A Framework for Defining Levels of Service

November 9, 2017
Agenda

1. Background
2. Procedure for Developing a LOS Framework
3. Components of the Framework
4. The Matrix
5. Next Steps
What Are Levels of Service?

A system to define and measure an organization’s objectives for serving its customers/community

Cadillac? vs. Volkswagen?
The Operational Perspective
The tangible assets of the NRRM will be managed in accordance with the following policies:

- Levels of Service
- Public and Stakeholder Participation
- Informed Decision Making
- Minimum Sustainable Cost
- Social & Environmental Responsibility
- Collaboration
- Financial Planning
- Integration
- Continuous Improvement
Levels of Service

- NRRM has established and strives to deliver levels of service that:
  - Comply with all legislated requirements
  - Protect and uphold public safety, community well-being and the environment; and,
  - Reliably meet the informed expectations of stakeholders and the public.

  **Action: Establish levels of service**
Asset Management Plans

Service Plans, Goals and KPIs
## Asset Management Plans

<table>
<thead>
<tr>
<th>Service Goal</th>
<th>Objectives</th>
<th>Priority Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meet Regulated Requirements</td>
<td>Increase WTP capacity to 90 L/s by 2015; Connect YYE to main town water system by 2019.</td>
<td>Implement capacity and efficiency improvements at WTP. Extend servicing to YYE and replace existing WTP.</td>
</tr>
<tr>
<td>Meet Customer Expectations</td>
<td>Maintain current level of water quality.</td>
<td>Continue to review taste and odour issues.</td>
</tr>
<tr>
<td>Reduce Per-Capita Water Use</td>
<td>Reduce maximum day per-capita demand by 10% by 2019.</td>
<td>Water loss management plan was completed in 2015 and did not identify specific leakage issues. Implement recommendations between 2016 and 2019.</td>
</tr>
<tr>
<td>Protect Public Health and Safety</td>
<td>Improve reliability and capacity of the Upper fire pumping system by 2019.</td>
<td>Replacement of diesel fire pumps is in progress.</td>
</tr>
<tr>
<td>Reduce Lifecycle Risks</td>
<td>Implement asset management system.</td>
<td>Asset Information System implementation in progress. Provide sufficient resources to support ongoing asset management work.</td>
</tr>
</tbody>
</table>
Components of the Framework

**Intent:** to serve as a founding document, providing a benchmark of service levels and AMS performance which builds over time

**Includes:**
- Matrix of priority performance measurement baselines and targets
- Procedures for evaluating and reporting on performance

**Integrated with:** the primary components of the Asset Management System
Procedure: Best Practice

1. Identify current levels of service provision
2. Ongoing review and management of performance
3. Assess affordability & make level of service decision
4. Evaluate options to manage level of service gap
   - Create new assets
   - Change O&M strategies
   - Dispose of assets
   - Demand management
   - Do nothing

Potential drivers for reviewing levels of service:
- Customer feedback, e.g. through complaints, monitoring, surveys, via elected representatives
- Change to legislative or industry standards
- Internal LOS reviews: identify areas to add value
- Strategic / political objectives changed or not being achieved
- Affordability
- Risk management: identification of unacceptable risks

Source: NAMS "Developing Levels of Service and Performance Measures" 2007
Procedure: NRRM

Developing a Level of Service Framework

1. Identify existing performance measures
2. Determine performance trends for each service category
3. Develop preliminary target service levels
4. Note any performance gaps
5. Finalize LOS framework
6. Establish procedures/actions for meeting targets
7. Review need for level of service change
Ongoing review and management of performance

1. Determine if levels of service need to be reviewed
2. Evaluate options to manage service gap(s)
3. Assess affordability of options
4. Make level of service decisions
The Matrix

- Service Category
- Performance Measures
- Benchmarks
- NRRM Performance Trends
- Target Service Levels
- Performance Gaps
The Matrix

<table>
<thead>
<tr>
<th>Service Category</th>
<th>Performance Measures</th>
<th>Customer LOS</th>
<th>Technical LOS</th>
<th>Source</th>
<th>Min</th>
<th>Max</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;% water system cleaned each year</td>
<td>Y</td>
<td>WSDAMP</td>
<td>0%</td>
<td>108%</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;% of pumps inspected each year</td>
<td>Y</td>
<td>WSDAMP</td>
<td>0%</td>
<td>0.024</td>
<td>0.004</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;% of inoperable or leaking valves each year</td>
<td>Y</td>
<td>NWWBI</td>
<td>0</td>
<td>540</td>
<td>231</td>
<td></td>
</tr>
<tr>
<td>Sustainability</td>
<td>Average day consumption per capita for residential customers each year</td>
<td>Y</td>
<td>NWWBI</td>
<td>168</td>
<td>540</td>
<td>231</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Average kWh/ML of energy consumed by treatment and distribution facilities each year</td>
<td>Y</td>
<td>WSDAMP</td>
<td>382</td>
<td>1541</td>
<td>530</td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td># of effluent samples exceeding WSER Permit levels each year</td>
<td></td>
<td></td>
<td>0</td>
<td>220</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Safety</td>
<td>Total # reported overflows each year / 100 km length</td>
<td></td>
<td></td>
<td>0</td>
<td>8.37</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>Reliability</td>
<td># service blockages each year / 100km length</td>
<td></td>
<td></td>
<td>0</td>
<td>10.1</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td>Sustainability</td>
<td>Average kWh/ML of energy consumed by treatment and conveyance each year</td>
<td></td>
<td></td>
<td>268</td>
<td>2143</td>
<td>873</td>
<td></td>
</tr>
</tbody>
</table>
Next Steps

• Finalize target service levels
• Workshop with Council
• Finalize framework

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• Monitor and review
Questions?
Thank you!

Lou-Ann Watson, Director of Public Works & Operations
Northern Rockies Regional Municipality

Catherine Simpson, MCIP, RPP
Kerr Wood Leidal Associates