Drinking Water Line of Business

Presentation to the Customer Review Panel
October 12, 2016
Structure of Presentation for Drinking Water LOB

1. The Big Picture
   - Overview Statistics
   - System Map
   - System Process
   - Historical and Projected Water Consumption

2. Finances
   - Sources and Uses of Funds
   - Capital Investment Cycle

3. Customer Promises – Service Targets

4. Customer Engagement
The Big Picture: Overview Statistics for Size, Employees, Regulators

Size

Service Territory
- City of Seattle
- Half of rest of King County
- Parts of south Snohomish County

Infrastructure
- Supply: Tolt and Cedar River Watersheds; Seattle Wellfields
- Water Quality: excellent water source protection; treatment plants on Tolt and Cedar, groundwater treatment and booster chlorination
- 193 miles transmission pipelines, 16”-96” in diameter
- 1,680 miles distribution mains, <2”-42” in diameter
- 320 million gallons treated water storage
- Seattle City Light hydro plants on Cedar and Tolt

Employees

# Employees (2016 budgeted) 578
# Unions 15

Regulators
- WA State Dept of Health (Safe Drinking Water Act)
- WA State Department of Ecology

* 1 ccf = 100 cubic feet = 748 gallons
### Rates and Bills

<table>
<thead>
<tr>
<th><strong>Length of Current Rate Path</strong></th>
<th>3 years; 2015-2017</th>
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<tbody>
<tr>
<td><strong>Billing Mechanism</strong></td>
<td>Combined Utility Bill</td>
</tr>
<tr>
<td><strong>2016 Operating Revenue</strong></td>
<td>$252 million</td>
</tr>
<tr>
<td><strong>Number of Customer Accounts</strong></td>
<td>188,000 retail accounts</td>
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<td></td>
<td>Water also sold to Cascade Water Alliance and 19 other wholesale customers</td>
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<tr>
<td><strong>Rate Methodology</strong></td>
<td>Retail bills based on metered water usage and meter size, with higher seasonal rates in the summer</td>
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<tr>
<td></td>
<td>Wholesale bills based on contracts and metered water use</td>
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<tr>
<td><strong>Retail Customer Classes</strong></td>
<td>Two subclasses: residential and commercial; very similar rates</td>
</tr>
</tbody>
</table>

*1 ccf = 100 cubic feet = 748 gallons*
Drinking Water Goals

- Provide reliable, high-quality, aesthetically pleasing water that meets all regulatory requirements.
- Meet all environmental requirements, including instream flow requirements and other tribal and agency commitments.
- Meet requirements for system pressure and flow.
- Limit unplanned outages in the water system.
- Respond promptly to customer issues.
The Big Picture: Seattle’s Regional Water System
The Big Picture:
Drinking Water Process from Source to Tap
The Big Picture: Water Consumption

Growth in Population and Water Consumption

Population

Total Consumption

Consumption in Millions of Gallons per Day (Annual Average)

Population


0 50 100 150 200

0 100,000 200,000 300,000 400,000 500,000 600,000 700,000 800,000 900,000 1,000,000 1,100,000 1,200,000 1,300,000 1,400,000

Seattle Public Utilities
Sources and Uses of Drinking Water Funds

Water Fund Revenues and Expenses (2015, $ in Millions)

### Revenues
- Residential: $86.5 (33%)
- Commercial: $98.1 (38%)
- Wholesale: $51.3 (20%)
- Public Fire: $8.4 (3%)
- Other: $11.4 (5%)
- Private Fire: $3.3 (1%)
- CIP: $52.5 (19%)

### Expenses
- O&M: $97.9 (35%)
- Debt Service: $85.9 (31%)
- Taxes: $43.0 (15%)

[Graph showing the breakdown of revenues and expenses]
Where We Are in Our Capital Investments

* Cedar Habitat Conservation Plan
Our Promises to Customers

SPU uses the following service targets as key indicators of quality and success:

**Regional System**
- Supply drinking water that meets or exceeds Department of Health regulations
- Provide in-stream water for fish and meet other tribal, regional, state, and federal commitments
- Achieve goals for water conservation & leakage loss

**Retail System**
- Meet state requirements for drinking water system flow and pressure
- Respond to 90% of high priority drinking water problems within one hour
- Limit yearly drinking water outages totaling more than four hours to less than 4% of retail customers

**Wholesale Customers**
- Meet pressure and flow requirements of wholesale drinking water contracts
- Limit unplanned outages in the drinking water transmission system to within the maximum agreed duration
Are We Meeting Our Service Targets?

Performing Well in Most Areas

- Extremely high quality drinking water that we will continue to maintain and protect
- Abundant supply of water – enough until 2060 and beyond – for people and fish, and manage it carefully
- Transmission and distribution system that is very reliable
- Respond quickly when problems arise
- Meet our conservation and leakage loss goals

Areas for Improvement

- Resourcing for deferred valve maintenance
- Resourcing for accuracy testing of large retail water meters
Customer Engagement

Public behaviors in a number of areas have significant impacts on our ability to keep our promises and make Seattle the best place to live:

• Customer Confidence: Drinking water is the sole consumable product of SPU – customer confidence in the safety, taste, and reliability of the product is critical

• Customer Education: Our system “from source to tap,” Bottled vs tap water, Cedar Education Center

• Operating Board: Voice and vote for wholesale customers

• Saving Water Partnership: Participation in regional water conservation programs

• Water System Advisory Committee
What’s Changed since 2014?

• Move Seattle levy – funding for utility impacts
• Better understanding of seismic hazards in the Puget Sound region
• Drought of 2015
• Continued study of climate change
• Increasing costs for street work
• Keeping up with growth (new taps)
Ongoing and Upcoming Challenges

• Our infrastructure continues to age - renewal and replacement schedule
• Deferred maintenance
• Focus on resiliency
  • Climate change strategies
  • Improved emergency preparedness / emergency response planning
• Customer perceptions about water quality in the face of Flint, MI and similar issues
• Keeping up with technology (billing system, accounting system, information systems)