San Francisco
Public Utilities Commission

Sustainability Plan and Program 2008
This document presents a robust Plan and Program for improving the sustainability of the San Francisco Public Utilities Commission (SFPUC) across the environmental, social, and economic dimensions of its organizational performance (the triple bottom line). The SFPUC is the first triple-enterprise utility in the country to develop a Department-wide plan against this triple bottom line. Embracing this difficult challenge has provided a terrific opportunity for the SFPUC to frame a sustainable course for its future, while modeling an innovative approach to strategic management for other City departments and the utility sector in general.
The Sustainability Plan and Program culminate a three year effort undertaken through a collaborative process involving the leadership, staff and stakeholders of the SFPUC.

- The Plan provides a triple bottom line framework and a baseline assessment that scores our performance, and sets out specific strategies and initiatives with targets to begin improving sustainability performance in priority areas.

- The Program sets in motion this integrated, systematic and long-term approach to sustainability at the SFPUC, whereby SFPUC will continue to track and monitor performance, assess results, implement a useful reporting protocol, and take needed actions to improve strategic management and decision-making.

Within the SFPUC, a high-level, cross-functional steering committee, the Sustainability Strategy Group (SSG), was established at the outset of the sustainability planning process to provide ongoing oversight, guidance, and decision-making. The SSG membership includes SFPUC leadership from SFPUC’s top management levels as shown to the left.

The members of the SSG have contributed their input and ideas, both individually and collaboratively, throughout the three-year planning process, and have agreed to the framework, strategies and targets identified in this Plan and Program. The SSG has been and will remain instrumental in continuing to provide direction to the Sustainability Plan and Program over the long term.

We invite you to join the SFPUC as we engage in continuously improving our performance across the Department and the triple bottom line - please read about our progress in this report and visit us online anytime at www.sfwater.org/sustainability.
Executive Summary

With this report, the San Francisco Public Utilities Commission introduces its Sustainability Plan and Program, an ambitious commitment to measure, track, and improve our sustainability across the triple bottom line — environment, society, and economy. Over the course of the last three years, we have undertaken a collaborative process with our leadership, staff and stakeholders to establish the initiatives described in this report. The Plan and Program is a roadmap for continually increasing our sustainability so that SFPUC can become a model for best practices in the utility sector and provide excellent water, wastewater, and power services into the future.

Our Commitment to Sustainability

SFPUC’s commitment to the Sustainability Plan and Program initiates a new approach to strategic planning and decision-making at SFPUC, one that:

- Institutionalizes SFPUC’s sustainability goals, framework, indicators, FY05/06 Baseline Assessment, and its initial twenty strategies for improving performance — the Sustainability “Plan”

- Sets it all in motion by establishing regular performance monitoring, review and a reporting protocol — the Sustainability “Program”

- Incorporates over time a robust approach to strategic planning and anticipates opportunities to strengthen the strategic and sustainability elements of its Department-wide planning, management and decision-making activities

SFPUC will continue to monitor and update the initial assessment of its sustainability performance (the FY05/06 Sustainability Baseline Assessment). Every two years, we will carry out a comprehensive assessment to benchmark our performance and progress against all our sustainability indicators, and we will review our strategies and initiatives for improving performance to see that we are on track to meeting our targets. To provide timely and useful feedback for ongoing management purposes, we will also implement quarterly and annual reporting on a subset of our sustainability indicators.

SFPUC defines Sustainability as its commitment to implementing a triple bottom line framework through which it will responsibly manage the resources under its care, protect public health, and balance its social and environmental responsibilities to the citizens and community, while providing cost effective services to its ratepayers.
Implementing Sustainability at SFPUC

Within the SFPUC, a high-level, cross-functional steering and leadership committee, the Sustainability Strategy Group (SSG), was established at the outset of the sustainability planning process to provide ongoing oversight, guidance, and decision-making. The SSG has been and will remain instrumental in continuing to provide direction to the Sustainability Plan and Program over the long term. They are responsible for overall oversight of the Plan and Program, as well as for ensuring sustainability efforts are appropriately aligned across the Department.

Day-to-day management of the Sustainability Plan and Program rests with the Office of Strategic/Sustainability Planning, which is responsible for conducting quarterly/annual reporting and biennial assessments of performance, coordinating with other City agencies, integrating sustainability into strategic planning and decision-making activities, and raising awareness across the organization.

Sustainability Planning Framework and Process

The development of the Sustainability Plan and Program was undertaken through four major steps that resulted in:

- Definition of what sustainability means to SFPUC through establishment of a comprehensive framework and broad sustainability goals covering: Environment and Natural Resources; Customers; Community; Workplace; Governance and Management; and Infrastructure and Assets
- Development of indicators against which performance can be evaluated
- Identification of standards, best practices and industry benchmarks to provide a basis for evaluating performance
- Establishment of a baseline level of sustainability performance to identify improvement needs and enable trends in performance to be tracked in the future
- Assessment of priority areas for performance improvement
- Definition of strategies and initiatives for implementation, along with targets, responsibilities, and budgets
- Establishment of ongoing performance tracking, review and assessment through the Sustainability Program

In the course of assessing SFPUC’s sustainability performance and defining strategies for improvement, a number of examples have surfaced that demonstrate our efforts toward Department-wide sustainability. Most are considered best practices in the industry, and provide us with a strong base from which to launch additional strategies to improve our sustainability performance.
### Table 1: SFPUC Examples of Accomplishments

#### Executive Summary

- Over 90% of retail customers rate the SFPUC as a “good” agency, or better
- Community Assistance Program provides qualifying residential single-family customers a 35% sewer service discount
- Tiered water rates to encourage conservation approved in 2007 for single-family buildings, and tiered wastewater rates have already been established; SFPUC is now charging fees for water from municipal customers
- Pilot program for direct-install and water audit for low-income customers launched in 2008

#### Customers

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- Tiered water rates to encourage conservation approved in 2007 for single-family buildings, and tiered wastewater rates have already been established; SFPUC is now charging fees for water from municipal customers
- Pilot program for direct-install and water audit for low-income customers launched in 2008

#### Community

- SFPUC conducts over 100 free public tours per year of the Hetch Hetchy system, regional water system, wastewater treatment plants, water treatment plant, and solar installations
- Water pollution educational campaign brought to 60 public school classes per year
- SFPUC distributed more than 2,000 copies of award-winning SF Wastewater Documentary to educate the community about wastewater treatment

#### Workplace

- 100% of all full-time employees are represented by an independent trade union or are covered by a collective bargaining agreement
- Low employee turnover rate of 4.6%
- Good track record and continuous improvement in health and safety
- Online exit interviews have been conducted for all staff since 2007

#### Governance & Management

- Highly transparent planning and decision-making through the use of public meetings, public reporting and the SFPUC website
- Low employee turnover rate of 4.6%
- Good track record and continuous improvement in health and safety
- Online exit interviews have been conducted for all staff since 2007

#### Infrastructure & Assets

- Water and Wastewater enterprises have taken initial steps in asset management planning by developing asset inventories; Wastewater has completed a risk assessment on about 90% of its assets
- Few incidents of pipe breaks and sewer blockages as compared with its peers
- Emergency Operations Plan developed
- The Water System Improvement Program will increase conservation and reduce risk to supply from earthquakes, system failure, and drought
- Sewer System Master Plan proposes to replace older infrastructure, reduce sewage overflows, and address environmental justice issues in southeast communities by using integrated watershed management

#### Environment & Natural Resources

##### Water

- SFPUC provides excellent potable water quality from pristine sources
- Water conservation efforts include the regional “Water Saving Hero” campaign, 27,000 devices distributed in 2007 (low-flow shower heads and hose nozzles), and 5,300 rebates provided in 2007 for toilets, washers, urinals etc.
- SFPUC is pursuing three recycled water projects to produce a sustainable water source for non-potable purposes
- SFPUC’s hydroelectric power is a key component of the City’s carbon reduction strategy

##### Power

- Launched the GoSolarSF Program to provide incentives for solar energy
- Installed 7MW of solar power in 2008 and plan to install an additional 53 MW by 2012. Awarded first place by the Solar Electric Power Association in four categories for 2007, including Total Solar Electric capacity per customer
- Partnered with Pacific Gas and Electric to test energy-efficient LED streetlights in San Francisco

##### Wastes, Discharges, & Pollution Prevention

- Created the nation’s first municipal fleet grease collection bio-fuel program
- Received $1 million state grant to create a grease-to-biodiesel facility
- Modeled “Low Impact Design” for sewer system master planning
- Rainwater harvesting program encourages participants to collect and use rainwater for non-potable applications
- Bio-solids composting program provides high-quality fertilizer

##### In-house Impacts

- The SFPUC Light Brigade has installed 1600 efficient compact fluorescent lamps to date to replace incandescent light bulbs in SFPUC facilities
- SFPUC has low greenhouse gas emissions due to its gravity-fed water system and its use of emissions-free hydropower
Strategies for Improving Performance

While the SFPUC has made great strides tackling major sustainability issues it is facing—from climate change to asset management—it recognizes that further efforts are needed to improve performance and put SFPUC on the path of becoming a model utility practicing Department-wide sustainability. Table 2 presents 20 initial strategies for improvement covering all aspects of our sustainability framework. For each of these strategies, specific initiatives and actions for implementation over a four year period have been identified. Targets and responsibilities have also been identified to ensure adequate accountability.
### Executive Summary

#### Environment & Natural Resources

<table>
<thead>
<tr>
<th>Priority Issue</th>
<th>No.</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habitat, Biodiversity &amp; Land Management</td>
<td>1</td>
<td>Implement the measures in the SFPUC’s Water Enterprise Environmental Stewardship Policy related to fish protection &amp; restoration, habitat conservation &amp; biodiversity protection, &amp; instream flow &amp; quality.</td>
</tr>
<tr>
<td>Water Supply &amp; Conservation</td>
<td>2</td>
<td>Build partnerships and agreements to incentivize water conservation, recycled water, and groundwater; Advance programs for recycled water, groundwater, desalination, stormwater and rainwater collection and/or other innovative technologies and practices to maintain and increase water supply diversity.</td>
</tr>
<tr>
<td>Power Supply</td>
<td>3</td>
<td>Develop a program and financing mechanisms to implement SFPUC’s long-term energy resource plan.</td>
</tr>
<tr>
<td>Environmental Management Systems</td>
<td>4</td>
<td>Where appropriate, develop Environmental Management System(s) modeled after International Organization for Standardization (ISO) 14001 Environmental Management Standard.</td>
</tr>
<tr>
<td>In-house Impacts</td>
<td>5</td>
<td>Achieve continuous reduction of SFPUC in-house environmental impacts.</td>
</tr>
</tbody>
</table>

#### Customers

<table>
<thead>
<tr>
<th>Priority Issue</th>
<th>No.</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disadvantaged &amp; Vulnerable Customers</td>
<td>6</td>
<td>Identify and assist vulnerable customers who are potentially or seriously affected by service interruptions. (Considered together with Strategy 20 —Resilience, Security &amp; Reliability.)</td>
</tr>
<tr>
<td>Rate Structure</td>
<td>7</td>
<td>Develop revenue requirements and rate design policies for power customers.</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Move towards conservation-based rate structures for all water, wastewater and power customers.</td>
</tr>
</tbody>
</table>

#### Community

<table>
<thead>
<tr>
<th>Priority Issue</th>
<th>No.</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Justice</td>
<td>9</td>
<td>Prevent, mitigate, lessen disproportionate environmental impacts on communities in all SFPUC service areas.</td>
</tr>
</tbody>
</table>

#### Workplace

<table>
<thead>
<tr>
<th>Priority Issue</th>
<th>No.</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Satisfaction &amp; Morale</td>
<td>10</td>
<td>Promote professional development of staff and expand career opportunities within the SFPUC.</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Empower employees to capitalize on their strengths and knowledge to make a positive contribution to the work of the SFPUC.</td>
</tr>
<tr>
<td>Workforce Development</td>
<td>12</td>
<td>Fastrack current initiatives to streamline and accelerate hiring processes; and in conjunction with ensuring the success of employees hired, develop and implement succession plans, knowledge capture and technical training.</td>
</tr>
</tbody>
</table>

#### Governance & Management

<table>
<thead>
<tr>
<th>Priority Issue</th>
<th>No.</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Leadership</td>
<td>13</td>
<td>Provide managers the tools and opportunities to become strong leaders and to exercise leadership skills.</td>
</tr>
<tr>
<td>Organizational Effectiveness</td>
<td>14</td>
<td>Improve frequency and effectiveness of internal communications and strengthen coordination and communication within and across the Department.</td>
</tr>
<tr>
<td>Risk Management</td>
<td>15</td>
<td>Develop as appropriate departmental, enterprise and division risk management tools.</td>
</tr>
<tr>
<td>Strategic Planning &amp; Decision-making</td>
<td>16</td>
<td>Advance and institutionalize Department-wide Sustainability Plan and Program as the core of SFPUC’s strategic planning and decision-making. Commit to periodic assessment and public reporting on Department-wide sustainability performance.</td>
</tr>
<tr>
<td>Procurement &amp; Contracting</td>
<td>17</td>
<td>Implement Department-wide procurement procedures to ensure quality of goods and services procured.</td>
</tr>
<tr>
<td>Sustainable Supply Chain</td>
<td>18</td>
<td>Apply the City’s environmentally preferable purchasing and procurement protocol.</td>
</tr>
</tbody>
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#### Infrastructure & Assets

<table>
<thead>
<tr>
<th>Priority Issue</th>
<th>No.</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset Management and System Maintenance &amp; Renewal</td>
<td>19</td>
<td>Develop and implement a Department-wide asset management plan that includes an overarching framework and standards, encompasses the asset management process of the individual enterprises, and is institutionally and operationally integrated with the finance function. Optimize system maintenance and renewal performance through appropriate integration and alignment with the department-wide asset management plan.</td>
</tr>
<tr>
<td>Resilience, Security &amp; Reliability</td>
<td>6</td>
<td>Identify and assist vulnerable customers who are potentially or seriously affected by service interruptions.</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>Roll-out the Emergency Operations Plan throughout the SFPUC.</td>
</tr>
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</table>
Through our Sustainability Program, SFPUC will monitor the effectiveness of these strategies and revise our Sustainability Plan as needed to reflect changes in our operating environment.

Utilities nationwide are evolving, adapting to a challenging future – SFPUC has anticipated these challenges as opportunities. With the tools in place to instigate a cycle of continuous improvement, SFPUC moves into the future prepared to practice sustainability Department-wide and deliver excellent water, waste, and power services to the City and all our customers.
SFPUC’S Commitment to Sustainability
Our Program for the Future

Integrating Sustainability with Strategic Planning and Decision-Making

Traditionally, sustainable development is defined as “development that meets current needs without compromising the ability of future generations to meet their needs”1. In this spirit and with this report, the San Francisco Public Utilities Commission (SFPUC) introduces its Sustainability Program—an ambitious commitment to an integrated, systematic and long-term approach to improving strategic and sustainability performance across the organization.

SFPUC commits to implementing a triple bottom line framework through which it will responsibly manage the resources under its care, protect public health, and balance its social and environmental responsibilities to the citizens and community, while providing cost effective services to its ratepayers.

This commitment establishes a foundation for SFPUC’s strategic planning that is embedded in sustainability, one that:

- Establishes a timely monitoring and reporting protocol on Department-wide performance, and the development of ever more robust approaches to strategic planning (e.g. scenario planning)

SFPUC will continue to monitor and update the initial assessment of its sustainability performance (the FY05/06 Sustainability Baseline Assessment) with biennial assessments against all its sustainability indicators, and to review its strategies and initiatives for improving performance. In addition, it will provide quarterly and annual reporting of performance against a subset of its biennial sustainability indicators.

Its biennial reports will be in line with American Water Works Association (AWWA) recommendations for triple bottom line reporting and strategic planning communication, and with the Global Reporting Initiative’s Sustainability Reporting Guidelines, the international standard for reporting, enabling the SFPUC to benchmark its performance with the utility sector and other reporting peers.

1World Commission on Environment and Development, Brundtland Report, 1987
Performance Monitoring and Tracking

An important aspect of SFPUC’s sustainability planning is its sustainability metrics, i.e. the performance indicators specifically developed for SFPUC. The indicators allow SFPUC to continue assessing and benchmarking its performance to identify trends and drive continuous improvements. Additionally, as SFPUC begins implementing initial strategies to improve its sustainability performance, it will use the relevant indicators to evaluate actual performance on the strategies against established targets. This will allow SFPUC to pinpoint which strategies are on track and provide additional feedback in its biennial reporting on their effectiveness.

To facilitate improving performance tracking and reporting, SFPUC will investigate opportunities for using or adapting existing or new systems to better suit data collection, monitoring and reporting. These include online tools that can be used to facilitate data collection, centralize and secure data, develop visual representations or dashboards to depict performance over time, monitor results against targets, and improve the clarity and utility of reporting.

Continuous Improvement and Evaluation of the Plan & Program

As part of its commitment to continuous improvement (Fig 1) and to ensure the Plan and Program evolve over time, SFPUC will:

- Review the applicability of its sustainability framework, goals and indicators with associated standards and best practices to ensure they evolve over time to respond to changes in the market place, policy context, operating environment, etc.
- Review the effectiveness of strategies for improving performance; adjust strategies or identify new ones as needed to improve performance
- Continue to apply a 4 year performance cycle for budgeting strategy improvements
- Undertake biennial assessment against all its sustainability indicators, and quarterly and annual reporting of performance against a subset of those indicators
- Update the components of the Plan and Program based on these reviews
- Continue to use and improve its website to engage its customers and general public
Figure 1: Reporting Cycle for Continuous Improvement

Sustainability Reporting + Assessments

- Completed fiscal year 2005/2006 baseline assessment in 2007 on all indicators
- Developed strategies to improve performance
- Developed 4-year targets for each of those strategies, to begin implementation in the fiscal year of 2008/2009
VALUE OF SUSTAINABILITY REPORTING

“Sustainability reporting is a process for publicly disclosing an organization’s economic, environmental, and social performance. Many organizations find that financial reporting alone no longer satisfies the needs of shareholders, customers, communities, and other stakeholders for information about overall organizational performance.”

Global Reporting Initiative (GRI)
“Sustainability Reporting in the Public Sector” Report

“Triple Bottom Line (TBL) reporting is a vehicle for linking typically discrete and insular functions of organizations (finance, marketing, research, development) in a more strategic manner. By doing so, it can open internal conversations where they would not otherwise occur.”

American Water Works Association Research Foundation

CRITICAL SUCCESS FACTORS

Continued SSG Support: to maintain the momentum to improve SFPUC-wide sustainability performance, and establish essential strategic planning tools for long-term decision-making

Financial Commitment: to cover costs for new initiatives that may require additional staffing and/or funding

Performance Monitoring and Assessment: to benchmark performance over the long term, and to evaluate if implementation of the Plan and Program is successfully on track

Change Management: to encourage the cultural shift towards a holistic view of Department-wide performance, unified Department identity, greater transparency and accountability, and stronger collaboration and knowledge sharing

Staff Education and Communication: to engage and educate staff, raise awareness, seek feedback and input, and strengthen staff ability to support effective implementation of the Sustainability Plan and Program

Transparency and Accountability: for implementation of strategies, initiatives, and all performance improvements

Public Reporting and Engagement: to continue to seek stakeholder engagement and feedback, and ensure the Sustainability Plan and Program are implemented in a transparent fashion
SFPUC’s Sustainability Planning
Our Framework and Process

The SFPUC in Context

The SFPUC is a department of the City and County of San Francisco. It provides four distinct services: Regional Water, Local Water, Wastewater (collection, treatment and disposal), and Power (Fig 2). The Department supplies water to 2.4 million people in San Francisco and the San Francisco Bay area. One-third of the water is supplied directly to retail customers primarily in San Francisco (including residential, industrial and commercial customers), and the remaining two-thirds is supplied to wholesale customers by contractual agreement. Wastewater services are provided within the City of San Francisco, and power is supplied to municipal customers within the City.

One of forty-nine departments within the City of San Francisco, SFPUC has over 2,000 employees serving its customers, Commissioners, the Mayor and the Board of Supervisors. This context has shaped the SFPUC’s sustainability planning process.

Purpose and Benefits of SFPUC’s Sustainability Plan and Program

The SFPUC’s sustainability planning is an internal, strategic management tool, a framework for operating the business, a means—not an end; it is a recognition of the need for high level planning and assessment tools that provide a view of the Department's performance at a more holistic and organizational level. Cognizant of a growing trend in the industry, SFPUC also recognizes the strategic value and utility of Department-wide planning using the triple bottom line—that is, evaluating performance not just financially or economically, but also environmentally and socially. This approach allows the SFPUC to view the performance of its three enterprises and supporting divisions over time, through the lens of an agreed framework, set of goals, and performance indicators based on identified standards and best practices for sustainable development.

Stakeholder Engagement

Throughout its sustainability planning, the SFPUC solicited stakeholder engagement and feedback. SFPUC employees are largely responsible for helping to move the SFPUC towards a more sustainable future, and have participated in interactive sessions and discussions on the key findings, results and draft deliverables. Staff have and continue to provide extensive input on the strategies which form the initial basis for improving SFPUC’s sustainability performance.

Figure 2: Simplified Organizational Structure of the SFPUC
SFPUC informed its public about the sustainability planning process and subsequent draft deliverables, in particular by means of its website at www.sfwater.org/sustainability. Through use of email lists to alert the public of new drafts, it invited public comments and feedback. In addition, the SFPUC established at the outset of its sustainability planning, an External Stakeholder Group (ESG) consisting of approximately 20 members, including sustainability experts and representatives of relevant agencies and interest groups. These members generously committed to review and comment on SFPUC primary deliverables during the three-year development process, and have contributed to the rigor and thoughtfulness of the Plan and Program.

**PURPOSE & BENEFITS OF SFPUC’S SUSTAINABILITY PLAN & PROGRAM**

- Provides a roadmap, including transparent Department-wide goals and targets, for how the SFPUC will become a model of an environmentally, socially and financially sustainable organization.
- Provides tools to strategically manage SFPUC’s current sustainability issues, and build capacity in the Department to continue future strategic planning and decision-making in a sustainable manner.
- Positions SFPUC to institutionalize sustainability values and a performance-based culture.
- Provides means to highlight performance and risks periodically and performance trends over time.
- Engages stakeholders in Department-wide performance review and renewal into the future.
Major Steps in the Sustainability Planning Process

The major steps in the development of the Sustainability Plan and Program are shown in Fig 3. Each of these steps is described below. View deliverables at www.sfwater.org/sustainability.

Figure 3:
Key Activities in the Sustainability Planning Process

<table>
<thead>
<tr>
<th>1 Develop Sustainability Framework &amp; Indicators</th>
<th>2 Develop Baseline to Assess Performance</th>
<th>3 Develop Strategies to Improve Performance</th>
<th>4 Develop Sustainability Plan &amp; Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop Initial Framework</td>
<td>Evaluate Baseline Performance</td>
<td>Develop and Prioritize Strategies &amp; Initiatives</td>
<td>Implement Sustainability / Strategic Planning</td>
</tr>
<tr>
<td>Identify Best Practices &amp; Develop Indicators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deliverable: Sustainability Indicators and Best Practices</td>
<td>Deliverable: Sustainability Baseline Assessment FY05/06</td>
<td>Deliverable: Proposed Strategies and Initiatives for Improving Performance</td>
<td>Deliverable: Sustainability Plan and Program</td>
</tr>
</tbody>
</table>

Stakeholder Engagement

This four-phase process initiates an ambitious reporting cycle, including quarterly reporting and biennial assessments of SFPUC’s sustainability performance and strategies for improvement, the core of SFPUC’s strategic planning.
Sustainability Framework

The framework for SFPUC’s Sustainability Plan and Program includes the wide breadth of sustainability issues along the triple bottom line, as well as those that apply to the specific functions and activities of the SFPUC. As a result, six categories were established at the onset of the project: Environment and Natural Resources; Customers; Community; Workplace; Governance and Management and Infrastructure and Assets (Fig 4).

Thus, this framework encompasses the triple bottom line (environmental + economic + social) perspective that has become the dominant model for looking at sustainability, and expands this notion by integrating it through the six categories most meaningfully applied to the SFPUC. Within each of the six major categories, there are 22 subcategories of sustainability issues; each of these has been further broken down into their component parts.
SFPUC defines Sustainability as its commitment to implementing a triple bottom line framework through which it will responsibly manage the resources under its care, protect public health, and balance its social and environmental responsibilities to the citizens and community, while providing cost effective services to its ratepayers.

SFPUC’s sustainability framework integrates the triple bottom line perspective through the six categories most meaningfully applied to the SFPUC. From these six categories flow the issues and indicators according to which SFPUC will manage its sustainability performance into the future.
Sustainability Goals

Once the framework was developed, SFPUC established sustainability goals for each category and subcategory of the framework (Table 3). The goals are in accordance with SFPUC’s mission and relevant policies and principles (e.g. SFPUC stewardship policy), rules and regulations.

Sustainability Performance Indicators

For all the issues covered in the sustainability framework, SFPUC developed approximately 160 indicators to measure its performance and establish a “baseline” (See Sustainability Indicators and Best Practices Report and Sustainability Baseline Assessment FY05/06). The indicators are consistent with the guidelines of the Global Reporting Initiative (GRI), the internationally recognized standard for sustainability reporting. They have been inspired and adapted as well by considering indicators advocated by, for instance, the American Water Works Association and other water/power utilities.

These indicators provide the foundation that supports and links the framework and goals to SFPUC’s daily practices and performance. They will continue to evolve as SFPUC tests their usefulness, and will be streamlined to reflect new priorities and changes in, for instance, the utility sector, the environment, rules and regulations, and SFPUC’s customer base.
### Table 3: Sustainability Goals

<table>
<thead>
<tr>
<th>SFPUC Sustainability Plan Framework</th>
<th>Current Sustainability Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environment &amp; Natural Resources</strong></td>
<td>Ensure effective environmental and natural resources management.</td>
</tr>
<tr>
<td>Habitat, Biodiversity and Land Management</td>
<td>Protect and enhance habitats and biodiversity.</td>
</tr>
<tr>
<td>Water</td>
<td>Encourage water conservation and seek sustainable supply sources.</td>
</tr>
<tr>
<td>Waste, Discharges and Pollution Prevention</td>
<td>Ensure the quality of and reduce the quantity of waste by-products, effluent, and discharges.</td>
</tr>
<tr>
<td>Power</td>
<td>Encourage energy conservation and seek sustainable supply sources.</td>
</tr>
<tr>
<td>Environmental Compliance and Environmental Management Systems</td>
<td>Strengthen environmental management practices and performance.</td>
</tr>
<tr>
<td>SFPUC Impacts (in-house)</td>
<td>Reduce resource use and environmental impacts associated with SFPUC’s day-to-day business functions.</td>
</tr>
<tr>
<td><strong>Customers</strong></td>
<td>Provide good service to customers at appropriate rates.</td>
</tr>
<tr>
<td>Customers</td>
<td>Provide a good level of service to customers; be responsive to customer needs.</td>
</tr>
<tr>
<td>Rates and Fees</td>
<td>Align rate structure to reflect conservation and full costs of providing service.</td>
</tr>
<tr>
<td><strong>Community</strong></td>
<td>Be actively responsive to community needs and a good citizen of the community.</td>
</tr>
<tr>
<td>Community Health and Environmental Justice</td>
<td>Protect public health and safety, and prevent, lessen and address disproportionate environmental impacts on communities.</td>
</tr>
<tr>
<td>Education and Communication</td>
<td>Increase community awareness of and education about SFPUC’s activities and its sustainability efforts.</td>
</tr>
<tr>
<td>Stakeholder and Community Relations</td>
<td>Be responsive to stakeholder needs and be an active participant in the community.</td>
</tr>
<tr>
<td><strong>Workplace</strong></td>
<td>Preserve the well-being and continued development of staff and maintain equitable HR practices.</td>
</tr>
<tr>
<td>Employee Relations and Labor Practices</td>
<td>Maintain fairness and equity in hiring practices and labor relations.</td>
</tr>
<tr>
<td>Employee Wellbeing</td>
<td>Provide employees with a safe, healthy and satisfying work environment.</td>
</tr>
<tr>
<td>Workforce Development</td>
<td>Improve productivity, strengthen career management, and increase effectiveness of recruitment practices.</td>
</tr>
<tr>
<td><strong>Governance &amp; Management</strong></td>
<td>Ensure effective management practices, financial performance, accountability and leadership.</td>
</tr>
<tr>
<td>Accountability, Transparency and Ethics</td>
<td>Instill a culture of strong ethics, transparency and accountability for results.</td>
</tr>
<tr>
<td>Financial Management</td>
<td>Strengthen financial performance and planning activities.</td>
</tr>
<tr>
<td>Leadership</td>
<td>Promote strong leadership in the organization and the industry in which it operates.</td>
</tr>
<tr>
<td>Organizational Management and Effectiveness</td>
<td>Strengthen effectiveness of the organization and its planning and management activities.</td>
</tr>
<tr>
<td>Procurement and Supply Chain</td>
<td>Improve the efficiency of procurement activities and incorporate sustainability in supply chain management.</td>
</tr>
<tr>
<td><strong>Infrastructure &amp; Assets</strong></td>
<td>Effectively manage and maintain, and ensure reliability and efficiency of infrastructure and assets.</td>
</tr>
<tr>
<td>Asset Management and Planning</td>
<td>Optimize the management, planning and maintenance of assets, and infrastructure.</td>
</tr>
<tr>
<td>Asset Security and Resilience</td>
<td>Improve reliability and resilience of service delivery.</td>
</tr>
<tr>
<td>System Maintenance and Management</td>
<td>Maintain assets in good working order.</td>
</tr>
</tbody>
</table>
Standards and Best Practices

For each indicator, SFPUC identified a minimum standard, best practice or industry benchmark to facilitate performance evaluation, comparison and benchmarking. Sources of standards and best practices include: American Water Works Association, International Benchmarking Network for Water and Sanitation Utilities, International Organization for Standardization, federal rules and regulations (such as Clean Water Act, Endangered Species Act and National Environmental Policy Act), state and local laws and ordinances, and best practices implemented by utilities world-wide.

Sustainability Baseline Assessment

SFPUC subsequently carried out comprehensive data collection, analysis and evaluation to establish an initial baseline of sustainability performance (see detailed assessment in FY05/06 Sustainability Baseline Assessment report).

Figure 5 provides a visual summary of the results. Each of the six categories of the sustainability framework is represented as one section in the circle; within each section, each subcategory has its own “slice” that shows the overall average score for that subcategory. The scores along the slices move from 1 to 5 towards the “bulls-eye” as performance improves —thus, the goal always is “5”.

The color shown in each slice (i.e. subcategory) represents the average baseline score for the subcategory, while the dots indicate the distribution of baseline scores for all indicators within each subcategory.
The results of the baseline sustainability profile shows average scores for each slice ranging from 2 (orange) to 4 (light green). There are no scores of 1 (significantly below average) or 5 (significantly above average), due to the fact that scores for the various indicators in each subcategory are averaged. In order for the overall score in a subcategory to be 1 or 5, it would mean that a high number of the indicators in that subcategory would have to be consistently scored as 1 or 5. Thus, while the sustainability profile provides a good visual summary of SFPUC’s FY05/06 performance, it is also useful to see the scores for individual indicators in the full Baseline Assessment Report.
Prioritizing Issues to Identify Strategies for Improving Performance

SFPUC’s FY05/06 Sustainability Baseline Assessment provides a starting point for understanding SFPUC’s Department-wide sustainability performance, its accomplishments and needed improvements, and positions the SFPUC to reassess, benchmark, report regularly and monitor trends in its performance.

Given resource and time constraints, SFPUC identified the priority issues arising from its baseline assessment as needing improvement and proposed strategies and initiatives to address them (see “Proposed Strategies and Initiatives for Improving Performance” report). To ensure that the most critical issues were targeted for action, SFPUC screened them using a rigorous quantitative process that considered the following elements:

- Importance to SSG
- Importance to SFPUC staff
- Importance to external stakeholders
- Risk associated with issue
- Alignment of issue with core mission
- Cross-cutting impact on performance
- Poor performance results

Developing Strategies to Improve Sustainability Performance

For each of the priority issues, SFPUC identified specific strategies and initiatives to improve performance —to move the SFPUC as a whole toward becoming a best practice utility. Several resources helped surface the proposed strategies and initiatives, including suggestions from stakeholder surveys and the screening described above, brainstorming sessions with staff and the ESG, meetings and ongoing consultation with the SSG, and ongoing SFPUC and consultant research on international-to-local standards and best practices.

All stakeholder suggestions and weighting were combined to create the final list of strategies presented in Table 4.
## Table 4: Strategies for Improving SFPUC’s Sustainability Performance

<table>
<thead>
<tr>
<th>Priority Issue</th>
<th>No.</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environment &amp; Natural Resources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Habitat, Biodiversity &amp; Land Management</td>
<td>1</td>
<td>Implement the measures in the SFPUC’s Water Enterprise Environmental Stewardship Policy related to fish protection &amp; restoration, habitat conservation &amp; biodiversity protection, &amp; instream flow &amp; quality.</td>
</tr>
<tr>
<td>Water Supply &amp; Conservation</td>
<td>2</td>
<td>Build partnerships and agreements to incentivize water conservation, recycled water, and groundwater; Advance programs for recycled water, groundwater, desalination, stormwater and rainwater collection and/or other innovative technologies and practices to maintain and increase water supply diversity.</td>
</tr>
<tr>
<td>Power Supply</td>
<td>3</td>
<td>Develop a program and financing mechanisms to implement SFPUC’s long-term energy resource plan.</td>
</tr>
<tr>
<td>Environmental Management Systems</td>
<td>4</td>
<td>Where appropriate, develop Environmental Management System(s) modeled after International Organization for Standardization (ISO) 14001 Environmental Management Standard.</td>
</tr>
<tr>
<td>In-house Impacts</td>
<td>5</td>
<td>Achieve continuous reduction of SFPUC in-house environmental impacts.</td>
</tr>
<tr>
<td><strong>Customers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disadvantaged &amp; Vulnerable Customers</td>
<td>6</td>
<td>Identify and assist vulnerable customers who are potentially or seriously affected by service interruptions. (Considered together with Strategy 20 —Resilience, Security &amp; Reliability.)</td>
</tr>
<tr>
<td>Rate Structure</td>
<td>7</td>
<td>Develop revenue requirements and rate design policies for power customers.</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Move towards conservation-based rate structures for all water, wastewater and power customers.</td>
</tr>
<tr>
<td><strong>Community</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Justice</td>
<td>9</td>
<td>Prevent, mitigate, lessen disproportionate environmental impacts on communities in all SFPUC service areas.</td>
</tr>
<tr>
<td><strong>Workplace</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Satisfaction &amp; Morale</td>
<td>10</td>
<td>Promote professional development of staff and expand career opportunities within the SFPUC.</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Empower employees to capitalize on their strengths and knowledge to make a positive contribution to the work of the SFPUC.</td>
</tr>
<tr>
<td>Workforce Development</td>
<td>12</td>
<td>Fastrack current initiatives to streamline and accelerate hiring processes; and in conjunction with ensuring the success of employees hired, develop and implement succession plans, knowledge capture and technical training.</td>
</tr>
<tr>
<td><strong>Governance &amp; Management</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal Leadership</td>
<td>13</td>
<td>Provide managers the tools and opportunities to become strong leaders and to exercise leadership skills.</td>
</tr>
<tr>
<td>Organizational Effectiveness</td>
<td>14</td>
<td>Improve frequency and effectiveness of internal communications and strengthen coordination and communication within and across the Department.</td>
</tr>
<tr>
<td>Risk Management</td>
<td>15</td>
<td>Develop as appropriate departmental, enterprise and division risk management tools.</td>
</tr>
<tr>
<td>Strategic Planning &amp; Decision-making</td>
<td>16</td>
<td>Advance and institutionalize Department-wide Sustainability Plan and Program as the core of SFPUC’s strategic planning and decision-making. Commit to periodic assessment and public reporting on Department-wide sustainability performance.</td>
</tr>
<tr>
<td>Procurement &amp; Contracting</td>
<td>17</td>
<td>Implement Department-wide procurement procedures to ensure quality of goods and services procured.</td>
</tr>
<tr>
<td>Sustainable Supply Chain</td>
<td>18</td>
<td>Apply the City’s environmentally preferable purchasing and procurement protocol.</td>
</tr>
<tr>
<td><strong>Infrastructure &amp; Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset Management and System Maintenance &amp; Renewal</td>
<td>19</td>
<td>Develop and implement a Department-wide asset management plan that includes an overarching framework and standards, encompasses the asset management process of the individual enterprises, and is institutionally and operationally integrated with the finance function. Optimize system maintenance and renewal performance through appropriate integration and alignment with the department-wide asset management plan.</td>
</tr>
<tr>
<td>Resilience, Security &amp; Reliability</td>
<td>20</td>
<td>Identify and assist vulnerable customers who are potentially or seriously affected by service interruptions. Roll-out the Emergency Operations Plan throughout the SFPUC.</td>
</tr>
</tbody>
</table>
SFPUC has developed detailed initiatives to implement the above strategies and is now launching its Sustainability Plan and Program to continuously monitor and improve its sustainability performance.

The following section presents additional, though still summary, information about the twenty strategies on which SFPUC will focus its initial efforts. For more detail on each strategy, refer to its Appendix B blueprint which includes specific initiatives, actions, targets, responsibilities and costs for its implementation.

How will stakeholders know how we’re doing with our strategies for improving performance? With our framework and indicators anchored to the triple bottom line, SFPUC will track, evaluate and benchmark progress on all the elements of our plan through our sustainability program. Continuous sustainability improvements linked to our reporting protocol will help us walk our talk into the future.
Environment and Natural Resources

Introduction to Strategies 1 to 5

The SFPUC’s most important assets are the natural resources on which it depends. By protecting its natural capital, the SFPUC ensures the health and safety of its customers and the longevity of its services. The SFPUC relies on the supply and storage of water and on its integral watersheds —the Tuolumne River, Alameda Creek and Peninsula watersheds —to provide clean water and a nearly emissions-free power supply to its customers. It is SFPUC’s duty to responsibly manage the natural systems that provide it with water, as well as the receiving waters of its treated wastewater effluent. This duty also implies identifying and managing the risks posed to these resources.

Five environment and natural resource strategies are among the twenty initial strategies SFPUC has identified to begin improving SFPUC’s sustainability performance. They are described on the following pages. The conservation and protection issues addressed in these strategies are in fact interdependent, as improving performance in one area (e.g. water conservation) will benefit other areas (e.g. instream flows and fish protection).

Environment and Natural Resources

1. Implement the measures in the SFPUC’s Water Enterprise Environmental Stewardship Policy related to fish protection and restoration, habitat conservation and biodiversity protection, and instream flow and quality
2. Build partnerships and agreements to incentivize water conservation, recycled water, and groundwater; Advance programs for recycled water, groundwater, desalination, stormwater and rainwater collection and/or other innovative technologies and practices to maintain and increase water supply diversity
3. Develop a program and financing mechanisms to implement SFPUC’s long-term energy resource plan
4. Where appropriate, develop Environmental Management System(s) modeled after the International Organization for Standardization (ISO) 14001
5. Achieve continuous reduction of SFPUC in-house environmental impacts
SFPUC is committed to responsible natural resources management, to protect and restore populations of native species, and to maintain the integrity of the ecosystems that support them for current and future generations. SFPUC manages 63,000 acres of watershed lands and 210 miles of rights-of-way. These lands contain the habitat, water supply source and storage, and transmission and treatment systems serving 2.4 million people.

SFPUC has made significant strides in the monitoring and management of the natural resources under its care. In 2006, it adopted an Environmental Stewardship Policy that establishes a broad, long-term management direction for SFPUC-owned lands and natural resources.

SFPUC is implementing the Watershed and Environmental Improvement Program (WEIP), to provide $50 million over the next 10 years for the management, protection and restoration of SFPUC's natural resources. These restoration efforts will be above and beyond normal watershed maintenance activities, and include initiatives like acquiring easements to land above SFPUC reservoirs.

### Habitat, Biodiversity & Land Management

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SFPUC is taking the following steps to implement the Policy:

- In cooperation with its partners, SFPUC’s is developing Habitat Conservation Plans (HCPs) for the Alameda and Peninsula Creek watersheds to provide a long-term, comprehensive framework for minimizing impacts to species listed under the federal Endangered Species Act and protect a specific set of at-risk species and their habitat while allowing land managers to continue with necessary land use and management activities.

- In collaboration with its partners, SFPUC is conducting The Upper Tuolumne River Ecosystem Project, a series of collaborative scientific studies designed to provide a common foundation of environmental information for streams affected by the operation of the Hetch Hetchy water system in the Sierra Nevada and to provide the scientific basis for allocating environmental water releases from O’Shaughnessy Dam. Project partners include the SFPUC, Yosemite National Park, the U.S. Fish and Wildlife Service, and the Stanislaus National Forest.

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Water Supply and Conservation

SFPUC faces a number of challenges for long-term water supply planning. Though water use in the city of San Francisco is stable, wholesale customer water demand is rising in conjunction with increasing population. The population SFPUC serves is projected to increase from 2.4 to 2.8 million by 2030, and this demand would require the Department to consider providing an additional 35 MGD to its wholesale customers, for a regional total of 300 MGD by 2030. In addition, climate change presents long-term challenges to managing SFPUC’s water supply.

As one response to these challenges, SFPUC is developing multiple approaches to promote water conservation among its residential and commercial customers:

- In 2009, SFPUC will launch a water education program in schools.
- SFPUC is working to track achievements and the results of its efforts by evaluating the current water savings potential of existing conservation initiatives in relation to water consumption among the different customer classes. Results of this analysis, due in 2009, will allow SFPUC to refine its programs and develop appropriate new initiatives.

For the longer term, SFPUC is spearheading the Water Utilities Climate Alliance (WUCA), which will improve research and create strategies to adapt to the impacts of climate change. In addition, SFPUC plans to offer additional incentives for water conservation and efficiency to municipal customers, and to more closely monitor municipal water use. It recognizes, as well, the need to align incentives for water conservation through appropriate legislation, and to promote conservation through local ordinances, codes and statewide legislation, such as a green building ordinance for new construction, plumbing code updates for fixture efficiencies, and greywater permitting.

Finally, SFPUC is engaged currently in its Water Supply Improvement Program, a major capital commitment to ensure water supply for all its customers into the future.

Sustainability Strategy 2

Build partnerships and agreements to incentivize water conservation, recycled water, and groundwater; Advance programs for recycled water, groundwater, desalination, stormwater and rainwater collection and/or other innovative technologies and practices to maintain and increase water supply diversity

target

Sell no more than 265 MGD from SFPUC watersheds

goal

Encourage water conservation and seek sustainable supply sources

potential benefits

// Development of an expanded and more diverse water supply, providing greater resilience for drought
// Reducing water withdrawals to preserve a limited natural resource while providing benefit to habitats
// Encouraging water conservation and efficiency provides savings to customers
SFPUC's Power Enterprise provides power to meet the needs of its municipal customers, including Muni, street and traffic lights, municipal buildings and San Francisco International Airport. It also provides power to the Modesto and Turlock Irrigation districts and other commercial customers. The Raker Act of 1913 prescribes that any excess power is sold to the irrigation districts at cost of production.

The Department operates four hydroelectric plants throughout the water distribution system. Three of these—the Kirkwood, Holm and Moccasin powerhouses—are driven by the Hetch Hetchy Reservoir in Yosemite National Park. The Department also operates a small gas-fired power plant at the Southeast Water Pollution Control Plant and several distributed solar photovoltaic installations, including the Moscone Center and the airport.

SFPUC applies a “water first” policy at its hydro-electric facilities, only generating power when it releases water through its dams to meet demand for water. In FY 05/06, the SFPUC generated 82% of the electricity it delivered to its customers, almost all of which was emissions-free hydroelectricity from Hetch Hetchy. The remaining 18% was purchased directly from PG&E and Calpine. The high percentage of clean energy generation is largely responsible for the Department’s relatively low carbon footprint, and is a key component of a city-wide carbon reduction strategy presented in the City’s Climate Action Plan, which established the City’s CO2 emission reduction target of 20% below 1990 levels by 2012.

Since 2002, the SFPUC has been evaluating long-term options to increase renewable energy capacity and energy efficiency to secure power supply for the City into the future. Two current initiatives for improvement include, for instance:

- Evaluating feasibility of introducing electric drive vehicles and equipment that can be charged with emissions-free hydroelectric power; and
- Establishing a sustainability energy financing fund to support design and installation of on-site renewable technologies for non-municipal customers.

The Power Enterprise continues its work on its long-term energy resource plan. The SFPUC intends to formalize a renewable energy policy to drive and support deployment of renewable technologies, including, for instance, micro-hydro, solar photovoltaic panels, geothermal, offshore wind and solar thermal electric power projects.
Environmental Management Systems

An environmental management system (EMS) is a systematic method that enables an organization to reduce and monitor its environmental impacts—a tool to aid compliance with current and future regulations, while improving overall management and operational efficiencies.

SFPUC operations currently must comply with numerous federal and state regulations and requirements, including the California Environmental Quality Act (CEQA). An EMS differs from these by providing an overall management system for daily operations. The International Organization for Standardization (ISO) 14001 standard is the most common framework for developing an EMS. However, an organization need not undergo formal ISO certification in order to enact an EMS and experience benefits.

Though every EMS varies to fit the specific entity implementing it, there are four key steps that constitute an EMS: plan, do, check, and act. Each phase of EMS development looks at areas within an organization that need improvement, then focuses efforts on monitoring those areas. An EMS generally includes three components: compliance with environmental laws, pollution prevention, and continual monitoring and improvement.

Strategy 4 aims to assist the SFPUC with implementation of one or more environmental management system(s) in or across the organization. This incremental approach will commence with a pilot project that also will provide direction as to what facilities, processes or systems within the SFPUC could benefit from an EMS (such as those that are highly regulated, deal with hazardous materials, or could benefit from improved resource efficiency, etc).

These efforts will include an internal workshop to explore the utility, effectiveness, and benefits of potential additional EMSs for the Department. This strategy encourages collaboration among the three enterprises to consider how an environmental management system might improve performance in their operations. Although the content of an EMS would differ among the three Enterprises, there would be common elements that could unify the EMS process. The Wastewater Enterprise already is piloting an EMS within their Collection Systems Group, where a Biosolids EMS is underway.

Details Strategy 4
App B Pg B10
Key environmental impacts stemming from the SFPUC’s internal operations and functions include: greenhouse gas emissions; production and disposal of solid waste from office and construction operations; the need to improve green building and sustainable construction practices; use of chemicals in treatment and operations; and in-house water and energy consumption.

The SFPUC’s greenhouse gas (GHG) levels are significantly lower than typical utilities due to its emissions-free hydropower and gravity-based system. Further reduction of the SFPUC’s emissions is expected through collaboration with other City agencies and through innovations such as switching from fossil fuel to electric drive (See Strategy 3).

The objective of Strategy 5 is to coordinate and manage existing initiatives such as recycling, identify additional opportunities to reduce SFPUC day-to-day environmental impacts; and initiate this effort by dedicating one qualified full-time staff to work across SFPUC enterprises and divisions. For instance, staff would develop a systematic approach to coordinating and improving SFPUC recycling activities, and tracking, e.g. greenhouse gas emissions; water, waste, and power facilities consumption, green building and transportation. This work will include close coordination with other San Francisco departments to align SFPUC’s in-house initiatives and provide the internal momentum to increase environmental awareness throughout the organization.
## Customers

### Introduction to Strategies 7 and 8

The SFPUC provides water, wastewater and power services to a broad range of customers. Across the Bay Area, 2.4 million people depend on the SFPUC’s supply of clean drinking water. Within the City of San Francisco, the SFPUC’s customer base includes municipal power users and commercial, residential, industrial and municipal water and wastewater users.

The issues covered under the Customers category include the ability of the SFPUC to meet and satisfy customer needs and the affordability and structure of its rates. According to survey data, SFPUC’s customers are content with the services it provides — its water is of excellent quality, customer demand is met by current supply, nearly all water customers are metered, and there were no service interruptions of more than 4 hours in FY 05/06.

The SFPUC’s rates are generally on par with its peers and lower than the affordability criteria established by the EPA. As two major capital investment projects move forward —the Water System Improvement Program and Sewer System Master Plan —the affordability and adequacy of rates require close attention.

Therefore, the SFPUC has been moving towards rates that better reflect the cost of service and encourage conservation. Strategies 7 and 8 will continue these efforts across all customers and services to encourage greater conservation and efficiency, reduce risk and strengthen its financial position.

<table>
<thead>
<tr>
<th>goal</th>
<th>Provide good service to customers at appropriate rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>strategies</td>
<td></td>
</tr>
<tr>
<td>7. Develop revenue requirements &amp; rate design policies for power customers</td>
<td></td>
</tr>
<tr>
<td>8. Move towards conservation-based structures for all water, wastewater &amp; power customers</td>
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</tbody>
</table>
SFPUC is committed to providing water, wastewater, and power at an affordable rate to its customers. The Department balances this commitment with its need to maintain assets in good working order, encourage conservation, and cover the costs associated with the abstraction, treatment, distribution, and delivery of water, as well as the treatment and disposal of wastewater, and delivery of power. The strategies proposed to improve SFPUC’s performance regarding rates and fees are designed to eliminate practices that provide services to certain customers free or below the cost of that service, and to move toward a rate structure that encourages greater conservation.

SFPUC's power customers include municipal revenue-generating departments (such as Muni) and general fund departments (such as Department of Public Health). The SFPUC is developing rate studies to address the historical issue of providing services such as power to municipal customers at a rate that is free or below the cost of service. Its current obligation to subsidize departments impacts the ability of the Power Enterprise to establish its own bond rating and raise its own funds for efforts such as investing in energy-efficiency projects.

Because the low-cost power provided by the SFPUC does not create incentives for energy conservation or efficiency, the SFPUC's future rate studies will explore different options for encouraging conservation through rate structures, such as tiered or seasonal rates. Care will be taken to assess the impacts of those rates on customers, in particular those who are vulnerable or poor, and to design appropriate protection measures. In addition, the rate studies will consider the potential impact of different rates on the SFPUC's own revenue streams, to allow the SFPUC to fund all operation, maintenance and reinvestment activities.

Over the long term, these initiatives will help to establish a value for the SFPUC’s service that covers its true cost, promotes the health and safety of its customers and staff, and the conservation of its natural resources.
Community

Introduction to Strategy 9

SFPUC’s primary business is to provide excellent water, sewer, and power services to communities of San Francisco and the broader Bay Area. Excellence in service means that SFPUC needs to ensure that none of its communities suffer disproportionate environmental impacts due to SFPUC operations. In order to evaluate and deliver on this assurance, SFPUC actively engages with the various communities it serves to promote participation and feedback on its activities.

The SFPUC has an outstanding history of community involvement by encouraging public participation and seeking community input, including:

- Actively engaging stakeholders to solicit opinions and comments by various means including SFGTV and its website
- Educational outreach and participation in public meetings, planning workshops, and community events such as job fairs
- Participating with its Citizen Advisory Committee (CAC), a regular and timely forum that invites citizens to voice their opinions and make recommendations

To improve on these activities, SFPUC is focusing on its environmental justice efforts. In addition to mitigating or removing disproportionate environmental, social and economic impacts on the communities it serves, SFPUC will continue to work with its CAC to adopt and act on a formal environmental justice policy that is consonant with that of the City.
Environmental Justice

Addressing issues of fairness is central to improving the SFPUC’s interactions with the community. Responding to environmental justice concerns and minimizing disproportionate impacts of its operations will help the SFPUC to ensure fair treatment of all communities.

Environmental justice (EJ) is defined by the California Environmental Protection Agency and SFPUC’s Citizens’ Advisory Committee (CAC) as “the fair treatment of people regardless of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws and policies.” Water, wastewater, and power utilities can have unavoidable impacts on the communities in which they operate, and environmental justice is about preventing, mitigating and minimizing those impacts that may disproportionately affect certain communities.

Environmental justice comes to bear on historical SFPUC activities related to the Southeast Wastewater Treatment Plant in Bayview (in particular odor, noise, visual and associated economic impacts). Tackling these impacts is a significant challenge, requiring a large capital expenditure. SFPUC’s Sewer System Master Plan is the primary vehicle through which odor, noise, and visual complaints can be remedied and mitigated as it considers various options, including refurbishing and replacing its digesters and diverting 10 million out of the 63 million gallons a day of wastewater that it currently receives. In addition to considering these upgrades, the Sewer System Master Plan also proposes alternatives to relocate the Southeast Plant to another part of Bayside, and to treat all waste during dry weather at the Oceanside Plant. These options to help reduce impacts around the Southeast plant are currently being evaluated based on technical criteria, economic feasibility, and social and environmental aspects.

Finally, adopting and acting on the CAC’s formal policy on environmental justice will serve to clarify the SFPUC’s intent to address current disproportionate community impacts and ensure that major planning efforts or capital investment projects in the future take adequate preventative measures.
### Workplace

**Introduction to Strategies 10-12**

The SFPUC employs more than two thousand people Department-wide in its Water, Waste, and Power Enterprises, and in its three supporting Divisions—Infrastructure, Business Services, and External Affairs.

The SFPUC values the diversity and breadth of skills of its workforce, which includes e.g. engineers, analysts, chemists, biologists, planners, administrative support, customer service representatives, plumbers, carpenters, truck drivers, painters, IT professionals, project managers, accountants, foresters, electricians, watershed keepers, laborers, and policy and communications professionals.

Known for their exceptional dedication, SFPUC employees are recognized publicly through its employee recognition program, the O’Shaughnessy Awards. In addition, SFPUC facilities and operations frequently receive national recognition and awards.

The SFPUC respects its employees and understands that their continued safety and wellbeing are integral to the SFPUC’s long-term intent to improve sustainability performance. While the Department has a good track record in the areas of labor relations, health and safety, diversity and equal opportunity, the two issues that require initial improvements are Employee Satisfaction & Morale and Workforce Development (which considers recruitment, training and development, and succession planning). These issues are in fact related as training and development, for example, is a factor in low employee satisfaction and also plays an important role in workforce development activities.

<table>
<thead>
<tr>
<th>Workplace</th>
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<tbody>
<tr>
<td><strong>goal</strong></td>
<td>Preserve the wellbeing and continued development of staff and maintain equitable HR practices</td>
</tr>
<tr>
<td><strong>strategies</strong></td>
<td></td>
</tr>
<tr>
<td>10. Promote professional development of staff &amp; expand career opportunities within the SFPUC</td>
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</tr>
<tr>
<td>11. Empower employees to capitalize on their strengths &amp; knowledge to make a positive contribution to the work of the SFPUC</td>
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</tr>
<tr>
<td>12. Fastrack current initiatives to streamline and accelerate hiring processes; and in conjunction with ensuring the success of employees hired, develop and implement succession plans, knowledge capture and technical training</td>
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</tbody>
</table>
Employee Satisfaction & Morale

SFPUC strives to offer support, opportunities, and a productive work environment to all its employees. Specific initiatives proposed for Sustainability Strategies 10 and 11 will serve to enhance the Department’s understanding of its employees’ needs and introduce new practices to support employee satisfaction and morale.

In order to establish a baseline, the SFPUC will introduce an annual employee engagement survey to measure, benchmark and improve on the % satisfaction among its employees, and will investigate and establish new performance evaluation tools in recognition of the important role of appraisals in professional development.

In order to better ground new employees with an understanding of the operations and culture of the organization, SFPUC will expand its orientation program to be more comprehensive and ongoing over a one-year period that includes focus groups and surveys as check-in mechanisms.

Finally, SFPUC will maximize the use of existing tools (such as the Currents Suggestion Box) to seek employee feedback, and ensure ample channels of communication. Feedback on employee suggestions will be given in a timely manner.

These strategies and initiatives, along with those under the following Workforce Development strategy, aim to provide employees with a more grounded and informative introduction to the SFPUC, and an enriched context within which to envision and contribute to their development and careers with the Department.
Workforce Development

While planning for a large workforce turnover expected in the next ten years, the SFPUC seeks to maximize the potential of its current employees and attract the best candidates. Under a Department-wide workforce development plan, SFPUC will implement measures such as improved recruitment, succession planning, and increased training to position itself as a future-oriented utility.

Currently, the SFPUC is working on various and disparate fronts to address multiple elements of workforce planning. Efforts are ongoing in Human Resources and in the enterprises and divisions across the Department. To address and maximize the effectiveness of these efforts as a whole, SFPUC will complete and implement one Department-wide Workforce Development Plan. It will define the principles SFPUC wants to embed in its culture through workforce development, and will include all aspects of workforce development and implementation. Some of these aspects include for instance: recruitment, succession planning, training, tracking, community relations, mentorships and more, as well as predictions of how workforce needs and succession planning tools will change in the next decade.

To support these efforts, new training and development activities include expanded and improved staff training, a mentorship program and mandatory managerial training as appropriate.

Finally, SFPUC will strengthen recruitment efforts by identifying target markets for anticipated positions, working with union partners to create registers to develop ongoing candidate pools, continuing to promote career pathways in trades for local students, improving the application process, and establishing a better internship and/or graduate fellowship program.
## Governance and Management

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<thead>
<tr>
<th>Goal</th>
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<tr>
<td>Ensure effective management practices, financial performance, accountability and leadership</td>
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<th>Strategies</th>
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<tr>
<td>13. Provide managers the tools &amp; opportunities to become strong leaders &amp; to exercise leadership skills</td>
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<td>14. Improve frequency &amp; effectiveness of internal communications &amp; strengthen coordination &amp; communication within &amp; across the Department</td>
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<td>15. Develop as appropriate departmental, enterprise &amp; division risk management tools</td>
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<td>16. Advance &amp; institutionalize Department-wide Sustainability Plan &amp; Program as the core of SFPUC’s strategic planning &amp; decision-making. Commit to periodic assessment &amp; public reporting on SFPUC’s Department-wide sustainability performance</td>
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<td>17. Implement Department-wide procurement procedures to ensure quality of goods &amp; services procured</td>
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<td>18. Apply the City’s environmentally preferable purchasing &amp; procurement protocol</td>
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### Governance & Management

**Introduction to Strategies 13-18**

The Governance and Management category addresses organizational policies, planning, management and accountability for which the SFPUC has established procedures and practices designed to deliver ongoing high-quality service in a fair and fiscally responsible manner. As a public agency, the SFPUC is under the scrutiny of the Commission, the Mayor, the Board of Supervisors, rate payers, and the general public, which hold it to the highest standards of operation. Good governance and best management practices are therefore essential to the successful and long term delivery of water, wastewater and electricity services to SFPUC’s customers.

Six strategies in this category are priorities for improvement. Many have a broad, over-arching reach into all aspects of the SFPUC, so improving SFPUC’s performance should have a significant impact across the Department. The most fundamental of these are Risk Management and Strategic Planning & Decision-Making. Both are examples of Department level strategies to address over-arching issues.

The initiatives and actions proposed under Governance and Management are focused on helping the SFPUC strengthen its leadership, improve coordination and collaboration across the organization, actively manage risks, improve the quality of its procurement activities and improve its sustainability performance.
**Internal Leadership**

SFPUC recognizes that its ability to respond to future challenges in the utility sector and to maintain its reliable service depends on the retention and development of its staff. To that end, SFPUC strives to create a continuous learning environment that fosters leadership throughout all levels of the Department.

In line with the training initiatives under Workforce Development Strategy 12, Strategy 13 focuses on leadership and management training and includes developing a 360° feedback mechanism to measure leadership performance effectiveness.

Tailored to skills development for each of SFPUC’s employment classifications, leadership training will allow employees to grow in the ways best suited to their career paths. Therefore, SFPUC will do the following:

- Determine the core competencies for different staff positions at the SFPUC,
- Conduct a gap analysis in 2010
- Develop training curriculum for staff and supplement those efforts with different leadership training conferences

One specific training activity being developed is a seminar with AWWA focused on a real case study at the SFPUC, which would allow SFPUC participants to apply their knowledge in a highly relevant setting. Additionally, SFPUC is exploring ways to maximize funds available for personalized training sessions and developing a list of trainers available to SFPUC managers.

As a first step to 360° feedback mentioned above, SFPUC will explore potential mechanisms for gathering and giving 360° feedback and tracking the performance of its managers, including convening a forum to help define what 360° feedback is, why it is potentially useful, and to gauge interest in it as a tool. Based on interest, the program would then be developed by Human Resources and rolled out as a pilot to a small subset of employees.

**sustainability strategy 13**

Provide managers the tools and opportunities to become strong leaders and to exercise leadership skills

**target**

100% senior managers receiving leadership training, and establish a baseline for staff evaluating managerial leadership and a target for improvement

**goal**

Promote strong leadership in the organization and the industry in which it operates

**potential benefits**

// Improve leadership and management skills across the Department
// Increase communication among and confidence in staff and management decision-making
Organizational Effectiveness

Through the sustainability planning process, the SFPUC has recognized the potential benefit of increased coordination and collaboration across the Department. Currently, the three enterprises operate with a high degree of independence and autonomy, which sometimes constrains coordination between the enterprises, divisions and bureaus. The strategy proposed for this area intends to increase such benefits as knowledge transfer, team-building and maximizing resource efficiency.

The SFPUC will introduce a handful of simple steps in the next twelve months to lay a foundation for improved communication across the organization. This will include, for instance, annual planning retreats for each enterprise, improved dissemination of information and sharing of best practices, continuing the “brown bag” lecture/discussion series and enlarging it to draw upon outside speakers to introduce fresh ideas and approaches. Steps will also include consideration of a “social committee” that serves all three enterprises and the divisions to encourage social interaction between the groups and facilitate the flow of information in informal environments. Together, these efforts intend to foster dialogue, collaboration, creativity and innovation as different perspectives come together.

In complement to these efforts, the SFPUC will also provide improved access to training on teamwork, personal accountability, cooperation, communication and commitment through partnerships with local teaching institutions, e.g. the City College of San Francisco.
Risk Management

Risk management is the process of assessing exposure to risk and developing plans, controls and systems to address that exposure. The most robust risk management strategies look beyond the traditional mindset of market, commercial and financial risk to consider other types of risk, e.g. strategic, environmental, operational, regulatory, political, labor and reputational risks.

In order to protect the health, safety, and well-being of its customers, SFPUC currently is addressing various risks through activities like the Water System Improvement Program, the Wastewater Master Plan, the Long-term Energy Plan, asset management planning, climate change partnerships and research, and daily operations maintenance. A systematic, Department-wide risk management plan, applied consistently across the enterprises and bureaus, will add value to these efforts by helping to identify other and future risks and ensure that risk exposure is reduced to a level that is acceptable to the SFPUC.

The SFPUC will consider the five main steps to develop a comprehensive risk management system:

Risk Identification: Risks are events that cause problems, if and when they occur. Risk identification typically begins with identifying sources of risk, e.g. climate change, or the problems that can arise, e.g. shift in timing of ice melt. Various methods are used to identify risks, such as scenario-analysis.

Risk Assessment: After potential risks have been identified, determine both the probability and the consequences of each. Assessing exposure helps prioritize spending for treatment. This step also occurs in the asset management planning process.

Risk Treatment: To address each of the risks identified, choose strategies and techniques from one of four main categories: avoidance, reduction, transfer or retention.

Create Risk Management Plan: Once the type of treatment has been determined, oversee the evaluation and selection of appropriate countermeasures for each risk.

Implement Risk Management Plan: Arrange the countermeasures into a comprehensive approach to implementation designed to address the most significant risks first.

Review and Evaluate Plan: Periodic reviews identify any new risks or changes in risk exposure.

Details Strategy 15
App B Pg B31
Strategic Planning & Decision-Making

Strategic planning is a comprehensive process by which an organization defines its long-term objectives, develops a framework and plans to achieve the objectives, and allocates resources for implementation.

In 2002, voters passed Proposition E which requires the SFPUC to develop a long-term strategic plan with goals, objectives and performance standards. In 2005, the City Budget Analyst’s report recommended that SFPUC develop its sustainability plan as the core of its strategic planning.

With its Sustainability Plan and Program, the SFPUC has developed a strategic triple-bottom line framework and approach to strategic/sustainability planning that fits with SFPUC’s structure and position as a City department. To build an ever more robust approach to strategic planning, the SFPUC will explore additional planning tools, such as scenario building and forecasting, to identify trends and forces in the utility sector and where it would like to be in the future. Strategic/sustainability planning will continue to be coordinated and integrated with enterprise and division level planning and activities.

The primary tools the Sustainability Plan and Program provides are the following:

- Sustainability framework, goals and indicators
- Integration with and tracking of activities across the triple bottom line and Department-wide
- Reporting protocol that includes:
  1) assessment of its performance against all its indicators and review of priority strategies every two years, and 2) quarterly and annualized reporting on a subset of its sustainability indicators

Details Strategy 16
App B Pg B33
Procurement & Contracting

The SFPUC procures a wide range of services outside of the organization to assist with delivering the best possible water, wastewater and power services to its customers. Through its procurement activities, the SFPUC can influence those suppliers of services by seeking performance that meets a minimum level of quality.

The SFPUC procures services from organizations that cover a range of industries such as:

- Primary and secondary industries delivering services such as construction and engineering
- Tertiary industries delivering professional services such as finance, communications and consulting specialists

At this point in time, data on quality performance of the services delivered to SFPUC by contractors and professional service firms is neither formally collected nor consolidated into a central resource. Implementation of this sustainability strategy presents an opportunity for SFPUC to systematize and institutionalize the process of monitoring the quality of services provided and in turn, provide feedback to the firms on their performance. This will be undertaken with due consideration for the legal limitations of current city regulations.

Strategy 17 entails introducing quality reviews and creating incentives for good performance, and may include methods such as surveys, written agreements and feasibility studies. In addition, the SFPUC will look at different means of evaluating the social and environmental performance of its contractors and consultants, and potentially include such criteria in its bidding process. Finally, the strategy will also identify opportunities to improve the efficiency of the quality review process, and areas where SFPUC can look to provide services in-house to improve staff retention and recruitment.
Sustainable Supply Chain

A wide range of goods, from engineering and construction equipment to office supplies, are needed to support the SFPUC’s operations and administrative functions. As a department of San Francisco, SFPUC follows the City’s purchasing protocols and conducts much of its purchasing via the City.

In 2005, San Francisco became the first city in the nation to enact a law that requires public health and environmental stewardship to be taken into consideration when purchasing products. This law, the Environmentally Preferable Purchasing Ordinance, is based on the Precautionary Principle. The ordinance states that the purchase of commodities by the City that meet the Precautionary Principle “will encourage market development of new, healthy, environmentally preferable technologies and products and will demonstrate the efficacy of this approach to other government agencies, residents and businesses which will help generate regional demand for healthy products, a healthy way of doing business, product innovation, and business development and competition.”

In order to provide assistance to City and County departments and employees, the Department of Environment released a factsheet providing guidance on what products conform to the approved green purchasing program and precautionary purchasing ordinance. Product categories on the factsheet include wood products, batteries, foodware, IT supplies, cleaning products, office paper, light bulbs and pest management.

The factsheet developed by the San Francisco Department of Environment provides a checklist of product categories which serves as a starting point for implementation of strategy 18, which aims to ensure that SFPUC purchasing, conducted both independently and through the City, follows the Environmentally Preferable Purchasing Ordinance.

SFPUC will begin action on this strategy with an initial screening of a sample of its purchasing decisions for compliance with the ordinance. Eventually, the strategy intends that SFPUC influence its supply chain and encourage suppliers to utilize best environmental practices.
Infrastructure & Assets

Introduction to Strategies 19 and 6 & 20

The SFPUC’s infrastructure and assets are the physical tools with which it delivers power, water and wastewater services. They include dams, pipelines, treatment facilities, hydro-electric turbines, pumping stations, administrative facilities, transmission lines, maintenance equipment, and vehicles, etc. Issues under this category cover the management, reliability and effective performance of these assets.

Effective management of SFPUC’s assets is integral to the organization’s over-arching risk management strategy (discussed in Governance and Management). Any type of system failure carries a level of business risk —the more significant the consequences of the failure, the greater the risk exposure. A comprehensive asset management process will be the over-arching framework that will drive the timely, regular and efficient maintenance and renewal of SFPUC assets.

The Water and Wastewater enterprises have taken initial steps in asset management planning by developing asset inventories. Wastewater has also completed a risk assessment on about 90% of its assets. Other initiatives related to infrastructure and assets include:

- Water System Improvement Program, the SFPUC’s capital improvement program to repair, replace and seismically upgrade the water system
- Sewer System Master Plan, the SFPUC’s capital program to repair, replace and upgrade the City’s wastewater system
- Long-term energy resource plan
- Emergency Operations Plan
- Appointment of an asset management position within the finance bureau, to work with all three enterprises and relevant divisions

Finally, it is critical that the SFPUC’s assets and operations can recover following an emergency situation, and the City can prioritize water delivery to customers least able to access alternative sources. The Resilience, Security and Reliability strategy is focused on ensuring that the SFPUC is fully prepared and ready to address emergencies and resume business operations.
The term “asset management” encompasses activities and processes used to manage and improve operations and services in order to maximize the value derived from physical assets, while controlling costs and ensuring compliance. Leading utilities employ this approach to increase reliability, improve organizational and resource efficiency, and manage operational risks. Comprehensive asset management will be an essential component of long-term capital planning at the SFPUC. It will employ a range of concepts, tools and techniques in order to deliver the most cost-effective performance for the benefit of customers at a level of risk that is acceptable to the Department.

Because asset management and system maintenance are inextricably linked, SFPUC’s asset management will provide a framework for the long-term maintenance and renewal of its water, wastewater, and power systems. An effective asset management plan will help to prioritize maintenance and renewal decisions, improve the efficiency and effectiveness of maintenance activities, and establish a more transparent, rigorous approach to system maintenance.

This approach to asset management and system maintenance embodies a paradigm shift from building and operating in the short term, to managing for the long term. The development and implementation of such a program is a challenging, complex process, drawing upon expertise from engineering, operations, maintenance, finance and IT. The benefit is that it will create significant value for the organization and ultimately lead to the lowest total cost of ownership of the SFPUC's assets.

Strategy 19 is meant to facilitate current efforts by creating a common Department-wide asset management framework that will apply to all SFPUC enterprises and divisions and to the extent possible, standardize principles, definitions, system maintenance protocols, and data collection systems. Enterprises then can apply the framework to assist their asset management initiatives. By coordinating its asset management approach with system maintenance and renewal, the SFPUC intends to make the most cost-effective use of its maintenance resources, and minimize the risk of asset failure.
Resilience, Security and Reliability

Utilities face unique challenges with regard to security and resilience. The SFPUC must take steps to protect its water supply, power generation and wastewater treatment assets in the event of various kinds of emergencies. SFPUC’s approach to emergency response is focused on protection of assets from natural or man-made disasters, developing policies and procedures to guide emergency response, and restoring services after a disaster.

The Department has already initiated the development of a security plan and program to reduce the vulnerability of the water system to contamination, terrorism and crime. A previous vulnerability assessment of the SFPUC’s assets and operations identified a range of specific risk reduction measures that the Department is in the process of implementing.

Strategies 6 and 20 focus on one of these — the Emergency Operations Plan. Developed in 2007, the draft Plan covers four aspects of minimizing service interruption:

1. Planning and mitigation
2. Preparedness
3. Response
4. Recovery

Ensuring the SFPUC can respond appropriately during a crisis requires this plan to be put into practice. The SFPUC will initiate a Department-wide training program to ensure that all employees understand their roles in an emergency situation. This will include both small- and large-scale simulations of an event, and practice of crisis communication procedures. In particular, SFPUC continues to work with the City to clarify specifically vulnerable communities/or persons, and actions that will assist vulnerable customers who rely on continuous SFPUC services.

The Emergency Operations Plan will be revisited on a regular basis to ensure that emergency procedures and crisis communication plans are up-to-date. In addition, Emergency Field Operations Guides will be distributed among staff.

sustainability strategy 6
Identify and assist vulnerable customers who are potentially or seriously affected by service interruptions

sustainability strategy 20
Roll-out the Emergency Operations Plan throughout the SFPUC

targets
Complete two tabletop exercises and a physical practice exercise with the Water, Wastewater, and Power enterprises and every SFPUC building by the end of 2010
Continue to work with the City to identify and clarify specifically vulnerable communities/or persons, and actions that will assist vulnerable customers who rely on continuous SFPUC services

goal
Improve reliability and resilience of service delivery

potential benefits
// Protect public health
// Ensure continued service delivery in an emergency
// Reduce business risk exposure
// Increase public confidence
Sustainability Plan Schedule

The schedule for budgeting strategies and associated initiatives and targets for improving performance is based on a four-year time horizon. While the timing of the individual strategies and initiatives will depend on the final allocation of budget and human resources, a preliminary schedule is given below. The strategies have been staggered in a logical order such that they build upon current initiatives, and each other, going forward.

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<th>Priority Issue</th>
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<th>FY 09/10</th>
<th>FY 10/11</th>
<th>FY 11/12</th>
<th>FY 12/13</th>
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Appendix A:

Glossary and Abbreviations

This appendix provides a glossary of terms and abbreviations used in the four SFPUC sustainability planning reports issued to date. All are available at www.sfwater.org/sustainability.
**Asset management:** Defined by the EPA as “managing infrastructure capital assets to minimize the total cost of owning and operating them, while delivering the service levels customer’s desire.”

**Baseline assessment:** Evaluation of performance in a baseline year that serves as a starting point for future evaluation of performance and long term review of trends.

**Benchmarking:** The process by which organizations evaluate their performance in relation to best practice within their own sector, or against their own past performance.

**Best Practice:** An activity or procedure that has produced outstanding results in another situation (or organization) and could be adapted to improve effectiveness, efficiency, ecology, innovation, etc. in another situation (or organization).

**Biodiversity:** The variability among living organisms within species, between species, and between ecosystems. (Source: World Resources Institute)

**Ecosystem:** A dynamic complex of plant, animal, and micro-organism communities and their nonliving environment interacting as a functional unit.

**Environmental Justice:** (various definitions) California EPA (CA Gvt. Code Section 65040.12), SFE 2005, and SFPUC CAC 2007 Resolution: The fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws and policies.

**Indicator:** A measure used to determine, over time, performance of a defined process, or function, or achievement of a defined outcome.

**Independent System Operator (ISO):** The California ISO is a not-for-profit public-benefit corporation charged with operating the majority of California’s high-voltage wholesale power grid. Balancing the demand for electricity with an equal supply of megawatts, the ISO is the impartial link between power plants and the utilities that serve more than 30 million consumers. The ISO provides equal access to the grid for all qualified users and strategically plans for the transmission needs of this vital infrastructure.

**International Organization for Standardization (ISO):** The world’s largest developer and publisher of International Standards. ISO is a network of the national standards institutes of 157 countries, one member per country, with a Central Secretariat in Switzerland, that coordinates the system. Standards ensure desirable characteristics of products and services such as quality, environmental friendliness, safety, reliability, efficiency and interchangeability —and at an economical cost.

**Materiality:** Refers to the degree to which an issue could make a major difference to an organization’s performance. According to AccountAbility, “material information provides the basis for stakeholders and management to make sound judgments about the things that matter to them, and take actions that influence the organization’s performance.” For further information, see www.accountability21.net.

**Normalization:** A means of standardizing data to a particular measure of activity (e.g. mgd water delivered), such that true performance can be seen over
time independent of variance in activity levels. “As a general rule, normalization should be based on levels of production at a facility. Production may refer to manufactured product, services rendered or delivered, or some other productive output from the facility.”  
(Source: USEPA)

**Stakeholders:** Those individuals and groups that affect and/or are affected by the organization and its activities.  
(Source: AccountAbility Assurance Standard 2003)

**Standards:** Policies, regulations, measures or practices that establish an industry norm; standards are established typically by authority, custom, or general consent.

**Strategic Planning:** The process of identifying an organization’s long-term goals, determining the best approach for achieving those goals and allocating adequate resources (including capital and people) for implementation.

**Strategic Business Plan:** A tool for making resource allocation decisions among core business functions, and investments in expanding and/or diversifying business functions, in a way that positions the utility to increase value to customers/shareholders.  
(Source: AwwaRF 2003)

**Sustainability:** For the SFPUC, the framework through which it will responsibly manage the resources under its care, protect public health and balance its social and environmental responsibilities to the citizens and community, while providing cost effective services to its ratepayers.

**Sustainability Performance:** An organization’s total performance, which include its policies, decisions, and actions that create social, environmental and/or economic (including financial) outcomes.  
(Source: AccountAbility Assurance Standard 2003)

**Sustainability Plan:** A plan that identifies key priorities, actions, targets, responsibilities, resources and timetable for a business or organization to implement its environmental, economic, and social strategies for improving overall performance.

**Sustainability Reporting:** The act of publicly reporting on environmental, social, and economic management and performance. The internationally recognized standard is the Global Reporting Initiative’s Sustainability Reporting Guidelines.

**Sustainable Development:** Defined in the 1987 Brundtland Report (“Our Common Future”) as development that “meets the needs of the present without compromising the ability of future generations to meet their own needs.”

**Triple Bottom Line:** Refers to broadening the traditional bottom line perspective for evaluating business performance that is focused solely on financial performance to take into account the environmental and social impacts associated with business activities. The term “triple bottom line” is attributed to John Elkington, co-founder of the UK based consultancy SustainAbility.

**Triple Bottom Line Reporting:** Systematic management, performance, improvement and public disclosure in environmental, economic, and social dimensions at local, regional, and global scales.  
(Source: AwwaRF 2007)
| **AGM:** | Assistant General Manager |
| **AMI:** | Advanced metering infrastructure |
| **AWWA:** | American Water Works Association |
| **BAAQMD:** | Bay Area Air Quality Management District |
| **BAWSCA:** | Bay Area Water Supply and Conservation Agency |
| **BLS:** | Bureau of Labor Statistics |
| **CAC:** | Citizens' Advisory Committee |
| **CAP:** | Community Assistance Program |
| **CBA:** | Collective bargaining agreement |
| **CCSF:** | City and County of San Francisco |
| **CEQA:** | California Environmental Quality Act |
| **CT:** | Combustion Turbine |
| **Cu. ft.:** | Cubic feet |
| **CPUC:** | California Public Utilities Commission |
| **DDA:** | Deferred & Deviation Accounts |
| **DHR:** | Department of Human Resources (CCSF) |
| **DMRP:** | Dental Mercury Reduction Program |
| **DPW:** | Department of Public Works (CCSF) |
| **EJ:** | Environmental Justice |
| **EBMUD:** | East Bay Municipal Utility District |
| **EBRPD:** | East Bay Regional Parks District |
| **EMS:** | Environmental Management System |
| **EOP:** | Emergency Operations Plan |
| **EPA:** | Environmental Protection Agency |
| **ERP:** | Electricity Resource Plan |
| **ESG:** | External Stakeholders Group |
| **FOG:** | Fats, oils and grease |
| **FTE:** | Full-time equivalent |
| **GHG:** | Greenhouse gases |
| **GM:** | General Manager |
| **GRI:** | Global Reporting Initiative |
| **HCP:** | Habitat conservation plan |
| **HR:** | Human Resources (SFPUC) |
| **HRC:** | Human Rights Commission |
| **IB-NET:** | International Benchmarking Network for Water and Sanitation Utilities |
| **IHA:** | International Hydropower Association |
| **ISO:** | Independent System Operator |
| **ISO:** | International Organization for Standardization |
| **IT:** | Information Technology |
| **KW:** | Kilowatt |
| **KWh:** | Kilowatt hours |
| **LMS:** | Learning management system |
| **MEA:** | Municipal Executives’ Association |
| **MGD:** | Million gallons per day |
| **ML:** | Million liters |
| **MOU:** | Memorandum of Understanding |
| **MW:** | Megawatt |
| **MWh:** | Megawatt hour |
| **O&M:** | Operations & Maintenance |
| **OSHA:** | Occupational Safety & Health Administration |
| **PEER:** | Public Entity EMS Resource |
| **PEIR:** | Program Environmental Impact Report |
| **PG&E:** | Pacific Gas & Electric |
| **PV:** | Photovoltaic |
| **RCD:** | Resource Conservation District |
| **RFP:** | Request for Proposals |
| **RFQ:** | Request for Qualifications |
| **R&R:** | Repair & Replacement |
| **ROA:** | Return on Assets |
| **ROW:** | Right of Way |
| **SCL:** | Seattle City Light |
| **SFE:** | Department of the Environment (CCSF) |
| **SFPUC:** | San Francisco Public Utilities Commission (CCSF) |
| **SSG:** | Sustainability Strategy Group |
| **SSMP:** | Sewer System Master Plan |
| **TBD:** | To be determined |
| **TBL:** | Triple Bottom Line |
| **WSIP:** | Water System Improvement Program |
| **WSPP:** | Western Systems Power Pool |
| **WWTP:** | Wastewater treatment plant |
Appendix B:
Strategy Blueprints for Improving Sustainability Performance

PHOTO: WILLIAM SEARS
STRATEGY 1

IMPLEMENT THE MEASURES IN THE WATER ENTERPRISE
ENVIRONMENTAL STEWARDSHIP POLICY RELATED TO FISH
PROTECTION AND RESTORATION, HABITAT CONSERVATION AND
BIODIVERSITY PROTECTION AND INSTREAM FLOW AND QUALITY.

Indicators

| EN 1.2 | Plans created for comprehensive protection and restoration of native fish populations in SFPUC watersheds and performance monitored |
| EN 2.1 | Habitat conservation plans developed for all watersheds in consultation with stakeholders, and with clear goals, targets, monitoring and reporting of results |
| EN 4.1 | Policies are developed for releases and downstream water quality, and performance regularly monitored and reported |

Targets (4 Years)

| EN 1.2 | Baseline score: 2 | Implement conservation strategy through HCPs for Alameda and Peninsula watersheds |
| EN 2.1 | Baseline score: 2 | Complete HCPs for Alameda and Peninsula Watersheds |
| EN 4.1 | Baseline score: 2 | Apply Water Enterprise Environmental Stewardship Policy to all releases and downstream water quality; continue implementing existing agreements in Upper Tuolumne and Alameda Creek |

Standard Applied to above Indicators

Regulatory Standard: Applicable federal, state, and regional laws, other regulations and requirements (e.g., California Department of Fish and Game Codes, State Water Resources Control Board Water Quality Control Plans, federal Endangered Species Act, etc.)

Responsibility

(Unless otherwise noted) Division Manager, Natural Resources and Land Management

Estimated Cost

Budget for HCPs and Lake Merced TBD based on final plans; maintain current monitoring budget

Initiatives and Actions

A. To support the HCPs, develop hydrology models to determine instream flows in Alameda Creek and Pilarcitos Creek.
   1. Develop daily hydrology model for Alameda Creek. Timeline: FY 08/09

PRIORITY ISSUE: HABITAT, BIODIVERSITY & LAND MANAGEMENT
Initiatives and Actions (cont.)

2. Complete HCP for Alameda Watershed. FY 10/11
3. Complete daily hydrology model for Pilarcitos Creek. FY 09/10
4. Complete HCP for Peninsula Watershed. FY 11/12

B. Implement Alameda Creek MOU Phases 2&3.
   1. Complete Phase 2 of MOU. FY 08/09
   2. Complete Phase 3 of MOU. TBD

C. Under the WEIP acquire easements to land above SFPUC reservoirs, e.g. through partnership with The Nature Conservancy.
   1. Finish the easement MOU with Alameda County RCD and The Nature Conservancy. FY 08/09
   2. Bring the easement agreements to the Commission for approval. FY 08/09
   3. Work with Alameda County RCD and the Nature Conservancy to develop outreach to acquire easements. FY 09/10
   4. Conduct appraisals and negotiations accordingly. Ongoing once easements acquired

D. Revise and implement existing agreements with the Department of the Interior for flow releases below O'Shaughnessy Dam, in coordination with the U.S. Fish and Wildlife Service.
   1. Continue to support the Upper Tuolumne River Ecosystem Project. Ongoing
   2. Implement initial environmental flow recommendations for O'Shaughnessy Dam, developed as part of the Upper Tuolumne River Ecosystem Project. FY 09/10
   3. Implement and monitor accordingly. Ongoing

   Responsibility: Program Manager for Lake Merced Programs
   1. Complete Lake Merced Watershed Management Plan, establishing a vision for long-term management, operations, and capital investment at the lake. FY 09/10
   2. Implement plan actions and proposed projects. TBD

F. Complete an analysis of the structural integrity of the Niles Gage weir structure. Determine whether or not the weir should be replaced or repaired and include fish passage solutions.
   1. Complete structural integrity assessment. FY 08/09
   2. Depending on the assessment outcome, take further steps based on recommendations. FY 09/10

G. Implement the Integrated Watershed Management Plan for Pilarcitos Creek.
   1. Finalize the Integrated Watershed Management Plan, including an implementation plan. FY 09/10
   2. Begin implementation. FY 10/11

H. Actively monitor the health of terrestrial and aquatic habitats both under SFPUC ownership and affected by SFPUC operations in order to continually improve ecosystem health.
   1. Implement monitoring for HCPs and capital projects once they have gone through CEQA. TBD
Initiatives and Actions (cont.)

2. Continue to fund and implement Upper Tuolumne Ecosystem Studies, including ongoing monitoring and adaptive management strategies.
   Timeline: Ongoing

3. Continue monitoring through the 1997 Department of Fish and Game MOU on Upper Alameda Creek, Calaveras Creek, Arroyo Hondo, San Antonio Creek, La Costa Creek, and Indian Creek.
   Timeline: Ongoing

I. Establish relevant performance measures and indicators for implementation of the Water Enterprise Environmental Stewardship Policy.

1. Assess current implementation efforts.
   Timeline: FY 08/09

2. Establish monitoring methods as appropriate.
   Timeline: FY 09/10

3. Track and report on implementation.
   Timeline: FY 10/11
STRATEGY 2

BUILD PARTNERSHIPS AND AGREEMENTS TO INCENTIVIZE WATER CONSERVATION, RECYCLED WATER, AND GROUNDWATER; ADVANCE PROGRAMS FOR RECYCLED WATER, GROUNDWATER, DESALINATION, STORMWATER AND RAINWATER COLLECTION AND/OR OTHER INNOVATIVE TECHNOLOGIES AND PRACTICES TO MAINTAIN AND INCREASE WATER SUPPLY DIVERSITY.

PRIORITY ISSUES: WATER SUPPLY AND CONSERVATION

Indicators

<table>
<thead>
<tr>
<th>EN 6.1</th>
<th>Total amount of water sold to retail and wholesale customers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Standard / Best Practice</strong></td>
</tr>
<tr>
<td></td>
<td>FY 05/06 data included only domestic and total water use in San Francisco or 126.3 mgd; It did not include wholesale customers</td>
</tr>
<tr>
<td></td>
<td><strong>Baseline score:</strong> N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EN 6.2</th>
<th>Water use reduction achieved by customers as a result of SFPUC conservation programs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Standard / Best Practice</strong></td>
</tr>
<tr>
<td></td>
<td>East Bay MUD produces annual reports on the implementation and achievements of its water conservation and recycling programs</td>
</tr>
<tr>
<td></td>
<td><strong>Baseline score:</strong> 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EN 8.2</th>
<th>% total water supplied by new or alternative sources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Standard</strong></td>
</tr>
<tr>
<td></td>
<td>Standard needed</td>
</tr>
<tr>
<td></td>
<td><strong>Baseline score:</strong> N/A</td>
</tr>
</tbody>
</table>

Targets (4 Years)

- Sell no more than 265 MGD from SFPUC watersheds

Responsibility

Assistant General Manager for Water

Estimated Cost

Conservation Actions: no additional costs now; Water Supply Actions: advanced metering infrastructure (AMI) ~$60M RFP thru installation for automated metering
Initiatives and Actions

A. Implement the Water Enterprise Business Plan Water Resources Management strategies to achieve a minimum of 1.6 MGD in water savings each year over the next 10 years that would offset surface water demand in SFPUC’s entire service area.

i. Support and provide incentives for, and partner on, conservation, recycled water and groundwater programs in the wholesale service area and regional projects in the retail service area.

1. Pursue grant funding for water conservation, recycled water, and desalination studies and implementation. Ongoing
2. Complete and evaluate pilot of performance-based water conservation rebate program. FY 09/10
3. Continue providing rebates and financial incentives that promote installation of efficient fixtures. Expand programs for the commercial sector. Ongoing
4. Develop and launch water education program in schools. FY 08/09
5. Promote conservation through outreach activities, such as vendor visits, community events, bill inserts, advertising, campaigns and other messaging. Ongoing
6. Continue water conservation residential and commercial audit program. Ongoing
7. Pilot direct-install and audit program for low-income customers. FY 08/09 and then ongoing for 2-3 yr program

ii. Continue to partner with and expand initiatives to coordinate efforts between water utilities in the 9 Bay Area counties. Continue to create and expand forums to share information and successes among the various water utilities in and outside the region. Develop a coordinated region-wide conservation education campaign.

1. Continue Water Saving Hero regional conservation campaign, with SFPUC as lead agency. FY 08/09
2. Continue regional washing machine rebate program. Ongoing 3 yr program
3. Pursue grant funding for regional rebate and outreach programs. Ongoing
4. Continue involvement with the California Urban Water Conservation Council, promoting conservation statewide through best management practices. Ongoing

iii. Evaluate the institutional and operational feasibility of water transfers between the wholesale customers to limit the need for additional purchases from the SFPUC. Report on progress.

iv. Continue efforts to propose legislation on water use efficiency, e.g. on-site water recycling for new construction, building code changes to incentivize water conservation and recycling, and/or reducing water consumption in new developments by requiring “green building.”

1. Promote conservation through local ordinances and codes such as retrofit on resale for existing structures, green building ordinance for new construction and plumbing code updates for fixture efficiencies. Ongoing
Initiatives and Actions (cont.)

2. Engage in statewide legislation related to efficiency such as greywater permitting, setting conservation targets, plumbing standards, etc.

Ongoing

v. Evaluate current water savings potential of existing conservation initiatives in relation to water consumption among the different customer classes and as appropriate develop/modify and introduce new initiatives to achieve reductions in San Francisco water use.

1. Track water use and program impacts by customer class, adapt programs accordingly (see A ii).

FY 09/10

2. Finalize end-use study of single family homes.

FY 09/10

vi. Introduce appropriate measures to initiate, over a specified term, conservation for San Francisco municipal departments.

1. Provide technical assistance program for municipal customers.

FY 09/10

2. Offer financial incentives that promote efficiency to municipal customers.

Ongoing

3. Track municipal water use.

FY 09/10

4. Explore partnership opportunities to promote conservation in municipal accounts - priorities include addressing landscape water use with Rec & Park and working with DPW.

Ongoing

vii. Continue implementing the advanced meter infrastructure and implement additional related technologies as appropriate. Evaluate the feasibility of submetering. Report on progress.

1. AMI consultant team selection.

FY 09/10

2. AMI installation.

FY 09/10

3. Conduct analysis of feasibility of submetering.

FY 10/11

B. Evaluate feasibility of potential new programs for diverse water supply. Establish incentives to encourage customers to incorporate programs.

1. Initiate recycled water feasibility studies within SFPUC service area.

Ongoing

2. Initiate and/or complete agreements with partner agencies to support and develop recycled water, groundwater and desalination projects.

Ongoing

3. Explore means of using rainwater collection cisterns as an auxiliary water support system in the City or as a supplement to individual retail customer water supply.

Ongoing

C. Advance implementation of new and existing groundwater / desalination / recycled water / stormwater and rainwater collection and reuse programs. Report on progress.

1. Prepare CER for groundwater and recycled water projects.

Ongoing

2. Initiate environmental review for groundwater and recycled water projects.

Ongoing

3. Construct groundwater monitoring wells.

Ongoing

4. Obtain necessary permits for water supply construction projects.

Ongoing
STRATEGY 3

DEVELOP A PROGRAM AND FINANCING MECHANISM TO IMPLEMENT SFPUC’S LONG TERM ENERGY RESOURCE PLAN.

PRIORITY ISSUE:
POWER SUPPLY AND ENERGY CONSERVATION

Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 13.1</td>
<td>Efforts to undertake long term integrated resource planning to meet future demand in a reliable and sustainable manner</td>
<td>Baseline score: 2</td>
</tr>
<tr>
<td>EN 13.2</td>
<td>% energy supplied from renewable sources</td>
<td>Baseline score: 4</td>
</tr>
<tr>
<td>EN 13.4</td>
<td>% power supplied vs. forecasted</td>
<td>Baseline score: N/A</td>
</tr>
</tbody>
</table>

Targets (4 Years)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 13.1</td>
<td>Complete a long term energy resource plan with supporting modeling functionality; ensure two years of implementation by 2013</td>
</tr>
<tr>
<td>EN 13.2</td>
<td>90% (includes SFPUC hydropower)</td>
</tr>
<tr>
<td>EN 13.4</td>
<td>100%</td>
</tr>
</tbody>
</table>

Responsibility
Assistant General Manager for Power Enterprise

Estimated Cost
Covered under existing budget, except for additional solar projects to reach goal of 67 total MW of municipal photovoltaics (PV) (Initiative B2).

Initiatives and Actions

A. In conjunction with City initiatives, directives and ordinances, develop a strong renewable energy policy that sets portfolio targets and provides a long-term framework to achieve goals without compromising the financial stability of the Department.

1. Implement an aggressive program and policy for the development of renewable resources.

Timeline

Ongoing
Initiatives and Actions (cont.)

2. Identify long-term needs for additional resources to meet municipal load, redevelopment load and any other load served by the Power Enterprise.

B. Identify and evaluate opportunities to increase renewable energy supply in SFPUC's power mix.
   1. Work in conjunction with the Water Enterprise to identify micro-hydro projects (including in-line); study and evaluate potential opportunities, and develop and implement projects that are considered to be economic and feasible.
   2. Develop an additional 7 MW of solar PV projects with a long-term potential for approximately 67 MW of municipal PV in total.
   3. Evaluate the potential for longer-term deployment of other renewable technologies, including wave, geothermal, offshore wind, solar thermal electric and others.
   4. Evaluate opportunities for using emissions-free Hetch Hetchy power for electric-drive applications within the City agencies, for instance support development and use of lithium-ion battery and ultra-capacitor technology.

C. Expand services to provide technical advice to City agencies on design and implementation of energy efficiency measure, as well as financing of improvements through net operating revenues allocated to the Sustainable Energy Account.
   1. Continue to provide technical assistance to Municipal departments for energy audits, design, and construction management services.
   2. Support Municipal departments in their efforts to meet legislated energy efficiency and environmental goals.
   3. Investigate alternative long-term program funding sources, including loans and grants.

D. Provide technical assistance and financing to implement energy efficiency projects for electric customers.
   1. Continue to identify, audit, design and construct energy efficiency savings projects.

E. Develop a “sustainable energy financing” fund from which the SFPUC can finance energy projects for non-municipal customers at a favorable rate.
   1. Identify sources of funding - consider using a loan structure and/or raising rates and directing a portion of the increased revenue to dedicated fund.
   2. Continue to implement ordinances to establish solar energy incentive programs for San Francisco residential, commercial, industrial, and non-profit property owners to install PV systems within San Francisco.

Timeline

- Ongoing
- Ongoing identification and evaluation; development and implementation in FY 11/12
- FY 09/10 for the initial 7 MW; Full 67 implemented by FY 12/13 if financing received
- Potential for wave power evaluated by 08/09; all others evaluated by FY10/11
- FY 11/12
- Ongoing
- FY 09/10, and then ongoing
- Ongoing
- Beginning FY 11/12 and then ongoing
- Beginning FY 11/12 and then ongoing
- Ongoing
STRATEGY 4

WHERE APPROPRIATE, DEVELOP ENVIRONMENTAL MANAGEMENT SYSTEM(S) MODELED AFTER THE INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO) 14001 ENVIRONMENTAL MANAGEMENT STANDARD.

PRIORITY ISSUE: ENVIRONMENTAL MANAGEMENT SYSTEMS

Indicators

<table>
<thead>
<tr>
<th>EN 15.1</th>
<th>% of processes, programs, sites covered by an Environmental Management System (EMS)</th>
</tr>
</thead>
</table>

Standard / Best Practice

The International Hydropower Association Sustainability Guidelines advocate that hydropower operators adopt internationally recognized environmental management systems (such as ISO 14001).

Environmental Management Systems represent a best practice approach advocated by organizations such as the EPA. The EPA asserts an EMS can help organizations to improve environmental performance; become more competitive; save money; streamline operations; boost their public image; retain valuable employees; and better manage environmental legal obligations.

Responsibility

Assistant General Manager for Wastewater Enterprise

Estimated Cost

Covered under existing budget for now; $250,000 will be needed to launch any additional EMS’s in other divisions

Initiatives and Actions

A. Where appropriate, develop EMS’s for SFPUC operations. Refer to PEER (Public Entity EMS Resource) center for EMS guidance, and use their Common Management Framework for Utilities as a basis.

Timeline

Baseline score: 2

Targets (4 Years)

Pilot EMS project implemented and evaluated by 2011

Develop timetable for implementation of any additional EMSs by 2011
<table>
<thead>
<tr>
<th>Initiatives and Actions (cont.)</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hold an orientation workshop with involved staff to learn about the benefits, requirements and steps for setting up an EMS. Utilize PEER and Environmental Protection Agency staff for guidance.</td>
<td>FY 09/10</td>
</tr>
<tr>
<td>2. Choose an EMS pilot project (Wastewater Collection System Group). Analyze how and whether EMS's could benefit the SFPUC, and how current compliance and reporting might fit into an EMS.</td>
<td>FY 09/10</td>
</tr>
<tr>
<td>3. Evaluate pilot project success.</td>
<td>FY 11/12</td>
</tr>
<tr>
<td>4. Develop a timetable for any additional EMSs as appropriate.</td>
<td>FY 11/12</td>
</tr>
</tbody>
</table>
STRATEGY 5

ACHIEVE CONTINUOUS REDUCTION OF SFPUC IN-HOUSE ENVIRONMENTAL IMPACTS.

Indicators

**EN 16.1** Direct and indirect greenhouse gas (GHG) emissions per year per MGD

*Standard / Best Practice*
FY 05/06 performance will be set as the benchmark to compare against in future years. California Global Warming Solutions Act 2006 seeks to reduce state-wide GHG emissions to 1990 levels by 2020.

**EN 17.1** Direct energy consumption broken down by source:
- Water: MWh/million gallons of water delivered
- Wastewater: MWh/million gallons of wastewater treated
- Power: KWh energy used per street light
- MWh energy used per square foot at SFPUC offices and facilities

*Standard / Best Practice*
The 2005-2006 Water UK benchmark for this indicator are:
- Water: 2.2 MWh/million gallons of water delivered
- Wastewater: 2.4 MWh/million gallons of wastewater treated
- Power: 328 KWh energy used per street light
- MWh energy used per square foot at SFPUC offices and facilities TBD

**EN 18.1** % of SFPUC new buildings or major renovations that meet LEED silver standards or above

*Standard*
The City’s Green Building Ordinance requires all newly designed municipal buildings and major renovations to be certified to LEED Silver level.

Targets (4 Years)

- Work with the City to clarify 1990 SFPUC emissions, and work toward reductions in accordance with City targets and protocol
- Maintain or improve energy intensity level at the following for each enterprise (assume figures provided by SFPUC include all energy used by enterprises):
  - Water: 0.52 MWh/million gallons of water delivered
  - Wastewater: 2.16 MWh/million gallons of wastewater treated
  - Power: 328 KWh energy used per street light
  - MWh energy used per square foot at SFPUC offices and facilities TBD
EN 19.2 % SFPUC in-house waste diverted from landfill

**Standard**
The City of San Francisco diverts an average of 67% of its waste from landfills, and is targeting 75% by 2010

**Baseline score:** 2

**Targets (4 Years):** Diversion of 50% by 2010, 75% by 2015, and 100% by 2020

EN 19.3 Chemicals used in treatment and operations (tons)

**Standard / Best Practice**
Water UK benchmark for chemical usage:

- to supply 1Mi water = 0.07 tonnes of chemicals
- to treat 1Mi sewage = 0.07 tonnes of chemicals

Work with SFE to review chemical use in terms of relative public health risk in production, delivery, use, and disposal and establish a target(s) for reduction

EN 20.2 % of employees commuting by walking, biking, public transit, carpool on regular basis

**Standard / Best Practice**
SFPUC performance will be set as the benchmark to compare against in future years

**Baseline score:** 2

**Targets (4 Years):** Complete survey to establish a baseline by 2010 and establish a target for reduction

EN 21.1 Total water consumption (at SFPUC facilities and offices) based on metered data

**Standard**
Reporting on this indicator is advocated by the Global Reporting Initiative (GRI)

**Baseline score:** 2

**Targets (4 Years):** Establish a baseline by FY09/10, and set a target for improvement

**Responsibility**
General Manager

**Estimated Cost**
Approximately $100,000 for one full-time equivalent (FTE) or current dedicated staff to coordinate and manage an SFPUC in-house impacts strategy and collaborate with San Francisco Dept. of Environment (SFE) and other San Francisco Departments to implement and track progress over time.
Initiatives and Actions

A. Systematize SFPUC-wide efforts to track, manage, report on and reduce in-house environmental impacts such as greenhouse gas emissions, resource consumption (water and energy), green building, transportation and waste management.

1. Hire or dedicate one current qualified full-time staff person to collaborate with SFPUC enterprises and divisions, SFE and other City departments to monitor, collect and manage data on SFPUC’s in-house environmental impacts for sustainability assessment and reporting purposes; and to coordinate actions and educate staff to improve SFPUC’s performance.

Staff person will:

a. Use sustainability indicators, framework and assessment cycle to develop a plan outlining activities to reduce in-house environmental impacts and establish targets for improved performance.

b. Design and implement staff collaboration and education program(s) to encourage improved performance.

c. Coordinate with Strategy 18A for sustainable supply chain initiatives.

Timeline

FY 08/09
### STRATEGIES 7 & 8

**DEVELOP REVENUE REQUIREMENTS AND RATE DESIGN POLICIES FOR POWER CUSTOMERS (7).**

**MOVE TOWARDS CONSERVATION-BASED RATE STRUCTURES FOR ALL WATER, WASTEWATER AND POWER CUSTOMERS (8).**

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#### Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Targets (4 Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR 6.2</td>
<td>% of water and power delivered to municipal customers free of charge or at rates below full cost of service</td>
</tr>
<tr>
<td>CR 6.3</td>
<td>Average price per: KWh municipal power delivered, 100 cubic ft wastewater treated, 100 cubic ft water delivered, For all as % average cost to deliver</td>
</tr>
<tr>
<td>CR 6.4</td>
<td>% rate and fee structure that encourages conservation and is designed to reduce peak demands on the system</td>
</tr>
</tbody>
</table>

#### Standards Applied to Above Indicators

AWWA official policy is that rates, fees and charges should be set to “enable utilities to provide for: annual operation and maintenance expenses; capital costs (e.g., debt service and other capital outlays); and adequate working capital and required reserves.” The EPA encourages conservation rates and includes a discussion of conservation rate structures in its “Water Conservation Plan Guidelines”.

#### Responsibility

Assistant General Manager Business Services

#### Estimated Cost

No additional budget; Approximately $300,000 already funded in FY 08/09 budget

#### Initiatives and Actions (Strategy 7)

**A.** Charge municipal accounts a rate that reflects cost of providing service (and ensures ongoing healthy operation and maintenance).

1. Municipal water and waste rates reflect cost of providing service through the Budget and Financial Audit.  
   **Timeline:** Annually recurring

2. Initiate efforts to charge municipal power accounts a rate that reflects cost of providing service and/or clarify prevailing protocol and targets to improve service cost coverage.  
   **Timeline:** Ongoing
Initiatives and Actions (Strategy 8)

A. Complete current 5-year rate structure study for retail water and waste, and complete cost of service study and revenue requirement analysis, and options for rate design for power.
   1. Complete current rate structure study for retail water and waste FY 08/09 (Feb–March 2009)
   2. Complete current cost of service study and revenue requirement analysis for Power FY 08/09 (June-July 2008)
   3. Complete rate design for service to current and potential Power customers, which includes options for different rate structures to achieve energy efficiency and conservation, low-income customer rate subsidies, and fund public interest programs like energy efficiency rebates and renewable generation incentives. FY 08/09 (Sep-Oct 2008)

B. Include in all future rate structure studies evaluation of the benefits/conservation potential and impacts to customers, options for different rate structures including options with banking mechanisms for future risk exposure, impacts of wholesale conservation pricing mechanisms, proposed rate levels, implementation mechanisms, phasing options, protection measures for vulnerable/poor customers and overall impact to SFPUC revenues.
   1. Apply as minimum to all future rate studies – Water and Wastewater FY 08/09 ongoing
   2. Apply as minimum to all future rate studies – Power FY 08/09 ongoing
STRATEGY 9
PREVENT, MITIGATE, AND LESSEN DISPROPORTIONATE ENVIRONMENTAL IMPACTS ON COMMUNITIES IN ALL SFPUC SERVICE AREAS.

Indicators

**CY 1.2** The nature and extent of environmental impacts attributable to the SFPUC that are disproportionately impacting communities in its service areas

Baseline score: 2

**CY 1.3** Initiatives to prevent, address, and lessen disproportionate environmental impacts attributable to the SFPUC, and monitoring results

Baseline score: 3

Targets (4 Years)

- Address and lessen the nature and extent of environmental impacts attributable to the SFPUC that are disproportionately impacting communities in its service areas
- Develop and adopt an environmental justice policy;
- Complete environmental review of Sewer System Master Plan;
- Initiate construction of new digester

Standards Applied to Above Indicators

City’s Precautionary Principle
2002 Proposition E
California EPA Environmental Justice Standards
Federal EPA Environmental Justice Standards

Responsibility

General Manager

Estimated Cost

No additional budget for development of environmental justice (EJ) policy; SSMP will cost $3.7 to $4.3 billion over 15 years

Initiatives and Actions

A. Formally develop and adopt an EJ policy for the SFPUC. Provide training on EJ issues within the SFPUC.

1. Evaluate CAC resolution including standards used to develop the policy and potential effects on SFPUC operations and activities. FY 09/10

2. Prepare presentation of policy to and consideration by Commission. FY 09/10

3. Develop a protocol to identify potential disproportionate impacts on affected communities at the beginning of the environmental assessment for proposed SFPUC projects. FY 09/10

Timeline
4. In conjunction with Workforce Development strategies and initiatives, develop and implement training on EJ issues for SFPUC staff.

B. Adopt a goal to equalize impacts and mitigation efforts for facilities regardless of neighborhood location (e.g. Southeast Plant should not have worse impacts on its surrounding communities than does Oceanside). Establish and report against metrics to measure how SFPUC actions are improving the situation for communities already affected by disproportionate environmental impacts.
   1. Use the Sewer System Master Plan’s (SSMP) internal metrics to measure how SFPUC actions are affecting environmental justice impacts. The metrics should be based on and applicable to the different projects that SFPUC undertakes.

C. Develop a long-term initiative to eliminate disproportionate odor, noise, and related impacts of wastewater treatment plants for local neighborhoods.
   1. Implement the SSMP.

D. Identify and partner with organizations in communities affected by disproportionate environmental impacts of SFPUC activities to establish and fund appropriate projects.
   1. Continue community outreach activities like career fairs; continue partnering efforts to benefit identified EJ communities.
   2. Focus on mitigation of disproportionate impacts through initiatives like the SSMP under B1 and C.
Indicators

**WP 3.2**  
% satisfaction among current employees

**Standards / Best Practice**
AWWA advocates recognizing employees who offer excellent service or obtain and utilize skills or certification beyond those required and development of employee retention plans that offer utility employees work opportunities and special assignments that develop the knowledge, skills, and abilities required in more responsible and/or promotional positions designed to maintain continuity and stability in water utility operations.

According to the National Business Research Institute, employee satisfaction surveys allow for increased productivity, job satisfaction, and loyalty by identifying the root causes of employee satisfaction and targeting these areas.

**WP 3.3**  
% exit interviews conducted

**Standard**
It is good practice for an organization to conduct exit interviews for all employees, or at least an adequate cross section of employees.

Responsibility
Director, Human Resource Services

Estimated Cost
Less than $100,000 for mentoring tests and e-learning courses; $10,000 for employee engagement survey
Initiatives and Actions

A. Introduce annual employee engagement survey. Monitor annually against indicators provided in baseline assessment: % satisfaction among current employees (WP 3.2), % of staff and of management that rate coordination across enterprises and divisions as good or better (GM 8.1 under organizational effectiveness Strategy #14), and % of staff and of management that rate internal communications efforts as good or better (GM 8.2 under organizational effectiveness Strategy #14).

1. Identify good employee engagement surveys as best practices. FY 08/09
2. Develop a survey tool and conduct survey. FY 08/09

B. Investigate and establish as appropriate new performance evaluation tools.

1. Perform a best practices analysis to find an appropriate performance evaluation tool for different job classifications, subject to approval by the City’s centralized Human Resources Department. FY 09/10
2. Contact MEA to see whether they already use a performance evaluation tool. FY 09/10
3. Meet with City Human Resources to come up with an evaluation that’s easier to use. FY 09/10
4. Introduce appraisal process that includes 360 degree feedback for managers, provides training and guidelines to supervisors, reminds employees of training targets, aligns with SFPUC mission/goals, clearly outlines job classification and hierarchy and provides opportunities to identify training/development. Ensure appraisals are carried out for all staff. FY 10/11
5. Conduct a forum to help define what 360 degree feedback is and why it is potentially useful, and to gauge interest in it as a tool. FY 09/10
6. If found appropriate, begin 360 degree feedback process with a small subset of employees, potentially starting with senior staff. FY 09/10

C. Design/encourage employee rotation program at lower levels (e.g. engineers, clerical, finance) – rotate employees across bureaus. Identify pilot classifications that would most benefit from the program and begin with those.

1. Meet with the enterprise/division Assistant General Managers and see if they are interested in this type of rotational program. Identify one position that they might be willing to rotate, and do a pilot project with that position. FY 09/10
2. Choose classifications (potentially 1822, 1823, and 1824) that would be appropriate for a rotation program. FY 10/11
3. Explore the possibility of doing a rotation program with 0922 managers. FY 10/11
4. Determine whether rotation would be voluntary, and identify rotational period. FY 10/11
**Initiatives and Actions (cont.)**

<table>
<thead>
<tr>
<th>D. Maximize utility of Currents Suggestion Box to ensure feedback is given to the person submitting the inquiry in a timely manner.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Re-launch the suggestion box with a different name and more accountability, potentially run through a long-range/strategic planning arm of Business Services.</td>
</tr>
<tr>
<td>2. Solicit questions through the suggestion box and answer submissions promptly. Put questions and responses on Currents.</td>
</tr>
<tr>
<td>E. Expand orientation to be more comprehensive, e.g. an ongoing process over a one year period that includes focus groups and surveys as check-in mechanisms.</td>
</tr>
<tr>
<td>1. Conduct a survey of all employees who have gone through orientation in the last fiscal year 3 months and 6 months after the orientation to get ideas on how it could be improved.</td>
</tr>
<tr>
<td>2. Modify orientation accordingly.</td>
</tr>
</tbody>
</table>
## STRATEGY 12

**FASTRACK CURRENT INITIATIVES TO STREAMLINE AND ACCELERATE HIRING PROCESSES; AND IN CONJUNCTION WITH ENSURING THE SUCCESS OF EMPLOYEES HIRED, DEVELOP AND IMPLEMENT SUCCESSION PLANS, KNOWLEDGE CAPTURE AND TECHNICAL TRAINING.**

### Indicators

| WP 6.1 | Average # days to fill vacant position from date the requisition is issued | Baseline score: 2 | Targets (4 Years) | 60 days from the date the requisition is issued |
| WP 6.2 | # Positions remaining unfilled over 2 months due to lack of suitable candidates or outreach | Baseline score: 2 | 0 |
| WP 6.3 | % first choice candidates accepting a position at SFPUC (acceptance rate) | Baseline score: 2 | 75% |

**Standard / Best Practice**

According to Hays, a global recruitment and HR consulting firm, employers need to ensure their recruitment process is smooth and timely in order to secure the strongest candidates.

| WP 8.1 | Average hours of training per year per employee broken down by employee category | Baseline score: 4 | Maintain or improve performance |

**Standard / Best Practice**

According to WaterUK, the number of hours of training per employee was 17 per year in FY 05/06.

| WP 8.2 | % employees satisfied with quantity and quality of training and development | Baseline score: 3 | 75% |

**Standard**

Standards needed. FY 05/06 performance set as the baseline.

Note: The need for the strategies and actions related to training arose as staff suggestions for improving performance under Employee Satisfaction and Morale category (Baseline Score of 2), indicating a disconnect between these scores and staff understanding and opinions regarding training.
### Initiatives and Actions

#### Overall Initiative for Department-wide Workforce Development:

A. Complete and implement one agency-wide Workforce Development Plan. The Plan should define the principles SFPUC wants to embed in its culture through workforce development. It should include, at minimum, all aspects of workforce development and implementation, e.g. succession planning, recruitment, training, tracking, community relations, mentorships, etc., and predictions of how workforce needs and succession planning tools will change in the next decade.

1. Conduct a high-level organizational discussion to clarify authority and responsibility for workforce development initiatives across the SFPUC, e.g. responsibility for categories and types of training (SFPUC HR or Enterprise or Division Assistant General Managers), and responsibility for implementing succession planning efforts for each enterprise/division. Designate or formalize staff person responsible for implementation of workforce development efforts for each enterprise and division.

### Indicators (cont.)

<table>
<thead>
<tr>
<th>GM 11.1</th>
<th>% staff expected to retire within 5 years, identification of at-risk classifications and % for which succession plan has been developed</th>
<th>Baseline score: 2</th>
<th>Targets (4 Years) Succession plans completed for 80% of at-risk classifications identified</th>
</tr>
</thead>
</table>

**Standard / Best Practice**
Recognizing that up to 50% of its workforce could change by 2008, and concerned about the significant loss of organizational knowledge, East Bay MUD has developed a workforce planning program in order to: build stronger internal candidate pools; take advantage of the opportunity to change its organizational culture; ensure open competitive processes to select trainees; address current operational demands while focusing on meeting future needs; and maintain diversity at the leadership level.

### Responsibility
Director, Human Resource Services

### Estimated Cost
Can be accomplished with current staff and budget; No additional cost
Initiatives and Actions (cont.)

2. Conduct a Department-wide needs assessment to identify needs for critical classifications, identify current overlaps and redundancies in workforce development efforts, and recommend a Department-wide program/approach. FY 09/10

3. Clarify appropriate and potential funding sources for workforce development, (e.g. City HR, SFPUC HR, Enterprises, unions, grants, other partnerships) including funding for different types of training. FY 09/10

Succession Planning:

B. Conduct a high-level organizational discussion with designees identified in initiative A above to identify, clarify and coordinate succession planning efforts across the SFPUC.

1. Create a communications channel for employees to find information on what skills and training are needed to improve or advance through HR and/or their Enterprise or Division (see initiative D). FY 09/10

2. Identify at risk/mission critical classifications. FY 09/10

3. Ensure each Enterprise and Division has and is implementing plans for knowledge transfer and training for each position. FY 09/10

4. Create a replicable succession planning template for each Enterprise and Division to apply. FY 09/10

5. Identify and develop curriculum regarding technical training specific to SFPUC job classifications, which could include hiring educators and/or partnering with educational institutions or utility groups (AWWA). (See Initiative D, below.) FY 09/10

Training:

C. Clarify training authority.

1. In conjunction with Initiative A, clarify authority and responsibility for categories and types of training (e.g. SFPUC HR or Enterprise or Division Assistant General Managers). FY 08/09

2. Define terms, categories and types of training e.g. “technical” (professional or discipline-oriented), “personnel” (classification or civil service position-oriented), “leadership,” “critical path/at risk,” “mentor/mentee,” and “intern, apprentice, temporary worker” training. FY 08/09

3. Research best practices on how much money peer organizations spend on training, and clarify where training monies will come from. FY 08/09

D. Increase and improve staff training opportunities.

1. Survey staff and managers annually on what kind of training employees want and need, satisfaction with training and development, and what is needed to increase online learning opportunities. FY 10/11
Initiatives and Actions (cont.)

2. Develop a joint Department-wide and Enterprise or Division-specific training protocol that includes technical and personnel requirements including mandatory requirements for at-risk/mission critical positions and preferred training requirements. Prioritize short and long-term training needs for categories and types of training. FY 08/09

3. Create one or more training curriculums to support outcomes of a and b. Partner with education institutions or utility groups (AWWA) and/or hire educators to develop curriculum regarding technical and personnel training specific to SFPUC needs. FY 11/12

4. Re-launch and improve Learning Management System (LMS), and use the system to track training activities. Set up e-learning courses. Purchase modules as appropriate. FY 11/12

5. Develop a communications instrument (possibly the LMS), that informs employees regularly on what skills and training are available and are needed and preferred to advance their technical level and/or personnel classification. FY 11/12

E. Design/implement mentorship program.

1. Analyze mentoring best practices at other utilities and organizations and choose three potential designs. FY 09/10

2. Conduct three pilot mentorship programs using different mechanisms in Wastewater, Power, and Water. FY 09/10

3. Develop the application and selection mechanisms for mentors and mentees. FY 09/10

4. Evaluate and improve the program based on best practices and staff user feedback. Ongoing

F. Implement mandatory managerial training as appropriate.

1. Identify all supervisors at SFPUC. FY 09/10

2. Identify management classes that require management training. FY 09/10

3. Develop training to fit needs. FY 09/10

4. Track mandatory training through LMS. FY 09/10

G. Leverage individual coaching and training money available through MEA by establishing a faculty of trainers available to SFPUC managers. (Coordinate all actions with Strategy 13.)

1. Explore partnering with a leadership nonprofit to provide group training in order to maximize training dollars available. FY 08/09

2. Compile list of trainers available and distribute to SFPUC managers. FY 08/09

Recruitment:

H. Work with enterprises and divisions to identify target markets for anticipated positions.

1. Continue meeting with division managers to identify target markets for anticipated positions. Include meetings with External Affairs and Business Services, including IT and Customer Service. FY 09/10
Initiatives and Actions (cont.)

2. Purchase “on-boarding” software and implement, (see initiative K1, below).  
   FY 09/10

3. Institute a survey of people who decline offers with the SFPUC.  
   FY 09/10

I. Work with union partners to create registers in order to develop ongoing candidate pools.  
   FY 09/10

1. Continue current work with union partners, especially on classifications 5601 and 5602.  
   FY 09/10

2. Discuss possibility of taking over engineer registers.  
   FY 09/10

J. Continue to promote career pathways in trades for students in San Francisco Middle and High Schools.  
   FY 09/10

1. Continue participating in building trades taskforce, job fairs, etc.  
   FY 09/10

2. Organize Continuation High School field trips.  
   FY 09/10

3. Develop and distribute brochures focused on career paths for classification identified by needs assessment for at risk/mission critical positions.  
   FY 09/10

K. Increase transparency of application process, e.g. develop brochure to walk potential candidates through recruitment process with the City and the SFPUC.  
   FY 09/10

1. Purchase “on-boarding” software and implement (see initiative H2, above).  
   FY 09/10

2. Develop brochure to walk potential candidates through the recruitment process with the City and SFPUC.  
   FY 09/10

L. Establish a better internship and/or graduate fellowship program.  
   FY 09/10

1. Make SFPUC Human Resources the gatekeeper for SFPUC interns.  
   FY 09/10

2. Coordinate with Department-wide training protocol and recruitment strategy for interns.  
   FY 09/10

3. Inventory and assess SFPUC’s current internship and fellowship programs and develop long-term action plans to improve them in cooperation with Enterprise, Division and SFPUC HR staff.  
   FY 09/10

4. Create job rotation program for local interns who work throughout the year.  
   FY 09/10

5. Identify universities SFPUC wants to partner with, and coordinate with university professors to use graduate fellows for SFPUC projects.  
   FY 09/10

6. Track interns to match school with subsequent applications and to measure which and how many interns come back to work full-time for the SFPUC.  
   Ongoing
## STRATEGY 13

**Provide Managers the Tools and Opportunities to Become Strong Leaders and to Exercise Leadership Skills.**

### Priority Issue:

**Internal Leadership**

---

### Indicators

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Targets (4 Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GM 6.1 % senior managers who have participated in leadership training. “Senior managers” are those defined by the GM in going to Senior Managers meetings</td>
<td>Baseline score: 2 100%</td>
</tr>
<tr>
<td>GM 6.2 % staff evaluating managerial leadership as good or better</td>
<td>Baseline score: 2 Establish a baseline for coordination and a target for improvement</td>
</tr>
</tbody>
</table>

### Standard / Best Practice Applied to Above Indicators

Water Corporation (Australia) has developed leaders through its in-house program - UpLiFT. Since 2003, a total of 266 of its leaders and potential leaders have attended. Water Corporation is also establishing a holistic leadership and management development framework.

### Responsibility

Director, Human Resource Services

### Estimated Cost

Less than $50,000, including gap analysis for leadership training

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### Initatives and Actions

**A.** Create internal leadership development program to develop and retain leaders. Expand leadership training and development programs for mid-level and line managers across bureaus (consistent with Workforce Development Initiatives A and B). Participate in Water and Wastewater Leadership Center for public utility leaders. Establish budget for managers to participate in selected leadership conferences.

1. Determine the core competencies for each management level at the SFPUC.
   
   **FY 10/11**

2. Do a gap analysis by surveying managers on what competencies they have.

   **FY 10/11**

3. Develop training curriculum for competencies managers need.

   **FY 11/12**
Initiatives and Actions (cont.)

4. Develop a program to teach to the core competencies identified.  
   Timeline: FY 11/12

5. Identify leadership training conferences required for the different enterprises and earmark training dollars for those conferences.  
   Timeline: FY 09/10

B. Leverage individual coaching and training money available through MEA by establishing a faculty of trainers available to SFPUC managers (also proposed under Workforce Development Initiative G).

   1. Explore partnering with a leadership nonprofit to provide group training in order to maximize training dollars available.  
      Timeline: FY 08/09

   2. Compile list of trainers available and distribute to SFPUC managers.  
      Timeline: FY 08/09

C. Create a third seminar with AWWA specific to the SFPUC

   1. Choose case study of SFPUC problem that seminar could focus on.  
      Timeline: FY 08/09

   2. Coordinate with AWWA to develop the class.  
      Timeline: FY 08/09

D. Utilize 360 degree feedback mechanism proposed under Employee Satisfaction and Morale (WP 3.2) to monitor leadership performance effectiveness.

   1. Conduct a forum to help define what 360 degree feedback is and why it is potentially useful, and to gauge interest in it as a tool.  
      Timeline: FY 09/10

   2. Begin 360 degree feedback process with a small subset of employees, potentially starting with senior staff.  
      Timeline: FY 09/10
STRATEGY 14

IMPROVE FREQUENCY AND EFFECTIVENESS OF INTERNAL COMMUNICATIONS AND STRENGTHEN COORDINATION AND COMMUNICATION WITHIN AND ACROSS THE DEPARTMENT.

Indicators

<table>
<thead>
<tr>
<th>GM 8.1</th>
<th>% staff and % management that rate coordination across enterprises and divisions as good or better</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline score: 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GM 8.2</th>
<th>% staff and % management that rate internal communications efforts as good or better</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline score: 2</td>
</tr>
</tbody>
</table>

Targets (4 Years)

Establish a baseline for internal communications and a target for improvement; introduce annual coordination/communication survey in conjunction with Employee Engagement survey in Strategies #10 and #11

Standard / Best Practice Applied to Above Indicators

Until 2004, Watercare (Australia) had been organized under business units, with water separate from wastewater. It has now been reorganized by functional areas to encourage greater coordination and optimization across the company and to enable the company to respond more effectively to customer needs and commercial opportunities, e.g. the organization now has a general manager for Asset Management (planning, projects), Operations (water supply/treatment, wastewater treatment, network, operations support, maintenance), Finance and Business Services.

Responsibility

General Manager and Assistant General Managers

Estimated Cost

Covered by existing budget

Initiatives and Actions

A. Encourage regular staff meetings for all divisions and groups to foster dialogue and planning.
   1. General Manager to require enterprises hold annual planning retreats. FY 09/10
   2. GM to require managers conduct regular staff meetings and inform staff of PUC and city-wide issues and encourage communication. FY 09/10

B. Initiate brown bag lecture/discussion series open to all staff, bringing in outside speakers.
   1. Organize “Brown Bag Committee(s)” to arrange guest speaker series. FY 09/10
   2. Encourage participation across enterprises/divisions/locations. FY 09/10
Initiatives and Actions (cont.)

3. Rotate location of brown bag events. FY 09/10
4. Encourage senior manager participation. FY 09/10

C. Launch social networks that cross bureau and division boundaries within the SFPUC.
   1. Organize “Social Committee(s)” to develop social networking events. FY 09/10
   2. Encourage senior managers’ participation in social events. FY 09/10
   3. Rotate locations of social events to encourage participation by all enterprises/locations. FY 09/10

D. Mandate that all proposed SFPUC projects consider and integrate applicable SFPUC and industry-wide best practices.
   1. Ensure project managers are fully aware of and integrate industry-wide best practices into SFPUC projects. FY 09/10

E. Improve internal communications with newsletters and other tools in order to enhance understanding of current activities, programs and initiatives, (e.g. organizational and Department leadership changes); develop intranet as a stronger information portal for staff, etc.
   1. Review internal communications methods to determine effectiveness of current internal communications. Rate coordination and internal communication (GM 8.1 and 8.2) through annual employee engagement survey proposed in Initiative A1 of Strategies 10/11, Employee Satisfaction and Morale. FY 09/10
   2. Ensure Assistant General Manager of External Affairs, Director of Communications and Director of IT work together with staff to ensure effective and timely internal communications to SFPUC staff. FY 09/10

F. Develop organizational change management program to promote a culture that takes pride in teamwork, personal accountability, cooperation, communication and commitment to the success of the organization.
   1. Work with SFPUC and CCSF departments of human resources to offer workshops on teamwork, personal accountability, cooperation, communication and commitment to the success of the organization. FY 09/10
   2. Utilize courses and workshops already in place through SFPUC DHR, CCSF DHR and/or City College courses. FY 09/10

G. Improve interaction among staff by innovative space design.
   1. Effective space design to be integrated in the new SFPUC headquarters building design. FY 10/11
STRATEGY 15

DEVELOP AS APPROPRIATE DEPARTMENTAL, ENTERPRISE AND DIVISION RISK MANAGEMENT TOOLS.

PRIORITY ISSUE: RISK MANAGEMENT

Indicators

| GM 9.1 | Risk management process developed to identify, assess and manage risks (e.g. environmental, financial, license to operate, political, regulatory, reputational, services/operations) |

**Standard / Best Practice**

City West Water (Australia) has developed a risk management tool to identify and address significant risks to the organization. The utility ranks risks and develops optimized risk treatment strategies for its most critical risks. Many utilities also use Enterprise Risk Management (ERM) tools to ensure risks are systematically identified across the organization and managed as needed.

**Responsibility**

Assistant General Manager for Business Services

**Estimated Cost**

Approximately $250,000

**Initiatives and Actions**

A. Undertake a comprehensive identification and assessment of risks posed to organization (such as operational/services, environmental, financial, license to operate, political, regulatory, reputational risks). Develop tools and mechanisms to monitor, evaluate, address, minimize, mitigate, manage and control risks as appropriate.

1. Confirm General Manager support for the development of a comprehensive Department-wide risk assessment.

**Targets (4 Years)**

Baseline score: 2

Systematic Department-wide approach for managing risk factors in place within 5 years

**Timeline**

FY 08/09
Initiatives and Actions (cont.)

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Designate lead staff person under General or Deputy General Manager to coordinate Department-wide risk management assessment. This lead will work with SFPUC Assistant General Managers and others, and will create a risk management committee if useful and appropriate. The scope of the effort will include all types of risk. It will support Department-wide strategies such as climate change adaptation and asset management; and liaise with City efforts, e.g. the City-wide County Risk Manager.</td>
<td>FY 08/09</td>
</tr>
<tr>
<td>3. Survey risk management best practices.</td>
<td>FY 09/10</td>
</tr>
<tr>
<td>4. Survey/identify SFPUC risk management efforts to address market, regulatory, model, operational, environmental, reputational, and credit risk. Identify gaps in risk management processes in each of these areas.</td>
<td>FY 09/10</td>
</tr>
<tr>
<td>5. Design a Department-wide risk management framework and plan for implementation.</td>
<td>FY 10/11</td>
</tr>
<tr>
<td>6. Evaluate risk exposure.</td>
<td>FY 10/11</td>
</tr>
<tr>
<td>7. Track and assess Department-wide risk management performance regularly to identify deficiencies and suggest process improvements.</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
STRATEGY 16

ADVANCE AND INSTITUTIONALIZE ITS DEPARTMENT-WIDE SUSTAINABILITY PLAN AND PROGRAM AS THE CORE OF SFPUC’S STRATEGIC PLANNING AND DECISION-MAKING. COMMIT TO PERIODIC ASSESSMENT AND PUBLIC REPORTING ON SFPUC’S DEPARTMENT-WIDE SUSTAINABILITY PERFORMANCE.

Indicators

GM 10.1 Strategic/Sustainability framework and goals established Department-wide

<table>
<thead>
<tr>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWWA 2007 guidance on reporting triple bottom line performance</td>
</tr>
<tr>
<td>AWWA 2007 guidance on strategic planning</td>
</tr>
<tr>
<td>GRI Sustainability Reporting Guidelines</td>
</tr>
</tbody>
</table>

Baseline score: 2

GM 10.2 Consistent biennial assessment of and reporting on Department-wide sustainability performance, and strategies for improvement

<table>
<thead>
<tr>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>The international framework for sustainability reporting is the Global Reporting Initiative Guidelines, against which organizations such as CityWest Water (Australia), United Utilities (UK) and BC Hydro (Canada) report.</td>
</tr>
</tbody>
</table>

Baseline score: 2

GM 10.3 # quarterly & annualized reports completed on sustainability performance

<table>
<thead>
<tr>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY08/09 will become benchmark for SFPUC performance</td>
</tr>
</tbody>
</table>

Baseline score: 2

Targets (4 Years)

Finalize Sustainability Plan and Program with associated Department-wide framework, strategies, and goals winter 08/09

Show trend to continuous improvement on Department-wide assessment and reporting protocol, including biennial assessment of and reporting on all sustainability indicators and strategies, and implementation of quarterly/annualized reporting on a subset of sustainability indicators; reports to conform with standards and best practices for sustainability reporting (e.g. GRI, AWWA)

Show continuous improvement in Department-wide sustainability performance and in incorporating appropriate tools for strategic planning

Responsibility
Manager, Strategic/Sustainability Planning

Estimated Cost
Existing staff, ~$30,000 annual budget, plus ~$350,000 biennial assessment, reporting & auditing
Initiatives and Actions

A. Implement a strategic approach to planning efforts in the organization that incorporates sustainability goals and initiatives that reflect and inform the development of all other planning and activities and are assessed and reviewed biennially through the department-wide sustainability reporting program.

1. Continue implementing sustainability assessments and reporting, including adoption of sustainability strategies, initiation of quarterly reporting and biennial assessments.

2. Develop and commit to ongoing budgeting for the Strategic/Sustainability Program.

Timeline

Ongoing with biennial assessments & reports indexed to GRI Guidelines; and quarterly reporting

B. Establish systems to facilitate data collection, analysis, monitoring and reporting for quarterly and biennial sustainability performance assessments and reports using GRI and AWWA guidelines, etc.

1. Purchase as appropriate/necessary and implement software that specifically supports sustainability data collection, and public benchmarking and reporting.

2. Clarify relationship of SFPUC sustainability auditing effort with city reporting and auditing / Work with City and/or a professional services contractor as appropriate/necessary for third party analysis, reporting and auditing purposes.

3. Become a reporting member of the GRI.

4. Participate with AWWA and other professional associations to track best practices and models and attend relevant training and conferences.

C. Design and implement staff education tools to increase awareness, understanding, and integration of sustainability goals and initiatives with their work.

1. Purchase as appropriate/necessary and implement software that specifically supports sustainability data collection, and public benchmarking and reporting. (see B1 above)

2. Partner with workplace development efforts to increase staff understanding of sustainability goals and initiatives and staff roles in contributing to them, e.g. a sustainability training module to the orientation program for new employees.

D. Identify and integrate strategic planning tools as needed into the Sustainability Program.

1. Identify and remedy missing critical elements for improving strategic planning. Continue to collaborate with other SFPUC initiatives such as Enterprise business planning.

Timeline

Ongoing with biennial assessments & reports indexed to GRI Guidelines; and quarterly reporting

FY 08/09

FY 08/09 ongoing

FY 08/09

FY 08/09 ongoing

FY 08/09 ongoing

FY 08/09

FY 08/09 ongoing

FY 08/09 ongoing
STRATEGY 17

IMPLEMENT DEPARTMENT-WIDE PROCUREMENT PROCEDURES TO ENSURE QUALITY OF GOODS AND SERVICES PROCURED.

Indicators

GM 12.2 % contractors and professional services firms for which post-project quality and satisfaction reviews have been carried out
GM 12.3 Ratio of external labor to internal labor costs

Targets (4 Years)

Baseline score: 2

Integrate a survey to the online invoicing system when contractors and consultants make a request for final invoice/progress payment

Baseline score: 2

Design Phase (Regional) - 60% internal, 40% external
Design Phase (Local) – 87% internal, 13% external
Construction Management (Regional): 40% internal, 60% external
Construction Management (local): 95% internal, 5% external

Standard Applied to Above Indicators

The City has rules for procurement but no standards for quality. The purchasing controls embedded in the ISO 90001:2001 Quality Standard are aimed at selection of approved high-quality suppliers and periodic re-evaluation based on performance.

Responsibility

Assistant General Manager of Infrastructure, Director of Contract Administration Bureau

Estimated Cost

Can be accomplished with current staff; No additional cost

Initiatives and Actions

A. Develop a Department-wide procurement and supply chain policy consistent with City policies and requirements and SFPUC’s sustainability goals and indicators.
   1. Designate a lead and working group to survey best practices, SFPUC practices, City requirements, opportunities for improvements and actions required for implementation.

B. Develop mechanisms to promote an expanded pool of excellent and qualified consultants and contractors.

Timeline

FY 09/10
Initiatives and Actions (cont.)

1. Survey best practices for implementing consultant and contractor evaluations. FY 09/10
2. Review and propose any rule and related city and Department changes needed. FY 09/10
3. Create a waiver form for consultants and contractors that would allow SFPUC to rate consultant and contractor performance and use the results. [SFPUC currently uses a waiver form for reference checks in Chapter 6 of City Admin Code.] FY 09/10
4. Establish a quality review process for procured consultant and contractor services. Determine what kind of quality review is needed and incorporate it into the system for both construction and professional services contracts. FY 09/10
5. Referencing City standards and best practices criteria, explore the feasibility of including evaluation of environmental and social performance in reviews of consultants and contractors, and applying review standards/criteria to RFPs/RFQs. FY 09/10
6. Assess the feasibility of including outstanding consultant/contractor performance in existing SFPUC award program to incentivize good performance. FY 09/10
7. Implement mandatory post-project quality reviews to identify poor and/or outstanding performance of existing consultants and contractors. Continue developing online invoicing system, and consider using online invoicing system to track consultant and contractor performance. FY 09/10
   a. Assess DPW and Federal post-project review forms for applicability as a model for SFPUC. (Currently they only apply to construction, not professional services.) FY 08/09
   b. Using surveying software, incorporate a post-project survey into the online invoicing system to be completed with the last payment of the contract. FY 09/10
C. Begin data collection of SFPUC’s expenditures on consultants and contractors. Monitor using indicator suggested in baseline assessment: consultants and contractor cost as % of cash outflows.
   1. Continue current efforts to collect data on consultant and contractor expenditure, specifically filling any gaps in tracking professional services firms. Ongoing
D. Assess feasibility of internally sourcing consultant and contractor services to improve staff recruitment and retention. Identify training needs where appropriate.
   1. Continue working with SFPUC’s Director of HR to use internal sourcing. Ongoing
STRATEGY 18

APPLY THE CITY’S ENVIRONMENTALLY PREFERABLE PURCHASING AND PROCUREMENT PROTOCOL.

PRIORITY ISSUE: SUSTAINABLE SUPPLY CHAIN

Indicators

GM 14.1 % purchasing decisions that have been screened for compliance with the City’s environmentally preferable purchasing ordinance

Standard
According to the City’s environmentally preferable purchasing ordinance, all purchasing should be screened

Baseline score: 2

Targets (4 Years)

Identify % of SFPUC’s purchasing decisions that have been screened for compliance with the City’s environmentally preferable purchasing ordinance and work towards 100% compliance

Responsibility
General Manager [Staff member responsible for managing in-house impacts (see blueprint table for Strategy #5)]

Estimated Cost
Budget for additional FTE covered under in-house impacts (Strategy #5)

Initiatives and Actions

A. Work with City Purchaser to determine if possible the % of SFPUC purchasing decisions that have been screened for compliance with the City’s environmentally preferable purchasing ordinance and to establish target compliance.

1. Create SFPUC policy statement on enforcement of the City’s environmentally preferable purchasing ordinance. FY 09/10

2. Obtain City guidance for screening strategy and work with City on a monitoring protocol and its implementation for target compliance. FY 09/10

3. Monitor progress annually against indicator (i.e. % purchasing decisions that have been screened for compliance with the City’s environmentally preferable purchasing ordinance). FY 09/10

4. Address lapses in procurement that indicate a deviation from stated policy. FY 09/10
PRIORITY ISSUES: ASSET MANAGEMENT AND SYSTEM MAINTENANCE & RENEWAL

STRATEGY 19

DEVELOP AND IMPLEMENT A DEPARTMENT-WIDE ASSET MANAGEMENT PLAN THAT INCLUDES AN OVERARCHING FRAMEWORK AND STANDARDS, ENCOMPASSES THE ASSET MANAGEMENT PROCESS OF THE INDIVIDUAL ENTERPRISES, AND IS INSTITUTIONALLY AND OPERATIONAL INTEGRATED WITH THE FINANCE FUNCTION. OPTIMIZE SYSTEM MAINTENANCE AND RENEWAL PERFORMANCE THROUGH APPROPRIATE INTEGRATION AND ALIGNMENT WITH THE DEPARTMENT-WIDE ASSET MANAGEMENT PLAN.

Indicators

<table>
<thead>
<tr>
<th>IA</th>
<th>Indicators</th>
<th>Baseline score</th>
<th>Targets (4 Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IA</td>
<td>% assets by value covered by asset management plan</td>
<td>2</td>
<td>100% coverage within 5 years</td>
</tr>
</tbody>
</table>

Standards / Best Practices

The U.S. EPA Office of Wastewater Management supports the use of Asset Management as a proven risk management tool.

AWWA policy supports comprehensive asset management and believes that water utilities must adopt a proactive approach to the management of their assets, which commences with planning and design and continues through operation and maintenance on to rehabilitation and replacement.

Watercare (Australia) publishes 20 year water and wastewater plans annually.

IA 5.1 Planned maintenance ratio (water and wastewater)

Baseline score: 3

For both Water and Wastewater: Planned maintenance ratio of minimum 72% to meet industry benchmark

Standard

The 2005 AWWA median for water utilities was just over 64%, and the median for combined water and wastewater utilities was just below 52%.

IA 5.3 System renewal/replacement rate (Water, Wastewater and Power)

Baseline score: 3

Establish standards and collect data by 2010 (Water, Wastewater & Power)
## Indicators (cont.)

<table>
<thead>
<tr>
<th>IA</th>
<th>Indicator Description</th>
<th>Baseline Score</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.4</td>
<td># unplanned interruptions lasting more than 4 hours (Water)</td>
<td></td>
<td>Maintain or improve performance on indicator</td>
</tr>
<tr>
<td></td>
<td><strong>Standard</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Standard needed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.6</td>
<td># planned and unplanned interruptions lasting more than 4 hours (Power)</td>
<td></td>
<td>Target is 0 for Treasure Island electric customers; will be 0 for Hunter's Point customers once service for them begins in 2011</td>
</tr>
<tr>
<td></td>
<td><strong>Standard</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Standard needed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.8</td>
<td>Miles of sewer lines cleaned and inspected</td>
<td>N/A</td>
<td>625 total miles cleaned and inspected (100 in FY 08/09, 100 in FY 09/10, 125 in FY 10/11, 150 in FY 11/12, and 150 in FY 12/13)</td>
</tr>
<tr>
<td></td>
<td><strong>Standard</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Standard needed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Initiatives and Actions

### A. Develop an overarching framework for use by all enterprises in the development of their asset management plans. Integrate plans with the Finance function, both institutionally and operationally.

1. Create a Department-wide steering committee to develop a Department-wide asset management framework. This committee will include the Finance asset management staff person, the Assistant General Managers, asset management coordinators for each enterprise, and an IT representative. Develop policy and procedures that fit within SFPUC’s current funding sources. Provide broad definitions for replacement/renewal and guidelines on how SFPUC should track and report on assets. Consider the benefit of designating a Department-wide Asset Management coordinator.

2. Investigate international best practices in asset management and system maintenance.

3. Apply the asset management framework to current efforts in order to meet the performance target.

4. Develop a Department-wide financial plan to implement asset management efforts in each enterprise, including process to incorporate asset management costs into rate-based recovery.

### Timeline

- **FY 08/09**
  - Create a Department-wide steering committee to develop a Department-wide asset management framework.
  - Investigate international best practices in asset management and system maintenance.
  - Develop a Department-wide financial plan to implement asset management efforts in each enterprise, including process to incorporate asset management costs into rate-based recovery.

- **FY 09/10**
  - Apply the asset management framework to current efforts in order to meet the performance target.

- **FY 08/09**

## Responsibility

Assistant General Manager of Business Services

## Estimated Cost

$25,000 (not including enterprise asset management)
Initiatives and Actions (cont.)

B. Through the steering committee, implement an appropriate system(s) to catalogue assets and manage system maintenance and renewal.
   1. Establish a single register of all Department assets, including equipment, materials and supplies history. Identify critical equipment, taking into account back-up systems, equipment age, types of failures, repair time and availability of spares.  
   2. Identify major maintenance needs and develop an appropriate maintenance schedule(s).  
   3. Implement an automated work-order system throughout the Department.  
   4. Conduct a feasibility study for introducing Predictive Maintenance Systems (e.g. infrared, ultrasonic, thermal).  
   5. Train staff in the new approach.  

   1. Prepare and maintain a plan vs. actual activity report, communicating plan changes or unforeseen challenges.

Timeline

FY 10/11
FY 09/10
FY 09/10
FY 10/11
FY 11/12 and then ongoing
STRATEGIES 6 & 20

IDENTIFY AND ASSIST VULNERABLE CUSTOMERS WHO ARE POTENTIALLY OR SERIOUSLY AFFECTED BY SERVICE INTERRUPTIONS (6).

ROLL-OUT THE EMERGENCY OPERATIONS PLAN THROUGHOUT THE SFPUC (20).

### Indicators

<table>
<thead>
<tr>
<th>IA 4.5</th>
<th>Completed plans to address and recover from emergencies, disasters and security risks; completed required simulation and practice exercises every year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Baseline score</strong>: 3</td>
</tr>
</tbody>
</table>

**Standard / Best Practice**

Standards: National Response Plan Emergency Support Function (ESF) #6, and San Francisco Emergency Operations Plan

Best Practice example: United Utilities (UK) has robust risk management and contingency plans to handle emergency events, such as loss of a major site or widespread system emergency.

<table>
<thead>
<tr>
<th>CR 2.1</th>
<th>Vulnerable or at-risk customers continually identified for purposes of emergency operations services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Baseline score</strong>: 2</td>
</tr>
</tbody>
</table>

**Standard / Best Practice**

Standards: National Response Plan Emergency Support Function (ESF) #6, and San Francisco Emergency Operations Plan

Best Practice example: City West Water (Australia) has identified 1,000 customers with special needs and organizations in its service area that are responsible for the care of others, including schools, nursing homes, retirement villages and child care centers. Questionnaires distributed to these customers helped to identify their needs and any requirements if their water and sewer supplies were interrupted. Contingency plans for these customers are being developed based on the feedback received.

### Targets (4 Years)

- Complete two tabletop exercises and a physical practice exercise with the Water, Wastewater, and Power enterprises and every SFPUC building by the end of 2010
  - Plans current and being improved at end of 2010

- Continue to work with the City to identify and clarify specifically vulnerable communities/or persons, and actions that will assist vulnerable customers who rely on continuous SFPUC services
Responsibility
SFPUC Homeland Security

Estimated Cost
$150,000 for first year

Initiatives and Actions

A. Continuously update the Emergency Operations Plan (EOP), including periodic call checks to ensure that emergency phone numbers are correct and that call chain works.
   1. Continue updating emergency plans and phone numbers every six months, in accordance with the Mayor’s executive directive. Ongoing
   2. Finalize Field Operations Guides and distribute among staff. FY 08/09
   3. Confirm inclusion of directives for disadvantaged and vulnerable customers in the EOP or elsewhere if water/power supplies are interrupted. If the former cannot be confirmed, SFPUC should identify needs and requirements of these customers, e.g. schools, hospitals, retirement homes, or other special needs such as visually-impaired customers or those on dialysis, if water/power supplies are interrupted. Report to CR2.1 indicator (disadvantaged customers) in next sustainability reporting cycle

B. Launch awareness campaign and conduct department-wide training program on the EOP. Monitor awareness among staff about crisis communications and management procedures. Monitor implementation and roll-out of the plan.
   1. Complete training for the EOP. Decide how each of the 18 contributing annexes sits within the governing plan. FY 08/09

C. Using the EOP, conduct regular practice exercises of various emergency and catastrophe scenarios, including “table top” exercises, functional simulations and full-scale simulations of catastrophes on weekdays and weekends.
   1. Work with Assistant General Managers to decide first groups to receive training. FY 08/09
   2. Complete first tabletop exercises in order to finalize Field Operations Guides. FY 08/09
   3. Distribute final Field Operations Guides to staff. FY 08/09
   4. Begin training exercises. Provide one physical training to every enterprise once per year, and tabletop exercises every six months. FY 08/09