March 13, 2014

Mr. Mark Martinez, Chair
Public Utilities Subcommittee

Dear Mr. Martinez:

At the March 4th meeting of the Public Utilities Subcommittee to the Charter Review Committee, you requested some additional information about the Environmental Services Department’s utilities. You requested existing information be provided, thus some of the attached presentations are about 2 years old. As this information is being updated during the current rates/budgeting process, the updates will be forwarded to you in the near future.

The attachments are described below:

1. January, 2014 Environmental Services Department’s Strategic Plan.
2. August, 2013 Environmental Services utilities overview presentation to the bond rating agency, Fitch.
3. Overview of the Environmental Services Commission – our customer advisory panel.
4. Description of the current customer complaint tracking process.
5. Three separate presentations to the Environmental Services Commission on each of the 3 utilities, Wastewater, Surface Water and Solid Waste.

I hope this information is responsive to your request. I am happy to provide any additional information that you may require.

Sincerely,

Michael P. Slevin III, P.E.
Environmental Services Director

cc: TC Broadnax, City Manager
    Bill Gaines, TPU Director/CEO
    Bill Baarsma, Charter Review Committee Chair
Message from the Director

I am pleased to present and share the Environmental Services Strategic Plan with you. By identifying where we want to go and how we are going to get there, this plan serves as the guidance document for the Environmental Services Department. The intent of the Strategic Plan is to:

- Establish direction
- Enhance customer service
- Increase accountability
- Aid decision-making
- Document levels of service
- Recognize improvements

The Strategic Plan emphasizes our vision, mission, and values, as well as our goals and objectives while addressing the increasingly complex environmental issues that our City encounters. Moreover, the plan is designed for alignment with the strategic direction of the City Council and the goals of the City Manager.

Environmental Services incorporates four divisions represented by a diverse workforce which manages the City's waste streams through three utilities: surface water, wastewater, and solid waste. Divisions will create implementation plans that are strategically aligned and support the goals and objectives of the Department's Strategic Plan.

This Strategic Plan will guide our thoughts, decisions, and actions as we move forward with our commitment to meet the needs of our customers with efficiency and effectiveness in a sustainable manner.

Michael P. Slevin III, P.E.
City of Tacoma
Environmental Services

January 2014
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Vision, Mission, and Values

The vision, mission, and values of the Environmental Services Department outline our commitment to service and to enhancing the quality of life of our ratepayers. The vision is where the leadership wants our department to be, the mission is the fundamental purpose of the department, and the values establish what we believe as a department and what our customers should expect from us.

VISION

We are national leaders that operate fiscally sound utilities, reducing our environmental footprint for the benefit of our community and future generations.

MISSION

We provide sustainable and cost-effective management services to protect the environment, recover value from Tacoma's waste streams, and enhance the quality of life for the citizens and ratepayers.

VALUES

Safety·Integrity·Service·Excellence·Sustainability·Innovation
Goals & Objectives

Goals and objectives clarify long-range strategic priorities and focus on the managerial and organizational needs of the department to perform its mission in the future.

The Environment

Goal: Improve environmental stewardship and sustainability

Objective: Meet or exceed environmental regulations to protect the well-being of our community

Objective: Reduce CO₂ emissions to preserve environmental quality for future generations

Objective: Optimize the environmental benefit recovered from Tacoma's waste streams ensuring long-term health for our community

Customer Service

Goal: Deliver superior customer service

Objective: Grow customer satisfaction through friendly, timely responses, and easy access to pertinent information

Objective: Enhance transparency through productive communication with the City Council, Environmental Services Commission, Sustainable Tacoma Commission, Neighborhood Councils, City Departments, the Infrastructure, Planning, & Sustainability Committee, and employees

Financial Management

Goal: Effectively manage the financial investment of the ratepayer

Objective: Plan for revenue and rate stability while ensuring fairness and affordability to ratepayers

Objective: Meet our annual budget targets, debt coverage ratios, and fund balance requirements

Objective: Communicate the value of this financial investment to the ratepayer

January 2014
Effective Operations

Goal: Enhance the effectiveness of our operations

Objective: Achieve and maintain International Standards Organization (ISO) 14001 Environmental & Sustainability Management System Certification, and American Public Works Association (APWA) Accreditation

Objective: Set clear expectations for employees on how their jobs fit into the larger strategic plan

Objective: Continuously evaluate and improve business processes and operational efficiencies

Objective: Promote the development of sound, stable, and equitable employee-management relations

Our Employees

Goal: Develop and invest in our most valuable asset, our employees

Objective: Create a safe environment for our employees to excel

Objective: Foster an organization of open and direct communication

Objective: Offer pertinent opportunities for participation in trainings and associations that enable employees to be nationally recognized leaders

Capital Projects

Goal: Provide state-of-the-art capital project planning and delivery

Objective: Employ comprehensive asset management system principles to drive the capital program

Objective: Ensure capital project delivery is managed in a cost-effective manner

Objective: Promote minimum life cycle costs in capital project planning and financing

January 2014
Our Organization Today

The Environmental Services Departments aims to fulfill its goals and objectives to carry out the mission of the organization. Though there are three distinct utilities, we believe that a synergy is created through cross-functional approaches which maximize our ability to be a high performing organization.

Examples of cross-functional efforts include using new technology to turn roofing shingles into recycled asphalt products which can be used in Tacoma roads, and integrating practices and procedures throughout the department that result in an environmental management system based on ISO 14001 standards.

The Department combines this integrated approach with consideration of external factors and collaboration with other departments in the City and stakeholders, such as the City Council, the Environmental Services Commission, citizens, and ratepayers to leverage the greatest improvements in quality of life for our community.

These cooperative efforts have led to numerous award-winning programs and projects, such as TAGRO gardening and landscaping products, the EnviroChallenger education...
program, the Make a Splash stormwater grant program, the Recovery & Transfer Center to increase waste diversion, and the Center for Urban Waters to restore and protect urban waterways.

The Department is structured to facilitate cross-functional approaches and create synergies with four divisions: Business Operations, Operations & Maintenance, Solid Waste Management, and Science & Engineering. This matrix system of three utilities and four divisions is intended to encourage coordination, communication, and teamwork to allow for increased efficiencies in achieving organizational goals and objectives.
Our Organization Tomorrow

The current cross-functional approach and matrix structure of the Environmental Services Department is part of the groundwork for change to create a utility of the future. As conditions change, utilities must navigate a transition to a new paradigm in which sustainability and innovation become core values through the integration of resources. The utility of the future would be designed according to key principles – principles which are inherently connected to our goals and objectives – focused on achieving unprecedented levels of sustainability and innovation.

Principles of the Utility of the Future: The utility of the future will provide wastewater treatment, surface water management, and solid waste management services in an integrated way that optimizes the use of all resources and eliminates waste. Key principles include the following:

- Apply systems thinking and financial, social, and environmental analysis to all management decisions, including design, construction, operations, and maintenance.
- Do no harm, and go beyond compliance.
- Include success measures based on environmental, climate, and other nonfinancial performance criteria.
- Right-size facilities and operations for the customer base, and allow for future flexibility.
- Leverage diverse sources of financing.
- Engage customers as resource management partners.

The Environmental Services Department will continue to evolve into a utility of the future through a framework of change that reflects our values, aligns with our goals and objectives, and supports our mission and vision.

Framework for Change

Phase I
Optimize Existing Systems
Phase I involves increasing efficiencies, reducing physical vulnerability, and improving overall management of legacy infrastructure systems where and when possible, within the scope of typical operations.

Phase II
Transition to More Resilient Systems
Phase II involves incorporating proven innovations into existing systems, moving them beyond the scope of typical operations while enhancing adaptive capacity and mitigating climate change where possible.

Phase III
Implement Transformative Systems
Phase III involves seizing opportunities to implement and demonstrate the technology, best management practices, and multiple benefits of "new paradigm" systems.

The phases in the framework reflect that change occurs incrementally but not always linearly. There are opportunities in each phase, from optimizing existing systems to implementing new, transformative systems, to cumulatively build synergy in striving for a mission and vision that is shared by each utility in the department. These steps will prepare for a new paradigm where the department maximizes integration between wastewater, surface water, and solid waste management services.

**Examples of Opportunities in the Framework for Change**

**PHASE 1**

**Optimize Legacy Systems**

*Example:* Utilize energy audits of the wastewater treatment plant to identify and implement operational opportunities to increase efficiency and reduce energy consumption through High Performance Energy Management.

**PHASE 2**

**Transition to More Resilient Systems**

*Example:* Harvest methane-rich biogas from anaerobic digesters at the wastewater treatment plant to displace the higher costs and carbon footprint of diesel fuels used in Solid Waste fleet.

**PHASE 3**

**Fully Transform Systems**

*Example:* Transition organizational culture, functions, and strategies from garbage collection to material handling to repurpose resources in a sustainable system; implement Low Impact Development as a sustainable surface water management strategy for resource protection through holistic design approaches.


January 2014
**Alignment with the City**

The vision, mission, values, goals, and objectives of the Environmental Services Department are aligned with the strategic direction of the City of Tacoma via process and structure. As the department fulfills its mission and implements its vision, it supports and furthers the mission, vision, and policy priorities of the City of Tacoma.

---

**2013-14 City Council Strategic Direction**

**Mission**

We provide high-quality, innovative, and cost-effective municipal services that enhance the lives of our citizens and the quality of our neighborhoods and business districts.

**Vision**

Tacoma is an attractive and progressive international city, regarded for the richness of its diverse population and its natural setting.

**Guiding Principles**

Service · Integrity · Accountability · Respect · Stewardship · Innovation · Teamwork

**Strategic Goals**

- A safe, clean, and attractive community
- A diverse, productive, and sustainable economy
- A high-performing, open, and engaged government

**Strategic Policy Priorities**

1. Strengthen and maintain a Strong Fiscal Management position.
2. Strengthen and support Human Services, Public Education, and Diverse Higher Learning opportunities in Tacoma.
3. Foster Neighborhood, Community, and Economic Development Vitality and Sustainability.
4. Plan for and improve Public Infrastructure that meets the Transportation needs of all Tacoma residents and visitors.
5. Encourage and promote an Open, Effective, Results-oriented Organization.

January 2014
Where We Go From Here

The Environmental Services Strategic Plan will be the basis and foundation for the development of implementation plans by the divisions. While the goals and objectives listed in this plan are high-level and broad in nature, the implementation plans will provide specific and measurable objectives for the department to meet its goals.

Based on the Strategic Plan and the implementation plans, the department’s leadership will conduct regular performance monitoring to track progress toward goals. These performance measures will be used in compiling an Environmental Services Annual Report to provide updates on where we are and our progress on where we are going. Specific elements of these endeavors will tie into the City’s overall performance reporting in coordination with the Office of Management & Budget to increase citizen access to information about the effectiveness of City programs.

The Environmental Services Strategic Plan will be updated with a formal review every two years, in conjunction with the rate planning timeline, to reinforce our strategic direction and ensure alignment with the priorities of the City of Tacoma.
PARTICIPANTS

Michael P. Slevin III  Director, Environmental Services
Andrew Cherullo    Finance Director
Susan Ramirez    Assistant Finance Director
Sally Cowan    Financial Manager
Lindsay Sovde    Senior Vice President
                Piper Jaffray

OUTLINE

• Introduction
• Overview of Environmental Services Department - Update
  • Organization Chart
  • Operations
• Overview of Rates and Financial Policies
  • Process and Policies
  • New Rate Model Benefits
  • Comparative Rates
• Solid Waste
• Sewer
  • Wastewater
  • Surface Water
  • Joint Financials
• Summary
  • Credit Strengths
  • Q&A
## Rates and Charges

- The City has been proactive in adopting rate increases to meet utility needs — rates adopted through 2014 and planned through 2018. In 2013-2014, the City chose not to increase rates due to the implementation of every other week residential collection.
- Council approved rates not subject to state control
- Rate stabilization fund provides the ability to have a balanced rate structure and facilitate coverage ratios
- Rates remain competitive with surrounding jurisdictions
- All five City utilities are billed on a combined bill

## Rate Process

- Planning horizon for reviews was increased from five years to six for the 2013-2018 cycle
- The Environmental Services Commission (ESC) appointees represent major City constituent groups and are involved throughout the process
- Individual Council members of the Infrastructure, Planning, and Sustainability Committee (IPS Committee) received detail reviews
- Neighborhood Council received proposed rate presentations
- City Council approves rates as part of the biennium budget process

## Financial Policy Highlights

### Business Practices:
- Operating cash reserves = 60 days minimum for each utility
- Cost-benefit analysis for all major capital investments
- Average 20% of capital projects paid from operating revenue (pay as you go) over the long run
- Operating surplus applied to utility reserves

### Approach to Rates:
- Rates for customer classes commensurate with cost of service
- Ratepayer input solicited

### Debt Policies:
- Minimum senior lien coverage = 1.70x (parity bond covenants are 1.3 for Wastewater and 1.25 for Solid Waste)
- Debt financing to match the life of the asset
- Variable rate debt not to exceed 15% (currently no variable rate debt outstanding)
- Debt not used to finance operations and maintenance
NEW RATE MODEL BENEFITS

- Provides tool for effectively developing rates and financing decisions:
  - Automated rate calculations
  - Financial dashboards
  - Longer (ten year) time horizon
  - Communicates a common view of budgets, capital plans, rates, financing needs, and operational changes
  - Involves all management levels in the review and decision making process

SAMPLE MODEL DASHBOARD / The Dashboard allows quick decision-making by visually displaying impacts of changes to selected variables.

- Shows the projected operating costs and revenue streams
- Shows the revenue adjustment required for the next five years in order to meet debt coverage and target reserve balance
- Indicates the reserves balance and target level according to utility's policies
- Indicates the different funding sources of the CIP
- Spin buttons for scenario analysis
Based on theoretical residential customer: 5,000 SF residential lot for surface water, 7 CCF water for wastewater, and, for solid waste, a 60 gallon can for every other week pickup plus recycle and food / yard waste.
Solid Waste Utility
OPERATIONAL UPDATES

Capital projects
- New transfer station completed on schedule and on budget in 2012.
- New administration building completed on schedule and on budget in 2012.
- Phase I – landfill area cap completed in 2012; final phase to be completed in 2013 as planned and on budget.
- CNG (compressed natural gas) fueling and parking stations are currently under construction.

Residential waste collection
- Implemented food waste collection in 2012.
- 2013 implementation of every other week collection is on time and has been received well.

SYSTEM FACILITIES

Collection
- City-owned fleet
- More than 150,000 containers

Facilities
- Transfer station
- Recycle center
- Household hazardous waste facility
- Administration building

SYSTEM DISPOSAL CONTRACTS OVERVIEW

Three contracts provide long-term stable pricing.

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Inception</th>
<th>Expiration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste Connections (long-haul garbage)</td>
<td>2000</td>
<td>2020 (1)</td>
</tr>
<tr>
<td>JMK / Waste Management (recycle)</td>
<td>2004</td>
<td>2014 (2)</td>
</tr>
<tr>
<td>Waste Connections (composting – yard waste disposal)</td>
<td>2004</td>
<td>2014 (2)</td>
</tr>
</tbody>
</table>

(1) Contract includes option for extension under same terms and conditions.
(2) Contract includes option for two five-year extensions. Negotiations have just begun.

HISTORICAL TONNAGES

<table>
<thead>
<tr>
<th>Year</th>
<th>2008</th>
<th>2009 (1)</th>
<th>2011</th>
<th>2012</th>
<th>2013 (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid Waste</td>
<td>182,559</td>
<td>166,718</td>
<td>161,460</td>
<td>156,613</td>
<td>154,711</td>
</tr>
<tr>
<td>Recycling</td>
<td>24,201</td>
<td>20,049</td>
<td>24,941</td>
<td>25,752</td>
<td>26,956</td>
</tr>
<tr>
<td>Total</td>
<td>235,821</td>
<td>217,884</td>
<td>214,637</td>
<td>218,032</td>
<td>217,107</td>
</tr>
</tbody>
</table>

(1) 2010 tonnages are not available on a comparable basis.
(2) Projection from 2013 2nd quarter data.
CUSTOMER BASE

<table>
<thead>
<tr>
<th>Customer Class</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td>4,864</td>
<td>4,826</td>
<td>4,860</td>
<td>4,803</td>
<td>4,867</td>
</tr>
<tr>
<td>Total Customers</td>
<td>58,550</td>
<td>58,549</td>
<td>58,637</td>
<td>58,451</td>
<td>58,517</td>
</tr>
</tbody>
</table>

TOP TEN CUSTOMERS

- Multicare Health Systems: 0.91%
- Salishan Five LLC: 0.70%
- Tacoma School District: 0.70%
- Puyallup Tribe: 0.69%
- Tacoma Goodwill Industries: 0.68%
- St Joseph Medical Center: 0.56%
- Simpson Tacoma Kraft Co LLC: 0.50%
- The Westridge Apartments: 0.49%
- Fred Meyer Stores Inc: 0.41%
- City of Tacoma: 0.41%

Total: 6.04%

- The top ten customers represent only 6.04% of revenues.

- The utility receives high customer satisfaction ratings including the every other week residential collection.

RATE FUNDAMENTALS

Residential
- City ordinance provides control over the City's waste stream, resulting in revenue stability and flexibility.
- Proven revenue collection process that combines solid waste fees with fees for other essential services (garbage, recycle, yard waste, call-to-haul).
- Volume based residential rates incent recycling and food waste disposal options. (Volume based pricing is being implemented over time and will be fully implemented by 2014.)

Commercial
- Rates are approaching cost of service.

HISTORICAL/PROJECTED RATE ADJUSTMENTS

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Rate Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>3.5%</td>
</tr>
<tr>
<td>2009</td>
<td>5.0%</td>
</tr>
<tr>
<td>2010</td>
<td>5.0%</td>
</tr>
<tr>
<td>2011</td>
<td>2.8%</td>
</tr>
<tr>
<td>2012</td>
<td>2.8%</td>
</tr>
<tr>
<td>2013</td>
<td>0.0%</td>
</tr>
<tr>
<td>2014</td>
<td>0.0%</td>
</tr>
<tr>
<td>2015</td>
<td>5.0%</td>
</tr>
<tr>
<td>2016</td>
<td>5.0%</td>
</tr>
<tr>
<td>2017</td>
<td>5.0%</td>
</tr>
<tr>
<td>2018</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

2015 – 2018 projected average rate increases are not approved.
### SOLID WASTE REVENUES BY SOURCE (000)

<table>
<thead>
<tr>
<th>Source</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Service</td>
<td>$22,903</td>
<td>$24,598</td>
<td>$25,965</td>
<td>$26,209</td>
<td>$26,948</td>
</tr>
<tr>
<td>Commercial Service(^{(1)})</td>
<td>24,474</td>
<td>23,627</td>
<td>23,001</td>
<td>23,121</td>
<td>23,047</td>
</tr>
<tr>
<td></td>
<td>47,377</td>
<td>48,225</td>
<td>48,966</td>
<td>49,330</td>
<td>49,995</td>
</tr>
<tr>
<td>Disposal Only(^{(2)})</td>
<td>5,409</td>
<td>4,812</td>
<td>4,693</td>
<td>4,662</td>
<td>4,564</td>
</tr>
<tr>
<td>Tacoma Cares/Nuisance Code Enforcement</td>
<td>842</td>
<td>954</td>
<td>516</td>
<td>475</td>
<td>489</td>
</tr>
<tr>
<td>Other</td>
<td>484</td>
<td>467</td>
<td>315</td>
<td>410</td>
<td>402</td>
</tr>
<tr>
<td>Revenues from Rates</td>
<td>54,112</td>
<td>54,458</td>
<td>54,490</td>
<td>54,877</td>
<td>55,450</td>
</tr>
<tr>
<td>Recycling and Salvage</td>
<td>1,948</td>
<td>679</td>
<td>1,544</td>
<td>2,225</td>
<td>1,358</td>
</tr>
<tr>
<td>Total Operating Revenues</td>
<td>$56,060</td>
<td>$55,137</td>
<td>$56,034</td>
<td>$57,102</td>
<td>$56,808</td>
</tr>
</tbody>
</table>

\(^{(1)}\) Includes revenues from drop-boxes.

\(^{(2)}\) Includes tipping fees from commercial self-haul customers and a portion of the tipping fees from residential customers.

### SOLID WASTE RATES

<table>
<thead>
<tr>
<th>Residential - Container Size</th>
<th>Current</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 gal</td>
<td>$18.28</td>
<td>$18.28</td>
<td></td>
</tr>
<tr>
<td>45 gal</td>
<td>$27.42</td>
<td>$27.42</td>
<td></td>
</tr>
<tr>
<td>60 gal</td>
<td>$36.55</td>
<td>$36.55</td>
<td>$36.55</td>
</tr>
<tr>
<td>90 gal</td>
<td>$54.83</td>
<td>$54.83</td>
<td></td>
</tr>
<tr>
<td>60x2 gal</td>
<td>$68.50</td>
<td>$70.80</td>
<td>$73.10</td>
</tr>
<tr>
<td>60+90 gal</td>
<td>$91.38</td>
<td>$91.38</td>
<td></td>
</tr>
<tr>
<td>90x2 gal</td>
<td>$100.65</td>
<td>$105.15</td>
<td>$109.65</td>
</tr>
</tbody>
</table>

The increases in the 60x2 gal and the 90x2 gal rates are a result of fully implementing volume based pricing.

Commercial rates remain unchanged for 2013 and 2014.
OPERATING RESULTS (000)

<table>
<thead>
<tr>
<th></th>
<th>HISTORICAL OPERATING RESULTS (000)</th>
<th>PROJECTED OPERATING RESULTS (000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Revenues</td>
<td>$ 56,060</td>
<td>$ 55,137</td>
</tr>
<tr>
<td>Rate Stabilization</td>
<td>38,510</td>
<td>38,943</td>
</tr>
<tr>
<td>Total Operating Expenses</td>
<td>55,510</td>
<td>57,083</td>
</tr>
<tr>
<td>Net Operating Income</td>
<td>$ 17,550</td>
<td>$ 16,194</td>
</tr>
<tr>
<td>Non-Operating Revenues</td>
<td>3,776</td>
<td>2,212</td>
</tr>
<tr>
<td>Non-Operating Expenses</td>
<td>59</td>
<td>59</td>
</tr>
<tr>
<td>Revenues Available for Debt Service</td>
<td>$ 21,267</td>
<td>$ 18,347</td>
</tr>
<tr>
<td>Parity Bonds Debt Service</td>
<td>7,514</td>
<td>7,685</td>
</tr>
<tr>
<td>Parity Debt Service Coverage Ratio</td>
<td>1.96</td>
<td>1.50</td>
</tr>
</tbody>
</table>

Solid Waste every other week (EOW) residential collection implementation is being implemented throughout 2013. While residential revenues are planned to decrease, commercial, disposal, and sales of recyclables are planned to increase. Further residential decreases are planned in 2014 to account for a full year of EOW due to “right sizing” containers.

Operating expenses are lower in 2011 due to using the City owned landfill instead of paying for contract landfill cost. Increases to 2013 O&M from 2012 include increased costs for labor, external contracts, vehicle costs, and assessments; some of these expenses are due to the EOW implementation which will decrease in 2014.

The decreases in non-operating revenues are principally due to operating grant revenues which are not budgeted until approved and reduced investment income due to today’s low interest rate environment.
TOTAL SOLID WASTE EXISTING PARITY DEBT SERVICE (1)

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>$1,000,000</td>
<td>$2,000,000</td>
<td>$3,000,000</td>
<td>$4,000,000</td>
<td>$5,000,000</td>
<td>$6,000,000</td>
<td>$7,000,000</td>
<td>$8,000,000</td>
<td>$9,000,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) Excludes 20% commitment to pay TES (Tacoma Environmental Services) bond debt service on the Center for Urban Waters capital lease.

REDEMPTION PLANS EXCLUDED FROM THE ABOVE GRAPH

- Rate plan based on refunding the 2006 Series A and B bonds by issuing $50 million in 2015. 2006 Series A bonds due 2018 and beyond are callable on December 1, 2016 ($26,905,000).

CAPITAL IMPROVEMENT PROGRAM

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities Upgrades</td>
<td>$2,934</td>
<td>$828</td>
<td>$1,340</td>
<td>$2,184</td>
<td>$1,094</td>
<td>$863</td>
</tr>
<tr>
<td>Equipment</td>
<td>6,184</td>
<td>3,833</td>
<td>5,182</td>
<td>3,933</td>
<td>6,072</td>
<td>5,838</td>
</tr>
<tr>
<td>Environmental Remediation</td>
<td>3,924</td>
<td>207</td>
<td>163</td>
<td>201</td>
<td>188</td>
<td>216</td>
</tr>
<tr>
<td>Capitalized Labor, A&amp;G and Interest</td>
<td>955</td>
<td>299</td>
<td>358</td>
<td>611</td>
<td>128</td>
<td>113</td>
</tr>
<tr>
<td>Total</td>
<td>$13,997</td>
<td>$5,167</td>
<td>$7,043</td>
<td>$6,929</td>
<td>$7,482</td>
<td>$7,030</td>
</tr>
</tbody>
</table>

The capital improvement program is 100% funded by existing cash balances.
OPERATIONAL UPDATES

Operational efficiencies

- Substantial reduction in energy and chemicals due to changes in operations (annual savings $400,000).
- Current initiatives include implementing a new computer control system at the plant.
- The oxygen generation system rehabilitation project is underway and expected to improve efficiencies.
- The eductor dump and septage receiving facility was recently completed allowing for receipt material to be measured upon actual volume discharged instead of truck capacity.

Asset management

- The “asset management program” is a management process which continuously assesses the risk and impact of asset failures in an effort to refine capital needs and minimize lifecycle cost of ownership.

SYSTEM FACILITIES

Wastewater facilities

- 700 miles of sewer pipes, two treatment plants (Central and North End), 47 pump stations, and associated equipment and facilities.
- The utility creates Class A biosolids used in various “TAGRO” products for sale such as potting soil and soil amendments.

Capacity

- The Central Treatment Plant has a maximum permitted treatment flow level of 60 mgd and a maximum permitted peak capacity of 150 mgd. Average daily and peak flows in 2012 were 22 mgd and 68 mgd, respectively.
- The North End Treatment Plant has a temporary average daily maximum permitted treatment flow level of 8 mgd with no peak maximum. Average daily flows in 2012 were 5 mgd.

SYSTEM DISPOSAL CONTRACTS OVERVIEW

Sewage treatment and disposal services provided through contracts with the towns of Fife, Ruston, and Fircrest and portions of Pierce County. Contract negotiations are underway to consolidate many of 13 county agreements into one master agreement (expiration dates range from 2014 – 2030). Negotiations are underway with Ruston and Fircrest with agreements expiring late in 2014. The rate agreement for Fife expires in 2046.
## CUSTOMER BASE

<table>
<thead>
<tr>
<th>Customer Class</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>56,941</td>
<td>56,925</td>
<td>56,954</td>
<td>56,945</td>
<td>56,860</td>
</tr>
<tr>
<td>Commercial</td>
<td>3,757</td>
<td>3,726</td>
<td>3,751</td>
<td>3,728</td>
<td>3,731</td>
</tr>
<tr>
<td>Contract</td>
<td>13,361</td>
<td>13,382</td>
<td>13,460</td>
<td>13,418</td>
<td>13,448</td>
</tr>
<tr>
<td>Total</td>
<td>74,059</td>
<td>74,033</td>
<td>74,165</td>
<td>74,091</td>
<td>74,039</td>
</tr>
</tbody>
</table>

## RATE FUNDAMENTALS

### Residential
- Residential rates are based on winter water average usage to eliminate the effects of irrigation.
- Rate increases have historically received unanimous approval by the City Council.

### Commercial
- Commercial rates are based on cost of service.
- Individual rates are calculated on volume and strength of discharge.

## TOP TEN CUSTOMERS

<table>
<thead>
<tr>
<th>Customer</th>
<th>Percentage of Total Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Darling International Inc</td>
<td>1.28%</td>
</tr>
<tr>
<td>Tacoma School District</td>
<td>0.99%</td>
</tr>
<tr>
<td>Pierce County Facilities Management</td>
<td>0.91%</td>
</tr>
<tr>
<td>Multicare Health Systems</td>
<td>0.74%</td>
</tr>
<tr>
<td>The Geo Group Inc</td>
<td>0.74%</td>
</tr>
<tr>
<td>City of Tacoma</td>
<td>0.64%</td>
</tr>
<tr>
<td>St Joseph Medical Center</td>
<td>0.63%</td>
</tr>
<tr>
<td>The Westridge Apartments</td>
<td>0.62%</td>
</tr>
<tr>
<td>Tacoma Housing Authority</td>
<td>0.58%</td>
</tr>
<tr>
<td>Puyallup Tribe</td>
<td>0.55%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7.69%</strong></td>
</tr>
</tbody>
</table>

## HISTORICAL/PROJECTED RATE ADJUSTMENTS

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Rate Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>5.4%</td>
</tr>
<tr>
<td>2009</td>
<td>6.2%</td>
</tr>
<tr>
<td>2010</td>
<td>6.2%</td>
</tr>
<tr>
<td>2011</td>
<td>4.8%</td>
</tr>
<tr>
<td>2012</td>
<td>4.8%</td>
</tr>
<tr>
<td>2013</td>
<td>4.8%</td>
</tr>
<tr>
<td>2014</td>
<td>4.8%</td>
</tr>
<tr>
<td>2015</td>
<td>5.0%</td>
</tr>
<tr>
<td>2016</td>
<td>5.0%</td>
</tr>
<tr>
<td>2017</td>
<td>5.0%</td>
</tr>
<tr>
<td>2018</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

2015 – 2018 projected average rate increases are not approved.
### WASTEWATER REVENUES BY SOURCE (000)

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>$29,985</td>
<td>$31,888</td>
<td>$33,792</td>
<td>$33,626</td>
<td>$36,263</td>
</tr>
<tr>
<td>Commercial</td>
<td>$10,979</td>
<td>$11,668</td>
<td>$11,631</td>
<td>$11,437</td>
<td>$12,077</td>
</tr>
<tr>
<td>Public Authorities</td>
<td>$5,883</td>
<td>$6,699</td>
<td>$6,577</td>
<td>$6,878</td>
<td>$7,310</td>
</tr>
<tr>
<td>Other Service Revenues</td>
<td>$587</td>
<td>$834</td>
<td>$628</td>
<td>$364</td>
<td>$356</td>
</tr>
<tr>
<td>TAGRO Sales</td>
<td>$313</td>
<td>$297</td>
<td>$317</td>
<td>$276</td>
<td>$281</td>
</tr>
<tr>
<td><strong>Total Wastewater Revenues</strong></td>
<td><strong>$47,747</strong></td>
<td><strong>$51,386</strong></td>
<td><strong>$52,945</strong></td>
<td><strong>$52,581</strong></td>
<td><strong>$56,287</strong></td>
</tr>
</tbody>
</table>

### WASTEWATER RATES

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monthly Fixed Charge</td>
<td>$18.65</td>
<td>$19.35</td>
<td>$20.28</td>
</tr>
<tr>
<td>Flow Charge ($/hcf)</td>
<td>$3.47</td>
<td>$3.64</td>
<td>$3.82</td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monthly Fixed Charge</td>
<td>$8.63</td>
<td>$9.19</td>
<td>$9.64</td>
</tr>
<tr>
<td>Flow Charge ($/hcf of water usage)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category 1</td>
<td>$4.76</td>
<td>$4.85</td>
<td>$5.09</td>
</tr>
<tr>
<td>Category 2</td>
<td>$5.13</td>
<td>$5.14</td>
<td>$5.39</td>
</tr>
<tr>
<td>Category 3</td>
<td>$6.48</td>
<td>$6.48</td>
<td>$6.79</td>
</tr>
<tr>
<td>Category 4</td>
<td>$7.71</td>
<td>$7.95</td>
<td>$8.34</td>
</tr>
<tr>
<td>Category 5</td>
<td>$7.96</td>
<td>$7.96</td>
<td>$8.34</td>
</tr>
<tr>
<td>Category 6</td>
<td>$8.94</td>
<td>$9.45</td>
<td>$9.91</td>
</tr>
<tr>
<td>Category 7</td>
<td>$10.42</td>
<td>$10.74</td>
<td>$11.26</td>
</tr>
<tr>
<td>Category 8</td>
<td>$10.66</td>
<td>$11.11</td>
<td>$11.65</td>
</tr>
<tr>
<td>Commercial, Various</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow ($/hcf)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOD ($/lb)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS ($/lb)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Wastewater Capital Improvement Program (000)

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTP &amp; NETP Facility Improvements</td>
<td>$6,996</td>
<td>$3,432</td>
<td>$1,456</td>
<td>$6,041</td>
<td>$5,680</td>
<td>$6,346</td>
</tr>
<tr>
<td>Pump Stations</td>
<td>2,875</td>
<td>75</td>
<td>1,872</td>
<td>2,407</td>
<td>84</td>
<td>1,258</td>
</tr>
<tr>
<td>Collection System</td>
<td>22,867</td>
<td>2,600</td>
<td>2,704</td>
<td>7,822</td>
<td>8,417</td>
<td>9,046</td>
</tr>
<tr>
<td>Equipment</td>
<td>2,031</td>
<td>2,311</td>
<td>1,534</td>
<td>2,136</td>
<td>1,777</td>
<td>2,111</td>
</tr>
<tr>
<td>Capitalized Labor, A&amp;G and Interest</td>
<td>8,910</td>
<td>5,800</td>
<td>5,739</td>
<td>8,041</td>
<td>7,942</td>
<td>8,623</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$43,679</td>
<td>$14,218</td>
<td>$13,305</td>
<td>$26,447</td>
<td>$23,900</td>
<td>$27,384</td>
</tr>
</tbody>
</table>

## Wastewater Project Funding Sources (000)

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of Bond Construction Funds</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$16,489</td>
<td>$12,748</td>
<td>$0</td>
</tr>
<tr>
<td>Rate / Cash Balance Funded</td>
<td>43,679</td>
<td>14,218</td>
<td>13,305</td>
<td>9,958</td>
<td>11,152</td>
<td>27,384</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$43,679</td>
<td>$14,218</td>
<td>$13,305</td>
<td>$26,447</td>
<td>$23,900</td>
<td>$27,384</td>
</tr>
</tbody>
</table>

$32 Million – Construction Bond Proceeds (net of issuance costs) $29,237
Surface Water Utility
OPERATIONAL UPDATES

Pump station upgrades
- Flett - is underway and will result in automation and increased capacity.
- Leach – holding basin project is underway to improve efficiency in operation of the pump station.
- Cleveland Way – is under design to provide a complete retrofit and upgrade.

Asset management
- STRAP Program – a rapid condition assessment program to refine capital needs.

Open space management
- City council provided funding for this program to manage open space for storm water flood control and filtration.

Low impact development
- Cheney sustainable project
- Wapato Lake drainage area
- Gravel pit retention expansion

SYSTEM HISTORY

- City's surface water utility created in 1979.
- A core advantage was created with the separation of storm and sanitary sewage which occurred in the 1960’s.

SYSTEM FACILITIES

Surface Water facilities
- 440 miles of pipes, 10,000 manholes, 18,000 catch basins, three major regional detention basins, three major pump stations, and an extensive network of ditches (200 miles), culverts, and other natural drainage courses.

SYSTEM PERMITS

- NPDES Phase I storm water permit targets large and medium sized cities in the State and was issued in 2007 and renewed permit became effective August 1, 2013.
## CUSTOMER BASE RATE FUNDAMENTALS

<table>
<thead>
<tr>
<th>Customer Class</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012 (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>63,069</td>
<td>63,359</td>
<td>63,174</td>
<td>63,075</td>
<td>59,370</td>
</tr>
<tr>
<td>Commercial</td>
<td>7,051</td>
<td>7,063</td>
<td>7,030</td>
<td>7,469</td>
<td>11,109</td>
</tr>
<tr>
<td>Total</td>
<td>70,120</td>
<td>70,422</td>
<td>70,204</td>
<td>70,544</td>
<td>70,479</td>
</tr>
</tbody>
</table>

(1) Starting in 2012, multifamily units of three or more are classified as commercial. It was desirable to have consistency between utilities for clarity on the combined bills.

## RATE FUNDAMENTALS

- Rates are based on parcel size and extent of development.
- Rate increases have historically received unanimous approval by the City Council.

## TOP TEN CUSTOMERS

<table>
<thead>
<tr>
<th>Customer</th>
<th>Percentage of Total Revenue</th>
<th>Year of Total Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port of Tacoma - Storm Drain</td>
<td>5.98%</td>
<td>2008</td>
</tr>
<tr>
<td>Tacoma School District</td>
<td>3.24%</td>
<td>2009</td>
</tr>
<tr>
<td>City of Tacoma</td>
<td>2.91%</td>
<td>2010</td>
</tr>
<tr>
<td>BNSF Railway Company</td>
<td>1.33%</td>
<td>2011</td>
</tr>
<tr>
<td>Metro Parks District</td>
<td>1.09%</td>
<td>2012</td>
</tr>
<tr>
<td>Puyallup Tribe of Indians</td>
<td>0.77%</td>
<td>2013</td>
</tr>
<tr>
<td>US Oil &amp; Refining</td>
<td>0.67%</td>
<td>2014</td>
</tr>
<tr>
<td>Tacoma Housing Authority</td>
<td>0.52%</td>
<td>2015</td>
</tr>
<tr>
<td>Tacoma Community College</td>
<td>0.51%</td>
<td>2016</td>
</tr>
<tr>
<td>Tacoma Mall Partnership</td>
<td>0.51%</td>
<td>2017</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17.52%</strong></td>
<td><strong>2018</strong></td>
</tr>
</tbody>
</table>

HISTORICAL/PROJECTED RATE ADJUSTMENTS

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Rate Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>3.0%</td>
</tr>
<tr>
<td>2009</td>
<td>7.8%</td>
</tr>
<tr>
<td>2010</td>
<td>7.8%</td>
</tr>
<tr>
<td>2011</td>
<td>5.4%</td>
</tr>
<tr>
<td>2012</td>
<td>5.4%</td>
</tr>
<tr>
<td>2013</td>
<td>6.0%</td>
</tr>
<tr>
<td>2014</td>
<td>6.0%</td>
</tr>
<tr>
<td>2015</td>
<td>5.5%</td>
</tr>
<tr>
<td>2016</td>
<td>5.5%</td>
</tr>
<tr>
<td>2017</td>
<td>5.5%</td>
</tr>
<tr>
<td>2018</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

2015 – 2018 projected average rate increases are not approved.
### Historical Revenues and Current Rates

#### Surface Water Revenues by Source (000)

<table>
<thead>
<tr>
<th>Year</th>
<th>Residential</th>
<th>Commercial</th>
<th>Other Service Revenues</th>
<th>Total Surface Water Revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>$11,102</td>
<td>$8,723</td>
<td>240</td>
<td>$20,065</td>
</tr>
<tr>
<td>2009</td>
<td>$12,124</td>
<td>$9,260</td>
<td>165</td>
<td>$22,209</td>
</tr>
<tr>
<td>2010</td>
<td>$12,388</td>
<td>$10,766</td>
<td>207</td>
<td>$23,611</td>
</tr>
<tr>
<td>2011</td>
<td>$12,212</td>
<td>$11,451</td>
<td>256</td>
<td>$23,919</td>
</tr>
<tr>
<td>2012</td>
<td>$11,883</td>
<td>$11,679</td>
<td>353</td>
<td>$23,915</td>
</tr>
</tbody>
</table>

#### Surface Water Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>Monthly Area Charge per 500 sqft</th>
<th>Fixed</th>
<th>Annual Area Charge per 500 sqft</th>
<th>Fixed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Development Categories

- **Undeveloped area <= than 1 acre**
  - Light development: $5.51, $0.6468
  - Moderate development: $5.51, $0.8792
  - Heavy development: $5.51, $1.2936
  - Very heavy development: $5.51, $1.7248

- **Undeveloped area in excess of 1 acre**
  - Light development: $5.51, $0.3233
  - Moderate development: $5.51, $0.4478
  - Heavy development: $5.51, $0.6466
  - Very heavy development: $5.51, $0.8621

- **Waterfront Properties**
  - Undeveloped area <= than 1 acre
    - Light development: $5.51, $0.1078
    - Moderate development: $5.51, $0.3233
    - Heavy development: $5.51, $0.6466
    - Very heavy development: $5.51, $0.8621
  - Undeveloped area in excess of 1 acre
    - Light development: $5.51, $0.1078
    - Moderate development: $5.51, $0.3233
    - Heavy development: $5.51, $0.6466
    - Very heavy development: $5.51, $0.8621

- **Waterfront Properties**
  - Light development: $5.51, $0.6466
  - Moderate development: $5.51, $0.6466
  - Heavy development: $5.51, $0.6466
  - Very heavy development: $5.51, $0.6466
### SURFACE WATER CAPITAL IMPROVEMENT PROGRAM (000)

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities</td>
<td>$4,725</td>
<td>$9,550</td>
<td>$0</td>
<td>$0</td>
<td>$3,207</td>
<td>$2,340</td>
</tr>
<tr>
<td>Treatment and Low Impacts (1)</td>
<td>7,400</td>
<td>2,500</td>
<td>1,248</td>
<td>1,298</td>
<td>1,350</td>
<td>1,404</td>
</tr>
<tr>
<td>Collection System - Rehabilitation</td>
<td>3,597</td>
<td>5,000</td>
<td>5,772</td>
<td>4,326</td>
<td>4,500</td>
<td>5,264</td>
</tr>
<tr>
<td>Equipment</td>
<td>638</td>
<td>563</td>
<td>437</td>
<td>990</td>
<td>472</td>
<td>491</td>
</tr>
<tr>
<td>Capitalized Labor, A&amp;G and Interest</td>
<td>3,186</td>
<td>3,621</td>
<td>2,816</td>
<td>3,209</td>
<td>3,669</td>
<td>3,780</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$19,546</td>
<td>$21,234</td>
<td>$10,273</td>
<td>$9,823</td>
<td>$13,198</td>
<td>$13,279</td>
</tr>
</tbody>
</table>

(1) 2013 includes $3.7 million in grant funded projects (see below). Grant funding and projects are only included in plans when known.

### SURFACE WATER PROJECT FUNDING SOURCES (000)

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of Bond Construction Funds</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$9,823</td>
<td>$8,450</td>
</tr>
<tr>
<td>Rate / Cash Balance Funded</td>
<td>15,846</td>
<td>21,234</td>
<td>10,273</td>
<td>0</td>
<td>4,748</td>
<td>13,279</td>
</tr>
<tr>
<td>Grants</td>
<td>3,700</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$19,546</td>
<td>$21,234</td>
<td>$10,273</td>
<td>$9,823</td>
<td>$13,198</td>
<td>$13,279</td>
</tr>
</tbody>
</table>

$20 Million – Construction Bond Proceeds (net of issuance costs) $18,273
Wastewater and Surface Water Joint Financials
## OPERATING RESULTS

<table>
<thead>
<tr>
<th></th>
<th>HISTORICAL OPERATING RESULTS (000)</th>
<th>PROJECTED OPERATING RESULTS (000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Revenues</td>
<td>$67,812</td>
<td>$73,595</td>
</tr>
<tr>
<td>Rate Stabilization</td>
<td>(2,500)</td>
<td></td>
</tr>
<tr>
<td>Total Operating Expenses</td>
<td>42,623</td>
<td>44,450</td>
</tr>
<tr>
<td>Net Operating Income</td>
<td>25,189</td>
<td>29,145</td>
</tr>
<tr>
<td>Non-Operating Revenues</td>
<td>7,491</td>
<td>4,760</td>
</tr>
<tr>
<td>Non-Operating Expenses</td>
<td>89</td>
<td>60</td>
</tr>
<tr>
<td>Parity Bonds Debt Service</td>
<td>7,408</td>
<td>8,116</td>
</tr>
<tr>
<td>Lease Obligation</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total Parity Bond Service</td>
<td>$7,408</td>
<td>$8,116</td>
</tr>
<tr>
<td>Junior Lien – SRF Loan Debt Service</td>
<td>0</td>
<td>4,638</td>
</tr>
<tr>
<td>Total Debt Service</td>
<td>$7,408</td>
<td>$12,754</td>
</tr>
<tr>
<td>Parity Debt Service Coverage Ratio</td>
<td>4.40</td>
<td>4.17</td>
</tr>
<tr>
<td>All in Debt Service coverage Ratio</td>
<td>2.65</td>
<td>2.18</td>
</tr>
<tr>
<td>Parity Debt Service Coverage Without Rate Stabilization</td>
<td>3.00</td>
<td>4.57</td>
</tr>
<tr>
<td>Rate Stabilization Balances</td>
<td>$27,500</td>
<td>$24,000</td>
</tr>
</tbody>
</table>

Current Operating Cash Balance is $40.2 million which is about 8.1 months of operating expenses or about 246 days.
Parity Bonds Including 100% TES Debt Service

TES are initials for Tacoma Environmental Services for the bonds issued to build the Center for Urban Waters building—a capital lease. 20% of the TES debt service is funded by the Solid Waste Utility for their portion of the building.

Total Debt Service Including Junior Lien SRF Loans

Parity Bonds • Lease Obligation • SRF Loans
Summary
SUMMARY OF CREDIT STRENGTHS

• Historical and projected debt service coverage ratios exceed requirements and provide security for the investing community. Healthy cash and rate stabilization fund balances and debt funding capacity also provide financial strength for the utilities.

• Adopted financial policies are conservative and operating as intended resulting in sound financial decisions and strong financial positions.

• Strong support from the Environmental Services Commission and City Council for rate increases and enhancements to services and programs. A stable customer base for all utilities provides strength in rate and revenue management. Competitive rate structure.

• Operational advantageous position:
  ▪ long-term capacity and contracts
  ▪ separate waste and storm water flows

• Operational and capital efficiencies are underway and planned to manage cost structure.
Questions for Discussion
1A. What are the near-term system capital needs? How will they be funded?
   - Detail on page 11. Existing cash balances will be used to fund capital projects.

1B. Are there any near-term debt issuance plans?
   - Yes, a refunding is planned in the rate plan for 2015 to refund the 2006 bonds.

1C. Please provide a debt service coverage summary for 2012, 2013, and the out years. Please discuss expectations for future debt service coverage levels.
   - Detail on page 10. Coverage is planned to improve through time in part due to the planned bond refunding.

2A&B. Please discuss recent revenue and expense trends and expectations for the near-term. - Please provide a 2013 current financial summary. - How does YTD performance compare with budgeted expectations?
   - Revenues YTD are currently under plan by about 3% due to seasonality and fluctuations in the wholesale market. Expenses are 6% under plan at this time due to timing of expenses. The full year projections are on plan shown on page 10.

2C. 2014 – Please provide 2014 financial projections and out-year projections if available. Please discuss 2014 financial expectations, highlighting revenue and expense assumptions.
   - Detail on page 10. For 2014, actual budgeted numbers are used in the rate models. For outlying years, the rate plan is based on inflating the 2014 budgets on various percentages, i.e. general inflation at 2.5%, health care costs at 7%, construction costs at 4% etc. Reductions in operating costs are further assumed following the every other week implementation and the fleet conversion to CNG.

3A. Operations – Please discuss system rates. How much have rates increased annually in recent years and what are expectations for the near-term?
   - Detail on page 8.

How do rates compare with other systems in the region?
   - See the comparison chart on page 5.

Please discuss any planned spend-down of the rate stabilization fund.
   - Plan to use up to $2 million in 2014. This would leave a balance of $2.7 million.
3B. Please discuss the planned closure of the City landfill.
   - The landfill is no longer receiving any material and the closure / final capping work is currently underway and expected to be completed on budget in 2013. Additional costs for contract landfill are included in O&M in the rate plan.

3C. Please provide an update on the status of City contracts — LRI (now Waste Connections), JMK recycling (now Waste Management), and other contracts.
   - Detail on page 7. Discussions have been initiated on the recycle and yard waste contracts up for renewal in 2014.

3D. Please discuss recent trends in tonnage levels and projected performance.
   - Detail is on page 7. Solid waste tonnage is expected to decrease and yard waste and recycling to increase. As to revenues, although the goal is to reduce landfill requirements for waste disposal, the organization continues to evolve into a materials handling organization and plans to increase revenues through the sale of materials such as demolition construction debris and asphalt shingles.

3E. Have there been any material changes to the service area since Fitch’s last rating action that may have a direct impact on the system’s finances or operations? Are any expected?
   - No.

3F. Have there been any changes to financial, debt, or operating policies?
   - Most recently, the due date on combined utility service bills was extended from 10 days to 15 days. Also, since 2010, low income assistance discounts were increased to 30% from 25%.

4. Please describe any other issues / events that could impact the system’s finances and/or operations.
   - Every other week residential waste collection is a significant change to operations with both City Council support and positive feedback from residents.
1A. Please provide the five year capital plan summary of annual amounts expected to be spent and the funding sources.
   • Detail on pages 16 and 21.

1B. Are there any near-term debt issuance plans?
   • Yes, $52 million in 2016 ($20 for Surface Water and $32 for Wastewater).

1C. Was the SRF loan agreement amended to remove the acceleration provision?
   • No. Management plans to address this in the near future.

2A. In the historical audits, the City began showing the inter-fund taxes as an O&M expense in fiscal 2010, whereas it was
   shown as a non-operating expense previously. Why was this change made? How is the transfer made to the general fund?
   What is the formula that determines the inter-fund taxes.
   • It was misclassified, it is a monthly transfer of cash to the general fund. The calculation is based on gross revenues,
     principally including operating revenues, investment earnings, rental income and miscellaneous income. Exclusions for the
     Environmental Services Utilities are investment income earned on bond construction funds and uncollectible receivables.

2B. In fiscal 2012, the City has a new expense line item for “Inter-fund payments for services (health benefits)”. How were
   those treated previously? It also appears they have been excluded for purposes of the City’s debt service coverage
   calculation? Is this the unfunded OPEB amount?
   • Referencing page 3-15 of the 2012 CAFR, regarding the Environmental Services funds, these are O&M costs for employee
     health and dental benefits which were previously reported in the “salaries and wages” line item. In 2012, the health care
     benefits were misclassified and reported in the inter-fund payments for services (health benefits).
     • These costs are included in the bond coverage calculations for the utilities.
     • This is not an unfunded OPEB amount.
2C. What is the $25 million in unearned revenue on the balance sheet?
   ▪ This is the liability for the rate stabilization fund. When cash is transferred from the operating fund to the rate stabilization fund, the transaction reduces the operating revenues and increase the liability—deferred credits and vice versa. In 2013, this is treated as a deferred inflow as required by GASB.

2D. Please provide the senior debt service paid and all—in debt service paid (including subordinate SRF loans) for the past five years.
   ▪ Detail is provided on page 24.

2E. In our last review, the City anticipated some use of the rate stabilization fund in fiscals 2013-2015. Is that still expected to occur?
   ▪ Yes, and the detail is provided on page 23.

2F. Please provide year-end projections for FY 2013 and a five year forecast.
   ▪ Detail is provided on page 23.

2G. Please provide a debt service schedule showing amortization of remaining principal for the system that includes the SRF loans.
   ▪ Detail is provided on page 24.

3A. Operations—Please provide the number of customers in fiscals 2011 and 2012, including those serviced by contract agencies.
   ▪ Detail is provided on pages 14 and 19.

3B. Please provide sewer flows for the past 5 years.
   ▪ Detail is provided on page 13.

3C. Have there been any operation issues at any of the facilities?
   ▪ No issues with a material impact on services or costs.

3D. Has there been further discussion of requiring tertiary treatment for wastewater discharge?
   ▪ No, this is not an issue at this time.

3E. What rate increases were enacted for sewer rates and surface water rates in fiscals 2011, 2012, and 2013? What is the average monthly bill for a monthly usage of 7,500 gallons avg. winter water consumption?
   ▪ Detail is provided on pages 14 and 19. Converted to 7,500 gallons, the monthly bill is: 2011 = $51.10; 2012 = $53.44; 2013 = $55.85; and 2014 = $58.58.
RECENT ACCOMPLISHMENTS AND AWARDS

2013

- APWA Project of the Year, Environmental Category ($25-$75 million) for the Solid Waste transfer station
- SWANA Gold Award, Transfer Station
- SWANA Gold Award, Communication for the Solid Waste Management food waste recycling marketing
- LEED Silver Certification for the Solid Waste landfill administration and shop remodel
- Greenroads Foundation — award and certifications

2012

- NACWA Platinum Excellence in Management
- LEED Platinum certification for the Center for the Urban Waters building
- ENR “Best Project” top regional award for the Solid Waste recovery and transfer station
- LEED Gold certification for the Solid Waste recovery and transfer station
- Greenroads Silver Certificate for multiple storm water projects, including Cheney Stadium

2011

- NACWA National Achievement — Operations and Environmental Performance for improving storm water quality in the Thea Foss Watershed
- NW Biosolids Management Association — Excellence in Biosolids for TAGRO
- NACWA Platinum 14 Peak Performance — North End
- NACWA Gold Peak Performance for the CTP
- DOE Outstanding Wastewater Treatment Plant for the CTP
What if capabilities include adjusting O&M, capital, debt, programs, and rates. Selections include three capital scenarios, up to ten year displays, and fund balance selections (operating, rate stabilization, restricted, bond construction, and total funds).
RESIDENTIAL MONTHLY BILL COMPARISON

Based on theoretical residential customer: 5,000 SF residential lot for surface water, 7CCF water for wastewater, and, for solid waste, a 60 gallon can for every other week pickup plus recycle and food / yard waste.
<table>
<thead>
<tr>
<th>Agreement</th>
<th>Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Browns Point</td>
<td>2017</td>
</tr>
<tr>
<td>Dash Point</td>
<td>2024</td>
</tr>
<tr>
<td>Hylabos</td>
<td>Reviewed every 5 yrs</td>
</tr>
<tr>
<td>South City Limits</td>
<td>2014</td>
</tr>
<tr>
<td>Swan Creek</td>
<td>Reviewed every 10 yrs</td>
</tr>
<tr>
<td>UP North</td>
<td>Reviewed every 5 yrs</td>
</tr>
<tr>
<td>S 56th &amp; Orchard</td>
<td>2015</td>
</tr>
<tr>
<td>S 64th &amp; Orchard</td>
<td>2010</td>
</tr>
<tr>
<td>E 72nd &amp; Roosevelt</td>
<td>2017</td>
</tr>
<tr>
<td>E 75th &amp; McKinley</td>
<td>2024</td>
</tr>
<tr>
<td>E 84th &amp; McKinley</td>
<td>2019</td>
</tr>
<tr>
<td>Fife</td>
<td>2046</td>
</tr>
<tr>
<td>Fircrest</td>
<td>2014</td>
</tr>
<tr>
<td>Lakehaven</td>
<td>Reviewed every 5 yrs</td>
</tr>
<tr>
<td>Lakehaven NE 29th</td>
<td>2015</td>
</tr>
<tr>
<td>Ruston</td>
<td>2014 w/5 yr reviews</td>
</tr>
<tr>
<td>S 80th &amp; Sprague</td>
<td>2030</td>
</tr>
<tr>
<td>Western Slopes</td>
<td>2023</td>
</tr>
<tr>
<td>Capacity Agreement</td>
<td>Reviewed every 5 yrs</td>
</tr>
<tr>
<td>Rate Agreement Pierce Co</td>
<td>2036</td>
</tr>
</tbody>
</table>

Note – the copy of agreements that I have are dated Pierce Co 1986; Ruston 1978; Fircrest 1979; and Fife 1996. Are there later versions?
City of Tacoma
Environmental Services Commission

OVERVIEW
The City of Tacoma (City) values a close relationship with its citizens. That relationship is essential in creating fair, responsive, cost-effective wastewater, surface water and solid waste rates and programs developed by Environmental Services Department.

The Environmental Services Commission (Commission) is a fifteen member group that advises City staff and the City Council on those rates and programs. Commissioners represent a cross section of Tacoma's residential, business and regulatory communities and are selected by the City Manager and/or Environmental Services Director to serve five-year terms.

TERMS OF SERVICE
Five years, with staggered terms for Commission continuity. As terms expire, members may apply to be reappointed. Service is not limited to a specific number of terms.

MEMBERS
The Commission is composed of fifteen members representing business, residential and regulatory concerns. Since regulatory agency designates do not represent utility customer classes but still have a strong interest in rates, structures, and programs, they shall participate as any other member in Commission activities and discussion, but shall have no vote.

Commissioners represent the following classes of utility customers and interests:
1. Large Business (e.g., hospitals, Tacoma Mall, manufacturers)
2. Small Business (e.g., retail, restaurant, office)
3. Developers (e.g., residential, commercial general contractor/developer, builders association)
4. Commercial/Business Association (e.g., Chamber, Executive Council)
5. Government Customers (e.g., Pierce County, Fife, Fircrest, Metro Parks Tacoma, Port of Tacoma, Tacoma Public Schools)
6. Government Customers (e.g., Pierce County, Fife, Fircrest, Metro Parks Tacoma, Port of Tacoma, Tacoma Public Schools)
7. Tribal/Environmental Interests (e.g., Puyallup Tribe, Muckleshoot Tribe, Citizens for a Healthy Bay, Sierra Club)
8. Multi-family Residential Interests (e.g., apartment landlord)
9. Multi-family Residential Interests (e.g., apartment landlord)
10. Residential Interests (Council district)
11. Residential Interests (Council district)
12. Residential Interests (Council district)
13. Residential Interests (at-large position)
14. Regulatory Agency/ex officio nonvoting member (Washington State Department of Ecology)
15. Regulatory Agency/ex officio nonvoting member (Tacoma-Pierce County Health Department)

Tacoma has five Council Districts. Residential representatives are chosen from as many different districts as seats are available. As each Commissioner ends his/her term, new candidates are recruited from unrepresented Council Districts.

Every effort will be made to include representation from a wide variety of cultural, ethnic, gender and socioeconomic backgrounds.

MEMBERSHIP CRITERIA
- Either reside (residential), work (business) or own property within City limits and/or Environmental Services Department service boundaries
- Attend all meetings or notify the Chair or staff liaison if unable to attend
- Designate an alternate if periodically unable to attend. (Alternate shall be allowed to vote.)
• Represent ratepayers in their customer class by participating in rate recommendations to the City Council during rate years

DUTIES
The Commission reviews, advises and makes recommendations to City staff and the City Council regarding:
• Residential and commercial programs and services
• Short-term and long-range planning
• Rates, rate structures and rate assistance programs
• Capital Investment Program financing structures
• Revisions to or new contracts for City-provided wholesale and retail services
• City policies directly related to utility functions

Members shall be expected to consider the full interests of their customer class and report Commission discussions back.

MEETINGS
Meetings shall be open to the public. At the first meeting of each year, Commissioners:
• Elect a Chair and Vice Chair to one-year terms. The Chair shall lead the meetings and represent the Commission to the City Council.
• Set regular day, time and place to meet

The Commissioners:
• Meet monthly with additional meetings as needed

STAFF LIAISON
Primary: Lorna Sutton (253) 573-2532 or lsutton@cityoftacoma.org
Secondary: Sara Best, (253) 502-2244 or sbest@cityoftacoma.org.

APPLICATION PROCESS
Applications for the Commission are accepted throughout the year. Commissioners are selected in February. Additional appointments may be made at other times of the year for open or vacated positions.

Contact the staff liaison, Sara Best, for an application.

ABOUT ENVIRONMENTAL SERVICES DEPARTMENT
Environmental Services Department is made up of four divisions: Solid Waste Management, Wastewater Operations, Sewer Maintenance and Science and Engineering. Environmental Services Department employs more than 400 people with annual revenues of about $113 million to provide wastewater; surface water and solid waste services. Learn more at www.cityoftacoma.org/environmentalservices.
Delivering superior customer service is a major goal of the Environmental Services Utilities. Thus we have many avenues available to our customer base through which they may provide feedback to us. This document describes these processes.

**TPU Customer Service Center**
The three Environmental Services utilities are billed through the same processes as the Tacoma Power and Water utilities. Therefore, many of our customers call the first phone number on their bill and reach the TPU call center. Some customer questions and feedback are handled by the TPU customer service staff. Issues that cannot be resolved by TPU staff are transferred to Environmental Services customer service staff. Depending upon the issue, these customer interactions may be documented in SAP.

**Environmental Services Staff**
Through much of our public education information, we also publish numbers for the customers to call directly when they have specific issues with our services. For instance, we provide a number for the customer to call if they are experiencing a sewer back up. We track those calls and the resolution in SAP – whether that back up was due to the failure of a City owned asset or whether it was due to a failure of a property owner’s asset. Monthly reports on this data are tracked and adjustments are made as needed. Additionally, missed garbage pick-ups and other solid waste related feedback are also tracked.

**CityQA**
Very recently, the City Manager’s office has launched an on-line portal for customer feedback called CityQA. This is a comprehensive site that is quickly expanding to involve all City services. The web page provides a link to TPU’s My Account website. Here customers can request services or register complaints. Ultimately, reporting on the customers’ feedback and the City’s responsiveness will be provided out of this system.

**Ad Hoc Process**
Of course, we don’t constrain our customers rigidly to the above processes. If customer calls one of our offices directly, approaches our staff in the field or calls their City Council member – no matter how they contact us – we strive to help them solve their problem.
Wastewater Utility Overview

Presented by:
John O'Loughlin, P.E.
Environmental Services Division Manager
Science and Engineering Division

Environmental Services Commission
April 12, 2012
The environmental Services/Maintenance Division is responsible for the maintenance and repair of the City's Wastewater Treatment Plants, Pumping Stations, Process Control Systems and Transmission Systems. The Division also responds to customer needs by implementing proactive maintenance programs to improve system performance and reliability, and to extend the life of the system infrastructure.

Staffing Required: 106 FTE.....3 Vacancies
Blended Sludge Spiral Heat Exchanger Modification

Davit Arm Support System

Self Supporting Mono Rail System
Pump Station Control Panel Modification

Old Control System

New Control System
<table>
<thead>
<tr>
<th>Wastewater Operations</th>
<th>Total Treated (Gallons)</th>
<th>Average Flow (Million Gallons per Day)</th>
<th>Pounds of Solids removed</th>
<th>Pounds of BOD removed</th>
<th>Gas Produced (Standard Cubic Feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Plant</td>
<td>7,608,000,000</td>
<td>20.8</td>
<td>16,072,000</td>
<td>21,005,000</td>
<td>150,670,000</td>
</tr>
<tr>
<td>North End Plant</td>
<td>1,692,900,000</td>
<td>4.6</td>
<td>3,003,000</td>
<td>2,946,000</td>
<td>N/A</td>
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<tr>
<td>Product</td>
<td>Dry Tons</td>
<td>% Total</td>
<td>Revenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>----------</td>
<td>---------</td>
<td>-------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquid</td>
<td>244</td>
<td>8%</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Ag Mix</td>
<td>268</td>
<td>9%</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Bulk Products</td>
<td>2029</td>
<td>70%</td>
<td>$308,455</td>
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<tr>
<td>Bagged Products</td>
<td>10</td>
<td>1%</td>
<td>$11,630</td>
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<td></td>
</tr>
<tr>
<td>Free Samples</td>
<td>341</td>
<td>12%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2897</strong></td>
<td><strong>100%</strong></td>
<td><strong>$320,085</strong></td>
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</tr>
</tbody>
</table>
The Science and Engineering Division provides engineering, planning, program management, and laboratory services to the City’s sanitary, storm and solid waste utilities. The major areas we work on include: collection system plans, wastewater treatment plants, regional drainage facilities, landfill facilities, grant programs, sampling and analyses, environmental cleanup projects, and regulatory compliance for the utilities when we are the regulated entity as well as when we are the regulating entity.
Oversight of New Development
Monitor Existing Infrastructure
Traditional Engineering
Surface Water Utility Overview

Presented by:
John O'Loughlin, P.E.  
Environmental Services Division Manager
Science and Engineering Division

Environmental Services Commission
May 10, 2012
Outline

Protect Receiving Waters
- NPDES

Prevent / Control Flooding

Manage Assets to Lowest Lifecycle Cost

Other and New Programs
- New Permit
- Urban Forestry as Stormwater Program
- Green Infrastructure
Protect Receiving Waters
### Foss Stormwater Trends

#### PERCENT REDUCTION

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>PERCENT REDUCTION</th>
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</thead>
<tbody>
<tr>
<td>Solids</td>
<td>44-57%</td>
</tr>
<tr>
<td>Metals</td>
<td>40-49%</td>
</tr>
<tr>
<td>PAHs</td>
<td>81-97%</td>
</tr>
<tr>
<td>Phthalates</td>
<td>57-81%</td>
</tr>
</tbody>
</table>

#### OUTFALL

<table>
<thead>
<tr>
<th>237B, 237A &amp; 235</th>
<th>237B &amp; 235</th>
<th>All 7 Outfalls</th>
<th>237B, 243 &amp; 245</th>
</tr>
</thead>
<tbody>
<tr>
<td>44-57%</td>
<td>40-49%</td>
<td>81-97%</td>
<td>57-81%</td>
</tr>
</tbody>
</table>

#### Graphs

- **92% Reduction in PAHs - OF 237A**
- **97% Reduction in PAHs - OF 254**
Tacoma's Source Control Efforts
Development and Redevelopment Requirements
Street Sweeping

The first line of defense in removing sediment to help keep our receiving waters clean. Approx. 4,000 tons of debris removed annually.
Catch Basin and Main Line Cleaning

Captures sediment and prevents debris from entering our waterways.
Prevent Flooding
Surface Water Facility Maintenance

Collects and cleans surface water before its release to waterways.

Ensures function to prevent flooding and erosion.

STORMWATER CONTROL POND
6623 & 6629 22nd Street Court NE (Pond-0062842)

This basin helps prevent downstream flooding and erosion and helps clean the water before entering our streams.

Please protect. Don't dump or litter.
Facilities – Flett & Leach Creek
Holding Basins and Pump Stations
Manage the Infrastructure Assets to their Lowest Life Cycle Costs

Storm Basin Likelihood / Consequence Scoring:

- Consequence of Failure
- Likelihood of Failure
Identify system defects: prioritize repairs and determine capital improvement projects. STRAP will rate entire storm system in 4 years.
Low Impact Development Projects
## Urban Forestry

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>% of city</th>
<th>Existing Canopy Cover (%)</th>
<th>Recommended Canopy Cover Goal (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial/Mixed Use (CM)</td>
<td>7.4%</td>
<td>3.7%</td>
<td>15%</td>
</tr>
<tr>
<td>Downtown (DN)</td>
<td>0.7%</td>
<td>3.1%</td>
<td>15%</td>
</tr>
<tr>
<td>Developed Park (DP)</td>
<td>3.9%</td>
<td>28.7%</td>
<td>35%</td>
</tr>
<tr>
<td>Major Institution (MA)</td>
<td>6.1%</td>
<td>6.8%</td>
<td>25%</td>
</tr>
<tr>
<td>Multi-Family (MF)</td>
<td>4.6%</td>
<td>19.0%</td>
<td>25%</td>
</tr>
<tr>
<td>Manufacturing/Industrial (MI)</td>
<td>11.4%</td>
<td>3.7%</td>
<td>10%</td>
</tr>
<tr>
<td>Parks Natural Area (PN)</td>
<td>8.5%</td>
<td>74.6%</td>
<td>80%</td>
</tr>
<tr>
<td>Single Family (SF)</td>
<td>26.0%</td>
<td>23.0%</td>
<td>30%</td>
</tr>
<tr>
<td>ROW/Non-Parceled Areas</td>
<td>31.4%</td>
<td>9.2%</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>19%</strong></td>
<td><strong>30%</strong></td>
</tr>
</tbody>
</table>
Developing Programs

- Residential Rain Garden Program
- Bioinfiltration Media from TAGRO
- IPZ and Pilot Efforts
Solid Waste Management Utility Overview

Environmental Services Commission
March 20, 2014
Mission

We provide sustainable and cost-effective management services to protect the environment, recover value from Tacoma’s waste streams and enhance the quality of life for the citizens and ratepayers.
About Solid Waste Management

- Solid Waste Residential/Commercial Collection
- On-site Facilities
- Environmental Programs
- Waste Reduction & Sustainability
- Nuisance and Blight Cleanup
- Major Initiatives
- Financials
Residential Collection Services

- Garbage
- Recycling
  - Commingled Recycling
  - Glass
- Yard/Food Waste
- Call2Haul
Commercial Collection Services

- Garbage
  - Barrel
  - Front Load
  - Drop Off Boxes

- Recycling
  - Commingled
  - Cardboard
  - Glass
  - Food Waste

- Special / Temporary Services
On-site Facilities

- Recovery & Transfer Center
- Garbage
  - Yard/Food Waste
  - Recycling
- Other Transfer Buildings
  - South Compactor & Public Receiving
- White Goods Facility
On-site Facilities

- Administration & Shop Facilities
- Recycling & Household Hazardous Waste
- EnviroHouse
Environmental Programs

- Landfill Gas
- Ground Water Extraction
- Stormwater
- Greenhouse Gas Monitoring
Waste Reduction & Sustainability

- Sustainability Commission
- Product Stewardship
- Natural Yard Care
- EnviroChallenger
- Arts EnviroChallenger
- Community Education
- EnviroHouse
Nuisance and Blight Cleanup

- Tacoma Cares
- Blight Mobile
- Community Service Work Crew
- Non Profit Cleanups
- Nuisance Code Enforcement
- Community Neighborhood Cleanups
- Illegal Dumping Cameras
Recent Initiatives

- Every Other Week Garbage Collection
- Food Waste
  - Commercial Pilot
  - Residential
- Landfill Closure
- Parking Lot Construction
Current Initiatives

- Commercial Call2Haul
- Residential Commingled Recycling Analysis
- Diversion at RTC
- Food Waste Processing
- Shingles/Asphalt
Innovative Vehicle Technologies

• Innovative Technologies – Past Purchases
  – Dual Arm Garbage Truck
  – Hydraulic Launch
  – GPS Capabilities

• Future Technologies
  – Compressed Natural Gas (CNG)
  – Parker RunWise™ System
Awards & Accomplishments

• Recovery & Transfer Center
  – SWANA Gold Award
  – APWA Environmental Project of the Year
  – LEED Gold Certification

• Landfill Administration & Shop Remodel
  – LEED Silver Certification
  – Distinguished Public Project Award (NWCCC)

• Residential Food Waste Recycling
  – SWANA Gold Award for Marketing
Financial Reports

- Financial Summary and reporting performed by Finance Department
  - Sally Cowan, Financial Supervisor
  - Louis Nguyen, Senior Accountant