

Performance Audit Report

Seattle Public Utilities

Operations

Report No. 1002121



September 24, 2009



Washington State Auditor Brian Sonntag, CGFM

www.sao.wa.gov

Why we did this audit

We conducted a performance audit of Seattle Public Utilities to determine whether it could improve the efficiency of its operations, whether it could reduce costs, and whether it received the full value of the services it paid for from general government operations.

The audit found the City of Seattle's taxation practices have a significant effect on the operating costs of the Utility, which in turn affect the rates charged to utility customers. This has caused Utility customers to pay more to support the City's general government budget than utility customers in other cities.

We also found a number of opportunities for the Utility to restructure its operations, reduce duplication of efforts, and reduce costs. There are also opportunities for the Utility to prioritize workloads and reduce the amount of overtime it pays employees.

We provided a draft of this report to Utility management for review and comment. Their comments are included Appendix H.

Scope and Objectives

We conducted this audit to answer the following questions:

- Does the Utility operate in the most efficient and economical manner possible?
- Are administrative staffing levels and related expenses limited to those reasonable and necessary to help ensure the safe and efficient operation of the Utility?
- During the past three years, have the Utility and the City of Seattle limited overhead allocations to levels allowed by applicable statutes, ordinances, and federal regulations, as well as to those reasonable and necessary?

The scope of the audit included the Utility's Water, Solid Waste and Drainage and Wastewater enterprises.

- We reviewed data from January 1, 2005 through December 31, 2007 for the objectives related to overhead costs.
- We reviewed data from August 2008 through December 2008 for the efficiency and administrative staffing objectives.

We conducted this audit in accordance with Generally Accepted Government Auditing Standards, prescribed by the U.S. Government Accountability Office. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. We also conducted this audit in accordance with the required elements of Initiative 900, detailed in Appendix A.

The audit cost \$976,686.

What we found

Cost savings

We identified potential cost savings or financial impacts for issue areas 2, 4, 5, 6, 7, 8, 9 and 10. Please refer to each of those issue areas for an explanation of the related cost savings or financial impact.

High City utility taxes

The City of Seattle relies more heavily on business utility taxes than most other cities in the state. The water utility tax rates set by Seattle's Mayor and City Council were approximately 98 percent higher than the average rates charged by other Washington cities. The utility taxes Seattle Public Utilities and Seattle City Light paid in 2009 accounted for approximately 10 percent of the City's total general fund revenue.

While utility taxes are authorized by state law, there are no limits to the rates the City can charge to the Utility. These taxes are a significant cost of doing business for the Utility, which must be recovered through the rates it charges customers. Without limitations, utility customers are at risk of unduly subsidizing general government operations through their utility rates.

More detail on this issue is discussed in Audit Issue No. 1.

The Utility is charged general government costs that are questionable

The City's method of calculating overhead costs results in some minor over-allocations of expenses that do not directly support the Utility's operations. This effectively shifts some of the City's general government costs onto the Utility and its customers.

The Utility also participates in City programs that benefit residents of the larger City population. Although it is possible the programs the Utility participated in may have had some benefit to utility customers, there was not a clear connection between the amounts the Utility paid and the benefits utility customers received.

These issues are discussed in Audit Issues Nos. 2 and 3.

What we found

Excessive job classifications contribute to high overtime costs

The Utility's excessive job classifications inhibit its ability to operate efficiently. The Field Operations and Maintenance employees are represented by 12 labor unions. Between these 12 labor unions, there are 111 different job classifications covering approximately 524 employees. This results in an operational web of requirements, negotiations and labor agreements that the Utility and the City must manage and track.

For some individual job categories, such as equipment operators and truck drivers, there are multiple job classifications. An employee in one job classification cannot be scheduled to cover the absence of an individual in a different job classification without incurring additional out-of-class pay.

On overtime costs, managers are put in a position of balancing out-of-class pay and overtime costs with the cost of work backlogs and public safety concerns. Reducing overtime costs by hiring staff may actually cause overhiring when needs within individual job classifications become the basis for hiring decisions instead of the needs of the overall branch.

These issues are discussed in Audit Issues No. 5 and No. 6.

Higher-Than-Necessary Administrative and Operational Costs

The Utility has opportunities to decrease duplications of effort, reduce administrative and operating costs, and increase operational efficiencies.

Centralizing activities that are duplicated across the Utility's branches would decrease its overall administrative costs. For example, there is no individual at the Utility responsible for the department's overall fleet management. Across the Utility, fleet management costs could be reduced if this activity were centralized within the Utility. We also identified opportunities to centralize information technology, asset management, capital planning, debt procurement, human resources and payroll. We also noted duplicated activities between the Utility and Seattle City Light in the Billing and Meter Reading Department.

In total, the Utility appears to have less staff per manager than other utilities. We recommended an organizational analysis to identify specific areas in which staff ratios are not ideal.

Call Center inefficiencies and low productivity obscure department overstaffing. Staff assignments are not aligned with workloads, customer service goals that contribute to overstaffing, existing technology is not fully used, and information is manually transferred between electronic systems, resulting in unnecessary costs and duplication of efforts. In addition, the call center is in downtown Seattle. It could pay significantly less rent if it relocated to a lower-cost area.

These issues are discussed in Audit Issues Nos. 4, 6, 7, 8, 9 10 and 11.

Commendation

The purpose of a performance audit is to identify opportunities to improve organizational economy and efficiency. As such, the emphasis is on reporting gaps between current performance and what could be accomplished by implementing the best practices of other comparable organizations. In the interest of balance, we call the reader's attention to the following.

Seattle Public Utilities is a large and complex organization but has taken great strides towards ensuring its critical services are comparable to the best practices of other high-performing utilities both nationally and internationally. It is committed to providing reliable services as shown in its extensive monitoring and tracking of its service quality and consistency of services. Other noteworthy accomplishments as provided by the Utility are included in Appendix D in the full report.

We also appreciated the Utility's positive attitude and responsiveness throughout the audit process. Utility and City employees were open and available to auditors, records were consistently provided in a timely manner, and the Utility's coordination between our auditors and City of Seattle departments was phenomenal. This was truly a best-case example of effective audit collaboration.

For more information

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Mission Statement

The State Auditor's Office independently serves the citizens of Washington by promoting accountability, fiscal integrity and openness in state and local government. Working with these governments and with citizens, we strive to ensure the efficient and effective use of public resources.



GOVERNMENT

Performance Audit of
**Seattle Public
Utilities Department**

Final Report

Prepared for: Washington State Auditor
Brian Sonntag

As of Date: September 11, 2009

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September 11, 2009

Mr. Brian Sonntag
Washington State Auditor
Washington State Auditor's Office
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Dear Mr. Sonntag:

This report presents the results of KPMG LLP's (KPMG) work conducted to address the performance audit objectives relative to the Seattle Public Utilities (SPU or the Department) Department. KPMG's work was performed during the period of August 14, 2008 through December 31, 2008. Our results are as of December 31, 2008.

KPMG conducted this performance audit in accordance with generally accepted government auditing standards (GAGAS). Those standards require that KPMG plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our issues and recommendations based on the audit objectives. KPMG believes that the evidence obtained provides a reasonable basis for our issues and recommendations based on the audit objectives.

As our report further describes, KPMG identified the following issues and recommendations as a result of the work performed.

Costs Imposed on Utility Operations by Council, Mayor and Outside Departments		
Category	Issue	Recommendations
1. Business Utility Taxes	SPU pays significantly higher utility tax rates than other Washington cities.	<ul style="list-style-type: none">The City should exercise caution in increasing future business utility taxes to avoid imposing taxes that may be considered overly burdensome. Because of the high utility taxes imposed on SPU by the City's policy makers, the City Council needs to allow for more deliberation with its citizens and more time between proposing and acting upon utility tax increases.SPU can assist the City to increase awareness of future business utility tax rate increases and the effect on the rates it charges its customers by leveraging existing channels of communication such as including notifications in customer billings.
2. Allocation of Indirect Costs	City cost allocations based on budgeted expenditures are not reconciled to actual expenditures to ensure SPU and other departments are not overcharged for City services.	The City of Seattle should: <ul style="list-style-type: none">Review the upcoming SCL performance audit results over cost allocations and follow the recommendations.Conduct an examination of the actual citywide cost allocations for fiscal years 2005, 2006, 2007 and 2008



Costs Imposed on Utility Operations by Council, Mayor and Outside Departments		
Category	Issue	Recommendations
	In addition, the City's method for developing cost allocations results in over-allocations to SPU and other City departments.	<p>to verifying that allocations based on budgeted operating costs were not significantly different from actual operating costs and to verify that all departments that used City services received a portion of those costs. An annual examination should be established and required by City policy. The examination could be performed by the City Auditor.</p> <ul style="list-style-type: none">• Establish monitoring over the development and application of cost allocations to ensure its conformance with policy. Any deviations should be documented and explained.
3. Utility Expense Policies	SPU has not defined in policy the types of expenses that are a legitimate use of ratepayer funds.	<ul style="list-style-type: none">• With the assistance of SPU's internal audit staff, the Department of Finance and the City Attorney's Office, SPU should prepare a policy, approved by the City Council and Mayor, establishing the parameters, procedures and criteria that utility expenditures should be evaluated against to provide reasonable assurance that charges will meet the intent of state law.• SPU and the City should establish management controls that are both transparent and effective in assuring compliance with the policy.
4. Fleet Management	SPU's inadequate monitoring over fleet maintenance is resulting in higher than necessary costs.	<ul style="list-style-type: none">• Standards for price, quality and frequency of services should be included in service agreements with the City fleet department and in vendor contracts. These standards should address price and service frequency for fleet customizations and other nontraditional services provided by the City fleet department. Standards which define fleet purchasing requirements as well as fleet life-cycle goals should also be established and included in the service agreements.• SPU should develop management review procedures which outline approval thresholds, provide guidance on the reports and systems to be used, and establish documentation requirements for these reviews and approvals. Documentation of management's review should be retained. Special attention should be focused on reviewing nonstandard work orders for services which fall beyond established cost standards.• SPU managers responsible for reviewing the appropriateness of fleet maintenance charges should also receive training and access to the City fleet department's work order system.



Further Streamline Operations to Reduce Overtime, Reduce Job Classifications and Improve Workload Management		
Category	Issue	Recommendations
5. Overtime	SPU has a pattern of significant overtime in its Solid Waste and Drainage and Wastewater Divisions. SPU has not acted to reduce overtime by streamlining job classifications and hiring additional or temporary employees for understaffed operations or weather-related spikes in workload.	<p>In the short-term, SPU should pursue the following recommendations:</p> <ul style="list-style-type: none">• SPU should develop overtime reduction targets for FOM and the other branches. Targets should reflect the different needs inherent within each division served by the branches. In order to prioritize its reduction efforts, SPU should track the major contributors to overtime.• SPU should conduct a staffing analysis to determine where additional workers are needed. SPU should start the analysis in those areas where overtime is paid at twice the regular rate of compensation. In situations where the cause appears to be understaffing, SPU should consider using temporary employees until a job classification study has been completed. <p>In the long-term, SPU should pursue the following:</p> <ul style="list-style-type: none">• With input from labor unions, SPU should conduct a classification study to increase staff assignment flexibility through the consolidation of similar job classifications.



Continue to Restructure and Consolidate Operations to Lower Operating Costs		
Category	Issue	Recommendations
6. SPU Organization	SPU managers supervise fewer employees than their peers in similar government agencies, a condition that increases costs.	<ul style="list-style-type: none">• SPU should conduct periodic organizational analysis which links SPU's overall mission with its strategic plan. The purpose of the analysis would be to consolidate functions where possible and to identify opportunities to increase the number of individuals per supervisor.• As a starting point, SPU should seek to increase the number of individuals assigned to each supervisor with an average goal of 10 employees per supervisor. Managers and supervisors with 4 or less employees should be the first groups evaluated. Once the organizational analysis is complete, SPU will have the information necessary to make further adjustments.
7. Customer Service: Call Center Operations	SPU has opportunities to reduce the operating costs of the call center.	<ul style="list-style-type: none">• SPU's call center could increase its operating efficiency by analyzing workload fluctuations along with productivity indicators to establish appropriate staffing levels. We also recommend SPU consider making full use of technology to track changes in call volumes in order to maintain appropriate staffing levels.• We recommend that as part of a long-range space planning initiative, SPU should consider relocating its call center. Any other SPU function that does not require proximity to City Hall should also be moved to outside the downtown Seattle core area to reduce facility rental expenses.
8. Billing and Meter Reading	Duplication in services between SPU's and Seattle City Light's separately operated billing and meter reading departments cause increased administrative and operational costs of both departments.	<ul style="list-style-type: none">• In light of recent advances in meter reading technology, SPU and Seattle City Light should consolidate meter reading functions at both utilities.• SPU should work with Seattle City Light to investigate the best way to synchronize meter reading cycles and consolidate customer billings.



Financial and Performance Management		
Category	Issue	Recommendations
9. Debt Financing	SPU can reduce its borrowing costs by consolidating bond sales or pursuing alternative financing	<ul style="list-style-type: none">• Consolidate borrowings to the maximum extent practical and permissible with a target of \$180 million per issue.• When the targeted \$180 million threshold cannot be achieved, consider alternatives such as borrowing from the City's commingled pool of investments, participating in debt offerings of the State Treasurer's Office, or joining group financing with similar entities
10. Sick Leave	SPU employees use more sick leave than other municipalities.	<ul style="list-style-type: none">• We recommend SPU evaluate its sick leave management practices and consider incorporating the best practices of other organizations.
11. Asset Management	SPU management's review of capital projects is not properly focused on higher-value projects.	<ul style="list-style-type: none">• SPU should consider increasing the dollar threshold on projects subject to review by the AMC from \$250,000 to \$1 million. SPU can choose to delegate project reviews under \$1 million to other responsible individuals.• The committee should establish criteria that consider other non-cost factors such as project sensitivity or projects that are considered higher risk of failure.• A review process should be set up for projects that do not meet the criteria for review by the AMC.

Appendix A includes a cross-reference of our identified issues to Initiative 900 elements.

This performance audit did not constitute an audit of financial statements in accordance with *Government Auditing Standards*. KPMG was not engaged to and did not render an opinion on the SPU's internal controls over financial reporting or over financial management systems (for purposes of OMB's Circular No. A-127, *Financial Management Systems*, July 23, 1993, as revised). KPMG cautions that projecting the results of our evaluation to future periods is subject to the risk that controls may become inadequate because of changes in conditions or because compliance with controls may deteriorate.

Sincerely,

KPMG LLP

List of Acronyms

Acronym	Definition
AMC	Asset Management Committee
AMI/AMR	Advanced Metering Infrastructure / Automated Meter Reading
CIS	Customer Information System
CS	Customer Service
CSR	Customer Service Representative
DOIT	Department of Information Technology
FACTA	Fair and Accurate Credit Transactions Act
FFD	Fleets and Facilities Department
FO&M	Field Operations and Maintenance
FTE	Full-time Equivalent
GAGAS	Generally Accepted Government Auditing Standards
IT	Information Technology
IVR	Interactive Voice Response
KPI	Key Performance Indicator
LOB	Line of Business
OMB	Office of Management and Budget
RCW	Revised Code of Washington
RFI	Request for Information
RFQ	Request for Qualifications
SAO	Washington State Auditor's Office
SCL	Seattle City Light
SLA	Service-level Agreement
SPU	Seattle Public Utilities
USM	Utility Systems Management
WSAA	Water Services Association of Australia

The background of the top half of the page is a scenic photograph of a snow-capped mountain range under a clear blue sky. In the foreground, there is a dense forest of evergreen trees. The word "Contents" is overlaid on this image in a large, blue, sans-serif font.

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Background

Overview of the Department

The Seattle Public Utilities Department (SPU or Department) was established in 1997 through the consolidation of water, wastewater and solid waste disposal service enterprises into a single department with the intent to increase efficiencies and cost reductions. Prior to the 1997 consolidation, municipal water services were provided by a separate, stand-alone enterprise, while the services of solid waste collection and disposal, wastewater collection, and drainage were located within the City's Engineering Department.

Seattle Public Utilities (SPU) provides more than 1.3 million customers in King County with water, as well as sewer, drainage, and solid waste services for the City of Seattle. To deliver these basic services, Seattle Public Utilities relies on a system of pipes, reservoirs, and disposal and recycling stations. In 2007, SPU employed approximately 1440 full time equivalents and spent approximately \$627,586,000. Additional information on SPU and the services they provide can be found in Appendix G.

At the time of audit, SPU consisted of the Director's office and five separate branches: Finance and Administration; Field Operations and Maintenance; Utility Systems Managements; Customer Service; and Engineering Services. Department heads, including SPU's Director, are appointed by the City Mayor and must be confirmed by the City Council. Budget and policy changes must also go through the Mayor's office and the City Council for review and approval.

The Director's Office

The Director's Office has oversight responsibility for the Department. Accordingly, each of SPU's five branches serves as a direct report to the Office of the Director. Additionally, the Director's Office has responsibility for six programs that operate under the direct supervision of the Assistant Director to the Utility Department: Community Relations; Communications Services; Human Resources; Corporate Policy and Performance; Environmental Justice and Service Equity; and Strategic Asset Management.

Finance and Administration Branch

The Finance and Administration (FA) Branch consists of three divisions: Finance; Information Technology; and Safety. The following is a description of the mission and objectives of each division:

The Finance Division – The Finance Division seeks to ensure long-term financial stability by maintaining and improving the utility’s finances to support its needs and maintain reasonable customer rates.

Information Technology Division – The mission of the Information Technology Division is to provide quality information technology tools, systems, products and services to SPU and to help ensure the continued security and viability of SPU’s entire computer environment.

The Safety Division – The Safety Division is responsible for promoting safe and healthy workplaces, and supports employees taking personal responsibility for their job safety.

Field Operations and Maintenance Branch

The Field Operations & Maintenance (FO&M) Branch is SPU's largest branch, with more than 520 employees. FO&M employees are responsible for the ongoing operations and maintenance of utility systems, making it possible for the City to deliver vital services to its customers.

Utility Systems Management Branch

The Utility Systems Management (USM) Branch provides overall direction, management and scientific services so that each of SPU's lines of business (LOBs) (Water, Drainage and Wastewater, and Solid Waste enterprises) effectively and efficiently deliver high value services to its customers. USM seeks to accomplish this mission through adaptive, sustainable, data driven methods that incorporate economic, environmental, and social objectives.

Customer Service Branch

The Customer Service (CS) Branch is responsible for providing a variety of programs and activities in support of both SPU as a whole and of certain enterprise specific activities. The following is a description of the CS Branch programs and activities:

Business Support Services – Manages major customer service technology initiatives, telephony, and drainage billing and solid waste service data, and provides QA/QC services for call centers.

Customer Billing Services– Provides meter reading and customer billing exception processing for SPU customers.

Customer Response – Operates the Call Center which is responsible for utility calls for water, sewer, solid waste, and electric service issues, including billing, payments, and new accounts. Provides in-person payment services in downtown Seattle.

Utility Services Teams Services – Provides new service sales, credit and collections and account management services for both residential and commercial customers. Provides customer service field support for water, sewer and solid waste utilities.

Customer Programs and Contract Management– Manages contract services for solid waste collection and billing for commercial solid waste customers. Provides customer support, education and outreach for conservation and effective use of the resources used for all SPU lines of business.

Engineering Services Branch

The Engineering Services Branch is responsible for providing engineering and project management services to both SPU and to other City departments.



Objective, Scope, and Methodology

The Washington State Auditor's Office (SAO) retained KPMG to conduct a performance audit of the Seattle Public Utilities Department (SPU).

Objectives

In November 2005, Washington voters approved Initiative I-900, giving the SAO the authority to conduct independent performance audits of government agencies on behalf of citizens. As a result of the passing of this initiative, the objective of this performance audit encompasses the nine required elements of citizen approved Initiative I-900, as follows:

- Identification of cost savings
- Identification of services that can be reduced or eliminated
- Identification of programs or services that can be transferred to the private sector
- Analysis of gaps or overlaps in programs or services and recommendations to correct them
- Feasibility of pooling the entity's information technology systems
- Analysis of the roles and functions of the entity and recommendations to change or eliminate roles or functions
- Recommendations for statutory or regulatory changes that may be necessary for the entity to properly carry out its functions
- Analysis of the entity's performance data, performance measures, and self-assessment systems
- Identification of leading practices

Additionally, the specific objectives of this performance audit identified by SAO were as follows:

- To assess whether SPU operates in the most efficient and economical manner possible
- To ascertain whether administrative staffing levels and related expenses incurred are limited to that which is reasonable and necessary to help ensure the safe and efficient operation of the utilities
- To determine whether, during the past three years, SPU and the City have limited overhead allocations to levels allowed by applicable statutes, ordinances, and federal regulations, as well as to that which is reasonable and necessary

For each recommendation, KPMG was asked to determine a five year impact on future costs, resource needs, decision making, and level of services, as appropriate. While conducting this performance audit, KPMG was also asked to assess the benefits of implementing leading industry practices within SPU wherever it was determined that SPU did not already employ such practices.

Scope

The scope of the audit included the SPU's Water, Drainage and Wastewater, and Solid Waste enterprises. The period reviewed was January 1, 2005 through December 31, 2007 for the objectives related to overhead cost allocation and interdepartmental billings for utility services. For the objectives of evaluating the efficiency of the SPU, and limiting of administrative staffing levels and related expenses incurred to those reasonable and necessary for safe and efficient operation of the utilities, the timeframe was August through December 2008.

The three enterprises are managed by the SPU Office of the Director and five branches under the supervision of the Director's Office. The scope of the audit *did not* include construction management or capital program planning and implementation for either SPU or other City departments or the Engineering Services Branch of SPU.

Methodology

This performance audit was conducted in accordance with generally accepted government auditing standards (GAGAS) as promulgated by the Government Accountability Office (GAO).

KPMG planned and conducted this performance audit in four phases.

- The following is a brief description of each phase and the tasks and activities performed therein:

Phase I

During the Initiate Phase, KPMG obtained information about the nature, purpose, and scope of SPU. This was accomplished through interviews, site inspections, and the collection, review, and synthesis of relevant background material. KPMG also reviewed the results of recent audits and special studies to ascertain the status of implementation of the recommendations contained within such audits and studies.

Phase II

During the Planning Phase, KPMG conducted an assessment of SPU's operations. This risk assessment was performed for the purpose of:

- Identifying impediments (both internal and external) to SPU's efficiency
- Assess the possibility that inappropriate shifting of costs from other City administered programs and activities to SPU may be occurring and
- Prioritizing our Phase III fieldwork activities according to the magnitude of the perceived risks, thereby promoting audit effectiveness.

In compiling an inventory of risks and assessing the probable impact to SPU from such risks, KPMG relied upon the following sources of information:

- Interviews with SPU's leadership team, including: the Director, each of SPU's Branch Directors, selected managers, and select support staff
- Site visits to various SPU operated facilities, including: reservoirs, transfer stations, operation yards, warehouses, water treatment plants, and pumping stations
- Observation of SPU employees at work, including: field operations, call center, data processing, and facilities management personnel
- Review of documents provided by SPU in response to KPMG's requests for information, such as:
 - Budgets and financial statements and certain documents related to financial planning and analysis, including rate studies for the Water, Drainage and Wastewater, and Solid Waste enterprises funds
 - Interdepartmental and intergovernmental memoranda of understanding as they relate to services provided to or received from other City departments and other governmental agencies and,
 - Policies and procedures manuals for selected aspects of SPU's operations.

The results of this risk assessment served as the basis for the following fieldwork activities.

Phase III

During the Coordinate Phase, KPMG performed inquiries, substantive testing, analytic procedures, and other techniques to develop the high priority issues as identified during the Phase II risk assessment. These activities included:

- Assessing SPU's management reporting capabilities
- Analyzing selected core business processes
- Reviewing SPU's benchmarking efforts
- Reviewing SPU's methods to develop rates for utility user fees

- Evaluating SPU's use of information technology
- Performing organizational analysis

Phase IV

During the Close Phase, KPMG prepared a draft report. Prior to the release of the draft report, KPMG held meetings with management of SPU and other affected City departments for the purpose of reviewing the findings and recommendations.

During these meetings, KPMG made available the documentation supporting its audit results and responded to various questions and requests for clarification from the affected departments.

Evaluation Criteria

According to Chapter 7.28 of GAGAS:

“Criteria are the standards, measures, expectations of what should exist, best practices, and benchmarks against which performance is compared or evaluated. Criteria provide a context for understanding the results of the audit”

For the purposes of this audit, the following criteria were utilized:

- KPMG's knowledge of leading industry practices for municipal utilities, based upon the firm's experience in conducting performance audits and other engagements for entities similar in size, scope, and nature of operations as SPU
- Governing laws and regulations, including the Revised Code of Washington (RCW)
- Existing SPU policies and procedures and
- The results of benchmarking efforts previously undertaken by SPU



Results, Issues, and Recommendations

1. SPU pays significantly higher utility tax rates than other Washington cities.

Background

Seattle and other Washington cities have the authority to impose business utility taxes on their own utility services. Cities can use the revenues from these taxes on any general government activity without restriction. For those utility services provided by SPU -- water, drainage and wastewater, and solid waste -- there is no limit to the rate that can be charged and the rates do not have to be the same across the different utilities. But state law (**RCW 35.21.870**) limits municipal taxes on telecommunications, gas, and electrical power to six percent of the utility's gross receipts.

Utility taxes are considered a part of a utility's operational costs rather than a direct charge to utility customers, but they are costs that are not necessary to run a utility. Utilities recover business costs through the rates charged to customers so utility taxes are reflected in the rates.

It should be noted that taxpayers have the authority to reject City Council-approved tax increases by following the referendum process outlined in RCW 35.21.706. However, taxpayers have limited time to challenge the increase. The RCW states in part:

- A notification of an intent to gather signatures in support of a petition for a referendum is filed within seven days of the Council's adoption of an ordinance increasing business utility taxes and
- A sufficient number of signatures from qualified voters are gathered within 30 days of filing a notification with the City Clerk.

The referendum process only applies to newly proposed increases in taxes approved by the City Council. In light of the limited amount of time available to contest increases to business utility taxes, the need to provide timely notice to ratepayers would appear to be essential. Historically, notifications of business utility tax increases have been announced in upcoming City Council meeting agendas. State law does not specify the method of notification. Based upon inquiries of SPU, the use of bill inserts announcing a possible increase in business utility taxes is not being used.

Condition

Seattle's utility tax rates are significantly higher than the rates charged by other cities. For example, Seattle's 2008 water utility tax rate was 98 percent higher than the average of other Washington cities. In 2009 the City increased the water utility tax rate.

From calendar year 2000 to 2007, the amount SPU paid the City of Seattle annually in business utility taxes increased from approximately \$28.6 million to \$59.5 million. This represents an average growth rate of 11.2 percent per year. The City reported in its 2009-2010 Budget, that SPU and Seattle City Light utility taxes will account for 10 percent of its total general government revenues.

For comparison purposes, the increase in demand for services and impact of inflation as gauged by estimated population changes and the Consumer Price Index (CPI), was approximately 3.4 percent per year. The business utility taxes imposed upon SPU, and ultimately passed along to the ratepayers, grew an average 3.3 times as fast as the combined change in the City's estimated population and CPI over this same timeframe.

In 2005, the City Council enacted Ordinance 121671 which increased the City's water utility tax rate from 10 percent to 14.04 percent of SPU's gross water revenues. Within a few months the Council enacted Ordinance 121672 to raise the tax rate to 15.54 percent of gross water revenues. In March 2009, the City's water utility's tax rate was increased to 19.87 percent. The first rate increase and the last rate increase related to fire hydrant costs. In two cases, the City used the increased tax revenues to offset costs related to fire hydrants.

SPU used to pay the costs of operating fire hydrants. A 2006 superior court ruling determined fire hydrants are a general government responsibility that should be paid by the City rather than SPU's water customers. In 2008, after appeal to the Washington supreme court, the superior court ruled the City of Seattle should reimburse SPU approximately \$13.6 million dollars plus interest. SPU was then required to pay \$20.3 million plus interest to reimburse its water customers and pay attorney fees. Water customers were to be reimbursed because they were incorrectly charged for these costs through their utility rates.

The City chose to collect revenues for its refund by raising SPU's water utility tax rate from 15.54 to 19.87 percent. SPU chose to collect revenues to pay increased utility tax and other costs related to hydrant refunds, by adding a surcharge on existing water rates of 10.2 percent. The surcharge raised the water rates paid by SPU's water customers. SPU estimated it needed to raise approximately \$22.7 million from its water utility customers to cover its costs.

Although SPU's water utility customers received a reimbursement, which in many cases was simply a credit on their water bills, they will be paying it back plus additional costs through their utility rates until January 2011. Although there is nothing in state law that prohibits this, the reimbursement will end up costing most utility customers more than they received. The City projects a decrease in this rate to 15.54 percent in January 2011.

The extent to which the City relies upon business utility taxes from SPU as a source of discretionary revenue appears to be inconsistent with the principles of a well designed tax system. The relatively high business utility tax rates imposed upon SPU, and the principles of a well designed tax system, strongly suggest that the City should exercise caution related to future business utility tax increases. Because of the high utility taxes imposed on SPU by City policy makers, the City Council needs to allow for more deliberation with its citizens and more time between proposing and acting upon utility tax increases. The risk is distrust by citizens, rejection of City-sponsored ballot propositions, and potential legal challenges.

Criteria

According to the Department of Revenue's 2002 Tax Structure Study, some of the principles of a well designed tax system include taxes that are not continuously or drastically increased as well as taxes that are transparent, fair and equitable. See Appendix C for a more detailed description of these principles.

The state of California has robust public notification of tax increases. It requires a meeting for public testimony whenever a general tax increase is being considered (**Code section 54954.6**). This meeting has to be advertised for three weeks in a newspaper of general circulation. The tax increase will be voted on at a subsequent public hearing. The hearing has to be scheduled at least eight days after the public meeting and at least 45 days after the first notice of the proposed tax increase. In addition, California law requires notices of the proposed tax increase be mailed to all property owners listed on the counties' tax records.

Cause

The City of Seattle appears to meet the minimum notification requirements outlined in state law and has not recognized the need to do more in light of its high utility taxes. Although the City's notification is limited to announcing rate increases in agendas of upcoming council meeting, most citizens do not make a regular habit of reading council agendas.

Effect

We compared Seattle's water utility tax rate to the rate charged by other cities in Washington as reported by the Association of Washington Cities' in the "*Tax and User Fee Survey 2008*." Seattle's utility tax rate was 98.2 percent higher than the

average rate charged by other cities. At the time of the survey, Seattle's water utility tax rate was 15.54 percent as compared to an average of 7.84 percent charged by other cities. This was a voluntary survey of the utility tax rates charged by Washington cities. Of approximately 200 cities, 156 cities participated in the survey.

The chart below shows how SPU's tax rates compared to the average rates of other cities in Washington.



Seattle's water utility tax rate increased from 10 percent in 2004 to 19.87 percent in 2009. The growth in SPU's business utility taxes and the high rate as compared to other State of Washington cities suggests the City is relying more heavily on business utility revenues as a discretionary revenue source than other cities. This presents a risk that the rate payers will perceive the utility taxes as overly burdensome. The City's reliance on utility taxes to pay for general government operations has far exceeded most of its peers.

Recommendation

The City should exercise caution in increasing future business utility taxes to avoid imposing taxes that may be considered overly burdensome. Because of the high utility taxes imposed on SPU by the City's policy makers, the City Council needs to allow for more deliberation with its citizens and more time between proposing and acting upon utility tax increases.

SPU can assist the City to increase awareness of future business utility tax rate increases and the effect on the rates it charges its customers by leveraging existing channels of communication such as including notifications in customer billings.

Potential Benefits

Implementation of the above recommendations will provide greater assurance that:

- The business utility taxes imposed upon SPU will not be perceived as overly burdensome by SPU's ratepayers.
- Ratepayers will be informed timely of any potential business utility tax increases. While they would have a greater opportunity to challenge such increases, this will also improve the transparency around the true cost of general government operations.
- The City of Seattle may place less reliance on business utility taxes to fund general government operations.

2. City cost allocations based on budgeted expenditures are not reconciled to actual expenditures to ensure SPU and other departments are not overcharged for City services. In addition, the City's method for developing cost allocations results in over-allocations to SPU and other City departments.

Background:

It is normal practice for City general government departments such as human resources, accounting and payroll to have a portion of costs allocated to other departments that use their services. These are commonly referred to as central service costs. Accounting rules classify these types of expenses as indirect expenses. The City of Seattle charges SPU a share of these costs. SPU paid the City of Seattle central service costs totaling \$7,963,607 in 2006, \$8,643,506 in 2007 and \$8,803,281 in 2008.

Cities can develop their own methods of allocating indirect expenses as long as the costs are reasonable. For example, it is not unusual for cities to base initial cost allocations on budgeted operating costs. These budgeted costs are estimates of future expenses. But once they know actual operating costs, usually at the end of the year, cities must have a plan to compare what was allocated to what should have been allocated. If significant over-allocations or under-allocations are noted they should be corrected.

Condition

SPU may be charged more City allocated costs than it should. Three reasons were noted.

First, the City allocates its indirect costs on a budgetary basis without reconciling to actual costs. The City was not able to provide evidence showing that a comprehensive reconciliation had been performed since 2004.

Secondly, although the City uses budgeted amounts as the basis for allocating its indirect costs, it did not consistently charge SPU based on these amounts and exceptions were not documented. For example, SPU's 2007 budgeted allocation for using services provided by the Information Technology department was \$397,923. The amount actually allocated was \$1,106,077. SPU's budgeted allocation for Information Technology department management services was \$475,530. The amount actually allocated was \$551,653. When asked, SPU provided explanations for the higher allocations but the explanations were not previously documented. A process to ensure exceptions or changes in allocations are documented does not exist.

Finally, certain programs and activities do not have to pay their share of indirect costs for using City services. These programs and activities include the Arts Commission, Mayor's Office, Department of Neighborhoods, Office of Policy and Management, and the Office of Economic Development. Using payroll as an example, those departments that pay the allocation are paying a higher amount than they would have had all the departments shared in the costs.

The City's method of allocating costs is resulting in over allocations of these and other indirect costs to SPU and other City departments.

Criteria

RCW 43.09.200 requires adequate records be maintained to show how revenues and expense served a public purpose. It states in part:

...all receipts, vouchers, and other documents kept, or required to be kept, necessary to isolate and prove the validity of every transaction;

RCW 43.09.210 prohibits a department from benefiting financially at the expense of another department within the same agency. The RCW states in part:

All service rendered by, or property transferred from, one department, public improvement, undertaking, institution, or public service industry to another, shall be paid for at its true and full value by the department, public improvement, undertaking, institution, or public service industry receiving the same, and no department, public improvement, undertaking, institution, or public service industry shall benefit in any financial manner whatever by an appropriation or fund made for the support of another.

Circular A-87, from the Office of Management & Budget provides guidance on the calculation of indirect costs. In using federal funds, the City is required to follow these

federal requirements or risk the loss of federal funding. The following references simply state that indirect costs should be allocated based on the actual cost to provide the service and based on the amount of services actually used.

Circular A-87's attachment C "State/Local-wide Central Service Cost Allocation Plans," Section G. "Other Policies," Subsection 4. "Adjustment of billed central services" requires in part:

"A comparison of the revenue generated by each billed service (including total revenues whether or not billed or collected) to the actual allowable costs of the service will be made at least annually, and an adjustment will be made for the difference between the revenue and the allowable costs."

Circular A-87 also provides criteria for ensuring an equitable distribution of indirect costs to those that received the services. Circular A-87's attachment A "General Principals for Determining Allowable Costs," Section F. "Indirect Costs," Subsection 1. "General," page 11 of 57 requires in part:

"...Indirect cost pools should be distributed to benefitted cost objectives on bases that will produce an equitable result in consideration of relative benefits derived."

Cause

City policies do not require adjustments to allocated costs based on a reconciliation of budgeted to actual expenses. Instead, the City performs such reconciliations and adjustments inconsistently and at its discretion.

The City is following its allocations policies which allow certain departments to not receive their share of indirect cost allocations.

Effect

Without performing a comprehensive reconciliation of budget to actual costs, the City is unable to provide a satisfactory level of assurance that costs allocated to SPU have been consistent with the actual cost of providing services. This unnecessarily increases the risk the City will be in violation of Washington state law.

There is evidence that suggests some over-allocations have occurred. A comprehensive detailed review of the City's cost allocation plan would have been required to quantify the amounts in this audit. Since such a review was conducted in a related audit of Seattle City Light (SCL) by the State Auditor's Office, we did not include a review in this audit. At the time of this audit, we reviewed preliminary results of the SCL audit which indicated our conclusions of possible over-allocations at SPU were substantiated. We expect SPU will be able to apply the SCL recommendations to ensure its costs are allocated accurately in the future.

Past court cases challenging expenses paid by SPU have been very costly for the City of Seattle. If the appropriateness of the methods used to allocate indirect costs to SPU are challenged the City may incur further litigation costs.

Recommendations

The City of Seattle should:

- Review the upcoming SCL performance audit results over cost allocations and follow the recommendations.
- Conduct an examination of the actual citywide cost allocations for fiscal years 2005, 2006, 2007 and 2008 to verifying that allocations based on budgeted operating costs were not significantly different from actual operating costs and to verify that all departments that used City services received a portion of those costs. An annual examination should be established and required by City policy. The examination could be performed by the City Auditor.
- Establish monitoring over the development and application of cost allocations to ensure its conformance with policy. Any deviations should be documented and explained.

Potential Benefit

Satisfactory assurance that overhead expenses allocated to SPU conform to applicable ordinances and statutes and that allocated indirect costs are representative of those indirect costs actually incurred on behalf of SPU.

3. SPU has not defined in policy the types of expenses that are a legitimate use of ratepayer funds.

Condition

The absence of a thorough and clearly stated policy defining allowable SPU expenditures results in an unnecessarily high degree of risk that ratepayers are supporting programs that do not support SPU's operations.

These three instances were noted in which the programs operated by SPU or costs absorbed by SPU from other City departments were considered questionable in light of recent court rulings:

- SPU paid \$428,827 for its allocated share supporting the City's Office of Sustainability and Environment from 2005 to 2007.
- Operating and capital costs of \$577,000 were budgeted and paid by SPU in support of the City's climate action plan in 2007 and 2008.
- SPU paid costs of \$598,226 to community-based non-profit organizations in support of the City's Race & Social Justice Program.

As a clarification, KPMG does not have the expertise to challenge the legitimacy of expenditures for the City's environmental, climate protection or race & social justice programs. However, the fact that other similar questionable expenditures have been challenged in court is an indication that ratepayers lacked confidence in the legitimacy of costs incurred by the City's municipal utilities particularly since those costs must be passed along to SPU customers through the rates they pay. As such, improved systems of control and increased transparency appear to be warranted.

Criteria

RCW 43.09.200 requires adequate records be maintained to show how revenues and expense served a public purpose. It states in part:

...all receipts, vouchers, and other documents kept, or required to be kept, necessary to isolate and prove the validity of every transaction...

RCW 43.09.210 prohibits a department from benefiting financially at the expense of another department within the same agency. The RCW states in part:

All service rendered by, or property transferred from, one department, public improvement, undertaking, institution, or public service industry to another, shall be paid for at its true and full value by the department, public improvement, undertaking, institution, or public service industry receiving the same, and no department, public improvement, undertaking, institution, or public service industry shall benefit in any financial manner whatever by an appropriation or fund made for the support of another.

Cause

The City has acknowledged that a thorough policy statement addressing this issue does not currently exist. However, it maintains that the costs allocated to SPU are reasonable and appropriate in light of the opinion rendered during the Phase II trial of *Okeson v. Seattle* .

Effect

The lack of policies describing allowable costs can potentially lead to higher utility rates for customers. Also, the City has been challenged multiple times by Seattle City Light and SPU ratepayers for incurring expenses they believed were not essential for the safe and efficient operation of all the City's utilities. In the *Lane v. City of Seattle* case alone -- ultimately decided by the Washington Supreme Court in December 2008 -- the City spent more than \$4 million on the plaintiff's attorney fees. Without a policy defining what is an appropriate and allowable SPU expenditure, SPU remains at risk of similar lawsuits.

Recommendation

With the assistance of SPU's internal audit staff, the Department of Finance and the City Attorney's Office, SPU should prepare a policy, approved by the City Council and Mayor, establishing the parameters, procedures and criteria that utility expenditures should be evaluated against to provide reasonable assurance that charges will meet the intent of state law.

SPU and the City should establish management controls that are both transparent and effective in assuring compliance with the policy.

Potential Benefit

Minimize the risk of ratepayer objections and challenges of questionable programs that their utility payments support.

4. SPU's inadequate monitoring over fleet maintenance is resulting in higher than necessary costs.

Condition

SPU obtains fleet maintenance services from the City of Seattle and from outside vendors for its cars, other vehicles, and miscellaneous equipment it uses. In 2007, SPU's fleet maintenance services costs were approximately \$3.39 million. SPU's Water, Drainage and Wastewater, and Solid Waste Divisions' inadequate monitoring and controls limit their ability to determine if maintenance charges are reasonable and economical.

Specifically:

- The Water and Drainage and Wastewater Divisions do not have service agreements with the City fleet department to establish specific service needs and service quality standards or to standardize rates for commonly performed maintenance activities. As a result, SPU is at increased risk of receiving services that are unnecessary, overpriced and do not meet its quality expectations.
- The Water and Drainage and Wastewater Divisions do not have adequate access or training on the City's electronic fleet management system to properly monitor maintenance activities and their associated costs. In addition, SPU's managers receive a monthly maintenance billing report from the City's fleet department. But the report's value is limited because managers do not review the supporting detail to assess the appropriateness of costs and services billed.
- In its maintenance contracts with third party vendors, the Solid Waste Division does not stipulate service level and cost of service expectations. SPU has not included service quality standards in its contracts with third-party vendors,

limiting its ability to hold vendors accountable for low performance. As a result, it is at risk of being overcharged or paying for unnecessary services.

Furthermore, SPU lacks a centralized process to ensure vehicle life cycles are not exceeded. As a result, there is the risk that vehicles are over-used instead of being replaced, resulting in unnecessary maintenance costs.

Criteria

SPU should have controls in place to ensure it receives maintenance and repair of its vehicles and equipment of the highest quality and at the lowest cost to meet its operational goals. Such services should be timely, cost-effective, and allow SPU to track service quality and cost.

RCW 43.09.200 requires adequate records be maintained to show how revenues and expense served a public purpose. It states in part:

...all receipts, vouchers, and other documents kept, or required to be kept, necessary to isolate and prove the validity of every transaction...

Cause

A service agreement between SPU and the City fleet department was drafted in 2005 but was never finalized due to a breakdown in communications. The agreement would have clarified the responsibilities between SPU and the Fleet Department. But specifics such as consequences of noncompliance, approval thresholds, processes, and cost standards are still not defined.

SPU has limited knowledge of the information available in the fleet department needed to effectively monitor its maintenance and repair charges. This is the result of a lack of communication between SPU and the City fleet department.

Solid Waste is the only division in SPU that contracts out maintenance of its vehicles. It lacks a well-defined process and controls partly due to limited knowledge on how to implement such a process. It has recently hired a City fleet department representative to help develop a process.

Effect

The failure to establish competitive service pricing with its maintenance providers and a lack of effective oversight increases SPU's risk of being overcharged and receiving unnecessary maintenance services.

For example, higher than necessary fleet maintenance costs were noted in a 2005 benchmarking study. The study concluded that services provided by City of Seattle's fleet department and outside vendors serving Solid Waste were at least 40 percent higher than private sector and other municipal fleet operations.

Recommendations

Standards for price, quality and frequency of services should be included in service agreements with the City fleet department and in vendor contracts. These standards should address price and service frequency for fleet customizations and other nontraditional services provided by the City fleet department. Standards which define fleet purchasing requirements as well as fleet life-cycle goals should also be established and included in the service agreements.

SPU should develop management review procedures which outline approval thresholds, provide guidance on the reports and systems to be used, and establish documentation requirements for these reviews and approvals. Documentation of management's review should be retained. Special attention should be focused on reviewing nonstandard work orders for services which fall beyond established cost standards.

SPU managers responsible for reviewing the appropriateness of fleet maintenance charges should also receive training and access to the City fleet department's work order system.

Potential Benefits

Extrapolating the results of the 2005 study show SPU could save between an estimated \$876,000 and \$1.18 million per year in maintenance costs by establishing standards around price and frequency of services and better oversight over the charges for these services. This cost savings calculation is based on the number of vehicles in use by SPU. We did not conduct work to verify the accuracy of the vehicle data submitted by the City's fleet department.

5. SPU has a pattern of significant overtime in its Solid Waste and Drainage and Wastewater Divisions. SPU has not acted to reduce overtime by streamlining job classifications and hiring additional or temporary employees for understaffed operations or weather-related spikes in workload.

Background

At one time, SPU operated as three separate utilities. In 1997 the three utilities consolidated into one utility to reduce administrative costs and achieve operating efficiencies. While the consolidation resulted in efficiencies, our audit identified further opportunities for significant cost savings and streamlining.

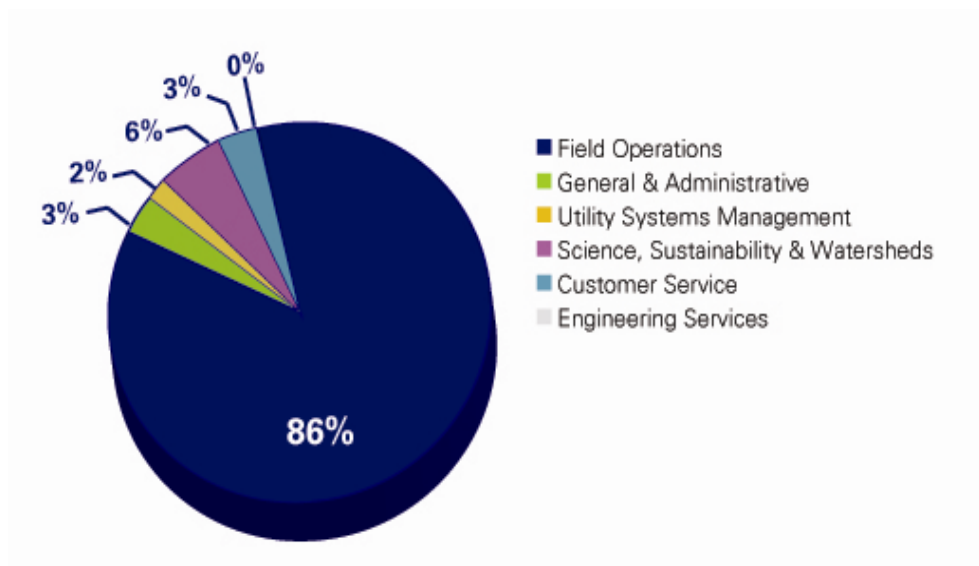
Opportunities exist to decrease the amount of overtime that SPU pays its employees. In 2007, overtime was \$2.8 million. The Field Operations & Maintenance (FOM), SPU's largest operating branch, incurred 86 percent of

SPU's total overtime, or \$2.3 million. FOM is one of several branches that provide support services to the three utility divisions – Water, Solid Waste, Drainage & Wastewater.

Condition

FOM's overtime costs have increased significantly over the past three years. In 2005 FOM's overtime was 10.6 percent of salary wages and in 2007 it accounted for 17.5 percent of its wage costs. Management of overtime by SPU is critical in reducing its overall operating costs.

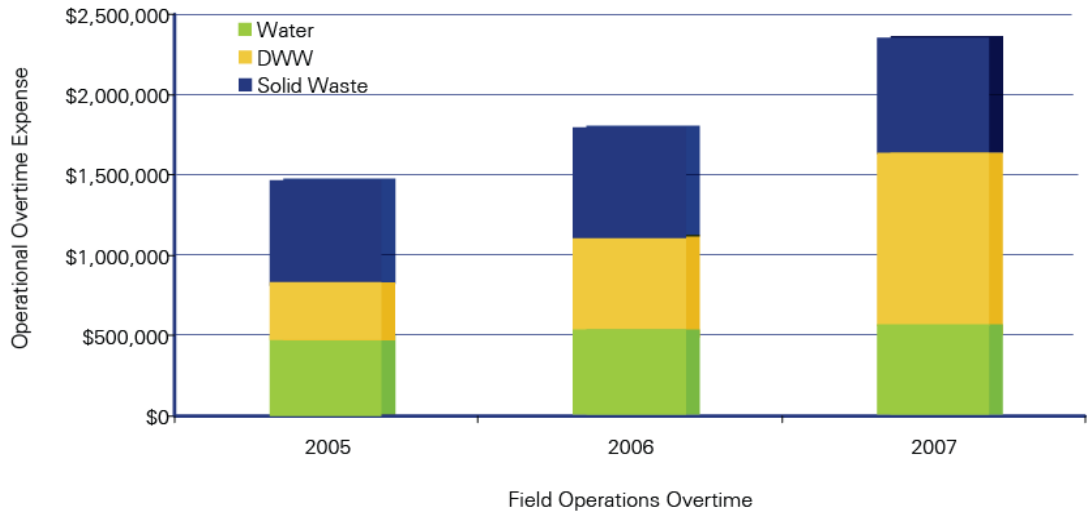
The following chart shows the percent of total overtime by the supporting branches:



Overtime across the supporting branches increased 22 percent in 2006 over the previous year, and another 37 percent in 2007.

FOM's overtime costs, which were \$2,364,438 in 2007, have increased 60 percent between 2005 and 2007 and represented 17.5 percent of its total salaries and wages, suggesting that SPU consistently relies on overtime hours to supplement its straight-time labor costs.

The total increase in FOM's overtime across all three utility divisions – from \$1.4 million to \$2.3 million between 2005 and 2007 – is shown in the following chart:



Criteria

Monitoring the underlying causes of overtime and the related impact enables organizations to establish overtime reduction targets and solutions.

When trends of high overtime costs occur – largely caused by paying employees at double time rates – effective management calls for bringing in temporary staff during periods of peak workload or hiring additional permanent employees to avoid the high overtime pay. Additional benefits such as reduced employee turnover, reduced sick leave, improved operating efficiencies and improved employee morale may also be experienced.

Causes

Although SPU can identify specific circumstances that significantly increases its workload, it does not appear to be managing the underlying causes of overtime such as inadequate staffing, absenteeism and excessive job classifications (111 job classifications for 524 employees in FOM). Here are examples of factors contributing to managements' challenges:

- Revised federal Environmental Protection Agency standards have required increased mainline cleaning for the Drainage and Wastewater Division, but staffing increases in the Field Operations and Maintenance (FOM) branch, which supports this clearing, have not kept pace with the corresponding increased workloads. This has resulted in increased overtime. Between 2005 and 2007, FOM's overall staffing levels have decreased by approximately 6.5 percent, or 40 full time individuals. FOM has outsourced a small amount of its mainline cleaning but it has not been sufficient to keep up with the workload.

- Seattle Department of Transportation (SDOT) policies require that work on major thoroughfares be performed during non business hours. When working on road maintenance and repair projects, SPU must follow the SDOT policies. Work that is conducted during non business hours is usually required by labor union agreements to be paid at overtime rates.
- New health-related permitting requirements have increased the workload on pit cleaning without an accompanying increase in staffing. SPU's Solid Waste Division has addressed the permanent additional workload with overtime rather than hiring additional staff. Solid Waste also has experienced increased rates of compactor equipment failures and ongoing staff absenteeism of operators and truck drivers.

The high number of specific job classifications restricts SPU's staffing flexibility by limiting its ability to use employees for work that falls outside their responsibilities prescribed by their job classification. In order for managers to reduce overtime costs they need adequate staff within individual job classifications. Managers may end up employing more individuals than would have been required for one job classification had they been able to use an individual in a different classification.

Effect

SPU has incurred higher than necessary overtime, increasing operating costs more than desirable.

Recommendations

In the short-term, SPU should pursue the following recommendations:

- SPU should develop overtime reduction targets for FOM and the other branches. Targets should reflect the different needs inherent within each division served by the branches. In order to prioritize its reduction efforts, SPU should track the major contributors to overtime.
- SPU should conduct a staffing analysis to determine where additional workers are needed. SPU should start the analysis in those areas where overtime is paid at twice the regular rate of compensation. In situations where the cause appears to be understaffing, SPU should consider using temporary employees until a job classification study has been completed.

In the long-term, SPU should pursue the following:

- With input from labor unions, SPU should conduct a classification study to increase staff assignment flexibility through the consolidation of similar job classifications.

Potential Benefits

SPU has the potential to substantially reduce its overtime expenses. For example, if FOM were to reduce operating overtime in line with the Water Division in which overtime costs are between 8 and 12 percent of total salaries and wages, the branch would reduce its overtime costs between roughly \$800,000 and \$1 million per year.

We recognize there will be accompanying costs associated with hiring temporary employees to mitigate overtime. Consequently, it is difficult to determine the exact amount of savings SPU will experience. But, the more SPU can consolidate job classifications the more staffing flexibility it will have. This would reduce overtime costs and minimize the need for temporary employees or additional full-time staff.

6. SPU managers supervise fewer employees than their peers in similar government agencies, a condition that increases costs.

Background

Evaluating an agency's average span of control means measuring whether it has too many managers in relation to the number of non-managerial employees. The purpose of this audit issue is not to assess the adequacy of existing spans of control for SPU's divisions or branches, or to establish what the right number should be. Rather, the purpose is to assess SPU's average span of control in relation to other government agencies as an indicator of an opportunity for improvement. There are many factors that affect what the right span of control ratio should be.

Within an agency, different divisions may require widely different staff to manager ratios depending on the complexity and risk associated with the job duties. What is important is ensuring the organizational structure and staffing levels provides efficient and effective management of subordinates and supports the agency's goals and objectives. This audit did not examine span of control at the individual divisions and branches but rather span of control across SPU as a whole.

Condition

Across all lines of business, SPU averages only 7.7 employees for every manager, a situation that indicates it may have too many managers. SPU has more than 1,400 employees and approximately 165 executives, managers and supervisors. Based on comparisons with other governments, including public utilities, we believe SPU can further improve its average span of control. Similar observations were identified in a Billing and Meter Reading Department's 2007 efficiency study.

SPU's organizational structure at the time of this audit can be found in Appendix B of this report.

Criteria

SPU should be organized in a manner that limits administrative expenses, including its number of managers and supervisors, to that which is necessary for the safe and efficient operation of the utilities. SPU's organizational structure should at a minimum:

- Provide for a proper ratio of managers and supervisors to staff that aligns with its mission, goals and objectives.
- Avoid duplication or overlap in tasks and responsibilities.

A number of government agencies have conducted research on span of controls. For example, a 2004 audit report issued by the City of Palo Alto's Office of Internal Auditor (http://www.cityofpaloalto.org/depts/aud/audit_reports.asp) as well as a 1994 audit report issued by King County's Internal Audit Department (<http://www.metrokc.gov/auditor/1994/span.htm>) cited numerous management experts who concluded that ideal spans of control range between 10 – 15 employees per manager. See Appendix F for a listing of the management experts and their conclusions.

Based on a 2005 audit report by the City of Seattle's internal audit division, Seattle City Light has a span of control of 9.7 employees per manager (https://www.seattle.gov/audit/report_files/2005). This span of control was comparable to Grant County Public Utility District at 10.6.

A 1999 report issued by the South Florida Water Management District used many of the same sources listed in the Palo Alto and King County reports. This report also referenced a study sponsored by the District in the prior year by Johnson & Johnson Associates, Inc. It was Johnson & Johnson's opinion that 13.0 was a good benchmark ratio for span of control in the public sector (http://www.sfwmd.gov/pls/portal/docs/PAGE/PG_GRP_SFWMD_INSPECTORGENERAL/PG_SFWMD_INSPGEN_REPORTS/PORTLET_REPORTS/TAB372037/SPANCTRL.PDF)

Lastly, in 2007 the State of Texas established a minimum ratio of eleven line workers to each supervisor.

Based on this research, we believe there is room for additional increases in SPU's span of control ratio.

Cause

Although management has successfully improved its span of control over the last ten years there is opportunity for further improvements.

A number of intertwined factors contribute to SPU's existing span of control ratio. A primary contributor appears to be duplication of activities across SPU's branches.

SPU's five branches have fragmented functions. This results in duplication of effort and likely increase the number of supervisors and managers that are needed.

There is also no one group assigned the role of managing SPU's \$52 million in fleet assets. Instead, the Utility Systems Management business analysts, engineers, management services coordinators and operations managers are each responsible for this duty. The same is true for management of information technology (IT) resources. IT management resources are currently found across the organization based on whether they support USM, F&A or FO&M.

Recommendations

SPU should conduct periodic organizational analysis which links SPU's overall mission with its strategic plan. The purpose of the analysis would be to consolidate functions where possible and to identify opportunities to increase the number of individuals per supervisor.

As a starting point, SPU should seek to increase the number of individuals assigned to each supervisor with an average goal of 10 employees per supervisor. Managers and supervisors with 4 or less employees should be the first groups evaluated. Once the organizational analysis is complete, SPU will have the information necessary to make further adjustments.

Effect and Potential Benefits

SPU could improve its organizational efficiency if it consolidated key administrative and support functions. In 1997, the City of Seattle's internal audit department reported approximately \$3.1 million in savings as a result of an overall 3 percent increase in the city's staff to manager ratio. We believe further opportunities exist (http://www.ci.seattle.wa.us/audit/report_files/9707-Span_Improvements.pdf).

We are recommending that SPU have a goal of increasing its staff to manager ratio from 7.7 to 10 employees per manager. We believe some improvement will result naturally by choosing not to fill vacant manager positions as individuals move to other divisions, other agencies or retire.

An increase in SPU's staff to manager ratio of just one FTE could result in estimated potential cost savings of \$2.1 million annually which uses an average 2006 managerial salary of \$112,000.

7. SPU has opportunities to reduce the operating costs of the call center.

Background

Typical services provided by a call center include responding to customer inquiries received by telephone or through a customer-service oriented Web site. The SPU call center provides these services for both SPU and Seattle City Light (SCL).

Condition

We identified opportunities for SPU to save money on its call center operations and operate it more efficiently.

During this audit, we identified evidence that the call center has more employees than it needs. Based on observations, interviews with call center managers and our review of management statistics and call center operating processes, we found indicators of overstaffing. Our conclusions were supported by two different studies conducted for SPU. In the latest study (2008), a firm specializing in call center operations reviewed activities at the call center for a one week period and estimated there were between 20 and 25 more employees than needed.

The call center's operating costs could also be reduced by locating to less expensive facilities. It is presently located near Seattle City Hall in the downtown area where business space rental costs are higher than outlying areas. Call Centers have typically been shown to operate effectively outside of centralized business locations, as evidenced by the extensive outsourcing of these facilities in the private sector. Rent costs could be reduced, without impacting customer service, by relocating to a facility with a lower rent.

Cause / Effect

Call center management has not aligned staffing levels to daily and seasonal fluctuations in the number of customer inquiries because it only tracks changes in workload at a summary level. Adjusting staffing levels to workload will allow the call center to maximize productivity and responsiveness to customers while minimizing costs.

In addition, SPU has implemented new technology, but it has not been programmed to track the types of calls received or the frequency of calls by type. As a result, SPU has not identified commonly asked questions that could be responded to electronically. This condition has resulted in using more staff than necessary to answer simple questions. The 2008 study also noted this condition stating that existing employees, at the call volumes observed during the study, could perform between 30 and 35 percent more work. Effective use of existing technology was considered significant to achieving the increased efficiencies.

If SPU were to relocate the call center, relocation costs would initially exceed the amount saved in decreased rent. While this may be true in the short term, long term rental savings and the ability to rent the old call center space out to other tenants would likely exceed the costs to relocate.

Criteria

SPU's processes, systems, performance goals, policies and procedures should allow for cost effective and efficient operations.

Call center deflection rates measure the percentage of customer inquiries that are handled electronically without the assistance of a customer service representative. Industry benchmarks cite deflection rates of at least 16 percent up to 80 percent for very high performing call centers depending on the organization's level of complexity. It is considered normal to have deflection rates between 30 percent and 50 percent.

Increased deflection rates decrease the overall cost per call. For example, industry publications state the cost for a call center representative to handle a single customer question can range between \$2.00 and \$12 per call, excluding overhead cost. Questions that can be handled electronically cost between \$0.25 and \$1.00 per call, excluding overhead costs. Thus, any increase in deflection rates decreases the call center's operating costs per call.

Potential Benefit

The 2008 study found that better use of existing technology could increase SPU's deflection rate between 15 and 20 percent. More calls would be handled electronically allowing call center staff to increase their productivity. The 2007 study came to similar conclusions and noted increased efficiencies could result in operational cost savings between 16 and 36 percent. Applying the lower percentage to 2007 call center operating costs, we estimate savings of approximately \$466,000 a year.

In 2008 the call center paid the City of Seattle rent for its building space at \$856,000 which is based on a rental rate of \$35 per square foot. Rental space outside the downtown core area is less expensive ranging from \$16 - \$22 per square foot. Using an average of \$20 per square foot, a relocation of the call center could result in savings over \$350,000 per year.

The first few years of facility rental savings would be partially offset by the initial relocation costs. Costs associated with relocating such a major department such as the call center could be significant, however, the difference in facility rental prices would help offset the cost of the call center relocation.

Recommendation

SPU's call center could increase its operating efficiency by analyzing workload fluctuations along with productivity indicators to establish appropriate staffing levels. We also recommend SPU consider making full use of technology to track changes in call volumes in order to maintain appropriate staffing levels. A detailed list of suggested areas to focus are listed in Appendix E.

We recommend that as part of a long-range space planning initiative, SPU should consider relocating its call center. Any other SPU function that does not require proximity to City Hall should also be moved to outside the downtown Seattle core area to reduce facility rental expenses.

8. Duplication in services between SPU's and Seattle City Light's separately operated billing and meter reading departments cause increased administrative and operational costs of both departments.

Background

Services provided by a billing and meter reading department include reading individual customer meters, reviewing exceptions to the readings, posting the readings to individual accounts, billing customers, reviewing charge calculation exceptions, and accounting for customer payments. SPU's billing and meter reading department provides all these services except for billing customers. Seattle City Light's (SCL) billing and meter reading department provides the billing services to SPU as well as its own customers. SPU pays SCL for bills prepared on behalf of SPU customers to cover the costs of handling the accounts of SPU customers.

SPU received the results of a 2007 study which compared its operations to national and international peers. We did not conduct procedures to substantiate the study's results related to the billing and meter reading operations. It reported potential annual savings in billing and accounting operations of \$1.6 million and additional savings of \$485,000 in meter reading operations.

Condition

Billing and meter reading operating costs at SPU and SCL are higher than necessary because of duplicated services. Although SCL prepares bills on behalf of SPU customers, the remaining services are duplicated despite having many of the same customers. SPU's billing and meter reading department employs approximately 40 individuals.

The duplicated services result in higher than necessary administrative and operational costs for both utilities.

In addition, when SCL prepares utility bills on behalf of SPU customers, it sends them in separate statements. If the bills were consolidated on the same statement, both SPU and SCL would realize cost savings.

Criteria

SPU should look for opportunities to reduce overlaps in services and increase operational efficiencies in order to lower administrative and operational costs.

Cause

Although SPU has considered consolidating its meter reading function in the past, it was not considered cost-beneficial. There was no evidence indicating this decision had been reconsidered given the increased efficiencies of new metering technology.

Effect

This duplication of efforts is resulting in higher operating costs.

Recommendations:

- In light of recent advances in meter reading technology, SPU and Seattle City Light should consolidate meter reading functions at both utilities.
- SPU should work with Seattle City Light to investigate the best way to synchronize meter reading cycles and consolidate customer billings.

Potential Benefits

Consolidating meter reading operations and utility bills will decrease administrative and operational costs for both SPU and SCL over the long term. In order to achieve these cost savings, both utilities will need to incur some upfront costs. Audit procedures were not performed to quantify the expected costs and savings as a detailed study of both SPU and SCL operations would have been required as well as case studies of other utilities that have consolidated metering and billing operations.

As stated earlier, the majority of SPU's water customers are also served by SCL. When costs and savings are being calculated, we encourage SPU and SCL to find ways to minimize the total cost and maximize the total savings by viewing their customers as "customers of the city" instead of customers of each individual utility.

We also encourage SPU to coordinate its billing and metering consolidation efforts with consideration of the recommendations reported in the 2007 benchmarking study. The study cited higher than average overtime, lower than average staff to supervisor ratios and sub-optimal staff workload ratios as areas to concentrate its efforts on.

9. SPU can reduce its borrowing costs by consolidating bond sales or pursuing alternative financing

Background

From 1997 to 2007, SPU went to the bond markets on 20 separate occasions to borrow a total of \$1.7 billion for the Water, Drainage and Wastewater, and Solid Waste enterprises funds. The funds were used to finance improvements and major rehabilitations in SPU's infrastructure and to refinance outstanding indebtedness at more attractive interest rates.

Based on information provided by SPU, its average borrowing costs totaled about \$1 million a year. SPU averaged about \$86 million in new debt each year over the 11-year-period.

Condition

SPU has an opportunity to reduce future borrowing costs by consolidating its borrowings. Specifically, when SPU borrows money it must pay certain fixed fees and other costs. By consolidating bond issuing and having fewer of them, SPU could save significantly on borrowing costs as many of these costs are fixed.

The following table shows SPU's past debt borrowings. As shown in the table, the size of the offerings ranged from \$5.5 million to \$271 million. The average debt issue amounted to \$86 million.

Name of Issue	Issuance Date	Maturity Years	Interest Rates	Interest Type	Original Issue Amount
1998 Parity bonds	6/11/98	1998–2018	4.5–5.0%	Fixed	\$ 24,170,000
1999 Parity bonds	10/12/99	2000–2029	4.0–5.75%	Fixed	\$ 55,000,000
2001 Parity bonds	7/3/01	2002–2031	4.25–5.25%	Fixed	\$ 60,680,000
2002 Parity Refunding bonds	12/17/02	2003–2032	3.0–5.25%	Fixed	\$ 78,550,000
2004 Parity bonds	10/28/04	2005–2034	2.25–5.125%	Fixed	\$ 62,010,000
2006 Parity Refunding bonds	11/1/06	2007–2037	4.0–5.0%	Fixed	\$ 121,765,000
2008 Parity bonds	4/16/08	2009-2038	4.0–5.0%	Fixed	\$ 84,645,000
1995 adjustable rate bonds	9/2/95	2000-2025	3.33% **	Variable	\$ 45,000,000
1998 parity bonds	7/7/98	1999-2027	4.5-5.0%	Fixed	\$ 80,000,000
1999 parity bonds	6/23/99	2000-2029	4.0-5.375%	Fixed	\$ 100,000,000
1999 parity bonds, Series B	6/23/99	2001-2029	5.0-6.0%	Fixed	\$ 110,000,000
2001 parity bonds	11/20/01	2005-2031	4.5-5.0%	Fixed	\$ 52,525,000
2002 adjustable rate bonds, Series A and B	5/15/02	2003-2032	3.4% **	Variable	\$ 32,500,000
2003 parity, refunding bonds	5/12/03	2003-2033	4.0-6.0%	Fixed	\$ 271,320,000
2004 parity bonds	10/25/04	2005-2034	3.0-5.0%	Fixed	\$ 84,750,000
2005 parity, refunding bonds	12/28/05	2006-2029	4.0-5.0%	Fixed	\$ 138,040,000
2006 parity, refunding bonds	10/23/06	2008-2037	4.0-5.0%	Fixed	\$ 189,970,000
1999 Refunding bonds	2/01/1999	1999–2009	4.75–5.5%	Fixed	\$ 40,900,000
1999 Parity bonds, Series B	10/26/1999	2000–2019	4.75–5.9%	Fixed	\$ 5,500,000
2007 revenue and refunding bonds	12/05/2007	2008-2033	4.00–5.00%	Fixed	\$ 82,175,000
Total					\$ 1,719,500,000

Certain costs of a bond offering do not change regardless of the amount borrowed. Examples include:

- Preparation and publication of a prospectus
- Fees for bond counsel and financial advisors
- Fees for obtaining a bond rating

Issuance costs are substantial. Based upon SPU's own borrowings over the past ten years, SPU could incur less debt issuance costs if it reduced the number of borrowings but increased the amount of each borrowing.

Criteria

Where possible, SPU should minimize its borrowing costs, including expenses associated with issuing debt and the interest rates paid on outstanding debt. This can be accomplished by:

- Synchronizing borrowing with project cash flow requirements,
- Where feasible, taking advantage of alternative sources of financing, such as establishing financing consortia consisting of multiple public agencies with similar financing requirements.

Cause

SPU stated that it may sometimes be impractical to consolidate borrowings in this manner. Of specific concern to SPU was the dissimilarity between its three divisions. KPMG recognizes that practical considerations may occasionally prevent SPU from consolidating debt offerings at the \$180 million minimum. However, if SPU borrowed more money less frequently, its debt issuance costs could be significantly reduced.

Effect and Potential Benefits

If SPU had reduced the number of borrowings by half and doubled the average size of the offering from \$90 million to \$180 million, it could have saved between \$77,000 and \$128,000 per year in bond issuance costs. This is based upon minimum bond offerings of \$180 million and borrowing needs similar to the past ten years.

Recommendations

As appropriate, SPU should:

- Consolidate borrowings to the maximum extent practical and permissible with a target of \$180 million per issue.
- When the targeted \$180 million threshold cannot be achieved, consider alternatives such as borrowing from the City's commingled pool of investments, participating in debt offerings of the State Treasurer's Office, or joining group financing with similar entities

10. SPU employees use more sick leave than other municipalities.

Condition

SPU has an opportunity to evaluate its sick leave usage agencywide. On average, each SPU employee uses 67 hours of sick leave per year out of 96 available hours. This is approximately eight out of the 12 days available annually. When compared to the U.S. Bureau of Labor Statistics, the average local government employee uses only 44 hours, or five and a half days of sick leave per year. Absenteeism can cause work delays and can increase overall payroll costs as the cost to cover absentee shifts via overtime can be twice the cost of acquiring such services on a straight time basis.

Managing employee use of sick leave can be a challenge. Practices such as employee wellness programs, sick leave buy-back programs and Personal Time Off (PTO) programs have been effective in reducing costs associated with use of sick leave in other public and private organizations. In particular, PTO programs are increasing in popularity and have been found to be effective in reducing the number of unscheduled absences in an agency.

Criteria

Business literature suggests implementing employee wellness programs, sick leave buy-back programs and Personal Time Off (PTO) programs as options for reducing costs and managing unscheduled absences. PTO programs replace traditional programs by combining vacation, sick days or personal days, with a single block of time. In total, there is less time available but the benefit to the employee is flexibility in the use of the time. A significant part of PTO cost savings are derived from a lower rate of absences.

PTO programs have been implemented in other governments in Washington. For example, the City of Tacoma, which includes Tacoma Public Utilities and Tacoma Power gives new employees a block of 18 days (combined vacation and sick leave) per year which increases based on years of service. Snohomish County Public Utility District gives new employees a block of 21 days a year. Thurston County gives its employees the option of choosing between a traditional leave program and a PTO program.

Recommendations

We recommend SPU evaluate its sick leave management practices and consider incorporating the best practices of other organizations.

Potential Benefits

Reductions in absences will make the work environment more predictable, decrease overtime costs and decrease workflow backlogs. Based on 2007 payroll information, SPU pays roughly \$1,300 a year, per employee, for sick leave taken. SPU employs approximately 1,400 employees. Thus with fewer daily absences the potential savings could be significant.

11. SPU management's review of capital projects is not properly focused on higher-value projects.

Condition

SPU established the Asset Management Committee (AMC) to evaluate proposed projects that have an expected cost of \$250,000 or more. The AMC consists of SPU's executive leadership team and meets quarterly. The purpose of the AMC is to ensure coordination of all major projects across SPU's lines of business.

The AMC appears to be spending the majority of its time evaluating lower-dollar projects at the expense of more costly, larger projects. From 2002 to 2008 the AMC reviewed 234 projects of which 125 were valued at \$482 million and ultimately completed. An analysis of the completed projects showed the AMC spent more than 54 percent of its time on projects that totaled only \$33 million. Had the dollar threshold been \$1 million, managers would have only been required to review 58 projects instead of 125.

Criteria

To better use management's time and effort and to increase the effectiveness of its operations, a utility should:

- Concentrate its efforts on reviewing high cost projects that represent a majority of the funds spent on capital projects.
- Standardize the method for evaluating the costs and benefits of individual projects under consideration.

Cause

Because the threshold for projects requiring AMC review and approval is \$250,000, an unnecessarily large number of less significant projects are brought before the AMC for review when they may not need the same level of scrutiny.

Effect

The AMC could use its time more effectively by refocusing its workload of the AMC toward higher-value projects.

Recommendation

SPU should consider increasing the dollar threshold on projects subject to review by the AMC from \$250,000 to \$1 million. SPU can choose to delegate project reviews under \$1 million to other responsible individuals.

The committee should establish criteria that consider other non-cost factors such as project sensitivity or projects that are considered higher risk of failure.

A review process should be set up for projects that do not meet the criteria for review by the AMC.

Potential Benefits

A higher threshold would result in a more effective review and setting of priorities for projects of significance to SPU.

A reallocation of analytical resources and managerial attention away from lower priority projects would free up time for higher priority projects.



Opportunities for Further Efficiencies

SPU's performance goals are limited primarily to the quality of services without considering the cost to achieve them.

Opportunities exist to establish performance measures focused on the cost of providing services. These measures should evaluate whether the cost of providing services is higher than the value received from the service. Because the performance measures are heavily weighted toward service quality while cost of services is not measured, the branches may not have an incentive to meet service goals in a cost-effective way.

We recommend SPU develop performance goals that address the cost of services across all utility branches. In addition, SPU should set cost reduction thresholds that help management determine when the cost of doing business is too high in a particular area.

By factoring a cost component into performance measures, SPU will be able to identify which practices are cost-prohibitive and which services entail costs that outweigh benefits to ratepayers. Furthermore, introducing cost targets and measurements will provide an incentive for cost management and reduction across lines of business.



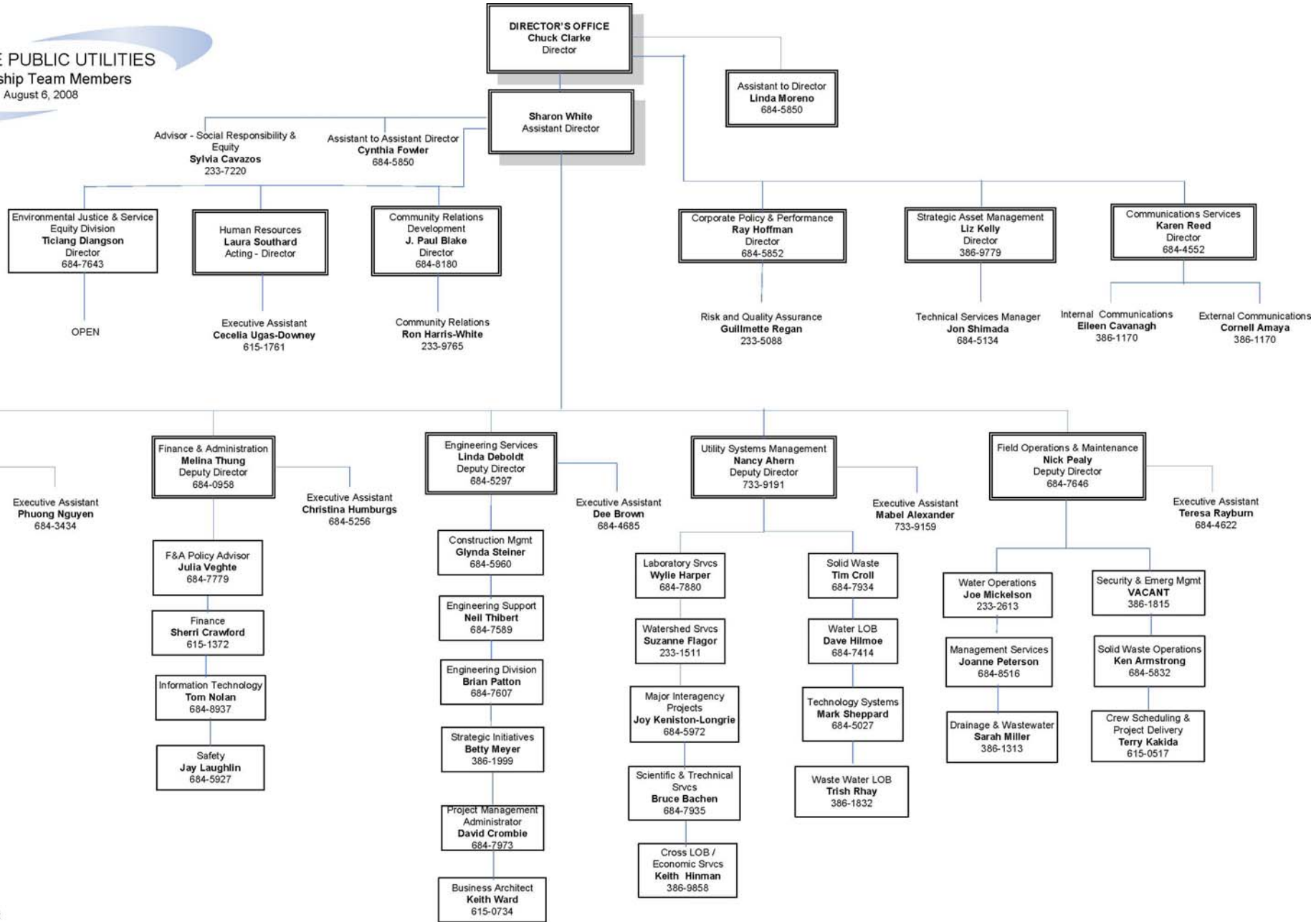
Appendices

- Appendix A. Cross-reference of Audit Issues to I-900 element
- Appendix B. Staffing
- Appendix C. Department of Revenue's Well Designed Tax System
- Appendix D. Noteworthy Accomplishments of SPU
- Appendix E. Additional Recommendations for Audit Issue No. 7
- Appendix F. Other Suggested Staff to Manager Ratios
- Appendix G. SPU Services and Statistical Data
- Appendix H. Management Response to Report
- Appendix I. KPMG's Concluding Remarks

APPENDIX B: Staffing

The following organizational chart summarizes the branches discussed in the report and indicates the staffing levels as of August 2008. Note that in April 2009 Ray Hoffman became the Acting Director of SPU:

SEATTLE PUBLIC UTILITIES
Leadership Team Members
 August 6, 2008



Blue Dotted Box = consultant

APPENDIX C: Department of Revenue's Well Designed Tax System

In 2002, the Washington State's Department of Revenue issued a report to the legislature which analyzed the existing state tax system and suggested different alternatives as guided by the principals of a well designed tax system. The report listed six generally accepted definitions for the principles behind a good tax system. They are summarized as follows:

- Generate revenue sufficient to support established public services without the need for continuous or drastic changes in tax rates or in the tax base.
- Distributes the tax burden across taxpayers fairly and equitably. This considers a person's tax liability vs. its ability to pay as well as the amount of benefit received from the government program.
- Does not put businesses located within the state at a competitive disadvantage to similar businesses in other states.
- Does not encourage taxpayers to alter normal purchasing or business activities in an attempt to avoid paying the full amount of tax that would otherwise have been due.
- Ensures that people know when they must pay taxes, and understand the rules and calculations supporting the amount of taxes due.
- Does not impede the ability of individuals to purchase and maintain their own home.

APPENDIX D: Noteworthy Accomplishments of SPU

The purpose of a performance audit is to identify opportunities to improve upon organizational economy and efficiency. As such, the emphasis is on reporting instances identified wherein a gap exists between the current performance of the organization and the expectations of the auditors as identified in the form of evaluative criteria.

In the interest of balance, we call the reader's attention to some of the more noteworthy accomplishments of the organization as provided by SPU. These accomplishments are unaudited.

SPU achievements are briefly summarized as follows:

- Customer service - Recognized the need to improve efficiencies in the call center and initiated efforts to make changes by hiring a consultant and setting about to review all aspect of the operations
- Performance management – Began development of specific branch and divisional performance measures intended to be consistent with the agency's strategic business planning objectives.
- Benchmarking – Has actively participated for the past several years in detailed and thorough benchmarking efforts with utilities seen as industry leaders in the US and around the world.
- Asset management – SPU is a national leader in the development of utility asset management and has embraced the concept of Triple Bottom Line assessments related to capital projects. While still an evolving process, asset management has become fully embedded in how SPU reviews and makes its decisions.
- Consultant contract management – SPU made significant improvements in consultant contract approval processes and controls in the last year. Streamlining approval processes while creating clearer and narrower responsibilities for decision making.
- Contract management – SPU has been an innovator in the Design-Build-Operate contracting method, which has led to significant efficiencies and improved service level delivery for SPU's customers.
- Budget management – Within SPU proper, there are extensive controls and detailed reports regarding revenues and expenditures.
- Bonds – SPU has been successful in achieving and maintaining excellent bond ratings for each of its enterprise funds. Additionally, SPU recently was able to sell bonds at very good rates despite these incredibly bad economic times and received a bond rating upgrade.
- Emergency preparedness and response – SPU's system of monitoring, evaluating, and preparing for storm events is significant and has been refined over years of experiences and incorporation of lessons learned sessions. The recent snowstorm event and minimal claims and complaints generated are a testimony to that success.

APPENDIX E: Additional Recommendations for Audit Issue No. 7

Suggested areas of focus to expand and enhance SPU's call center IVR capabilities, Web based customer self-service technology, and information security.

- Aligning the top five customer inquiry types with SPU's IVR and customer self-service web site
- Enhancing IVR option and routing by call volume and duration
- Obtaining IVR outage management and related customer service messaging capabilities
- Enabling Web functionality for high volume call types (e.g., account balances, outages, etc.)
- Improving Web functionality for move in/move out screens, including a reduction in the number of screens and data pre population for information that has already been entered
- Enhancing security around customer identity information to comply with the FACT ACT
- Developing a customer information system interface to enable account balance review, payment arrangements, move in/move out requests, outage reporting, and solid waste requests

Suggested areas of focus to implement call center metrics that track each customer inquiry type (e.g. phone, e-mail and voicemail responses), which monitor both performance and costs.

- Cost per call – overall and by reason type
- Duration of calls – overall and by reason type
- Volume of contacts – calls, e-mails, voicemails, etc. by reason type
- Workload per FTE – daily/weekly/monthly calls and other contact types handled per Customer Service Representative FTE
- Cost per Customer – Total cost over total customer base
- Percentage of calls handled by IVR – “handled” is defined as completely resolved; the contact does not generate a manual work order that is then handled by a CSR
- Duration of calls handled by IVR
- Percentage of calls resolved during the first call – “First call resolution”
- CSR turnover rate
- CSR absenteeism rate
- Span of control (number of CSRs per supervisor)

APPENDIX F: Other Suggested Staff to Manager Ratios

A 2004 audit report issued by the City of Palo Alto's Office of Internal Auditor (http://www.cityofpaloalto.org/depts/aud/audit_reports.asp) as well as a 1994 audit report issued by King County's Internal Audit Department (<http://www.metrokc.gov/auditor/1994/span.htm>) cited numerous management experts who concluded that ideal spans of control range between 10 – 15 employees per manager. These citations are listed below:

- James O'Toole is a University of Southern California professor whose study of spans of control showed an average of 10 staff per manager. (*Peters, Tom. Thriving in Chaos. New York Harper Row, 1987*).
- U.S. Government National Performance Review changed outdated ratio of 7:1 staff per manager to a new span of control of 15:1. (*Office of the Vice President. Transforming Organizational Structures: Accompanying Report of the National Performance Review, Washington DC, 1993*)
- President Bill Clinton directed the federal government to double spans of control to 14 staff per manager.
- Edward Lawler is the founder and director of the Center for Effective Organizations at USC. He authored a book which recommends spans of control of 15+ staff per manager). (*The Ultimate Advantage. San Francisco: Jossey-Bass Publishers, 1992*)
- Tom Peters is a business author who recommends organizations should never have less than 15 staff per manager (*Thriving in Chaos. New York Harper Row, 1987*)

APPENDIX G: SPU Services and Statistical Data

The following information was provided by SPU to further detail their services. These statements were unaudited.

Water

SPU owns and manages:

- The Cedar River watershed, a 90,546-acre protected watershed that provides almost 70 percent of the area's drinking water.
- 177,928 metered service lines and 18,000 fire hydrants.
- 2,500 fire protection service lines.
- 1,670 miles of distribution water mains.
- 176 miles of water transmission pipelines (average pipe size is 66 inches diameter; largest pipe size is 90 inches diameter).
- 29 supply and distribution pumping stations with 96 individual pumping units.
- 16 reservoirs, totaling 489 million gallons of storage.
- 16 elevated tanks and standpipes, totaling 16 million gallons of storage.
- 4 dams, including 2 headwork facilities.

Solid Waste

- 350,000 combined customer visits to North and South Recycling and Disposal Stations annually.
- 256,000 tons of garbage are compacted and hauled to the rail yard from the North and South Recycling and Disposal Stations each year.
- 57,000 tons of yard waste received at the stations annually
- 24,900 tons of recyclable material reclaimed from waste stream annually.
- 3,300 tons of wood waste received at the stations each year.
- More than 6,000 appliances (e.g.: refrigerators, stoves) are collected each year.
- 56 tons of household hazardous waste diverted for reuse each year.

Drainage and wastewater

- 90,000 inlets.
- 51,000 maintenance holes.
- 45,396 catch basins.
- 1,491 miles of combined sewer and sanitary pipelines (average sewer pipe size is 8 inches diameter; largest pipe size is 210 inches diameter).
- 150 miles of ditches and culverts.
- 68 pump stations.
- 450 miles of storm sewer pipelines (average storm sewer pipe size is between 12 inches and 24 inches diameter; largest pipe is 180 inches diameter).
- 38 combined sewer overflow systems.



City of Seattle

Gregory J. Nickels, Mayor

Seattle Public Utilities

Ray Hoffman, Acting Director

September 10, 2009

Brian Sonntag, State Auditor
Washington State Auditor's Office
Olympia, WA

Dear Mr. Sonntag,

The City of Seattle is pleased to respond to the State's performance audit report of Seattle Public Utilities, issued as a result of the audit conducted in 2008. Six years ago Seattle Public Utilities (SPU) embarked on multiple efforts to improve the way it conducts business, and it selected as its primary model one of the most renowned water utilities in the world, the Hunter Water Corporation in Australia. SPU also began participating in benchmarking efforts with best practice utilities throughout the world in order to identify possible improvements to its asset management processes, its customer service performance and cost, and its infrastructure performance and cost. Given this the City welcomed the opportunity for the State to further identify ways that SPU can streamline its business practices and operations and improve its economy, efficiency and effectiveness.

SPU received a tremendous amount of value in the audit work undertaken by KPMG, SAO's audit consultant team. In fact, at an early stage in the audit process SPU began to evaluate some of the issues raised by KPMG. As you will see outlined below, SPU has already implemented or is in the process of implementing many of the recommendations identified in this audit report.

The City very much appreciates the collaborative working relationship with both SAO's and KPMG's staff throughout the audit engagement. The process and approach undertaken by SAO and KPMG was always professional, open, transparent, and cordial. Both SAO and KPMG did an outstanding job of communicating with SPU and City staff and working through the issues.

Our responses to the audit's findings are outlined below in reference to the assigned number in the report.

1. Business Utility Taxes

While the tax rates paid by SPU are higher than the statewide average, they are by no means the highest in the state. According to the Association of Washington Cities *2008 Tax and User Fee Survey*, the highest tax rates on water and wastewater utilities are 32%, the highest on drainage is 20%, and the highest on solid waste is 40%. The 2008 tax rates on SPU are 15.54% for water, 12.00% for wastewater, 11.50% for drainage, and 11.50% for solid waste. The Mayor intends to propose lowering the wastewater tax rate to 11.50% as part of the 2010 Proposed Budget.

SPU appreciates that the change to the Water Utility business tax in 2008 was significant and created an impact on our customers. This tax change came about as a result of the Washington State Supreme Court's decision regarding the appropriate source of funding for fire hydrants. This was a one-time

occurrence and situations like this one are highly unlikely to arise in the future. It is worth noting that in the *Lane vs. City of Seattle* case the Washington State Supreme Court explicitly approved the City's use of a higher utility tax rate to offset the effects of changing over 100 years of established practice for how fire hydrants should be funded. The Mayor and City Council acted entirely within the law and exercised the discretion afforded them under Washington statutes.

The City has made few changes over the years regarding the utility tax and each decision has been made with significant deliberation and concern for the ratepayer. There has only been one year since 1991 when the utility tax for all three funds increased slightly for general purposes.

SPU and the City have multiple means of communicating with its customers. We will review how these tools can be more effectively utilized to inform our rate-payers about proposed changes that affect them.

2. Allocation of Indirect Costs

The City agrees with the audit recommendation to review the upcoming Seattle City Light performance audit results and establish monitoring to ensure: (a) we are conforming to our cost allocation policies; and (b) we adequately document and explain any deviations.

The City also agrees with the audit recommendation for the City to verify that budgeted and actual costs in 2005-2008 did not differ significantly.

Regarding the statement in the second sentence of this finding that states "...the City's method for developing cost allocations results in over-allocations to SPU and other City departments," the City notes that the over-allocations from methodological problems (i.e., certain programs and activities not paying their share of indirect costs) are relatively minor – on the order of one-tenth to two-tenths of one percent to SPU in 2009.

Additionally, we would like to include a few comments of context and clarification regarding the *Condition* and *Effect* sections:

Condition section: In this section, the report states that the City uses budgeted amounts for allocating its indirect costs, but does not consistently charge based on these amounts and exceptions are not documented. We agree that our documentation of changes can be improved, and we also agree that our allocation of indirect costs does not always conform to the final City budget. There are, in general, two reasons for this:

- Budget changes during Council deliberations. The City uses the Mayor's proposed budgeted amounts as the basis for allocating its indirect costs, and if budgets are changed during Council deliberations the City's cost allocation charges are not generally adjusted for these changes unless the changes are significant.
- Mid-year changes agreed to by all parties. The Information Technology examples cited in the audit report note an increase in 2007 for Enterprise Computing Services from \$397,923 to \$1,106,077. This is a rather dramatic change to cost allocation charges, but in reality was simply an adjustment to billing procedures to omit the middle-man. Prior to this change, all of the computing charges for the utilities' billing system were allocated to City Light, and City Light in turn would charge SPU 50% of these costs, per an agreement between the two utilities. To streamline this process, the Department of Information Technology agreed to directly charge 50% of the billing system costs to SPU and 50% to City Light. This change did not result in any increases or decreases in net costs to either utility.

Effect section. In this section, the audit report notes a City Light audit in process whose preliminary results indicate possible over-allocations to SPU. This section also comments that litigation costs resulting from a challenge to the appropriateness of the City's indirect cost allocation can be costly. The City would like to comment on each of these statements:

- The City has not seen the most recent preliminary results from the City Light audit in progress. However, the draft results the City has seen included some recommended changes to cost allocation charges that the City agreed with and some the City did not agree with, and some where the audit consultant acknowledged that City Light was undercharged.
- Regarding litigation, we would like to note that the City was already challenged on the appropriateness of its cost allocation methods and these methods were upheld in nearly all cases. The issue was addressed in the Superior Court decision in the *Okeson vs. City of Seattle* case, phase II, in 2004. With the exception of a few items (such as allocating a share of the Mayor's Office costs) whose treatment we subsequently changed, the court upheld all the cost allocation methods that had been challenged, include Department of Information Technology, Department of Executive Administration, neighborhood service centers, debt service for office buildings, Office of Sustainability and Environment, Department of Planning and Development, and emergency management.

3. Utility Expense Policies

SPU maintains that our expenditures are reasonable and appropriate per the opinion rendered in the *Okeson vs. City of Seattle* case. But we agree that it would be beneficial to have a policy that provides guidance for management decisions regarding the appropriate use of enterprise funds. SPU will draw upon recent court decisions, specifically *Okeson vs. City of Seattle*, to develop this policy. We will also implement internal controls to ensure compliance with this policy.

4. Fleet Management

SPU agrees that there are opportunities to improve how we manage our fleets. Working with the Fleets & Facilities Department (FFD), we have initiated several actions since this audit began in mid-2008. In February 2009 SPU centralized and aligned the fleet responsibilities into the Finance and Administration branch. In March 2009 SPU and FFD entered into a Service Agreement that addresses many of the issues raised by the audit. The Service Agreement is a foundation for continued improvement in the way SPU and FFD develop, monitor and review cost and services. We plan to develop performance measurements that will reflect the effectiveness of the current agreement and guide future decisions aimed at optimizing the life of the fleet and optimizing costs to SPU and its ratepayers.

Some of the key components of the agreement include:

- Standardized rates for repair and maintenance based on the type of equipment.
- Authorization levels for vehicle repair based on a repair costs, Gross Vehicle Weight, and the fully depreciated value of the vehicle. Other authorizations required prior to performing repairs include:
 - > Notification when actual repair costs are estimated to be more than 10 percent of the original estimate;
 - > Written authorization for major repair of heavy-duty vehicles; and
 - > Prior approval for any in-service vehicle modifications, fabrication or improvements.

In addition to the Service Agreement, FFD has provided increased access to its fleet database enabling SPU staff to better evaluate and plan for fleet use, replacement and cost monitoring. FFD is also providing purchasing and maintenance cost information through on-line web-based reports. While we

agree that a more centralized fleet management process could result in further cost savings, we believe that our current life cycle approach minimizes maintenance costs. SPU conducts an annual review of all vehicles with two years of remaining useful life. This review includes a cost benefit analysis regarding keeping the vehicles versus replacement. In addition, SPU's heavy equipment replacement model evaluates equipment condition, downtime risks costs, and costs associated with major failures. SPU replaces its light fleet based on the schedule life for each vehicle. If fleet staff at SPU or FFD identify a vehicle that is being over-utilized (e.g., high mileage), staff will seek to rotate that vehicle with another low mileage vehicle.

SPU also agrees that improvements are warranted in managing our Solid Waste fleet maintenance costs. Since this audit began, we have initiated several actions that have resulted in reducing maintenance costs from \$607,000 in 2008 to \$267,000 through July 2009, representing a 56% decrease. SPU is having ongoing discussions with FFD to determine the feasibility and costs of transitioning the maintenance of this fleet from the private vendor to FFD.

In addition to savings in Solid Waste fleet maintenance costs, SPU agrees that other savings could be generated through better monitoring of services and costs for Water and Drainage and Wastewater fleet. However, we do not believe that high-level findings from the cited 2005 study provides a reasonable basis for calculating the opportunity for savings. A more recent (2007) and more detailed benchmarking study concluded that Seattle's cost per Maintenance Repair Unit MRU was below the median for the six cities evaluated. In addition, in February 2008 FFD conducted a survey of six Seattle-area private vendors' hourly rates; the City's rates were competitive for both heavy truck and light vehicle work. Thus, while we have not estimated potential savings achievable through improved monitoring, we do not believe that extrapolating the results from the 2005 study provides an accurate measure. We are also unsure whether the savings would equate to the amounts suggested in the audit report.

Finally SPU agrees that other improvements and savings remain to be accomplished including better monitoring of services and costs and additional training on FFD. We will continue to work collaboratively with FFD on these issues.

5. Overtime

SPU agrees that there are areas within the organization that would benefit from evaluating the causes of overtime and an assessment of options for reducing this. In March of this year SPU conducted such an assessment and established targets for reductions in non-emergency overtime. Methods for accomplishing reductions in this type of overtime include:

- Changes in schedules
- Reduce number of overtime shifts for drainage crews
- Reduce the quantity of mainline cleaning that had caused an increase in overtime
- Limit the number of staff assigned on some assignments freeing them up to work on other tasks that are otherwise being done on overtime
- Instituted a more rigorous overtime approval process

SPU has set a target to reduce non-emergency overtime in 2010 by more than \$1 million, with the majority of this in the Field Operations and Maintenance Branch.

While we concur that there are potential benefits to be gained by consolidating certain job classifications many of the occupations identified by KMPG are represented by different unions. The unions are unlikely to support consolidation of titles making this a very difficult and costly proposal to undertake.

6. SPU Organization

SPU agrees that opportunities exist to improve our organizational structure. In February 2009 SPU undertook a re-organization to address the following needs:

- Reduce the size of the E-team to facilitate better decision making and provide more efficient oversight of utility operations
- Consolidate “like” functions to improve alignment and promote consistent practices
- Centralize corporate services
- Streamline and strengthen the Utility Systems Management Branch’s role as a specifier organization for the lines of business

Making the kinds of significant changes recommended in the audit, specifically to improve the staff to supervisor ratio from 7.7:1 to 10:1, takes time and careful assessment. SPU agrees that analyzing our span of control is a valuable exercise and we will continue to identify problem areas, evaluate options for organizational change, and assess the resulting business impacts. In the meantime, we have already addressed several issues where the ratio of staff to supervisors is well below the SPU average. This includes making organizational changes in the three different branches in the Utility.

7. Customer Service: Call Center Operations

SPU agrees with the audit recommendation to analyze workload fluctuations, productivity indicators, and make full use of technology to establish and maintain appropriate staffing levels. SPU recently hired a new call center manager with many years of experience running call centers. By the end of 2009, we expect to have a three-year plan developed and implementation begun to address many of the issues cited in this audit. We expect our plan to result in cost savings and improved customer service; however, we realize that there may need to be significant short-run investments in order to implement some of the technology improvements.

While SPU understands the audit recommendation to move the call center out of relatively expensive downtown office space, we believe that other considerations must also be factored into any decision to move. This included the cost associated with moving and the loss of efficiency resulting from not being co-located with our City clients.

8. Billing and Meter Reading

To the degree that the customer bases overlap, SPU agrees that it makes sense to consolidate meter reading for SPU’s water customers and Seattle City Light’s electric customers. This can be done in a cost effective manner once a fully integrated advanced metering infrastructure (AMI) system has been developed at least in one of the utilities. At that point SPU can also look at developing a method for synchronizing the timing of the billing cycles. As we look at combined billing services we will revisit the cost per task and what our customers’ interests are related to their service levels. We can also explore different billing cycles but need to make sure that would be acceptable to our customers as those decisions have significant impacts on the size of the bills they receive.

SPU would also like to make a point of clarification related to the *Background* section. In this section, the audit report refers to a 2007 customer service benchmarking study, and states that the reported potential annual savings from this study is \$1.6 million for billing and accounting operations, and \$485,000 in meter reading operations. This is an accurate statement, resulting from SPU’s costs per customer for these services being higher than average relative to the other utilities participating in the benchmarking study. However, it is important to note that SPU’s costs per customer were relatively higher than most other participating utilities because most of the other utilities in the study bill less

frequently (either quarterly or even bi-annually). Therefore, to achieve these savings, SPU would need to move from monthly and bi-monthly billing to billing less frequently, which has significant customer service implications.

9. Debt Financing

The most important part of debt financing is the organization's ability to demonstrate financial strength and fiscal responsibility to the rating agencies. An organization's financial strength is made known to the investment community through a bond rating from one of the three rating agencies, Moody's, Standard and Poor's or Fitch. An organization with a strong bond rating will attract investors and realize favorable interest rates, which in turn benefits the Utility's ratepayers through lower interest costs on borrowing.

Currently the bond rating for the Water Fund and the Drainage and Wastewater Fund are the same from both Moody's and Standard & Poor's, but that has not always been the case. The bond ratings for the Solid Waste Fund from both rating agencies are lower than Water and Drainage and Wastewater. The current bond ratings for each fund are listed below.

Fund	Moody's Rating	S&P Rating
Water	Aa2	AA+
Drainage & Wastewater	Aa2	AA+
Solid Waste	Aa3	AA-

Because of the strong bond ratings in Water and Drainage and Wastewater, SPU has successfully received very favorable interest rates on the debt issued for these funds. Although the market is ever changing, strong financial strength is even more important in today's economy. A change in a rating modifier (1,2,3 or +,-) could save the Utility one to two basis points, which lowers the debt service payments by approximately \$420,000 to \$840,000 just for one debt issue. This will also lead to lower interest rates on future issues which could save over \$1.0 million for just one utility fund.

While it is possible to consolidate borrowing, SPU does have some concerns with combining its debt issues. The main concern is that the fund with the lowest bond rating, Solid Waste, only has a major capital investment every 40 years. Solid Waste is also an activity that is not seen as a stable investment in the investment community. Finally this fund also has the lowest bond rating. All of this comes at a cost through paying a higher interest rate on the money borrowed.

By consolidating the debt issue into one, SPU's overall bonding rating would be negatively impacted by the Solid Waste Fund and would therefore cause the other two utilities to essentially pay a higher interest rate than each utility would have paid if the debt were issued separately. This would result in far more interest costs than the savings that could be realized through lower issuance costs. A more common combination of funds would be Water and Sewer/Drainage.

Currently our Water and Drainage and Wastewater Funds have a rather aggressive capital program so the projected bond issues are reaching \$180 million just to cover 18 months of capital costs for each utility. In the current market, large debt issues have encountered challenges since there are fewer investors in the position to purchase bonds, especially sizable bonds. Besides the actual debt issuance, there are other considerations such as legally changing the fund structure and financial policies, as well as more complex financial reporting and separation of costs to ensure proper rate setting for each utility. SPU is always seeking ways to reduce costs to its rate payers. At the current time, this is not something that would benefit SPU's rate payers, but is an area that we will continue to consider in the future.

10. Sick Leave

SPU has been proactively managing sick leave use at the work unit level, particularly in the Field Operations and Maintenance and Customer Service branches. Over the past few months managers have made greater efforts to hold staff accountable for their attendance and have begun to tie attendance with performance measures. SPU will continue to evaluate ways to reduce the use of sick leave and consider alternatives within its control.

Decisions about changing paid time-off practices need to be conducted at a citywide level and include negotiating with the City's labor unions. The City has previously examined options such as combining sick leave and vacation and proposed this to the unions who did not agree to it. It is important to note that the City cannot unilaterally impose this type of change (see RCW 41.80.020).

11. Asset Management

SPU agreed early in the audit process with KPMG that the Asset Management Committee (AMC) and processes could benefit from changes. Beginning in the fall of 2008 and throughout the early part of 2009 we made significant changes to the Asset Management process. These changes include:

- The AMC is comprised of significantly fewer staff including only a subset of the Executive Team and two staff from the Asset Management group. Project presentations are typically made by no more than three staff involved in the development of the project business case.
- AMC meetings occur less frequently (twice a month) and for a shorter duration.
- The capital project review threshold for a full AMC meeting is now \$1 million instead of \$250,000. Smaller projects are reviewed within the respective line of business by line management responsible for those decisions.
- We are working on different ways of analyzing and reporting project outcomes with an eye towards determining the effectiveness of the decisions made by the AMC regarding project alternatives.
- We've started an annual "Lessons Learned" process where projects which have gone through the entire AMC cycle (from planning thru commissioning) are examined in hindsight via interviews with staff, examining the various business cases involved with the project, and looking through the financials.

Again thank you for your collaborative approach to this process and the numerous beneficial findings from the audit. We will continue to assess and implement the many recommendations you have made.

Sincerely,



Ray Hoffman, Acting Director
Seattle Public Utilities



Dwight Dively, Director
Department of Finance

APPENDIX I: KPMG's Concluding Remarks

We would like to thank SPU and the City of Seattle departments that participated in this audit. SPU and City Management and Staff were cooperative and accommodating in providing us with information and making time in their schedules to meet with us. They were open and honest in their communications with us and promptly met our many requests for documentation and clarification. We believe this was a successful performance audit and that is due in large part to the commitment SPU and the City made to the project.

In response to the SPU's management remarks on the Fleet Management audit issue (Issue No. 4), we would like to note that both the 2005 and the 2007 Fleet studies included a benchmarking component. In our opinion, the 2005 report consisted of peers that were higher performing than those in the 2007 study.