increased property rents; and (b) estimated expenditure decreases of approximately $500,000 annually from the deletion of unnecessary positions.

The following sections summarize our findings and recommendations.

Section 1. Suburban Wholesale Water Rates, Long Range Financial Planning, and Revenue Funded Repair and Replacement Projects

In FY 2003-2004, suburban wholesale water customers paid the Public Utilities Commission (PUC) $15 million more than necessary because water rates were based in part on the projected cost of several large capital projects that were not completed within the year. Between July 1, 2000, and June 30, 2005, suburban wholesale customers will have overpaid an estimated $27 million to the Public Utilities Commission, resulting in the need to decrease the suburban wholesale customers' water rates by 30 percent in FY 2005-2006, followed by a proposed increase in suburban wholesale customers' water rates of 40 percent in FY 2006-2007 to meet FY 2006-2007 revenue requirements.

Because the Public Utilities Commission has failed to accurately plan and time the completion of capital projects, contributing to volatile suburban wholesale customer rates and revenues, the Public Utilities Commission can not adequately plan for the Water Enterprise's finances, causing difficulties for both wholesale and retail customers. For example, in the five month period between August, 2004, and January, 2005, the Financial Services Section significantly revised its long range financial projections and estimates of annual retail rate increases for City customers from FY 2005-2006 through FY 2008-2009, from the August, 2004, estimated retail rate increase of 11 percent per year to the January, 2005, estimated retail rate increase of 15 percent per year.

Also, the January, 2005, Water Enterprise long range financial projections suggest that the Public Utilities Commission will be unable to meet its eleven year goal of allocating $506 million in operating revenues to fund capital repair and replacement projects that are necessary but are not part of the Water System Capital Improvement Program. To complete critical projects, such as the replacement of aging water pipelines, the Public Utilities Commission will need to develop an effective asset management program to determine its most critical capital repair and replacement needs.

Section 2. Calculation of the Suburban Wholesale Water Rates

Weaknesses in accounting methodologies and unreasonable delays in the timing of Water Enterprise financial audits of suburban wholesale revenue requirements make the Public Utilities Commission's annual revenue requirement analysis and reporting of questionable accuracy and contributes to unanticipated variances in available resources. As a result, both the Public Utilities Commission's and the suburban water customers' budgets and finances are significantly impacted. For example, in the most recent settlement agreement between the Public Utilities

Commission and its suburban water customers, adjustments totaling $3,735,674 were determined to be owed by the Public Utilities Commission to suburban water customers for FY 1999-2000 and prior years. Potential additional adjustments to be made by the Public Utilities Commission for the period FY 2001-2002 forward are still pending because of delays in the completion of the Public Utilities Commission's annual financial statements.

The reasons for these adjustments are varied, but are generally due to the Public Utilities Commission having an inadequate accounting structure to capture, record, and report Water Enterprise activities – especially its capital activities – in a manner that is necessary for calculating suburban water customer rates. To compensate, the Public Utilities Commission has developed highly labor intensive processes for capturing costs. These processes are prone to error. Most significantly, the Public Utilities Commission commingles capital expenses with other expenses - such as repair and maintenance – which are typically not capitalized. Because of the different treatment which capitalized and non-capitalized expenses receive for purposes of calculating the Water Enterprise's suburban revenue requirements, these errors can affect the Public Utilities Commission's rate calculations.

For example, in a review of FY 2003-2004 activity, the Reservoir Roofs Seismic Upgrades project (CUW624) expensed $3,479,644 for cleaning and repair work in a project phase that also had capitalized expenses, requiring the project manager to track project details outside of the accounting system for purposes of expensing or capitalizing the project costs. Further, at least $2,694,272 of these expenses were incurred in prior years and, therefore, were not expensed timely. Another $154,174 in funds used for a comprehensive inspection and evaluation of water storage tanks were also expensed. To the extent that such project funds are related to the suburban wholesale customers, activities that are not expensed timely result in not recovering the costs from suburban customers in the period incurred.

Additionally, the process by which suburban wholesale water rates and the suburban revenue requirement are calculated and audited delays the finalization of the suburban revenue requirement. Although the Settlement Agreement and Master Water Sales Contract requires that the independent audit of revenue requirements be completed within six months of the year being audited, the FY 2002-2003 and FY 2003-2004 independent audits have still not been completed. Further, the Bay Area Water Supply and Conservation Agency transmits to the Public Utilities Commission extensive letters identifying potential problems in calculating the suburban revenue requirements, which extend the time for finalizing revenue requirements for an indefinite period. Most recently, the Bay Area Water Supply and Conservation Agency has transmitted these letters for problems relating to the FY 2001-2002 suburban wholesale water rates.

Section 3. Coordinating the Timing and the Financing of the Water System Capital Improvement Program

By not spending capital project funding in an expeditious manner, the Public Utilities Commission incurs significant interest expense and loses buying power through inflation. For

example, approximately five to seven years after initial appropriation by the Board of Supervisors in FY 1997-1998 through FY 1999-2000, totaling $77.7 million, $5.2 million of the $77.7 million in 1996 revenue bond proceeds remain unspent, amounting to 6.7 percent of the total amount of the appropriation. Because of debt interest expense together with inflation, the unspent funds of $5.2 million have declined in value by an estimated 4 percent[1] per year, or approximately $208,000 per year or approximately $1.04 million over five years.

These circumstances occur because the Public Utilities Commission does not effectively manage the timing of financing and construction of capital projects. In other examples, capital projects totaling $2.8 million had unencumbered balances equal to 65 percent to 100 percent of the original appropriation two to five years subsequent to when the funds were originally appropriated.

The Public Utilities Commission is planning the largest issuance of revenue bonds in the Commission's history to finance the Water System Capital Improvement Program. The Water Enterprise will issue up to approximately $3.6 billion in revenue bonds to finance the Water System Capital Improvement Program, which is ten times the amount of revenue bonds issued by the Water Enterprise in the twelve year period from 1991 through 2002. Without well-coordinated information on the planning and timing of the Capital Improvement Program projects, the Financial Services Section staff cannot efficiently time cash flow requirements for constructing the Water System Capital Improvement Program projects with the issuance of revenue bonds.

If the Public Utilities Commission does not efficiently manage the planning and timing of issuance of revenue bonds and appropriation and expenditure of the revenue bond proceeds for the $3.6 billion Water System Capital Improvement Program, the additional costs which would be imposed on ratepayers resulting from interest payments on unencumbered and unexpended balances could be significant.

Section 4. Undercharging for Components of Water and Sewer Service

The Public Utilities Commission loses an estimated $910,000 annually in retail water and sewer rate revenues, including $620,000 due to aging water meters and $290,000 due to billings based on sewer flow factors that have been set too low.

The Public Utilities Commission loses $620,000 annually in water and sewer revenues due to 5/8-inch water meters that are more than 25 years old and measure water flow by an estimated 2 percent less than the actual water flow. Based on a random sample of Customer Services retail

[1] The estimated 4 percent decline in value is based on estimated annual interest expense on debt service and annual inflation rate, less interest earnings on Treasury deposits.

water and sewer accounts, 24 percent of 5/8-inch meters for multi-family residences and 45 percent of 5/8-inch meters for single family residences are more than 25 years old.

In FY 2003-2004, the Water Enterprise only replaced 2,270 5/8-inch meters, which is a 49.4 percent decrease from the 4,486 5/8-inch meters that were replaced in FY 2002-2003. Over the past three fiscal years, annual funding for meter replacement has decreased by 31.4 percent from approximately $700,000 in FY 2002-2003, to $580,000 in FY 2003-2004, and $480,000 in FY 2004-2005. Because the Water Enterprise does not track the labor and material costs for replacing 5/8-inch water meters, the Budget Analyst was unable to determine the costs of replacing 5/8-inch meters.

The Public Utilities Commission should direct its General Manager to present a cost-benefit analysis of meter replacement costs and revenue loss from aging meters. If the Water Enterprise were to replace 4,200 5/8-inch meters per year instead of the 2,270 meters replaced in FY 2003-2004, the Water Enterprise's revenues would increase incrementally in each year, resulting in estimated cumulative increased revenues over a ten-year period of $1.8 million.

The Public Utilities Commission loses $290,000 annually in commercial and residential revenues from sewer flow factors that have been set too low. Sewer rates are based on 90 to 95 percent of water consumption, or "flow factor," but commercial and residential customers can request reduced flow factors of less than 90 to 95 percent if water is used for irrigation or other purposes, and therefore, not discharged to the sewer.

The Public Utilities Commission Customer Services Section assigns reduced flow factors for residential customers based on two methods of calculation: (a) calculation of maximum irrigation potential and (b) comparison of water consumption during wet and dry months. According to Public Utilities Commission policy, Customer Services staff should assign reduced flow factors based on the calculation method that results in average daily consumption between 40 gallons per occupant per day if ultra low flush toilets are installed and 80 gallons per occupant per day if no ultra low flush toilets are installed.

Based on a random sample, the Budget Analyst found that Customer Services failed to document the number of occupants and use of low flush toilets and uniformly assigned the lowest flow factor derived from the two methods of calculation regardless of other factors, resulting in an estimated revenue loss to the Public Utilities Commission of $220,000 annually.

The Bureau of Environmental Regulation and Management has not re-inspected most commercial accounts that were assigned reduced flow factors more than four years ago, resulting in an estimated loss to the Public Utilities Commission in sewer rate revenues of approximately $70,000 annually.

The City's policies to provide water free of charge to City General Fund departments and City neighborhood associations that plant and maintain vegetation on median strips and public spaces have resulted in poor water conservation. Over the past four years, City General Fund

departments have increased water usage by 2 percent on average, although commercial accounts, which pay for water use, have decreased water usage by 4 percent on average. Also, many homeowners' associations have significantly increased their water use over the past five years. For example, the Forest Hill Homeowners' Association has increased annual water use by 115 percent over the past four years.

The Public Utilities Commission's water conservation affidavit program, in which City retail customers pay one-third less per unit of water if they have signed an affidavit stating that they have installed low-flow fixtures, has no demonstrable direct impact on water conservation. Average water use by customers who sign such affidavits is comparable to average water use by City customers who have not signed such affidavits. The Public Utilities Commission should eliminate the water conservation affidavit program and evaluate implementation of water conservation rates when the current water rate freeze expires on June 30, 2005.

Section 5. Accounting for the Costs of Water Quality Bureau Laboratory Services.

The Water Quality Bureau Laboratories, which provide chemistry and microbiology analyses of the Public Utilities Commission's wastewater and drinking water systems, neither track nor allocate the costs of laboratory services provided to the laboratories' clients, and therefore, cannot ensure that the charges for laboratory services are recovering all costs. For example, although revenues from external clients, which include the San Francisco International Airport, various cities, and other public entities, make up 4 percent of the Water Quality Bureau Laboratories revenues, external client workload makes up 8 percent of the workload, resulting in an estimated $281,512 annually in lost revenues to the Public Utilities Commission from external clients.

Because the Water Quality Bureau Laboratories external clients pay for laboratory services based upon negotiated prices rather than cost-based prices, the costs of services differ among different clients. For example, for one type of analysis, known as "present/absence analysis of coliform", the City of Burlingame in San Mateo County pays $25 per analysis and the City of Hayward in Alameda County pays $15 per analysis.

The Water Quality Bureau Laboratories are funded by a direct transfer of Water and Clean Water Enterprise funds in the Public Utilities Commission budget each year. The Water Quality Bureau Laboratories have no internal cost-based price list and do not charge the Enterprises for specific laboratory analyses. More than 25 percent of the laboratory analyses performed by the Water Quality Bureau Laboratories for the Water and Clean Water Enterprises are discretionary to some extent, and are determined by operational considerations rather than regulatory requirements, such as monitoring a special process. Because the Water and Clean Water Enterprises are not charged for specific laboratory analyses, the Enterprises have no cost incentive to request the level of service that most cost-efficiently achieves the analytical goal.

The Public Utilities Commission should require its General Manager to direct the Water Quality Bureau Laboratories to negotiate cost-based fees with internal and external clients. Although the Public Utilities Commission can choose to negotiate fees with specific clients as a policy option, negotiated fees should be an exception rather than a standard practice.

The Water Quality Bureau Manager should enhance the client services job description to serve as (a) the project manager for developing cost-based fees and (b) the gatekeeper for internal and external clients to ensure that the appropriate level of laboratory services are provided to achieve clients' analytical goals.

Section 6. The Laboratories' Management Structure

Structural integration of the laboratories has improved organizational effectiveness and allowed the Public Utilities Commission to reduce the number of laboratory positions. Now that these benefits have been achieved, the Director of Laboratories position is no longer required and could be eliminated at a cost savings of up to $147,103 in salaries and mandatory fringe benefits annually.

This change in the management structure could be accomplished by (a) transferring executive management for the Southeast and Oceanside Water Pollution Control Plant Laboratories from the Director of Laboratory to the new Assistant General Manager, Clean Water position, as recommended by the Budget Analyst, and (b) balancing workload and sharing laboratory specialization by establishing formal contracts or work order agreements between the laboratories.

The deletion of the Director of Laboratory position would eliminate an unnecessary and excessive level of management between the Water Quality Bureau Manager and the two Laboratory Services Managers in the Millbrae Laboratory.

Section 7. Managing Regulatory Compliance

The Public Utilities Commission faces significant potential risks for Federal and State regulatory compliance violations, including violations resulting from operating or construction activities, and incurs liability for regulatory violations as well as for damage or destruction of property, natural resources, or public health. For example, the Sea Cliff sink hole incident, which occurred in 1995 prior to the transfer of the Clean Water Enterprise from the Department of Public Works to the Public Utilities Commission and had numerous causes, including inadequate construction management, resulted in regulatory violations. The City paid $300,000 in regulatory fines and $12 million in property loss claims. Despite these risks, the Clean Water and Water Enterprises do not report regularly to the General Manager or the Public Utilities Commission on regulatory compliance, regulatory risks, and how such risks are mitigated.

The Public Utilities Commission General Manager should consolidate regulatory planning and management functions, which are dispersed throughout the Public Utilities Commission, under

the new Assistant General Manager, Clean Water and the new Assistant General Manager, Water and Power, as recommended by the Budget Analyst, to ensure management oversight. Without consolidated regulatory planning and management, the Public Utilities Commission risks implementing operating and capital programs that do not comply with regulatory requirements, project delays, and unnecessary costs. For example, the Public Utilities Commission planned inadequately for regulatory requirements in the Pulgas Dechlorination Plant project design, which was designed prior to 2000 and constructed in FY 2002-2003. The Pulgas Dechlorination Plant, which is located in San Mateo County, does not comply with current discharge regulations regarding chlorinated water, and will require additional negotiations with State regulatory agencies and estimated costs of up to $10 million to retrofit the plant in order to meet current regulations.

The Public Utilities Commission needs to ensure that regulatory planning and management are part of the Clean Water and Water Enterprises' business plans, the Public Utilities Commission's strategic plan, and the Water System Capital Improvement Program's project planning and design process.

Section 8. The Public Utilities Commission's Risks for Managing Treasure Island Utilities

The Public Utilities Commission faces significant financial and regulatory risks for operation of the Treasure Island and Yerba Buena Island utilities since 1997, including electricity, natural gas, water, and sewer, but has not planned adequately for the Public Utilities Commission's financial and regulatory risks once the Navy conveys full ownership of Treasure Island and Yerba Buena Island to the Treasure Island Development Authority, anticipated to occur in 2005 or 2006. Consequently, the Public Utilities Commission could incur significant costs with inadequate revenues to cover the expenditures.

For example, the Public Utilities Commission could incur up to $5.7 million in capital improvement and preventive maintenance costs for existing utilities during the approximately four year interim period, after the Navy conveys ownership of Treasure Island and Yerba Buena Island to the City and before construction of new utility infrastructure is completed, but has not yet identified a funding source for these costs.

The Public Utilities Commission will incur new operating and maintenance costs for the existing Treasure Island and Yerba Buena Island utilities during the four year interim period to meet State and Federal regulatory requirements, but has not developed cost projections for Treasure Island and Yerba Buena Island operating and maintenance costs during the interim period.

A March 2004 report, *Utility Vulnerability and Risk Assessment for Treasure Island and Yerba Buena Island – Final Report*, prepared by a consultant under contract to the Public Utilities Commission recommended that (a) the Public Utilities Commission should not take ownership of the existing utilities during the interim period; (b) the Treasure Island Development Authority should contract out operation of the existing utilities during the interim period; and (c) if the

Public Utilities Commission does operate the existing utilities during the interim period, the Public Utilities Commission should negotiate a private industry standard agreement with the Treasure Island Development Authority to mitigate its risks and liabilities. However, neither the Public Utilities Commission nor the Treasure Island Development Authority have planned to contract out operation of the existing utilities during the interim period, and as of the writing of this report, the Public Utilities Commission will most likely operate the utilities during the interim period.

Also, as of June 30, 2004 the Public Utilities Commission had $1.6 million in outstanding unpaid bills for operating the utilities, of which $1.3 million was owed by the Treasure Island Development Authority and $300,000 was owed by other tenants. The outstanding unpaid balance will increase in FY 2004-2005 because the Treasure Island Development Authority does not include monies in its budget to pay utility costs. The Mayor should include funds in the FY 2005-2006 Treasure Island Development Authority recommended budget to pay utility costs and develop a schedule for payment of the past due balance.

Currently, the Public Utilities Commission has no written agreement with the Treasure Island Development Authority to operate the Treasure Island and Yerba Buena Island utilities. Because of the turnover of high level managers at the Public Utilities Commission since 1997, and the lack of a written agreement and other formal planning and financial analysis documents, the Public Utilities Commission lacks both informal and formal information for decision making.

The Public Utilities Commission should enter into a written agreement with the Treasure Island Development Authority for the operation of the Treasure Island and Yerba Buena Island utilities. Further, the Public Utilities Commission and the Treasure Island Development Authority should present a joint financial analysis to the Board of Supervisors in December, 2006, evaluating how the proposed development of the Treasure Island and Yerba Buena Island utilities system will best meet the financial interests of the City and the City's utility ratepayers.

Section 9. Streamline Former Bureau of Environmental Regulation and Management Functions

The Environmental Compliance Program, which was part of the former Bureau of Environmental Regulation and Management, is not a comprehensive central advisor on environmental regulation compliance for all Public Utilities Commission enterprises as it was intended to be. That program's 3.00 FTE Classification 5620 Regulatory Specialist positions would be more useful if transferred to water and clean water system operations according to assessed need. Such transfers would ensure focused support for operations staff with their environmental regulation compliance obligations, particularly as the Water System Capital Improvement Program progresses.

Further, elimination of three unnecessary and expensive former Bureau of Environmental Regulation and Management positions would result in salary savings of up to $336,545, inclusive of mandatory fringe benefits, with no diminution of programmatic services. These

salary savings would result from the elimination of an Administrative Engineer position, a Program Manager I position, and a Secretary II position.

Section 10. Establish an Assistant General Manager, Water and Power Position

The scope of the Public Utilities Commission's recently eliminated Assistant General Manager, Operations position was too broad and made it difficult for the incumbent to be a simultaneously strong manager of the water, clean water, and power systems' policies, planning, operations, and capital investments. As outlined in the Budget Analyst's *Phase I Management Audit of the Public Utilities Commission – Clean Water Enterprise Fund*, clean water functions particularly suffered from the resulting lack of focus.

The Public Utilities Commission General Manager replaced the Assistant General Manager, Operations position with three new Assistant General Manager positions for Water, Clean Water, and Retail Power. The creation of a new Assistant General Manager, Clean Water position is in line with our Phase I management audit recommendation.

The creation of the new Assistant General Manager, Retail Power position has merit but is insufficiently justified at this time. The Public Utilities Commission first needs to make key policy decisions and determine if it is going to proceed with community choice aggregation, which would allow the City (or a larger regional consortium) to procure electricity from a portfolio of power providers on behalf of citizens currently served by the Pacific Gas and Electric Company, and become a public provider of retail power to San Francisco residents.

Until that determination is made, there should be a single Assistant General Manager, Water and Power position with integrated management responsibility for the water and power systems, including the sale of retail power. This would be the most managerially effective and least expensive way of ensuring concentrated management oversight of both systems, and ensuring resolution of the tensions that exist between the water and power systems, most notably the generation of power within the confines of the "Water First" policy. This recommendation will save between $23,170 and $31,324 in incremental salary and mandatory fringe benefit costs annually. It would also prevent further expansion of the Department's executive management ranks.

The Assistant General Manager, External Affairs should continue to manage the strategic policy staff working on power policy issues related to community choice aggregation and renewable and alternative energy sources.

Section 11. Land Management

The Public Utilities Commission lacks comprehensive management of City-owned land and real property under the jurisdiction of the Public Utilities Commission. This has resulted in inadequate property inventories and the failure to define properties that are either essential or

surplus to the water, power, and clean water utilities' requirements. Currently, the Public Utilities Commission Real Estate Services Bureau is unable to determine if all real properties are rented or in optimal use, resulting in the loss of potential rental revenue. The Real Estate Services Bureau should develop and maintain a comprehensive property inventory. A one percent increase in rental revenues would result in $100,000 in additional Public Utilities Commission rental revenues annually.

Although the Real Estate Services Bureau has identified up to 29 properties that are potentially eligible to be declared surplus to the Public Utilities Commission's needs, with estimated sales values exceeding $120 million, only four of the 29 properties have been presented to and been declared surplus by the Public Utilities Commission for potential sale at public auction. If the Public Utilities Commission identified and offered for sale all properties that are surplus to the water utilities requirements, the Public Utilities Commission would receive at least an estimated $120 million in one-time revenues that, in accordance with Public Utilities Commission policy, would be allocated to capital repair and replacement or Capital Improvement Program projects. By using an estimated $120 million in land sales proceeds rather than revenue bond debt to finance a portion of the Water System Capital Improvement Program, the Public Utilities Commission could save an estimated $4.8 million annually in interest expenses.

The Public Utilities Commission lacks a formal process of coordinating the sale of surplus properties among its Real Estate Services Bureau, and its enterprise departments, risking the sale or use of land that is inconsistent with the requirements of the water utility. For example, the Water Supply and Treatment Division and the Real Estate Services Bureau failed to communicate effectively regarding the option agreement for the sale to MasterDevo, a private developer, of Public Utilities Commission property in Mountain View, which includes a portion of the water system pipeline right-of-way. Organizations under the Water Supply and Treatment Division also failed to communicate and coordinate effectively, resulting in the failure to notify the Public Utilities Commission's Manager of Land and Resource Management, who is responsible for managing right-of-way properties, of the potential sale of right-of-way property.

Further, the Public Utilities Commission risks significant legal and other costs from encroachment by adjacent property owners on the Public Utilities Commission's water system rights-of-way. The Public Utilities Commission is engaged in five legal disputes to remove right-of-way encroachments and, according to the City Attorney's Office, may face up to an additional 15 legal disputes regarding private property owners or tenants encroaching on the water system rights-of-way, resulting in unknown legal and settlement costs to the City.

The Public Utilities Commission General Manager should ensure that the rights-of-way adopted management plan, presented to the Public Utilities Commission in June, 2004, is implemented effectively and should report to the Board of Supervisors on the existing and projected costs to the City to abate water system rights-of-way encroachments within the next six months.

Section 12. Real Estate Services

The Public Utilities Commission loses at least $150,000 annually in rental revenues by failing to adjust property rents under the terms of existing leases, conduct appraisals, and collect taxes. For example, the Public Utilities Commission loses an estimated $100,000 annually under the lease agreement with All Auto Dismantlers because the Public Utilities Commission has failed to adjust the monthly rent to fair market value under the terms of the lease. The Public Utilities Commission, which obtained jurisdiction over the subject property in 1997, when the Clean Water Enterprise was transferred from the Department of Public Works to the Public Utilities Commission, has lost an estimated $630,000 in rental revenues from 1998 through 2004.

The Public Utilities Commission also faces significant environmental risks and hazardous waste clean up costs under the lease with All Auto Dismantlers. Although the current lease agreement with All Auto Dismantlers, implemented in 1989, requires that All Auto Dismantlers (a) indemnify the City against losses from environmental hazards and (b) maintain insurance of $1 million, the estimated cost for clean up of existing oil contamination on the leased property in 1990 was more than $500,000, and could now exceed the $1 million insurance requirement. Further, the $1 million policy is for general liability and does not cover environmental clean up costs.

Although the *Commercial Land Management Operating Manual,* adopted by the Public Utilities Commission in 1999, requires the Public Utilities Commission Real Estate Services Bureau to maintain an inventory of all available Public Utilities Commission property considered to be suitable for leasing, the Real Estate Services Bureau does not have a complete inventory. Therefore, the Real Estate Services Bureau is unable to (a) determine if all real properties, that are currently leased, are leased for the optimal use, and (b) identify properties currently not rented with leasing or permit potential. Consequently, the Public Utilities Commission cannot determine if it receives maximum lease revenues for all properties that could be leased.

The Public Utilities Commission loses an unknown amount of rental revenue by failing to enter into competitive bids for the lease of various properties. Public Utilities Commission policies require competitive bids if there is more than one potential user. However, a review of eight lease files, which were not competitively bid, found that none of the files contained documentation on why the leases were not competitively bid nor on how the lease rates were set. For example, the Real Estate Services Bureau is negotiating a new lease agreement with Decorative Plant Services, Inc, for a 4.39 acre parcel with improvements including a greenhouse, offices and parking located near the Southeast Treatment Facility at 1150 Phelps in the Bayview neighborhood, which has not been competitively bid, although the property most likely has more than one potential user.

The Real Estate Services Bureau has not consistently enforced and implemented the Public Utilities Commission's policies in the *Commercial Land Management Operating Manual,* including ensuring competitive bids for properties where possible, maintaining current rental property inventories, and obtaining Public Utilities Commission approval prior to leasing

properties that could be declared surplus to the Public Utilities Commission's needs. The Assistant General Manager, External Affairs, should ensure that the Real Estate Services Bureau consistently complies with the Public Utilities Commission's policies.

Section 13. Water Enterprise Planning and Reporting Deficiencies

Despite revenues of $239 million per year, the Water Enterprise does not have a business plan. While the Water Enterprise does have important strategic plans in place or in development, each one focuses only on a portion of the Water Enterprise's functions. Collectively the existing plans do not constitute a business plan for the enterprise as a whole.

The Water Enterprise does not have a business planning context for (a) renegotiating the 1984 Settlement Agreement and Master Water Sales Contract with the Bay Area Water Supply and Conservation Agency which expires in 2009, (b) making informed decisions about the merits of major policy, planning, and financing options, (c) determining future water rates, (d) measuring its performance, (e) determining its optimal personnel resources and organizational structure, (f) comprehensively planning for all of the Water Enterprise's capital needs, and (g) managing future business risks. The Department should develop a Water Enterprise business plan in FY 2005-2006 to address these business risks.

For those Water Enterprise plans currently in place, the monitoring and reporting frameworks to track implementation of required management actions are inconsistent. Plans with insufficient monitoring and reporting frameworks do not ensure sufficient accountability for implementation of management actions approved by the Public Utilities Commission and funded by the Board of Supervisors. The Department should ensure that there are adequate performance measures and reporting mechanisms to allow the Public Utilities Commission to know that approved management actions have been achieved.

Section 14. Programmatic Environmental Impact Report

In its planning for the Water System Capital Improvement Program, the Public Utilities Commission has failed to make a timely determination of the need for a programmatic environmental impact report under the California Environmental Quality Act. This is in spite of the Public Utilities Commission's considerable investment in expert consultant support, most notably the $45 million, greater than four years Program Management Services Contract which has environmental services subconsultants, one of whom is now being separately contracted to develop a programmatic environmental impact report. The Program Management Services Contract did not identify the need for a programmatic environmental impact report.

The Water System Capital Improvement Program's policy parameters are only now being determined, despite past representations to the Board of Supervisors and voters that such policy parameters had been determined and put in place. Nine critical projects, costing an estimated $1.2 billion or approximately two thirds of the estimated total $1.9 billion cost for the regional water system capital improvement program projects, are currently being delayed because of the

need for the programmatic environmental impact report. Project-specific environmental impact reviews and design work cannot be completed until after the programmatic environmental impact report is approved. Establishing a firm project-sequencing schedule is necessary to determine the optimal and least costly timing for new revenue bond issuance.

As part of the Water System Capital Improvement Program budget, the Public Utilities Commission is currently proposing an additional $143 million for the programmatic environmental impact report, related environmental mitigation costs, and project-specific environmental mitigation costs. The Public Utilities Commission had previously only budgeted $10 million for environmental mitigation.

The Public Utilities Commission needs to ensure that the planning processes for all future capital improvement programs, which it undertakes, explicitly include consideration of the need for a programmatic environmental impact report from the outset to avoid the costs associated with planning, design, and construction delays.

The Public Utilities Commission and the Planning Department need a formal operating procedures memorandum of understanding, including a weekly reporting framework for all Planning Department staff funded by the Public Utilities Commission, to ensure that there is a full accounting of the Planning Department's expenditures of Water System Capital Improvement Program funds.

The Planning Department's Major Environmental Analysis Division needs to identify proactively when capital improvement programs require programmatic environmental impact reports so that the necessary planning can happen in a timely fashion.

Section 15. The Need for a Departmental Strategic Plan

Despite an annual Public Utilities Commission operating budget of approximately $585 million, management responsibility for the operation of critical public utilities used by up to 2.4 million San Francisco and suburban customers, and ownership responsibility for billions of dollars worth of capital assets and land holdings, the Public Utilities Commission does not have a broad strategic plan.

The Water, Hetch Hetchy, and Clean Water Enterprises each have significant planning needs because (a) strategic policy and planning is not regarded as a core function in the way that system operations has traditionally been, and (b) the Public Utilities Commission lacks a strategic plan which encompasses its water, power, and clean water responsibilities and how those functions will be coherently and consistently managed.

Absent a regularly updated departmental strategic plan developed through a consultative process with internal and external stakeholders, the Public Utilities Commission lacks on a department-wide basis: (a) a unified vision, mission, and policy goals which shows the linkages between the water, power, and clean water enterprises; (b) a regular forum, format, and process for the

managers and the Public Utilities Commission to raise and discuss major policy issues with each other; (c) a strategic policy and planning orientation for the department as a whole; (d) planning consistency across the enterprises; (e) discussion about how business processes can optimally support the organization as a whole; and (f) a framework for consistent organizational policies and procedures.

The Public Utilities Commission requires a regularly updated strategic plan which is supported by a comprehensive policy, planning, implementation, and reporting system.

The Public Utilities Commission's Written Response

The Public Utilities Commission General Manager's written response is attached to this management audit report beginning on page 180. The Public Utilities Commission's written response agrees with 74, or approximately 81.3 percent, of our 91 recommendations, partially agrees with four of our 91 recommendations, or approximately 4.4. percent, and is considering two recommendations. The Public Utilities Commission disagrees with 11 of our 91 recommendations, or approximately 12.1 percent.

The Public Utilities Commission disagrees with the conclusions of the Budget Analyst in Section 2 with regard to the calculation of the suburban wholesale water rates stating that the Department does not believe the issue is an accounting structure or an accounting system problem. In the General Manager's response, the General Manager stated "We also disagree that the accounting system is inadequate…" The Budget Analyst never stated that "the accounting system is inadequate," but instead refers to "weaknesses in accounting methodologies." The Budget Analyst emphasizes here that the problem is not necessarily an accounting structure and system issue, but rather an issue of how the Department uses the accounting structure and system. Further, the Department does not believe that it inappropriately commingles capital and operating expenses. However, the Budget Analyst reviewed internal Public Utilities Commission workpapers that specifically identified capital appropriations that were systematically expensed as operating activities, such as cleaning and repair work. These expenses were audited by the Public Utilities Commission's independent auditor and, therefore, should be materially accurate. While the Department qualifies the findings by noting the variety of asset-driven activities that the Public Utilities Commission must account for, the Budget Analyst does not agree that the distinction between the activities is not "clear-cut". Due to the different accounting treatments for the various activities and the impact on the suburban wholesale water rates, it is the responsibility of the Department's financial management staff to ensure that the activities are clearly defined and accounted for in the accounting system.

As discussed in Section 2 of our report (pages 26 and 27), for the past six fiscal years, the Public Utilities Commission has not complied with the terms of the Settlement Agreement and Master Water Sales Contract with respect to the timing of the annual audit of the suburban wholesale revenue requirements. In the written response, the General Manager has stated that "we disagree with the claim that the agency is at fault for delays in the suburban compliance audit; it is the

auditor who has delayed this process". In Section 2 of our report, the Budget Analyst finds that there are a number of parties and factors at fault and not just the Public Utilities Commission. The process, as it has evolved over the years, has become extremely cumbersome and must be revised to improve audit timeliness. However, the Public Utilities Commission is ultimately responsible for the suburban rate calculation and getting the audit completed.

Further, the General Manager disagrees with all recommendations which would result in the elimination of positions. The General Manager has disagreed with Recommendation 6.1 which recommends the transfer of executive management responsibility for the Southeast and Oceanside Water Pollution Control Plant Laboratories to the new Assistant General Manager, Clean Water. The General Manager argues that she is undertaking a reorganization, that "Any move now would be premature without our having more solid cost and staffing analyses," and "Until we complete an analysis of laboratory functions, services and associated cost recovery, we do not see the advantages of laboratory separation." The Budget Analyst is making these recommendations precisely because the Department is being restructured and it is timely to recommend cost efficient organizational structures. The advantages of laboratory separation are laid out in detail in the table in Section 6 of this report under the heading "Restructuring Advantages," (page 61) and in the following summary under "Recommended Actions," namely:

> "The benefits of such a transfer include: (a) a unified business identity for clean water staff that is characterized by shared goals, shared long-term planning capacity, functional coordination, and efficiency; (b) improved decision-making among staff working on clean water issues, and clear accountability lines; and (c) implementation of the Commission's stated policy preference for the Public Utilities Commission to be structured organizationally into business enterprises."

The General Manager further argues that "Current utility practice when an agency provides both water and wastewater service is to have a single laboratory (i.e. East Bay MUD)." The Budget Analyst notes the Department itself advised that some large municipalities, such as Houston, TX, Miami, FL, and Tampa, FL, do in fact operate separate water and wastewater laboratories.

The General Manager disagrees with Recommendation 6.2 which would eliminate the 1.00 FTE Classification 5133 Program Manager II, Director of Laboratories position. This position, which is an additional management tier over the 3.00 FTE Classification 2498 Laboratory Services Managers, each of whom is paid up to $129,263 annually in salary and mandatory fringe benefits, would be unnecessary if the Southeast and Oceanside Water Pollution Control Plant Laboratories were transferred to the Clean Water Enterprise, and the Laboratory Services Managers for the Millbrae Laboratories became direct reports to the Manager of the Water Quality Bureau. Further, elimination of the Director of Laboratories position would save up to $147,103 annually in salary and mandatory fringe benefit costs.

The General Manager disagrees with Recommendation 6.3 which recommends the transfer of 2.00 FTE administrative support positions from the Water Quality Bureau to the Southeast and

Oceanside Water Pollution Control Plant Laboratories. The intent of this recommendation is to ensure that the Southeast and Oceanside Water Pollution Control Plant Laboratories have sufficient administrative support within the Clean Water Enterprise.

The General Manager disagrees with Recommendation 6.4 which recommends the development of contracts or work orders between the laboratories to ensure the continued rationalization of technical and support services and prompt service reprioritization in emergencies. The intent of this recommendation is to ensure that the disaggregated laboratories continue to provide specialized technical services and centralize their support services while providing timely, high quality services to each other, the rest of the Department, and to external clients. The General Manager does not explain how such contracts or work orders would impede the laboratories' work.

The General Manager disagrees with Recommendations 9.2 – 9.4 which would eliminate 3.00 FTE positions which were formerly in the Bureau of Environmental Regulation and Management, before being transferred to the new Wastewater Collection System Bureau within the Clean Water Enterprise. Recommendation 9.2 recommends the elimination of a vacant 1.00 FTE Classification 5174 Administrative Engineer position because the Clean Water Enterprise already has sufficient administrative, finance, and budget support staff. The General Manager does not provide a justification explaining why this duplicative, vacant position is required. Elimination of this position would save up to $135,015 annually in salary and mandatory fringe benefit costs.

Despite agreeing with Recommendation 9.1 which recommends that the management responsibility for 3.00 FTE Classification 5620 Regulatory Specialists in the Environmental Compliance Program be transferred to water and clean water system operations according to assessed need, the General Manager objects to the elimination of that program's 1.00 FTE Classification 5138 Program Manager I, Environmental Compliance Program position (Recommendation 9.3) and 1.00 FTE Classification 1446 Secretary II position (Recommendation 9.4). The General Manager does not explain why these two positions, which cost up to $201,530 in salary and mandatory fringe benefits, would be required if there are no staff to manage.
As outlined in Section 9, in addition to the loss of management responsibility for the 3.00 FTE Classification 5620 Regulatory Specialists, our report states:

> "The Program Manager has already lost responsibility for environmental regulation permits required for Water System Capital Improvement Program projects, will soon cease managing both pools of pre-qualified, as-needed contractors, and has not completed a department-wide database of all of the Department's environmental regulatory compliance permits, licenses, plan renewals, or contracts which could, in the future, be completed by the 3.00 FTE Classification 5620 Regulatory Specialists based on their work with water and clean water system operations staff. This management position and its secretarial support are no longer necessary."

Finally, the General Manager disagrees with Recommendations 10.1 – 10.4. These recommend the establishment of one Assistant General Manager, Water and Power position and the retention of the Director of Power Policy position reporting to the Assistant General Manager, External Relations. Instead, the General Manager has created two Assistant General Manager positions, one for Water and the other for Power. This increases the total number of Assistant General Managers to six. The Budget Analyst considers the sixth Assistant General Manager, for Retail Power, to be premature until the Public Utilities Commission determines if it is going to proceed with community choice aggregation. A single Assistant General Manager, Water and Power position would be the most managerially effective and least expensive way of ensuring concentrated management oversight of both systems, and of ensuring resolution of the tensions that exist between the water and power systems. Further, one Assistant General Manager position, rather than two, would save between $23,170 and $31,324 in incremental salary and mandatory fringe benefit costs annually. The General Manager does not explain why the sixth Assistant General Manager position is justified.

The cumulative value of the position cuts recommended in Sections 6, 9, and 10 is up to $514,972 in salary and mandatory fringe benefit costs. The General Manager does not explain the justification for these positions and the relative value of this investment.

We would like to thank the General Manager of the Public Utilities Commission, her staff, and the various representatives from other City departments whom we contacted, for their cooperation and assistance throughout this management audit.

Respectfully submitted,

Harvey M. Rose
Budget Analyst

cc: Supervisor Alioto-Pier
Supervisor Ammiano
Supervisor Daly
Supervisor Dufty
Supervisor Elsbernd
Supervisor Ma
Supervisor Maxwell
Supervisor McGoldrick
Supervisor Mirkarimi
Supervisor Sandoval
Mayor Newsom
Clerk of the Board
Susan Leal, PUC General Manager
Edward Harrington, Controller
Erin McGrath
Cheryl Adams
Ted Lakey

Section 1: Suburban Wholesale Water Rates, Long Range Financial Planning, and Revenue Funded Repair and Replacement Projects

The Public Utilities Commission General Manager should:

1.1. Implement the State Department of Finance audit recommendation to provide the Public Utilities Commission and the Board of Supervisors detailed capital repair and replacement program information.

1.2. Provide a report to the Board of Supervisors during the FY 2005-2006 budget review regarding:

(a) The status of all Water Enterprise repair and replacement projects, and the Infrastructure Division's management support of the capital repair and replacement program.

(b) The implementation of the asset management program.

1.3 Develop a formal plan for the ongoing exchange of information between the Infrastructure Division's program management team and the Financial Services Section staff, including regular reporting to the General Manager and the Public Utilities Commission, to ensure that the Commissioners, the General Manager, and senior management staff have adequate information on future revenues and expenditures for Water Enterprise Fund programs.

The Public Utilities Commission should:

1.4 Negotiate with the suburban customers, represented by the Bay Area Water Supply and Conservation Agency, to renegotiate the Settlement Agreement and Master Water Sales Contract at an earlier date to revise the terms of capital cost recovery.

Section 2. Calculation of the Suburban Wholesale Water Rates

The Public Utilities Commission General Manager should:

2.1 Revise the accounting structure and its use to capture at a summary level critical data and information necessary for the computation of the suburban wholesale water rates.

2.2 In coordination with the Bay Area Water Supply and Conservation Agency, determine alternative measures to comply with the 2004 settlement agreement requirement to obtain technical recommendations from an independent source on the suburban wholesale water rate calculation.

2.3 Provide quarterly written status reports to the Bay Area Water Supply and Conservation Agency on the three remaining process improvement areas: the

Enterprise Asset Management System, technical improvements as recommended by an independent source, and bid specifications.

2.4 Work with the Controller's Office to engage an alternative independent auditor for the audit of the balancing account and the suburban revenue requirement calculation.

2.5 Work with the independent auditor to comply with the independent audit timelines set forth in the Settlement Agreement and Master Water Sales Contract and transmit completed audits in a timely manner to the Bay Area Water Supply and Conservation Agency.

Section 3. Coordinating and Timing the Financing the Water System Capital Improvement Program

The Public Utilities Commission General Manager should:

3.1 Develop a formal coordinating team within the Public Utilities Commission, in which the Infrastructure Division and the Financial Services Section coordinate capital program and financial planning for the Water System Capital Improvement Program, including:

(a) Regular and frequent disclosure of information from the Infrastructure Division on the planning and timing of construction of the Water System Capital Improvement Program projects, and

(b) Regular reports to the General Manager on the status of Water System Capital Improvement Program projects, current revenue requirement forecasts, estimated suburban and wholesale water rate increases to meet these requirements, and debt financing plans.

3.2 Report monthly to the Public Utilities Commission and quarterly to the Board of Supervisors on the status of the Water System Capital Improvement Program, the plan to finance the capital projects, and the current long range financial projections, including:

(a) The summary of the Infrastructure Division and Financial Services Section’s coordination of planning and implementing construction projects and the timing of debt issuance, and

(b) The impact of Water System Capital Improvement Program project planning and implementation on projected revenues and the Public Utilities Commissions financial targets.

Section 4. Undercharging for Components of Water and Sewer Service

The Public Utilities Commission should:

4.1 Terminate the Water Conservation Affidavit program in FY 2006-2007.

4.2 Direct the Director of Financial Services to present a financial analysis on the costs and benefits of implementing water conservation rates in FY 2006-2007.

4.3 Direct the Customer Services Water Conservation Unit to develop and present to the Public Utilities Commission and the Board of Supervisors a water conservation program for City General Fund departments that includes budgetary incentives, such as a water charge for consumption over a baseline amount.

4.4 Adopt a resolution, (a) establishing baseline water use for the neighborhood and homeowners' associations, based on drought-tolerant plantings, and (b) setting up special assessment districts for neighborhood and homeowners' associations to charge for water use that exceeds baseline use.

The Assistant General Manager, Water and Power, should:

4.5 Develop and present to the Public Utilities Commission, as part of the annual budget review, a cost analysis of the meter replacement program, including:

(a) the number of meters replaced during the fiscal year,

(b) the cost of replacing meters and the number of meters to be replaced in the coming fiscal year,

(c) the projected number of meters that will be replaced over the ten-year period, and

(d) the projected cost of replacing meters over the ten-year period compared to the expected impact on meter reading accuracy and revenues.

The Assistant General Manager, Clean Water, should:

4.6 Direct the Manager of Wastewater Collection System Bureau to review the flow factor assignment of all commercial and industrial accounts that have not been reviewed for four years or more prior to September 30, 2005, and provide a report on the flow factor review and assignment to the Assistant General Manager, Clean Water.

The Customer Services Manager should:

4.7 Resume a schedule for review of all residential accounts at least every four years that have been assigned a flow factor less than 70 percent.

4.8 Enforce the division's policy to review all accounts with a reduced flow factor within a four year cycle.

4.9 Establish more rigorous policies for reducing residential flow factors, including requiring:

(a) documentation on the presence of low flush toilets and number of occupants, and

(b) requiring supervisor review for all accounts in which the flow factor calculations vary by more than 10 percentage points between the calculation of wet and dry months' water consumption and maximum irrigation potential.

Section 5. Accounting for the Costs of Water Quality Bureau Laboratory Services.

The Public Utilities Commission General Manager should:

5.1 Assign Financial Services Section staff to work with the Water Quality Bureau Laboratories managers to develop a system of allocating laboratory costs and establishing a price list.

5.2 Direct the Water Quality Bureau Manager to establish cost-based fees for internal and external clients.

5.3 Report to the Public Utilities Commission and the Board of Supervisors on the cost allocation system, including a proposed price list for internal and external clients, prior to September 30, 2005.

The Water Quality Bureau Manager should:

5.4 Expand the client services job description to include (a) project management to develop and maintain the laboratory cost allocation and pricing program and (b) gatekeeper functions for internal and external clients to ensure that the appropriate level of laboratory services are provided to achieve clients' analytical goals.

Section 6. The Laboratories' Management Structure

The Public Utilities Commission General Manager should:

6.1 Transfer executive management responsibility for the Southeast and Oceanside Water Pollution Control Plant Laboratories to the new Assistant General Manager, Clean Water position.

6.2 Eliminate the 1.00 FTE Classification 5133 Program Manager II, Director of Laboratories, position.

6.3 Transfer 2.00 FTE administrative support positions from the Water Quality Bureau to the Southeast and Oceanside Water Pollution Control Plant Laboratories.

6.4 Direct the Water Quality Bureau Manager and the new Assistant General Manager, Clean Water to develop contracts or work orders between their laboratories to ensure the continued rationalization of technical and support services and prompt service reprioritization in emergencies.

6.5 Resolve in FY 2004-2005 whether or not there is sufficient business justification to continue operating a laboratory at Treasure Island.

Section 7. Managing Regulatory Compliance

The Public Utilities Commission General Manager should:

7.1 Direct the Assistant General Manager, Clean Water and the Assistant General Manager, Water and Power to provide quarterly reports to the General Manager and annual reports to the Public Utilities Commission and the Board of Supervisors, which include:

(a) Overall compliance with clean water and drinking water regulations, delineating only areas of noncompliance.

(b) Potential regulatory risks and how such risks are addressed.

(c) Planning for future regulatory requirements and participating in the Federal and State rule making processes.

7.2 Consolidate regulatory compliance and planning functions within the Clean Water Enterprise and the Water Enterprise, under their respective Assistant General Managers' directions, including:

(a) The Planning Bureau's clean water regulatory planning and management position should be transferred to the Clean Water

Enterprise, as recommended in the Phase I management audit report.

(b) The Bureau of Environmental Regulation and Management clean water regulatory positions should be transferred to the Clean Water Enterprise, as recommended in the Phase I management audit report.

(c) The Bureau of Environmental Regulation and Management drinking water positions should be transferred to the Water Enterprise, as recommended in Section 9 of this report.

7.3 Direct the Assistant General Manager, Clean Water and the Assistant General Manager, Power and Water to address the current and evolving Federal and State regulatory requirements in their business plans to ensure that current regulatory requirements are met and that future regulatory requirements can be met with existing or planned resources.

7.4 Include regulatory planning in the strategic planning process, to ensure that the Public Utilities Commission is participating in Federal and State rule-making processes and planning for the changing regulatory environment.

7.5 Direct the Assistant General Manager, Clean Water, and the Assistant General Manager, Water and Power, to provide status reports on the coordination of regulatory planning and capital project design and management as part of the Water System and Clean Water Capital Improvement Programs' monthly updates.

Section 8. The Public Utilities Commission's Risks for Managing Treasure Island Utilities

The Mayor's Budget Office should:

8.1. Include funds in the Mayor's Recommended FY 2005-2006 Treasure Island Development Authority budget to pay utility costs, including a schedule to pay the past due balance.

The Board of Supervisors should:

8.2. Request the Public Utilities Commission, through the General Manager, to present a report concurrently with the Mayor's Office presentation of the proposed Treasure Island and Yerba Buena Island development agreement term sheet, expected in the summer of 2005, on the Public Utilities Commission's assessment of the financial, regulatory, design and operating risks to the Public Utilities Commission and how these risks will be addressed in the development agreement.

8.3. Request a joint financial analysis from the Treasure Island Development Authority and the Public Utilities Commission, through the General Manager, in December, 2006, evaluating how the proposed development of the Treasure Island and Yerba

Buena Island utilities system will best meet the financial interests of the City and the City's utility ratepayers.

The Public Utilities Commission should:

8.4. Direct the General Manager to present a report to the Public Utilities Commission prior to December 31, 2005, which includes:

(c) an annual cost plan for operating and maintaining the Treasure Island and Yerba Buena Island utilities during the interim period after the U.S. Navy conveys Treasure Island and Yerba Buena Island to the City and prior to construction of the backbone of a new utilities system; and

(d) proposed alternative funding sources to pay for anticipated capital repair costs to the existing utilities of an estimated $5.7 million, including approximately $2.8 million for high priority capital repairs and $2.9 million for preventive maintenance for a four-year period (equal to $720,000 per year).

8.5. Direct the General Manager to negotiate and enter into a Memorandum of Understanding between the Public Utilities Commission and the Treasure Island Development Authority for the operation of the Treasure Island and Yerba Buena Island utilities if the Public Utilities Commission operates the utilities during the interim period.

Section 9. Streamline Former Bureau of Environmental Regulation and Management Functions

The Public Utilities Commission General Manager should:

9.1 Transfer management responsibility for the 3.00 FTE Classification 5620 Regulatory Specialist positions in the Environmental Compliance Program to water and clean water system operations according to assessed need.

9.2 Eliminate the 1.00 FTE Classification 5174 Administrative Engineer position.

9.3 Eliminate the 1.00 FTE Classification 5138 Program Manager I, Environmental Compliance Program, position.

9.4 Eliminate a 1.00 FTE Classification 1446 Secretary II position.

Section 10. Establish an Assistant General Manager, Water and Power Position

The Public Utilities Commission General Manager should:

10.1 Convert the Classification 5166 Assistant General Manager, Operations position into a Classification 5166 Assistant General Manager, Water and Power position.

10.2 Not upgrade the existing Classification 0941 Manager VI, Director of Power Policy position to any higher classification.

10.3 Reinstate the reporting line between the Director of Power Policy and the Assistant General Manager, External Relations.

10.4 Reconsider the need for a separate Assistant General Manager, Retail Power position if the Department becomes a community choice aggregator.

Section 11. Land Management

The Public Utilities Commission should:

11.1 Adopt a formal policy regarding the identification and sale of surplus property including a criteria for when properties may be declared surplus and the conditions, if any, under which the Public Utilities Commission would maintain ownership of property that is not required for the utility.

The Public Utilities Commission General Manager should:

11.2 Establish a formal framework for coordinating the Public Utilities Commission's land use and real property management policies and protocols, including directing the Assistant General Managers for External Affairs, Water and Power, and Infrastructure to jointly coordinate real property and land planning and management, including:

(a) Writing joint protocols for establishing management oversight of:

(i) real property and land inventories,

(ii) surplus property identification,

(iii) property sales and acquisition procedures,

(iv) new lease and permit agreements, and

(v) encroachment identification, management, and removal;

(b) Developing written procedures outlining the decision-making process for the sale of Public Utilities Commission property, which are based on the utilities' land use needs, and are included in the formal property and land use management protocols;

(c) Providing comprehensive written land and property management protocols, including incorporating existing policies and procedures into a single document, to the General Manager prior to July 1, 2005; and

(d) Providing quarterly joint reports to the General Manager on property and land management.

11.3 Formally present to the Public Utilities Commission real properties and land which are surplus to the water, power, and clean water utilities' requirements, including:

(a) Directing the Assistant General Managers for External Affairs, Water and Power, and Infrastructure to assess the 25 properties, which have been identified by the Real Estate Services Bureau as surplus to the utilities' needs but which have not been previously declared surplus by the Public Utilities Commission, to determine which properties should be presented as surplus properties to the Public Utilities Commission; and

(b) Directing the Financial Services Section and the Real Estate Services Bureau to evaluate the potential revenue from the sale of the properties, allocation of such revenues to the Water System Capital Improvement Program projects, impact on the debt financing of such projects, and the impact on future water rate increases.

11.4 Direct the Real Estate Services Bureau to develop and maintain a comprehensive property inventory of the Public Utilities Commission's property holdings, which incorporates the Real Estate Services Bureau database and the Water and Supply and Treatment Division's Geographic Information System information.

11.5 Report to the Board of Supervisors on the existing and projected costs to the City to abate water system rights-of-way encroachments within the next six months.

11.6 Include a status report on the rights-of-way management plan in the Water System Capital Improvement Plan monthly status report.

Section 12. Real Estate Services

The Public Utilities Commission should:

12.1 Delete the final sentence from Section 4.020 of the *Commercial Land Management Operating Manual*, removing the provision authorizing the General Manager to implement leases and permits, except for specific leases and permits authorized under Section 4.020, at her discretion without Public Utilities Commission approval.

12.2 Consider adopting a policy that defines the criteria that the Real Estate Services Bureau Director uses when determining if it is appropriate to put a property out to bid.

12.3 Consider adopting a policy that updates and clearly defines the criteria for issuing a permit or entering into a lease agreement for the use of Public Utilities Commission property.

12.4 Consider adopting a policy requiring Public Utilities Commission approval for all adjustments or other actions that are outside the terms of the existing lease or permit agreement.

The Public Utilities Commission and the Recreation and Parks Commission, in conjunction with the City Attorney's Office should:

12.5 Develop a Memorandum of Understanding for the Lake Merced tract which includes a joint protocol for management oversight and maintenance of the Lake Merced tract.

The General Manager of the Public Utilities Commission should:

12.6 Direct the Real Estate Services Bureau Director to document the analysis of whether there is more than one potential user and present this analysis to the Public Utilities Commission at the time the Public Utilities Commission considers approval of lease agreements.

12.7 Direct the Finance Services Bureau to work jointly with the Water Supply and Treatment Division to develop a system to track time and material costs to specific tenants.

12.8 Direct the Real Estate Services Bureau, in coordination with the City Attorney's Office, to determine the extent and source of the contamination at 3911 Quint Street, and recover the costs attributable to All Auto Dismantler.

12.9 Direct Real Estate Services Bureau to review all agreements entered into prior to 1999 to evaluate whether the insurance requirements, environmental protection language, and use restrictions included in these contracts are adequate.

The Assistant General Manager, External Affairs, should:

12.10 Ensure that the Public Utilities Commission approves all lease agreements for real property that is surplus or may be declared surplus prior to the Real Estate Services Bureau executing a lease agreement.

12.11 Direct the Real Estate Services Bureau Director to:

(a) adjust rents and conduct appraisals in accordance with lease agreements,

(b) charge tenants for taxes and assessments uniformly, and

(c) provide monthly reports to the Assistant General Manager, External Affairs, on the status of all leases.

The Real Estate Services Bureau Director should:

12.12 Develop procedures to routinely update the inventory of property for lease.

12.13 Document the Real Estate Services Bureau's marketing and leasing activities for properties available for lease, including providing a monthly report to the General Manager on the Real Estate Services Bureau's marketing and leasing activities.

12.14 Maintain documentation in the lease and permit files on the Real Estate Services Bureau's analysis regarding the number of potential users for specific properties for permits and leases not requiring Public Utilities Commission approval.

12.15 Direct staff to maintain file records of all inquiries regarding properties currently under lease, so that prior to renewing a lease, bids could be solicited from all interested parties.

12.16 In conjunction with the City Attorney's Office, draft a policy to be adopted by the Public Utilities Commission that updates and clearly defines the conditions under which permits and leases should be issued.

12.17 Collect property clean up and other cost information from the Water Supply and Treatment Division, compile the actual costs to monitor and maintain leased property compared to rent revenue, and present this report annually to the General Manager.

12.18 In conjunction with the City Attorney, identify existing leases and permits that do not contain the Public Utilities Commission's insurance, environmental protection, and use restriction provisions, and develop procedures to include the these provisions in these agreements at the earliest opportunity.

12.19 Terminate the lease agreement with All Auto Dismantlers, and evaluate this property to determine if the property is surplus to the clean water utility's requirements.

12.20 Include provisions requiring reimbursement of taxes on the original Mission Valley Quarry Company lease into any new lease agreements with the company.

12.21 Adjust rents, conduct appraisals, and collect taxes in accordance with lease agreements.

12.22 Continue converting permits to leases, when appropriate, and applying the policy defining the conditions under which a permits and leases should be issued for use of Public Utilities Commission property, should the Commission adopt one, as recommended above.

12.23 Review Real Estate Services policies and procedures for inspecting properties and documenting inspections, including reviewing all leases and permits to identify those that are the highest priority for inspection, based on property use, location,

or other considerations, and coordinate inspections with the Water Supply and Treatment Division staff who patrol rights-of-way and maintain watershed property.

12.24 Review the inspection process and revise the inspection documentation form to address specific issues, including if the tenant is following use restrictions, and potential environmental degradation.

Section 13. Water Enterprise Planning and Reporting Deficiencies

The Public Utilities Commission General Manager should:

13.1 Complete a Water Enterprise business plan in FY 2005-2006.

13.2 Develop an ongoing Water Enterprise business planning process to ensure that the Water Enterprise business plan is regularly updated from FY 2006-2007 onwards.

13.3 Direct the new Assistant General Manager, Water and Power (as recommended in Section 10) to review all existing Water Enterprise plans to ensure that there are adequate performance measures and reporting mechanisms to allow the Public Utilities Commission to know that approved management actions have been achieved. The reports to the Public Utilities Commission should include information on when implementation of recommendations or success in meeting recommended performance measures cannot be met because of funding limitations so that the Public Utilities Commission has the option to modify the affected recommendations or performance measures, or fully fund them.

13.4 Report to the Public Utilities Commission during FY 2005-2006 on the status of all management actions in all existing Water Enterprise plans.

Section 14. Programmatic Environmental Impact Report

The Public Utilities Commission General Manager should:

14.1 Ensure that the planning processes for all future capital improvement programs undertaken by the Public Utilities Commission explicitly include consideration of the need for a programmatic environmental impact report from the outset.

14.2 Direct the managers responsible for the Clean Water Master Plan to make a presentation to the Public Utilities Commission on how the Clean Water Master Planning process will determine whether or not a programmatic environmental impact report is necessary.

14.3 Request the Director of the City Planning Department, or representative(s), to participate in the above presentation to the Public Utilities Commission.

14.4 Finalize a memorandum of understanding with the City Planning Department on the operating procedures to be used between the Public Utilities Commission and the Major Environmental Analysis Division.

14.5 Determine, in conjunction with the Director of the City Planning Department, the specific performance measures for a weekly reporting framework for all Major Environmental Analysis Division positions funded by the Public Utilities Commission.

The Board of Supervisors should:

14.6 Request the Planning Commission to direct the City Planning Department's Director to submit a proposal for the Planning Commission's consideration about how the City Planning Department could adopt a more proactive role at the outset of major capital improvement programs to ensure that due consideration is given to the need for a programmatic environmental impact report.

14.7 Request the Planning Commission to report back to the Board of Supervisors on its decisions with regard to the City Planning Department's role at the outset of major capital improvement programs to ensure that due consideration is given to the need for a programmatic environmental impact report.

Section 15. The Need for a Departmental Strategic Plan

The Public Utilities Commission General Manager should:

15.1 Expand the Department's current sustainability plan project to develop an interim Public Utilities Commission strategic plan no later than FY 2006-2007 and a final strategic plan no later than FY 2007-2008 using input from both internal and external stakeholders and maintaining a focus on environmental, organizational, economic, and infrastructure sustainability.

15.2 Regularly update the Public Utilities Commission strategic plan so that it remains a "living document."

15.3 Ensure that the departmental strategic plan is supported by a comprehensive policy, planning, and reporting system.

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Introduction

On May 18, 2004, the Board of Supervisors adopted a motion directing the Budget Analyst to perform a management audit of the Public Utilities Commission (Motion No. M04-57). As explained below, this report is the result of the third phase of a four-phase management audit. Our first and second phase management audit reports on the Clean Water and Hetch Hetchy Enterprises were issued on September 27, 2004 and December 21, 2004, respectively.

Purpose and Scope

The purpose of this management audit is to evaluate the economy, efficiency, and effectiveness of the Public Utilities Commission's programs, activities, and functions, and the Public Utilities Commission's compliance with applicable State and Federal laws, local ordinances, and City policies and procedures. This management audit is conducted in four phases:

- The *Phase I Management Audit of the Public Utilities Commission – Clean Water Enterprise Fund* is a review of the Clean Water Enterprise's programs, activities and functions.

- The *Phase II Management Audit of the Public Utilities Commission – Hetch Hetchy Enterprise Fund* is a review of the Hetch Hetchy Enterprise's programs, activities and functions.

- Phase III, which is the subject of this report, is a review of the Water Enterprise Fund's programs, activities, and functions, including water supply, treatment, and distribution for regional and City customers.

- Phase IV is a review of the programs, activities, and functions of the Public Utilities Commission as a whole, including the Water System Capital Improvement Program,[1] administrative functions, and enterprise-wide functions, such as asset management, that affect all three enterprise funds.

This Phase III report reviews the Water Enterprise in terms of:

- Business planning and risk management processes.
- Regulatory compliance and management.
- Laboratory management.
- Suburban wholesale water rates.

[1] Although the Public Utilities Commission has recently renamed the Water System Capital Improvement Program as the "Water System Improvement Program," this audit report retains the former name in order to be consistent with the Phase I and II management audit reports.

- The billing and collection of water and sewer accounts.
- Real estate services and land management.

Audit Methodology

The management audit was conducted in accordance with *Governmental Auditing Standards, 2003 Revision*, issued by the Comptroller General of the United States, U.S. General Accountability Office. The management audit staff presented a draft report to the Public Utilities Commission General Manager on February 28, 2005. The management audit staff held an exit conference with the General Manager and key members of the Public Utilities Commission's management staff on March 16, 2005, to discuss the draft report. After careful consideration of the additional information provided after submission of the draft report and at the exit conference, the management audit staff prepared a final report. The Public Utilities Commission has provided a written response to the Budget Analyst's Phase III Water Enterprise management audit report, which is appended to this report.

Overview of the Water Enterprise

The Water Enterprise provides water to almost 2.4 million people either directly to customers within the City of San Francisco (City) and to a small number of customers outside the City or indirectly through wholesale water sales to 29 municipal water agencies in Alameda, Santa Clara, and San Mateo counties. The Water Enterprise separates its function into two distinct geographic areas. The Regional Water System brings the water from Yosemite and the Sierra Nevada to the Bay Area and to 29 wholesale customers. This system includes five reservoirs in Alameda and San Mateo counties and two water treatment plants, one in Alameda County and one in San Mateo County. The Local Water System distributes and delivers water from the regional system to customers in the City as well as to the City itself for municipal use. The objectives of both the Regional and Local Water Systems are to maintain water quality and to ensure water supply reliability, even during catastrophic events or periods of drought.

Organization of the Water Enterprise within the Public Utilities Commission

Exhibit I below shows the Water Enterprise's placement in the organizational structure under the previous General Manager. Management accountabilities over the Water Enterprise were combined with both the Hetch Hetchy and Clean Water Enterprises. Exhibit II below shows the proposed organizational structure for the Public Utilities Commission under the current General Manager who took office on August 23, 2004. Management accountabilities have changed in that the Water Enterprise activities are proposed to be consolidated under one Assistant General Manager and to include the short-term planning function. However, this organizational structure is still being revised by the current General Manager and is not yet final.

EXHIBIT I
PUBLIC UTILITIES COMMISSION FUNCTIONAL ORGANIZATION
UNDER PREVIOUS GENERAL MANAGER

Planning Bureau	Power, Policy and Resource Planning	Operations	Infrastructure	Communications and Government Relations	Business Services
• Environmental Regulatory Compliance • Clean Water Planning • **Water Resources and Planning** • **Regional Water Project Planning**	• Power Planning and Administration • Energy Efficiency • Renewable Energy Technologies • Regulatory • Public Affairs	• **Bureau of Environmental and Regulatory Management** • **City Distribution Division** • **Water Supply and Treatment Division** • **Water Quality Bureau** • **Infrastructure Development Water Construction and Maintenance Support** • **Hetch Hetchy Water** • Hetch Hetchy Power • Water Pollution Control • Fleet Management • Security and Emergency Planning	• **Infrastructure Resources Management Bureau** • **Project Management Bureau** • **Engineering Design Bureau** • **Construction Design Bureau** • **Program Development and Support Bureau**	• Communications • Government Relations	• Human Resources • Information Technology Services • Financial Services • Customer Services • Real Estate Services

Note: Water Enterprise-related functions are highlighted in bold.

EXHIBIT II
PUBLIC UTILITIES COMMISSION PROPOSED FUNCTIONAL ORGANIZATION

(Per the Public Utilities Commission General Manager's February 8, 2005 Draft Organizational Restructuring Proposal)

Water Enterprise	Power Enterprise	Clean Water Enterprise[2]	Infrastructure	External Affairs	Business Services
• City Distribution Division • Hetch Hetchy water system • Hetch Hetchy wholesale power up to Newark • Natural resources • Short-term water system policy and planning • Water Quality Bureau • Water Supply and Treatment Division	• Energy services • Retail power • Power Policy Division • Streetlight Management Program[3]	• Bureau of Environmental Regulation and Monitoring • Clean water master and short-term system planning • Water Pollution Control • Clean water regulatory compliance	• Water System Capital Improvement Program • Repair and replacement program • Security • Contracts	• Strategic planning • Communi-cations • Legislative Affairs • Real Estate	• Human Resources • Information Technology • Financial Services • Customer Services

[2] This report refers to the "Clean Water Enterprise" and the "Assistant General Manager, Clean Water" to be consistent with the Phase I and II management audit reports. However, the Public Utilities Commission General Manager has recently changed the terminology from "clean water" to "wastewater."

[3] The *Phase II Management Audit of the Public Utilities Commission – Hetch Hetchy Enterprise Fund* report recommended that the Streetlight Management Program be transferred to the Department of Public Works (Recommendations 7.1 – 7.3).

Water Enterprise Fund Revenues and Expenditures

Between FY 1999-2000 and FY 2003-2004, the Water Enterprise Fund operating budget actual revenues increased by approximately $62.3 million, or 40.4 percent, from $154.4 million in FY 1999-2000 to $216.7 million in FY 2003-2004. As noted in Table 1, in FY 2003-2004, charges for services of $174.8 million comprised 80.6 percent of total Water Enterprise revenues of $216.7 million. Operating budget actual expenditures increased by $32.9 million, or 25.0 percent, from $131.6 million in FY 1999-2000 to $164.5 million in FY 2003-2004.

Table 1

Water Enterprise Fund Operating Budget
Actual Revenues and Expenditures
FY 1999-2000 through FY 2003-2004

	FY 1999-2000	FY 2000-2001	FY 2001-2002	FY 2002-2003	FY 2003-2004
Revenues					
Charges for Services	135,901,391	139,013,909	144,396,143	148,243,267	174,755,035
Rents and Concessions	7,880,767	8,077,467	8,302,928	8,611,317	8,451,001
Interest and Investment Income	4,923,525	9,707,830	7,781,358	4,942,810	7,420,182
Other Revenue	5,662,175	132,761,701	7,447,909	9,285,495	26,080,427
Total Revenues	154,367,858	289,560,907	167,928,338	171,082,889	216,706,645
Expenditures					
Labor and Fringe	34,042,235	35,489,223	43,579,460	46,610,842	49,223,566
COWCAP	1,563,920	1,351,971	997,558	1,448,270	1,386,022
Non-Personnel Services	4,983,631	4,605,676	5,491,242	6,242,628	7,261,418
Materials and Supplies	6,151,253	5,648,283	6,451,533	6,481,894	7,828,621
Equipment	1,309,150	3,107,375	1,831,156	2,508,555	2,314,034
Services of Other Dept	5,972,143	6,386,439	6,140,985	7,664,190	7,865,470
Light Heat and Power	3,764,271	3,924,049	5,869,352	6,398,629	6,267,641
Services of PUC Bureaus	34,771,902	31,341,388	21,528,480	23,034,266	25,636,125
Debt Service	20,032,939	19,989,020	27,733,212	36,497,590	38,177,573
Hetch Hetchy	19,037,000	19,037,000	19,037,000	19,037,000	19,037,000
Recovery	-	-	-	-	(481,775)
Total Expenditures	131,628,444	130,880,424	138,659,978	155,923,864	164,515,695
Net Revenues	22,739,414	158,680,483	29,268,360	15,159,025	52,190,950

Source: Public Utilities Commission Financial Services Section

Water Enterprise actual revenues primarily increased due a $25.0 million increase in charges for services billed to suburban wholesale water customers in FY 2003-2004. Additionally, sales of property increased other revenues by $126.2 million in FY 2000-2001 and $16.5 million in FY 2003-2004. Water Enterprise actual expenditures increased due to an $18.1 million increase in debt service annual requirements and an increase in labor and fringe benefit costs of $15.2 million. Net revenues, which fluctuated significantly over the five year period due to significant variations in operating revenues, are available for appropriation. Pursuant to the Public Utilities Commission policies, these surplus revenues should be appropriated for revenue funded capital projects.

The Water System Capital Improvement Program

The Public Utilities Commission approved a $3.6 billion Water System Capital Improvement Program in May of 2002, to repair, replace, and seismically upgrade the regional and local water system's infrastructure over a twelve-year period, from 2002 through 2014. The City's estimated share of the Water System Capital Improvement Program costs are approximately $1.7 billion and the suburban customers' estimated share of the costs are approximately $1.9 billion.

Three propositions approved by City voters in November of 2002 affect the Public Utilities Commission's ability to issue new revenue bonds to finance the Water System Capital Improvement Program:

- Proposition A granted the Public Utilities Commission the authority to issue up to $1.628 in revenue bonds to fund the City's share of costs for the Water System Capital Improvement Program.

- Proposition E granted the Public Utilities Commission the authority to issue revenue bonds without further voter approval.

- Proposition P created a revenue bond oversight committee to review the management and administration of bonds issued for the Capital Improvement Program.

The Water System Capital Improvement Program and its total cost are currently under review by the Public Utilities Commission which anticipates (a) total program costs growing by $717 million, to a revised total of $4.3 billion, (b) the deletion of five of the Water System Capital Improvement Program's existing 77 capital improvement projects, and (c) the addition of new projects. The earliest that the Public Utilities Commission will make a final decision on the proposed changes to the Water System Capital Improvement Program is April of 2005.

Suburban Wholesale Water Rate Agreement

In 1984, the City and County of San Francisco entered into an agreement, the Settlement Agreement and Master Water Sales Contract, with its suburban wholesale water customers which established a detailed methodology for determining water rates to be charged to those customers. The agreement resulted from a settlement of a civil action filed against the City in 1974 by the City of Palo Alto regarding the method in which rates were established. The Settlement Agreement and Master Water Sales Contract expires June 30, 2009.

Since 1984, there have been disputes between the Public Utilities Commission and the suburban customers related to the suburban wholesale rate calculation in almost every year. These disputes have been resolved through informal negotiations, settlement agreements, and arbitration. In addition to these annual disputes, State legislation supported by the suburban customers and signed into law in September of 2002 increases independent oversight of the Public Utilities Commission and requires that the Public Utilities Commission work in coordination with the suburban customers.

- Assembly Bill 2058 enabled the creation of the Bay Area Water Supply and Conservation Agency, which represents the 29 suburban customers. Under Assembly Bill 2058, the Bay Area Water Supply and Conservation Agency holds the authority of a regional water agency. Thus, the suburban customers are united as one group with respect to issues concerning the Water Enterprise.

- Senate Bill 1870 created the San Francisco Bay Area Regional Water System Financing Authority, which would allow the Bay Area Water Supply and Conservation Agency to issue revenue bonds to finance the suburban share of costs of the Water System Capital Improvement Program. This would enable the Bay Area Water Supply and Conservation Agency to have financial control over the implementation of significant components of the Water System Capital Improvement Program.

- Assembly Bill 1823 required the State Department of Finance to conduct an audit of the Water Enterprise's program of maintenance of the regional water system prior to July 1, 2004. The audit included a review of the adequacy of the Public Utilities Commission's procedures and resources for identifying needed maintenance; planning, budgeting, scheduling, and completing maintenance; and record keeping of maintenance activities. The audit was completed and found that "the Commission is taking adequate steps to develop and implement maintenance procedures." However, the report also notes that the report conclusions were preliminary as the Public Utilities Commission was still in the process of developing and implementing maintenance procedures.

Clearly, the relationship between the two agencies is contentious. The significant annual fluctuations in the suburban revenue requirement discussed in Section 1, coupled with

accounting process weaknesses discussed in Section 2, do not instill confidence in the suburban customers that the Public Utilities Commission is able to effectively manage and account for its existing capital program, let alone implement the tools necessary for the Water System Capital Improvement Program.

The Public Utilities Commission will need to cultivate its relationship with the suburban customers as it moves forward with the Water System Capital Improvement Program and contract negotiations with the Bay Area Water Supply and Conservation Agency.

Water Enterprise Accomplishments

The management audit team invited the Public Utilities Commission to submit written statements on the Water Enterprise's accomplishments that it perceives have occurred in recent years. The Public Utilities Commission has provided the following list of accomplishments for the Water Enterprise and the Bureau of Environmental Regulation and Management.

- The Water Enterprise has improved the level of service provided to wholesale customers by meeting individually with wholesale customers and conducting bi-annual surveys of wholesale customer satisfaction with services provided. According to the Water Enterprise, results of the most recent survey have showed a relatively high level of customer satisfaction with services provided by the Water Supply and Treatment Division and the Water Quality Bureau.

- The Water Enterprise has developed procedures for inspections, condition assessment, and reporting for dams. These procedures have been included in the maintenance management system (MAXIMO) database so that the ongoing assessments will become part of the Water Enterprise's preventive maintenance program. Also, the Water Enterprise has inspected over 16 miles of water system transmission pipelines in FY 2004-2005 to perform condition assessments, including the Crystal Springs, Bay Division, and Pilarcitos pipelines.

- The Water Enterprise has implemented a program for providing supervised access to the Bay Area Ridge Trail for hikers, bicyclists, and equestrians, which provides public education and recreational opportunities and protects sensitive natural resources. Additionally, the Water Enterprise has produced a book on *Woody Plants, Ground Covers, Shrubs and Trees of the Peninsula Watershed* and has provided sensitive plant training for staff engaged in watershed operations.

- The Water Enterprise has implemented a Fuel Break Vegetation Management Log to track progress in performing fuel management consistent with the Watershed Management Plan.

- The Water Quality Bureau Laboratories have reported several performance achievements, including:

(i) receiving an overall combined score of 96.3 percent for all four laboratories – Millbrae, Southeast, Oceanside, and Treasure Island – as part of the State of California Environmental Laboratory Accreditation Program;

(ii) becoming one of the first tier of laboratories in the nation to be certified by the U.S. Environmental Protection Agency for performing parasite monitoring throughout the drinking water system, including scoring as number one in the nation in 2004 in performance assessment testing by the U.S. Environmental Protection Agency; and

(iii) scoring 100 percent in California State proficiency testing of trace metal testing performance in wastewater and drinking water.

- The Water Enterprise has completed five studies related to demand on the Public Utilities Commission water system, including the *SFPUC Wholesale Customer Water Demand Projections Technical Report*, the *SFPUC Wholesale Customer Conservation Potential Technical Report*, the *City and County of San Francisco Retail Ware Demands and Conservation Potential*, the *SFPUC Wholesale Customer Recycled Water Potential Technical Memorandum*, and the *SFPUC 2030 Purchase Estimates Technical Memorandum*.

- San Francisco is the first large municipality in the State to implement a permit program that involves the installation of amalgam separators in dental offices to remove mercury from the sewer system.

- The Bureau of Environmental Regulation and Management has successfully assessed and remediated mercury contamination in five Public Utilities Commission facilities.

- The Bureau of Environmental Regulation and Management has successfully prepared a Stormwater Management Plan that has been approved by the State, giving San Francisco coverage under the State's General Stormwater Permit, Phase II Stormwater Regulations.

- The Bureau of Environmental Regulation and Management has received several state and national awards for pretreatment and water pollution prevention.

Acknowledgements

We would like to thank the management and staff of the Public Utilities Commission for their cooperation during Phase III of this management audit. We hope the findings contained in this report provide a useful tool for the General Manager and her staff as they work to improve the operations of the Water Enterprise.

1. Suburban Wholesale Water Rates, Long Range Financial Planning, and Revenue Funded Repair and Replacement Projects

- **In FY 2003-2004, suburban wholesale water customers paid the Public Utilities Commission $15 million more than necessary because water rates were based in part on the projected cost of several large capital projects that were not completed within the year. Between July 1, 2000, and June 30, 2005, suburban wholesale customers will have overpaid an estimated $27 million to the Public Utilities Commission, resulting in the need to decrease the suburban wholesale customers' water rates by 30 percent in FY 2005-2006, followed by a proposed increase in suburban wholesale customers' water rates of 40 percent in FY 2006-2007 to meet FY 2006-2007 revenue requirements.**

- **Because the Public Utilities Commission has failed to accurately plan and time the completion of capital projects, contributing to volatile suburban wholesale customer rates and revenues, the Public Utilities Commission can not adequately plan for the Water Enterprise's finances, causing difficulties for customers. For example, in the five month period between August, 2004, and January, 2005, the Financial Services Section significantly revised its long range financial projections and estimates of retail rate increases for City customers, from the August, 2004, estimated retail rate increase of 11 percent per year to the January, 2005, estimated retail rate increase of 15 percent per year.**

- **Also, the January, 2005, Water Enterprise long range financial projections suggest that the Public Utilities Commission will be unable to meet its eleven year goal of allocating $506 million in operating revenues to fund capital repair and replacement projects that have not been included in the Water System Capital Improvement Program. To complete critical projects, such as the replacement of aging water pipelines, the Public Utilities Commission will need to develop an effective asset management program to determine its most critical capital repair and replacement needs and to set other priorities for its resources.**

City Retail and Suburban Wholesale Water Rate Revenues

Suburban and City water rate revenues pay most of the Water Enterprise's operating and capital costs. In FY 2003-2004, water rate revenues were an estimated $176.6 million.[1]

[1] FY 2003-2004 revenues are based on the Customer Services Section's billing system water rate charges as of June 30, 2004.

City residential, municipal, commercial, and industrial customers paid $71.1 million in retail water rates and suburban wholesale customers paid $101.4 million in wholesale water rates. The Water Enterprise also received $4.1 million in retail water rate revenues from suburban customers, including the San Francisco International Airport, and suburban commercial and residential customers.

Table 1.1

FY 2003-2004 Suburban and City Water Accounts and Rate Revenues

	Total Accounts	Total Revenue
City Retail Accounts	169,069	$71,094,337
Suburban Retail Accounts	337	4,135,833
Suburban Wholesale Accounts	77	101,386,296
	169,483	$176,616,466

Source: Customer Services Section Billing and Collections Data, as of June 30, 2004

Setting City Retail Rates

The Public Utilities Commission determines the Water Enterprise's revenue requirements to operate and maintain the water system each year, and sets retail and wholesale water rates to meet these annual revenue requirements. The Public Utilities Commission sets City retail rates to cover debt service costs and the City's customers' share of the operating, maintenance, and administrative overhead costs of the Water Enterprise. In 1998, the San Francisco voters approved Proposition H, which freezes City retail water rates through July 1, 2006. Under Proposition H, the Public Utilities Commission has been able to adopt incremental rate increases to cover increased costs of debt service. The FY 2004-2005 retail water rate of $1.49 per unit of water[2] was set in FY 2002-2003 and has not increased since that time.

In November of 2002, the San Francisco voters approved Proposition A, authorizing the Public Utilities Commission to issue up to $1.628 billion in revenue bonds to pay for capital improvements to the City's water system. Under Proposition A, the Public Utilities Commission may increase City retail rates to pay for increased debt service costs of the new revenue bonds. The Public Utilities Commission Financial Services Section anticipates a 15 percent retail water rate increase in FY 2005-2006 to pay costs of voter approved debt, including funding reserves and prospective costs of future debt issues.

Setting Suburban Wholesale Rates

The Water Enterprise provides wholesale water to 29 suburban customers represented by the Bay Area Water Supply and Conservation Agency. The 1984 Settlement Agreement and Master Water Sales Contract, which expires on June 30, 2009, provides the terms and conditions, including the methodology for setting suburban wholesale water rates, by

[2] One unit of water equals 748 gallons.

which the Water Enterprise delivers water to suburban purchasers. Under the Settlement Agreement and Master Water Sales Contract, the rate-setting method differs significantly from the method used to set City retail water rates.

The suburban wholesale rates are based on the suburban customers' share of the Water Enterprise's operating, maintenance and administrative overhead costs, and the suburban customers' allocation of property taxes levied against San Francisco Water Enterprise properties in San Mateo, Santa Clara, and Alameda Counties. Suburban wholesale rates do not include the costs of debt service on outstanding debt. Rather, the suburban wholesale rates include the cost of capital once the construction on the capital asset has been completed and the capital asset has been placed in service. The costs of capital include a rate of return on the suburban customers' allocation of the Water Enterprise's wholesale utility plant and working capital, and depreciation on the Water Enterprise's capital assets allocable to the suburban customers. Suburban wholesale water rates are adjusted annually.

The Public Utilities Commission's Settlement Agreement and Master Water Sales Contract with the Suburban Customers

Each year, the Public Utilities Commission's Financial Services Section staff calculate the Water Enterprise's suburban wholesale revenue requirements. Suburban wholesale customers pay approximately two-thirds of the costs of the Water Enterprise's regional water system and City retail customers pay approximately one-third. The suburban customers' share of costs are allocated among five categories, as follows:

- Operating and maintenance expenses,
- Administrative and general expenses,
- Property taxes,
- Return on the rate base, and
- Depreciation on the capital assets.

The suburban share of costs also includes the charge assessed by the Public Utilities Commission for delivering water from the Hetchy Hetchy Enterprise's water system. The Hetch Hetchy Enterprise's assessment consists of the same five cost allocation categories as the Water Enterprise's cost allocation. The suburban wholesale customers pay only for their percentage allocation of water facilities costs and of the water-related portion of joint power and water facilities.

Many of the costs that make up the suburban customers' revenue requirements are on a cash basis. Operating and maintenance expenses, administrative and general expenses, and Water Enterprise property taxes paid to San Mateo, Alameda and Santa Clara Counties are included in the annual Water Enterprise Fund budget. Two components of the suburban customers' cost allocations, the rate of return of the Water Enterprise's rate base, including its utility plant and working capital, and depreciation of capital assets, require additional calculations.

Estimated and Actual Annual Suburban Revenue Requirements

Prior to the beginning of the fiscal year, the Public Utilities Commission Financial Services Section staff estimate the suburban revenue requirement for the year, based upon projected costs and water usage. Actual suburban revenue requirements are calculated after the close of the fiscal year, based on the actual costs incurred and actual water usage data. The Public Utilities Commission Financial Services Section staff make interim calculations of the suburban revenue requirement, based upon actual costs and water usage, within three months after the close of the fiscal year.

Under the Settlement Agreement and Master Water Sales Contract, the City's Controller selects an independent auditor to conduct an annual compliance audit. The compliance auditor reviews the recorded operating, maintenance, administrative, property tax, and other expenses to determine if the recorded expenses reasonably reflect the actual expenses incurred. The auditor also reviews the supporting documentation for calculation of the return on the rate base and depreciation to determine if the calculations are reasonable. Table 1.2 shows the suburban revenue requirements for FY 1998-1999 through FY 2001-2002, based on the audited financial statements. Audited financial statements for FY 2002-2003 and FY 2003-2004 are not yet available.

Table 1.2

Annual Suburban Revenue Requirements

FY 1998-1999 through FY 2001-2002

	FY 1998-1999	FY 1999-2000	FY 2000-2001	FY 2001-2002 [1]
Operating and Maintenance	$22,729,731	$23,667,621	$21,114,791	$30,241,603
Citywide Overhead	343,090	347,102	339,657	387,810
Public Utilities Commission Administration	4,433,852	5,277,667	4,868,126	4,433,806
Other Administration	4,462,499	4,281,210	3,792,542	4,204,513
Contract Administration	86,749	90,437	92,722	95,758
Compliance Audit	61,370	64,434	74,100	77,805
Property Taxes	784,685	801,880	807,770	815,815
Return on the Rate Base	10,417,677	10,612,065	10,493,727	11,897,492
Depreciation	7,048,815	7,727,447	8,233,083	8,575,463
Hetch Hetchy Assessment	13,896,947	17,049,793	18,973,171	15,082,134
	$64,265,415	$69,919,656	$68,789,689	$75,812,199

Source: Audited Financial Statements

[1] Increased operating and maintenance expenses in FY 2001-2002 resulted from one time revenues from the sale of Public Utilities Commission properties that were appropriated for Water Enterprise Department capital repair and replacement projects.

Suburban Wholesale Revenues Balancing Account

The Settlement Agreement and Master Water Sales Contract establishes a "balancing account" to reconcile differences between estimated and actual suburban revenue requirements each year. If the estimated suburban revenue requirement exceeds the actual revenue requirement, the suburban customers receive a credit in the balancing account. If the estimated suburban revenue requirement is less than the actual requirement, the suburban customers receive a debit in the balancing account.

Under the Settlement Agreement and Master Water Sales Contract, the Public Utilities Commission attempts to clear the accumulated suburban wholesale account balance when setting wholesale water rates for the next fiscal year. If the suburban customers have a balancing account credit, the suburban wholesale rates for the next fiscal year are

adjusted downward. If the suburban customers have a balancing account debit, the suburban wholesale rates for the next fiscal year are adjusted upward.

The gap between estimated and actual suburban revenue requirements has varied widely from year to year, resulting in large shifts in suburban wholesale water rates. The wholesale rate volatility has not only impaired the ability of the Public Utilities Commission to plan adequately for future revenue and operating funding requirements, but impacts the suburban wholesale customers' ability to plan for their own finances.

Table 1.3

Estimated and Actual Suburban Wholesale Revenue Requirements and the Impact on the Balancing Account

FY 2000-2001 through FY 2003-2004

	FY 2000-2001 [1]	**FY 2001-2002** [1]	**FY 2002-2003** [2]	**FY 2003-2004** [2]
	Audited financial statement	Audited financial statement	Based on Unaudited Final Calculation	Based on Unaudited Interim Calculation
Beginning Balancing Account on June 30 [3]	$2,384,424	($4,838,236)	($9,354,685)	($4,433,851)
Suburban Revenues	(76,156,486)	(76,388,220)	(74,951,668)	(99,987,601)
Suburban Revenue Requirement	68,789,688	75,812,199	80,107,254	84,778,040
Interest on Balancing Account on June 30 [3]	144,138	(204,754)	(234,752)	(117,376)
Arbitration Settlement Adjustment	0	(3,735,674)	0	0
Ending Balancing Account on July 1 [4]	($4,838,236)	($9,354,685)	($4,433,851)	($19,760,788)

Source: Public Utilities Commission Financial Services Section

[1] FY 2000-2001 and FY 2001-2002 information is based on the audited financial statements.
[2] FY 2002-2003 and FY 2003-2004 information is based on the Financial Services Section staff's calculations. Audited financial statements are not yet available for these years.
[3] FY 2002-2003 and FY 2003-2004 balancing account interest amounts are estimated.
[4] The positive balance in the beginning balancing account on June 30, 2000 (FY 2000-2001) represents credits to the Public Utilities Commission. The negative balances in the FY 2001-2002 through FY 2003-2004 balancing accounts represent credits to the suburban customers.

As shown in Table 1.3, the suburban wholesale customers' balancing account has a $19.76 million credit in FY 2003-2004, which is projected to increase to $27 million in FY 2004-2005.

The actual suburban revenue requirement in FY 2003-2004 varied significantly from the estimated suburban revenue requirement, resulting from increased demand for water and delays in completing capital projects. This variation between estimated and actual suburban revenue requirements resulted in a $15.3 million increase in the suburban balancing account credit in FY 2003-2004.

In FY 2003-2004, the Public Utilities Commission Financial Services Section staff had anticipated that several capital projects would be completed and placed into service during the fiscal year. The estimated suburban revenue requirement had included rate of return and depreciation calculations on these capital projects which were expected to be completed. Because the projects were not completed in the projected timeframe, the suburban revenue requirement was recalculated to exclude the rate of return and depreciation calculations.

- The Financial Services Section staff had projected that FY 2003-2004 suburban revenue requirements would be approximately $96.7 million and had adjusted wholesale rates upward by 25.7 percent to meet this revenue requirement projection.

- The actual suburban revenue requirement was approximately $84.8 million, or almost $12 million less than projected.

- Actual FY 2003-2004 suburban revenues received by the Public Utilities Commission were $99.99 million. This $3.29 million increase between actual revenues of $99.99 million and the projected revenue requirement of $96.7 million resulted largely from increased water volume purchased by the suburban customers.

Impact of the Suburban Balancing Account on FY 2005-2006 and FY 2006-2007 Suburban Wholesale Rates

The Settlement Agreement and Master Water Sales Contract requires the Public Utilities Commission to adjust suburban wholesale rates to clear the balancing account each year. To clear the suburban balancing account credit, which is expected to be $27 million in FY 2004-2005, the Public Utilities Commission projects a 30 percent reduction in suburban wholesale rates in FY 2005-2006, followed by a 40 percent suburban wholesale rate increase in FY 2006-2007 to meet FY 2006-2007 suburban revenue requirement.

Impact of the Variation in Suburban Wholesale Revenue Requirements on Long Range Financial Planning

The Public Utilities Commission Financial Services Section has developed a long range financial plan in conjunction with the Water System Capital Improvement Program, and presents annual updates to the Public Utilities Commission. The long range financial plan provides an overall description of the Water Enterprise 's financial structure, the Water System Capital Improvement Program financing plan, and a description of the Public Utilities Commission's capital funding sources.

The Public Utilities Commission presents the Water System Capital Improvement Program long range financial plan to the State Legislature's Joint Legislative Audit Committee, the Seismic Safety Commission, and the State Department of Health Services, in accordance with Assembly Bill 1823, which imposed planning, reporting and operating requirements on the Public Utilities Commission in managing the regional water system.

The Water Enterprise's Long Range Financial Projections

The Financial Services Section staff revised the Water Enterprise's long range financial projections significantly during the five-month period from August, 2004, when the Financial Services Section presented the Water Enterprise's long range financial projections to the Public Utilities Commission as part of the annual Water System Capital Improvement Program status report and update, and January, 2005, when the Financial Services Section presented the Water Enterprise's long range financial projections to the Public Utilities Commission as part of the annual budget hearing.

Table 1.4
The Water Enterprise's Long Range Financial Projections
FY 2004-2005 through FY 2009-2010

	FY 2004-2005	FY 2005-2006	FY 2006-2007	FY 2007-2008	FY 2008-2009	FY 2009-2010	Average Annual Increase/ (Decrease)
Total revenues	$188,244,000	$168,768,729	$209,456,525	$227,169,123	$253,904,404	$295,756,504	10%
Total operating and maintenance expenditures	(142,649,089)	(145,143,211)	(151,424,463)	(155,245,158)	(159,176,703)	(163,222,356)	3%
Net revenue	45,594,911	23,625,518	58,032,062	71,923,965	94,727,701	132,534,148	39%
Annual debt service	(38,376,106)	(38,444,973)	(38,517,056)	(50,844,673)	(72,023,606)	(92,488,635)	20%
Net revenue after debt service	7,218,805	(14,819,455)	19,515,006	21,079,292	22,704,095	40,045,513	(89%)
Beginning fund balance, July 1	92,220,829	70,818,634	35,999,179	34,514,185	33,543,477	33,095,072	(16%)
Net revenue plus beginning fund balance	99,439,634	55,999,179	55,514,185	55,593,477	56,247,572	73,140,585	(3%)
Total revenue funded capital	(28,621,000)	(20,000,000)	(21,000,000)	(22,050,000)	(23,152,500)	(24,310,125)	5%
Ending fund balance, June 30	$70,818,634	$35,999,179	$34,514,185	$33,543,477	$33,095,072	$48,830,460	(2%)
Debt service coverage (ratio of net revenues to annual debt service)	119%	61%	151%	141%	132%	143%	
Operating and maintenance reserve	65%	49%	24%	22%	21%	20%	

Source: Public Utilities Commission Financial Services Section

Impact of Project Delays on Revenue Projections

Revisions to long range financial projections result from revised projections of operating expenditures and of completion dates or planning timelines for capital projects. For example, the Financial Services Section staff revised projections for operating expenditures due to the Controller's Office revised estimates of mandatory fringe benefit costs.

Revisions to the planning and implementation of capital project construction can significantly alter the Water Enterprise's long range financial projections. Specifically, revisions to the expected timeframe to complete capital projects can change the projected revenue requirement from suburban customers, impacting both funds available for operating and revenue funded capital budgets and the unappropriated fund balance.

Delays in completing capital projects in FY 2003-2004 and revisions to future timelines for commencing capital project construction contributed to the revised long range financial projections.

- Several Water System Capital Improvement Plan projects that were scheduled for completion in FY 2003-2004 were delayed, including the seismic rehabilitation of two terminal storage reservoirs located in San Francisco, which reduced the actual suburban revenue requirement compared to the estimated suburban revenue requirement by $15.3 million.

- The commencement of construction of other Water System Capital Improvement Plan projects has been moved out to future years to allow for a programmatic rather than project-specific environmental impact report. The postponement of construction results in lowered suburban revenue projections in the next few fiscal years, impacting the amount of funding that is expected to be available to fund operating and revenue funded capital budgets in future years.

These timing revisions to completing existing capital construction projects or planning and commencing future capital construction projects have resulted in several key changes to the long range financial forecast. When the Financial Services Section presented the long range financial plan to the Public Utilities Commission in August, 2004, the Financial Services Section staff projected that:

- City retail water rates would increase by 11 percent annually in FY 2005-2006 through FY 2008-2009 and by 9 percent in FY 2009-2010.

- Suburban wholesale water rates would increase annually, ranging from 6.7 percent to 8.8 percent, in FY 2005-2006 through FY 2009-2010.

- Operating revenues would be sufficient to increase funding for repair and replacement projects by $20 million in FY 2006-2007, and by 5.5 percent each subsequent year, in accordance with Public Utilities Commission policies.

- Annual debt service coverage and operating and maintenance reserves would meet the Public Utilities Commission's financial targets in FY 2005-2006 through FY 2009-2010.

The January, 2005, Water Enterprise financial projections differ from the long range financial projections presented to the Public Utilities Commission in August, 2004, in several ways.

- City retail water rates would increase by 15 percent annually in FY 2005-2006 through FY 2009-2010, resulting in a cumulative rate increase of 101 percent. The water rate would increase from $1.49 per unit of water in FY 2003-2004 to $3.00 per unit of water in FY 2009-2010. Under the August, 2004 financial projections, the cumulative rate increased between FY 2005-2006 through FY 2009-2010 would be 66 percent, resulting in FY 2009-2010 retail water rate of $2.47 per unit of water.

- Suburban wholesale water rates are expected to decrease by 30 percent in FY 2005-2006 and increase by 40 percent in FY 2006-2007. These volatile rates result from adjustments to the suburban revenue requirements to account for the $15 million surplus in suburban revenues in FY 2003-2004.

- Operating revenues would not be sufficient to increase funding for repair and replacement projects by $20 million in FY 2006-2007, in accordance with Public Utilities Commission policies.

- In FY 2006-2007 through FY 2009-2010, operating and maintenance reserves would be less than the Public Utilities Commission's financial target of 25 percent of operating and maintenance expenditures.

Because the planning and implementation of the Water System Capital Improvement Program, including the timing of construction projects, has significant financial impacts on the Water Enterprise, the General Manager needs to report regularly to the Public Utilities Commission on the status of the Water System Capital Improvement Program, the plan to finance the capital projects, and the current long range financial projections. The report should include:

- Summary of the Infrastructure Division and Financial Services Section's coordination of planning and implementing construction projects and the timing of debt issuance.

- Impact of Water System Capital Improvement Program project planning and implementation on projected revenues and the Public Utilities Commissions financial targets.

Impact of Suburban Wholesale Revenues on the Revenue Funded Capital Budget

The suburban wholesale water rates will decrease by 30 percent in FY 2005-2006 to clear the suburban customers' $27 million balancing account credit, resulting in FY 2005-2006 suburban wholesale revenues of $69 million, which is a decrease of approximately $28.3 million, or 29 percent, from projected FY 2004-2005 revenues of $97.3 million. As shown in Table 1.5, total estimated FY 2005-2006 operating revenues, including the reduced suburban wholesale revenues, will be insufficient to pay operating and maintenance and debt service expenses. Therefore, the Water Enterprise will draw down

$14.8 million from the unappropriated fund balance in FY 2005-2006 to meet operating and maintenance and debt service expenditures.

Table 1.5

Estimated Water Enterprise Revenues and Expenditures

FY 2004-2005 through FY 2006-2007

	FY 2004-2005	FY 2005-2006	FY 2006-2007
Retail rate revenues [1]	$74,270,000	$85,410,500	$98,222,075
Wholesale revenues	97,374,000	69,060,671	97,094,138
Interest income, fund balance	4,000,000	1,697,558	1,540,312
Other miscellaneous income	12,600,000	12,600,000	12,600,000
Total revenues	188,244,000	168,768,729	209,456,525
Total operating and maintenance expenditures	(142,649,089)	(145,143,211)	(151,424,463)
Net revenues	45,594,911	23,625,518	58,032,062
Annual debt service	(38,376,106)	(38,444,973)	(38,517,056)
Net revenues, less debt service	7,218,805	(14,819,455)	19,515,006
Beginning fund balance, July 1	92,220,829	70,818,634	35,999,179
Net revenue plus beginning fund balance	99,439,634	55,999,179	55,514,185
Total revenue funded capital	(28,621,000)	(20,000,000)	(21,000,000)
Ending fund balance, June 30	$70,818,634	$35,999,179	$34,514,185

Source: Public Utilities Commission Financial Services Section

[1] FY 2005-2006 and FY 2006-2007 retail rate revenues are based on 15 percent retail rate increases in each year.

Reduced Rate Revenues and the Revenue Funded Capital Budget

The Water Enterprise's annual budget includes monies for revenue funded capital projects. Capital projects funded from operating revenues generally consist of maintenance, repair, replacement, and rehabilitation of existing capital assets.

The Public Utilities Commission's financial policies, adopted in May, 2002, specifically addressed revenue funded capital projects. The Public Utilities Commission proposed that water rates be set at a level to provide sufficient revenues to pay the recurring costs

of maintaining the water system's capital assets in order to pay for ongoing capital asset repairs and replacement with revenues rather than debt financing.

According to the Public Utilities Commission's May, 2002, financial policies, the Water Enterprise's revenue funded repair and replacement projects should receive annual block funding. The Public Utilities Commission proposed to increase the amount of annual funding for capital repair and replacement projects, which currently ranges from approximately $20 million to $30 million annually, by $20 million in FY 2006-2007, the year in which the Proposition H rate freeze expires, and by 5.5 percent each subsequent year.

The anticipated costs of the local and regional water system repair and replacement projects over a ten-year period were approximately $506.1 million for the eleven-year period from FY 2003-2004 through FY 2014-2015. Although the August, 2004 Water Enterprise long range financial projections presented to the Public Utilities Commission as part of the Water System Capital Improvement Program status report and update anticipated meeting this funding goal, the projections presented to the Public Utilities Commission five months later in January, 2005, no longer included the $20 million in additional block funding for capital repair and replacement projects, commencing in FY 2006-2007.

- In August, 2004, the Financial Services Section presented Water Enterprise long range financial projections to the Public Utilities Commission for the ten-year period from FY 2004-2005 through FY 2013-2014, with projected capital repair and replacement funding for the four-year period from FY 2006-2007 through FY 2009-2010 of $166,845,329.

- In January, 2005, the Financial Services Section presented Water Enterprise long range financial projections to the Public Utilities Commission for the six-year period from FY 2004-2005 through FY 2009-2012, with projected capital repair and replacement funding for the four-year period from FY 2006-2007 through FY 2009-2010 of $90,512,625.

Under the January, 2005, long range financial projections, capital repair and replacement funding will be $76.3 million, or 46 percent less, for the four-year period from FY 2006-2007 through FY 2009-2010 than in the August, 2004, long range financial projections.

Much of the water system capital repair and replacement funding was to be allocated to replacing aging water pipelines. These projects are not included in the revenue bond funding for the Water System Capital Improvement Program.

Funding the Capital Repair and Replacement Program

The Financial Services Section staff, in conjunction with Clean Water, Water, and Hetch Hetchy Enterprise staff, have begun planning for an asset management program to better identify capital repair and replacement needs and the required annual funding. Currently,

in setting the annual operating budget, the Water Enterprise requests funding for capital repair and replacement projects based on available operating revenues after operating and maintenance expenditures have been met. Monies drawn down from the unappropriated fund balance supplement operating revenues to fund the annual capital repair and replacement program. Between FY 1999-2000 and FY 2003-2004, the revenue funded capital program appropriation ranged from approximately $20 million to $31 million annually.

Table 1.6

Water Enterprise Actual Expenditures

FY 1999-2000 through FY 2003-2004

	FY 1999-2000	FY 2000-2001	FY 2001-2002	FY 2002-2003	FY 2003-2004	Cumulative Annual Growth Rate
Operating and maintenance expenditures	$111,595,505	$110,891,404	$110,926,766	$119,426,274	$126,338,122	3%
Annual debt service	20,032,939	19,989,020	27,733,212	36,497,590	38,177,573	14%
Capital repair and replacement	19,982,450	28,180,000	146,031,450	28,680,000	31,041,000	9%
Total	$151,610,894	$159,060,424	$284,691,428	$184,603,864	$195,556,695	5%

Source: Public Utilities Commission Financial Services Section

The Water Enterprise does not have a formal process to identify which capital projects should be funded from operating revenues. The annual capital repair and replacement budget, funded by operating revenues, is a function of the funds available for such projects rather than a formal process of determining funding needs. Additionally, not all revenue funded capital projects are distinctly repair and replacement of existing capital assets. Revenues can also be allocated to projects that are capital improvement projects rather than capital repair and replacement projects. In FY 2001-2002, the Water Enterprise included $146 million in the revenue funded capital budget, resulting from the sale of Public Utilities Commission property, which were allocated to the Water System Capital Improvement Program projects.

Developing an Asset Management Program

The asset management program's goal is to develop comprehensive cost and life-cycle data on the enterprise departments' capital assets, including evaluating the risks and costs of maintaining, repairing, and replacing existing capital assets, to better determine allocation of funds to repair and replacement projects. In the absence of a coordinated

asset management program, the Water Enterprise has not had a systematic method for identifying, planning for, and meeting its ongoing capital repair and replacement needs. The Budget Analyst will review the Public Utilities Commission's proposed asset management program in Phase IV of the management audit.

The State Department of Finance Audit

In November, 2003, the State Department of Finance audited the Water Enterprise's maintenance policies and procedures for the regional water system, and issued a final audit report in June, 2004. State Assembly Bill 1823 required the State Department of Finance to audit the Public Utilities Commission's regional water system to assess the adequacy of the Commission's procedures and resources for (a) identifying water system maintenance needs, (b) planning, budgeting, scheduling, and completing maintenance projects, and (c) maintaining maintenance records.

The State Department of Finance audit noted that identification of capital repair and replacement projects is based upon the Hetch Hetchy and Water Enterprises' staff's experience, rather than more formal criteria. Managing capital repair and replacement projects (such as planning, scheduling, completing, and record keeping) has been decentralized among the various Public Utilities Commission's departments and divisions and can be unique to the specific department or division.

The State Department of Finance made several recommendations regarding the Public Utilities Commission's procedures for identifying and reporting capital repair and replacement needs and developing annual repair and replacement budgets.

Improving Repair and Replacement Program Procedures

The State Department of Finance found that repair and replacement program procedures needed improvement. Although identifying the need and requesting funds for repair and replacement projects originates within the various Public Utilities Commission enterprise departments and divisions, the Public Utilities Commission has assigned oversight of capital repair and replacement projects to the Infrastructure Division. The State Department of Finance recommended that the Public Utilities Commission:

(a) Re-assign responsibility for overseeing capital repair and replacement projects from the Assistant General Manager of Infrastructure to another senior manager to ensure that capital repair and replacement projects received focused attention; and

(b) Develop project management system tools that are specifically designed for recurring repair and replacement projects rather than incorporated into the Capital Improvement Program project management system.

The Public Utilities Commission did not concur with these recommendations in their written response to the State Department of Finance audit report. Rather, the Public Utilities Commission stated that the repair and replacement program would be incorporated into the framework developed for the Water System Capital Improvement

Program, which would include a new management team and project control system. According to the Public Utilities Commission, the Assistant General Manager, Infrastructure would ensure that the repair and replacement program would be implemented in full coordination and with the same priority as the Water System Capital Improvement Program.

The State Department of Finance also recommended that the Public Utilities Commission report to the Commissioners, the Board of Supervisors and other constituents and stakeholders on the status of all repair and replacement projects, including projects completed during the year, the status of open projects, project expenditures, and any budgeted funds carried froward from the previous year. Although the Public Utilities Commission concurred with this recommendation, detailed capital repair and replacement program information has not been included in the Water System Capital Improvement Program status reports and updates. The Public Utilities Commission should implement the State Department of Finance audit recommendation to provide the Commissioners and the Board of Supervisors detailed capital repair and replacement program information. The Public Utilities Commission should provide a report to the Board of Supervisors during the FY 2005-2006 budget review, the status of the Water Enterprise's repair and replacement projects, and the Infrastructure Division's management support of the capital repair and replacement program.

Improving Repair and Replacement Program Budget Development Procedures

The State Department of Finance recommended that the Public Utilities Commission should:

(a) Develop formal budget criteria for repair and replacement projects in advance of the annual budget process and provide managers with an opportunity to develop appropriate maintenance budgets based on the stated criteria, and

(b) Consider a budget process that better recognizes asset management priorities.

The Public Utilities Commission concurred with the two recommendations in their written response to the State Department of Finance audit report. The Public Utilities Commission has not yet developed formal criteria for the FY 2005-2006 capital repair and replacement program but has begun developing an asset management program. According to the Director of Financial Services, the asset management program will develop formal criteria for the FY 2006-2007 capital repair and replacement program. The Public Utilities Commission should provide a report to the Board of Supervisors during the FY 2005-2006 budget review on the implementation of the asset management program.

Expiration of the Settlement Agreement and Master Water Sales Contract in 2009

Although the Settlement Agreement and Master Water Sales Contract with the 29 suburban wholesale customers will expire on June 30, 2009, the Public Utilities Commission should negotiate with the suburban customers, represented by the Bay Area Water Supply and Conservation Agency, to renegotiate the terms of capital cost recovery included in the Settlement Agreement and Master Water Sales Contract at an earlier date.

Suburban wholesale water rates and revenues have been volatile in recent years. The complexity of the suburban wholesale rate calculation under the Settlement Agreement and Master Water Sales Contract and the Water System Capital Improvement Program's difficulty in establishing a firm project-sequencing schedule contribute to this volatility. The Public Utilities Commission and the suburban customers, represented by the Bay Area Water Supply and Conservation Agency, could reduce the financial uncertainty that results from the existing Settlement Agreement and Master Water Sales Contract wholesale rate calculation methodology by early negotiation of the terms of capital cost recovery included in the Settlement Agreement and Master Water Sales Contract.

The Bay Area Water Supply and Conservation Agency commissioned a study on alternatives for paying for the regional Water System Capital Improvement Program and the impact on wholesale rates, which was completed in September, 2004. The study determined that the current methodology by which the wholesale customers pay for capital costs under the Settlement Agreement and Master Water Sales Contract is not appropriate for financing the $3.6 billion Water System Capital Improvement Program, of which $1.9 billion would be costs incurred by the suburban wholesale customers. According to the study, under the current suburban wholesale rate methodology, City retail payers would have to make up future revenue shortfalls, which would occur prior to the completion of the Water System Capital Improvement Program projects and placement of capital assets into service, through increased retail rates. The study noted that the suburban revenue requirements over the life of the Water System Capital Improvement Program under the existing suburban rate setting methodology, and the alternative cash or "pay as you go" methodology, would be approximately equal. Therefore, the study recommended that, under the new water sales contract to be negotiated between the City and the suburban customers in 2009, the suburban wholesale customers pay for water under the cash or "pay as you go" methodology, comparable to the methodology applied to the City's retail water rates.

Administering the Settlement Agreement and Master Water Sale Contract, including the suburban wholesale revenue requirement and rates, would only be simplified under the recommended alternative cash methodology if the suburban customers agreed to pay the Public Utilities Commission the net present value of payments for capital assets currently included in the rate base. If the Public Utilities Commission and the suburban customers, represented by the Bay Area Water Supply and Conservation Agency, were able to

negotiate new capital cost recovery terms in the Settlement Agreement and Master Water Sales Contract prior to FY 2009-2010, which applies the cash methodology to suburban wholesale water rates, calculating wholesale water rates would be simplified. The variations in the suburban balancing account, which impact annual suburban wholesale rate adjustments, long range financial projections, and operating and revenue funded repair and replacement budget decisions, would be reduced.

Conclusion

Actual suburban wholesale revenue requirements, which are calculated based on the costs of the regional water system's capital assets, have varied significantly from estimated suburban wholesale revenue requirements over the past two years, largely due to delayed completion of capital projects, resulting in a 30 percent reduction in wholesale rates and a $28 million reduction in estimated revenues in FY 2005-2006. The Public Utilities Commission Financial Services Section cannot prepare accurate long range financial projections and provide reliable financial information to the Public Utilities Commission without accurate capital planning and project timing information from the Infrastructure Division. The Public Utilities Commission General Manager needs to ensure coordination of the Water System Capital Improvement Program financial and capital planning. The General Manager should develop a formal plan for the ongoing exchange of information between the Infrastructure Division's program management team and the Financial Services Section staff, including regular reporting to the General Manager and the Public Utilities Commission, to ensure that the Commissioners, the General Manager, and senior management staff have adequate information on future revenues and expenditures for Water Enterprise programs.

The Public Utilities Commission is in the process of developing a capital asset management program for the three enterprise departments, but in the absence of a coordinated capital asset management program, the Water Enterprise Department has not had a systematic method for identifying, planning for, and meeting its ongoing capital repair and replacement needs. The General Manager should (a) implement findings and recommendations made by the State Department of Finance, in the November, 2003, audit of the Water Enterprise Department's maintenance policies and procedures for the regional water system, including providing the Commissioners and the Board of Supervisors detailed capital repair and replacement program information, and (b) provide a full report to the Board of Supervisors during the FY 2005-2006 budget review on the status of all Water Enterprise repair and replacement projects, and the Infrastructure Division's management support of the capital repair and replacement program.

Also, the Public Utilities Commission should negotiate with the suburban customers, represented by the Bay Area Water Supply and Conservation Agency, to renegotiate the Settlement Agreement and Master Water Sales Contract at an earlier date to revise the terms of capital cost recovery, which would simplify suburban wholesale rate calculations, and reduce the variations in the suburban wholesale revenue requirements and water rates.

Recommendations

The Public Utilities Commission General Manager should:

1.1 Implement the State Department of Finance audit recommendation to provide the Public Utilities Commission and the Board of Supervisors detailed capital repair and replacement program information.

1.2 Provide a report to the Board of Supervisors during the FY 2005-2006 budget review regarding:

(a) The status of all Water Enterprise repair and replacement projects, and the Infrastructure Division's management support of the capital repair and replacement program.

(b) The implementation of the asset management program.

1.3 Develop a formal plan for the ongoing exchange of information between the Infrastructure Division's program management team and the Financial Services Section staff, including regular reporting to the General Manager and the Public Utilities Commission, to ensure that the Commissioners, the General Manager, and senior management staff have adequate information on future revenues and expenditures for Water Enterprise programs.

The Public Utilities Commission should:

1.4 Negotiate with the suburban customers, represented by the Bay Area Water Supply and Conservation Agency, to renegotiate the Settlement Agreement and Master Water Sales Contract at an earlier date to revise the terms of capital cost recovery.

Costs and Benefits

Implementation of our recommendations would provide more detailed and reliable information on the Water Enterprise's future revenues and expenditures, the capital repair and replacement program, and the asset management program to the Board of Supervisors, City residents, suburban wholesale customers, and other stakeholders in the water system.

2. Calculation of the Suburban Wholesale Water Rates

- **Weaknesses in accounting methodologies and unreasonable delays in the timing of Water Enterprise financial audits of suburban wholesale revenue requirements make the Public Utilities Commission's annual revenue requirements uncertain and contribute to unanticipated variances in available resources. As a result, both the Public Utilities Commission's and the suburban water customers' budgets and finances are significantly impacted. For example, in the most recent settlement agreement between the Public Utilities Commission and its suburban water customers, adjustments totaling $3,735,674 were determined to be owed by the Public Utilities Commission to suburban water customers for FY 1999-2000 and prior years. Potential additional adjustments to be made by the Public Utilities Commission for the period FY 2001-2002 forward are still pending because of delays in the completion of the Public Utilities Commission's annual financial statements.**

- **The reasons for these adjustments are varied, but are generally due to the Public Utilities Commission having an inadequate accounting structure to capture, record, and report Water Enterprise activities – especially its capital activities – in a manner that is necessary for calculating suburban water customer rates. To compensate, the Public Utilities Commission has developed highly labor intensive processes for capturing costs. These processes are prone to error.**

- **Most significantly, the Public Utilities Commission commingles capital expenses with other expenses - such as repair and maintenance – which are typically not capitalized. Because of the different treatment which capitalized and non-capitalized expenses receive for purposes of calculating the Water Enterprise's suburban revenue requirements, these errors can affect the Public Utilities Commission's rate calculations.**

- **For example, in a review of FY 2003-2004 activity, the Reservoir Roofs Seismic Upgrades project (CUW624) expensed $3,479,644 for cleaning and repair work in a project phase that also had capitalized expenses, requiring the project manager to track project details outside of the accounting system for purposes of expensing or capitalizing the project costs. Further, at least $2,694,272 of these expenses were incurred in prior years and, therefore, were not expensed timely. Another $154,174 in funds used for a comprehensive inspection and evaluation of water storage tanks was also expensed.**

- **Additionally, the process by which suburban wholesale water rates and the suburban revenue requirement are calculated and audited delays the finalization of the suburban revenue requirement. Although the Settlement Agreement and Master Water Sales Contract requires that the independent audit of revenue requirements be completed within six months of the year being audited, the FY 2002-2003 and FY 2003-2004 independent audits have still not been completed. Further, the Bay Area Water Supply and Conservation Agency transmits to the Public Utilities Commission extensive letters identifying potential problems in calculating the suburban revenue requirements, which extend the time for finalizing revenue requirements for an indefinite period. Most recently, the Bay Area Water Supply and Conservation Agency has transmitted these letters for problems relating to the FY 2001-2002 suburban wholesale water rates.**

History of Water Rate Computation Issues

The computation of suburban wholesale water rates is a highly complex process. The accuracy of the computation is dependent upon the ability of the accounting processes to capture, record, and report Water Enterprise activities correctly. Pursuant to the 1984 Settlement Agreement and Master Water Sales Contract between the City and County of San Francisco and suburban customers, the suburban wholesale water rate is audited annually by an independent auditor. The audit is to be completed no later than six months after fiscal year end. As part of the computation and audit process, the Bay Area Water Supply and Conservation Agency, which represents the suburban customers, conducts its own review of the suburban water rate computation.

Since the initiation of the current suburban wholesale water rate methodology was established in the Settlement Agreement and Master Water Sales Contract, significant weaknesses in the San Francisco Public Utilities Commission's (the Department) accounting processes have been identified by the suburban customers in their on-going review of the annual wholesale water rate computation. Supporting these findings has been the independent audit of the Department's annual financial statements and the independent auditors' management letters identifying weaknesses in the accounting processes. At present, the issues primarily concern capturing the Water Enterprise's capital activities accurately.

The current suburban wholesale water rate methodology uses the Utility Method whereby the cost of capital is not paid for until the related fixed asset is put into service. According to the Department's policies and procedures and guided by Generally Accepted Accounting Principles (GAAP), a fixed asset is put into service when it meets one of the following criteria:

1) It has been accepted by the Department and a notice of completion has been recorded, whether or not the asset is in use;

2) The asset is in use; or

3) At least 85 percent of construction-related costs have been incurred, the tests necessary to determine that the asset is ready for immediate use have been passed, and it is available to operations for use.

When a fixed asset meets one of the criteria above, it is then "capitalized," to use accounting terminology, and the costs can be factored into the suburban wholesale water rate. Pursuant to Generally Accepted Accounting Principles, prior to a fixed asset being put into service, costs are accumulated and reported in an account referred to as "Construction In Progress." Thus, any capital costs accumulated in this account are not recovered from the suburban customers until the costs are removed from Construction In Progress and capitalized. Occasionally, costs may be accumulated in Construction In Progress that do not ultimately result in a fixed asset. When it is determined that no fixed asset shall result, these costs are "expensed," again to use accounting terminology. Costs would be expensed, for example, if a project were abandoned. Maintenance and repair costs typically do not result in fixed assets and should be routinely expensed in the period the costs are incurred. These costs should not be accumulated in Construction In Progress. Maintenance and repair costs are factored into the suburban wholesale water rate and recovered in the period that the costs are incurred as opposed to some future point in time, like capital costs. Thus, whether to capitalize or expense cost is critical to the determination of when that particular cost will be recovered from the suburban customers.

Recent issues related to the suburban wholesale water rate computation mainly involve capitalizing versus expensing Department costs. The Bay Area Water Supply and Conservation Agency identified the following errors in the FY 1999-2000 computation:

- A computation error which resulted in a $1,115,360 equipment purchase captured as both a capitalized fixed asset and as an expense in the wholesale water rate calculation. This computational error also occurred in prior years.

- Expensing of $2,541,749 in prior year design costs of an abandoned joint Water and Power project that were subsequently determined to include costs that should have been:

  — Capitalized ($552,544),

  — Expensed as a Power only project ($50,000),

  — Expensed as a Water only project ($587,658), and

  — Retained as Construction In Progress until related assets are capitalized and divided between joint and Power only projects ($393,616).

- Disaster cost reimbursements which were erroneously recorded as grant revenues.

These issues from FY 1999-2000 and settled in FY 2003-2004 resulted in $3,735,674 due to the suburban customers.

In addition to double counting and applying inappropriate classifications, other issues identified in the past include capitalizing fixed assets in the incorrect period, insufficient documentation and record keeping, and combining capital and non-capital activities. As these examples demonstrate, there are many different errors but they all stem from the inability of the Department to capture, record, and report Water Enterprise activities correctly, which impacts much more than the suburban wholesale water rate computation.

The Department's independent financial auditor noted in the management letter for FY 2002-2003 that the Accounting Section did not conduct timely analysis of capital assets. The auditor recommended that capital asset analysis occur quarterly and be documented and reviewed by management. Further, the auditor recommended technical training for Accounting staff. This letter also noted that the Accounting Section inappropriately capitalized an asset that was to be paid for by other City departments as a result from a breakdown in communications. In FY 2001-2002, the management letter noted that the Accounting Section did not capitalize assets that were to be put into service during the fiscal year, again due to a breakdown in communications with project management staff.

Efforts to Address Accounting Process Weaknesses

A settlement agreement with the Bay Area Water Supply and Conservation Agency in the spring of 2004 requires that the Department take several measures to mitigate identified weaknesses. These measures are:

a) Implementation of a Project Control System to track and monitor project scheduling and budgeting.

b) Implementation of an Enterprise Asset Management System to facilitate asset management from the planning stages to construction, operation and maintenance, and finally to disposal.

c) To obtain recommendations from the independent auditors of the wholesale water rate computation on improvements these two systems can make to aid in the rate computation and compliance with the Settlement Agreement and Master Water Sales Contract.

d) To exert its best efforts to structure construction bid specifications to facilitate the allocation of costs to the classifications required by the suburban wholesale water rate computation.

At present, the status of these requirements are:

a) The project Control System has been implemented and, in fact, had already been implemented at the time the settlement agreement was negotiated and finalized.

b) The Enterprise Asset Management System implementation has been delayed as the PUC has gone back to the drawing board to conduct a more thorough review of PUC needs. The project now envisioned by the Department is much larger in scope than originally conceptualized when the settlement agreement was formulated. An Asset Management Manager has been appointed and a project committee formed. The Enterprise Asset Management System project will be evaluated in more detail in Phase Four of this management audit.

c) Pursuant to Generally Accepted Government Auditing Standards (GAGAS), the independent auditors notified the Department on November 30, 2004 that they will not provide recommendations on the wholesale water rate computation due to conflict of interest concerns. However, it should be noted that the independent auditors, pursuant to GAGAS, should have already been making on-going recommendations in a management letter related to this audit given the significant and obvious internal control issues identified in the audit process and discussed further below. According to departmental staff, there has been no follow up activities by the Department to determine how to comply with this specific provision of the settlement agreement given. The Department believes that it understands the process weaknesses and will be addressing them internally through the Enterprise Asset Management System and through the development of capitalization procedures for both the Accounting Section and Project Managers. The Department anticipates that these procedures should be complete by the end of March 2004 in order to avoid the difficulties incurred in last year's financial statement preparation. To the extent possible, these procedures will be reviewed as part of Phase Four of this management audit to determine if they address process weaknesses described in this section. However, the Department is still required to comply with the settlement agreement and should, therefore, work with the Bay Area Water Supply and Conservation Agency to develop alternative measures to satisfy both parties.

d) According to the Department, in conjunction with the Enterprise Asset Management System, there are draft procedures in process for the development of bids which will meet the requirements of the settlement agreement. Again, to the extent possible, these procedures will be reviewed as part of Phase Four of this management audit to determine if they address process weaknesses described in this section.

The Bay Area Water Supply and Conservation Agency met with the Department in October of 2004 to determine requirement status at that time and to facilitate compliance. Despite that meeting, it appears that the Bay Area Water Supply and Conservation Agency has not been informed of the developments in these areas. At the writing of this report, the Bay Area Water Supply and Conservation Agency has notified the Department's General Manager of their concerns and has requested that the Department respond.

Impact of Not Addressing Accounting Process Weaknesses

As noted in the discussion of the FY 1999-2000 suburban rate calculation and subsequent settlement agreement, there are significant impacts of not addressing capital accounting process weaknesses on the computation of suburban wholesale water rates. In FY 2002-2003, the Department expensed $14.3 million in Construction In Progress. In FY 2003-2004, the amount expensed increased to $27.0 million of a total $214.2 million in Construction In Progress. Thus, significant non-capital activities are occurring that are being charged to Construction In Progress, a capital account, which are then later expensed. While not all projects within Construction in Progress are related to or paid for by the suburban wholesale customers, the issues discussed related to Construction in Progress are systematic and impact the calculation of the suburban wholesale water rates.

A review of Construction In Progress expensed in FY 2003-2004 found that the systemic problem of not isolating expenses into meaningful categories in the financial accounting system makes classification of expenses extremely labor intensive and prone to error. The Department must manually determine item by item, what to expense and what to capitalize.

Therefore, one of the most significant issues is the commingling within a project of capital expenses with repair and maintenance expenses, which are typically not capitalized. Ultimately, the concern is that operating expenses which have been paid for with capital funds and classified as Construction In Progress throughout the year may be either inappropriately capitalized or not expensed timely or, on the contrary, capital expenses may be inappropriately expensed or may not be capitalized timely. The following projects with expensed charges in FY 2003-2004 demonstrate some of these issues.

CUW141 – Upgrade J Table Meter
Only the direct material cost for a flow meter was capitalized. $1,827 in other expenses charged to the project, such as labor, supplies and overhead, were expensed. If these costs were incurred to bring the asset into service, which is reasonably possible, they should have been capitalized too.

CUW191 – Fire and Security Facilities Upgrade
$47,168 in funds were expensed. According to Accounting records, the project manager reported that these costs were related to "project closeout." The final contract payment actually occurred in October 2002 and the majority of project expenses occurred in FY 2000-2001. It is unclear, however, what these costs were and if they related to the capitalized assets and should be capitalized.

CUW240 – Pipeline Rehabilitation Project
$28,353 in prior year charges were expensed because they related to inspection services and, therefore, not expensed timely. Within this project and project phase, $52,929 related to insurance remained in Construction In Progress, yet there are no other expenses

in the entire project, all phases, remaining in Construction In Progress. Thus, it is unclear what the insurance pertains to.

CUW228 - Watershed Roads
$60,887 was inappropriately expensed. The costs were incurred for extending a retaining wall and should have been capitalized as a fixed asset. The confusion and misclassification stemmed from the project description in the project status report that noted that watershed roads required periodic maintenance.

CUW624 – Reservoir Roofs Seismic Upgrades
This project has a number of issues due to commingling of expenses. $154,174 in funds used for a comprehensive inspection and evaluation of water storage tanks were expensed. $3,479,644 was expensed for cleaning and repair work in a project phase that also had capitalized expenses, demonstrating that the project manager must track detail expenses in another way rather than with the accounting system. Further, at least $2,694,272 of these expenses were incurred in prior years and, therefore, were not expensed timely.

CUW632 – Sutro Reservoir
$4,219,535 in funds used for cleaning and repair work were expensed. However, in the same project phase, $1,574,488 was capitalized, again demonstrating that the project manager must track detail expenses in another way rather than with the accounting system. Further, of the funds expensed for cleaning and repair work, at least $2,465,724 was incurred in prior years and, therefore, was not expensed timely.

CUW671 – Seismic Protection/City Reservoir and Tanks
The project manager initially reported that the balance in Construction In Progress of $126,261 and incurred in prior years was related to a capitalized asset and should also be capitalized. Subsequently, the project manager reported to the Accounting Section that the expenses in project CUW671 were related to two different projects, CUW624 and CUW640, one of which was capitalized in prior years and one of which was abandoned. The $126,261 which includes $3,580 in miscellaneous supplies was expensed as related to the abandoned project. In this example, the commingling of projects makes it difficult to accurately capture and report not only on expenses, but also on projects.

CUW850 – New Feeder Main
In phase one of the project, $29,598 was capitalized as a fixed asset, whereas $75,235 was expensed. Based on the documentation review, it appears that the direct materials cost was the only cost capitalized and other charges, likely required to bring the asset into serviceE, were not capitalized.

The Department has recently hired two new permanent Accounting Managers and an Accounting Director from outside the Department in positions that have been vacant and filled with acting or part-time personnel. The new management team will have the responsibility for addressing problems in the Accounting Section. According to Department management, one of these new managers will be developing capitalization

procedures in the next month or so, based on a survey of best practices at other jurisdictions and given the Department's own unique circumstances. These procedures should include addressing the commingling of activities by revising the accounting structure and its use so that capital appropriations are not used for repair and maintenance expenses. Then, the assumption is that all Construction in Progress would eventually be capitalized unless there are extenuating circumstances, such as abandoned capital projects. The accounting structure, whether through project accounting, index codes or some other configuration, should be developed in such a way as to capture and summarize critical information necessary for the suburban wholesale water rate computation without having to manually review transaction level detail in order to determine expense classification.

As noted above, the Department is evaluating its needs and intends to implement an Enterprise Asset Management System. As part of that project, the Department must further consider its accounting structure. While the accounting structure may be addressed in the new capitalization procedures, the Department needs to evaluate the accounting structure in the larger context of departmental cost centers and management's reporting needs.

The Department should also consider renegotiating the Settlement Agreement and Master Water Sales Contract early and, as discussed in detail in Section 1 of this report, should evaluate moving to the cash method for recovering capital costs. The cash method would eliminate most of the difficulties and manual processes currently required to calculate the suburban wholesale water rate.

Timeliness of Audits and Reviews

The Settlement Agreement and Master Water Sales Contract requires audits of the balancing account and suburban revenue requirements to be completed no later than six months after the fiscal year being audited. Pursuant to Section 6.06 of the Settlement Agreement and Master Water Sales Contract, suburban customers have the right to conduct their own review of the balancing account and suburban revenue requirements and the suburban wholesale water rate computation if they file a letter identifying specific areas for review within three months of receiving the audit report. Section 6.06 of the Settlement Agreement and Master Water Sales Contract states:

> "The scope of the suburban review shall be limited to those portions of the Auditor's compliance report as are designated by the Suburban Representatives in a letter submitted by them or on their behalf…within three months after receipt by the Suburban Representatives of the Auditor's compliance report."

For the past six fiscal years, the Department has not complied with the terms of the contract with respect to audit timing. For FY 1998-1999, the audit was completed almost four months after the required deadline. Tardiness increased to almost 15 months for FY 2001-2002. The audits of both FY 2002-2003 and FY 2003-2004 are now delinquent. Further, the audit report has not always been transmitted to the Bay Area Water Supply

and Conservation Agency soon after completion of the audit. The delay only serves to extend the process. Detail on compliance with audit and review timelines is provided in the table below.

Table 2.1

Compliance with Audit and Review Timelines FY 1998-99 through FY 2003-2004

Fiscal Year Ended	Audit Report Due Date	Audit Report Actual Date	Transmittal Date	Time Elapsed from Due Date	6.06 Letters
June 30, 2004	Dec. 31, 2004	Not yet started	n/a	n/a	n/a
June 30, 2003	Dec. 31, 2003	Not yet complete	n/a	n/a	n/a
June 30, 2002	Dec. 31, 2002	Mar. 22, 2004	May 3, 2004	16 months	Nov. 30, 2004 Jul. 19, 3004
June 30, 2001	Dec. 31, 2001	Sept. 15, 2002	Dec. 6, 2002	11 months	Mar. 5, 2003
June 30, 2000	Dec. 31, 2000	Aug. 15, 2001	Dec. 31, 2001	12 months	May 9, 2002*
June 30, 1999	Dec. 31, 1999	Apr. 21, 2000	May 31, 2000	5 months	None

Source: Independent Auditors' Reports and 6.06 letters. Transmittal dates reported by the Department.
* Draft letter was never signed and formalized. Instead, a Demand for Arbitration was filed by the Bay Area Water Supply and Conservation Agency on June 21, 2002.

Despite the contract requirements, the delays have primarily been caused by the practice of the Bay Area Water Supply and Conservation Agency reviewing the suburban wholesale water rate computation concurrently with the independent audit so as to resolve any issues before the computation is finalized. This lengthy processes is exacerbated by the technical issues discussed above. It is problematic that the review and the audit occur simultaneously and that, as noted previously, the independent auditor has failed to note significant and obvious internal control weaknesses in a management letter.

Once the computation is finalized and the audit complete, the only recourse is through arbitration. Demands for Arbitration must be filed within four years, unless the dispute involves the balancing account, in which case the Demand for Arbitration must be filed within 18 months of receipt of the independent audit report. In June of 2002, the Bay Area Water Supply and Conservation Agency filed a Demand for Arbitration for FY 1999-2000. At the same time, the Bay Area Water Supply and Conservation Agency and the Department agreed to extend the date by which the City was required to serve a Notice of Election and Response to the Demand for Arbitration from 45 days to 6 months

in order to resolve the issues prior to arbitration. While some of the issues were resolved prior to arbitration, the issues noted above were settled through arbitration in March of 2004, almost four years after the end of the fiscal year in dispute, and resulted in $3,735,674 due to the suburban customers. Of this amount, $2,067,402 is related to FY 1997-1998 and FY 1998-1999 activities. Interest charges totaled an additional $164,160. For FY 2001-2002 and forward, the suburban wholesale water rates are still not finalized.

Additionally, there is some dispute as to the 6.06 letters and the scope of any later inquiry. Section 6.06 of the Settlement Agreement and Master Water Sales Contract states:

> "If the Suburban Representatives designate only a portion of the Auditor's compliance report for review by the Suburban Auditor, and the Suburban Auditor's review of that portion causes the Suburban Auditor to believe that other portions of the Auditor's compliance report should be reviewed as well, the Suburban Representatives shall promptly designate such additional portions for further review by the Suburban Auditor by serving notice of such designation …"

According to the Department, the Bay Area Water Supply and Conservation Agency has filed a 6.06 letter in all but one of the last 20 years. Sometimes, the 6.06 letter identifies an open ended scope, such as the draft May 9, 2002 letter for FY 1997-1998, FY 1998-1999, and FY 1999-2000 which identified 'SFWD operating expenses." Thus, the audit process is delayed and even then, when the potential scope of future review is limitless, there is no finality to the computation until 18 months after the suburban customers have received the independent audit report, and then only if there has been no Demand for Arbitration filed.

The lack of timeliness has significant impacts. First, unresolved issues hold both the Department and the suburban customers in a state of flux. Second, any rate changes have a compounding effect. The result is that, from year to year, the suburban revenue requirement is uncertain and has significant variations, which impact both the Department and the suburban customers' budgets and finances. Complying with the timelines set forth in the Settlement Agreement and Master Water Sales Contract and transmitting audit reports immediately upon completion would remove the uncertainty in the rate calculation and the suburban revenue requirement and it would also force the Department and the suburban customers to prioritize and focus on significant issues.

Further, the current process indicates that the Bay Area Water Supply and Conservation Agency has no confidence in the attestation of the independent auditor. In the next contract negotiations, the terms should be set such that either the audit requirements satisfy the Bay Area Water Supply and Conservation Agency or they should be eliminated in lieu of a Bay Area Water Supply and Conservation Agency review. Finally, reasonable audit and review timelines including the transmittal of the audit report, whether conducted by an independent auditor or by the Bay Area Water Supply and Conservation Agency, should be set and they should be adhered to.

Because of the issues noted above with respect to the independent auditor, e.g. the lack of timeliness, the lack of a management letter, and the lack of confidence in their attestation, it is recommended that the Department, in coordination with the Controller's Office, take measures to engage another independent auditor for the FY 2003-2004 audit. The Department should make it clear to the independent auditor that they expect a management letter if the auditor detects deficiencies in internal controls or violations of contract provisions, pursuant to GAGAS.

Conclusion

The computation of suburban wholesale water rates is a highly complex process. The Department's accounting structure does not capture, record, and report Water Enterprise activities, especially its capital activities, in a manner necessary for easily calculating the suburban wholesale water rates. Rather, the determination of capital expenses is a highly labor intensive process and prone to error. The result is an intensive review and audit process that, literally, takes years. This, in turn, leaves significant uncertainty and variation in the suburban revenue requirement and impacts both the Department and the suburban customers' budgets and finances.

Recommendations

The Public Utilities Commission General Manager should:

2.1 Revise the accounting structure and its use to capture at a summary level critical data and information necessary for the computation of the suburban wholesale water rates.

2.2 In coordination with the Bay Area Water Supply and Conservation Agency, determine alternative measures to comply with the 2004 settlement agreement requirement to obtain technical recommendations from an independent source on the suburban wholesale water rate calculation.

2.3 Provide quarterly written status reports to the Bay Area Water Supply and Conservation Agency on the three remaining process improvement areas: the Enterprise Asset Management System, technical improvements as recommended by an independent source, and bid specifications.

2.4 Work with the Controller's Office to engage an alternative independent auditor for the audit of the balancing account and the suburban revenue requirement calculation.

2.5 Work with the independent auditor to comply with the independent audit timelines set forth in the Settlement Agreement and Master Water Sales Contract and transmit completed audits in a timely manner to the Bay Area Water Supply and Conservation Agency.

Costs and Benefits

The Department should incur little additional costs as a result of these recommendations, which should be accommodated within the workload of the two new Accounting Managers, the new Accounting Director, and the Director of Financial Services. The benefits would be significant and would include more accurate and easier accounting of the Department's capital activities and would ensure that any issues are resolved in a timely manner.

3. Coordinating the Timing and the Financing of the Water System Capital Improvement Program

- **By not using capital project funding in an expeditious manner, the Public Utilities Commission incurs significant debt interest expense and loses buying power through inflation. For example, approximately five to seven years after initial appropriation in FY 1997-1998 through FY 1999-2000 by the Board of Supervisors, $5.2 million of the $77.7 million in 1996 revenue bond proceeds remain unencumbered, amounting to 6.7 percent of the total amount of the appropriation. Combined debt interest expense and inflation have resulted in the unexpended funds of $5.2 million declining in value by an estimated 4 percent per year, equal to approximately $208,000 per year or approximately $1.04 million over five years.**

- **These circumstances occur because the Public Utilities Commission does not effectively manage the timing of financing and construction of capital projects. In other examples, capital projects totaling $2.8 million had unencumbered balances equal to 65 percent to 100 percent of the original appropriation two to five years subsequent to when the funds were originally appropriated.**

- **The Public Utilities Commission is planning the largest issuance of revenue bonds in the Commission's history to finance the Water System Capital Improvement Program. The Water Enterprise will issue up to approximately $3.6 billion in revenue bonds to finance the Water System Capital Improvement Program, which is ten times the amount of revenue bonds issued by the Water Enterprise in the twelve year period from 1991 through 2002. Without well-coordinated information on the planning and timing of the Capital Improvement Program projects, the Financial Services Section staff cannot efficiently time cash flow requirements for constructing the Water System Capital Improvement Program projects with the issuance of revenue bonds.**

- **If the Public Utilities Commission does not efficiently manage the planning and timing of issuance of revenue bonds and appropriation and expenditures of the revenue bond proceeds for the $3.6 billion Water System Capital Improvement Program, the additional costs which would be imposed on ratepayers resulting from interest payments on unencumbered and unexpended balances could be significant.**

Long Term and Short Term Debt to Finance the Water System Capital Improvement Program

The Public Utilities Commission is planning the largest issuance of revenue bonds in the Commission's history. The proposed issue of $3.6 billion in revenue bonds, of which $1.7 billion will be the City retail ratepayers' share of debt, far exceeds the Water Enterprise Fund's previous bond issuance. During the twelve-year period from 1991 through 2002, the Water Enterprise issued three series of revenue bonds with total principal amounts of $376.15 million, approximately one-tenth of the proposed revenue bond issuance of $3.6 billion of the Water System Capital Improvement Program.

The Public Utilities Commission can issue both long term and short term debt to fund the Water System Capital Improvement Program. Under Propositions A and E, approved by City voters in November, 2002, the Public Utilities Commission can issue revenue bonds to fund the City's share of costs for the Water System Capital Improvement Program. Either the Public Utilities Commission or the San Francisco Bay Area Regional Water System Financing Authority, pursuant to Senate Bill 1870, can issue revenue bonds to cover the suburban wholesale customers' share of costs for the regional Water System Capital Improvement Program.

The Public Utilities Commission Financial Services Section staff use the Water System Capital Improvement Program's cash flow requirements to form the basis of the Water Enterprise's long range financial projections. The timeframe for planning and constructing the Water System Capital Improvement Program projects will determine the Water Enterprise's cash flow requirements and the timing of debt issuance. The Financial Services Section has proposed issuing short term debt to smooth out the timing of longer term debt issuance. The Water Enterprise's long range financial projections assume that the first series of revenue bonds will be issued in FY 2005-2006, and capital financing needs prior to that time will be met with commercial paper.

Short Term Debt to Finance the Capital Improvement Program

The Board of Supervisors authorized the Public Utilities Commission to issue up to $250 million in commercial paper, which are short-term loans up to 270 days at low interest rates. Commercial paper will provide interim funding to reduce the risks of insufficient capitalized interest[1] to meet debt service payments during construction of capital projects and to better time the issuance of debt to correspond with construction of capital projects.

[1] Revenues from the capital assets funded by revenue bonds pay the principal and interest of the revenue bonds. During construction of the capital project, prior to the Water Enterprise Fund receiving revenues from the completed capital asset, a portion of bond proceeds are set aside as "capitalized interest" to pay interest on the bonds.

The Public Utilities Commission's Financial Policies

In May, 2002, the Public Utilities Commission adopted several financial policies regarding the funding of the Water System Capital Improvement Program and the impact on water rates, including:

- The Water Enterprise's annual net revenues (operating revenues less operating expenses) must equal 125 percent of annual revenue bond debt service payments. This policy will require a larger increase in the water rates than the existing requirement imposed by the Water Enterprise's bond indentures on its outstanding revenue bonds, in which net revenues plus the unappropriated fund balance must equal 125 percent of annual debt service payments.

- Both the City Charter and the Water Enterprise Fund's bond indentures on its outstanding bonds require that the Water Enterprise Fund maintain an operating reserve. The Public Utilities Commission proposes to increase water rates to maintain a 25 percent operating reserve, although the Public Utilities Commission will consider an operating reserve of less than 25 percent if the impact of increasing rates is too high.

- One-time revenues from the sale of surplus properties should be applied to capital projects in lieu of acquiring debt in order to reduce the magnitude of water rate increases that would otherwise be required.

Because the January, 2005, long range financial projections estimate annual retail water rate increases of 15 percent annually, rather than 11 percent annually as estimated in the August, 2004, long range financial projections, as discussed in Section 1 of this report, the Public Utilities Commission may want to consider revising its policy to maintain debt service coverage equal to 125 percent of net revenues plus the unappropriated fund balance in order to reduce the impact of retail water rates.

Efficient Timing of Debt Issuance and Capital Construction

The Water Enterprise pays debt service on the revenue bonds once they are issued. Increases in debt service payments are met through increases in retail water rates. For example, in FY 2002-2003, the retail water rate increased by 8.8 percent, from $1.37 per unit of water to $1.49 per unit of water[2], to fund an increase in annual debt service payments from $27.7 million in FY 2001-2002 to $36.5 million in FY 2002-2003.

The Financial Services Section and the Infrastructure Division will need to carefully coordinate the issue of debt with the commencement of capital projects to ensure that bond proceeds are spent effectively on capital projects.

[2] One unit of water equals 100 cubic feet or 748 gallons.

A review of capital projects funded by 1996 revenue bonds shows several instances of bond monies that were appropriated but not spent fully or in a timely manner. The total appropriation for the 1996 revenue bonds was $77.7 million, most of which was appropriated in FY 1997-1998 through FY 1999-2000. The unencumbered balance as of June 30, 2004 was $5.2 million, or 6.7 percent of the total appropriation. Specific capital projects funded by the 1996 revenue bonds, totaling approximately $2.8 million, had unencumbered balances equal to 65 percent to 100 percent of the original appropriation, two to five years later, as shown in Table 3.1.

Table 3.1

1996 Revenue Bond Capital Projects with More than 50 Percent of Appropriation Unencumbered as of June 30, 2004

	Appropriation						
Project	**FY 1998-1999 and Prior Years**	**FY 1999-2000 and FY 2000-2001**	**FY 2001-2002**	**Total**	**Total Expenses**	**Unencumbered Balance as of June 30, 2004**	**Percent of Appropriation Remaining Unencumbered**
CUW 124 Bay Division Pipeline 1 and 2 Joint Rehabilitation	$51,583	$0	$0	$51,583	$0	$51,583	100%
CUW 178 Skyview/Aqua Vista Pump Station - Modify Piping & Valving	$775,296	$0	$0	$775,296	$268,493	$506,803	65%
CUW 198 Stone Dam Rehabilitation	$345,000	$0	$0	$345,000	$109,084	$235,916	68%
CUW 850 New Feeder Mains	$0	$0	$2,000,000	$2,000,000	$0	$2,000,000	100%

Source: Controller's Office

Because the Water Enterprise is paying interest on the revenue bond debt, when the monies remain unexpended and unencumbered for up to five years after the appropriation, debt interest payments as well as inflation cut into the monies available to fund capital projects. Although the Water Enterprise receives interest earnings on the unexpended revenue bond monies deposited in the City Treasury, which currently equals 1.855 percent annually, interest earned is less than interest payable on revenue bond debt,

resulting in the unexpended funds declining in value by an estimated 3 to 5 percent per year. Therefore, the combined interest expense and inflation on the outstanding balance of $5.2 million, which remains unspent approximately five years after the initial $77.7 million appropriation of 1996 revenue bond proceeds, have resulted in the unexpended funds declining in value by an estimated 4 percent per year, equal to an estimated $208,000 per year or an estimated $1.04 million over five years.

If the Public Utilities Commission does not efficiently manage the issuing of revenue bonds and appropriation and expenditures of the revenue bond proceeds for the $3.6 billion Water System Capital Improvement Program, the costs to the ratepayers from interest payments on unencumbered and unexpended balances could be significant.

Conclusion

The Public Utilities Commission is planning the largest issuance of revenue bonds in the Commission's history to finance the Water System Capital Improvement Program. Without well coordinated information on the planning and timing of the Capital Improvement Program projects, the Financial Services Section staff cannot efficiently time cash flow requirements for constructing the Capital Improvement Program projects with the issuing of revenue bonds.

The Public Utilities Commission does not effectively manage the timing of financing and constructing capital projects. A review of capital projects funded by 1996 revenue bonds shows several instances of bond monies that were appropriated but not spent fully or in a timely manner. The total appropriation for the 1996 revenue bonds is $77.7 million, most of which was appropriated in FY 1997-1998 and FY 1999-2000. The unencumbered balance as of June 30, 2004 was $5.2 million. Specific capital projects funded by the 1996 revenue bonds had unencumbered balances equal to 65 percent to 100 percent of the original appropriation, two to five years later.

The Public Utilities Commission General Manager needs to ensure that the Financial Services Section and Infrastructure Division managers are coordinating financial and capital planning and should report monthly to the Public Utilities Commission and quarterly to the Board of Supervisors on the status of the Water System Capital Improvement Program planning and financing.

Recommendations

The Public Utilities Commission General Manager should:

3.1 Develop a formal coordinating team within the Public Utilities Commission, in which the Infrastructure Division and the Financial Services Section coordinate capital program and financial planning for the Water System Capital Improvement Program, including:

(a) Regular and frequent disclosure of information from the Infrastructure Division on the planning and timing of construction of the Water System Capital Improvement Program projects, and

(b) Regular reports to the General Manager on the status of Water System Capital Improvement Program projects, current revenue requirement forecasts, estimated suburban and wholesale water rate increases to meet these requirements, and debt financing plans.

3.2 Report monthly to the Public Utilities Commission and quarterly to the Board of Supervisors on the status of the Water System Capital Improvement Program, the plan to finance the capital projects, and the current long range financial projections, including:

(a) The summary of the Infrastructure Division and Financial Services Section's coordination of planning and implementing construction projects and the timing of debt issuance, and

(b) The impact of Water System Capital Improvement Program project planning and implementation on projected revenues and the Public Utilities Commissions financial targets.

Costs and Benefits

Implementation of the Budget Analyst's recommendations would ensure better coordination of capital and financial planning. Such coordination would provide more precise information on the timing of revenue bond issues, reducing the risk of the City rate payers incurring unnecessary debt service costs, and would provide more reliable financial projections, contributing to more predictable and uniform City retail and suburban wholesale water rates.

4. Undercharging for Components of Water and Sewer Service

- **The Public Utilities Commission loses an estimated $910,000 annually in retail water and sewer rate revenues, including $620,000 due to aging water meters and $290,000 due to reduced sewer flow factors.**
- **The Public Utilities Commission loses $620,000 annually in water and sewer revenues due to 5/8-inch water meters that are more than 25 years old and measure water flow by an estimated 2 percent less than the actual water flow. Based on a random sample of Customer Services retail water and sewer accounts, 24 percent of 5/8-inch meters for multi-family residences and 45 percent of 5/8-inch meters for single family residences are more than 25 years old.**
- **In FY 2003-2004, the Water Enterprise only replaced 2,270 5/8-inch meters, which is a 49.4 percent decrease from the 4,486 5/8-inch meters that were replaced in FY 2002-2003. Over the past three fiscal years, annual funding for meter replacement has decreased from approximately $700,000 in FY 2002-2003, to $580,000 in FY 2003-2004, and $480,000 in FY 2004-2005.**
- **The Public Utilities Commission should direct the General Manager of the Public Utilities Commission to present a cost analysis of meter replacement costs and revenue loss from aging meters. If the Water Enterprise were to replace 4,200 5/8-inch meters per year instead of the 2,270 meters replaced in FY 2003-2004, the Water Enterprise's revenues would increase incrementally in each year, resulting in estimated cumulative increased revenues over a ten-year period of $1.8 million.**
- **The Public Utilities Commission loses $290,000 annually in commercial and residential revenues from sewer flow factors that have been set too low. Sewer rates are based on 90 to 95 percent of water consumption, or "flow factor," but commercial and residential customers can request reduced flow factors of less than 90 to 95 percent if water is used for irrigation or other purposes, and therefore, not discharged to the sewer.**
- **Customer Services assigns reduced flow factors for residential customers based on two methods of calculation: (a) calculation of maximum irrigation potential and (b) comparison of water consumption during wet and dry months. According to Public Utilities Commission policy, Customer Services staff should assign reduced flow factors based on the calculation method that results in average daily consumption between 40 gallons per occupant per day if ultra low flush toilets are installed and 80 gallons per occupant per day if no ultra low flush toilets are installed.**

- **Based on a random sample, the Budget Analyst found that Customer Services failed to document the number of occupants and use of ultra low flush toilets and uniformly assigned the lowest flow factor derived from the two methods of calculation regardless of other factors, resulting in an estimated revenue loss of $220,000 annually. The Bureau of Environmental Regulation and Management has not re-inspected most commercial accounts that were assigned reduced flow factors more than four years ago, resulting in an estimated loss to the Public Utilities Commission in sewer rate revenues of approximately $70,000 annually.**
- **The City's policies to provide water free of charge to City General Fund departments and City neighborhood associations that plant and maintain vegetation on median strips and public spaces have resulted in poor water conservation. Over the past four years, City General Fund departments have increased water usage by 2 percent on average, although commercial accounts, which pay for water use, have decreased water usage by 4 percent on average. Also, many homeowners' associations have significantly increased their water use over the past five years. For example, the Forest Hill Homeowners' Association has increased annual water use by 115 percent over the past four years.**
- **The Public Utilities Commission's water conservation affidavit program, in which City retail customers pay one-third less per unit of water if they have signed an affidavit stating that they have installed low-flow fixtures, has no demonstrable direct impact on water conservation. Average water use by customers who sign such affidavits is comparable to average water use by City customers who have not signed such affidavits. The Public Utilities Commission should eliminate the water conservation affidavit program and evaluate implementation of water conservation rates when the current water rate freeze expires on June 30, 2005.**

Billing and Collecting for Water and Sewer Use

The Public Utilities Commission's Customer Services Division is responsible for billing and collecting on the City's retail water and sewer accounts. Customer Services Division staff read and record retail accounts' water meter data, monitor water consumption to identify unusual and unexplained high consumption, develop and implement water conservation programs, and prepare monthly or bimonthly combined water and sewer bills.

Billing for Water and Sewer Use

The Customer Services Division bills most City retail accounts for combined water and sewer use every two months. Some commercial and industrial accounts are billed monthly. Customer Services Division Field Services staff read the water meters, enter

meter read data into hand held computers, and download the meter read data into the billing system.

The water bill equals the retail water rate per unit of water, which is currently $1.49 per unit[1], multiplied by the number of units of water consumption. The sewer bill equals the sewer service charge per unit of water consumption, multiplied by a percentage flow factor and the number of units of water consumption. In FY 2004-2005, the residential customers' sewer service charge equals $2.15 per unit for the first three units of water use and $5.37 per unit for each additional unit of water use. Single family residential customers pay sewer rates based on a 90 percent flow factor and multi-family residential customers pay sewer rates based on a 95 percent flow factor, which assumes that 90 to 95 percent of water use is discharged to the sewer system. Most commercial accounts pay a sewer service charge of $5.82 per unit for all units of water use, which includes a 90 percent flow factor.

Flow Factors and Standard Industrial Classification Codes

The Public Utilities Commission Bureau of Environmental Regulation and Management monitors sewer service charges for commercial and industrial customers, who pay for sewer service charges based on both the flow factor and the standard industrial classification code.

Commercial and Industrial Accounts' Standard Industrial Classification Codes

The standard industrial classification code defines the types and concentration of pollutants that are discharged to the sewer system by different categories of commercial and industrial users. For example, the standard industrial classification code for restaurants defines the concentration of oil and grease, total suspended solids, and chemical oxygen demand from the breakdown of biologic matter that restaurants typically discharge to the sewer system. Therefore, the sewer service charge for restaurants, which is adjusted in accordance with the standard industrial classification code, is $6.98 per unit for each unit of water used, compared to the standard commercial sewer service charge of $5.82 per unit.

The Bureau of Environmental Regulation and Management samples and tests some commercial and industrial users who discharge a high volume of waste water, or large concentrations of pollutants to the sewer system, and assigns them specific concentrations of oil and grease, total suspended solids, and chemical oxygen demand, rather than the standard pollutant assignments contained in the standard industrial classification codes. These specific commercial and industrial customers pay sewer service charges based upon the Bureau of Regulation and Environmental Management's assignment.

[1] One unit of water equals 748 gallons.

Residential, Commercial, and Industrial Accounts' Flow Factors

Sewer rates are based on a percentage of water consumption that is discharged to the sewer system, or flow factor. Most residential, commercial, and industrial accounts pay sewer rates based on a 90 percent flow factor. Multi-family residential accounts pay sewer rates based on a 95 percent flow factor. However, residential, commercial, and industrial account customers can request a reduced flow factor if a lower percentage of the water consumed is discharged to the sewer system, due to irrigation and other uses. The Customer Services Division is responsible for inspecting and assigning reduced flow factors to residential accounts and the Bureau of Environmental Regulation and Management is responsible for assigning reduced flow factors to commercial and industrial accounts.

Water and Sewer Account Collections

The Public Utilities Commission sets water and sewer retail account collection policy, and the Customer Services Division collects retail water and sewer account payments.

The Customer Services Division has several tools to collect from delinquent retail and sewer accounts, including (a) assessing and collecting a service fee on past due balances, (b) terminating water service, and (c) placing a lien on commercial, multi-family residential, and owner-occupied single family residential properties. For accounts in which the Customer Services Division is unable to place a lien, such as tenant-occupied single family residential properties[2], the Customer Services Division refers past due accounts to the Office of the Treasurer and Tax Collector Bureau of Delinquent Revenue.

Over the past five years, the Public Utilities Commission's accounts receivables on June 30, the last day of the fiscal year, have ranged from $19.6 million to $20.6 million, or approximately 10 percent of the Public Utilities Commission's total water and sewer sales, which ranged from $192.7 million to $200 million.

The Customer Services Division transfers delinquent accounts to Recorder or Tax Collector liens each month. The annual net lien amount, which is the total amount of delinquent accounts that were transferred to Tax Collector or Recorder liens less the amount of payments against the liens, has decreased each year. Overall, as shown in Table 4.1, the total accounts receivable and net liens have declined each year as a percentage of total sales, indicating an overall increase in collection of delinquent accounts.

[2] State Assembly Bill 1770 prohibits the Public Utilities Commission from placing a lien on tenant-occupied single family residences.

Table 4.1

Accounts Receivables and Liens, as a Percentage of Annual Water and Sewer Sales, and Annual Write Off of Non-collectable Water and Sewer Accounts

FY 1999-2000 through FY 2003-2004

	Total Water and Sewer Sales as of June 30	Total Accounts Receivable as of June 30	Total Delinquent Accounts Transferred to Liens Less Lien Payments (Net Liens) as of June 30	Total Accounts Receivable and Net Liens as of June 30	Total Accounts Receivable and Net Liens as a Percentage of Total Payments	Total Write Off of Accounts at Year End
FY 1999-2000	$195,195,542	$20,571,895	$4,456,620	$25,028,515	12.8%	$44,145
FY 2000-2001	$194,251,834	$19,631,991	$3,894,729	$23,526,720	12.1%	$78,618
FY 2001-2002	$192,737,765	$20,175,459	$4,490,312	$24,665,771	12.8%	$20,658
FY 2002-2003	$196,787,143	$20,518,234	$4,525,682	$25,043,916	12.7%	$5,258
FY 2003-2004	$199,988,334	$20,115,750	$3,363,593	$23,479,343	11.7%	$45,685

Source: Customer Services Division Billing and Collections System

Public Utilities Commission policies allow the Customer Services Division to write off up to $200,000 annually for non-collectable delinquent accounts. As noted in Table 4.1, the Customer Services Division has written off non-collectable delinquent accounts, for total annual write off amounts ranging from $5,258 to $78,618 annually.

Components of the Combined Water and Sewer Bill

The combined water and sewer bill charges consist of:

- The service fee, which assesses a charge to pay for the costs of meter maintenance and reading and customer services support. The service fee for the standard size 5/8-inch meter is $4.00 per month.

- The water charge, which is $1.49 per unit of water multiplied times the number of units of water consumed.

- The sewer service charge, which includes the sewer service charge multiplied times the flow factor and the number of units of water consumed.

The Budget Analyst tested a random sample of the Customer Services Division retail water and sewer accounts. The retail water and sewer account sample analysis pointed out several deficiencies in the Public Utilities Commission's policies and procedures for replacing water meters, and assigning water conservation rates and sewer service flow factors.

Revenue Loss from Outdated Water Meters

The Public Utilities Commission is losing an estimated $620,000 annually in retail water and sewer rate revenues from outdated meters. In 1994, the Water Enterprise's City Distribution Division conducted a study of 5/8-inch water meters in San Francisco and determined that, on average, meters more than 25 years old were not measuring at least 2 percent of the actual water flow. Approximately 70 percent of single and multi-family residential accounts have 5/8-inch meters. Many of these meters are more than 25 years old, resulting in under-recording of actual water flow. Based on the Customer Services Division retail water and sewer account sample, an estimated 24 percent of 5/8-inch meters for multi-family residences and 45 percent of 5/8-inch meters for single family residences were installed prior to 1980.

Meter testing and replacement for 5/8-inch meters

Funds for replacement of retail water meters are included in the Water Enterprise's City Distribution Division's annual repair and replacement budget. Since 1994, the Water Enterprise has replaced approximately 42,000 5/8-inch meters, or approximately 4,200 5/8-inch meters per year. In FY 2003-2004, the Water Enterprise only replaced 2,270 5/8-inch meters, which is a 49.4 percent decrease from the 4,486 5/8-inch meters that were replaced in FY 2002-2003. Over the past three fiscal years, funding for the meter replacement has decreased, from approximately $700,000 in FY 2001-2002 and FY 2002-2003 to $580,000 in FY 2003-2004 and $480,000 in FY 2004-2005.

If the Water Enterprise were to replace 4,200 5/8-inch meters annually, which was the average replacement rate for the ten-year period from FY 1994-1995 through FY 2003-2004, the Water Enterprise will have replaced all the 5/8-inch meters installed prior to 1980 by the year 2015. 15 percent of the remaining 5/8-inch meters will have been installed between 1980 and 1990, and therefore will be more than 25 years old in 2015. However, if the Public Utilities Commission reduces annual 5/8-inch water meter replacement to the FY 2003-2004 rate of 2,270, 32 percent of all 5/8-inch meters will be more than 25 years old in 2015, resulting in continued revenue loss of approximately $500,000 annually, based on current retail water rates.

During the annual budget preparation and review, the Water Enterprise should develop and present each year to the Public Utilities Commission a cost analysis of the meter replacement program, including (a) the number of meters replaced during the fiscal year, (b) the cost of replacing meters and the number of meters to be replaced in the coming fiscal year, (c) the projected number of meters that will be replaced over the ten-year

period, and (d) the projected cost of replacing meters over the ten-year period compared to the expected impact on meter reading accuracy and revenues.

Water Conservation Affidavits

The Public Utilities Commission has established a two-tier retail water rate for all residential, commercial, and industrial customers. To pay the base rate of $1.49 per unit of water, the retail customer must file an affidavit with the Public Utilities Commission certifying that the customer has installed low-flow fixtures where possible. Retail customers who do not file the water conservation affidavit pay a higher water rate of $2.24 per unit of water. In 1991, the Public Utilities Commission entered into a Memorandum of Understanding with the California Urban Water Conservation Council as part of a statewide effort to reduce individual and overall water consumption. Of the suggested methods for reducing water consumption, the Public Utilities Commission adopted the use of affidavits, which requires the Public Utilities to certify through a signed affidavits process that at least 75 percent of all customers have installed low-flow fixtures. Under the terms of the Memorandum of Understanding, the Public Utilities Commission would be in compliance with the water conservation affidavit provision if the percentage of accounts with affidavits on file remains at 75 percent or higher.

Currently, the Public Utilities Commission estimates that more than 90 percent of all customers have filed affidavits. Most of these affidavits were filed within the first two years of the program in 1994 and 1995. Of current residential affidavits, 55 percent were completed within the first year of the program, and 96 percent were completed within two years.

Affidavits' Impact on Water Usage

The water conservation affidavits have no demonstrable direct impact on water conservation. City customers' water consumption has remained relatively stable over the past five years, resulting largely from changes in plumbing codes that require manufacturers to produce water efficient plumbing fixtures. The current Federal plumbing codes, which apply to toilets and showerheads, set higher conservation standards than are set by the water conservation affidavits. State standards for commercial clothes washers are set to begin in 2007 and residential washer standards will also be adopted in 2007, pending final approval.

The average water consumption for a single family residential account does not vary between customers who have filed affidavits and pay $1.49 per unit of water and customers who have not filed affidavits and pay $2.24 per unit of water. According to Customer Services Division billing records, single family residential customers consume 7 units of water per month on average, regardless of whether the customer has filed an affidavit and pays $1.49 per unit of water or has not filed an affidavit and pays $2.24 per unit of water. Further, filing the affidavit and paying the lower conservation water rate of $1.49 per unit of water does not necessarily result in lower water consumption. For example, in the sample of Customer Services Division retail water and sewer accounts, 8

percent of single family residential accounts with affidavits on file consumed 15 units of water or more each month and one percent of single family residential accounts with affidavits on file consumed 25 units of water or more each month. Multi-family and single family residential customers who have not filed a water conservation affidavit pay $1.27 million annually in additional water rate charges for the higher non-conservation water rate although they do not consume more water on average than residential customers who have filed an affidavit.

Because the water conservation affidavit employs standards that are out of date and difficult to monitor, the affidavit is not an effective tool in promoting water conservation and unnecessarily increases charges for customers who have not filed an affidavit, the Public Utilities Commission should eliminate the water conservation affidavit program in FY 2006-2007, when the existing freeze on water rates is lifted. During FY 2005-2006, the Financial Services Section staff should analyze and report to the Rate Fairness Board and the Public Utilities Commission on the effectiveness of water conservation rates, in which the rate per unit of water increases with an increase in the units of water consumed, as an alternative to the water conservation affidavit.

Water Conservation and Municipal Accounts

City General Fund departments do not pay for water usage. Although neither the Public Utilities Commission nor the Board of Supervisors has adopted a formal resolution to provide water free of charge to the City's General Fund departments, the City has had a long standing practice of not including funds to pay for water usage in the City General Fund departments' annual budgets.

Currently, the Public Utilities Commission does not have a water conservation program designed specifically for City General Fund departments, although the City General Fund departments can participate in various conservation incentive programs offered to all customers. Consequently, City General Fund departments' water usage has increased compared to other City retail customers, as shown in Table 4.2.

Table 4.2

Average Monthly Water Consumption [1] per Account for Customer Classes

FY 2000-2001 through FY 2003-2004

	FY 2000-2001	FY 2001-2002	FY 2002-2003	FY 2003-2004	Percent Increase/ (decrease) FY 2000-2001 through FY 2003-2004
City General Fund Departments	114	110	114	116	1.9%
City Enterprise Departments	142	138	127	124	(12.5%)
Commercial Accounts	43	39	39	41	(4.0%)
Industrial Accounts	212	188	129	109	(48.6%)
Multi-family Residential Accounts	31	30	30	30	(3.4%)
Single Family Residential Accounts [2]	7	7	7	7	1.9%
Building and Construction	45	33	26	20	(54.9%)
Docks and Ships Accounts	66	55	64	94	41.5%

Source: Public Utilities Commission Customer Services

[1] Consumption is measured in one unit of water, which equals one hundred cubic feet or 748 gallons.

[2] Single family residence water use per account has increased by approximately 1.9 percent, from 7.04 units per account in FY 2000-2001 to 7.17 units per account in FY 2003-2004.

The Customer Services Water Conservation Unit should develop and present to the Public Utilities Commission and the Board of Supervisors a water conservation program for City General Fund departments that includes budgetary incentives, such as a water charge for consumption over a baseline amount. Because the costs of City General Fund department water use are shifted to other rate payers, reducing City General Fund water use will reduce the costs to the City's retail ratepayers. Every 5 percent reduction in City General Fund departments water results in cost savings to City ratepayers of approximately $100,000. Reductions in City General Fund departments' water use have no negative rate impact to the Public Utilities Commission.

The Department of Public Works Homeowners' Association Accounts

The Department of Public Works maintains median strips and other public properties in the City's residential neighborhoods. Because some neighborhood groups or homeowners' associations have requested special types of plants or vegetation, the Department of Public Works has assigned responsibility for planting and maintaining the public space to the neighborhood or homeowners' associations.

Although Customer Services has set up separate water accounts for these neighborhood and homeowners' associations, the neighborhood and homeowners' association accounts are included in the Department of Public Works retail water accounts. As a result, the neighborhood and homeowners' associations receive water for irrigation at no charge.

As shown in Table 4.3, some of the neighborhood and homeowners' associations have increased their water use significantly over the past five years. For example, the Forest Hills Homeowners Association more than doubled its water use between FY 1999-2000 and FY 2003-2004. In order to promote conservation and planting of drought-tolerant plants, the Public Utilities Commission should adopt a resolution, (a) establishing baseline water use for the neighborhood and homeowners' associations, based on drought-tolerant plantings, and (b) setting up special assessment districts for neighborhood and homeowners' associations to charge for water use that exceeds baseline use.

Table 4.3

Annual Water Consumption by Homeowners' Associations

FY 1999-2000 through FY 2003-2004

	Annual Units of Water Consumption					
	FY 1999-2000	**FY 2000-2001**	**FY 2001-2002**	**FY 2002-2003**	**FY 2003-2004**	**Percent Increase/ (Decrease) FY 1999-2000 through FY 2003-2004**
Forest Hill	39	47	71	76	84	115%
Balboa Terrace	58	81	51	47	102	77%
Dolores Heights	44	49	63	53	77	74%
St. Francis Wood	456	447	482	488	634	39%
Miraloma Park	19	22	22	22	25	28%
Ingleside Terrace	56	57	54	56	58	4%
Sea View/Sea Cliff	62	76	53	43	40	(35%)
Filbert Steps	69	72	53	41	43	(38%)
Potrero Hill	88	77	64	43	32	(64%)

Source: Customer Services

Reduced Flow Factors for Residential, Commercial, and Industrial Customers

The Public Works Code authorizes adjustments to the sewer flow factor or exemptions from sewer service charges altogether if the water consumption is for fire service or hydrants, for irrigation, or if none of the water used enters the sewer system, such as cement plants and construction sites. The Customer Services Division evaluates and adjusts flow factors for residential customers who request an adjustment. If a residential customer disputes the Customer Services Division's flow factor adjustment, the customer may appeal to the Residential Users Appeal Board, a three-member board appointed by the Chief Administrative Officer. The Bureau of Environmental Regulation and Management adjusts flow factors for commercial and industrial customers.

Reduced Flow Factors for Residential Customers

Residential customers may file an appeal to reduce their flow factor if they believe that they discharge less than 90 percent (for single family residential accounts) or 95 percent (for multiple family residential accounts) of their water usage to the sewer system. Of 151,210 multiple family and single family residential accounts, approximately 17,730 accounts have a flow factor less than 90 percent for single family residential accounts and 95 percent for multiple family residential accounts. Approximately 3,650 multiple family and single family residential accounts have a flow factor of 69 percent or less, representing approximately $1 million in reduced annual sewer service revenues.

Customer Services Division staff review residential flow factors upon appeal by the customer. Since June 10, 2003, in accordance with the Public Utilities Commission Resolution No. 03-0112, all appeals for reduced flow factor require both (a) an inspection, including calculation of maximum irrigation potential, and (b) comparison of water consumption during wet months, when gardens and lawns need little irrigation, to water consumption during dry months. Prior to June 10, 2003, the wet and dry months' water consumption comparison was initially used to determine a reduced flow factor. If a customer appealed the reduced flow factor results based on the wet and dry months' water consumption comparison, then an inspection was conducted using the maximum irrigation potential formula, which calculates the property's square footage used for irrigating lawns and gardens.

Accuracy of Low Flow Factor Account Reviews

Based on the sample, single family residence accounts with a flow factor less than 70 percent consumed an average of six units of water per month for household use compared to average household water use of seven units per month for all single family residence accounts, a reduction of approximately 14 percent. The lower average household water use for low flow factor accounts indicates that, on average, the Customer Services Division credits residential accounts for more irrigation water use than is actually used.

In the sample of residential accounts with low flow factors, although the Customer Services Division calculated residential flow factors for 15 accounts with flow factors

less than 70 percent, based on both a calculation of wet and dry months' water consumption and maximum irrigation potential, the Customer Services staff always assigned the lower flow factor of the two calculation methods, whether calculated by the wet and dry months' water consumption or by the maximum irrigation potential method. In seven of these 15 files, the variance between the two calculation methods was 10 percentage points or less. However, in eight of these 15 files, the variance between the two calculation methods ranged from 11 to 59 percentage points.

In one example, the Customer Services Division calculated that, based on the wet/dry formula, the account's flow factor was 67 percent and, based on maximum irrigation potential, the account's flow factor was only 8 percent. In this case, the staff assigned a flow factor of 8 percent. Because of this very low flow factor assignment, the customer consumed approximately 16 units of water per month but paid sewer service charges for only 1.5 units of water consumption.

According to the Public Utilities Commission's Resolution 03-0112, the Customer Services Division should assign the flow factor that results in an average daily consumption between 40 gallons to 80 gallons per day per person or that is closest to 40 gallons per day per person if with ultra low flush toilets or closest to 80 gallons per day per person if without ultra low flush toilets. However, the Customer Services Division failed to do this. Instead, the staff assigns the lower flow factor.

By assigning lower flow factors than are required to account for water use for irrigation, the Public Utilities Commission loses approximately $220,000 in annual sewer service charge revenues for residential accounts with flow factors less than 70 percent. The Customer Services Division Manager should establish more rigorous policies for reducing residential flow factors, including requiring (a) documentation on the presence of low flush toilets and number of occupants, and (b) requiring supervisor review for all accounts in which the flow factor calculations vary by more than 10 percentage points between the calculation of wet and dry months' water consumption and maximum irrigation potential.

Reduced Flow Factors for Commercial Customers

The Bureau of Environmental Regulation and Management is responsible for assigning reduced flow factors to commercial customer accounts. The Bureau of Environmental Regulation and Management, in determining reduced flow factors on commercial accounts, analyzes water usage data to calculate the number of units of water that are not returned to the sewer system. In some cases, a reduced flow factor can be determined by calculating how much water goes into the product, such as ice cubes, of a commercial entity and subtracting that total from the total water used. In other instances, such as garden supply centers, a maximum irrigation potential method, in which the total area and product receiving water that is not returned to the sewer is calculated, and a staff size method, in which the total number of employees is incorporated into a formula, are used to determine two different flow factor values, and then averaged together for a reduced flow factor. Because commercial accounts are assigned an average of the two methods, this procedure for commercial accounts varies from the procedure used to determine a

reduced flow factor for residential accounts, in which accounts are assigned the lower flow factor of the two methods.

For some large industrial users, the Bureau of Environmental Regulation and Management also determines a reduced flow factor by attaching an outflow meter to large water usage accounts. This meter is checked regularly, and the amount registered on the outflow meter is divided by the amount of water being used to determine a percentage of water that should be charged for sewer service. This method provides a precise flow factor level that can be adjusted over time.

Based on a sample review of commercial and industrial customer accounts with reduced flow factors, the Bureau of Environmental Regulation and Management appropriately assigns and documents reduced flow factors, including detailed calculations in the account file. However, the Bureau of Environmental Regulation and Management does not review most commercial accounts once the flow factor has been assigned. Approximately 125 commercial and industrial accounts have a flow factor of less than 70 percent, but the Bureau of Environmental Regulation and Management has not reviewed 67 percent of these accounts during the past four years to determine if the flow factor assignment is accurate. Many of these accounts were last reviewed prior to the transfer of the Clean Water Enterprise from the Department of Public Works to the Public Utilities Commission, and therefore, the Bureau of Environmental Regulation and Management does not have available account files. These accounts represent an estimated $70,000 in reduced revenues annually. The Manager of Wastewater Collection System Bureau, who is now responsible for these functions under the Public Utilities Commission's recent reorganization, should review the flow factor assignment of all commercial and industrial accounts that have not been reviewed for four years or more prior to September 30, 2005, and provide a report on the flow factor review and assignment to the Assistant General Manager, Clean Water.

Conclusion

The Public Utilities Commission should enact policies and procedures to increase water conservation and more efficiently bill for water and sewer use. Specifically, the Public Utilities Commission should terminate the existing water conservation affidavit program and evaluate the costs and benefits of implementing conservation water rates in FY 2006-2007. Further, the Public Utilities Commission needs to establish policies to promote water conservation in the City's General Fund departments.

The Customer Services Division and the Clean Water Enterprise's Pretreatment, Pollution Prevention and Storm Water Program should establish more rigorous policies and procedures to assign and review sewer flow factors to customer accounts requesting reduced flow factors. Also, the Water Enterprise should develop a cost analysis of meter replacement, to ensure timely replacement of meters, more accurate meter reading, and increased revenues from improved meter reading accuracy.

Recommendations

The Public Utilities Commission should:

4.1 Terminate the Water Conservation Affidavit program in FY 2006-2007.

4.2 Direct the Director of Financial Services to present a financial analysis on the costs and benefits of implementing water conservation rates in FY 2006-2007.

4.3 Direct the Customer Services Water Conservation Unit to develop and present to the Public Utilities Commission and the Board of Supervisors a water conservation program for City General Fund departments that includes budgetary incentives, such as a water charge for consumption over a baseline amount.

4.4 Adopt a resolution, (a) establishing baseline water use for the neighborhood and homeowners' associations, based on drought-tolerant plantings, and (b) setting up special assessment districts for neighborhood and homeowners' associations to charge for water use that exceeds baseline use.

The Assistant General Manager, Water, should:

4.5 Develop and present to the Public Utilities Commission, as part of the annual budget review, a cost analysis of the meter replacement program, including:

(a) the number of meters replaced during the fiscal year,

(b) the cost of replacing meters and the number of meters to be replaced in the coming fiscal year,

(c) the projected number of meters that will be replaced over the ten-year period, and

(d) the projected cost of replacing meters over the ten-year period compared to the expected impact on meter reading accuracy and revenues.

The Assistant General Manager, Clean Water, should:

4.6 Direct Manager of Wastewater Collection System Bureau to review the flow factor assignment of all commercial and industrial accounts that have not been reviewed for four years or more prior to September 30, 2005, and provide a report on the flow factor review and assignment to the Assistant General Manager, Clean Water.

The Customer Services Manager should:

4.7 Resume a schedule for review of all residential accounts at least every four years that have been assigned a flow factor less than 70 percent.

4.8 Enforce the division's policy to review all accounts with a reduced flow factor within a four year cycle.

4.9 Establish more rigorous policies for reducing residential flow factors, including requiring:

(a) documentation on the presence of low flush toilets and number of occupants, and

(b) requiring supervisor review for all accounts in which the flow factor calculations vary by more than 10 percentage points between the calculation of wet and dry months' water consumption and maximum irrigation potential.

Costs and Benefits

Implementation of these recommendations would increase retail sewer and water revenues by an estimated $290,000 annually, resulting from adjustments to residential and commercial flow factors.

Additionally, the Public Utilities Commission loses an estimated $620,000 annually in residential and commercial sewer and water rate revenues due to 5/8-inch meters that are more than 25 years old, resulting in an estimated 2 percent under-recording of meter flow. If the Water Enterprise were to replace 4,200 5/8-inch meters per year, which was the average replacement rate between 1994 and 2004, instead of the FY 2003-2004 installation rate of 2,270, the Water Enterprise's revenues will increase revenues incrementally in each year: $33,000 in year two, $63,000 in year three; $93,000 in year four. In year ten, the Public Utilities Commission would increase annual revenues by an estimated $270,000, based on FY 2004-2005 sewer and water rates. Total increased revenues over the ten-year period would exceed an estimated $1.8 million.

5. Accounting for the Costs of Water Quality Bureau Laboratory Services

- **The Water Quality Bureau Laboratories, which provide chemistry and microbiology analyses of the Public Utilities Commission's waste water and drinking water systems, neither track nor allocate the costs of laboratory services provided to the laboratories' clients, and therefore, cannot ensure that the charges for laboratory services are recovering all costs. For example, although revenues from external clients, which include the San Francisco International Airport, various cities, and other public entities, make up 4 percent of the Water Quality Bureau Laboratories revenues, external client workload makes up 8 percent of the workload, resulting in an estimated $281,512 annually in lost revenues to the Public Utilities Commission from external clients.**

- **Because the Water Quality Bureau Laboratories external clients pay for laboratory services based upon negotiated prices rather than cost-based prices, the costs of services differ among different clients. For example, for one type of analysis, known as "present/absence analysis of coliform", the city of Burlingame in San Mateo County pays $25 per analysis and the city of Hayward in Alameda County pays $15 per analysis.**

- **The Water Quality Bureau Laboratories are funded by a direct transfer of Water and Clean Water Enterprise funds in the budget each year. The Water Quality Bureau Laboratories have no internal cost-based price list and do not charge the Enterprises for specific laboratory analyses. More than 25 percent of the laboratory analyses performed by the Water Quality Bureau Laboratories for the Water and Clean Water Enterprises are discretionary to some extent, and are determined by operational considerations rather than regulatory requirements, such as monitoring a special process. Because the Water and Clean Water Enterprises are not charged for specific laboratory analyses, the Enterprises have no cost incentive to request the level of service that most cost-efficiently achieves the analytical goal.**

- **The Public Utilities Commission should require the General Manager of the Public Utilities Commission to direct the Water Quality Bureau Laboratories to negotiate cost-based fees with internal and external clients. Although the Public Utilities Commission can choose to negotiate fees with specific clients as a policy option, negotiated fees should be an exception rather than a standard practice.**

- **The Water Quality Bureau Manager should enhance the client services job description to serve as (a) the project manager for developing cost-based fees and (b) the gatekeeper for internal and external clients to ensure that the appropriate level of laboratory services are provided to achieve clients' analytical goals.**

Tracking Costs of Water Quality Bureau Laboratories

The Water Quality Bureau Laboratories do not track the costs of services provided to the laboratories' clients, and therefore do not know if the charges for services recover the laboratories' costs. The Water Quality Bureau Laboratories provide chemistry and microbiology analysis of the Public Utilities Commission's waste water and drinking water systems for the Water and Clean Water Enterprises. The Public Utilities Commission, including the Water and Clean Water Enterprises, must comply with State and Federal regulations governing the quality of drinking water and the contents of waste water discharged into the San Francisco Bay. The Water Quality Bureau Laboratories analyze drinking water and waste water samples to comply with State and Federal regulatory and reporting requirements as well as samples submitted by Water and Clean Water Enterprise staff on a discretionary basis.

The Water Quality Bureau Laboratories also provide services to 17 external clients, including the Airport and several cities or agencies in San Mateo, Santa Clara, and Alameda Counties. The external clients pay negotiated fees for Water Quality Bureau Laboratories services that are based loosely on market prices. The fees vary among the external clients, depending on the length of time that the Water Quality Bureau Laboratories have provided services for the client, the volume of services provided, and whether the client is a Water Enterprise Department wholesale water customer. For example, for one type of analysis, known as "present/absence analysis of coliform", the city of Burlingame in San Mateo County pays $25 per analysis and the City of Hayward in Alameda County pays $15 per analysis.

The Water Quality Bureau Laboratories Annual Budget

Water and Clean Water Enterprise revenues pay for the Water Quality Bureau Laboratories expenditures. The Water Quality Bureau Laboratories annual expenditures are approximately $7.2 million, of which $2.9 million are funded by the Clean Water Enterprise and $4.3 million are funded by the Water Enterprise. Monies are transferred from the Clean Water and Water Enterprises directly to the Water Quality Bureau Laboratories each year as part of the budget process.

Approximately 4 percent of the Water Quality Bureau Laboratories expenditures are funded by external client revenues each year, which offset funding from the Clean Water and Water Enterprises. The Water Quality Bureau Laboratories received $323,550 in external client revenues in FY 2002-2003 and $294,669 in FY 2003-2004.

The Water Quality Bureau Laboratories do not track if revenues received from external clients cover the costs of providing services. In FY 2003-2004, although external client revenues of $294,669 made up only 4 percent of total revenues of $7,222,694, external client workload made up 8 percent of total Water Quality Bureau Laboratories workload. If external client revenues had made of 8 percent of total revenues of $7,222,694 in FY 2003-2004, the external clients would have paid $576,181 for laboratory services, an increase of $281,512 compared to $294,669 in actual external client revenues.

Identifying the Cost Efficiency of Laboratory Services

The Water Quality Bureau Laboratories could meet multiple objectives by establishing a cost accounting system to allocate the cost of services to the specific services provided, including:

- Controlling costs by segregating the components of costs, such as staff, reagent and other materials, equipment, and administrative overhead expenditures, to identify areas of expenditure growth and the reasons for the growth;
- Planning for future services and expenditures and establishing performance measures to assess the quality and cost of the services provided; and
- Setting prices for external and internal clients.

Monitoring Costs and Performance

The Water Quality Bureau Laboratories expenditures have increased by 28 percent from FY 2000-2001 through FY 2004-2005. Laboratory expenditures increased by 18 percent in FY 2003-2004 compared to FY 2002-2003, due largely to the implementation of the Water Contamination Emergency Response program and addition of two new positions, one senior level molecular biologist position and one senior level organic chemist position.

Table 5.1

Water Quality Bureau Laboratories Expenditures

FY 2000-2001 through FY 2004-2005

	FY 2000-2001	FY 2001-2002	FY 2002-2003	FY 2003-2004	FY 2004-2005 (estimated)	Percent Increase FY 2000-2001 to FY 2004-2005
Clean Water Laboratory	$2,674,114	$2,735,243	$2,855,331	$2,945,493	$2,945,493	10%
Water Laboratory	2,948,850	3,133,644	3,233,216	4,256,771	4,277,201	45%
	$5,622,964	$5,868,887	$6,088,547	$7,202,264	$7,222,694	28%

Source: Water Quality Bureau Laboratories

The Water Quality Bureau Laboratories lack sufficient cost data to determine if laboratory services are delivered cost-efficiently, including efficient utilization of staff resources. For example, in January, 2003, an outside consultant, Malcolm Pirnie Consulting, which is the parent company of Red Oak Consulting, issued a report regarding the laboratories' quality assurance program. As part of the analysis, the consultants reviewed laboratory staffing and found that the Millbrae laboratory facility had the capacity to take on additional workload while the Southeast Water Pollution Control Treatment Plant laboratory had deficiencies in managing high workload. In a follow-up to the initial report in June, 2004, Red Oak Consulting found that, although the Water Quality Bureau Laboratories had taken on additional workload, including conducting additional disinfection by-product monitoring of the water supply and performing additional services for external clients, interviews with Water Quality Bureau Laboratories staff indicated that staff at particular laboratory facilities were periodically and sometimes routinely underutilized.

June, 2004 Performance Assessment

The Water Quality Bureau Laboratories June, 2004, performance assessment, conducted by Red Oak Consulting, identified several areas of the laboratories functions requiring improvement, including:

- Developing professional training to broaden the scope of laboratories' employees' functions to provide redundancy and peak workload management, resulting in better utilization of staff resources;

- Establishing performance measures to more closely track and quantify laboratory performance and costs; and

- Developing a laboratory's facility maintenance plan, including maintenance and replacement schedules for laboratory equipment.

Specifically, the Red Oak Consulting performance assessment recommended that Water Quality Bureau Laboratories management develop:

- A staff training program to train the laboratories' employees in a wider range of laboratory analyses and functions to increase their level of service and performance;

- Performance measures to track laboratory performance, including measures of time, cost, quality, efficiency, and productivity; and

- A laboratory asset management plan, including maintenance, replacement, and financial considerations.

FY 2004-2005 Performance Evaluation

The Water Quality Bureau Laboratories FY 2004-2005 budget and work plan includes implementation of the Red Oak performance assessment recommendations. Currently,

Red Oak Consulting is working with the Water Quality Bureau Laboratories management to develop a laboratory staffing plan. The FY 2004-2005 work plan also includes implementing (a) laboratory performance measures, cost tracking, and business planning, and (b) a laboratory asset management plan. According to the Director of Laboratories, the laboratories have not begun implementation of these recommendations.

Laboratory Prices for Internal and External Client Services

Currently, the Water Quality Bureau Laboratories has a price list for external clients, based upon negotiated prices with each client, but no price list for internal clients. Water Quality Bureau Laboratories services are funded each year by a direct transfer of funds from the Water and Clean Water Enterprises in the annual budget. The level of Water and Clean Water Enterprise funding of the Water Quality Bureau Laboratories is not directly linked to the specific level of services provided by the Water Quality Bureau Laboratories.

More than 25 percent of the laboratory analyses performed by the Water Quality Bureau Laboratories for the Water and Clean Water Enterprises are discretionary to some degree. These analyses are not defined by regulatory requirements but by operational considerations, such as monitoring a special process or testing when unusual conditions occur. Specific types of analyses may contain several components, requiring different amounts of laboratory staff time, equipment, and materials, resulting in different costs. Because the Water and Clean Water Enterprises are not charged for specific laboratory analyses, the Enterprises have no cost incentive to request the level of analysis that most cost-efficiently achieves the analytical goal.

Components of Cost Allocation

The Water Quality Bureau Laboratories have not assessed if the laboratories provide cost efficient services, whether compared to private laboratories, other public agencies' laboratories, or to internal costs that are tracked over time. Analyzing the costs of laboratories' services, allocating the costs to types of analyses and procedures, and setting prices for internal and external clients would allow the Water Quality Bureau Laboratories to better assess the cost efficiency of its processes and to better manage its costs.

The Public Utilities Commission Financial Services Section staff, in conjunction with Water Quality Bureau Laboratories management, should develop a cost allocation system that analyzes and assigns the costs of laboratory functions in order to develop a cost-recovery price system for laboratory services. The Financial Services Section staff and Water Quality Bureau Laboratories managers will need to determine the type of cost allocation system to be implemented, whether based on specific types of "jobs" or laboratory analyses, on laboratory processes, or a combination of both.

Because the Water Quality Bureau Laboratories have standard processes for many of their analyses, the Water Quality Bureau Laboratories managers should be able to assign standard labor hours and wage costs, materials costs, and equipment costs to routine

analyses. In evaluating and assigning direct costs, Water Quality Bureau Laboratories managers and Financial Services Section staff need to consider non-productive labor and fringe benefit costs, total material costs, such as shipping or other costs. Water Quality Bureau Laboratories managers and Financial Services Section staff will have to determine which Water Quality Bureau Laboratories costs are indirect costs that can not be assigned directly to specific processes, and how to assign hidden costs, such as the space and utility costs for the Southeast Water Pollution Treatment Plant, for which the laboratory incurs no direct charges. Financial Services Section staff will also have to determine how to allocate administrative overhead to specific processes.

The Laboratory Information Management System

Labor, materials, and overhead costs can be entered into the Water Quality Bureau's Laboratory Information Management System for each type of laboratory analyses. Although the Laboratory Information Management System is designed for tracking and monitoring laboratory procedures, fields to incorporate cost data for laboratory analyses can be created and cost reports generated. The system already has the capacity to generate invoices for external clients, detailing the unit price for specific types of analyses and the number of units.

Client Services Functions

The Water Quality Bureau Laboratories are currently recruiting for the vacant client services position. This position is responsible for developing and marketing laboratory services for external clients, maintaining the laboratory analytical capability table, and updating the laboratory business plan. The Water Quality Bureau Manager should enhance the client services job description to serve as (a) the project manager for developing and maintaining the laboratory cost allocation and pricing program and (b) the gatekeeper for internal and external clients to ensure that the appropriate level of laboratory services are provided to achieve clients' analytical goals.

Conclusion

The Water Quality Bureau Laboratories have not assessed if the laboratories can provide cost-efficient services, whether compared to private laboratories, other public agencies' laboratories, or to internal costs that are tracked over time. The Water Quality Bureau Laboratories should analyze and allocate its costs for providing laboratory services and develop cost-based prices for internal and external clients. Under a cost-based price system, the Public Utilities Commission can choose to negotiate fees with specific clients as a policy option, but negotiated fees should be an exception rather than a standard practice.

Recommendations

The Public Utilities Commission General Manager should:

5.1 Assign Financial Services Section staff to work with the Water Quality Bureau Laboratories managers to develop a system of allocating laboratory costs and establishing a price list.

5.2 Direct the Water Quality Bureau Manager to establish cost-based fees for internal and external clients.

5.3 Report to the Public Utilities Commission and the Board of Supervisors on the cost allocation system, including a proposed price list for internal and external clients, prior to September 30, 2005.

The Water Quality Bureau Manager should:

5.4 Expand the client services job description to include (a) project management to develop and maintain the laboratory cost allocation and pricing program and (b) gatekeeper functions for internal and external clients to ensure that the appropriate level of laboratory services are provided to achieve clients' analytical goals.

Costs and Benefits

The Water Quality Bureau Laboratories should develop a cost-based system for charging internal and external clients for laboratory services to ensure that resources are utilized efficiently and that costs are distributed fairly among clients. For example, if the Water Quality Bureau Laboratories implemented cost-based fees for external clients, who made up 8 percent of the workload and approximately 4 percent of revenues in FY 2003-2004, external client revenues would increase by an estimated $281,512 annually.

6. The Laboratories' Management Structure

- **Structural integration of the laboratories has improved organizational effectiveness and allowed the Department to reduce the number of laboratory positions. Now that these benefits have been achieved, the Director of Laboratories position is no longer required and could be eliminated at an annual savings of up to $147,103 annually in salaries and mandatory fringe benefits.**

- **This change in the management structure could be accomplished by (a) transferring executive management for the Southeast and Oceanside Water Pollution Control Plant Laboratories to the new Assistant General Manager, Clean Water position, and (b) balancing workload and sharing laboratory specialization by establishing formal contracts or work order agreements between the laboratories.**

- **The deletion of the Director of Laboratory position would eliminate an unnecessary level of management between the Water Quality Bureau Manager and the two Laboratory Services Managers in the Millbrae Laboratory.**

The Integrated Water Quality Bureau Laboratories

The Director of Laboratories, who reports to the Water Quality Bureau Manager, is responsible for 55.40 FTE staff located in three main laboratories located at Millbrae, the Southeast Water Pollution Control Plant, and the Oceanside Water Pollution Control Plant. There is also a small laboratory located on Treasure Island which performs clean water laboratory services and which is currently staffed by a 0.50 FTE laboratory position. The Director of Laboratories advises that the Treasure Island Laboratory could be closed in FY 2004-2005 if he is able to negotiate an adequate level of alternative support to the Water Pollution Control Division given the operational problems experienced in the past with the trickling filter wastewater treatment plant on Treasure Island. Departmental staff members advise that the Treasure Island Laboratory workload could be easily handled by the Southeast and Oceanside Water Pollution Control Plant Laboratories.

Southeast and Oceanside Water Pollution Control Plant Laboratories

In Section 9 of the Budget Analyst's *Phase I Management Audit of the Public Utilities Commission – Clean Water Enterprise Fund* (September 27, 2004), the Budget Analyst analyzed the advantages and disadvantages of transferring the executive management responsibility for the Southeast and Oceanside Water Pollution Control Plant Laboratories, which primarily conduct wastewater analysis,[1] from the Water Quality

[1] These laboratories also perform some drinking water laboratory analysis.

Bureau to the Clean Water Enterprise. The Southeast and Oceanside Water Pollution Control Plant Laboratories comprise 30.07 FTE positions and a FY 2004-2005 operating budget of $2,762,152.

In the Phase I report, the Budget Analyst summarized the advantages and disadvantages of transferring the Southeast and Oceanside Water Pollution Control Plant Laboratories from the Water Quality Bureau to the Clean Water Enterprise as follows:

Restructuring Advantages	Restructuring Disadvantages
Placing the management of the Southeast and Oceanside Water Pollution Control Plant Laboratories under the Clean Water Enterprise would facilitate the chemists' involvement in wastewater treatment and the laboratory analysis which supports wastewater treatment.	Laboratory testing should not be under the control of operations which is producing the effluent being monitored. Third party testing and reporting prevents fraud. As part of the Water Quality Bureau, the laboratories have a barrier to conflicts of interest which might otherwise arise. However, independence could be assured by maintaining the laboratories as a separate bureau within the Clean Water Enterprise. There is no industry standard or regulatory requirement for separation.
More than 50 percent of the work performed by the Southeast and Oceanside Water Pollution Control Plant Laboratories comes from the Bureau of Environmental Regulation and Management. That bureau's largest program, the Pretreatment, Pollution Prevention and Storm Water Program, should be transferred to a new Clean Water Enterprise.	The *Performance Assessment Phase I: Revised Draft Interim Report* (June 11, 2004) prepared by Red Oak Consulting supported the continued integration of the drinking water and wastewater laboratories.
Efficiency improvements are hindered by the laboratories' dispersed locations.	It may be more cost-effective to consider the Department's future laboratory infrastructure needs in terms of one site, rather than the current dispersed locations.

Restructuring Advantages continued	Restructuring Disadvantages continued
The structural reintegration of the Southeast and Oceanside Water Pollution Control Plant Laboratories into the Clean Water Enterprise would reflect the continued workload, administrative, cultural, and physical co-location links the Southeast and Oceanside Water Pollution Control Plant Laboratories have maintained with the clean water system. Staff would feel greater cohesiveness with their major client which would lead to greater job satisfaction. Some staff believe that reintegration with the clean water system would make better use of their long-term knowledge about the clean water system, and would facilitate a more responsive information exchange between clean water operations and the Southeast and Oceanside Water Pollution Control Plant Laboratories.	The Water Quality Bureau has reorganized the laboratories by discipline (for example, inorganic, organic, and bacteriology) rather than by client (drinking water and wastewater). This allows staff to analyze both drinking water and wastewater samples which may result in improved staffing coverage, better utilization of staff, increased cross-training, productivity gains, enhanced customer service, and greater ability to respond to special requests and emergencies. The new structure should also prevent duplication of similar kinds of testing between laboratories. Disaggregation of the laboratories risks losing such benefits. The Budget Analyst notes that the consolidation of trace metals and microbiological testing could remain intact, with the respective laboratories contracting with each other for those services. However, this would rely on potentially extensive use of work orders.
Restructuring may reduce the need for senior Water Quality Bureau positions.	While there has been some union resistance and issues related to pay differentials, there have also been personnel transfers and collaborations between the drinking water and wastewater laboratories.
	One Quality Assurance Officer oversees all the laboratories, in place of the former two independent officers, which has resulted in standardized policies and procedures. There is now one Laboratory Information Management System (LIMS) instead of the former two separate systems. One Client Services Manager position, when filled, will provide "one-stop shopping" services for water and wastewater clients. The Budget Analyst notes that such coordinated services could continue to be provided even if the laboratories are disaggregated, by means of contractual agreements or work orders between the laboratories.

Based on this analysis, the Budget Analyst did not make a recommendation about transferring the Southeast and Oceanside Water Pollution Control Plant Laboratories to the new Assistant General Manager, Clean Water position pending the review of the Water Quality Bureau in Phase III of this management audit.

In the interim, the Public Utilities Commission General Manager has announced her intention to create an Assistant General Manager, Clean Water position[2] to be responsible for the Clean Water Enterprise.

Phase III Findings

During the course of Phase III, the Budget Analyst has investigated whether the benefits put forward to support laboratory integration have, in fact, resulted from the integration which took place in 1996. To ascertain this, the Budget Analyst asked the following questions:

- *The Department argues that combined water and wastewater laboratories are becoming the industry standard for both public and private sectors. Is there a specific industry standard for municipalities?* Municipalities vary. Some municipalities operate combined water and wastewater laboratories, including Ames, IA; Boston, MA; Detroit, MI; East Bay Municipal Utility District, CA; New York City, NY; Phoenix, AZ; Pittsburgh, PA; Salt Lake City, UT; Seattle, WA; and Washington, D.C. Other large municipalities operate separate water and wastewater laboratories, including Houston, TX; Miami, FL; and Tampa, FL.

- *An argument in favor of laboratory integration is that it facilitates cross-training. How many staff have cross-trained since the laboratories' merger in 1996?* The Department has not collected data on cross-training but indicated that five technicians and chemists have been cross-trained since 1999. This is less than 10 percent of the current laboratory staffing of 55.40 FTEs. The *Performance Assessment Phase I (Draft Interim Report)* prepared by Red Oak Consulting noted that "personnel performing tasks requiring less-specialized expertise (e.g., general chemistry) have not been trained to perform analyses and other laboratory functions (such as sample logging) that will broaden their area of service to the organization. Functions within the Water Quality Bureau's capability to train have not been systematically identified." The laboratories now have a single quality assurance officer position and a single safety officer position to standardize those functions. However, the Budget Analyst notes that having single positions responsible for maintaining quality assurance and safety across all the Department's laboratories is not dependent on laboratory integration.

- *Another argument in favor of laboratory integration is that it facilitates personnel transfers between laboratories. How many permanent staff transfers have there been between the laboratories?* Six in eight years. This equates to approximately 10.8 percent of the current laboratory staffing of 55.40 FTEs.

- *Laboratory integration could rationalize staffing numbers. How has integration impacted staffing numbers since FY 1995-96?* The Department was unable to provide

[2] While the position title presented by the Public Utilities Commission General Manager is "Assistant General Manager, Wastewater," this report refers to the position as the "Assistant General Manager, Clean Water" to be consistent with the Phase I and II management audit reports.

laboratory staffing figures before FY 1997-98. However, in that year the laboratories employed 27.00 FTEs for the water laboratories and 36.00 FTEs for the wastewater laboratories, for a total of 63.00 FTEs. By FY 2004-2005, the water laboratories had remained constant at 27.00 FTEs, but the wastewater laboratories had reduced to 25.00 FTEs, for a combined total of 52.00 FTEs.[3] Therefore, there has been a reduction of 11.00 FTEs in eight years despite the assumption of new laboratory testing responsibilities. Further, the Water Pollution Control Division no longer provides secretarial or clerical support for the laboratories; instead, one secretary based at the Millbrae Laboratory supports all the laboratories. However, the Budget Analyst notes that since FY 2000-2001, when the water laboratories had 24.00 FTEs and the wastewater laboratories had 23.5 FTEs, for a total of 47.50 FTEs, there has been a steady increase in personnel numbers to the present level of 52.00 FTEs. Further, three Classification 2489 Laboratory Services Manager positions directly manage the laboratories, with one position responsible for the Southeast and Oceanside Water Pollution Control Plant Laboratories, one position responsible for laboratory support services and water process chemistry (located at the Millbrae Laboratory), and one responsible for microbiology (also located at the Millbrae Laboratory). Each of these positions is paid up to $129,263 annually, inclusive of mandatory fringe benefits.[4] These three positions report to the Director of Laboratories position which is paid up to $147,103 annually, inclusive of mandatory fringe benefits. The Budget Analyst questions the need for four management positions costing up to $534,892 for 52.40 FTE staff positions.

- *Has laboratory integration facilitated the laboratories' ability to deal with workload increases?* The first year of complete workload data that the Department holds on the Laboratory Information Management System is for FY 1999-2000. In the five years between FY 1999-2000 and FY 2003-2004, the laboratories have handled between 121,365 laboratory tests (in FY 1999-2000) and a high of 141,483 laboratory tests (in FY 2001-2002). Since the available data does not compare pre- and post-integration workload, the Budget Analyst is unable to determine if integration has facilitated the laboratories' ability to deal with workload increases. However, the Budget Analyst notes that there does not appear to be a correlation between personnel numbers and workload, as shown in Table 6.1 below:

[3] The difference between 52.00 FTEs and the 55.40 FTEs quoted at the beginning of this section is accounted for by 3.40 FTE client services coordinator and administrative support positions.

[4] To maintain consistency with the Phase I and II reports, mandatory fringe benefits are calculated on an average of 24.5 percent for non-uniformed positions. However, the Department is budgeting for FY 2005-2006 mandatory fringe benefits on an average of 30.0 percent to reflect the upcoming budget year's increases related to Charter mandated retirement provisions and increased health and dental benefit costs.

Table 6.1

Laboratory Workload and Staffing

FY	Budget	Personnel FTEs	Number of Laboratory Tests Performed	Number of Laboratory Tests Performed Per 1.00 FTE
1997-98	$10,148,223	63.00	Incomplete data	-
1998-99	$8,771,191	49.60	Incomplete data	-
1999-2000	$8,510,502	47.70	121,365	2,544
2000-2001	$8,631,918	47.50	137,591	2,897
2001-2002	$9,222,840	47.80	141,483	2,960
2002-2003	$9,735,215	49.90	133,590	2,677
2003-2004	$11,145,576	52.10	136,861	2,627
2004-2005	$11,116,006	52.00	Incomplete data	-

Staff performed the least average number of laboratory tests (2,544 in FY 1999-2000) and the greatest average number of laboratory tests (2,960 in FY 2001-2002), a difference of 416 laboratory tests, or approximately 16.4 percent per 1.00 FTE, while the number of personnel FTEs changed by only 0.10 FTE. However, as shown in Table 6.1 above, the average number of tests per position has been dropping each year since FY 2001-2002 despite a personnel increase of 4.20 FTEs. This data is inconclusive given that the number of laboratory tests performed could be affected by the complexity of the tests being performed.

- *Another argument in favor of laboratory integration is that it allows the Director of Laboratories to prioritize functions quickly, as the need arises, because all of the laboratories are under his management. How many times has the Director of Laboratories reprioritized the laboratories' work programs in the event of an emergency?* The Director of Laboratories advises that he has reprioritized laboratory work programs in six or seven incidents related to possible reservoir contamination as a result of facility security breaches. The Director of Laboratories also cited, but was unable to quantify, reprioritization of laboratory work due to consumer complaints, turbidity events, algae growth episodes, reservoir and tank clean out jobs, wastewater system overflows, storm-induced floods, discharges of treated effluents, and seepage in customer premises of unknown causes. The Director of Laboratories argues that the laboratories' response to such emergencies "would occur much more slowly if we had to contract back and forth among laboratories for services via work order or some other system." The Budget Analyst doubts that pre-negotiated contracts, with defined funding and criteria for emergency laboratory service needs, would impede the laboratories' ability to respond to emergencies swiftly. The Budget Analyst considers that work order contracts between the laboratories can be designed with sufficient flexibility to ensure prompt service reprioritization in emergencies. For example, annual lump sum work orders could be negotiated for work flows based on historic

data, including provision for an estimated amount of emergency work. Such lump sum work orders could be supplemented by task-specific work orders when extraordinary needs arise.

Laboratory integration is in conformance with the organizational structure chosen by many, but not all, municipalities. There has been little cross-training or transfers of staff between laboratories. The Budget Analyst is unable to determine if integration has facilitated the laboratories' ability to deal with workload increases. However, the Budget Analyst notes that there does not appear to be a correlation between personnel numbers and number of laboratory tests performed. While the total number of personnel FTEs has decreased, despite the assumption of new laboratory testing responsibilities, staffing has been steadily increasing since FY 2000-2001 and there are three Classification 2489 Laboratory Services Manager positions directly managing the laboratories, each of which is paid up to $129,263 annually, inclusive of mandatory fringe benefits. These three positions report to the Director of Laboratories position which is paid up to $147,103 annually, inclusive of mandatory fringe benefits. The Budget Analyst questions the need for four management positions costing up to $534,892 for 52.40 FTE staff positions.

Further, as noted in the *Phase I Management Audit of the Public Utilities Commission – Clean Water Enterprise Fund* report, the Southeast and Oceanside Water Pollution Control Plant Laboratories' independence could be assured by maintaining the laboratories as a separate bureau if they are located in the Clean Water Enterprise, and integrated technical services (for example, trace metals and microbiological testing) and centralized support services (for example, quality assurance, safety, and information technology support) could continue to be provided even if the laboratories are disaggregated, by means of contractual agreements or work orders between the laboratories.

Recommended Actions

The above information indicates that there have been some benefits related to laboratory integration, most notably rationalization of technical and support services. Further, there has been an overall reduction in staffing, although that particular efficiency gain is being incrementally eroded. Continued integration is not necessary to maintain these gains and does not outweigh the benefits of transferring executive management responsibility for the Southeast and Oceanside Water Pollution Control Plant Laboratories to the new Assistant General Manager, Clean Water position. The benefits of such a transfer include: (a) a unified business identity for clean water staff that is characterized by shared goals, shared long-term planning capacity, functional coordination, and efficiency; (b) improved decision-making among staff working on clean water issues, and clear accountability lines; and (c) implementation of the Commission's stated policy preference for the Public Utilities Commission to be structured organizationally into business enterprises.

The transfer of the Southeast and Oceanside Water Pollution Control Plant Laboratories, under their own Laboratory Services Manager, to the Clean Water Enterprise would reduce the Director of Laboratories position's span of management control to two direct

reports. That represents insufficient justification for a management layer between the Water Quality Bureau Manager and the two Laboratory Services Managers in the Millbrae Laboratory given that the two Millbrae Laboratory Services Managers are already responsible for daily management of their laboratories and the interface with the Southeast and Oceanside Water Pollution Control Plant Laboratories. The three Laboratory Services Managers can collectively work together to maintain the benefits achieved from integration through contracts or work orders between the laboratories. Further, they can collectively ensure the quality assurance and Laboratory Information Management System functions (currently managed out of the Millbrae Laboratory) and client services function (currently managed out of the Southeast Water Pollution Control Plant Laboratory) continue to support all of the Department's laboratories.

Having the two Laboratory Services Managers located at the Millbrae Laboratory report directly to the Water Quality Bureau Manager would create seven direct reports to that position, rather than the current six. Counterbalancing the increased number of direct reports, the Water Quality Bureau Manager's overall managerial responsibility would decrease because of the transfer of the Southeast and Oceanside Water Pollution Control Plant Laboratories to the Clean Water Enterprise. Therefore, the Water Quality Bureau Manager's position should have sufficient capacity freed up to assume responsibility for one additional direct report.

The Southeast and Oceanside Water Pollution Control Plant Laboratories represent approximately 22.9 percent of the Water Quality Bureau's total technical staffing of 131.26 FTE positions. Therefore, if those laboratories were transferred to a new Clean Water Enterprise, they would warrant the transfer to the Public Utilities Commission of a proportionate share of the Water Quality Bureau's eight administrative and clerical support staff funded by the PUC Operating Fund, or 2.00 FTE positions, for a total of 32.07 FTE positions.

Conclusion

Structural integration of the laboratories has achieved some benefits, namely rationalization of technical and support services, and a decrease in the number of laboratory positions. Now that these benefits have been achieved, the justification for the Director of Laboratories position is unclear given that the three Laboratory Services Managers can collectively work together to maintain the benefits achieved by integration through contracts or work orders between the laboratories, under the oversight of the Water Quality Bureau Manager and the new Assistant General Manager, Clean Water position.

Recommendations

The Public Utilities Commission General Manager should:

6.1 Transfer executive management responsibility for the Southeast and Oceanside Water Pollution Control Plant Laboratories to the new Assistant General Manager, Clean Water position.

6.2 Eliminate the 1.00 FTE Classification 5133 Program Manager II, Director of Laboratories, position.

6.3 Transfer 2.00 FTE administrative support positions from the Water Quality Bureau to the Southeast and Oceanside Water Pollution Control Plant Laboratories.

6.4 Direct the Water Quality Bureau Manager and the new Assistant General Manager, Clean Water to develop contracts or work orders between their laboratories to ensure the continued rationalization of technical and support services and prompt service reprioritization in emergencies.

6.5 Resolve in FY 2004-2005 whether or not there is sufficient business justification to continue operating a laboratory at Treasure Island.

Costs and Benefits

Elimination of the 1.00 FTE Classification 5133 Program Manager II, Director of Laboratories, position would save between $97,196 and $118,155, plus mandatory fringe benefits, for a total savings of up to $147,103 annually. There would be no diminution of management coverage because the laboratories are directly managed by 3.00 FTE Classification 2489 Laboratory Services Managers, each of whom is paid up to $129,263 annually, inclusive of mandatory fringe benefits. One of these Laboratory Services Managers would report to the new Assistant General Manager, Clean Water position. The remaining two Laboratory Services Managers located at the Millbrae Laboratory could report directly to the Water Quality Bureau Manager who, under the current organizational structure, would have seven direct reports rather than the current six. Counterbalancing the increased number of direct reports, the Water Quality Bureau Manager's overall managerial responsibility would decrease because of the transfer of the Southeast and Oceanside Water Pollution Control Plant Laboratories to the Clean Water Enterprise.

Transferring executive management responsibility for the Southeast and Oceanside Water Pollution Control Plant Laboratories to the new Assistant General Manager, Clean Water position would contribute to the benefits of consolidating clean water functions under that position outlined in our *Phase I Management Audit of the Public Utilities Commission – Clean Water Enterprise Fund* report. These benefits include: (a) a unified business identity for clean water staff that is characterized by shared goals, shared long-term

planning capacity, functional coordination, and efficiency; (b) improved decision-making among staff working on clean water issues, and clear accountability lines; and (c) implementation of the Commission's stated policy preference for the Public Utilities Commission to be structured organizationally into business enterprises.

The transfer of the Southeast and Oceanside Water Pollution Control Plant Laboratories to the Clean Water Enterprise would reduce the Director of Laboratories position's span of management control to two direct reports. That represents insufficient justification for a management layer between the Water Quality Bureau Manager and the two Laboratory Services Managers in the Millbrae Laboratory. Hence the above recommendation to eliminate the Director of Laboratories position.

7. Managing Regulatory Compliance

- **The Public Utilities Commission faces significant potential risks for Federal and State regulatory compliance violations, including violations resulting from operating or construction activities, and incurs liability for regulatory violations as well as for damage or destruction of property, natural resources, or public health. For example, the Sea Cliff sink hole incident, which occurred in 1995 prior to the transfer of the Clean Water Enterprise from the Department of Public Works to the Public Utilities Commission and had numerous causes, including inadequate construction management, resulted in regulatory violations. The City paid $300,000 in regulatory fines and $12 million in property loss claims. Despite these risks, the Clean Water and Water Enterprises do not report regularly to the General Manager or the Public Utilities Commission on regulatory compliance, regulatory risks, and how such risks are addressed.**

- **The Public Utilities Commission General Manager should consolidate regulatory planning and management functions, which are dispersed throughout the Public Utilities Commission, under the new Assistant General Manager, Clean Water, and new Assistant General Manager, Water and Power, as recommended by the Budget Analyst, to ensure management oversight. Without consolidated regulatory planning and management, the Public Utilities Commission risks implementing operating and capital programs that do not comply with regulatory requirements, project delays, and unnecessary costs. For example, the Public Utilities Commission planned inadequately for regulatory requirements in the Pulgas Dechlorination Plant project design, which was designed prior to 2000 and constructed in FY 2002-2003. The Pulgas Dechlorination Plant does not comply with current discharge regulations regarding chlorinated water, and will require additional negotiations with State regulatory agencies and estimated costs of up to $10 million to retrofit the plant in order to meet current regulations.**

- **The Public Utilities Commission needs to ensure that regulatory planning and management are part of the Clean Water and Water Enterprises' business plans, the Public Utilities Commission's strategic plan, and the Water System Capital Improvement Program's project planning and design process.**

The Regulatory Environment

The U.S. Environmental Protection Agency, the Federal agency responsible for protecting human health and the environment, regulates the Public Utility Commission's clean water and drinking water programs. The Federal Clean Water Act establishes the

standards for discharges to state or federal receiving waters and the Federal Safe Drinking Water Act sets requirements for treatment, monitoring, and reporting of the drinking water program.

The U.S. Environmental Protection Agency has given jurisdiction to some of the states to regulate their discharges into waters of their state and to ensure the safe quality of their state's drinking water. The State of California has delegated oversight of clean water regulatory compliance to the State Water Resources Control Board and the Regional Water Quality Control Board. Clean water regulations pertain not only to the disposal of materials from the treatment facilities but also the operation and maintenance of the sewers and the pump systems, the pre-treatment and pollution prevention program, and the storm water program.

The State of California has adopted the standards in the Federal Safe Drinking Water Act and strengthened them in the California Safe Drinking Water Act. The responsibility for enforcing these drinking water regulations for the U.S. Environmental Protection Agency lies primarily with the California Department of Health Services.

The Clean Water Act was originally enacted in 1948. The amended 1972 Clean Water Act gave the law its current shape and established the National Pollutant Discharge Elimination System which authorizes discharge permits. The goal of the Act is to eliminate the discharge of pollutants into rivers, lakes, streams and other waterways, and to attain, wherever possible, waters deemed "fishable and swimmable." In 1987, the Act was amended again as the Water Quality Act to increase controls on toxic pollutants and again in 1990 to more effectively address the hazard of oil spills.

Regulations for drinking water were first established in 1974 when Congress enacted the Safe Drinking Water Act. This Act gave the country the first comprehensive national program to safeguard public drinking water. In 1986 and 1996, Congress amended the 1974 Safe Drinking Water Act in response to various concerns raised by the public, the U.S. Environmental Protection Agency, state governments, and the water supply industry. As a result, the pace of regulating the drinking water contaminants was increased and the U.S. Environmental Protection Agency gave a schedule for regulating contaminants that threaten public health and deadlines for specifying criteria for the filtration of surface water supplies and the disinfection of drinking water from surface and ground water sources.

The Department's Management of Regulatory Compliance

Responsibility for managing drinking water and clean water regulatory compliance is dispersed within the Department. The Water Quality Bureau, the Water Supply and Treatment Division, the Water Pollution Control Division, the Planning Bureau, and the Bureau of Environmental Regulation and Management all have some responsibility for managing and reporting compliance with Federal and State drinking water and clean water regulatory requirements.

Managing Compliance with Clean Water Regulations

The Water Pollution Control Division and the Bureau of Environmental Regulation and Management have primary responsibility for managing regulatory compliance with the Federal Clean Water Act. The Water Quality Bureau is also responsible for managing (a) the discharges of drinking water to the environment to comply with the discharge permits issued by the Regional Water Quality Control Board for the Harry Tracy Water Treatment Plant, Sunol Valley Water Treatment Plant, Pulgas Dechloramination Facility, and (b) disinfection activities throughout the Regional Water System.

Table 7.1

The Department's Clean Water Regulatory Management Programs

PROGRAM	COMPLIANCE REPORTING	ORGANIZATION RESPONSIBILITY
Collection System (Pumps and Sewers) Treatment Plants	Monthly self-monitoring report; annual Report	Water Pollution Control Division
Pre- treatment and Pollution Prevention	Annual Report	Bureau of Environmental Regulation and Management
Storm Water Program	Annual Report	Bureau of Environmental Regulation and Management

Sources: Bureau of Environmental Regulation and Management, Water Pollution Control Division, and Planning Bureau

The Federal Clean Water Act requires that all 19 pumping stations and 900 miles of a combined sewage collection system function according to the specific regulations established in the Act. Additionally, the Public Utilities Commission must also operate 35 pump stations and a collection system at the Treasure Island, which is owned by the U.S. Navy, according to the regulations in the Federal Clean Water Act. The three wastewater treatment plants which provide 24-hour per day operations of the City's citizens, commercial and industrial waste treatment, and the Treasure Island Trickling Filter Wastewater Treatment Plant operated under the Cooperative Agreement with the Navy, must also comply with these regulations.

The City is required to have a Pretreatment and Pollution Prevention Program to protect the sewerage system, operation and maintenance personnel, and the treatment plants from disruption, interference and pass through, and to provide beneficial and economic disposal of treatment plant sludge. Under this program, the Bureau of Environmental Regulation and Management issues several hundred permits to industries in the Bay Area, monitors these industries' performance against basic standards for the discharge of

wastewater into the sewerage system, and reports their performance annually in a Pretreatment Program Annual Report to the Regional Water Quality Board.

Storm Water Regulations

In March 2003, the Regional Water Quality Control Board required the San Francisco Public Utilities Commission to participate in the Storm Water Program implemented by the Federal Environmental Protection Agency. Because San Francisco has a combined sewer and storm water system which provides primary treatment for storm water before discharge to the bay or the ocean, San Francisco was part of the second phase of permits issued under the Storm Water Program. This Storm Water Program only applies to those areas of the City that are served by separate storm and sewer collection systems. In these areas, the storm water that goes into street storm drains flows directly to open bodies of water, such as the Bay, the Pacific Ocean, or local lakes. Since most of San Francisco is served by a combined storm sewer system, where storm water, along with residential and commercial sewage, is directed to treatment plants prior to being released to the San Francisco Bay, the Pacific Ocean, or local lakes, the only areas in San Francisco to which the Storm Water Program applies are currently Lake Merced, Lobos Creek, Stow Lake, Middle Lake, Elk Glen Lake in Golden Gate Park, and Pine Lake. In the future, Treasure Island and the Mission Bay and Hunters Point Shipyard will also be included in the City's Storm Water Program when the City assumes jurisdiction over these areas.

Managing Compliance with Drinking Water Regulations

The Water Quality Bureau manages compliance with the Federal and State Safe Drinking Water Acts.

Table 7.2

The Department's Drinking Water Regulatory Management Programs

PROGRAM	COMPLIANCE REPORTING	ORGANIZATION RESPONSIBILITY
• Water Quality Report for Regional System Permit, including: (a) two water treatment plants, (b) one disinfection facility, and (c) seven small water systems. • Water Quality Report for City Water System Permit	Monthly to the State Department of Health Services	Water Quality Bureau
• Filtration Avoidance	Monthly to the State Department of Health Services	Water Quality Bureau
• Various monitoring reports	Annual, biannual, and quarterly reports to the State Department of Health Services	Water Quality Bureau

Source: Engineering Division of the Water Quality Bureau

The Drinking Water Program includes the operation of two 24-hour per day water treatment plants, one disinfection facility, and one pH adjustment facility in the regional water system. The two treatment plants, the Harry Tracy and the Sunol Valley Water Treatment Plants, can provide direct filtration and conventional filtration, respectively up to 340 million gallons of water per day. The Tesla Disinfection facility is the primary disinfection point at which sodium hypochlorite is added to the Hetch Hetchy water supply. The Rock River pH Adjustment Facility is another treatment point in which lime is added to the Hetch Hetchy water supply for corrosion control.

The Public Utilities Commission has obtained approval from the State Department of Health Services for filtration avoidance which exempts the Hetch Hetchy water supply from filtration.

Departmental Compliance with Clean Water and Drinking Water Regulations

Since 2000, the Public Utilities Commission has received one citation but no fine for drinking water regulatory violations and no citations or fines for clean water regulatory violations.

Drinking Water Regulatory Citations

Drinking water regulatory compliance has improved since 1998. Prior to 1998 the Public Utilities Commission received an administrative order to correct several out of compliance issues but did not receive fines. Over the past five years, the Public Utilities Commission has received one citation for failure to comply with drinking water regulations but did not receive a fine. The citation was not for violating drinking water standards.

In August of 2003, the Tesla Portal Plant failed to monitor turbidity at required reporting intervals and to report a power failure incident to the Department of Health Services. The power failure incident resulted from an outage caused by lightning and miscommunication between the operating departments of the Hetch Hetchy Enterprise and the Water Supply and Treatment Division. According to the Water Supply and Treatment Division Manager, in response to the incident the Water Supply and Treatment Division purchased two additional backup power generators for the treatment plant's chemical feed and monitoring systems and developed a new standard operating procedure to improve communication and notification during abnormal monitoring events.

The Public Utilities Commission received a citation and fine for drinking water regulatory violations at the former Hunter's Point Naval Shipyard facility, but the State Department of Health Services reversed the citation and fine because the Public Utilities Commission is not the owner or permit holder for the facility. Nevertheless, the Public Utilities Commission implemented some changes to the Hunter Point facility and provided training to Fire Department staff to help correct the Hunter's Point facility's problems.

Clean Water Regulatory Citations

The Public Utilities Commission has not received regulatory citations or fines for clean water operating facilities in the past five years. Between 1994 and 2000, the Clean Water Enterprise, which transferred from the Department of Public Works to the Public Utilities Commission in 1997, paid a total of $312,000 in fines for four separate clean water regulatory violations.

By far the most serious violation was the sinkhole (200 feet across and 40 feet deep) in December, 1995, resulting in a $300,000 fine to the Clean Water Enterprise, which was under the jurisdiction of the Department of Public Works, for non-compliance with eleven discharge prohibitions related to the discharge of raw sewage into Lobos Creek and adjacent areas. The sinkhole occurred when storm flow from heavy rains was constricted by the storm water overflow structure and pressurized the brick sewer, thereby forcing water through cracks in the sewer wall. Disturbance of the soil surrounding the brick sewer, caused by earlier excavation, relaxed the soil confinement, allowing cracks to widen and water to escape, resulting in complete rupture of the brick sewer. The Sea Cliff sink hole incident resulted from numerous causes, including problems in construction management, which resulted in regulatory violations. Although

the Clean Water Enterprise paid a $300,000 fine, the City's ultimate costs exceeded $12 million to compensate property owners for destruction of their homes.

Identifying and Reporting Regulatory Risks

The Federal Clean Water and Safe Drinking Water Acts, which underpin the California water and clean water regulations, are intended to provide drinking water that is safe and of high quality and to protect natural water systems and public health from contamination. Regulatory risks include not only fines and citations for violations, but also liability for damage or destruction of property, natural resources, or public health. As shown in the 1995 sinkhole incident, the City's costs for property or other damage resulting from failure to manage regulatory risks can exceed the regulatory fines by a large amount.

Currently, the General Manager and the Public Utilities Commission do not receive regular reports on the Water and Clean Water Enterprises' management of regulatory risk. The Bureau of Environmental Regulation and Management, the Water Pollution Control Division, and the Planning Bureau managers only report to the Department's executive level managers when a large or critical regulatory compliance issue requires executive level discussion. The Water Quality Bureau distributes reports developed for the State Department of Health Services internally and only large or critical regulatory compliance issues receive executive level discussion.

The Assistant General Manager, Clean Water (as recommended in the Budget Analyst's Phase I management audit report) and the Assistant General Manager, Water and Power (as recommended in Section 10 of this report) should provide quarterly reports to the General Manager and annual reports to the Public Utilities Commission and the Board of Supervisors on compliance with clean water and drinking water regulations, potential regulatory risks, and how such risks are addressed.

Planning for Regulatory Changes in Operating and Capital Programs

Regulations governing the clean water and drinking water programs have evolved over the years. In the future, clean water and drinking water regulatory requirements are expected to increase in number and complexity. The Public Utilities Commission needs to plan for changing clean water and drinking water regulatory requirements and the impact on operating and capital programs.

The U.S. Environmental Protection Agency is developing new regulatory requirements that impact the Public Utilities Commission's operating and capital programs. For example, the U.S. Environmental Protection Agency is completing development of new regulations limiting sediment contaminants in lakes, rivers, and other bodies of water. These proposed new regulations will directly impact Islais Creek, Mission Creek and Yosemite Creek which currently have sediment contaminants that may exceed limits to be established by the proposed new regulations. Some of the sediment contaminants are

legacy pollutants and no longer manufactured, but have characteristics that persist in the environment. It is possible that the City's sewer system was a transport conveyance of these pollutants to the receiving waters when they were historically used. Also, population growth and changes in accepted biosolids handling practices will impact the Department's handling of biosolids waste, requiring new methods of disposal or treatment.

The Public Utilities Commission needs to participate in shaping future clean water and water regulations as well as plan future operating and capital programs to meet evolving regulatory requirements. Although Water Enterprise has allocated staff to perform regulatory planning and management functions, the Clean Water Enterprise has only recently assigned this responsibility. The Assistant General Manager, Operations has delegated drinking water regulatory planning and management responsibility to Water Quality Bureau engineering staff. However, the Planning Bureau's clean water regulatory planning and management position was only filled in September, 2004, after a five year vacancy.

Responsibility for managing regulatory compliance and planning for regulatory changes is dispersed throughout the Public Utilities Commission. The Bureau of Environmental Regulation and Management and the Water Pollution Control Division manage permitting, reporting, and other clean water compliance requirements established by the Clean Water Act and the California State Water Resources Control Board. The Planning Bureau manages clean water regulatory planning and management. The Water Quality Bureau manages drinking water reporting and other compliance requirements and provides some planning functions for future drinking water regulatory compliance established by the Federal and State Safe Drinking Water Acts. The Assistant General Manager, Clean Water should consolidate regulatory compliance and planning functions within the Clean Water Enterprise under his or her direction, and the Assistant General Manager, Water and Power should consolidate drinking water regulatory compliance and planning functions under his or her direction.

The Clean Water and Water Enterprises' business plans need to address the current and evolving Federal and State regulatory requirements to ensure that current regulatory requirements are met and that future regulatory requirements can be met with existing or planned resources. Further, the Public Utilities Commission needs to include regulatory planning in the strategic planning process, to ensure that the Public Utilities Commission is participating in Federal and State rule-making processes and planning for the changing regulatory environment.

<u>Planning for Regulatory Requirements in Capital Project Designs</u>

The Public Utilities Commission needs to ensure that regulatory permitting and planning are included in the design phase of capital projects. By not planning for regulatory requirements in constructing capital projects, the Public Utilities Commission risks future costs for capital projects that do not comply with regulatory requirements. For example, the Water Enterprise planned inadequately for regulatory requirements in constructing the Pulgas Dechlorination Plant, which was designed prior to 2000 and constructed in 2002

and 2003. The San Francisco Bay Basin Plan regulations prohibit all chlorination discharges into receiving waters. These regulatory requirements were not fully addressed in the Pulgas Dechlorination Plant project design, and although the Pulgas Dechlorination Plant design was intended to remove chlorine and ammonia discharges, the completed facility was not fully able to remove all chlorine from all flows, resulting in occasional chlorinated discharges into Crystal Springs Reservoir. Including professional staff with knowledge and responsibility for regulatory compliance on the design team would better ensure that regulatory requirements are incorporated into the design of the facility. The Water Enterprise will need to negotiate with the San Francisco Bay Regional Water Quality Control Board and incur additional estimated capital costs of up to approximately $10 million in order for the Pulgas Dechlorination Plant to meet the current permitting requirements.

The projects in the Water System and Clean Water Capital Improvement Programs will undergo extensive environmental review prior to approval and construction of the projects, which will address standards for current regulatory requirements. The three Assistant General Mangers of Clean Water, Water and Power Operations, and Infrastructure need to develop a formal process to collaborate and exchange information to ensure that regulatory planning is coordinated with and incorporated into capital project design and management. The Public Utilities Commission General Manager should direct the responsible Assistant General Managers to provide status reports on the coordination of regulatory planning and capital project design and management as part of the Water System Capital Improvement Plan monthly updates.

Conclusion

The Public Utilities Commission operates its clean water and drinking water utilities under regulatory requirements imposed by the Federal and State governments. The Federal Clean Water and Safe Drinking Water Acts, which underpin the California water and clean water regulations, are intended to provide drinking water that is safe and of high quality and to protect natural water systems and public health from contamination. Regulatory risks include not only fines and citations for violations, but also contingent liability for damage or destruction of property, natural resources, or public health.

In the past five years, the Public Utilities Commission has generally complied with Federal and State regulatory requirements. The Clean Water Enterprise received no citations or fines, and the Water Enterprise received one citation but no fines.

The Public Utilities Commission needs to consolidate regulatory planning and management responsibilities, which are currently dispersed throughout the organization, within the Clean Water and Water Enterprises. Since the regulatory environment is evolving, the Public Utilities Commission General Manager needs to ensure that the Clean Water and Water Enterprises are planning for changes in regulatory requirements and participating in the Federal and State rule-making processes to ensure that the Public Utilities Commission is incorporating regulatory changes in operating and capital programs.

Recommendations

The Public Utilities Commission General Manager should:

7.1 Direct the Assistant General Manager, Clean Water and the Assistant General Manager, Water and Power to provide quarterly reports to the General Manager and annual reports to the Public Utilities Commission and the Board of Supervisors, which include:

(a) Overall compliance with clean water and drinking water regulations, delineating only areas of non –compliance.

(b) Potential regulatory risks and how such risks are addressed.

(c) Planning for future regulatory requirements and participating in the Federal and State rule making processes.

7.2 Consolidate regulatory compliance and planning functions within the Clean Water Enterprise and the Water Enterprise, under their respective Assistant General Managers' directions, including:

(a) The Planning Bureau's clean water regulatory planning and management position should be transferred to the Clean Water Enterprise, as recommended in the Phase I management audit report.

(b) The Bureau of Environmental Regulation and Management clean water regulatory positions should be transferred to the Clean Water Enterprise, as recommended in the Phase I management audit report.

(c) The Bureau of Environmental Regulation and Management drinking water positions should be transferred to the Water Enterprise, as recommended in Section 9 of this report.

7.3 Direct the Assistant General Manager, Clean Water and the Assistant General Manager, Power and Water to address the current and evolving Federal and State regulatory requirements in their business plans to ensure that current regulatory requirements are met and that future regulatory requirements can be met with existing or planned resources.

7.4 Include regulatory planning in the strategic planning process, to ensure that the Public Utilities Commission is participating in Federal and State rule-making processes and planning for the changing regulatory environment.

7.5 Direct the Assistant General Manager, Clean Water, and the Assistant General Manager, Water and Power, to provide status reports on the coordination of regulatory planning and capital project design and management as part of the Water System and Clean Water Capital Improvement Programs' monthly updates.

Costs and Benefits

The costs of the above recommendations would be minimal since as of September 2004, both the Clean Water Program and the Drinking Water Program had an individual assigned to oversee these regulatory compliance processes. The benefits would include (a) improved planning of costs and resources with respect to the new projects in the Water System Capital Improvement Project and the Clean Water Master Plan, (b) elimination of the need for costly fixes when problems occur, and (c) better communication of key information to the Public Utilities Commission General Manager and the Public Utilities Commission leading to more informed decision-making.

8. The Public Utilities Commission's Risks for Managing Treasure Island Utilities

- **The Public Utilities Commission faces significant financial and regulatory risks for operating the Treasure Island and Yerba Buena Island utilities since 1997, including electricity, natural gas, water, and sewer, but has not planned adequately for the Public Utilities Commission's financial and regulatory risks once the Navy conveys full ownership of Treasure Island and Yerba Buena Island to the Treasure Island Development Authority, anticipated to occur in 2005 or 2006. Consequently, the Public Utilities Commission could incur significant costs with inadequate revenues to cover the expenditures.**

- **For example, the Public Utilities Commission could incur up to $5.7 million in capital improvement and preventive maintenance costs for existing utilities during the approximately four year interim period, after the U.S. Navy conveys ownership of Treasure Island and Yerba Buena Island to the Treasure Island Development Authority, and before construction of new utility infrastructure is completed, but has not yet identified a funding source for these costs.**

- **The Public Utilities Commission will incur new operating and maintenance costs for the existing Treasure Island and Yerba Buena Island utilities during the four year interim period to meet State and Federal regulatory requirements but has not developed cost projections for Treasure Island and Yerba Buena Island operating and maintenance costs during the interim period.**

- **A March 2004 report, *Utility Vulnerability and Risk Assessment for Treasure Island and Yerba Buena Island – Final Report*, recommended that during the interim period (a) the Public Utilities Commission should not take ownership of the existing utilities; (b) the Treasure Island Development Authority should contract out operating of the existing utilities; and (c) if the Public Utilities Commission does operate the existing utilities, the Public Utilities Commission should negotiate a private industry standard agreement with the Treasure Island Development Authority to mitigate its risks and liabilities. However, neither the Public Utilities Commission nor the Treasure Island Development Authority have planned to contract out operation of the existing utilities during the interim period, and as of the writing of this report, the Public Utilities Commission will most likely operate the utilities during the interim period.**

- **As of June 30, 2004 the Public Utilities Commission had $1.6 million in outstanding unpaid bills for operating the utilities, of which $1.3 million was owed by the Treasure Island Development Authority and $300,000 was owed by other tenants. The outstanding unpaid balance will increase in FY 2004-2005 because the Treasure Island Development Authority does not include monies in its budget to pay utility costs. The Mayor should include funds in the FY 2005-2006 Treasure Island Development Authority recommended budget to pay utility costs and develop a schedule for payment of the past due balance.**
- **Currently, the Public Utilities Commission has no written agreement with the Treasure Island Development Authority to operate the Treasure Island and Yerba Buena Island utilities. The Public Utilities Commission should enter into a written agreement with the Treasure Island Development Authority.**
- **The Public Utilities Commission should enter into a written agreement with the Treasure Island Development Authority for the operation of the Treasure Island and Yerba Buena Island utilities. Further, the Public Utilities Commission and the Treasure Island Development Authority should present a joint financial analysis to the Board of Supervisors in December, 2006, evaluating how the proposed development of the Treasure Island and Yerba Buena Island utilities system will best meet the financial interests of the City and the City's utility ratepayers.**

The U.S. Navy is expected to convey the ownership of Treasure Island and Yerba Buena Island to the Treasure Island Development Authority in 2005 or 2006. The Treasure Island Development Authority, a redevelopment agency, and the Treasure Island Community Development Limited Liability Company ("Treasure Island Community Development"), the prospective master developer selected through a competitive selection process initiated in 2000, will redevelop Treasure Island and Yerba Buena Island. The City, through the Mayor's Office of Base Reuse and Development and the Treasure Island Development Authority, and Treasure Island Community Development are currently negotiating a redevelopment agreement pertaining to this effort and expect to have a signed contract by early 2007.

Following the expected conveyance in 2005 or 2006, Treasure Island and Yerba Buena Island property, except for the Federal users' property, and utility system ownership will be transferred to the City. Whether the Treasure Island Development Authority or the Public Utilities Commission will own, operate, and maintain the utilities has not yet been determined, although the Mayor's Office of Base Reuse and Development expects that the Public Utilities Commission will continue to be responsible for operating and maintaining the utilities. The City, through the Mayor's Office of Base Reuse and Development, has been negotiating on behalf of the Treasure Island Development

Authority with the U.S. Navy on the terms and conditions of the conveyance of Treasure Island and Yerba Buena Island, and although the Public Utilities Commission has been advisory to the negotiations, the Public Utilities Commission has not been included in the negotiations.

The Public Utilities Commission's Financial Exposure

The Public Utilities Commission has not planned adequately for the significant financial and regulatory risks presented by the Treasure Island and Yerba Buena Island utilities. The City entered into a Cooperative Agreement with the U.S. Navy in 1997 when the U.S. Navy transferred responsibility for Treasure Island and Yerba Buena Island to the City. The Public Utilities Commission has maintained and operated the Treasure Island and Yerba Buena Island utilities since 1997, but has no written agreement with the Treasure Island Development Authority covering the terms and conditions of maintaining and operating the utilities.

The Public Utilities Commission's Operating and Maintenance Expenses

Treasure Island and Yerba Buena Island utilities consist of drinking water, wastewater, storm water, electricity, and natural gas systems. The Public Utilities Commission Water Enterprise provides drinking water through the Water Enterprise's water system. The Clean Water Enterprise operates and maintains Treasure Island's wastewater and storm water collection systems, constructed by the U.S. Navy. The Public Utilities Commission purchases electricity through an agreement with the Western Area Power Administration, which provides power from Federal sources, and natural gas from the Pacific Gas and Electric Company.

The Public Utilities Commission bills the Treasure Island Development Authority and other Treasure Island tenants for the direct costs of providing utility services. Treasure Island tenants include the John Stewart Company, which manages approximately 650 units of former military housing; the Treasure Island Homeless Development Initiative, which manages approximately 200 housing units occupied by formerly homeless individuals and families; the U.S. Department of Labor; the U.S. Coast Guard; and other tenants.

As of June 30, 2004, the Public Utilities Commission had an outstanding balance of $1.6 million, of which $1.3 million was the Treasure Island Development Authority's outstanding balance. The Treasure Island Development Authority's outstanding balance is expected to increase in FY 2004-2005 because funds to pay the Public Utilities Commission were not included in the Treasure Island Development Authority's FY 2004-2005 budget.

Table 8.1

The Public Utilities Commission's Total Billings and Total Payments for Treasure Island and Yerba Buena Island Utility Services

FY 1998-1999 through FY 2003-2004

Tenant	Total Billings FY 1998-1999 through FY 2003-2004	Total Payments FY 1998-1999 through FY 2003-2004	Total Outstanding Balance
Treasure Island Development Authority	$2,973,813	$1,648,280	$1,325,533
John Stewart Company	5,697,909	5,697,909	0
Job Corps, Homeless Development Initiative	4,004,747	3,923,194	81,553
Other tenants	7,441,417	7,240,227	210,190
	$20,117,886	$18,509,610	$1,608,276

Source: Public Utilities Commission Financial Services Section

The Public Utilities Commission's Projected Future Costs

Proposed Development Agreement

The City is negotiating a development agreement with the prospective master developer, Treasure Island Community Development, to develop Treasure Island and Yerba Buena Island. The Mayor's Office currently expects to present a development agreement term sheet to the Board of Supervisors in the late summer of 2005 and to conclude negotiations and enter into a development agreement in early 2007. Under the proposed development agreement, the overall development project would provide funding for constructing the new utilities system.

As noted above, the Public Utilities Commission is not directly included in the development agreement negotiations, although the Mayor's Office of Base Reuse and Development advises that the Public Utilities Commission will be consulted with respect to the transfer of utilities and utility related permits and agreements. The Mayor's Office of Base Reuse and Development has recently formed a work group that includes the Public Utilities Commission, the Treasure Island Development Authority, the Mayor's Office, and the master developer to address a variety of issues related to the operation of the Treasure Island and Yerba Buena Island utilities during the approximately four year interim period between 2005, when the U.S. Navy is expected to convey ownership of Treasure Island and Yerba Buena Island to the Treasure Island Development Authority, and 2009, when Treasure Island Community Development is expected to complete construction of the backbone phase of the new utility system. According to the Mayor's

Office of Base Reuse and Development, the work group is intended, among other tasks, to ensure the effective collaboration on resolving long term utility capital planning issues.

The Public Utilities Commission faces significant future financial, regulatory, and operational risks if the Public Utilities Commission assumes responsibility for the new utilities system. Specifically, the Public Utilities Commission needs to ensure that the future new utilities system will be (a) of high quality and compatible with the City's existing systems; (b) designed and constructed to meet future regulatory requirements; and (b) cost efficient and financially viable.

When the Mayor's Office presents the proposed development agreement term sheet to the Board of Supervisors, expected to occur in the late summer of 2005, the Public Utilities Commission, through the General Manager, should present a report to the Board of Supervisors on the Public Utilities Commission's assessment of the risks to the Public Utilities Commission and how these risks will be addressed in the development agreement.

The Public Utilities Commission, through the General Manager, and the Treasure Island Development Authority should present a joint financial analysis to the Board of Supervisor in December, 2006, prior to the expected conclusion of negotiations of the final development agreement in early 2007, evaluating how the proposed development of the Treasure Island and Yerba Buena Island utilities system will best meet the financial interests of the City and the City's utility ratepayers.

Interim Capital and Operating Expenditures

The Public Utilities Commission will most likely be responsible for operating and maintaining the existing utilities system for the approximately four-year interim period between 2005 and 2009, prior to the expected completion of the backbone utility system by the prospective master developer. During this period, many of the existing tenants, including the John Stewart Company residential tenants, will remain and require utility services.

According to the March, 2004, *Utility Vulnerability and Risk Assessment for Treasure Island and Yerba Buena Island – Final Report*, conducted by Raines, Melton, and Carella, Incorporated, the Public Utilities Commission will incur an estimated $2.8 million in capital repair costs for priority capital projects within the first five years after the U.S. Navy conveys ownership of Treasure Island and Yerba Buena Island to the Treasure Island Development Authority. Additionally, the report estimated that the Public Utilities Commission will incur an estimated $720,000 per year for preventive maintenance costs, or $2.9 million over a four-year interim period between 2005 and 2009. Therefore, the Public Utilities Commission's will incur up to an estimated $5.7 million for capital repair and preventive maintenance costs during the four-year interim period between 2005 and 2009, after the expected conveyance of Treasure Island and Yerba Buena Island and prior to completion of construction of new utility systems. The Public Utilities Commission has not yet identified a funding source to pay these costs.

Table 8.2

The Public Utilities Commission's Estimated Total Capital Repair Costs and Annual Preventive Maintenance Costs within the First Five Years after Conveyance of Ownership of Treasure Island and Yerba Buena Island to the City

Utility	Capital Improvement Program	Preventive Maintenance (per year)
Drinking Water	$1,425,000	$100,000
Wastewater	265,000	155,000
Storm Water	50,000	100,000
Electricity	635,000	75,000
Natural Gas	10,000	170,000
TOTAL:	**$2,860,000**	**$720,000**

Source: Raines, Melton & Carella, Inc., *Utility Vulnerability and Risk Assessment for Treasure Island and Yerba Buena Island - Final Report,* March, 2004

Planning for Operating and Maintenance Expenditures

The Public Utilities Commission has not yet developed a cost plan for the Public Utilities Commission's projected costs and revenues for operating and maintaining the Treasure Island and Yerba Buena Island utilities during the interim period. For example, although the Clean Water Enterprise expects the baseline costs to operate the wastewater treatment system at Treasure Island to increase during the interim period compared to current operating costs, the Clean Water Enterprise does not yet have operating and maintenance cost projections.

In the *Utility Vulnerability and Risk Assessment for Treasure Island and Yerba Buena Island - Final Report*, the consultants, Raines, Melton, and Carella, found that the Public Utilities Commission faced significant financial and regulatory risks for operating the existing Treasure Island and Yerba Buena Island utilities during the interim period and recommended that:

- The Public Utilities Commission should not take ownership of the existing utilities during the interim period.

- The Treasure Island Development Authority should contract out operating of the existing Treasure Island and Yerba Buena Island utilities during the interim period.

- If the Public Utilities Commission does operate the existing Treasure Island and Yerba Buena Island utilities during the interim period, the Public Utilities Commission should negotiate a private industry standard agreement with the Treasure Island Development Authority to mitigate its risks and liability.

As noted above, the Public Utilities Commission has recently begun to participate in a work group with the Mayor's Office of Base Reuse and Development, the Treasure Island Development Authority, and the prospective master developer to address issues that will arise during the interim period after the U.S. Navy conveys ownership of Treasure Island and Yerba Buena Island to the Treasure Island Development Authority. However, two of the four Public Utilities Commission work group members, the Assistant General Manager, Business Services, and the Director of Financial Services have recently resigned from the Public Utilities Commission.

The Public Utilities Commission has lacked both a written agreement with the Treasure Island Development Authority to operate the Treasure Island and Yerba Buena Island utilities, and continuity of management oversight due to turnover of executive management staff since 1997, when the Public Utilities Commission initially assumed responsibility for operating the utilities system. The Public Utilities Commission should direct the General Manager to negotiate and enter into a written agreement with the Treasure Island Development Authority to operate, maintain, and conduct capital repairs of the existing Treasure Island and Yerba Buena Island utilities system.

Also, the General Manager should present a report to the Public Utilities Commission prior to December 31, 2005, which includes:

- An annual cost plan for operating and maintaining the Treasure Island and Yerba Buena Island utilities during the interim period after the U.S. Navy conveys Treasure Island and Yerba Buena Island to the City and prior to construction of the backbone of a new utilities system; and

- Proposed alternative funding sources to pay for anticipated capital repair costs to the existing utilities of an estimated $5.7 million, including approximately $2.8 million for high priority capital repairs and $2.9 million for preventive maintenance for a four-year period (equal to $720,000 per year);

The proposed report should present essential information to the Public Utilities Commission members, who have authority to approve or disapprove the Public Utilities Commission annual budget.

The Public Utilities Commission Regulatory Risks

Under the 1997 Cooperative Agreement between the City and the U.S. Navy, the U.S. Navy continues to own the National Pollutant Discharge Elimination System permit to operate the waste water system and the State Department of Health Services permit to operate the drinking water system. Between 1997 and 2003, the U.S. Navy has received 21 National Pollutant Discharge Elimination System permit violations and 18 incident reports for overflow of the storm water system and other incidents, but has not been fined to date. The Public Utilities Commission is not currently liable for permit and other regulatory violations.

The Public Utilities Commission's Future Regulatory Risk

Once the U.S. Navy conveys Treasure Island and Yerba Buena Island to the Treasure Island Development Authority, the owner of the Treasure Island and Yerba Buena Island utilities will own the permits. Therefore, if the Treasure Island Development Authority owns the utilities, the Treasure Island Development Authority will assume much of the regulatory risk. However, if Public Utilities Commission operates the Treasure Island and Yerba Buena Island utilities on behalf of the Treasure Island Development Authority, the Public Utilities Commission will share the regulatory risk.

The new owner of the Treasure Island and Yerba Buena Island water utility will need to obtain a new State Department of Health permit. The Public Utilities Commission Water Enterprise will need to plan for several regulatory requirements and the associated costs for operating the water system, including (a) capital improvements to reduce stagnation and associated problems, such as coliform growth, in the water system; (b) potential mandatory system upgrades imposed by the State Department of Health as part of the permit; and (c) broader notification requirements, through water bill inserts or newspaper advertisements, for Treasure Island and Yerba Buena Island utilities violations if the Treasure Island and Yerba Buena Island utilities are combined with City utilities.

The Clean Water Enterprise, which operates the Treasure Island wastewater system, expects new and increased operating and maintenance costs to comply with anticipated clean water regulatory requirements. The Regional Water Quality Control Board issued a wastewater discharge permit to the Navy in 1995, which outlines specific numeric limits for the discharge of treated wastewater at Treasure Island. In 2004, the Public Utilities Commission negotiated a new National Pollutant Discharge Elimination System permit with the Regional Water Quality Control Board in anticipation of the conveyance.

Due to new and more stringent regulations, the new wastewater permit contains effluent limits that, according to Clean Water Enterprise staff, may be difficult for the existing wastewater treatment plant to meet. The Clean Water Enterprise staff anticipate that the Public Utilities Commission will need to conduct feasibility studies to support interim effluent limits. The new permit may also require additional monitoring, which would increase operation and maintenance costs. Failure to comply with the limits or provisions

outlined in the permit could lead to mandatory minimum penalties or legal action from the Regional Water Quality Control Board.

Conclusion

The Public Utilities Commission faces significant financial and regulatory risks for operating and maintaining the Treasure Island and Yerba Buena Island utilities during the approximately four year interim period after the U.S. Navy conveys ownership of Treasure Island and Yerba Buena Island to the Treasure Island Development Authority, expected to occur in 2005 or 2006, until the construction of the backbone of a new utility system by the proposed master developer in approximately 2009. The City has not yet determined if ownership of the Treasure Island and Yerba Buena Island utilities will pass to the Public Utilities Commission or be held by the Treasure Island Development Authority. However, the Mayor's Office of Base Reuse and Development anticipates that the Public Utilities Commission will continue to operate and maintain the Treasure Island and Yerba Buena Island utilities after conveyance.

To Public Utilities Commission has not planned sufficiently for the future financial and regulatory risks of operating and maintaining Treasure Island and Yerba Buena Island utilities during the interim period. Specifically, the Public Utilities Commission should enter into a Memorandum of Understanding with the Treasure Island Development Authority to operate, maintain, and conduct capital repairs of the existing Treasure Island and Yerba Buena Island utilities system. Further, the General Manager should present a report to the Public Utilities Commission, including Treasure Island and Yerba Buena Island utilities capital and operating cost projections and alternative funding sources. The proposed report should present essential information to the Public Utilities Commission members, who have authority to approve or disapprove the Public Utilities Commission annual budget.

Further, although the Public Utilities Commission assumes significant financial, regulatory and operational risk if the Public Utilities Commission assumes responsibility for a future new utilities system constructed by the proposed developer on Treasure Island and Yerba Buena Island, the Public Utilities Commission has played an advisory but not a direct role in the proposed development agreement negotiations between the Treasure Island Development Authority and the prospective master developer. The Public Utilities Commission, through the General Manager, should present a report to the Board of Supervisors on the Public Utilities Commission's assessment of the risks to the Public Utilities Commission and how these risks will be addressed in the development agreement. Further, the Public Utilities Commission, through the General Manager, and the Treasure Island Development Authority should present a joint financial analysis to the Board of Supervisor, evaluating how the proposed development of the Treasure Island and Yerba Buena Island utilities system will best meet the financial interests of the City and the City's utility ratepayers.

Recommendations:

The Mayor's Budget Office should:

8.1 Include funds in the Mayor's Recommended FY 2005-2006 Treasure Island Development Authority budget to pay utility costs, including a schedule to pay the past due balance.

The Board of Supervisors should:

8.2 Request the Public Utilities Commission, through the General Manager, to present a report concurrently with the Mayor's Office presentation of the proposed Treasure Island and Yerba Buena Island development agreement term sheet, expected in the summer of 2005, on the Public Utilities Commission's assessment of the financial, regulatory, design and operating risks to the Public Utilities Commission and how these risks will be addressed in the development agreement.

8.3 Request a joint financial analysis from the Treasure Island Development Authority and the Public Utilities Commission, through the General Manager, in December, 2006, evaluating how the proposed development of the Treasure Island and Yerba Buena Island utilities system will best meet the financial interests of the City and the City's utility ratepayers.

The Public Utilities Commission should:

8.4 Direct the General Manager to present a report to the Public Utilities Commission prior to December 31, 2005, which includes:

(a) an annual cost plan for operating and maintaining the Treasure Island and Yerba Buena Island utilities during the interim period after the U.S. Navy conveys Treasure Island and Yerba Buena Island to the City and prior to construction of the backbone of a new utilities system; and

(b) proposed alternative funding sources to pay for anticipated capital repair costs to the existing utilities of an estimated $5.7 million, including approximately $2.8 million for high priority capital repairs and $2.9 million for preventive maintenance for a four-year period (equal to $720,000 per year).

8.5 Direct the General Manager to negotiate and enter into a Memorandum of Understanding between the Public Utilities Commission and the Treasure Island Development Authority for the operation of the Treasure Island and Yerba Buena Island utilities if the Public Utilities Commission operates the utilities during the interim period.

Costs and Benefits

The Public Utilities Commission will incur some new costs for conducting a financial analysis of owning and operating the Treasure Island and Buena Vista Island utilities. Additionally, the Public Utilities Commission may incur some new City Attorney costs for negotiating an agreement between the Public Utilities Commission and the Treasure Island Development Authority. By entering into a written agreement with the Treasure Island Development Authority, and planning and conducting a financial analysis, including the financial impact of developing and operating the Treasure Island and Yerba Buena Island utilities on the City and the City's ratepayers, the Public Utilities Commission reduces its future financial and regulatory risks and could reduce future costs and liabilities.

9. Streamline Former Bureau of Environmental Regulation and Management Functions

- **The Environmental Compliance Program, which was part of the former Bureau of Environmental Regulation and Management, is not a comprehensive central advisor on environmental regulation compliance for all Public Utilities Commission enterprises as it was intended to be. That program's 3.00 FTE Classification 5620 Regulatory Specialist positions would be more useful if transferred to water and clean water system operations according to assessed need. Such transfers would ensure focused support for operations staff with their environmental regulation compliance obligations, particularly as the Water System Capital Improvement Program progresses.**

- **Further, elimination of three former Bureau of Environmental Regulation and Management positions would result in salary savings of up to $336,545, inclusive of mandatory fringe benefits, with no diminution of programmatic services. These salary savings would result from the elimination of an Administrative Engineer position, a Program Manager I position, and a Secretary II position.**

Former Bureau of Environmental Regulation and Management Functions

The Public Utilities Commission General Manager has restructured the former Bureau of Environmental Regulation and Management, combining two of its former functions with the Clean Water Enterprise's Sewer Operations Section into a new Wastewater Collection System Bureau reporting to the new Assistant General Manager, Clean Water. The former Manager of the Bureau of Environmental Regulation and Management, who is now the Manager of the Wastewater Collection System Bureau, was responsible for the following disparate functions performed by 50.00 FTEs:

1. The **Pretreatment, Pollution Prevention and Storm Water Program** which (a) manages initiatives to prevent pollution, control the quality of storm water run-off, and ensure that pretreatment programs limit certain pollutants from going into the sewer system, and (b) enforces pretreatment permit compliance. The Pretreatment, Pollution Prevention and Storm Water Program comprises 32.00 FTE positions. In Section 9 of the Budget Analyst's *Phase I Management Audit of the Public Utilities Commission – Clean Water Enterprise Fund* (September 27, 2004), the Budget Analyst recommended that management responsibility for the Pretreatment, Pollution Prevention and Storm Water Program be transferred from the Manager, Bureau of Environmental Regulation and Management to the Clean Water Enterprise. This recommendation reflected the Pretreatment Pollution Prevention and Storm Water

Program's total focus on clean water and its close working relationship with other clean water staff. Such a transfer should encourage more efficient wastewater sampling and regulatory compliance monitoring. The Public Utilities Commission General Manager's restructuring of the Pretreatment, Pollution Prevention and Storm Water Program into the Wastewater Collection System Bureau has implemented that recommendation.

2. The **Environmental Compliance Program** which is intended to act as a central advisor on compliance with Federal, State, and local environmental regulations related to (a) environmental permits for operational facilities, (b) assessment and environmental remediation of toxic and hazardous materials and waste, (c) integrated pest management, and (d) storage tanks and emergency generators. The Environmental Compliance Program comprises 5.00 FTE positions. While the Public Utilities Commission General Manager has restructured the Environmental Compliance Program into the Wastewater Collection System Bureau, the Department is currently working through the final structural locations for these staff given their department-wide responsibilities which extend beyond the Clean Water Enterprise.

3. The **Public Utilities Commission Health and Safety Program** which ensures that the Department is in compliance with Occupational Health and Safety Act regulations and acts as a technical resource on how to provide a healthy and safe workplace. It advises on hazardous materials handling, provides health and safety training, develops regulations, investigates accidents, and develops programs in response to department-wide health and safety issues. The Public Utilities Commission Health and Safety Program comprises 8.00 FTE positions. The Public Utilities Commission General Manager has placed this program under the Human Resource Services Bureau Manager. The Budget Analyst concurs with this restructuring for the following reasons. First, the Public Utilities Commission Health and Safety Program's responsibility for providing services to staff members throughout the entire Department is reflected in the program's new location within the Business Services Division. Second, the program has an enforcement role and therefore needs to be in an organizational position to be taken seriously by staff throughout the Department, and to ensure that senior management responds as necessary. Third, this organizational structure aligns the reporting relationships of the two key departmental functions related to personnel.

4. **Administrative support** comprising 5.00 FTE positions.

Environmental Compliance Program

Despite its intention to be a resource for all Public Utilities Commission enterprises, the Environmental Compliance Program's role as a central advisor on environmental regulation compliance is far from comprehensive:

- Environmental regulation compliance is currently split between four divisions: the Planning Bureau, the Water Quality Bureau, the Water Pollution Control Division, and the Water Supply and Treatment Division. Their respective environmental

regulation compliance responsibilities are coordinated through committees, for example the Habitat Conservation Committee, the monthly Wastewater Round Table, and the monthly Water Round Table. While the Environmental Compliance Program participates in these committees, it neither leads them nor has provided centralized support by means of a comprehensive department-wide database of all of the Department's environmental regulatory compliance permits, licenses, plan renewals, or contracts. Although permit and program managers are ultimately responsible for having their permits and licenses up to date, a comprehensive department-wide database would be a useful tool for notifying the responsible staff members of upcoming deadlines for renewal of mandatory permits, licenses, plans, or contracts. Environmental Compliance Program staff have initiated development of such a database but it is not yet complete.

- There are specific positions outside of the Environmental Compliance Program which are responsible for overseeing clean water regulations and drinking water regulations. The *Phase I Management Audit of the Public Utilities Commission – Clean Water Enterprise Fund* recommended that the position responsible for overseeing clean water regulations be transferred from the Planning Bureau to the Clean Water Enterprise. The position responsible for overseeing drinking water regulations is located in the Water Quality Bureau.

- The program's environmental permitting function no longer includes environmental regulation permits required for Water System Capital Improvement Program projects, as this function has been taken over by the Planning Bureau and the Infrastructure Division. Therefore, the Environmental Compliance Program now focuses on environmental permitting related to operations and capital improvement projects outside of the Water System Capital Improvement Program.

- The program's environmental permitting function excludes State Department of Health Services permitting of the laboratories which is performed by the Water Quality Bureau itself. This is a legacy arrangement from the transfer of the Clean Water Program laboratories from the Department of Public Works to the Public Utilities Commission. Departmental staff members advise that there has been no consideration of consolidating that function into the Wastewater Collection Services Bureau because the current arrangement works.

- The program's environmental permitting function also excludes permits for discharges from the water pollution control plants. These are managed directly by the Water Quality Bureau and the Water Pollution Control Division.

- The Manager of the Environmental Compliance Program manages two pools of pre-qualified, as-needed contractors available for projects from across the Department. One pool is for operational support contracts and the other is for California Environmental Quality Act consultants. However, both pools are ending in FY 2005-2006 because their funding is almost expended. While there may be a new operations support as-needed contract pool to succeed the current pool, the current California Environmental Quality Act consultant pool will be replaced by a new as-needed

contract pool managed by the Planning Bureau which will encompass expertise not previously available to the Department in areas such as resource economics and sustainability.

Based on the existing allocation of environmental regulation compliance functions, the operations staff most closely linked to a facility or program requiring environmental regulation compliance permitting, licensure, plan renewal, or contracting are responsible for ensuring that those requirements are met. Under this circumstance, it is unclear what additional value a non-comprehensive central advisor on environmental regulation compliance offers. Therefore, the Budget Analyst recommends that the 3.00 FTE Classification 5620 Regulatory Specialists be allocated to water and clean water system operations according to assessed need to ensure focused support for operations staff with their environmental regulation compliance obligations, particularly as the Water System Capital Improvement Program progresses. In FY 2004-2005, the Environmental Compliance Program is being funded 77.5 percent by the Water Enterprise Fund, 17.5 percent by the Clean Water Enterprise Fund, and 5 percent by the Hetch Hetchy Enterprise Fund. On this basis, 2.00 FTE Classification 5620 Regulatory Specialists could be transferred to the Water Enterprise, 1.00 FTE Classification 5620 Regulatory Specialist could be transferred to the Clean Water Enterprise, and the Hetch Hetchy Enterprise could work order environmental compliance services from the other two enterprises as necessary.

As a result of such transfers based on assessed need, there would no longer be any need within the Wastewater Collection System Bureau for a 1.00 FTE Classification 5138 Program Manager I, Environmental Compliance Program, position or the 1.00 FTE Classification 1446 Secretary II position which supports the Program Manager. The Program Manager has already lost responsibility for environmental regulation permits required for Water System Capital Improvement Program projects, will soon cease managing both pools of pre-qualified, as-needed contractors, and has not completed a department-wide database of all of the Department's environmental regulatory compliance permits, licenses, plan renewals, or contracts which could, in the future, be completed by the 3.00 FTE Classification 5620 Regulatory Specialists based on their work with water and clean water system operations staff. This management position and its secretarial support are no longer necessary.

Implementation

The Pretreatment, Pollution Prevention and Storm Water Program has been transferred to the Wastewater Collection System Bureau within the Clean Water Enterprise and the Public Utilities Commission Health and Safety Program has been transferred to the Human Resource Services Bureau. As recommended above, the 3.00 FTE Classification 5620 Regulatory Specialists in the Environmental Compliance Program, which has been transferred to the Clean Water Enterprise, should be reallocated to water and clean water system operations according to assessed need. As a result of these structural reorganizations, there would no longer be a justification for, or diminution of programmatic services resulting from the deletion of, the following positions:

- 1.00 FTE Classification 5174 Administrative Engineer position which formerly provided budget and finance support to the now defunct Bureau of Environmental Regulation and Management. This position is vacant. The Wastewater Collection Services Bureau already has (a) a 1.00 FTE Principal Administrative Analyst to provide direct budget and finance support to the Pretreatment, Pollution Prevention and Storm Water Program, and (b) a 1.00 FTE 1842 Management Assistant to provide direct budget and finance support to the Sewer Operations Section. Further, the Clean Water Enterprise also has an Administrative Unit which will be providing support to the Wastewater Collection Services Bureau as part of the Clean Water Enterprise. The 1.00 FTE Classification 5174 Administrative Engineer position has an annual salary cost of between $89,210 and $108,446, plus mandatory fringe benefits,[1] for a total savings of up to $135,015 annually.

- 1.00 FTE Classification 5138 Program Manager I, Environmental Compliance Program, position which has an annual salary cost of between $89,941 and $109,307, plus mandatory fringe benefits, for a total savings of up to $136,087 annually. There would no longer be a separate Environmental Compliance Program for this position to manage.

- 1.00 FTE Classification 1446 Secretary II position which has an annual salary cost of between $43,274 and $52,565, plus mandatory fringe benefits, for a total savings of up to $65,443 annually. There would no longer be a Classification 5138 Program Manager I, Environmental Compliance Manager, position requiring secretarial support.

Elimination of the above three positions would result in savings of up to $336,545, inclusive of mandatory fringe benefits, with no diminution of programmatic services.

Conclusion

The Environmental Compliance Program is not a comprehensive central advisor on environmental regulation compliance for all Public Utilities Commission enterprises as it was intended to be. That program's 3.00 FTE Classification 5620 Regulatory Specialist positions would be more useful if transferred to water and clean water system operations according to assessed need. Such transfers would ensure focused support for operations staff with their environmental regulation compliance obligations, particularly as the Water System Capital Improvement Program progresses. As a result of those transfers, there would no longer be any need for a 1.00 FTE Classification 5138 Program Manager I, Environmental Compliance Program, position or the 1.00 FTE Classification 1446 Secretary II position which supports the Program Manager.

[1] To maintain consistency with the Phase I and II reports, mandatory fringe benefits are calculated on an average of 24.5 percent for non-uniformed positions. However, the Department is budgeting for FY 2005-2006 mandatory fringe benefits on an average of 30.0 percent to reflect the upcoming budget year's increases related to Charter mandated retirement provisions and increased health and dental benefit costs.

Further, there is no continued justification for the vacant 1.00 FTE Classification 5174 Administrative Engineer position which formerly provided budget and finance support to the now defunct Bureau of Environmental Regulation and Management.

Recommendations

The Public Utilities Commission General Manager should:

9.1 Transfer management responsibility for the 3.00 FTE Classification 5620 Regulatory Specialist positions in the Environmental Compliance Program to water and clean water system operations according to assessed need.

9.2 Eliminate the 1.00 FTE Classification 5174 Administrative Engineer position.

9.3 Eliminate the 1.00 FTE Classification 5138 Program Manager I, Environmental Compliance Program, position.

9.4 Eliminate a 1.00 FTE Classification 1446 Secretary II position.

Costs and Benefits

Elimination of (a) the 1.00 FTE Classification 5174 Administrative Engineer position, (b) the 1.00 FTE Classification 5138 Program Manager I, Environmental Compliance Program, position, and (c) a 1.00 FTE Classification 1446 Secretary II position would result in savings of up to $336,545, inclusive of mandatory fringe benefits, with no diminution of programmatic services.

Transferring management responsibility for the 3.00 FTE Classification 5620 Regulatory Specialist positions in the Environmental Compliance Program to water and clean water system operations according to need would focus those positions on supporting water system operations staff who are responsible for environmental regulation compliance permits, licenses, plans, and contracts.

10. Establish an Assistant General Manager, Water and Power Position

- **The scope of the Public Utilities Commission's recently eliminated Assistant General Manager, Operations position was too broad and made it difficult for the incumbent to be a simultaneously strong manager of the water, clean water, and power systems' policies, planning, operations, and capital investments. As outlined in the Budget Analyst's *Phase I Management Audit of the Public Utilities Commission – Clean Water Enterprise Fund*, clean water functions particularly suffered from the resulting lack of focus.**
- **The Public Utilities Commission General Manager has replaced the Assistant General Manager, Operations position with three new Assistant General Manager positions for Water, Clean Water, and Retail Power. The creation of a new Assistant General Manager, Clean Water position is in line with our Phase I management audit recommendation.**
- **The creation of the new Assistant General Manager, Retail Power position has merit but is insufficiently justified at this time. The Public Utilities Commission first needs to make key policy decisions and determine if it is going to proceed with community choice aggregation, which would allow the City (or a larger regional consortium) to procure electricity from a portfolio of power providers on behalf of citizens currently served by the Pacific Gas and Electric Company, and become a public provider of retail power to San Francisco residents.**
- **Until that determination is made, there should be a single Assistant General Manager, Water and Power position with integrated management responsibility for the water and power systems, including the sale of retail power. This would be the most managerially effective and least expensive way of ensuring concentrated management oversight of both systems, and of ensuring resolution of the tensions that exist between the water and power systems, most notably the generation of power within the confines of the "Water First" policy. This recommendation will save between $23,170 and $31,324 in incremental salary and mandatory fringe benefit costs annually. It would also prevent further expansion of the Department's executive management ranks.**
- **The Assistant General Manager, External Affairs should continue to manage the strategic policy staff working on power policy issues related to community choice aggregation and renewable and alternative energy sources.**

Assistant General Manager, Operations

The recently eliminated Classification 5166 Assistant General Manager, Operations position had a very large scope of responsibility for the following functions:

- All water operations functions located in the Hetch Hetchy Enterprise, the Water Supply and Treatment Division, and the City Distribution Division.
- All water quality and environmental regulatory functions located in the Water Quality Bureau and the Bureau of Environmental Regulation and Management.
- All power operations functions located in the Hetch Hetchy Enterprise.
- All wastewater operations located in the Water Pollution Control Division and the Bureau of Environmental and Regulatory Management.
- Security, emergency planning, fleet management, and communications services functions.[1]
- The Health and Safety Program located in the Bureau of Environmental Regulation and Management.

Due to this wide range of responsibilities, the Assistant General Manager, Operations managed 1,494.32 FTE positions, or approximately 67.5 percent of the Department's positions, spread across the Department's water, clean water, and power operating systems. This position was responsible for a FY 2004-2005 operating budget of $424,124,475, or approximately 82.3 percent of the Department's total operating budget. Immediately prior to its elimination, the Assistant General Manager, Operations position was filled in an acting capacity and reported to the Assistant General Manager, Infrastructure and Operations.

As noted in the Budget Analyst's *Phase I Management Audit of the Public Utilities Commission – Clean Water Enterprise Fund* report (September 27, 2004), the responsibilities of the Assistant General Manager, Operations were onerous. The position scope made it difficult for the incumbent to be a simultaneously strong manager of the water, clean water, and power systems' policies, planning, operations, and capital investments. The Budget Analyst's recommendation in Section 10 of the Phase I report to create a new Assistant General Manager, Clean Water position was intended, in part,

[1] The Assistant General Manager, Operations established a Security Manager position which had three direct reports: (a) an Emergency Planning Manager; (b) a Fleet Management Manager responsible for the vehicle pool, the fleet purchasing program, and vehicle fleet policies; and (c) a Communications System Manager responsible for all phones, pagers, radios, satellites, and the dispatcher's desk. Under the organizational restructuring being implemented by the Public Utilities Commission General Manager, the Security Manager position has become a direct report to the Deputy General Manager, Infrastructure and Operations but the Fleet Management Manager will be part of the asset management group.

to relieve the Assistant General Manager, Operations position of responsibility for one whole system, namely the clean water system.

February of 2005 Organizational Restructuring

In February of 2005, the Public Utilities Commission General Manager presented the Public Utilities Commission with a proposed organizational restructuring. The new organizational structure eliminates the Assistant General Manager, Operations position and replaces it with three new Assistant General Manager positions, one each for Water (including wholesale power generated by the Hetch Hetchy system), Clean Water,[2] and Retail Power.[3] This organizational structure is supported by the Public Utilities Commission.

The Budget Analyst:

- Notes that this organizational restructuring indicates the Public Utilities Commission General Manager's concurrence with the Budget Analyst's Phase I report recommendation to establish a new Assistant General Manager, Clean Water position.

- Agrees with the integrated management responsibility, under the Assistant General Manager, Water position, for both the Hetch Hetchy water system and the wholesale power generation and distribution system up to Newark. Such integration will (a) improve resolution of policy and operational disputes between the water and power systems, (b) encourage conflict resolution at the Assistant General Manager level, rather than elevating it to the General Manager level, (c) prioritize the "Water First" policy whereby power is a by-product of the water system, (d) improve coordination of the Water Enterprise and Hetch Hetchy Enterprise operations and business planning processes, (e) encourage objective review of all the organizational structure alternatives available to the water and power systems, and (f) integrate management responsibility for the water and power systems' support services. Integrated management responsibility for both the water and power systems would avoid placing the executive manager responsible for the wholesale power system into a position of false managerial accountability because s/he did not, in fact, control the water inputs managed by his or her colleague responsible for the water system.

- Considers the establishment of a new Assistant General Manager, Retail Power position has merit in the event that the City becomes a community choice aggregator,[4]

[2] While the position title presented by the Public Utilities Commission General Manager is "Assistant General Manager, Wastewater," this report refers to the position as the "Assistant General Manager, Clean Water" to be consistent with the Phase I and II management audit reports.

[3] While the position title presented by the Public Utilities Commission General Manager is "Assistant General Manager, Power," this report refers to the position as the "Assistant General Manager, Retail Power" to distinguish between the retail power functions for which the position is responsible and the wholesale power functions which are located under the "Assistant General Manager, Water" position.

[4] Community choice aggregation would allow the City (or larger regional consortium) to procure electricity from a portfolio of power providers on behalf of citizens currently served by the Pacific Gas and Electric Company.

but is insufficiently justified in advance of that decision being taken. Such a position could be justified if the Department establishes a fourth enterprise fund (the "San Francisco Power Company") as a new line of business, to become a public provider of retail power responsible for developing a portfolio of power providers and customers. In that event, differentiating between wholesale power under the new Assistant General Manager, Water position and retail power under the new Assistant General Manager, Retail Power position would ensure a valuable demarcation line. On one side of the demarcation line, there would be the Public Utilities Commission's current responsibilities for wholesale water and power provision under the Raker Act, the Settlement Agreement and Master Water Sales Contract, and the Commission's "Water First" policy, all key responsibilities of the Assistant General Manager, Water position. On the other side of the demarcation line, there would be the Public Utilities Commission's potential responsibilities under City legislation related to community choice aggregation, solar and renewable energy initiatives, and the San Francisco Electric Reliability Project, all key responsibilities of the Assistant General Manager, Retail Power position. Such demarcation would ensure that those third parties with water and/or power interests derived from the Raker Act, such as the Modesto and Turlock Irrigation Districts, or the 29 wholesale customer signatories to the Settlement Agreement and Master Water Sales Contract, do not perceive any adverse impact from the City's investments in community choice aggregation and/or solar and renewable energy initiatives.

- Considers that the new Assistant General Manager, Retail Power position has too small a span of management control at this time to justify being another Classification 5166 Assistant General Manager position. Without community choice aggregation and the Streetlight Management Program (recommended for transfer to the Department of Public Works in the *Phase II Management Audit of the Public Utilities Commission – Hetch Hetchy Enterprise Fund*), the position is responsible only for the work of the current Power Policy Division, the San Francisco Electric Reliability Project, and certain power-related services previously performed under the Assistant General Manager, Operations.

- Recommends instead that the Assistant General Manager, Water should be renamed "Assistant General Manager, Water and Power" and retain responsibility for the Hetch Hetchy Enterprise Fund's retail power functions at this time. The Assistant General Manager, Water and Power should consider restructuring positions and functions funded by the Hetch Hetchy Enterprise Fund into a wholesale power unit and a retail power unit to begin the development of a business relationship between the wholesale and retail components of the Hetch Hetchy Enterprise.

- Recommends that the Assistant General Manager, External Affairs remain responsible for the Department's power policy and planning functions. The Assistant General Manager, External Affairs position, which is only responsible for the Communications Bureau, legislative affairs staff, the Planning Bureau, and (per the February of 2005 organizational restructuring) Real Estate Services, has the capacity to remain responsible for the Power Policy Division. The Assistant General Manager,

External Affairs and the Director of Power Policy can continue to manage the community choice aggregation initiative until such time as the City determines whether or not it wishes to become a community choice aggregator, on either a City-wide or a regional basis.

- Notes that the water and power system operations already receives additional managerial coverage from the Deputy General Manager, Infrastructure and Operations position in the medium term. The creation of the Assistant General Manager, Retail Power position represents further expansion of the Department's executive management ranks.

The differences between (a) the previous organizational structure of water, clean water, and power functions, (b) the Public Utilities Commission General Manager's organizational restructure, and (c) the Budget Analyst's recommended organizational structure are shown in Exhibits 10.1 – 10.3 below.

Exhibit 10.1:

Previous Allocation of Water, Clean Water, and Power System Functions

Assistant General Manager, Operations	General Manager's Office / Assistant General Manager, Infrastructure	Assistant General Manager, External Affairs
• Bureau of Environmental Regulation and Management • City Distribution Division • Hetch Hetchy Enterprise • Water Pollution Control Division • Water Quality Bureau • Water Supply and Treatment Division	• Water System Capital Improvement Program • Clean water master planning • Repair and replacement programs for the water, clean water, and power systems	• Water system planning • Clean water regulatory compliance • Power Policy Division, including the San Francisco Electric Reliability Project

Exhibit 10.2:

Current Allocation of Water, Clean Water, and Power System Functions with Two Assistant General Managers for Water and Retail Power (Per the Public Utilities Commission General Manager's February of 2005 Organizational Restructuring)

New Assistant General Manager, Water	New Assistant General Manager, Retail Power	New Assistant General Manager, Clean Water	Deputy General Manager / Assistant General Manager, Infrastructure	Assistant General Manager, External Affairs	Assistant General Manager, Business Services
• City Distribution Division • Hetch Hetchy water system • Hetch Hetchy wholesale power up to Newark • Natural resources • Short-term water system policy and planning • Water Quality Bureau • Water Supply and Treatment Division	• Energy services • Retail power • Power Policy Division • San Francisco Electric Reliability Project • Streetlight Management Program[5]	• Bureau of Environmental Regulation and Monitoring • Clean water master and short-term system planning • Clean water regulatory compliance • Water Pollution Control Division	• Water System Capital Improvement Program • Repair and replacement program • Security • Contracts	• Strategic planning	• Health and safety program

[5] The *Phase II Management Audit of the Public Utilities Commission – Hetch Hetchy Enterprise Fund* report recommended that the Streetlight Management Program be transferred to the Department of Public Works (Recommendations 7.1 – 7.3).

Exhibit 10.3:

Budget Analyst's Recommended Allocation of Water, Clean Water, and Power System Functions with One Assistant General Manager, Water and Power

New Assistant General Manager, Water and Power	New Assistant General Manager, Clean Water	Deputy General Manager / Assistant General Manager, Infrastructure	Assistant General Manager, External Affairs	Assistant General Manager, Business Services
• City Distribution Division • Environmental Compliance Program • Hetch Hetchy Enterprise (wholesale and retail) • Natural resources • Short-term water and power system planning • Water Quality Bureau (less Southeast and Oceanside Water Pollution Control Plants) • Water Supply and Treatment Division	• Clean water master and short-term system planning • Water Pollution Control (including Southeast and Oceanside Water Pollution Control Plant Laboratories) • Clean water regulatory compliance • Hydraulics Section (transferred from the Department of Public Works) • Pretreatment, Pollution Prevention and Storm Water Program	• Water System Capital Improvement Program • Repair and replacement program • Security • Contracts	• Strategic planning • Power Policy Division • San Francisco Electric Reliability Project	• Health and safety program

Conclusion

On balance, the Budget Analyst considers that a single Assistant General Manager, Water and Power position would be the most managerially effective and least expensive way of ensuring concentrated management oversight of the water and power systems, and ensuring resolution of the tensions that exist between those two systems. However, should the Department become a community choice aggregator, particularly on a regional basis, then the concept of a separate Assistant General Manager, Retail Power position should be reconsidered.

Not upgrading the existing Classification 0941 Manager VI, Director of Power Policy position ($120,165 to $160,977 per year, inclusive of mandatory fringe benefits[6]) to a Classification 5166 Assistant General Manager, Retail Power position ($151,489 to $184,147 per year, inclusive of mandatory fringe benefits) would save between $23,170 and $31,324 per year, inclusive of mandatory fringe benefits.

Implementation

In order to establish a new Assistant General Manager, Water and Power position, the General Manager should:

- Implement the *Phase II Management Audit of the Public Utilities Commission – Hetch Hetchy Enterprise Fund* recommendation that the Streetlight Management Program be transferred to the Department of Public Works (Recommendations 7.1 – 7.3).

- Implement the organization structure recommendations contained in Section 6 of this management audit report, namely transfer responsibility for the Southeast and Oceanside Water Pollution Control Plant laboratories to the new Assistant General Manager, Clean Water position (Recommendation 6.1).

- Convert the existing Classification 5166 Assistant General Manager, Operations position into a Classification 5166 Assistant General Manager, Water and Power position responsible for (a) the Hetch Hetchy water and power systems, (b) the Water Supply and Treatment Division, (c) the City Distribution Division, and (d) the Water Quality Bureau, exclusive of the Southeast and Oceanside Pollution Control Plant Laboratories.

- Maintain the Power Policy Division's report to the Assistant General Manager, External Affairs as part of that position's strategic policy and planning responsibility.

[6] To maintain consistency with the Phase I and II reports, mandatory fringe benefits are calculated on an average of 24.5 percent for non-uniformed positions. However, the Department is budgeting for FY 2005-2006 mandatory fringe benefits on an average of 30.0 percent to reflect the upcoming budget year's increases related to Charter mandated retirement provisions and increased health and dental benefit costs.

- Assign the single Assistant General Manager, Water and Power position with the responsibility to (a) improve resolution of policy and operational disputes between the water and power systems, (b) encourage conflict resolution at the Assistant General Manager level, rather than elevating it to the General Manager level, (c) prioritize the "Water First" policy whereby power is a by-product of the water system, (d) improve coordination of the Water Enterprise and Hetch Hetchy Enterprise operations and business planning processes, (e) encourage objective review of all the organizational structure alternatives available to the water and power systems, and (f) integrate management responsibility for the water and power systems' support services.

Conclusion

The scope of the recently eliminated Assistant General Manager, Operations position was too broad and made it difficult for the incumbent to be a simultaneously strong manager of the water, clean water, and power systems' policies, planning, operations, and capital investments. As outlined in our *Phase I Management Audit of the Public Utilities Commission – Clean Water Enterprise Fund*, clean water functions particularly suffered from the resulting lack of focus.

The Public Utilities Commission General Manager has replaced the Assistant General Manager, Operations position with three new Assistant General Manager positions for Water, Clean Water, and Retail Power. The creation of a new Assistant General Manager, Clean Water position is in line with our Phase I management audit recommendation.

The creation of the new Assistant General Manager, Retail Power position has merit but is insufficiently justified at this time. The Public Utilities Commission first needs to make key policy decisions and determine if it is going to proceed with community choice aggregation and become a public provider of retail power to San Francisco residents.

Until that determination is made, there should be a single Assistant General Manager, Water and Power position with integrated management responsibility for the water and power systems, including the sale of retail power. This would be most managerially effective and least expensive way of ensuring concentrated management oversight of both systems, and ensuring resolution of the tensions that exist between them, most notably the generation of power within the confines of the "Water First" policy. This recommendation will save between $23,170 and $31,324 in incremental salary and mandatory fringe benefit costs annually. It would also prevent further expansion of the Department's executive management ranks.

The Assistant General Manager, External Affairs should continue to manage the strategic policy staff working on power policy issues related to community choice aggregation and renewable and alternative energy sources.

Recommendations

The Public Utilities Commission General Manager should:

10.1 Convert the Classification 5166 Assistant General Manager, Water position into a Classification 5166 Assistant General Manager, Water and Power position.

10.2 Not upgrade the existing Classification 0941 Manager VI, Director of Power Policy position to any higher classification.

10.3 Reinstate the reporting line between the Director of Power Policy and the Assistant General Manager, External Relations.

10.4 Reconsider the need for a separate Assistant General Manager, Retail Power position if the Department becomes a community choice aggregator.

Costs and Benefits

There would be no costs associated with converting the existing Classification 5166 Assistant General Manager, Public Utilities Commission position from Assistant General Manager, Water to Assistant General Manager, Water and Power.

Not upgrading the existing Classification 0941 Manager VI, Director of Power Policy position ($120,165 to $160,977 per year, inclusive of mandatory fringe benefits) to a Classification 5166 Assistant General Manager, Retail Power position ($151,489 to $184,147 per year, inclusive of mandatory fringe benefits) would save between $23,170 and $31,324 per year in incremental salary and mandatory fringe benefit costs annually.

A single Assistant General Manager, Water and Power position would (a) improve resolution of policy and operational disputes between the water and power systems, (b) encourage conflict resolution at the Assistant General Manager level, rather than elevating it to the General Manager level, (c) prioritize the "Water First" policy whereby power is a by-product of the water system, (d) improve coordination of the Water Enterprise and Hetch Hetchy Enterprise operations and business planning processes, (e) encourage objective review all the organizational structure alternatives available to the water and power systems, and (f) integrate management responsibility for the water and power systems' support services.

11. Land Management

- **The Public Utilities Commission lacks comprehensive management of City-owned land and real property under the jurisdiction of the Public Utilities Commission. This has resulted in inadequate property inventories and the failure to define properties that are either essential or surplus to the water, power, and clean water utilities' requirements. Currently, the Real Estate Services Bureau is unable to determine if all real properties are rented or in optimal use, resulting in the loss of potential rental revenue. The Real Estate Services Bureau should develop and maintain a comprehensive property inventory. A one percent increase in rental revenues annually would result in $100,000 in additional Public Utilities Commission rental revenues annually.**
- **Although the Real Estate Services Bureau has identified up to 29 properties that are potentially eligible to be declared surplus to the Public Utilities Commission's needs, with estimated sales values exceeding $120 million, only four of the 29 properties have been presented to and been declared surplus by the Public Utilities Commission for potential sale at public auction. If the Public Utilities Commission identified and offered for sale all properties that are surplus to the water utilities requirements, the Public Utilities Commission would receive at least an estimated $120 million in one-time revenues that, in accordance with Public Utilities Commission policy, would be allocated to capital repair and replacement or Capital Improvement Program projects. By using an estimated $120 million in land sales proceeds rather than revenue bond debt to finance a portion of the Water System Capital Improvement Program, the Public Utilities Commission could save an estimated $4.8 million annually in interest expenses.**
- **The Public Utilities Commission lacks a formal process of coordinating the sale of surplus properties among its Real Estate Services Bureau, and its enterprise departments, risking the sale or use of land that is inconsistent with the requirements of the water utility. For example, the Water Supply and Treatment Division and the Real Estate Services Bureau failed to communicate effectively regarding the option agreement for the sale to MasterDevo, a private developer, of Public Utilities Commission property in Mountain View, which includes a portion of the water system pipeline right-of-way. Organizations under the Water Supply and Treatment Division also failed to communicate and coordinate effectively, resulting in the failure to notify the Public Utilities Commission's Manager of Land and Resource Management, who is responsible for managing right-of-way properties, of the potential sale of right-of-way property.**

- **Further, the Public Utilities Commission risks significant legal and other costs from encroachment by adjacent property owners on the Public Utilities Commission's water system rights-of-way. The Public Utilities Commission is engaged in five legal disputes to remove right-of-way encroachments and, according to the City Attorney's Office, may face up to an additional 15 legal disputes regarding private property owners or tenants encroaching on the water system rights-of-way, resulting in unknown legal and settlement costs to the City.**

- **The Public Utilities Commission General Manager should ensure that the rights-of-way adopted management plan, presented to the Public Utilities Commission in June, 2004, is implemented effectively and should report to the Board of Supervisors on the existing and projected costs to the City to abate water system rights-of-way encroachments within the next six months.**

The Public Utilities Commission owns 85,165 acres of land in and outside of San Francisco, of which approximately 62,441 acres or 73 percent is Water Enterprise Department land, including watershed and water system pipeline rights-of-way properties in San Mateo, Santa Clara and Alameda Counties, and other real property that is not categorized as watershed or pipeline property holdings, and may be surplus to the needs of the Water Enterprise.

The Public Utilities Commission owns land to maintain the water collection and transmission system, and to protect the watershed and access to the water transmission pipelines. This role requires comprehensive land management and planning, including a comprehensive evaluation of the Public Utilities Commission's property holdings to:

- Conclude which properties are surplus to the needs of the water, clean water and power utility systems,

- Identify properties that the Public Utilities Commission should acquire to support the Water System Capital Improvement Program and to protect the watershed as urban development occurs adjacent to the watersheds in San Mateo, Santa Clara, and Alameda counties,

- Protect the water pipeline right-of-way from encroachments and incompatible uses,

- Determine potential uses for watershed and pipeline right-of-way properties that are consistent with water policy priorities,

- Evaluate and monitor existing lease and permit agreements for ongoing compatibility with water policy priorities and compliance with lease and permit agreements, and

- Maximize revenues from Public Utilities Commission property within the constraints of departmental land management requirements.

Organizational Structure to Support Comprehensive Land Management

Responsibility for managing Public Utilities Commission land and real property is dispersed throughout the department. Consequently, the Public Utilities Commission lacks a comprehensive inventory and management plan for its land and real property. Specifically, no division within the Public Utilities Commission has determined:

- All of the property holdings which are surplus to the needs of the utilities,
- Which properties must be acquired for the Water System Capital Improvement Program and to otherwise protect the watershed, and the timing and cost of such acquisitions,
- Which encroachments on the pipeline right-of-way must be removed, and the timing and cost of such removal, and
- All potential uses for watershed and pipeline right-of-way properties.

This lack of overall land management and planning, including a comprehensive evaluation of the Public Utilities Commission's property holdings, creates several risks for the Department, including potentially:

- Not having the appropriate property holdings to protect the water system,
- Loss of revenue from not achieving the highest and best use in property leases and sales, and
- Delays and increased costs for the Water System Capital Improvement Program due to encroachments and property acquisition requirements.

Currently, responsibility for land and real property management is divided among the Real Estate Services Bureau, the Water Supply and Treatment Division and the Infrastructure Division's Project Management Bureau.

The Real Estate Services Bureau, which reports to the Assistant General Manager, Business Services is responsible for the management of Public Utilities Commission property which is leased or permitted[1], for property purchases and sales, and for the removal of right-of-way encroachments in coordination with the City Attorney's Office.

[1] The Department of Recreation and Parks manages the leases on the Public Utilities Commission's Lake Merced tract, as discussed in Section 12 of this report.

The Real Estate Services Bureau primarily performs a leasing and permitting function, which is discussed in Section 12 of this report.

The Water Supply and Treatment Division is responsible for water pipeline right-of-way and watershed land management. This responsibility includes (1) patrolling and maintaining watershed and pipeline right-of-way properties, (2) reporting encroachments to the Real Estate Services Bureau, (3) determining compatible uses for watershed and pipeline right-of-way properties, and (4) issuing non-revenue engineering permits, and (5) identifying properties that should be acquired for the water system.

The Infrastructure Division's Project Management Bureau is responsible for land use planning for the Water System Capital Improvement Program. The Project Management Bureau is in the preliminary stages of planning land use, including land acquisition, for the Water System Capital Improvement Program. The Project Management Bureau will identify properties for acquisition and those properties with encroachments that must be removed for the construction of the Water System Capital Improvement Program. Once the Project Management Bureau identifies these properties, the Real Estate Services Bureau will be responsible for purchases and the removal of encroachments.

Responsibility for real estate and land management should be coordinated within the Public Utilities Commission. The February 2, 2005 draft organization chart transfers the Real Estate Services Bureau from the Business Services Division to the External Affairs Division. The proposed Water Division's Natural Resources Section will be responsible for watershed land management and the Infrastructure Division's Project Management Bureau will have responsibility for the Water System Capital Improvement Program's land use and acquisition management.

The Public Utilities Commission General Manager should establish a formal framework for coordinating the Public Utilities Commission's land use and real property management policies and protocols. Specifically, the General Manager should assign to the Assistant General Managers for External Affairs, Water and Power, and Infrastructure the joint responsibility for coordinating land use and property management, including protocols for establishing management oversight of (a) real property and land inventories, (b) surplus property identification, (c) property sales and acquisition procedures, (d) encroachment identification, management, and removal, and (e) other land and property management issues. The General Manager should require comprehensive written land and property management protocols, which should incorporate existing policies and procedures into a single document, prior to July 1, 2005, and quarterly joint reports from the Assistant General Managers for External Affairs, Water and Power, and Infrastructure on property and land management.

Property Inventories and Surplus Properties

The Public Utilities Commission lacks a comprehensive inventory of its property holdings. The Budget Analyst's 1994 Audit of Public Utilities Commission's Water

Department found that the Real Estate Services Bureau[2] did not have a comprehensive property inventory of the Public Utilities Commission's property holdings, and recommended that the Division develop such an inventory. To date, the Real Estate Services Bureau has not created a comprehensive property inventory because, according to the Director of the Real Estate Services Bureau, the City's Department of Administrative Services Division of Real Estate has a property inventory list. The Division of Real Estate maintains a database of all City properties located in San Francisco. However, for all Public Utilities Commission properties outside of San Francisco, the Division of Real Estate only maintains high level summary data. This is inadequate for land management and planning purposes. A comprehensive property inventory should include information that would be the basis of a comprehensive evaluation of the Public Utilities Commission's property holdings, such as (a) data regarding potential uses, (b) if currently leased, lease uses and restrictions, (c) property rights of adjoining property owners, (d) characteristics of adjoining properties uses, (e) water pipeline locations, and (f) other information regarding the importance of the property to the utility.

Because the Public Utilities Commission does not have a comprehensive property inventory, the Public Utilities Commission (1) cannot identify all surplus properties, (2) could overlook vacant property with leasing potential, and (3) cannot evaluate Public Utilities Commission property holdings for overall land management and planning.

The Real Estate Services Bureau currently maintains an excel file with comprehensive information regarding active leases and permits but does not maintain information about property not under lease or permit to a third party. The Water and Supply and Treatment Division maintains a Geographical Information System for watershed and pipeline right-of-way properties only, which includes pipe locations, and identified right-of-way encroachments.

The General Manager should direct the Real Estate Services Bureau to develop and maintain a comprehensive property inventory of the Public Utilities Commission's property holdings, which incorporates the Real Estate Services Bureau database and the Water and Supply and Treatment Division Geographical Information System information. This comprehensive property inventory should serve as the basis for evaluating all of the Public Utilities Commission's property holdings and for coordinating land management among the divisions with various responsibilities for properties.

[2] In 1994, the Real Estate Services Division was called the Commercial Land Management Bureau and was located in Operations under the Water and Supply Treatment Division.

Surplus Property

According to departmental staff, the Department historically did not sell its property holdings to generate revenue. However, interest in using sale revenue to fund acquisitions for additional watershed properties, security improvements, and most recently, for the Water System Capital Improvement Program, has resulted in the identification and sale of four large surplus properties since 2001. These four land sales generated approximately $159,368,252 in revenue, the majority of which came from the $135,000,000 Bernal Property sale in Pleasanton. Departmental staff advises that in the next two years, ten properties will be recommended to the Public Utilities Commission for sale, and, if approved, would generate an estimated $49,115,000 in revenue. In the following five years, a further nine properties will be recommended for sale, and, if approved, would generate estimated revenues of $77,050,000, for an estimated $285,533,252 in sale revenues over a seven year period.

Table 11.1
Public Utilities Commission Large Property Sales
Completed, Pending and Proposed

Time Period	Number of Properties	Revenues Generated or Projected
FY 2000-2001 through FY 2003-2004	4	$159,368,252
FY 2004-2005 through FY 2005-2006	10	49,115,000
FY 2006-2007 through FY 2009-2010	9	77,050,000
Total	**23**	**$285,533,252**

Source: Real Estate Services Bureau

While the Department has not identified all properties that are surplus to the needs of the water, clean water and power utility systems, the Department has identified these above listed properties for sale following a query of surplus properties and an evaluation of development potential. According to the Director of the Real Estate Services Bureau, in 2001 and 2002 the Bureau reviewed all Public Utilities Commission-owned property and queried all departments, including the Hetch Hetchy, Water, and Clean Water Enterprise Departments, regarding property holdings surplus to their needs. Based on this review and query, the Real Estate Services Bureau, working with a consultant, evaluated the Public Utilities Commission's property holdings to identify development capability and potential revenues if sold. The Real Estate Services Bureau produced a report, entitled *Surplus Under-Entitled Properties Preliminary List,* which included the major properties identified as surplus and available for sale. Most of the properties on the Preliminary List have not been required for the Department for over 20 years. For example the Francisco

Reservoir located at Bay and Hyde Street, has not been used since the 1940s and could generate estimated revenues exceeding $50 million, depending upon zoning requirements. Notably, of 29 properties on the Surplus Under-Entitled Properties Preliminary List, only four have been declared surplus by the Public Utilities Commission.

Surplus Property Policy

The Public Utilities Commission does not have a formal policy to identify and sell surplus property. Instead, whether to request that the Public Utilities Commission declare a property surplus is determined on a case-by-case basis at the staff level or in a closed session of the Public Utilities Commission. Without a formal Public Utilities Commission policy regarding the sale of surplus property, staff can make policy decisions regarding surplus land on a case-by-case basis, outside of the context of larger land management and planning issues. This practice may prevent the Public Utilities Commission, the Board of Supervisors and the Mayor from entering into policy discussions about the best uses for these surplus property holdings, some of which present significant land use questions and development opportunities.

The Public Utilities Commission should adopt a formal policy regarding the identification and sale of surplus property, including criteria for when properties may be declared surplus and the conditions, if any, under which the Public Utilities Commission would maintain ownership of property that is not required for the water, clean water and power utility systems.

Identification Process of Surplus Property and Lease Uses

The Department does not have a formal process of coordination between the Water Enterprise Department's Water Supply and Treatment Division, and the Clean Water and Hetch Hetchy Enterprise Departments and Business Services in the identification of surplus property and in determining potential uses for properties. According to the Director of the Real Estate Services Bureau, the Bureau notifies the Water Supply and Treatment Division Manager about the potential property sale and requests the Division Manager's evaluation and approval, prior to presenting the property to the Public Utilities Commission. However, Water Supply and Treatment Division staff indicate that in some cases they have not been aware of proposed sale of water system properties until after the sale had been negotiated, and in some cases approved by the Public Utilities Commission. A review of the coordination between the Water Supply and Treatment Division and the Real Estate Services Bureau regarding the option agreement for the sale of the Mountain View Whisman Tyrella property, that includes a portion of the right-of-way, to MasterDevo, a private developer, reveals that:

- The Real Estate Services Bureau issued a Request of Qualification and Proposals on February 13, 2004, before requesting that the Water Supply and Treatment Division evaluate a proposed sale for compatibility with Water System requirements.

- The Real Estate Services Bureau did not proactively initiate environmental review with the Bureau of Resource Management and the Planning Department in preparation of the option agreement, but was instead advised by the City Attorney's Office after the agreement was ready for submission to the Public Utilities Commission that the proposal would require California Environmental Quality Act (CEQA) review.

- The Real Estate Services Bureau coordinated with and received approval from the Maintenance Engineering and Operations and Maintenance Sections for the Water Supply and Treatment Division, but not from Land and Resource Management Section. Notably, the Maintenance Engineering and Operations and Maintenance Sections did not inform the Land and Resource Management Section or the Water Supply and Treatment Division Manager about the proposal.

The Real Estate Services Bureau and the Water Supply and Treatment Division failed to communicate and coordinate effectively regarding the sale of the Mountain View Whisman Tyrella property. Further, sections within the Water Supply and Treatment Division failed to communicate and coordinate effectively, resulting in the failure to notify the Land and Resource Management Section, which is responsible for managing watershed right-of-way properties.

According to the Director of the Real Estate Services Bureau, the Department has a formal policy that outlines required coordination between the Public Utilities Commission's divisions and sections responsible for land and property management before the Real Estate Service Bureau enters into a lease or issues a permit. However, this formal policy does not always result in leases and permits that best meet the needs of the utilities. For example, a review of the Sunol Valley Golf Course lease, which was entered on August 31, 2001, reveals that the Real Estate Services Bureau negotiated this lease agreement with the Sunol Valley Golf Course without including the following lease restrictions which were recommended in the April 2001 Alameda Watershed Plan:

- Stipulate maintenance/repair/replacement schedule for sanitation and waste treatment systems in the lease provisions.

- Reduce risk associated with the chemical toilets by requiring bolting to the foundation and the installation of berm or other secondary containment.

- Conduct ongoing monitoring to detect surface water degradation.

The lack of effective coordination and communication among the Public Utilities Commission's divisions and sections imposes unnecessary risks, especially the sale or use of land that is inconsistent with the requirements of the water utility. The General Manager should direct the Assistant General Managers for External Affairs, Water and Power, and Infrastructure to jointly develop written protocols regarding the decision-making process for the sale of Public Utilities Commission property, which are based on the utilities' land use needs, and are included in the formal property and land use

management protocols. The General Manager should direct the Assistant General Managers for External Affairs, Water and Power, and Infrastructure to jointly review the existing policy for entering into new leases and permits to determine whether this policy is adequate and for inclusion, as revised, in the formal property and land use management protocols.

Evaluation and Planning

According to the Director of the Real Estate Services Bureau, all property not declared surplus by the Public Utilities Commission is considered essential to the water system. However, because property and land use management are currently dispersed, the Public Utilities Commission lacks a comprehensive evaluation of property holdings to determine which properties are essential and which are surplus to the needs of the water, power, and clean water utilities. The Public Utilities Commission risks holding properties indefinitely that are not necessary for the utilities operations, forgoing revenues from sales that could be applied to meet other needs. Although the Public Utilities Commission has adopted a policy to allocate property sales proceeds to future capital projects to mitigate water and clean water rate increases, the Public Utilities Commission lacks a policy to comprehensively identify surplus properties and approve such properties for sale. As noted above, the Public Utilities Commission has only declared four properties surplus of the 29 properties identified by the Real Estate Services Bureau as surplus to the utilities' needs.

Further, the Public Utilities Commission risks holding properties that present a liability to the Commission. For example, the Crystal Springs bypass area, which is landslide prone, creates ongoing liabilities, is not required for the water system, and is not currently being considered for sale.

The General Manager should direct the Assistant General Managers for External Affairs, Water and Power, and Infrastructure to jointly develop written protocols for identifying surplus property, which are based on the utilities' land use needs, and are included in the formal property and land use management protocols. Further, the General Manager should assess the 25 properties already identified by the Real Estate Services Bureau as surplus to the utilities' needs, that have not been previously declared surplus by the Public Utilities Commission, to determine which properties should be presented as surplus properties to the Public Utilities Commission. As part of this assessment, the General Manager should direct the Financial Services Section and the Real Estate Services Bureau to evaluate the potential revenue from the sale of the properties, allocation of such revenues to the Water System Capital Improvement Program projects, impact on the debt financing of such projects, and the impact on future water rate increases.

Managing Encroachments on the Water System Right-of-Way

The Public Utilities Commission has incurred significant liability and associated costs from the encroachment of adjacent property owners or tenants on the Public Utilities

Commission's water system right-of-way. According to the City Attorney's Office, the Public Utilities Commission is engaged in five legal disputes to remove right-of-way encroachments and may face up to 15 legal disputes regarding private property owners or tenants encroaching on the water system right-of-way, resulting in unknown legal and settlement costs to the City.

The Public Utilities Commission has approximately 150 miles of water system right of way, measuring in width from 50 to 80 feet, in Alameda, Santa Clara, and San Mateo Counties. The Water Supply and Treatment Division is responsible for maintaining the right-of-way, including routine patrols of the water supply transmission system, controlling vegetation growth, and identifying right of way encroachment. The Real Estate Services Bureau is responsible for removing encroachments.

Until approximately 10 years ago, the Public Utilities Commission issued "garden permits", allowing adjacent property owners to maintain small garden plots on the water system right-of-way. Many of the formerly permitted gardens remain as encroachments on the right-of-way.

In 2001, the Public Utilities Commission adopted an encroachment policy, which includes:

- All right-of-way shall be free and clear of any and all unauthorized encroachments.
- Any and all necessary actions will be taken to prevent encroachments or cause removal of existing encroachments.
- Removal efforts will prioritize encroachments that are highest risk to the water supply infrastructure or that can be removed easily.

Currently, when an encroachment is identified, Public Utilities Commission staff send a letter to the property owner, directing the property owner to remove the encroachment. The Water Supply and Treatment Division's Land and Resources Management Section provided a report to the Public Utilities Commission in June, 2004, which outlined the water system right-of-way management plan, which includes (a) increased surveillance of the right-of-way, (b) automated right-of-way mapping using the Geographical Information Systems, (c) improved vegetation management, and (d) identifying and authorizing acceptable right-of-way land uses. The June, 2004 report to the Public Utilities Commission included the Real Estate Services Bureau's process for abating right-of-way encroachment.

The Public Utilities Commission General Manager should report to the Board of Supervisors about the existing and projected costs to the City to abate water system right-of-way encroachments during the FY 2005-2006 budget review. Further, because the presence and removal of water system right-of-way encroachment will be important in the planning and construction of Water System Capital Improvement Plan projects, the

General Manager should include a status report on the right-of-way management plan in the Water System Capital Improvement Plan monthly status report.

Conclusion

The Public Utilities Commission lacks comprehensive management of the Public Utilities Commission's lands and real property. This has resulted in inadequate property inventories and the failure to define properties that are essential or surplus to the water, power, and clean water utilities' requirements. Currently, the Real Estate Services Bureau is unable to determine if all real properties are rented or in optimal use. Also, although the Real Estate Services Bureau has identified up to 29 properties that are surplus to the water, power, and clean water utilities' requirements, with estimated sale values exceeding $120 million, the Public Utilities Commission has only declared four of the 29 properties to be surplus. Further, the Public Utilities Commission risks significant legal and other costs from encroachment by adjacent property owners on the water system right-of-way.

The General Manager needs to ensure that responsibility for planning and managing the Public Utilities Commission real property and land is consolidated and coordinated among the Assistant General Managers for External Affairs, Water and Power, and Infrastructure, and that land use and property management procedures are defined in comprehensive written protocols, and that the respective Assistant General Managers report jointly to the General Manager on land use planning and property management.

Recommendations

The Public Utilities Commission should:

11.1 Adopt a formal policy regarding the identification and sale of surplus property including a criteria for when properties may be declared surplus and the conditions, if any, under which the Public Utilities Commission would maintain ownership of property that is not required for the utility.

The Public Utilities Commission General Manager should:

11.2 Establish a formal framework for coordinating the Public Utilities Commission's land use and real property management policies and protocols, including directing the Assistant General Managers for External Affairs, Water and Power, and Infrastructure to jointly coordinate real property and land planning and management, including:

(a) Writing joint protocols for establishing management oversight of

(i) real property and land inventories,

(ii) surplus property identification,

(iii) property sales and acquisition procedures,

(iv) new lease and permit agreements, and

(v) encroachment identification, management, and removal;

(b) Developing written procedures outlining the decision-making process for the sale of Public Utilities Commission property, which are based on the utilities' land use needs, and are included in the formal property and land use management protocols;

(c) Providing comprehensive written land and property management protocols, including incorporating existing policies and procedures into a single document, to the General Manager prior to July 1, 2005; and

(d) Providing quarterly joint reports to the General Manager on property and land management.

11.3 Formally present to the Public Utilities Commission real properties and land which are surplus to the water, power, and clean water utilities' requirements, including:

(a) Directing the Assistant General Managers for External Affairs, Water and Power, and Infrastructure to assess the 25 properties, which have been identified by the Real Estate Services Bureau as surplus to the utilities' needs but which have not been previously declared surplus by the Public Utilities Commission, to determine which properties should be presented as surplus properties to the Public Utilities Commission; and

(b) Directing the Financial Services Section and the Real Estate Services Bureau to evaluate the potential revenue from the sale of the properties, allocation of such revenues to the Water System Capital Improvement Program projects, impact on the debt financing of such projects, and the impact on future water rate increases.

11.4 Direct the Real Estate Services Bureau to develop and maintain a comprehensive property inventory of the Public Utilities Commission's property holdings, which incorporates the Real Estate Services Bureau database and the Water and Supply and Treatment Division's Geographic Information System information.

11.5 Report to the Board of Supervisors on the existing and projected costs to the City to abate water system right-of-way encroachments within the next six months.

11.6 Include a status report on the right-of-way management plan in the Water System Capital Improvement Plan monthly status report.

Costs and Benefits

The Real Estate Services Bureau should identify and determine all Public Utilities Commission property that is available for lease. A 1 percent increase in rental revenues annually would result in $100,000 in additional rental revenues.

Further, if the Public Utilities Commission identified and offered for sale all Public Utilities Commission properties that are surplus to the water, power, and clean water utilities requirements, the Public Utilities Commission would receive at least $120 million in one-time revenues that could be allocated to the Water System Capital Improvement Program. By using an estimated $120 million in land sales proceeds rather than revenue bond debt to finance a portion of the Water System Capital Improvement Program, the Public Utilities Commission could save an estimated $4.8 million annually in interest expenses, based on 4 percent annual interest.

12. Real Estate Services

- **The Public Utilities Commission loses at least $150,000 annually in rental revenues by failing to adjust property rents under the terms of existing leases, conduct appraisals, and collect taxes. For example, the Public Utilities Commission loses an estimated $100,000 annually under the lease agreement with All Auto Dismantlers because the Public Utilities Commission has failed to adjust the monthly rent to fair market value under the terms of the lease. The Public Utilities Commission, which obtained jurisdiction over the subject property in 1997, when the Clean Water Enterprise was transferred from the Department of Public Works to the Public Utilities Commission, has lost an estimated $630,000 in rental revenues from 1998 through 2004.**

- **The Public Utilities Commission also faces significant environmental risks and hazardous waste clean up costs under the lease with All Auto Dismantlers. Although the current lease agreement with All Auto Dismantlers, implemented in 1989, requires that All Auto Dismantlers (a) indemnify the City against losses from environmental hazards and (b) maintain insurance of $1 million, the estimated cost for clean up of existing oil contamination on the leased property in 1990 was more than $500,000, and could now exceed the $1 million insurance requirement. Further, the $1 million policy is for general liability and does not cover environmental clean up costs.**

- **Although the *Commercial Land Management Operating Manual,* adopted by the Public Utilities Commission in 1999, requires the Real Estate Services Bureau to maintain an inventory of all available Public Utilities Commission property considered to be suitable for leasing, the Real Estate Services Bureau does not have a complete inventory. Therefore, the Real Estate Services Bureau is unable to (a) determine if all real properties that are currently leased are leased for the optimal use, and (b) identify properties currently not rented with leasing or permit potential. Consequently, the Public Utilities Commission cannot determine if it receives maximum lease revenues for all properties that could be leased.**

- **The Public Utilities Commission loses an unknown amount of rental revenue by failing to enter into competitive bids for the lease of various properties. Public Utilities Commission policies require competitive bids if there is more than one potential user. However, a review of eight lease files, which were not competitively bid, found that none of the files contained documentation on why the leases were not competitively bid nor on how the lease rates were set. For example, the Real Estate Services Bureau is negotiating a new lease agreement with Decorative Plant Services, Inc, for a 4.39 acre parcel with improvements including a greenhouse, offices and parking located near the Southeast Treatment Facility at 1150 Phelps in the Bayview neighborhood, which has not been competitively bid, although the property most likely has more than one potential user.**

- **The Real Estate Services Bureau has not consistently enforced and implemented the Public Utilities Commission's policies in the *Commercial Land Management Operating Manual,* including ensuring competitive bids for properties where possible, maintaining current rental property inventories, and obtaining Public Utilities Commission approval prior to leasing properties that could be declared surplus to the Public Utilities Commission's needs. The Assistant General Manager, External Affairs, should ensure that the Real Estate Services Bureau consistently complies with the Public Utilities Commission's policies.**

Functions and Activities of the Real Estate Services Bureau

The Public Utilities Commission owns approximately 85,165 acres of land: 1,003 acres in the City and County of San Francisco and approximately 84,162 acres outside of San Francisco. The potential for development of a majority of these properties is severely limited; watershed lands must not be polluted or eroded, and water pipeline right-of-way holdings cannot have any structures or trees that would damage or prevent access to the water transmission pipelines. Additionally, many of the Public Utilities Commission property holdings have limited use potential because of the size, shape and surrounding land uses, and consequently the adjacent properties are often the only potential users. Nevertheless, there are various compatible uses for these properties that are consistent with water policy priorities and are revenue generating.

The Real Estate Services Bureau primarily performs a leasing and permitting function for Public Utilities Commission property. The Real Estate Services Bureau issues permits and leases, subject to use restrictions, for land both inside and outside of the City.

According to its mission statement, the Real Estate Services Bureau is responsible for:

- Managing the Public Utilities Commission's commercial interest in lands and properties owned and occupied by Public Utilities Commission divisions and bureaus.

- Negotiating and managing permits and leases.

- Working with the Public Utilities Commission to develop commercially valuable uses of Public Utilities Commission properties consistent with its utility needs.

- Recommending policies and implementing procedures related to the use, rental, management, and disposal of such property.

In FY 2004-2005, the Real Estate Services Bureau managed 406 separate leases and permits of Public Utilities Commission property totaling approximately 34,690 acres. Therefore, 40.7 percent of the total 85,165 acres of land owned by the Public Utilities Commission is leased or under fee permit for use by private or other governmental entities. Notably, twenty-one agricultural leases, covering 28,759 acres, do not generate significant revenues, but provide watershed protection and fire suppression services. The remaining 5,931 acres of land leased or under fee permit represent 7 percent of all land owned by the Public Utilities Commission.

In FY 2003-2004, leases and permits yielded $9,164,426 in revenues, as summarized in Table 12.1 below. Projected revenues for FY 2004-2005 are anticipated to increase by approximately $500,000.

Table 12.1

Summary of FY 2003-2004 Lease and Permit Revenue Activity

Type of Arrangement	Number	Approximate Acreage	FY 2003-2004 Revenues
Permits	217	1,590[1]	$1,149,317
Leases	21	28,759	8,015,109
Cottage Leases	14	35	
Non-Agricultural Leases	109	4,305	
Total	**406**	**34,689**	**$9,164,426**

Source: Real Estate Services Bureau

Nearly 48 percent of the total revenue from leases and permits comes from 7 lessees, totaling $4,390,004 in rent during FY 2003-2004. The major lessees include two rock quarry operations and two golf courses, listed in Table 12.2 below.

[1] This acreage total for permits does not include the permits for 25,399 linear feet in fiber optic cables that cross Public Utilities Commission rights-of-way.

Table 12.2

Highest Revenue Producing Leases, FY 2003-2004

Lessee	Activity	FY 2003-2004 Revenues
Crystal Springs Golf Course	Golf Course	$1,728,992
Mission Valley Rock Company	Quarry	1,389,036
Santa Clara Sand & Gravel Company	Quarry	391,804
OSH Acquisition Corporation	Store, Parking	246,440
Artichoke Joe's	Parking, Landscaping	230,049
San Francisco Community College District	Classroom and Offices	202,995
Sunol Valley Golf Company	Golf Course	200,688
Total		**$4,390,004**

Source: Real Estate Services Bureau

The 1994 Budget Analyst management audit of the Water Department found substantial weakness in the Real Estate Services Bureau[2], including a lack of documentation about active leases and permits, limited lease and permit agreements which did not provide adequate insurance and environmental protections, and inadequate inspections of lease and permit uses.

The Real Estate Services Bureau has partially implemented four of the Budget Analyst 1994 Management Audit 11 recommendations. Specifically, the Real Estate Services Bureau has (1) created and maintained a listing of all leases and permits, (2) developed the *Commercial Land Management Operating Manual,* which includes policies for standard leasing rates, property monitoring, removal of encroachments, and environmental protections, (3) converted some permits to leases and increased rental revenues, and (4) improved the reporting and recovery for delinquent accounts. However, despite these significant improvements, there are still a number of ways the Real Estate Services Bureau and the Public Utilities Commission could improve its real estate practices.

The Public Utilities Commission adopted the *Commercial Land Management Operating Manual* in October of 1999 and includes all of the Public Utilities Commission policies discussed in this report.

[2] In 1994, the Real Estate Services Bureau was called the Commercial Land Management Bureau and was in the Water and Supply Treatment Division.

Inventorying, Marketing, and Leasing Properties

According to the *Commercial Land Management Operating Manual,* the General Manager executes all leases and permits on behalf of the Public Utilities Commission. In five situations, the General Manager is authorized to execute permits and leases without first obtaining Public Utilities Commission's approval:

- All cottage leases, for employees' use of cottages at Moccasin, Crystal Springs Reservoir and in other locations,
- Leases and permits limited to 90 days in duration,
- "Nominal Value Rentals" not exceeding $100 per month in value or one year in duration,
- $2,500 one time fee permits (one year in duration), and
- All leases and permits that traverse utility crossings and use the Public Utilities Commission standard formula for calculating rent.

All other permits and leases, assignments, and subleases are to be submitted to the Commission for approval.

Further, according to the *Commercial Land Management Operating Manual,* the General Manager can implement leases and permits in addition to the leases and permits noted above at her discretion rather than submitting the leases or permits to the Public Utilities Commission for approval. Although the management audit did not find evidence of abuses of this policy, the policy provides an unnecessary level of discretion to the General Manager. Government agencies should provide an opportunity for public oversight in significant land and property transaction decisions. The policy for lease and permit approval should take into account the potential for abuses under non-ideal circumstances.

The Public Utilities Commission should delete the final sentence from Section 4.020 of the *Commercial Land Management Operating Manual,* deleting the provision authorizing the General Manager to implement leases and permits, except for specific leases and permits authorized under Section 4.020, at her discretion without Public Utilities Commission approval.

Inventory of Property Available for Lease

According to the *Commercial Land Management Operating Manual,* the Real Estate Services Bureau should establish and maintain an inventory of all available Public Utilities Commission property considered to be suitable for leasing. The Real Estate Services Bureau has identified 21 properties, totaling 387 acres, that are available for

lease. According to staff, this list is not a complete or updated list. As described in detail in Section 11 of this report, the Department does not have an adequate property inventory. As a consequence, the Real Estate Service Bureau is unable to (1) determine if all real properties rented are in optimal use and (2) identify properties currently not rented with leasing or permit potential. Therefore, the Public Utilities Commission does not generate the highest possible rental revenue for all properties with leasing or permit potential.

The Real Estate Services Bureau Director should develop procedures to routinely update the inventory of property for lease and should document the Real Estate Services Bureau's marketing and leasing activities for properties available for lease, including providing a monthly report to the General Manager on the Real Estate Services Bureau's marketing and leasing activities.

Leasing Surplus Property

Although the *Commercial Land Management Operating Manual* requires that the Public Utilities Commission approve lease agreements for real property or land that may be declared surplus, the Real Estate Services Bureau does not consistently obtain approval from the Public Utilities Commission before entering into lease agreements for surplus land or land that may be declared surplus. Specifically, based on a review of 25 leases, three leases were entered into after 1999, when the policy manual was adopted, and appear on the *Surplus Under-Entitled Properties Preliminary List*: McCleanhan Horse Stables in San Mateo County, Treasure Island Trailer Court in South San Francisco, and the California Book Store with San Francisco City College.

The Assistant General Manager, External Relations should ensure that the Public Utilities Commission approves all lease agreements for real property that is surplus or may be declared surplus prior to the Real Estate Services Bureau executing a lease agreement.

Competitive Selection of Leases and Permits

The 1994 Management Audit found that most leases were entered into without exposing the properties to the market. Consequently, the 1994 Management Audit recommended that the Real Estate Services Bureau:

1. Accept lease bids in all cases where more than one interested party can be identified.

2. Expose all available property to the market by (i) providing copies of the inventory, as well as notice of specific leases up for renewal, to local real estate brokers and county planning officials, (ii) maintain lists of all property inquiries, and inform interested parties that outside bids will be accepted prior to renewal of an existing lease, (iii) purchase occasional newspaper advertisements to list properties with greatest lease potential.

To date, none of these recommendations has been fully implemented. Of the 109 active leases, only three, Crystal Springs Golf Course, Sunol Valley Golf Course, and Santa Clara Sand and Gravel, selected tenants through a competitive process. Additionally, the inventory of properties available for lease is not routinely provided to real estate brokers and county planning officials, and the Real Estate Services Bureau does not maintain a list of all property inquiries, and has never purchased a newspaper advertisement to list properties with the greatest lease potential. This continued failure to expose the majority of properties to market is likely resulting in a reduction in revenues.

According to the *Commercial Land Management Operating Manual*, the Real Estate Services Bureau should utilize a public bidding process if the Real Estate Services Bureau Director determines that there is more than one potential user and the bidding process may result in increased rent.

In the file review of 25 leases, eight leases were entered into or renewed after October of 1999, and in these eight instances, none were the result of a competitive process. Notably, these files did not include documentation stating that these lessees were selected without a competitive process because only one potential bidder was available or the bidding process would not have resulted in increased rent.

According to the Real Estate Services Bureau Director, in most lease agreements, no bid is warranted because the Public Utilities Commission's leases are the result of a direct negotiation with neighbors adjacent to the pipeline right-of-way. While this statement is accurate, the Real Estate Services Bureau should not negotiate a lease with the first potential lessee to inquire about a parcel, often the adjacent neighbor, without first analyzing and documenting whether there may be more than one potential user.

Of the file review's eight leases that were negotiated or implemented after 1999, two cellular telephone communication tower leases could have potentially been competitively bid: Metro PCS San Francisco and Metro PCS Burlingame. The lease files contained no documentation on why these properties were not competitively bid or on how lease rates were set.

Additionally, the Real Estate Services Bureau is in the process of negotiating a new lease agreement with Decorative Plant Services, Inc, for a 4.39 acre parcel with improvements including a greenhouse, offices and parking located near the Southeast Treatment Facility at 1150 Phelps in the Bayview neighborhood. The Decorative Plant Services lease expired in March of 2002, and the tenant has continued to lease the property on a month-to-month basis since that date. Although the property likely has more than one potential user, the new lease agreement, which is now under negotiation, is not the result of a competitive process.

The General Manager of the Public Utilities Commission should direct the Real Estate Bureau Director to document the analysis of whether there is more than one potential user and present this analysis to the Public Utilities Commission at the time the Public Utilities Commission considers approval of lease agreements. For permits and lease

agreement where Public Utilities Commission approval is not required (in the circumstances outlined above), the Director of the Real Estate Services Bureau should maintain such analysis within the lease and permit file.

Lease and Permit Revenues

The Real Estate Services Bureau does not consistently apply rent increases, conduct appraisals, and collect taxes in accordance with lease provisions. In the review of 25 real estate lease files, the Budget Analyst found that Real Estate Services Bureau properly applied lease terms related to rental adjustments in the majority of cases. In a few instances the Bureau failed to apply the lease provisions related to adjusting the rental rate, reappraising the properties when given the opportunity, and collecting reimbursements for taxes paid by the Public Utilities Commission, resulting in foregone revenues.

All Auto Dismantlers (L3911)

In the lease agreement with All Auto Dismantlers, located at 39 Quint Street in San Francisco, the rent has not been increased in accordance with the lease terms nor has a timely appraisal been conducted. The Public Utilities Commission, which obtained jurisdiction over the subject property in 1997, when the Clean Water Enterprise was transferred from the Department of Public Works to the Public Utilities Commission, has lost an estimated $630,000 in rental revenues from 1998 through 2004. According to the terms of the current lease with All Auto Dismantlers, which commenced August 1, 1989, rent was to be increased annually through July 31, 1992, increasing from $3,400 per month on August 1, 1989 to $5,650 per month on August 1, 1991, and if the lease was still in effect August 1, 1992, the City was to establish a new monthly rent based on an independent appraisal. The All Auto Dismantlers rent was adjusted to $4,500 on August 1, 1991, one year after the rent adjustment date specified in the lease and has not been adjusted since that time. Further, the Department of Administrative Services Real Estate Division did not appraise the property until May, 2001. The 2001 appraisal found that fair market rent in for the property ranged from $12,361 to $16,206 per month, compared to the $4,500 per month currently paid by the tenant.

Bay Area Cellular Telephone (L3815)

The annual rent increases for this lease in 2004 and 2005 were 1 percent and 2 percent respectively, based on the percent increase in Consumer Price Index. The lease states, however, that the minimum rate increase is to be 3 percent. For 2004 and 2005, this oversight resulted in $1,277 in lost revenues over two years, or $639 annually.

Bianchi Joint Venture (L3836)

The annual rent increases for this lease in 2003 and 2004 were 1.4 percent and 1 percent respectively, based on the percent increase in Consumer Price Index. The lease states,

however, that the minimum rate increase is to be 2 percent. For 2003 and 2004, therefore, this oversight resulted in $293 in lost revenues, or $147 annually.

KLA Instruments (L3554A)

According to the lease, every ten years the Public Utilities Commission can request a reappraisal of the leased property in order to raise the rent to fair market value. The request must be made in writing to the lessee 180 days prior to the ten-year anniversary of the lease commencement, which was July 1, 1985. In the spring of 1995, the Department performed an appraisal of the property leased to KLA Instruments and determined that the fair market rent should be $5,490 per month instead of the existing rental rate of $2,819 per month. The Real Estate Service Bureau failed, though, to submit its request for reappraisal in writing to the lessee, so it could not pursue the rent increase. Had it done so, the current rent would be approximately $85,959 per year instead of $44,240, which represents an annual loss of $41,719. Since 1996, the revenue loss totals approximately $367,330.

Mission Valley Rock Company (L3292, L2555A, L3821, and L3931)

In the Budget Analyst's 1994 Management Audit, a review of the leases revealed that the Mission Valley Rock Company lease did not require the company to reimburse the City for taxes and assessments, although another quarry lease with Santa Clara Sand & Gravel Company does require such reimbursement. Land assessments for the main Mission Valley Rock Company lease in FY 1992-1993 totaled $24,445. Although the lease is not scheduled to expire until the year 2012, the Management Audit recommended that the Public Utilities Commission require the Mission Valley Rock Company to reimburse taxes and assessments for the existing lease property as a condition of entering into a proposed lease agreement with the Public Utilities Commission for another 167-acre property. The Real Estate Services Bureau failed to implement this recommendation, and to date the main Mission Valley Rock Company lease does not require the company to reimburse the City for taxes and assessments for the main Mission Valley Rock lease, resulting in $11,222 annual costs to the Public Utilities Commission for taxes and assessments that should have been reimbursed by the Mission Valley Rock Company.

<u>Recommended Actions to Improve Lease Management</u>

According to the documentation in the lease files, the Public Utilities Commission failed to increase the rent or make other lease adjustments due to the tenant's financial difficulties, as in the case of All Auto Dismantlers, or Real Estate Services Bureau staff error, resulting in lost revenues of approximately $153,737 annually.

The Assistant General Manager, External Affairs, should direct the Real Estate Services Bureau Director to (1) adjust rents and conduct appraisals in accordance with lease agreements, (2) charge tenants for taxes and assessments uniformly, and (3) provide monthly reports to the Assistant General Manager, External Affairs, on the status of all leases. Further, the Public Utilities Commission should adopt a policy, requiring Public

Utilities Commission approval for all adjustments or other actions that are outside the terms of the existing lease or permit agreement.

Preferred Contractual Agreement Types: Leases or Permits

In the majority of cases, the Real Estate Services Bureau issues permits instead of negotiating leases. According to departmental staff, the primary use for permits is to provide a vehicle for an interim use of a piece of property, or to provide a simpler format for an arrangement that involves a small parcel and a minor financial consideration. Permits are open-ended in duration, and provide few rights to the permittee.

Although permits give the Department greater flexibility in managing its properties, permits have two major disadvantages:

1. Permits are less valuable to the user than leases, because they do not provide secure rights to use of the property for a defined period of time, and therefore leases often command higher payments than permits.

2. Permits do not allow the Public Utilities Commission to require as much of a permittee as a lessee in terms of improvements to or maintenance of the property.

The 1994 Management Audit found that the Real Estate Services Bureau had historically issued permits in many cases where leases were more appropriate, and as a result, recommended that the Real Estate Services Bureau:

1. Work with the City Attorney's office to draft a Public Utilities Commission resolution that would clearly define the conditions under which a permit in lieu of a lease should be issued.

2. Commence a process of converting permits to leases.

3. Reappraise properties being converted from permit to lease to take into account the greater value to the tenant of a lease over a permit.

The Real Estate Service Bureau has partially implemented the recommendations to commence a process of converting permits to leases and to reappraise properties being converted from permit to lease to take into account the greater value to the tenant. Several existing permits have high annual fees and are for uses and terms similar to many of the existing 109 leases, which suggests that these permits may more appropriately be leases. Table 12.3 summarizes five examples of permits that should potentially be leases.

Table 12.3

Permits That Are Potential Leases

Permit Name	Annual Fee	Date of Issuance	Use
Glendale Federal Savings	$15,478.56	08/01/88	Driveway and parking
Opportunities Industrialization Center West	$14,938.32	02/01/94	Parking and landscaping
Pacific Nurseries	$12,600.00	05/15/97	Growing nursery stock
71 Stevenson Place	$34,329.60	11/01/85	Plaza
Sequoia Wood Apartments	$21,312.72	11/01/04	Parking and landscaping
Willow Park Mt. View Home Owners Association	$11,127.48	11/01/88	Parking and landscaping

Source: Real Estate Services Bureau

According to the Director of Real Estate Services, the City Attorney has recently advised that permits are better than leases because they give the tenant less control over the Public Utilities Commission properties and therefore has recommended that permits be the preferred agreement type. However, because the property holdings vary in terms of importance to the water, clean water, and power enterprises, the decision to enter into a lease or permit based on the property protections and revenue considerations would vary. The Real Estate Services Bureau should work with the City Attorney's office to draft a Public Utilities Commission policy that updates and clearly defines the conditions under which permits and leases should be issued for use of Public Utilities Commission property.

Administrative Costs

According to the *Commercial Land Management Operating Manual*, the costs of monitoring and maintaining a leased property should not exceed the potential rent revenue. The Public Utilities Commission incurs costs for property clean up but does not appropriately account for these costs by tenant. For example, the Water Supply and Treatment Division had to clean up property, including mitigating stone dust and other debris, after a tenant, Stone Creations, vacated its property, but did not appropriately account for these costs. Further, the Real Estate Division does not maintain an accounting of their costs by lease. Therefore, the Department does not have the necessary cost

information to evaluate whether the costs to monitor or maintain a leased property do not outweigh the potential rent revenue.

The General Manager should direct the Finance Services Bureau to work jointly with the Water Supply and Treatment Division to develop a system to track time and material costs to specific tenants. The Real Estate Services Bureau should collect such cost information from the Water Supply and Treatment Division, compile the actual costs to monitor and maintain leased property compared to rent revenue, and present this report annually to the General Manager.

Environmental Protection, Compliance and Property Inspections

Environmental Protection

The Public Utilities Commission currently includes provisions in property leases and permits to protect Public Utilities Commission property and reduce liability. Since 1999, the Real Estate Services Bureau has included provisions in all new lease and permit agreements, specifying insurance and indemnification requirements, environmental protection, and use restrictions.

However, the Public Utilities Commission faces significant risks or liability for lease and permit agreements entered into prior to 1999. For example, the Peninsula Sportsman's Club, a for profit organization, leased 17 acres of Bayside property from 1939 until 1994 to operate a trap and skeet range resulting in the accumulation of lead shot and clay pigeon debris. In 1996, the Department evicted the Peninsula Sportsman's Club from the property and shortly afterward, the Club declared bankruptcy, leaving no recoverable assets. The approximately $20 million cost to the Public Utilities Commission to cleanup this property is ongoing. The lease agreement between the Public Utilities Commission and the Peninsula Sportsman's Club lacked provisions to allow the Department to recover any of the abatement costs from the Peninsula Sportsman's Club's insurance carrier.

The file review found one example of a current lease agreement lacking insurance requirements, environmental protections, and use restrictions to adequately protect Public Utilities Commission property. All Auto Dismantlers leases the property at 3911 Quint Street in San Francisco, a 1.3 acre parcel in San Francisco's Bay View neighborhood. In 1990, a visual inspection that a consultant conducted at the City's request found evidence of soil contamination from oil leakage, and estimated that the cost of cleanup would be approximately $546,500. The City Attorney's Office advised the Clean Water Enterprise to establish the degree of soil contamination, and to seek legal redress for the clean up costs from the State, which transferred the property to the City in 1978. The City Attorney further advised that recovery of the clean up costs from the State would be unlikely. The current lease agreement, executed in 1989, includes indemnification for the lessor from lessee-caused contamination of property, and includes an insurance requirement of $1 million. However, the Public Utilities Commission does not have a

current estimate of potential clean up costs, which may exceed the $1 million insurance coverage. Further, the tenant's insurance is a general liability policy and therefore does not cover environmental clean-up costs. The tenant continues to dismantle automobiles on the property. As previously discussed, the Public Utilities Commission has forgone approximately $630,000 in rent from this tenant for the period from 1997 through 2004.

The General Manager should direct the Real Estate Services Bureau, in coordination with the City Attorney's Office, to determine the extent and source of the contamination at 3911 Quint Street, and recover the costs attributable to All Auto Dismantler. Further, the Real Estate Services Bureau should terminate the lease agreement with All Auto Dismantlers and evaluate this property holding for its necessity for the Clean Water Enterprise, and its highest and best use, including declaring the property surplus to the clean water utility's requirements if appropriate.

The General Manager should also direct Real Estate to review all agreements entered into prior to 1999 to evaluate whether the insurance and indemnification requirements, environmental protection language, and use restrictions included in these contracts are adequate. The Real Estate Director should work with the City Attorney to include the necessary protections in these agreements at the earliest opportunity.

Compliance and Property Inspection

Contractual environmental protections and use restrictions can only be enforced if there is regular, on-site monitoring of property under lease or permit. In the 1994 Management Audit, the Budget Analyst found that the Bureau only inspected properties in response to complaints from the public or from operations staff who happen to observe a condition that appears to be a hazard. In response, the 1994 Management Audit recommended that the Bureau of Real Estate:

1. Identify high priority leases and permits for regular inspection regarding compliance with lease/permit terms.

2. Inspect directly or summarize contract terms and obtain cooperation from operations personnel to carry out inspections.

To date, none of the recommendations has been implemented. The *Commercial Land Management Operating Manual* requires that Real Estate Services Bureau staff thoroughly inspect all property under lease or having potential to be leased at least semi-annually in order to monitor compliance with lease terms. At the time of lease/permit commencement, a move-in form is to be completed and included in the lease or permit file.

Real Estate Services does not maintain a list of the inspections that have been done. Furthermore, in a review of 50 files, only 20 included inspection forms. There was never more than one inspection form found in any single file, and all inspection forms were filled out with minimal comments, providing little or no useful information. The most

recent date of any inspection form was April 8, 1999. No move-in forms, as required by Public Utilities Commission policy, were in any of the reviewed files.

Real Estate Services Bureau professional staffing consists of one Director, one Senior Real Property Officer, four Real Property Officers, and one 1052 Information System Business Analyst position. According to the Real Estate Services Bureau staff, the four Real Property Officers visit and inspect leased and permitted properties, but the reporting component has been generally ignored unless a specific instance arises that requires documentation. Formal inspections still occur on a case-by-case basis, usually triggered when Public Utilities Commission staff from Real Estate Services Bureau or the Water Supply and Treatment Division find or are made aware of a use violation on a leased or permitted property. After the Water Supply and Treatment Division contacts Real Estate Services concerning the violation, Real Estate Services is responsible to remedy the situation.

The Real Estate Services Bureau should review its policies and procedures for inspecting properties and documenting inspections, including reviewing all leases and permits to identify those that are the highest priority for inspection, based on property use, location, or other considerations, and coordinate inspections with the Water Supply and Treatment Division staff who patrol rights-of-way and maintain watershed property.

Additionally, the Real Estate Services Bureau should review the inspection process and revise the inspection documentation form to address specific issues, including if the tenant is following use restrictions, and potential environmental degradation.

Lake Merced Properties

The Real Estate Services Bureau is responsible for managing the Public Utilities Commission's leases and permits, with the exception of the Lake Merced tract properties. The Recreation and Parks Department negotiates, manages and collects revenues for the Lake Merced tract. Lessees include the Harding Golf Course and the Pacific Rod and Gun Club. This arrangement dates back to a 1950 Resolution that provided the Recreation and Parks Department the right to occupy, use and improve, for park and recreational purposes, all of the area in the Lake Merced tract. The Pacific Rod and Gun Club's use of lead shot prior to 1994 has resulted in lead contamination of the surface soil around Lake Merced. The Public Utilities Commission faces legal costs, environmental risks and hazardous waste clean up costs associated with this tenant's use of the Lake Merced tract. The management audit did not review the Lake Merced Properties, which are currently managed by the Recreation and Parks Department, during the file review. Notably, however, the Public Utilities Commission and the Recreation and Parks Commission do not have a Memorandum of Understanding related to the use and maintenance of the Lake Merced tract.

The Public Utilities Commission and the Recreation and Parks Commission, in conjunction with the City Attorney's Office, should develop a Memorandum of Understanding for the Lake Merced tract properties which includes a joint protocol for

management oversight and maintenance for the Lake Merced tract. A Memorandum of Understanding between the Public Utilities Commission and the Recreation and Parks Commission would be an initial step in identifying responsibility for and solutions to the Lake Merced land and property management, including potential environmental issues.

Conclusion

The Real Estate Services Bureau has implemented policies and practices to better manage Public Utilities Commission property, including (1) creating and maintaining a listing of all leases and permits, and (2) implementing the *Commercial Land Management Operating Manual*, which includes policies for standard leasing rates, property monitoring, removal of encroachments, and environmental protection. However, despite these policies and practices, the Real Estate Services Bureau and the Public Utilities Commission should improve real estate practices related to (1) executing leases and permits, (2) inventorying property available for lease, (3) leasing surplus property, (4) collecting lease and permit revenues, (5) negotiating leases instead of issuing permits, and (6) inspecting leased and permitted property for compliance with lease and permit terms.

Recommendations

The Public Utilities Commission should:

12.1 Delete the final sentence from Section 4.020 of the *Commercial Land Management Operating Manual*, removing the provision authorizing the General Manager to implement leases and permits, except for specific leases and permits authorized under Section 4.020, at her discretion without Public Utilities Commission approval.

12.2 Adopt a policy that defines the criteria that the Real Estate Services Bureau Director uses when determining if it is appropriate to put a property out to bid.

12.3 Adopt a policy that updates and clearly defines the criteria for issuing a permit or entering into a lease agreement for the use of Public Utilities Commission property.

12.4 Adopt a policy requiring Public Utilities Commission approval for all adjustments or other actions that are outside the terms of the existing lease or permit agreement.

The Public Utilities Commission and the Recreation and Parks Commission, in conjunction with the City Attorney's Office should:

12.5 Develop a Memorandum of Understanding for the Lake Merced tract that includes a joint protocol for management oversight and maintenance of the Lake Merced tract.

The General Manager of the Public Utilities Commission should:

12.6 Direct the Real Estate Services Bureau Director to document the analysis of whether there is more than one potential user and present this analysis to the Public Utilities Commission at the time the Public Utilities Commission considers approval of lease agreements.

12.7 Direct the Finance Services Bureau to work jointly with the Water Supply and Treatment Division to develop a system to track time and material costs for work performed for specific tenants.

12.8 Direct the Real Estate Services Bureau, in coordination with the City Attorney's Office, to determine the extent and source of the contamination at 3911 Quint Street, San Francisco, and recover the costs attributable to All Auto Dismantler.

12.9 Direct Real Estate Services Bureau to review all agreements entered into prior to 1999 to evaluate whether the insurance requirements, environmental protection language, and use restrictions included in these contracts are adequate.

The Assistant General Manager, External Affairs, should:

12.10 Ensure that the Public Utilities Commission approves all lease agreements for real property that is surplus or may be declared surplus prior to the Real Estate Services Bureau executing a lease agreement.

12.11 Direct the Real Estate Services Bureau Director to:

(1) adjust rents and conduct appraisals in accordance with lease agreements,

(2) charge tenants for taxes and assessments uniformly, and

(3) provide monthly reports to the Assistant General Manager, External Affairs, on the status of all leases.

The Real Estate Services Bureau Director should:

12.12 Develop procedures to routinely update the inventory of property for lease.

12.13 Document the Real Estate Services Bureau's marketing and leasing activities for properties available for lease, including providing a monthly report to the General Manager on the Real Estate Services Bureau's marketing and leasing activities.

12.14 Maintain documentation in the lease and permit files on the Real Estate Services Bureau's analysis regarding the number of potential users for specific properties for permits and leases not requiring Public Utilities Commission approval.

12.15 Direct staff to maintain file records of all inquiries regarding properties currently under lease, so that prior to renewing a lease, bids could be solicited from all interested parties.

12.16 In conjunction with the City Attorney's Office, draft a policy to be adopted by the Public Utilities Commission that updates and clearly defines the conditions under which permits and leases should be issued.

12.17 Collect property clean up and other cost information from the Water Supply and Treatment Division, compile the actual costs to monitor and maintain leased property compared to rent revenue, and present this report annually to the General Manager.

12.18 In conjunction with the City Attorney, identify existing leases and permits that do not contain the Public Utilities Commission's insurance, environmental protection, and use restriction provisions, and develop procedures to include the these provisions in these agreements at the earliest opportunity.

12.19 Consider termination of the lease agreement with All Auto Dismantlers, and evaluate this property to determine (1) cleanup requirements, and (2) if the property is surplus to the clean water utility's requirements.

12.20 Include provisions requiring reimbursement of taxes on the original Mission Valley Quarry Company lease into any new lease agreements with the company.

12.21 Adjust rents, conduct appraisals, and collect taxes in accordance with lease agreements.

12.22 Continue converting permits to leases, when appropriate, and applying the policy defining the conditions under which a permits and leases should be issued for use of Public Utilities Commission property, should the Commission adopt one, as recommended above.

12.23 Review Real Estate Services policies and procedures for inspecting properties and documenting inspections, including reviewing all leases and permits to identify those that are the highest priority for inspection, based on property use, location, or other considerations, and coordinate inspections with the Water Supply and Treatment Division staff who patrol rights-of-way and maintain watershed property.

12.24 Review the inspection process and revise the inspection documentation form to address specific issues, including if the tenant is following use restrictions, and potential environmental degradation.

Costs and Benefits

Implementation of the Budget Analyst's recommendations would increase annual rental revenues to the Public Utilities Commission by a minimum of $153,737, and would improve real estate management practices.

13. Water Enterprise Planning and Reporting Deficiencies

- **Despite revenues of $239 million per year, the Water Enterprise does not have a business plan. While the Water Enterprise does have important strategic plans in place or in development, each one focuses only on a portion of the Water Enterprise's functions. Collectively the existing plans do not constitute a business plan for the enterprise as a whole.**

- **The Water Enterprise does not have a business planning context for (a) renegotiating the 1984 Settlement Agreement and Master Water Sales Contract with the Bay Area Water Supply and Conservation Agency which expires in 2009, (b) making informed decisions about the merits of major policy, planning, and financing options, (c) determining future water rates, (d) measuring its performance, (e) determining its optimal personnel resources and organizational structure, (f) comprehensively planning for all of the Water Enterprise's capital needs, and (g) managing future business risks. The Department should develop a Water Enterprise business plan in FY 2005-2006 to address these business risks.**

- **For those Water Enterprise plans currently in place, the monitoring and reporting frameworks to track implementation of required management actions are inconsistent. Plans with insufficient monitoring and reporting frameworks do not ensure sufficient accountability for implementation of management actions approved by the Public Utilities Commission and funded by the Board of Supervisors. The Department should ensure that there are adequate performance measures and reporting mechanisms to allow the Public Utilities Commission to know that approved management actions have been achieved.**

Water Enterprise Plans

In addition to operations plans such as the *Regional Water System Operating Plan*, the *Water Quality Notification Plan*, and emergency response plans, the Water Enterprise has certain key future-oriented strategic plans in place or in development, including:

- *Water Supply Master Plan* (April, 2000). This was developed in conjunction with the Bay Area Water Users Association (the predecessor of the Bay Area Water Supply and Conservation Agency). There has been progress on some of this plan's recommendations. For example, some of the physical facilities identified in the plan were incorporated into the Water System Capital Improvement Program, but none will be completed within the schedule envisaged by the plan. This plan is currently being updated.

- *Alameda Watershed Management Plan* (September, 2000) and the *Peninsula Watershed Management Plan* (June, 2001). These plans set policies and procedures for Alameda Watershed and Peninsula Watershed management and land use over 20 years. Collectively, these watersheds cover approximately 60,000 acres of land in three counties. Departmental staff members advise that these plans, although approved by the Public Utilities Commission, have never been fully resourced, in part because of the Proposition H water rates freeze. An *Alameda Habitat Conservation Plan* is due in the summer of 2006 and a *Peninsula Habitat Conservation Plan* is due in the summer of 2007. These habitat conservation plans, which focus on proactive environmental stewardship of the department's land holdings, are intended to secure 20 to 50 year permits for certain operations and maintenance activities within the Alameda and Peninsula Watersheds.

- *Retail Water Shortage Allocation Plan* (December, 2001). This identifies a process for allocating water amongst the City's retail customers during a system-wide water shortage of up to 20 percent caused by drought.

- *Long-term Strategic Plan for Capital Improvements, Long-range Financial Plan*, and *Capital Improvement Program and Appendices* (May, 2002; annually updated thereafter). These plans, which have guided the Water System Capital Improvement Program to date, are currently being updated again in light of the Public Utilities Commission's February, 2005 guidance on the policy parameters for the Water System Capital Improvement Program. While an important focus of the Water Enterprise, the Water System Capital Improvement Program covers only part of the Water Enterprise's entire infrastructure and operations.

- *North Westside Basin Cooperative Groundwater Management Plan* (draft May, 2004)

- *Lake Merced Level Management Plan* (October, 2004).

- *Integrated Water Resources Plan* (due by October, 2005). This plan will address the portfolio of water sources that can be developed for the City through 2030.

- *Recycled Water Master Plan* and *Groundwater Master Plan* (due in late 2006). The Department is revisiting recycled water and groundwater proposals originally contained in the 1996 *Recycled Water and Groundwater Master Plan* which was not supported by the Public Utilities Commission despite being requested by the Commission in response to the 1987-1993 drought and having gone through the environmental impact review process.

Ramifications of the Lack of a Water Enterprise Business Plan

While individually important, none of the above plans spans the functions and responsibilities of the entire Water Enterprise and there is no Water Enterprise business plan which does so. Business plans are a fundamental management tool for enterprises and are a utility industry best practice. A Water Enterprise business plan would set out the Water Enterprise's management, operational, marketing, and financial goals,

objectives, and performance measures, and specific business initiatives. The lack of a business plan represents a significant risk for the Water Enterprise because:

- The Water Enterprise earns revenues of $239 million per year.

- The Department does not have a clear business vision for the future of the Water Enterprise as it begins the renegotiation of the 1984 Settlement Agreement and Master Water Sales Contract with the Bay Area Water Supply and Conservation Agency which represents the Public Utilities Commission's 29 suburban wholesale customers. This 25-year contract expires in 2009. A key business issue relates to the existing Settlement Agreement and Master Water Sales Contract's provision for the Public Utilities Commission to bill its wholesale customers on a 'utility' payment method, so that they do not pay for a new asset until it is in operation. San Francisco residents bear the costs during construction, and are reimbursed for the wholesale customers' share of the costs through current revenues generated by the completed projects. This is going to be a significant burden on San Francisco residents during construction of the Water System Capital Improvement Program due to that program's cost and length. Negotiations about adopting a 'cash' payment method, whereby wholesale customers bear their share of construction costs as those costs are incurred, rather than the existing 'utility' payment method of determining the wholesale water rates, will require unanimous support from all the signatories to the renegotiated Settlement Agreement and Master Water Sales Contract and will also determine whether or not to use Regional Financing Authority financing for portions of the Water System Capital Improvement Program if that decision has not already been taken prior to 2009. Although the total payment amount under the 'utility' and 'cash' payment methods are the same because all users pay proportionally, there are significantly different cash flow implications at the beginning of a project, for repair and replacement later in the life span of the capital asset, and when projects are completed behind schedule. Another major policy question is the issue of who should pay for additional capacity in the water system given that only a portion of Bay Area Water Supply and Conservation Agency members need capacity increases. However, if the City builds new redundant facilities and derives a benefit (such as increased water system reliability and operational flexibility) from them, then it will liable for part of the cost.

- There has not been a regular forum in which to make informed decisions about the merits of major policy, planning, and financing options developed by the individual operating divisions, the Planning Bureau, and the Financial Services Section. For example, will the Hetch Hetchy water supply need to be filtered at some point in the future? How will the Water Enterprise respond to the increasing complexity of environmental regulations? What would be the water system impacts of removing O'Shaughnessy Dam? What new water sources should be developed (for example, groundwater, recycled water, and desalination) and how should that development be financed? How will water from such sources be produced, treated, delivered, and billed for in the future, and what are the operational and customer service components of utilizing such water sources? In terms of protecting the watersheds and mitigating

for the environmental impacts of large construction projects, what Public Utilities Commission property holdings are surplus, and what processes and criteria are necessary to make that determination, and what new land purchases, easements, or other types of land rights should be pursued? How should the proceeds from one-time surplus property sales be spent? How can the Public Utilities Commission enhance its partnership relationships with neighboring utilities, particularly given the Federal and State governments' increasing emphasis on utilities integrating their water resources planning?[1] What should the Public Utilities Commission do proactively in relation to Federal and State water initiatives that could affect the City's future water supplies?

- There is no business planning context for determining future water rates. While the Water Enterprise is able to develop projections on the impact of the Water System Capital Improvement Program on water rates, it has yet to determine the optimal mix of ongoing repair and replacement investments and operating strategies required for the water system, and what impact the resulting mix of capital investment and operating strategies would have on water rates. Departmental staff members advise that an asset management approach, which aims to determine the optimal mix of capital investments and operating strategies to deliver a chosen level of service at the lowest possible cost, will assist in this process.

- There is no organizational performance measurement framework for the Water Enterprise to measure its performance in terms of financial, infrastructural, social, and environmental goals. Individual staff performance is not measured in the context of a business plan's goals, objectives, and performance measures.

- There is no business planning context for determining the optimal personnel resources required for, and organizational structure of, the Water Enterprise.

- The Water System Capital Improvement Program does not include the Water Enterprise's annual repair and replacement program, other priority capital improvement projects not included in the Water System Capital Improvement Program[2], the new facilities' ongoing operational costs, and future technological advances (for example, extending the use of SCADA, the Geographic Information System, the MAXIMO maintenance management system, electronic records management, the department's website, and automated meter reading to maximize the

[1] For example, the East Bay Municipal Utility District, with whom the Public Utilities Commission shares a water system intertie, is also an upstream water diverter with similar concerns as the Public Utilities Commission about potential threats to its water rights. The Public Utilities Commission also shares customers in eight cities and a water system intertie with the Santa Clara Valley Water District. The Public Utilities Commission is partnering on recycled water and groundwater projects with Daly City, the North Coast County Water District, and the City of South San Francisco.

[2] The Water Supply and Treatment Division recently compiled a summary document of estimates from a variety of reports that there are unfunded regional water system repair and replacement needs of at least $67,000,000 - $83,000,000 to maintain filtration avoidance and delivery reliability alone. This figure does not include the unfunded capital improvement needs of (a) the regional water system in relation to ensuring an adequate water supply and asset management, (b) the Hetch Hetchy Enterprise, or (c) the City Distribution Division.

cost and security benefits of centralized information and increased automation). As noted in the *Red Oak Consulting Performance Assessment Phase I (Draft Interim Report),* the Public Utilities Commission lacks a comprehensive facilities master plan for the entire water transmission and treatment system.

- There is no business planning context for risk management. For example, how much water rationing would be acceptable during a multi-year drought?

Recommended Action

The Public Utilities Commission General Manager should (a) complete a Water Enterprise business plan in FY 2005-2006, and (b) develop an ongoing Water Enterprise business planning process to ensure that the Water Enterprise business plan is regularly updated from FY 2006-2007 onwards.

Monitoring and Reporting on Plan Implementation

At the beginning of this audit section, there is a list of the key plans the Water Enterprise has in place. These plans shape the Water Enterprise's work program. However, the frameworks for systematic monitoring of, and reporting on, implementation of these plans are highly variable. This section contrasts the monitoring and reporting frameworks of two sets of reports: (a) the *Alameda Watershed Management Plan* and the *Peninsula Watershed Management Plan*, and (b) the *Lake Merced Level Management Plan*. The following analysis is not intended to compare the value or scope of these two reports. The watershed management plans are important policy statements and management tools which cover much larger property assets and a much greater range of functions and environmental issues, and therefore pose much greater management challenges, than the *Lake Merced Level Management Plan*. Departmental staff members argue that the watershed management plans represent the completion of a complex planning effort and have resulted in substantial changes to the way the Department manages its watersheds. The Budget Analyst concurs that the development of these plans places the Department in a much better stewardship position than it would otherwise be in if the Department had not completed the watershed planning process. The following analysis is focused solely on the question of how to ensure accountability for implementation of the plans' recommendations.

Alameda Watershed Management Plan and *Peninsula Watershed Management Plan*

For example, both the *Alameda Watershed Management Plan* and the *Peninsula Watershed Management Plan* contain extensive lists of recommended "management actions." Table 6-1 in each report specifies that Phase 1(B) management actions, which are among the highest priority management actions, should be implemented between April of 2001 and April of 2006 for the *Alameda Watershed Management Plan* and between the Spring of 2002 and the Spring of 2007 for the *Peninsula Watershed Management Plan*. At the time the plans were published, the status of many of these management actions was described as "To Do," "Ongoing," or "Initiated." Lower priority Phase 2(B) management actions should be implemented within ten years of plan

adoption, while Phase 3(B) management actions should be implemented within 20 years of plan adoption. Further, the two plans are due to be revised every five years.

There are also a number of subsidiary reports, including: *Fire Management Plan Peninsula Watershed* (August, 1996; updated March, 2002); *Alameda Creed Watershed Grazing Resources Management Plan* (July, 1997); *Fifield/Cahill Ridge Trail Element* (September, 1998); *Sunol Valley Resources Management Element* (November, 1998); and *Preliminary Sunol Landscape and Recreation Plan* (July, 1999). There has been no consolidation of the watershed management plans and their subsidiary reports into an overview policy statement of need, or inventory of resources and activities.

In response to the Budget Analyst's request for information about how the Department systematically monitors and reports on implementation of the plans' management actions, the Department responded that:

- "The phased actions contained in Chapter 6 were not designed to be fixed, but were meant to be periodically reviewed and revised and updated as determined by professional [Land and Resources Management Section][3] staff. This characteristic of the plan provides an important ability for managers and resource professionals by allowing for *adaptive management* of the various actions and guidelines dependent upon the changes in conditions, whether climatic, economic, organizational, or political." "Adaptive management" is the concept of institutional flexibility to respond to required or recommended policy changes. Once previously agreed deadlines are met and results have been evaluated, appropriate consideration can be given to policy redirections. The Budget Analyst considers that the Land and Resources Management Section's misinterpretation of "adaptive management" is undercutting the Department's ability to report accurately to the Public Utilities Commission and the Board of Supervisors on the management actions the Public Utilities Commission approved and the Board of Supervisors funded through subsequent budget appropriations. While management's ability to respond to changing conditions is important, management also needs to explain to the Public Utilities Commission why it has to deviate from an explicit set of management actions previously approved by the Public Utilities Commission.

- Land and Resources Management Section staff holds a monthly interdisciplinary watershed project review meeting which assesses proposed projects' compliance with the watershed management plans and the implementation of the watershed management plans' recommended management actions. The Budget Analyst notes that these meetings, while managerially valuable, produce no written document which explicitly links decisions taken to the required management actions of the watershed management plans.

- Land and Resources Management Section staff collect and analyze watershed management data using the Geographical Information System database, the

[3] The Land and Resources Management Section is part of the Department's Water Supply and Treatment Division.

MAXIMO maintenance work database (though this has limited utility), incident reports, and periodic updates of the Tables 6-1 described above. The watershed master plans are also reflected in the Land and Resources Management Section's annual budget requests. The Budget Analyst regards data collection and budget requests as necessary inputs to implementing the watershed management plans. These actions, however, do not constitute a sufficient feedback loop to ensure accountability to the Public Utilities Commission and the Board of Supervisors that required management actions approved by the Public Utilities Commission and funded by the Board of Supervisors are, indeed, being taken. Further, the Budget Analyst notes that updates of the Tables 6-1 provide only a broad sense of each management action's status, and no explanation for the reasons why, when the status is defined as "ongoing," "initiated," "to do," or "done/ongoing" (which is inherently contradictory).

- "The implementation of long-range management actions, for the most part, has not begun … because of lack of funding or staffing or due to the relative priority of the actions when compared with Phase 1 actions, or because other departmental actions have taken a higher priority. For example, the implementation of the Fifield-Cahill Ridge Trail was prioritized higher than other management actions in the watershed plans by direction of the [Board of Supervisors] and [the Public Utilities Commission]." The statement about "lack of funding or staffing" suggests that there was either (a) insufficient departmental advocacy for adequate resourcing of the watershed management plans at the Public Utilities Commission and Board of Supervisors, (b) the Proposition H water rate freeze made adequate resourcing impossible, and/or (c) the Public Utilities Commission knowingly approved plans and required management actions which it could not resource.

- "Periodic revisions (approx[imately] every five years) may be made over the life of the Watershed Management Plans … if necessary. Revisions are not expected to alter the essence of the plans, but will simply correct errors, present new data or clarify ambiguities. For example, mapping of the watershed has resulted in new and improved maps. These would be included in the updated plans. At present, there are no revised documents for review." The Budget Analyst questions the statement that revisions "will simply correct errors, present new data or clarify ambiguities" in light of the advice above that there has already been significant reprioritization of the management actions approved by the Public Utilities Commission in the original watershed management plans.

The Budget Analyst also notes that there is a diffuse spread of environmental and land management responsibilities throughout the Department which are insufficiently coordinated between the operational divisions and the Planning Bureau. At the January 13, 2005 Public Utilities Commission meeting, the Department undertook to consolidate its natural resources management functions into "a visible unit." As part of that initiative, it will be important for the Department to be able to account for the management actions taken to date in response to all relevant planning documents, most notably the watershed management plans, so that it can determine where the shortfalls are, and to focus the new unit's resources at those needs.

Lake Merced Level Management Plan

In contrast to the watershed management plans, the *Lake Merced Level Management Plan* provides a tighter monitoring and reporting structure. It sets out four goals, one of which is to "develop and implement a focused monitoring and reporting program based on lesson learned during the interim period," and sets out the data to be collected for an annual summary monitoring report to be distributed to stakeholders. Further, the Groundwater Program Manager position's FY 2004-2005 performance agreement contains a performance measure specifically about Lake Merced's water level. While this report has a much tighter focus than the watershed management plans noted above, and therefore lends itself more easily to tight monitoring and reporting, it provides a model which could usefully be applied to all other Water Enterprise plans.

Recommended Action

The Public Utilities Commission General Manager should direct the new Assistant General Manager, Water and Power (as recommended in Section 10) to review all existing Water Enterprise plans to ensure that there are adequate performance measures and reporting mechanisms to allow the Public Utilities Commission to know that approved management actions have been achieved. The reports to the Public Utilities Commission should include information on when implementation of recommendations or success in meeting recommended performance measures cannot be met because of funding limitations so that the Public Utilities Commission has the option to modify the affected recommendations or performance measures, or fully fund them.

The Public Utilities Commission General Manager should also report to the Public Utilities Commission during FY 2005-2006 on the status of all management actions in all existing Water Enterprise plans.

Conclusion

Despite revenues of $239 million per year, the Water Enterprise does not have a business plan. While the Water Enterprise does have important strategic plans in place or in development, each one focuses only on a portion of the Water Enterprise's functions. Collectively the existing plans do not constitute a business plan for the enterprise as a whole.

For those Water Enterprise plans currently in place, the monitoring and reporting frameworks to track implementation of required management actions are variable. Plans with insufficient monitoring and reporting frameworks do not ensure sufficient accountability for implementation of management actions approved by the Public Utilities Commission and funded by the Board of Supervisors.

Recommendations

The Public Utilities Commission General Manager should:

13.1 Complete a Water Enterprise business plan in FY 2005-2006.

13.2 Develop an ongoing Water Enterprise business planning process to ensure that the Water Enterprise business plan is regularly updated from FY 2006-2007 onwards.

13.3 Direct the new Assistant General Manager, Water and Power (as recommended in Section 10) to review all existing Water Enterprise plans to ensure that there are adequate performance measures and reporting mechanisms to allow the Public Utilities Commission to know that approved management actions have been achieved. The reports to the Public Utilities Commission should include information on when implementation of recommendations or success in meeting recommended performance measures cannot be met because of funding limitations so that the Public Utilities Commission has the option to modify the affected recommendations or performance measures, or fully fund them.

13.4 Report to the Public Utilities Commission during FY 2005-2006 on the status of all management actions in all existing Water Enterprise plans.

Costs and Benefits

While the Department may need consultant assistance to finalize its Water Enterprise business plan, the primary input should be from departmental staff members expert in water operations so that the Department commits to its own strategic planning processes and results.

A Water Enterprise business plan would allow the Department to address all of the deficiencies listed in the report above in the section "Ramifications of the Lack of a Water Enterprise Business Plan." In particular, undertaking a business planning process, and developing an ongoing Water Enterprise business planning process, would allow the Department to determine how best to:

- Renegotiate the 1984 Settlement Agreement and Master Water Sales Contract with the Bay Area Water Supply and Conservation Agency which expires in 2009.
- Make informed decisions about the merits of major policy, planning, and financing options developed by the individual operating divisions, the Planning Bureau, and the Financial Services Section.
- Determine future water rates.
- Measure its performance in terms of financial, infrastructural, social, and environmental goals.

- Determine the optimal personnel resources required for, and organizational structure of, the Water Enterprise.

- Comprehensively plan for all of the Water Enterprise's capital needs.

- Manage future business risks.

Reviewing all existing Water Enterprise plans to ensure that there are adequate performance measures and reporting mechanisms, and reporting to the Public Utilities Commission during FY 2005-2006 on the status of all management actions in all existing Water Enterprise plans, will ensure that the Department can account for its progress against all management actions approved by the Public Utilities Commission and funded by the Board of Supervisors.

14. Programmatic Environmental Impact Report

- **In its planning for the Water System Capital Improvement Program, the Public Utilities Commission has failed to make a timely determination of the need for a programmatic environmental impact report under the California Environmental Quality Act. This is in spite of the Public Utilities Commission's considerable investment in expert consultant support, most notably the $45 million, greater than four years Program Management Services Contract which has environmental services subconsultants, one of whom is now being separately contracted to develop a programmatic environmental impact report. The Program Management Services Contract did not identify the need for a programmatic environmental impact report.**

- **The Water System Capital Improvement Program's policy parameters are only now being determined, despite past representations to the Board of Supervisors and voters that such policy parameters had been determined and put in place. Nine critical projects, costing an estimated $1.2 billion or two thirds of the estimated total $1.9 billion cost for the regional water system capital improvement program projects, are currently being delayed because of the need for the programmatic environmental impact report. Project-specific environmental impact reviews and design work cannot be completed until after the programmatic environmental impact report is approved. Establishing a firm project-sequencing schedule is necessary to determine the optimal and least costly timing for new revenue bond issuance.**

- **As part of the Water System Capital Improvement Program budget, the Public Utilities Commission is currently proposing an additional $143 million for the programmatic environmental impact report, related environmental mitigation costs, and project-specific environmental mitigation costs. The Public Utilities Commission had previously only budgeted $10 million for environmental mitigation.**

- **The Public Utilities Commission needs to ensure that the planning processes for all future capital improvement programs which it undertakes explicitly include consideration of the need for a programmatic environmental impact report from the outset to avoid the costs associated with planning, design, and construction delays.**

- **The Public Utilities Commission and the Planning Department need a formal operating procedures memorandum of understanding, including a weekly reporting framework for all Planning Department staff funded by the Public Utilities Commission, to ensure that there is a full accounting of the City Planning Department's expenditures of Water System Capital Improvement Program funds.**
- **The City Planning Department's Major Environmental Analysis Division needs to identify proactively when capital improvement programs require programmatic environmental impact reports so that the necessary planning can happen in a timely fashion.**

Background

The California Environmental Quality Act of 1972 requires that a programmatic environmental impact report be prepared on a series of proposed projects that can be characterized as one program and are related either: (a) geographically; (b) as larger parts in a chain of contemplated actions; (c) in connection with the issuance of rules and regulations; or (d) as individual activities carried out under the same statutory or regulatory authority and having similar environmental effects that can be mitigated in similar ways. For capital improvement programs that fit these criteria, the California Environmental Quality Act forces the capital improvement program's sponsor to:

- Describe the program and its impact on the environment.
- Suggest environmental mitigation options.
- Share program information with the public.
- Provide all decision-makers with a single document.

Although the Department's work on the Water System Capital Improvement Program commenced at least six years ago, the first conversations about the need for a programmatic environmental impact report were held only in 2002. These meetings were initiated by the Department and involved the City Planning Department and the City Attorney's Office. The Public Utilities Commission has since publicly committed itself to completing a programmatic environmental impact report for certain regional water system capital improvement projects. Departmental staff members are currently projecting programmatic environmental impact report completion in mid 2007.

Current Status

There are a number of organizations involved in the preparation of a programmatic environmental impact report for the Water System Capital Improvement Program:

- The Public Utilities Commission is the project sponsor. Public Utilities Commission staff members prepare the Water System Capital Improvement Program description, provide technical expertise and base environmental information, develop viable project alternatives, review feasible mitigation options, and review the draft documents required under the California Environmental Quality Act.

- The City Planning Department authors the California Environmental Quality Act documents, scopes the projects, directs the consultants (a joint venture of Environmental Science Associates and Orion Environmental Associates, known as ESA/Orion), manages the public consultation process, and issues the notifications to proceed with environmental impact reviews so that other agencies know when to provide input. The California Environmental Quality Act documents are ultimately under the City Planning Department's control.

- The consultant, ESA/Orion, provides technical support to the City Planning Department's Major Environmental Analysis Division. The consultant contract is funded by the Public Utilities Commission. The consultant will (a) fit the Water System Capital Improvement Program's overarching goals and objectives, and implementation strategy, into the required format for California Environmental Quality Act documents, (b) advise the City on how other Californian jurisdictions have managed the programmatic environmental impact report process, (c) advise the City on the available environmental mitigation and permitting options, and (d) work on public outreach.

- Final decision-makers include the Public Utilities Commission, the Planning Commission, the Board of Supervisors, and Federal and State permitting agencies, with input from the regional jurisdictions impacted by the Water System Capital Improvement Program.

Public Utilities Commission

As the culmination of a series of workshops and meetings held between October of 2004 and February of 2005, the Public Utilities Commission provided policy guidance to its staff as to water system requirements for (a) the level of service which should be achievable 24 hours after a major earthquake, (b) water delivery reliability, (c) water quality, (d) ability to meet customers' purchase requests, and (e) environmental stewardship. The Public Utilities Commission provided this policy guidance in order to:

- Establish the goals and objectives for the Water System Capital Improvement Program.

- Focus the California Environmental Quality Act review process on chosen program goals.

- Establish the program's definitive project list.

- Establish the program's cost parameters.

- Establish the program's criticality-based schedule.
- Provide the design basis for system engineering.
- Produce a comprehensive, long-term operations plan to show how the chosen water system would work.
- Prepare a California Environmental Quality Act program definition for transmission to the City Planning Department so that the City Planning Department can conduct an independent review of the program's environmental impacts, with assistance from its consultant, ESA/Orion.

During their deliberations, the Department and the Commission were able to draw upon technical reports prepared by consultants since late 2002 for the Department and the Bay Area Water Supply and Conservation Agency. These four reports make projections through 2030 on *Retail Water Demands and Conservation Potential* (November, 2004), *Wholesale Customer Water Demand Projections* (November, 2004), *Wholesale Customer Water Conservation Potential* (December, 2004), and *Wholesale Customer Recycled Water Potential* (December, 2004). These reports, which are summarized in the *2030 Purchase Estimate Technical Memorandum*, a document that outlines what the 29 suburban wholesale customers would like to purchase, rather than just their total projected water demands, will be key data sources for the programmatic environmental impact report process.

At its February 8, 2005 meeting, the Public Utilities Commission held its first public discussion of proposals to increase the Water System Capital Improvement Program budget by $717 million. The majority of this additional expenditure would be on projects that would allow the Public Utilities Commission to achieve the policy parameters it has chosen for the water system. Of this additional $717 million, $143 million is being proposed for the programmatic environmental impact report, related environmental mitigation, and a seven year project-specific environmental mitigation program. The $143 million would cover consultant contracts, Public Utilities Commission and City Planning Department staff time, and environmental monitoring. Environmental mitigation had previously been budgeted at only $10 million. At the February 8, 2005 meeting, departmental staff members advised the Public Utilities Commission that environmental mitigation typically costs between 3 and 10 percent of project costs, depending on a site's environmental sensitivity and the duration of the environmental impact review process. Departmental staff members advised that they were budgeting on the basis of an average environmental mitigation cost of 4.4 percent of project costs.

<u>City Planning Department, Major Environmental Analysis Division</u>

The City Planning Department's Major Environmental Analysis Division is responsible for California Environmental Quality Act compliance for all City projects requiring discretionary approval before they can proceed. Under the California Environmental

Quality Act, the Major Environmental Analysis Division is the author of categorical exemptions, negative declarations, and environmental impact reviews.[1]

The Public Utilities Commission funds the following Major Environmental Analysis Division staff, and ancillary costs, to manage the Water System Capital Improvement Program's programmatic environmental impact report process:

- 0.10 FTE Classification 0932 Manager IV, Environmental Review Officer (i.e., 10 percent of the Major Environmental Analysis Division Manager's time).

- 1.00 FTE Classification 5298 Planner III – Environmental Review. This is a filled Major Environmental Analysis Division position for which the Public Utilities Commission is billed quarterly. This position provides no further time accounting information to the Public Utilities Commission. However, the Major Environmental Analysis Division's Environmental Review Officer advises that the Major Environmental Analysis Division has now agreed to provide weekly time accounting information to the Public Utilities Commission.

- 1.00 FTE Classification 5298 Planner III – Environmental Review. A requisition has been issued for this position which will be a Public Utilities Commission position, required to submit weekly reports to the Public Utilities Commission and subject to evaluation by the Public Utilities Commission.

- 1.00 FTE Classification 5299 Planner IV – Environmental Review. A requisition has been issued for this position which will also be a Public Utilities Commission position, required to submit weekly reports to the Public Utilities Commission and subject to evaluation by the Public Utilities Commission.

- Any time spent by Major Environmental Analysis Division staff on specialist work connected to the Water System Capital Improvement Program.

- Office equipment as determined necessary by the City Planning Department.

- A 10 percent administrative cost for project staffing and billing at the City Planning Department.

Despite the above funding commitments, the Budget Analyst notes with concern that (a) there is no signed, formal memorandum of understanding between the Public Utilities Commission and the Major Environmental Analysis Division which sets forth the operating procedures, and (b) the Planner III – Environmental Planner position funded by the Public Utilities Commission and managed by the City Planning Department has not been providing a weekly report to the Public Utilities Commission. Both management

[1] Of the 77 projects currently in the Water System Capital Improvement Program (some of which are expected to be deleted, with other projects added), Major Environmental Analysis Division staff are anticipating that that there will be approximately 40 categorical exemptions, 24 negative declarations, and 13 environmental impact reviews.

deficiencies could result in incomplete explanation of the Major Environmental Analysis Division's expenditures of Water System Capital Improvement Program funds.

At its February 8, 2005 meeting, the Public Utilities Commission forwarded its Water System Capital Improvement Program description to the City Planning Department to begin the California Environmental Quality Act review process.

ESA/Orion Contract

On March 24, 2005, the City entered into a contract with ESA/Orion for environmental analysis services effective March 31, 2004 through September 30, 2006, at a not-to-exceed cost of $2,500,000 paid by the Public Utilities Commission. The consultant was selected through a Request for Proposals/Qualifications process administered by the Public Utilities Commission in early 2004. The consultant has previously undertaken programmatic environmental impact report projects.

Specifically, this consultant will assist staff in the City Planning Department's Major Environmental Analysis Division to develop a programmatic environmental impact report for the Water System Capital Improvement Project in compliance with the California Environmental Quality Act in four phases:

1. Conduct programmatic environmental impact report start-up and alternatives development.

2. Prepare administrative draft no. 1.

3. Prepare administrative draft no. 2.

4. Prepare responses to comments and final programmatic environmental impact report.

While the Public Utilities Commission funds the ESA/Orion contract, the Major Environmental Analysis Division must direct the consultant on California Environmental Quality Act work, in preparation for the Planning Commission to certify the programmatic environmental impact report. The Public Utilities Commission can only direct the consultant for non-California Environmental Quality Act work. To date, one task order has been issued under this contract for Phase 1 at a not-to-exceed cost of $507,548. ESA/Orion Joint Venture invoices to date of $88,179 have resulted in a working draft of the *Regional Water System Improvements Program Environmental Impact Report Project Work Plan* (November, 2004), a catalog of supporting studies, a catalog and review of wholesale customer general plans, and a detailed work plan for near-term public outreach activities. While waiting for a written program definition from the Department, the consultant has been working on (a) existing conditions, (b) the validity of wholesale customers' population growth projections, (c) schedule updates, (d) project library maintenance, and (e) pre-organization of public outreach.

Reasons for Delay

During the course of the Public Utilities Commission's program definition process, members of both the Commission and the Department noted that the process should have been conducted earlier to ensure that the program is fully defensible in terms of both its concept and any potential legal challenges. The Deputy General Manager, Infrastructure and Operations stated at the January 13, 2005 meeting that the previously unanticipated programmatic environmental impact report will have "a significant impact" on the program, potentially in terms of the program's scope, component projects, schedule, financing, escalation numbers,[2] and potential environmental mitigation.

There are a number of reasons for the Department's delay in determining the need for a programmatic environmental impact report:

- The initial development of the Water System Capital Improvement Program was led by a former Assistant General Manager, Business Services (from a financial planning perspective) and the former Planning Bureau Manager (from a water system planning perspective), neither of whom had previously undertaken a capital improvement program of this magnitude. They were responding to repeatedly identified infrastructural deficiencies in the water system. No comprehensive initial master planning and public consultation process equivalent to that currently being undertaken for the Clean Water Master Planning process was conducted. Therefore, by California Environmental Quality Act programmatic environmental impact report standards, the proposed Water System Capital Improvement Program lacked overarching program goals and objectives and preferred implementation processes within policy parameters set by the Commission. Instead, the Department compiled its list of preferred projects largely in-house and concentrated its outreach efforts on selling the resulting set of 77 projects to the public after they had been approved by the Commission.

- The Commission's and the Department's historic focus on operations, rather than on strategic policy and planning, shaped where they concentrated their attentions. The Commission and Department were more focused on addressing long-standing infrastructural deficiencies and gathering public support for funding the necessary capital improvements, which required voters to approve lifting a water rate freeze, than they were in funding the planning processes necessary to determine policy parameters for a capital improvement program. Consequently, the 77 selected capital improvement projects were memorialized without a systematic analysis of their interrelationships and their cumulative impact. When the Public Utilities Commission started to work through the California Environmental Quality Act process, however, the Commission realized that it had to develop a systematic

[2] The "escalation number" is a construction inflation cost, usually determined on a per year basis. However, for order of magnitude numbers, one can use the construction midpoint which provides a reasonable number. The Department's annual report on the Water System Capital Improvement Program uses escalation numbers calculated on a per year basis.

rationale for its list of 77 projects, and its planning assumptions about water system reliability and capacity. To avoid such late realizations in the future, the Budget Analyst recommends that (a) the managers responsible for the Clean Water Master Plan make a presentation to the Public Utilities Commission on how the Clean Water Master Planning process will determine whether or not a programmatic environmental impact report is necessary, and (b) the City Planning Department's Director, or representative(s), participate in that presentation.

- The Department lacks an overarching strategic plan and a Water Enterprise business plan which would have provided important planning contexts for the Water System Capital Improvement Program. Both these planning deficiencies are addressed in Sections 13 and 15 of this Phase III management audit report.

- The City Planning Department's Major Environmental Analysis Division does not proactively work with departments to determine if a programmatic environmental impact report is necessary. The Major Environmental Analysis Section only responds to California Environmental Quality Act proposals submitted by departments for consideration once they are ready to meet the mandatory California Environmental Quality Act requirements. Therefore, in spite of the high public profile of the largest revenue bond ever approved by San Francisco voters, the Major Environmental Analysis Section did not initiate a dialogue with the Public Utilities Commission over the possibility of the two departments having to undertake a programmatic environmental impact report. Going forward, the Budget Analyst recommends that (a) the City Planning Department's Director submit a proposal to the Planning Commission about how the City Planning Department could adopt a more proactive role at the outset of major capital improvement programs to ensure that due consideration is given to the need for a programmatic environmental impact report, and (b) the Planning Commission report to the Board of Supervisors on its decisions with regard to the City Planning Department's role.

- At the time that the Water System Capital Improvement Program was being developed, the Public Utilities Commission's Planning Bureau lacked the environmental review staff capacity it now has.

- The work scope throughout the 2000 – 2005 Program Management Services Contract with, initially, the San Francisco Water Alliance Joint Venture and, subsequently, with the Water Infrastructure Partners Joint Venture never charged the consultant with the task of considering the need for a programmatic environmental impact report. The Budget Analyst questions why such a fundamental component of a large-scale capital improvement program was neither included in the contractor's scope of work from the outset, nor identified during the course of the contractor's work by the contractor itself, given that the contractor's prime responsibility was to provide program management and coordination services. The Budget Analyst notes that environmental regulatory issues were part of the contractor's mandate from the outset, as evidenced by the following:

1. The original contract's Appendix A, "Description of Services," indicated that the contractor would be required to "Develop near-term and long-term master capital program and project schedules," "Provide regulatory/environmental services," "Develop procedures and strategies involving coordination with outside regulatory agencies," and "Provide regulatory/environmental monitoring services." In Contract Year 1, the last function involved the "Collection of data in support of environmental mitigation plan," "Environmental compliance inspections," and "Monitoring as necessary to comply with environmental mitigation plans." The combination of these tasks indicate that the Department anticipated that the contractor would be an active participant in handling environmental impact review matters within the context of planning for the Water System Capital Improvement Program as a whole.

2. One of the original subcontractors was Orion Environmental Associates, an environmental consulting firm focused on regulatory compliance, audits, and design codes. This firm is now part of the ESA/Orion joint venture hired by the Department to provide programmatic environmental impact report services to the City Planning Department. The Budget Analyst questions why this firm, which is now responsible for preparing the programmatic environmental impact report, did not identify the need for such a report when it was working under the Program Management Services Contract.

3. The Department's July of 2001 annual report on Contract Year 1 stated that the contractor had prepared unit schedules showing the duration of the environmental review phase for each project.

4. An independent Peer Review Panel which reviewed the contractor's performance in Contract Year 1 determined that "Conceptual project development work should be accelerated in the second year of the contract and priority should be given to the largest projects." The Peer Review Panel argued that this effort would "lead to valuable refinements in project cost estimates, schedules, and sequencing; and identification of public, *environmental, and permit issues*" (emphasis added).

5. The Department's August and December of 2002 reports on Contract Year 2 stated that one of that year's "major accomplishments" was the development of "strategies and processes for the implementation of the Program EIR [Environmental Impact Report] process."

6. The Department's December of 2003 report on Contract Year 3 stated that two of the contractor's "major accomplishments" were (a) developing "strategies and processes for the implementation of the regional system Program EIR [Environmental Impact Report] process," and (b) coordinating "technical and program management activities for EIR [environmental impact review] documentation."

Given that environmental regulatory issues were part of the contractor's mandate from the outset, the Budget Analyst concludes that the late identification of the need

for a programmatic environmental impact report was due, in part, to the contractor's inadequate appraisal of the regulatory framework governing the Water System Capital Improvement Program.

- The Water System Capital Improvement Program review undertaken by R. W. Beck (May 21, 2002) to recommend program improvements or enhancements and demonstrate the interrelationships between the 77 projects was not asked to examine the question of whether or not a programmatic environmental impact report would be required.

These reasons delayed consideration of the need for a programmatic environmental impact report despite a number of factors:

- There is long-established case law about programmatic environmental impact reports associated with the California Environmental Quality Act which was originally passed in 1972. California Environmental Quality Act Sections 15165 and 15168, and the implementing guidelines, set forth the criteria for when programmatic environmental impact reports are required, for example when there are geographical interrelationships, or when like projects have a cumulative impact. Case law prohibits breaking a program down into pieces to avoid the need for a programmatic environmental impact report. In aiming to upgrade a regional water system, there are significant interrelationships between key Water System Capital Improvement Program's projects which the Department now realizes necessitate a programmatic analysis.

- The environmental community has a high level of interest in California water resource management and water system operations and planning, and it has significant expectations for extensive public involvement in the environmental impact review process.

- The advantages of programmatic environmental impact reports include: (a) systematically scoping a program from the outset; (b) developing an overall program mitigation strategy and dealing with cumulative environmental impacts in an integrated fashion; and (c) streamlining the process because project-specific environmental impact reviews can "piggy-back" off the programmatic environmental impact report, avoiding the need to replicate the same information for each project.

- It is likely that the environmental impact review for the first major project which has the potential to increase the water system's capacity would have to address population growth and urban sprawl issues for the whole system anyway. This is because the California Environmental Quality Act requires an examination of the cumulative impacts of like projects.

- The City Planning Department allocates resources to a division specifically charged with responsibility for major environmental analyses. As noted above, the Major Environmental Analysis Division does not proactively work with departments on whether or not their programs will need programmatic environmental impact reports.

- The Public Utilities Commission appropriated up to $45 million for a Program Management Services Contract between 2000 and 2005 to provide expert consulting support to the Water System Capital Improvement Program. As noted above, this failed to identify the need for a programmatic environmental impact report.

- The May 23, 2002 Blue Ribbon Panel review of the May 21, 2002 R. W. Beck analysis recommended that the Public Utilities Commission develop "a larger policy context to guide implementation and define priorities." The Blue Ribbon Panel stated that the Department "must become more policy-driven, setting goals regarding topics such as: Environmental stewardship; Environmental justice; Stakeholder involvement; The role of the [Public Utilities Commission]; Regional service commitments; Integrated resource planning of all components of the system including demand management, conservation, and recycling; Regional crisis planning." The Blue Ribbon Panel further stated that the Department "should be fully prepared to engage the public in a meaningful way in the environmental review process … [in order to] bring public support for the [capital improvement program] and result in the best possible environmental outcomes." The Public Utilities Commission's current program definition process is finally addressing these policy concerns.

Further, the Budget Analyst notes that since the Department's first discussions in 2002 with the Major Environmental Analysis Division and the City Attorney's Office, it has taken two years to reach the point where the Public Utilities Commission set the program's policy parameters.

Impacts of Current Delay

There are a number of significant impacts arising from the late specification of the Water System Capital Improvement Program:

- The program's policy parameters have been decided at least six years after the Department began work on the program, despite past representations to the voters and the wholesale customers that the water system's capital improvement needs would be addressed by the Water System Capital Improvement Program, and that the 77 selected projects are definitive. Instead, the Public Utilities Commission is now considering a $717 million increase to the total cost of the Water System Capital Improvement Program, the deletion of eight capital improvement projects, the addition of six capital improvement projects (including the programmatic environmental impact report, related environmental mitigation, and project-specific environmental mitigation), and significant rescoping of many of the ongoing projects.

- Key reports, such as a system operations plan and wholesale customer water demand projections, have only been recently finished or are still underway.

- Nine critical regional water system projects are being delayed because their scope is dependent on definition of the Water System Capital Improvement Program. These projects are:

1. Irvington Tunnel alternatives ($185,835,008).
2. Bay Division Pipelines hydraulic capacity upgrade ($334,603,000).
3. Calaveras Dam replacement ($162,355,697).
4. Crystal Springs Pump Station and Harry Tracy Water Treatment Plan long-term improvements ($37,103,502).
5. San Joaquin Pipeline hydraulic capacity ($391,776,872).
6. Sunol Quarry Reservoirs ($9,809,685).
7. Enlarge Sunol Water Treatment Plant ($82,334,044).
8. San Andreas Pipeline No. 3 installation ($25,328,100).
9. Bay Division Pipeline Nos. 1 and 2 Caisson and Bridge ($20,743,810).[3]

The Budget Analyst notes that the above nine projects total $1,249,889,718 and therefore represent approximately 69.5 percent of the total budget for the 38 regional water system projects of $1,797,145,926. This means that when the 38 projects are considered by total estimated cost, approximately two thirds of the regional water system capital improvement program is currently being delayed.

- While project-specific environmental impact reviews can start simultaneously with the programmatic environmental impact report, draft project-specific environmental impact review reports cannot be released before the draft programmatic environmental impact report is released. Although the project-specific environmental impact reports will be developed as stand-alone documents to avoid being held up by any complications associated with the programmatic environmental impact report, they will also have to tier off the programmatic environmental impact report. This is because the programmatic environmental impact report and resulting environmental mitigation measures could change specific projects. Further, permits could impose operational constraints which would require new monitoring and reporting mechanisms.

- While project-specific design work can begin during the programmatic environmental impact report process, the resulting designs cannot presuppose the programmatic environmental impact report's analysis and selection of environmentally preferable alternatives.

- Delays could be minimized by incorporating entire project-specific environmental impact reviews for certain key projects into the programmatic environmental impact report. However, there is a risk of causing delay to the certification of the

[3] This list was presented by departmental staff members to the Public Utilities Commission on September 9, 2004.

programmatic environmental impact report as a result of controversy over any one specific project.

- Delays could also be minimized by bringing key milestone completion dates forward for unaffected projects wherever possible, depending on the Planning Department making a determination that it is permissible for these projects to move ahead of the programmatic environmental impact report. This approach assumes that the Public Utilities Commission has sufficiently experienced project managers able to bring key milestone completion dates forward. The Budget Analyst will be considering the Department's capacity to complete the Water System Capital Improvement Program in his Phase IV management audit report.

- The financial schedule is being impacted. Establishing a firm project-sequencing schedule is necessary to determine the optimal timing for revenue bond issuance.

- The current renegotiation of the Settlement Agreement and Master Water Sales Contract which is due by 2009 could be impacted. The negotiators will need to know the definitive project costings well beforehand in order to ensure there is a mutually agreed, guaranteed revenue stream for the facilities being built.

Conclusion

In its planning for the Water System Capital Improvement Program, the Department failed to make a timely determination of the need for a programmatic environmental impact report under the California Environmental Quality Act. This is in spite of the Department's considerable investment in expert consultant support, most notably the $45 million, four year plus Program Management Services Contract which has environmental services subconsultants, one of whom is now being separately contracted to develop a programmatic environmental impact report. The Program Management Services Contract did not identify the need for a programmatic environmental impact report.

The Water System Capital Improvement Program's policy parameters are only now being determined, despite past representations to the voters that such policy parameters had been determined and put in place. Nine critical projects, costing an estimated $1.2 billion or two thirds of the estimated total cost of the regional water system capital improvement program projects, are currently being delayed because of the need for the programmatic environmental impact report. Project-specific environmental impact reviews and design work cannot be completed until after the programmatic environmental impact report is approved. Establishing a firm project-sequencing schedule is necessary to determine the optimal and least costly timing for new revenue bond issuance.

As part of the Water System Capital Improvement Program budget, the Department is currently proposing an additional $143 million for the programmatic environmental impact report, related environmental mitigation costs, and project-specific environmental mitigation costs. The Department had previously only budgeted $10 million for environmental mitigation.

The Department needs to ensure that the planning processes for all future capital improvement programs undertaken by the Public Utilities Commission explicitly include consideration of the need for a programmatic environmental impact report from the outset to avoid the costs associated with planning, design, and construction delays.

The Department and the City Planning Department need a formal operating procedures memorandum of understanding, including a weekly reporting framework for all City Planning Department staff funded by the Public Utilities Commission, to ensure that there is a full accounting of the City Planning Department's expenditures of Water System Capital Improvement Program funds.

The City Planning Department's Major Environmental Analysis Division needs to identify proactively when capital improvement programs require programmatic environmental impact reports so that the necessary planning can happen in a timely fashion.

Recommendations

The Public Utilities Commission General Manager should:

14.1 Ensure that the planning processes for all future capital improvement programs undertaken by the Public Utilities Commission explicitly include consideration of the need for a programmatic environmental impact report from the outset.

14.2 Direct the managers responsible for the Clean Water Master Plan to make a presentation to the Public Utilities Commission on how the Clean Water Master Planning process will determine whether or not a programmatic environmental impact report is necessary.

14.3 Request the Director of the City Planning Department, or representative(s), to participate in the above presentation to the Public Utilities Commission.

14.4 Finalize a memorandum of understanding with the City Planning Department on the operating procedures to be used between the Public Utilities Commission and the Major Environmental Analysis Division.

14.5 Determine, in conjunction with the Director of the City Planning Department, the specific performance measures for a weekly reporting framework for all Major Environmental Analysis Division positions funded by the Public Utilities Commission.

The Board of Supervisors should:

14.6 Request the Planning Commission to direct the City Planning Department's Director to submit a proposal for the Planning Commission's consideration about how the City Planning Department could adopt a more proactive role at the outset

of major capital improvement programs to ensure that due consideration is given to the need for a programmatic environmental impact report.

14.7 Request the Planning Commission to report back to the Board of Supervisors on its decisions with regard to the City Planning Department's role at the outset of major capital improvement programs to ensure that due consideration is given to the need for a programmatic environmental impact report.

Costs and Benefits

None of the above recommendations should pose additional costs because they should be part of the responsibilities of positions and programs already funded.

The benefits of undertaking mandated programmatic environmental impact reports in a timely fashion include: (a) systematically scoping a program from the outset; (b) developing an overall program mitigation strategy and dealing with cumulative environmental impacts in an integrated fashion; and (c) streamlining the process because project-specific environmental impacts reviews can "piggy-back" off the programmatic environmental impact report, avoiding the need to replicate the same information for each project.

15. The Need for a Departmental Strategic Plan

- **Despite an annual Public Utilities Commission operating budget of approximately $585 million, management responsibility for the operation of critical public utilities used by up to 2.4 million San Francisco and suburban customers, and ownership responsibility for billions of dollars worth of capital assets and land holdings, the Public Utilities Commission does not have a broad strategic plan.**

- **The Water, Hetch Hetchy, and Clean Water Enterprises each have significant planning needs because (a) strategic policy and planning is <u>not</u> regarded as a core function in the way that system operations has traditionally been, and (b) the Public Utilities Commission lacks a strategic plan which encompasses its water, power, and clean water responsibilities and how those functions will be coherently and consistently managed.**

- **Absent a regularly updated departmental strategic plan developed through a consultative process with internal and external stakeholders, the Public Utilities Commission lacks on a department-wide basis: (a) a unified vision, mission, and policy goals which shows the linkages between the water, power, and clean water enterprises; (b) a regular forum, format, and process for the managers and the Public Utilities Commission to raise and discuss major policy issues with each other; (c) a strategic policy and planning orientation for the department as a whole; (d) planning consistency across the enterprises; (e) discussion about how business processes can optimally support the organization as a whole; and (f) a framework for consistent organizational policies and procedures.**

- **updated strategic plan which is supported by a comprehensive policy, planning, implementation, and reporting system.**

The Department's Planning Needs

With an annual operating budget of approximately $585 million, management responsibility for the operation of critical public utilities, and ownership responsibility for valuable capital assets, the Public Utilities Commission needs to ensure that strategic policy and planning is a core function in the way that system operations has traditionally been. Our management audit of the Public Utilities Commission's three enterprise funds has found significant strategic policy and planning needs in all three enterprise funds. To recap:

Phase I Management Audit of the Public Utilities Commission – Clean Water Enterprise Fund (September 17, 2004)

- There are a number of urgently required clean water capital improvement projects which are either on hold or proceeding incrementally through the insufficiently funded annual clean water repair and replacement program.

- Since the 1990s, there has been extensive clean water capital planning, but the overall planning process has not been particularly coherent, especially given the elimination of clean water projects from the Department's long-term capital improvement program in 2002. The Department has now chosen to undertake a separate Clean Water master planning process due for completion in 2007. Despite delays in moving the Clean Water master planning process forward, the process has now begun.

- The Public Utilities Commission General Manager should hold departmental staff members and third party contractors accountable for meeting critical path milestones in the Clean Water master planning process. Clean Water Master Planning should be a core responsibility of the recommended Assistant General Manager, Clean Water position, and clean water staff with operational expertise should be an integral part of the Clean Water master planning process.

Phase II Management Audit of the Public Utilities Commission – Hetch Hetchy Enterprise Fund (December 21, 2004)

- By not developing a Hetch Hetchy Enterprise business plan, the Department has failed to meet requests from the Board of Supervisors and directives from the Public Utilities Commission, and to implement recommendations from its own consultants.

- Failure to develop a Hetch Hetchy Enterprise business plan is a result of (a) the Department's lack of an overarching strategic plan, (b) the dearth of executive management guidance, (c) the non-functioning of the Department's Risk Management Committee and the Risk Oversight Committee, (d) no one manager below the over-extended Assistant General Manager, Operations position being responsible for managing the Hetch Hetchy Enterprise or its budget, and (e) the unresolved conflicts between the Water Operations, Power Operations, and Power Policy Divisions.

- Business plans are a fundamental management tool for enterprises and are a utility industry best practice. There are serious negative ramifications arising from the lack of a Hetch Hetchy business plan. The Hetch Hetchy Enterprise, which generates approximately $126 million annual in revenues, lacks a clearly defined operating policy, a clear business vision for the future, and a forum for deciding on major strategic policy and planning options. Roles, responsibilities, and accountabilities are unclear. There is no organizational performance measurement framework. There is no business planning context for funding capital programs, funding energy efficiency and alternative energy initiatives, or determining the optimal personnel resources and

organizational structure. There are delays in making business-critical decisions. Since the Hetch Hetchy Enterprise does not control the application of its rates and which City organizations receive subsidized power, and since it lacks a business plan, the Hetch Hetchy Enterprise cannot responsibly seek a credit rating from the credit agencies.

- The Public Utilities Commission General Manager should make finalization of a Hetch Hetchy Enterprise business plan an early priority of her administration, and develop an ongoing Hetch Hetchy Enterprise business planning process which incorporates cost-of-service rate review and performance measurement processes.

- The Board of Supervisors should reserve 75 percent of FY 2005-2006 capital project appropriations for the Hetch Hetchy Enterprise until the Department transmits a Hetch Hetchy Enterprise business plan to the Board of Supervisors.

Phase III Management Audit of the Public Utilities Commission – Water Enterprise (March 23, 2005)

- Despite revenues of between $170 million and $180 million per year, the Water Enterprise does not have a business plan. While the Water Enterprise does have important strategic plans in place or in development, each one focuses only on a portion of the Water Enterprise's functions. Collectively the existing plans do not constitute a business plan for the enterprise as a whole.

- The Water Enterprise does not have a business planning context for (a) renegotiating the 1984 Settlement Agreement and Master Water Sales Contract with the Bay Area Water Supply and Conservation Agency, (b) making informed decisions about the merits of major policy, planning, and financing options, (c) determining future water rates, (d) measuring its performance, (e) determining its optimal personnel resources and organizational structure, (f) comprehensively planning for <u>all</u> of the Water Enterprise's capital needs, and (g) managing future business risks.

- For those Water Enterprise plans currently in place, the monitoring and reporting frameworks to track implementation of required management actions are variable. Plans with insufficient monitoring and reporting frameworks do not ensure sufficient accountability for implementation of management actions approved by the Public Utilities Commission and funded by the Board of Supervisors.

It is the professional judgement of the Budget Analyst that each enterprise has significant strategic policy and planning needs because (a) strategic policy and planning is <u>not</u> regarded as a core function in the way that system operations has traditionally been, and (b) the Department lacks a strategic plan which encompasses its water, power, and clean water responsibilities and how those functions will be coherently and consistently managed. The Clean Water Master Plan (due 2007), the Hetch Hetchy Business Plan (due FY 2005-2006), the Water System Capital Improvement Program Environmental Impact Report (due 2007), and the Integrated Water Resources Plan (due 2005) are all important documents for the individual enterprises in terms of both strategic policy intent

and operational implementation. However, cumulatively, they do not amount to a strategic plan for the Department as a whole. Further, they are being developed in a vacuum due to the lack of an overarching strategic plan for the Department as a whole.

Ramifications of the Lack of a Departmental Strategic Plan

The *Red Oak Consulting Performance Assessment Phase I (Draft Interim Report)* stated that a utility best practice is that:

> The organization is clear about its purpose, mission, and priorities, and has clear, compelling mission and vision statements. Strategic plans are used and updated regularly. Clear policies and procedures are established, updated, and are well-communicated, and are in excellent alignment with organizational mission and goals.

To this end, the Red Oak Consulting Team identified a need for greater attention to department-wide planning, strategic and policy functions, and inter-departmental coordination.

Absent a regularly updated departmental strategic plan developed through a consultative process with internal and external stakeholders (for example, the Bay Area Water Supply and Conservation Agency, the Bay Area Water Stewards, and the Public Utilities Commission's Citizens Advisory Committee), the Public Utilities Commission lacks:

- A unified vision, mission, and policy goals for the department as a whole which shows the linkages between the water, power, and clean water enterprises. As the Public Utilities Commission's overarching policy document, a departmental strategic plan could set out department-wide goals related to sustainability, environmental stewardship, regulatory compliance, and other overarching policy issues. Within that context, the Water System Capital Improvement Program Environmental Impact Report, the Integrated Water Resources Plan, the Hetch Hetchy Business Plan, the Clean Water Master Plan, and any other business and operations plans to be developed by the enterprises in the future would be implementation plans containing the action steps necessary for each enterprise to achieve the Department's overarching policy goals.

- The organizational structure is not fully aligned with the Department's strategic goals. For example, the Department's natural resources management functions are currently spread across a number of divisions.

- A regular forum, format, and process for the Commission and the Department to raise and discuss major policy issues with each other. Regular updating of the Department's strategic plan would reinforce the Public Utilities Commission's policymaking role, building on the November of 2004 through February of 2005 planning process undertaken by the Public Utilities Commission in relation to the Water System Capital Improvement Program.

- A venue for discussion and resolution of key policy and business questions between the Department, the Commission, the Board of Supervisors, and the Mayor's Office. For example, what is the relationship between water and power? What impact will the increased use of recycled water and conservation have on the Clean Water Enterprise? Should the Department pay a franchise fee to the City in lieu of the current water and power subsidies to City departments? What are the economic and policy considerations which must be taken into account when investing in alternative sources of water (for example, desalination, recycling, and water sources and storage options requiring filtration) and power (for example, renewable energy)? Is entering the retail power market under the community choice aggregation model an appropriate role for a civil service department operating under an appointed commission? What would be the impacts of removing O'Shaughnessy Dam?

- Policy continuity during changes in the Public Utilities Commission's membership or the Department's senior administration, and a public forum and format for discussing policy changes new commissioners and/or administrators wish to make.

- A strategic policy and planning orientation for the department as a whole.

- Planning consistency across the enterprises. For example, should all enterprises aim to meet or exceed minimum regulatory requirements? What are the key operational plans for each enterprise and who is responsible for systematically monitoring their implementation and regularly updating them?

- Incentives for staff to work across the enterprise boundaries on issues that affect the Department as a whole, to clarify roles internally, and to clarify relationships with other City departments. Who is responsible for what?

- Business processes which optimally support the organization as a whole. For example, how can the administrative bureaus best support the enterprises? How can the Financial Services Section streamline the budget process and provide optimal financial management reports? How can Human Resource Services facilitate personnel hiring, disciplinary procedures, and succession planning? How can Information Technology Services ensure coherent information technology purchases and a systematic equipment replacement program? How can Real Estate Services optimize revenues from the Department's land holdings within necessary operational constraints? How can Contracts Administration streamline the contracting process? How can security, emergency planning, fleet management, and communications system services best protect and manage the Department's facilities and services?

- A framework for consistent organizational policies and procedures.

<u>Sustainability Plan</u>

At the January 13, 2005 Public Utilities Commission meeting, departmental staff members advised the Commission that the Department would develop a department-wide "sustainability plan" to comply with the Proposition E requirement that the Public

Utilities Commission manage natural resources in an environmentally friendly, sustainable manner. According to departmental staff members, a sustainability plan would aim to:

- Achieve department-wide balance of ecological, economic, and social goals and practices.
- Design, assess, and integrate organizational and system management.
- Use a business case, multi-criteria assessment, or other utility industry standard methodology.

Sustainability plan components could include the following: inventories of natural resources and lands, facilities, assets, and operations; facility and materials lifecycle assessments; priority initiatives and the required implementation steps; technical and financial feasibility studies; benefit and cost studies which evaluate the return on investment; sensitivity analysis; risk assessment; performance measurement against sustainability indicators; and audit trails. After developing sustainability goals, the Department could identify practical strategies for achieving them with clear performance metrics. Such a plan could lead to policies and procedures which guide decisions in areas ranging from large, once-in-a-lifetime investments (such as a large capital improvement project) to routine daily activities (such as the purchase of office supplies).

Such a sustainability plan could usefully form the core of a departmental strategic policy and planning process. However, the Budget Analyst notes that a departmental strategic plan is intended to address more than environmental stewardship concerns, however far-reaching, as indicated by the list of strategic policy and planning benefits above. A sustainability plan could only do this if it also encompasses organizational sustainability (for example, succession planning; organizational flexibility), economic sustainability (for example, financial viability; business planning capacity), and infrastructure sustainability (for example, asset management).

The Public Utilities Commission has an estimated budget of $500,000 for consultant input over a two year period to develop a sustainability plan. The Budget Analyst recommends that the Public Utilities Commission General Manager use this funding to develop an expanded Public Utilities Commission strategic plan, using input from both internal and external stakeholders and maintaining a focus on environmental, organizational, economic, and infrastructure sustainability. Given that sustainability planning is a multi-year process, such a plan is expected to take three years to complete. Therefore, if three years are necessary for a comprehensive planning process, the Budget Analyst recommends that an interim strategic plan be issued no later than FY 2006-2007 to keep the planning process progressing forward, with a final plan issued no later than FY 2007-2008. Further, the Public Utilities Commission General Manager should regularly update the strategic plan so that it remains a "living document."

Conclusion

Despite an annual Public Utilities Commission operating budget of approximately $585 million, management responsibility for the operation of critical public utilities used by up to 2.4 million people, and ownership responsibility for billions of dollars worth of capital assets, the Public Utilities Commission does not have an overarching strategic plan.

The Water, Hetch Hetchy, and Clean Water Enterprises each have significant policy and planning needs because (a) strategic policy and planning is not regarded as a core function in the way that system operations has traditionally been, and (b) the Department lacks a strategic plan which encompasses its water, power, and clean water responsibilities and how those functions will be coherently and consistently managed.

Absent a regularly updated departmental strategic plan developed through a consultative process with internal and external stakeholders, the Department lacks: (a) a unified vision, mission, and policy goals for the department as a whole which shows the linkages between the water, power, and clean water enterprises; (b) a regular forum, format, and process for the Commission and the Department to raise and discuss major policy issues with each other; (c) a strategic policy and planning orientation for the department as a whole; (d) planning consistency across the enterprises; (e) discussion about how business processes can optimally support the organization as a whole; and (f) a framework for consistent organizational policies and procedures.

Recommendations

The Public Utilities Commission General Manager should:

15.1 Expand the Department's current sustainability plan project to develop an interim Public Utilities Commission strategic plan no later than FY 2006-2007 and a final strategic plan no later than FY 2007-2008 using input from both internal and external stakeholders and maintaining a focus on environmental, organizational, economic, and infrastructure sustainability.

15.2 Regularly update the Public Utilities Commission strategic plan so that it remains a "living document."

15.3 Ensure that the departmental strategic plan is supported by a comprehensive policy, planning, and reporting system.

Costs and Benefits

The Public Utilities Commission has an estimated budget of $500,000 for consultant input over a two year period to develop a sustainability plan. This funding should be the core funding for an expanded departmental strategic plan. While the Department may need consultant assistance to finalize its departmental strategic plan, the primary input

should be from departmental staff members expert in operations and expert in planning so that the Department commits to its own strategic planning processes and results.

The benefits of a departmental strategic plan include: (a) a unified vision, mission, and policy goals for the department as a whole which shows the linkages between the water, power, and clean water enterprises; (b) a regular forum, format, and process for the Commission and the Department to raise and discuss major policy issues with each other; (c) a strategic policy and planning orientation for the department as a whole; (d) planning consistency across the enterprises; (e) discussion about how business processes can optimally support the organization as a whole; and (f) a framework for consistent organizational policies and procedures.

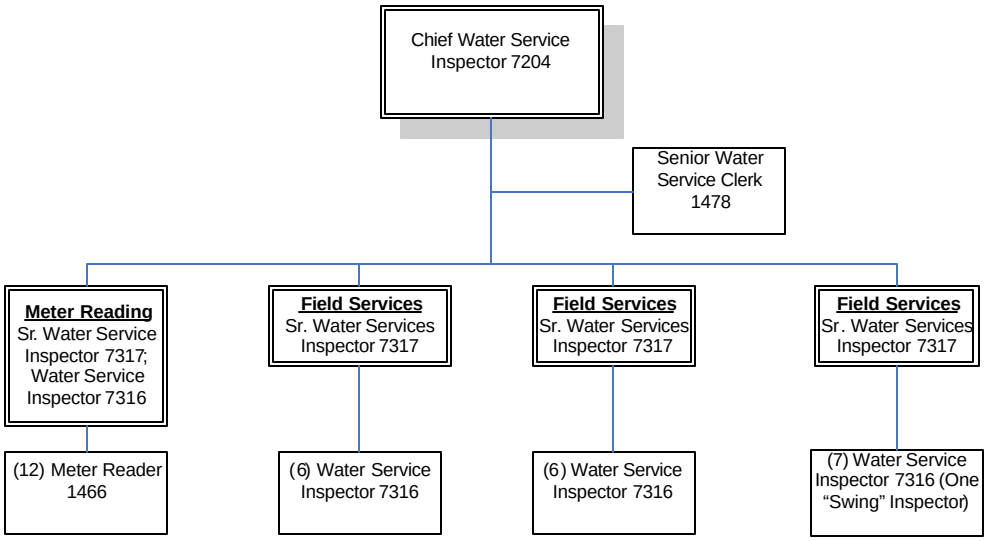
The benefits of supporting the departmental strategic plan with a comprehensive policy, planning, implementation, and reporting system are ensuring (a) accountability for the implementation of management actions approved by the Public Utilities Commission and funded by the Board of Supervisors, (b) the necessary feedback loop to keep the departmental strategic plan a "living document," and (c) all staff members' contributions are linked to the vision, mission, and policy goals of the organization as a whole.

STATUS OF THE BUDGET ANALYST'S 1994 WATER DEPARTMENT MANAGEMENT AUDIT RECOMMENDATIONS

BACKGROUND

The Field Services Section of the Customer Services Division is responsible for two primary water service functions: 1) reading water meters, and 2) providing various water-related services, such as conducting inspections for water leaks that result in high water bills, processing sewer service charge appeals, changing water meters, and collecting delinquent bills.

The Field Services Section is located at the City Distribution Division's Yard at 1990 Newcomb Avenue. The Section is authorized a total of 38 permanent, full time positions, as shown below.



There are a total of approximately 170,000 water accounts and approximately 180,000 water meters in the City.

Compensation for the two primary classifications in the Field Services Section differs significantly. The salary at the top step of a classification 1466, Meter Reader, is $47,894. The salary at the top step of a classification 7316, Water Service Inspector, is $78,013, which is $30,119 or 62.9 percent greater than the salary of a Meter Reader. In comparison, the salary at the top step for a classification 7388, Utility Plumber, is $77,256, or $757 less than the salary at the top step for a classification 7316, Water Service Inspector.

Meter Readers

As shown in the organizational chart, the Meter Reader Unit is headed by a classification 7317, Senior Water Service Inspector, assisted by a classification 7316, Water Service Inspector.

The City is divided into a total of 11 meter sets [districts]. Each Meter Reader, with the exception of the 'Swing' Reader, is assigned a meter set [district] that he or she maintains and routinely reads. The 'Swing' Reader provides vacation and other absence relief.

Each meter set contains a total of 34 bimonthly routes and 3 monthly routes. A bimonthly route can have anywhere between 92 meters to 645 meters requiring reading, depending on the difficulty of accessing the meters on the specific route. Analogously, a monthly route can have anywhere from 86 to 293 meters requiring reading. During a two-month meter reading cycle, each Meter Reader is expected to read a total of 40 routes, each bimonthly route once and the monthly routes twice. According to the Chief Water Service Inspector, the total number of meters read in the City by fiscal year is shown below.

Fiscal Year	Number of Meters
2003-04	1,092,259
2002-03	1,074,131
2001-02	1,075,261
2000-01	1,068,493
1999-00	1,086,764
1998-99	1,071,959

The average number of meters read for the six-year period shown is 1,078,145 and the standard deviation is 9,266. Thus, the coefficient of variation is 0.86 percent.

Meter Readers, generally, are not assigned a City vehicle, but are issued a Muni Fast Pass. In practice, most Meter Readers use their privately-owned vehicle for transportation to assigned routes.

Water Service Inspectors

As shown in the organizational chart, each of the three Water Service Inspector Units is headed by a 7317, Senior Water Service Inspector. Two of the Water Service Inspector Units are assigned six classification 7316, Water Service Inspector, positions. The third Water Service Inspector Unit is assigned an additional Water Service Inspector, who works a swing shift.

The City is divided into a total of 16 Water Service Districts plus the Waterfront, each of which is assigned a Water Service Inspector. The "Swing Shift," Waterfront, and Revenue Recovery Water Service Inspectors account for the total of nineteen assigned to the Water Service Inspector Units.

The performance standards for Water Service Inspectors are contained in a 1989 memorandum signed by Mr. John Mullane, then Manager, Customer Service Division. An example of the type of performance standards used is as follows:

- Single downtown district: 20 jobs

The Field Service Section work order priority list is contained in a November 13, 1998, memorandum signed by Bob Wang, the current Manager.
Water Service Inspectors are assigned a City vehicle.

According to the Chief Water Service Inspector, the total number of work orders completed by Water Service Inspectors by fiscal year is shown below.

Fiscal Year	Total Work Orders Completed
2003-04	66,180
2002-03	*
2001-02	*
2000-01	65,075
1999-00	73,788
1998-99	68,857

*The Field Services Section Manager has stated that the workload files for the period of April 2002 through March 2003 are missing from the Field Services Section Office.

STATUS OF PRIOR AUDIT RECOMMENDATIONS

The Budget Analyst's June of 1994 Water Department Audit Report includes two sections concerning the Field Services Section. The report section title, recommendations, and action taken on the recommendations are shown below.

Section 1.2: Customer Services Work Order Efficiency

1.2.1. Eliminate all "verify read" work orders and eliminate one corresponding full-time equivalent Water Services Inspector.

The Department disagreed with and has not implemented the recommendation. The Department stated in its response that Water Service Inspectors are trained to identify and correct problems that result in low or high water consumption that are found in "verify read" work. The Department further stated that "Quick resolution of problems improves both revenue collection and customer satisfaction." According to the Department, the threshold for generating "verify read" work orders has been raised, thereby reducing such work orders by an average of 43 percent.

1.2.2. Use Meter Readers instead of Water Services Inspectors to perform certain work orders including getting meter reads, checking the meter reads for new accounts, posting 48-hour delinquent billing notices, and collecting payments. Delete four Water Services Inspectors and add four Meter Reader positions for these activities.

The Department disagreed with and has not implemented the recommendation. The Department stated in its response that although the duties identified can be performed by Meter Readers, the Department believes that the potential costs savings are overstated and that the substitution of the existing 17 service districts by 13 larger service districts would increase travel time for Water Service Inspectors as well as the four replacement Meter Readers who would be required to cover the entire City.

Section 1.3: Field Service Productivity

1.3.1 Develop a comprehensive reporting system for completed work orders, and discontinue the practice of reporting completed work orders using weighted average standards.

The Department agreed that it should improve its reporting of work performed and agreed to evaluate the use of blanket work orders and the practice of using weighted averages for reporting purposes. The Department reports currently that certain work orders "just require more time and effort to complete," and that "if these jobs were not weighted and in accordance with our productivity standards, an Inspector would have to change 25 meters a day when assigned to a single outer district, which, according to the Department, is an unreasonable, if not impossible, expectation."

1.3.2 Increase the number of meters assigned to Meter Readers and reduce the number of Meter Readers by 2.00 full-time equivalent positions.

The Department agreed with and implemented this recommendation.

1.3.3 Reduce the number of Water Services Inspectors assigned to the waterfront district by 1.00 full-time equivalent position.

The Department agreed with and implemented this recommendation.

1.3.4 Implement productivity standards for the Waterfront District.

The Department's response to the 1994 audit report did not address this recommendation. The Department reports currently that "Productivity standards for Waterfront district – Because the majority of the work at the Waterfront is unique and not generated or completed using work orders, there is no way to track this on the Billing System. Similarly, there is no way to reconcile this work to our work order productivity standards for the other districts. Therefore, we rely on the Senior Inspector responsible for this district to review and insure that the Inspector at the Waterfront performs a days' work."

1.3.5 Re-allocate swing shift meter reading staff to perform meter reading for the district.

The Department's response to the 1994 audit report did not address this recommendation. The Department reports currently that the reduction of two Meter Readers, in accordance with recommendation 1.3.2 above, prohibits the implementation of this recommendation.

1.3.6 Monitor and enforce all existing sick leave and floating holiday policies.

The Department's response to the 1994 audit report did not address this recommendation. The Department reports currently that the Waterfront water and electric meter routes contain a large number of accounts that must be deducted, for billing purposes, from the "master" accounts of which they are a part. According to the Department, the meter reading system is not set up to perform this function and that therefore, the Department continues to enter these "deduct" meter reads manually.

1.3.7 Monitor and enforce all existing sick leave and floating holiday policies.

The Department did not fully concur with the Budget Analyst's finding concerning the use of sick leave and floating holidays. The Department did agree to monitor more effectively the use of sick leave and floating holidays. The Department is in the process of obtaining and providing statistics on use of sick pay and workers' compensation.

Concerning Recommendation number 1.2.1 regarding "verify read" work orders, the Department has provided the following information on the volume of such work orders. As previously stated, the full year information for FY 2001-02 and FY 2002-03 are missing from the Field Services Section office.

Fiscal Year	**'Verify Read' Work Orders Completed**
2003-04	7,336
2002-03	*
2001-02	*
2000-01	6,473
1999-00	7,069
1998-99	6,664

I N T E R O F F I C E M E M O

Customer Services

TO: Stan Jones

FROM: Marge Vizcarra

DATE: February 14, 2005

SUBJECT: Hydrant Water Meter Devices

As you requested, below is our response to the recommendations made by the Budget Analyst as a result of the Water Department Audit conducted in 1994 concerning the leasing of hydrant water meter devices to contractors.

Recommendations:

I.5.1 Revise the current monthly fee schedule for the leasing of its three-inch hydrant water meter to reflect that it is a turbine class water meter rather than a disc/compound water meter. This revision requires the addition of a new fee charge for a three-inch turbine water meter.

SFPUC Response: Effective July 1, 1996, Schedule W-5 of the SFPUC Rate Schedules for Water Services was revised to reflect a higher fee charge of a three-inch turbine water meter. Below is the fee schedule since then:

July 1, 1996	***$75.00***
July 1, 2001	***$81.50***
July 1, 2002	***$88.50***

I.5.2 Implement a penalty fee in contractual agreements with contractors, which lease hydrant meters by assessing $100.00 for each month that the contractor does not comply with the reporting requirements of the contract.

SFPUC Response: Effective July 1, 1996 began assessing a non-reporting penalty of $20.00 per month to any customers who fails to report water consumption. The $20 charge for non-reporting is based on a 1996 analysis of the time spent performing the various clerical and fieldwork related to the non-reporting of a hydrant meter water use. The non-reporting penalty was adopted in addition to increasing the deposit requirement for a one-inch meter to $390 and for a three-inch meter to $850.00.

It should be noted that imposing a large penalty on a customer who is not reporting and who likely is not also paying his or her bill does not garner any additional real revenue for the Water Department. Thus, the Water Department chose instead to impose a penalty based on the additional administrative costs caused by non-reporting in addition to increasing the security deposit as well as implementing a more aggressive collection process (i.e. shorten the period of time after which the security deposit is forfeited and the meter recovered).

As part of this year's rate analysis, all service fees (including deposits) will be reviewed and adjusted as appropriate.

I.5.3 Prepare written procedures that direct the duties and responsibilities of the City Distribution Division meter shop and the Customer Services Division customer accounts which detail the steps to administer contracts to lease hydrant water meter devices and to oversee the billing and payment of fees process.

SFPUC Response: A written procedure regarding the process of leasing hydrant meters was prepared and implemented.

cc: Bill Laws
Subject File
Dwight Steeves
Chron File

Public Utilities Commission Response

SAN FRANCISCO PUBLIC UTILITIES COMMISSION

1155 Market St., 11th Floor, San Francisco, CA 94103 • Tel. (415) 554-3155 • Fax (415) 554-3161 • TTY (415) 554.3488

March 23, 2005

Mr. Harvey Rose
Board of Supervisors Budget Analyst Office
1390 Market Street, Suite 1025
San Francisco, CA 94102

Dear Mr. Rose,

This is the San Francisco Public Utilities Commission's (SFPUC) response to your management audit of the Water Enterprise concluded in March 2005. My staff and I have reviewed the Budget Analyst's recommendations. We have summarized our responses and have provided more specific responses on the pages that follow.

As you know, I have recently reorganized the department along our three enterprises, and new management teams continue to refine our work in Water, Wastewater and Power. I appreciate your assistance as we move forward in strengthening the organization.

Thank you for your analysis and recommendations. I expect that this and the three additional reports will provide useful guidance to the SFPUC.

Sincerely,

Susan Leal
General Manager

1. Suburban Wholesale Water Rates, Long Range Financial Planning, and Revenue Funded Repair and Replacement Projects

Recommendations

The Public Utilities Commission General Manager should:

1.1. Implement the State Department of Finance audit recommendation to provide the Public Utilities Commission and the Board of Supervisors detailed capital repair and replacement program information.

SFPUC response: Agree.

1.2. Provide a report to the Board of Supervisors during the FY 2005-2006 budget review regarding:

(a) The status of all Water Enterprise repair and replacement projects, and the Infrastructure Division's management support of the capital repair and replacement program.

(b) The implementation of the asset management program.

SFPUC response: Agree.

1.3 Develop a formal plan for the ongoing exchange of information between the Infrastructure Division's program management team and the Financial Services Section staff, including regular reporting to the General Manager and the Public Utilities Commission, to ensure that the Commissioners, the General Manager, and senior management staff have adequate information on future revenues and expenditures for Water Enterprise Fund programs.

SFPUC response: Agree.

The Public Utilities Commission should:

1.4 Negotiate with the suburban customers, represented by the Bay Area Water Supply and Conservation Agency, to renegotiate the Settlement Agreement and Master Water Sales Contract at an earlier date to revise the terms of capital cost recovery

SFPUC response: We agree that re-negotiating the capital costs recovery portion of the contract could provide more stable rate adjustment.

2. Calculation of the Suburban Wholesale Water Rates

SFPUC Overall Comments: We disagree strongly with the Budget Analyst's implication that we are inappropriately commingling capital expenses and operating expenses. Though the agency has chosen to expense a number of capital projects, this in no way implies that these are operating expenses. We also disagree that the accounting system is inadequate and does not record appropriate information for capitalization. In addition, we disagree with the claim that the agency is at fault for delays in the suburban compliance audit; it is the auditor who has delayed this process.

Utilities are by nature asset-intensive industries, and the SFPUC's span of asset-related activities is broad. These activities range from asset operations, preventative maintenance, repair, major maintenance, replacement and reconstruction, as well as capital additions and extensions. The distinction between some of these activities is not always clear-cut.

Recommendations

The Public Utilities Commission General Manager should:

2.1 Revise the accounting structure and its use to capture at a summary level critical data and information necessary for the computation of the suburban wholesale water rates.

SFPUC response: While we agree that capturing critical data is important, we do not agree that this is an accounting structure issue.

2.2 In coordination with the Bay Area Water Supply and Conservation Agency, determine alternative measures to comply with the 2004 settlement agreement requirement to obtain technical recommendations from an independent source on the suburban wholesale water rate calculation.

SFPUC response: We understand that the role of compliance auditor is in conflict with the settlement agreement provision.

2.3 Provide quarterly written status reports to the Bay Area Water Supply and Conservation Agency on the three remaining process improvement areas: the Enterprise Asset Management System, technical improvements as recommended by an independent source, and bid specifications.

SFPUC response: We are working to strengthen our current asset management program into a more comprehensive system that will address these issues.

2.4 Work with the Controller's Office to engage an alternative independent auditor for the audit of the balancing account and the suburban revenue requirement calculation.

SFPUC response: Agree.

2.5 Work with the independent auditor to comply with the independent audit timelines set forth in the Settlement Agreement and Master Water Sales Contract and transmit completed audits in a timely manner to the Bay Area Water Supply and Conservation Agency.

SFPUC response: While we agree with the recommendation to transmit completed audits promptly to the Bay Area Water Supply and Conservation Agency, we disagree with the cost analysis that this process improvement will be cost-neutral. We think that it will require increased staffing, training and system development, as well as some professional services work.

3. Coordinating and Timing the Financing of the Water System Capital Improvement Program

SFPUC Overall Comments: While we agree that we need to coordinate capital planning, budgeting and financing better, and are working to do so, we are focused primarily on capital planning because that effort will determine so much of our budgeting and financing processes.

Recommendations

The Public Utilities Commission General Manager should:

3.1 Develop a formal coordinating team within the Public Utilities Commission, in which the Infrastructure Division and the Financial Services Section coordinate capital program and financial planning for the Water System Capital Improvement Program, including:

(a) Regular and frequent disclosure of information from the Infrastructure Division on the planning and timing of construction of the Water System Capital Improvement Program projects, and

(b) Regular reports to the General Manager on the status of Water System Capital Improvement Program projects, current revenue requirement forecasts, estimated suburban and wholesale water rate increases to meet these requirements, and debt financing plans.

SFPUC response: We are working to improve our coordination and planning.

3.2 Report monthly to the Public Utilities Commission and quarterly to the Board of Supervisors on the status of the Water System Capital Improvement Program, the plan to finance the capital projects, and the current long range financial projections, including:

(a) The summary of the Infrastructure Division and Financial Services Section's coordination of planning and implementing construction projects and the timing of debt issuance, and

(b) The impact of Water System Capital Improvement Program project planning and implementation on projected revenues and the Public Utilities Commissions financial targets.

SFPUC response: We agree that regular reports would be valuable, but monthly and quarterly reports will not be helpful due to the pace of construction projects. We will report semi-annually, with possible consideration of quarterly reports as well.

4. Undercharging for Components of Water and Sewer Service

Recommendations

The Public Utilities Commission should:

4.1 Terminate the Water Conservation Affidavit program in FY 2006-2007.

SFPUC response: Agree.

4.2 Direct the Director of Financial Services to present a financial analysis on the costs and benefits of implementing water conservation rates in FY 2006-2007.

SFPUC response: Agree.

4.3 Direct the Customer Services Water Conservation Unit to develop and present to the Public Utilities Commission and the Board of Supervisors a water conservation program for City General Fund departments that includes budgetary incentives, such as a water charge for consumption over a baseline amount.

SFPUC response: Agree.

4.4 Adopt a resolution, (a) establishing baseline water use for the neighborhood and homeowners' associations, based on drought-tolerant plantings, and (b) setting up special assessment districts for neighborhood and homeowners' associations to charge for water use that exceeds baseline use.

SFPUC response: Agree.

The Assistant General Manager, Water, should:

4.5 Develop and present to the Public Utilities Commission, as part of the annual budget review, a cost analysis of the meter replacement program, including:

(a) the number of meters replaced during the fiscal year,

(b) the cost of replacing meters and the number of meters to be replaced in the coming fiscal year,

(c) the projected number of meters that will be replaced over the ten-year period, and

(d) the projected cost of replacing meters over the ten-year period compared to the expected impact on meter reading accuracy and revenues.

SFPUC response: Agree.

The Assistant General Manager, Clean Water, should:

4.6 Direct the Manager of Wastewater Collection System Bureau to review the flow factor assignment of all commercial and industrial accounts that have not been reviewed for four years or more prior to September 30, 2005, and provide a report on the flow factor review and assignment to the Assistant General Manager, Clean Water.

SFPUC response: While we agree that most of these accounts have not been re-inspected in the last four years, we do not necessarily agree with the $70,000 estimated loss. The report noted that the Bureau of Environmental Regulation and Management appropriately assigns and documents reduced flow factors. Accounts that have not been recently re-inspected will all be re-inspected and adjusted if appropriate.

The Customer Services Manager should:

4.7 Resume a schedule for review of all residential accounts at least every four years that have been assigned a flow factor less than 70 percent.

SFPUC response: Agree.

4.8 Enforce the division's policy to review all accounts with a reduced flow factor within a four year cycle.

SFPUC response: Agree.

4.9 Establish more rigorous policies for reducing residential flow factors, including requiring:

(a) documentation on the presence of low flush toilets and number of occupants, and

(b) requiring supervisor review for all accounts in which the flow factor calculations vary by more than 10 percentage points between the calculation of wet and dry months' water consumption and maximum irrigation potential.

SFPUC response: Agree, we already require supervisor review for all accounts in which the flow factor calculation results in a 50% or less flow factor.

5. Accounting for the Costs of Water Quality Bureau Laboratory Services.

Recommendations

The Public Utilities Commission General Manager should:

5.1 Assign Financial Services Section staff to work with the Water Quality Bureau Laboratories managers to develop a system of allocating laboratory costs and establishing a price list.

SFPUC response: Agree but it will only be a price list for a specific list of analyses. The list of constituents will be developed by the Water Quality Bureau Manager and will include at a minimum those constituents being requested by external customers. The list of constituents will be submitted for approval to the Assistant General, Water. The proposed cost-based fees will not cover field surveys, report production and operational support.

5.2 Direct the Water Quality Bureau Manager to establish cost-based fees for internal and external clients.

SFPUC response: Agree, but with the scope as outlined above.

5.3 Report to the Public Utilities Commission and the Board of Supervisors on the cost allocation system, including a proposed price list for internal and external clients, prior to September 30, 2005.

SFPUC response: Agree, but with the scope as outlined in response to 5.1.

The Water Quality Bureau Manager should:

5.4 Expand the client services job description to include (a) project management to develop and maintain the laboratory cost allocation and pricing program and (b) gatekeeper functions for internal and external clients to ensure that the appropriate level of laboratory services are provided to achieve clients' analytical goals.

SFPUC response: Agree; already done.

6. The Laboratories' Management Structure

SFPUC Overall Comments: We are in the process of reorganizing, and the Assistant General Managers for Water and Wastewater are reviewing best options for allocation of resources within the new enterprise structures. Any move now would be premature without our having more solid cost and staffing analyses.

Recommendations

The Public Utilities Commission General Manager should:

6.1 Transfer executive management responsibility for the Southeast and Oceanside Water Pollution Control Plant Laboratories to the new Assistant General Manager, Clean Water position.

SFPUC response: Disagree. Until we complete an analysis of laboratory functions, services and associated cost recovery, we do not see the advantages of laboratory separation. Current utility practice when an agency provides both water and wastewater services is to have a single laboratory (i.e. East Bay MUD).

6.2 Eliminate the 1.00 FTE Classification 5133 Program Manager II, Director of Laboratories, position.

SFPUC response: Disagree.

6.3 Transfer 2.00 FTE administrative support positions from the Water Quality Bureau to the Southeast and Oceanside Water Pollution Control Plant Laboratories.

SFPUC response: Disagree.

6.4 Direct the Water Quality Bureau Manager and the new Assistant General Manager, Clean Water to develop contracts or work orders between their laboratories to ensure the continued rationalization of technical and support services and prompt service reprioritization in emergencies.

SFPUC response: Disagree.

6.5 Resolve in FY 2004-2005 whether or not there is sufficient business justification to continue operating a laboratory at Treasure Island.

SFPUC response: Agree.

7. Managing Regulatory Compliance

Recommendations

The Public Utilities Commission General Manager should:

7.1 Direct the Assistant General Manager, Clean Water and the Assistant General Manager, Water and Power to provide quarterly reports to the General Manager and annual reports to the Public Utilities Commission and the Board of Supervisors, which include:

(a) Overall compliance with clean water and drinking water regulations, delineating only areas of noncompliance.

(b) Potential regulatory risks and how such risks are addressed.

(c) Planning for future regulatory requirements and participating in the Federal and State rule making processes.

SFPUC response: Agree, this is underway.

7.2 Consolidate regulatory compliance and planning functions within the Clean Water Enterprise and the Water Enterprise, under their respective Assistant General Managers' directions, including:

(a) The Planning Bureau's clean water regulatory planning and management position should be transferred to the Clean Water Enterprise, as recommended in the Phase I management audit report.

(b) The Bureau of Environmental Regulation and Management clean water regulatory positions should be transferred to the Clean Water Enterprise, as recommended in the Phase I management audit report.

(c) The Bureau of Environmental Regulation and Management drinking water positions should be transferred to the Water Enterprise, as recommended in Section 9 of this report.

SFPUC response: Agree, this is underway. The wastewater regulatory planning and management position has been transferred to the Wastewater Enterprise.

7.3 Direct the Assistant General Manager, Clean Water and the Assistant General Manager, Power and Water to address the current and evolving Federal and State regulatory requirements in their business plans to ensure that current regulatory

requirements are met and that future regulatory requirements can be met with existing or planned resources.

SFPUC response: Agree.

7.4 Include regulatory planning in the strategic planning process, to ensure that the Public Utilities Commission is participating in Federal and State rule-making processes and planning for the changing regulatory environment.

SFPUC response: Agree.

7.5 Direct the Assistant General Manager, Clean Water, and the Assistant General Manager, Water and Power, to provide status reports on the coordination of regulatory planning and capital project design and management as part of the Water System and Clean Water Capital Improvement Programs' monthly updates.

SFPUC response: Agree, we already do this to a great extent.

8. The Public Utilities Commission's Risks for Managing Treasure Island Utilities

SFPUC Overall Comments: We do not agree with the Budget Analyst's assertion that our planning process was insufficient. We understand our financial risks thoroughly, and we have made assessments. The Utility Vulnerability and Risk Assessment report (RMC, March 2004) proposed that "TIDA provide the SFPUC with outside funding separate from rate income to cover capital improvement projects and preventive maintenance costs that cannot be covered by revenue until the new systems are built."

As the Budget Analyst notes, the Public Utilities Commission faces significant future risks—financial, regulatory and operational—if we assume responsibility for the decrepit infrastructure at Treasure Island. The services we currently provide are not compensated, and we welcome the opportunity to develop a realistic plan for the future in conjunction with the Mayor's Office and the Board of Supervisors that will include a cost plan and funding sources.

Recommendations

The Mayor's Budget Office should:

8.1. Include funds in the Mayor's Recommended FY 2005-2006 Treasure Island Development Authority budget to pay utility costs, including a schedule to pay the past due balance.

SFPUC response: Agree.

The Board of Supervisors should:

8.2. Request the Public Utilities Commission, through the General Manager, to present a report concurrently with the Mayor's Office presentation of the proposed Treasure Island and Yerba Buena Island development agreement term sheet, expected in the summer of 2005, on the Public Utilities Commission's assessment of the financial, regulatory, design and operating risks to the Public Utilities Commission and how these risks will be addressed in the development agreement.

SFPUC response: Agree.

8.3. Request a joint financial analysis from the Treasure Island Development Authority and the Public Utilities Commission, through the General Manager, in December, 2006, evaluating how the proposed development of the Treasure Island and Yerba Buena Island utilities system will best meet the financial interests of the City and the City's utility ratepayers.

SFPUC response: Agree.

The Public Utilities Commission should:

8.4. Direct the General Manager to present a report to the Public Utilities Commission prior to December 31, 2005, which includes:

(c) an annual cost plan for operating and maintaining the Treasure Island and Yerba Buena Island utilities during the interim period after the U.S. Navy conveys Treasure Island and Yerba Buena Island to the City and prior to construction of the backbone of a new utilities system; and

(d) proposed alternative funding sources to pay for anticipated capital repair costs to the existing utilities of an estimated $5.7 million, including approximately $2.8 million for high priority capital repairs and $2.9 million for preventive maintenance for a four-year period (equal to $720,000 per year).

SFPUC response: Agree.

8.5. Direct the General Manager to negotiate and enter into a Memorandum of Understanding between the Public Utilities Commission and the Treasure Island Development Authority for the operation of the Treasure Island and Yerba Buena Island utilities if the Public Utilities Commission operates the utilities during the interim period.

SFPUC response: Agree.

9. Streamline the Former Bureau of Environmental Regulation and Management Functions

SFPUC Overall Comments: In our recent reorganization, the Bureau of Environmental Regulation and Management, minus the Health and Safety program, was moved under the Assistant General Manager, Wastewater. The AGM plans to combine the Sewer Operations with the BERM staff under the BERM manager. The new combined Collection System organization, which reports directly to the AGM, is substantially larger than the previous BERM Organization. Health and Safety was moved to Human Resource Services. Given this new structure, we do not agree that position reductions are warranted.

Recommendations

The Public Utilities Commission General Manager should:

9.1 Transfer management responsibility for the 3.00 FTE Classification 5620 Regulatory Specialist positions in the Environmental Compliance Program to water and clean water system operations according to assessed need.

SFPUC response: Agree.

9.2 Eliminate the 1.00 FTE Classification 5174 Administrative Engineer position.

SFPUC response: Disagree.

9.3 Eliminate the 1.00 FTE Classification 5138 Program Manager I, Environmental Compliance Program, position.

SFPUC response: Disagree.

9.4 Eliminate a 1.00 FTE Classification 1446 Secretary II position.

SFPUC response: Disagree.

10. Establish an Assistant General Manager, Water and Power Position

Recommendations

The Public Utilities Commission General Manager should:

10.1 Convert the Classification 5166 Assistant General Manager, Operations position into a Classification 5166 Assistant General Manager, Water and Power position.

SFPUC response: Disagree.

10.2 Not upgrade the existing Classification 0941 Manager VI, Director of Power Policy position to any higher classification.

SFPUC response: Disagree.

10.3 Reinstate the reporting line between the Director of Power Policy and the Assistant General Manager, External Relations.

SFPUC response: Disagree.

10.4 Reconsider the need for a separate Assistant General Manager, Retail Power position if the Department becomes a community choice aggregator.

SFPUC response: Disagree.

11. Land Management

Recommendations

The Public Utilities Commission should:

11.1 Adopt a formal policy regarding the identification and sale of surplus property including criteria for when properties may be declared surplus and the conditions, if any, under which the Public Utilities Commission would maintain ownership of property that is not required for the utility.

SFPUC response: Agree.

The Public Utilities Commission General Manager should:

11.2 Establish a formal framework for coordinating the Public Utilities Commission's land use and real property management policies and protocols, including directing the Assistant General Managers for External Affairs, Water, and Infrastructure to jointly coordinate real property and land planning and management, including:

(a) Writing joint protocols for establishing management oversight of:

(i) real property and land inventories,

(ii) surplus property identification,

(iii) property sales and acquisition procedures,

(iv) new lease and permit agreements, and

(v) encroachment identification, management, and removal;

(b) Developing written procedures outlining the decision-making process for the sale of Public Utilities Commission property, which are based on the utilities' land use needs, and are included in the formal property and land use management protocols;

(c) Providing comprehensive written land and property management protocols, including incorporating existing policies and procedures into a single document, to the General Manager prior to July 1, 2005; and

(d) Providing quarterly joint reports to the General Manager on property and land management.

SFPUC response: Agree.

11.3 Formally present Public Utilities Commission real properties and land which are surplus to the water, power, and clean water utilities' requirements, including:

(a) Directing the Assistant General Managers for External Affairs, Water, and Infrastructure to assess the 25 properties, which have been identified by the Real Estate Services Bureau as surplus to the utilities' needs and have not been previously declared surplus by the Public Utilities Commission, to determine which properties should be presented as surplus properties to the Public Utilities Commission; and

(b) Directing the Financial Services Section and the Real Estate Services Bureau to evaluate the potential revenue from the sale of the properties, allocation of such revenues to the Water System Capital Improvement Program projects, impact on the debt financing of such projects, and the impact on future water rate increases.

SFPUC response: Agree.

11.4 Direct the Real Estate Services Bureau to develop and maintain a comprehensive property inventory of the Public Utilities Commission's property holdings, which incorporates the Real Estate Services Bureau database and the Water and Supply and Treatment Division's Geographic Information System information.

SFPUC response: Agree.

11.5 Report to the Board of Supervisors on the existing and projected costs to the City to abate water system rights-of-way management within the next six months.

SFPUC response: Agree.

11.6 Include a status report on the rights-of-way management plan in the Water System Capital Improvement Plan monthly status report.

SFPUC response: Agree.

12. Real Estate Services

Recommendations

The Public Utilities Commission should:

12.1 Delete the final sentence from Section 4.020 of the Commercial Land Management Operating Manual, deleting the provision authorizing the General Manager to implement leases and permits, except for specific leases and permits authorized under Section 4.020, at her discretion without Public Utilities Commission approval.

SFPUC response: Agree.

12.2 Consider adopting a policy that defines the criteria that the Real Estate Services Bureau Director uses when determining if it is appropriate to put a property out to bid.

SFPUC response: Agree.

12.3 Consider adopting a policy that updates and clearly defines the criteria for issuing a permit or entering into a lease agreement for the use of Public Utilities Commission property.

SFPUC response: Agree.

12.4 Consider adopting a policy, requiring Public Utilities Commission approval for all adjustments or other actions that are outside the terms of the existing lease or permit agreement.

SFPUC response: Agree.

The Public Utilities Commission and the Recreation and Parks Commission, in conjunction with the City Attorney's Office should:

12.5 Develop a Memorandum of Understanding for the Lake Merced tract which includes a joint protocol for management oversight and maintenance of the Lake Merced tract.

SFPUC response: Agree.

The General Manager of the Public Utilities Commission should:

12.6 Direct the Real Estate Services Bureau Director to document the analysis of whether there is more than one potential user and present this analysis to the Public Utilities Commission at the time the Public Utilities Commission considers approval of lease agreements.

SFPUC response: Agree.

12.7 Direct the Finance Services Section to work jointly with the Water Supply and Treatment Division to develop a system to track time and material costs to specific tenants.

SFPUC response: Agree.

12.8 Direct the Real Estate Services Bureau, in coordination with the City Attorney's Office, to determine the extent and source of the contamination at 3911 Quint Street, and recover the costs attributable to All Auto Dismantler.

SFPUC response: Agree.

12.9 Direct Real Estate Services Bureau to review all agreements entered into prior to 1999 to evaluate whether the insurance requirements, environmental protection language, and use restrictions included in these contracts are adequate.

SFPUC response: Agree.

The Assistant General Manager, External Affairs, should:

12.10 Ensure that the Public Utilities Commission approves all lease agreements for real property that is surplus or may be declared surplus prior to the Real Estate Services Bureau entering into a lease agreement.

SFPUC response: Agree.

12.11 Direct the Real Estate Services Bureau Director to:

(a) adjust rents and conduct appraisals in accordance with lease agreements,

(b) charge tenants for taxes and assessments uniformly, and

(c) provide monthly reports to the Assistant General Manager, External Affairs, on the status of all leases.

SFPUC response: Agree.

The Real Estate Services Bureau Director should:

12.12 Develop procedures to routinely update the inventory of property for lease.

SFPUC response: Agree.

12.13 Document the Real Estate Services Bureau's marketing and leasing activities for properties available for lease, including providing a monthly report to the General Manager on the Real Estate Services Bureau's marketing and leasing activities.

SFPUC response: Agree.

12.14 Maintain documentation in the lease and permit files on the Real Estate Services Bureau's analysis regarding the number of potential users for specific properties for permits and leases not requiring Public Utilities Commission approval.

SFPUC response: Agree.

12.15 Direct staff to maintain file records of all inquiries regarding properties currently under lease, so that prior to renewing a lease, bids could be solicited from all interested parties.

SFPUC response: Agree.

12.16 In conjunction with the City Attorney's Office, draft a policy to be adopted by the Public Utilities Commission that updates and clearly defines the conditions under which permits and leases should be issued.

SFPUC response: Agree.

12.17 Collect property clean up and other cost information from the Water Supply and Treatment Division, compile the actual costs to monitor and maintain leased property compared to rent revenue, and present this report annually to the General Manager.

SFPUC response: Agree.

12.18 In conjunction with the City Attorney, identify existing leases and permits that do not contain the Public Utilities Commission's insurance, environmental protection, and use restriction provisions, and develop procedures to include the these provisions in these agreements at the earliest opportunity.

SFPUC response: Agree.

12.19 Terminate the lease agreement with All Auto Dismantlers, and evaluate this property to determine if the property is surplus to the clean water utility's requirements.

SFPUC response: Agree.

12.20 Include provisions requiring reimbursement of taxes on the original Mission Valley Quarry Company lease into any new lease agreements with the company.

SFPUC response: Agree.

12.21 Adjust rents, conduct appraisals, and collect taxes in accordance with lease agreements.

SFPUC response: Agree.

12.22 Continue converting permits to leases, when appropriate, and applying the policy defining the conditions under which a permits and leases should be issued for use of Public Utilities Commission property, should the Commission adopt one, as recommended above.

SFPUC response: Agree.

12.23 Review Real Estate Services policies and procedures for inspecting properties and documenting inspections, including reviewing all leases and permits to identify those that are the highest priority for inspection, based on property use, location, or other considerations, and coordinate inspections with the Water Supply and Treatment Division staff who patrol rights-of-ways and maintain watershed property.

SFPUC response: Agree.

12.24 Review the inspection process and revise the inspection documentation form to address specific issues, including if the tenant is following use restrictions, and potential environmental degradation.

SFPUC response: Agree.

13. Water Enterprise Planning and Reporting Deficiencies

Recommendations

The Public Utilities Commission General Manager should:

13.1 Complete a Water Enterprise business plan in FY 2005-2006.

SFPUC response: Agree that a strategic business plan should be developed for the entire water enterprise. This will be initiated upon completion of our staff reorganization.

13.2 Develop an ongoing Water Enterprise business planning process to ensure that the Water Enterprise business plan is regularly updated from FY 2006-2007 onwards.

SFPUC response: Agree. This will be done as part of the Strategic Business Plan development process.

13.3 Direct the new Assistant General Manager, Water and Power (as recommended in Section 10) to review all existing Water Enterprise plans to ensure that there are adequate performance measures and reporting mechanisms to allow the Public Utilities Commission to know that approved management actions have been achieved. The reports to the Public Utilities Commission should include

information on when implementation of recommendations or success in meeting recommended performance measures cannot be met because of funding limitations so that the Public Utilities Commission has the option to modify the affected recommendations or performance measures, or fully fund them.

SFPUC response: Agree. This will be done as part of the Strategic Business Plan development process.

13.4 Report to the Public Utilities Commission during FY 2005-2006 on the status of all management actions in all existing Water Enterprise plans.

SFPUC response: This is currently ongoing.

14. Programmatic Environmental Impact Report

Recommendations

The Public Utilities Commission General Manager should:

14.1 Ensure that the planning processes for all future capital improvement programs undertaken by the Public Utilities Commission explicitly include consideration of the need for a programmatic environmental impact report from the outset.

SFPUC response: Agree

14.2 Direct the managers responsible for the Clean Water Master Plan to make a presentation to the Public Utilities Commission on how the Clean Water Master Planning process will determine whether or not a programmatic environmental impact report is necessary.

SFPUC response: Agree.

14.3 Request the Director of the City Planning Department, or representative(s), to participate in the above presentation to the Public Utilities Commission.

SFPUC response: Agree.

14.4 Finalize a memorandum of understanding with the City Planning Department on the operating procedures to be used between the Public Utilities Commission and the Major Environmental Analysis Division.

SFPUC response: We will consider this recommendation.

14.5 Determine, in conjunction with the Director of the City Planning Department, the specific performance measures for a weekly reporting framework for all Major Environmental Analysis Division positions funded by the Public Utilities Commission.

SFPUC response: We will consider this recommendation.

The Board of Supervisors should:

14.6 Request the Planning Commission to direct the City Planning Department's Director to submit a proposal for the Planning Commission's consideration about how the City Planning Department could adopt a more proactive role at the outset of major capital improvement programs to ensure that due consideration is given to the need for a programmatic environmental impact report.

SFPUC response: Agree.

14.7 Request the Planning Commission to report back to the Board of Supervisors on its decisions with regard to the City Planning Department's role at the outset of major capital improvement programs to ensure that due consideration is given to the need for a programmatic environmental impact report.

SFPUC response: Agree.

15. The Need for a Departmental Strategic Plan

Recommendations

The Public Utilities Commission General Manager should:

15.1 Expand the Department's current sustainability plan project to develop an interim Public Utilities Commission strategic plan no later than FY 2006-2007 and a final strategic plan no later than FY 2007-2008 using input from both internal and external stakeholders and maintaining a focus on environmental, organizational, economic, and infrastructure sustainability.

SFPUC response: Agree.

15.2 Regularly update the Public Utilities Commission strategic plan so that it remains a "living document."

SFPUC response: Agree.

15.3 Ensure that the departmental strategic plan is supported by a comprehensive policy, planning, and reporting system.

SFPUC response: Agree.