

Aquatera Utilities Inc.

Overview



Development of Aquatera's Asset Management Strategy

Introductions

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Development of Aquatera's Asset Management Strategy

Introductory Video (Removed)



Development of Asset Management Strategy

- RFP in January 2013
- Opus International was the successful proponent and began work in March 2013.
 - Goal was to review Aquatera's current AM practices, asset data, procedures, etc...
 - Compare to industry best practice.
 - Identify gaps and prepare an improvement action plan.



Development of Asset Management Strategy

- Current State Review
 - Workshop, Interviews & Self Assessment Questionnaire based on AMBC Roadmap
- Workshops to establish Aquatera's AM requirements and desired practices
- Undertake Gap Assessment and Identify Improvement Actions
- Develop **AM Strategy** to implement top 10 Improvement Actions
- Presentation to Aquatera Steering Group
- AM Strategy review and update



Development of Asset Management Strategy

Purpose of AM Strategy:

- Facilitate implementation of AM Practices that **support** informed decision-making to:
 - Deliver appropriate, sustainable & affordable levels of service
 - Enhance service reliability & minimize risk
 - Provide value for money
- Key Objectives:
 - Governance
 - Knowledge
 - Stewardship
 - Management



Development of Asset Management Strategy

AM Strategy – Top 10 Tasks:

1. **Asset Management Governance**
2. AM Improvement Action Plan
3. **Determining Level of Service/Cost of Service (7)**
4. **Establish Compliance Register (9)**
5. Assess Data and System Needs
6. Establish Asset Register
7. Data Roles, Procedures & Controls
8. Asset Valuation and Long-term Renewals Plan
9. Tracking O&M Costs
10. Condition Monitoring Plan



Development of Asset Management Strategy

Implementing the AM Strategy:

Following "Sign-Off" of the AM Strategy, the following tasks (in addition to Governance) were identified for early Implementation:

3. Determining Levels of Service
 4. Establishing a Compliance Registrar
- Opus were engaged to provide ongoing AM advice, focusing on the following areas:
 - W & WW Treatment, Distribution & Collection and Customer Billing



Development of Asset Management Strategy

Addressing the Issues:

- No current definition of current/desired levels of service (LoS)
- Expenditure cannot currently be easily/accurately linked to the levels of service provided
- Unable to assess whether the current LoS is affordable or sustainable over the long-term
- Perception that organization is delivering a high LoS, but not all areas adequately covered by performance measures
- Legislative requirements not as well documented as could be; - a reliance on institutional knowledge with its associated risk



Development of Asset Management Strategy

Levels of service; - Some Background:

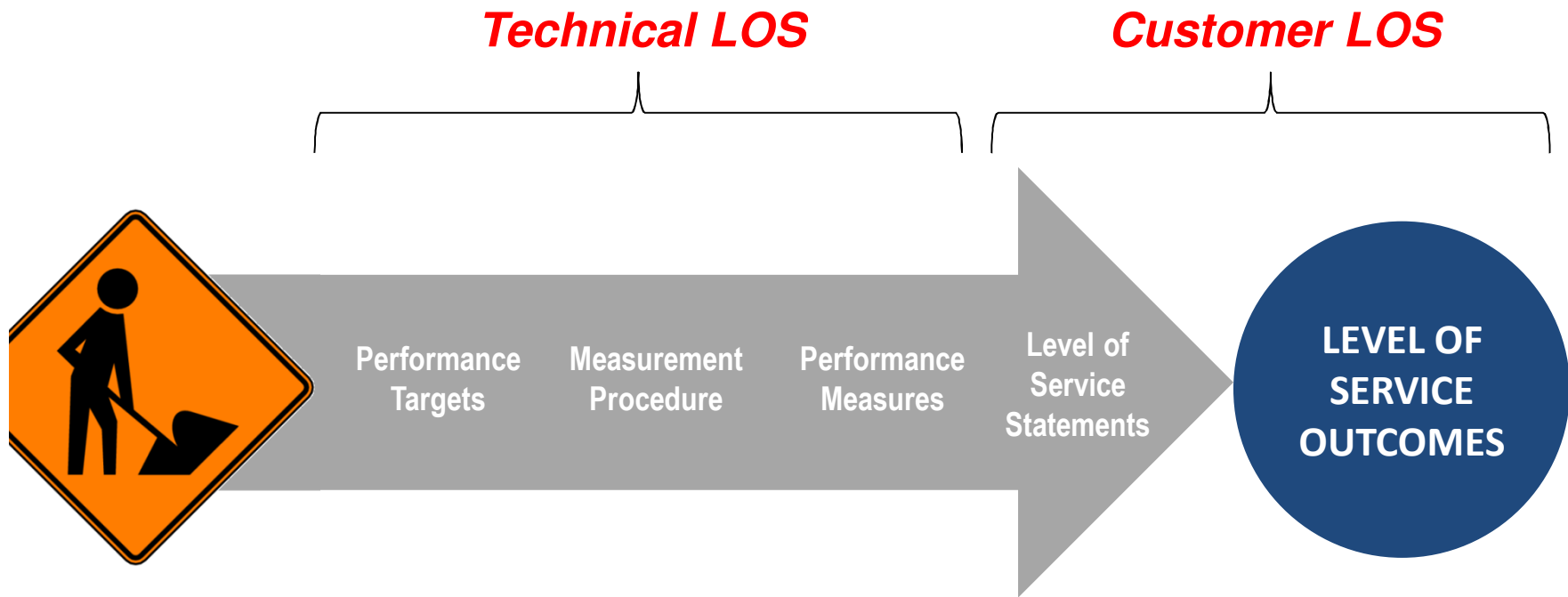
An Important, but often overlooked aspect of Asset Management (Avoided!)

- IIMM 2011: Statements that describe the outputs or objectives an organisation or activity intends to deliver to customers.
- Opus Definition; Delivering the agreed level of service for the least whole of life cost



Development of Asset Management Strategy

Levels of service; - Why they are Important:



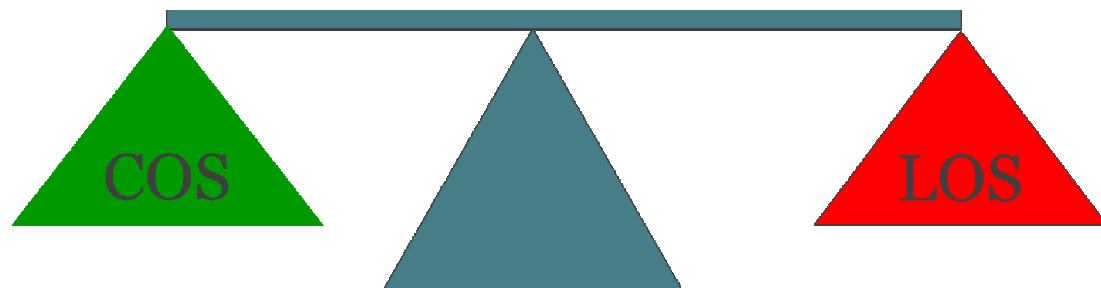
Development of Asset Management Strategy

Levels of service; - Why they are Important

Most Asset Owners operate as **Facility Managers** not **Asset Managers!**

FM = Find the faults and fix as many as we can with the budget available

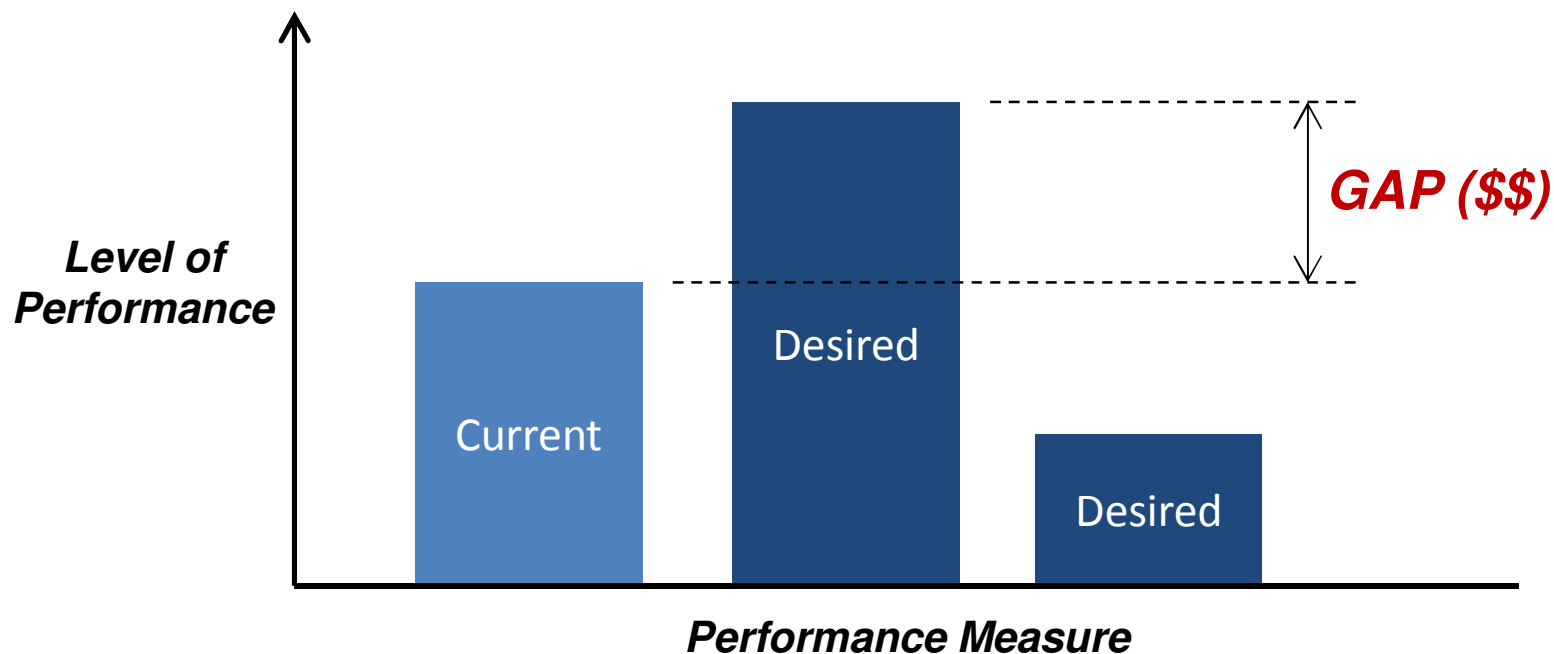
AM = debate and agree the service level and then deliver it for the least possible cost [whole of life costs]



Development of Asset Management Strategy

Levels of service; - Why they are Important

Measure and assess difference in provided service



Development of Asset Management Strategy

Levels of service; - Why they are Important

Benefits of defined Levels of Service:

- Allow investment to be prioritized –matching services to customer values
- Justification of budgets and work programs
- Greater understanding of why you do what you do
- Management of expectations (clear communication of services/related costs)
- Link strategic objectives to operational requirements



Development of Asset Management Strategy

Levels of service; - Why they are Important:

One size does not fit all

Agreed Service levels should be functions of

Affordability and

Risk Appetite



Development of Asset Management Strategy



Our Approach in determining Levels of Service

- Background Research and Review
 - Opus – best practice (by others)
 - Aquatera – own current practice
- Steering Group meeting
- Department Interviews/Workshops
- Recording discussions
- Quantifying current Cost of Service
- Draft Levels of Service report



Development of Asset Management Strategy

Some Initial Findings:

The draft LoS report is currently being reviewed by Aquatera, but the following highlight some of the issues we encountered:

- Most levels of service (except legislative) **Informal** (not documented), developed over time from good practice/experience,
 - Limited reporting/performance measures
- Without a CMMS identifying the CoS for Treatment proved very difficult and time consuming, - large areas of “unknowns”
 - This is currently being addressed
- Discrepancies between the costs recorded in the Financial System and what we were able to extract from Hansen for D&C;
 - Highlights need to improve reporting requirements



Development of Asset Management Strategy

Levels of Service Best Practice Review (**Lessons learned from others**)

- LoS development/implementation requires continued senior management commitment to be successful
- LoS development seen as an incremental process that requires continuous refinement
- Linkages between an organization's strategic objectives and its LoS is seen as very important
- Ensure a good cross-section of staff are involved in LoS development and that they are meaningful to the people operating the assets
- Initially focus on a small suite of LoS indicators that are important to customer and operations
- Implement regular reporting on performance



Challenges

- Limited or misunderstood knowledge of Asset Management
- Data gaps
- Poorly utilized software systems
 - Infor Hansen
 - In-house access database
 - Transition to new GIS
- Inter-department Communication
- Resistance to change

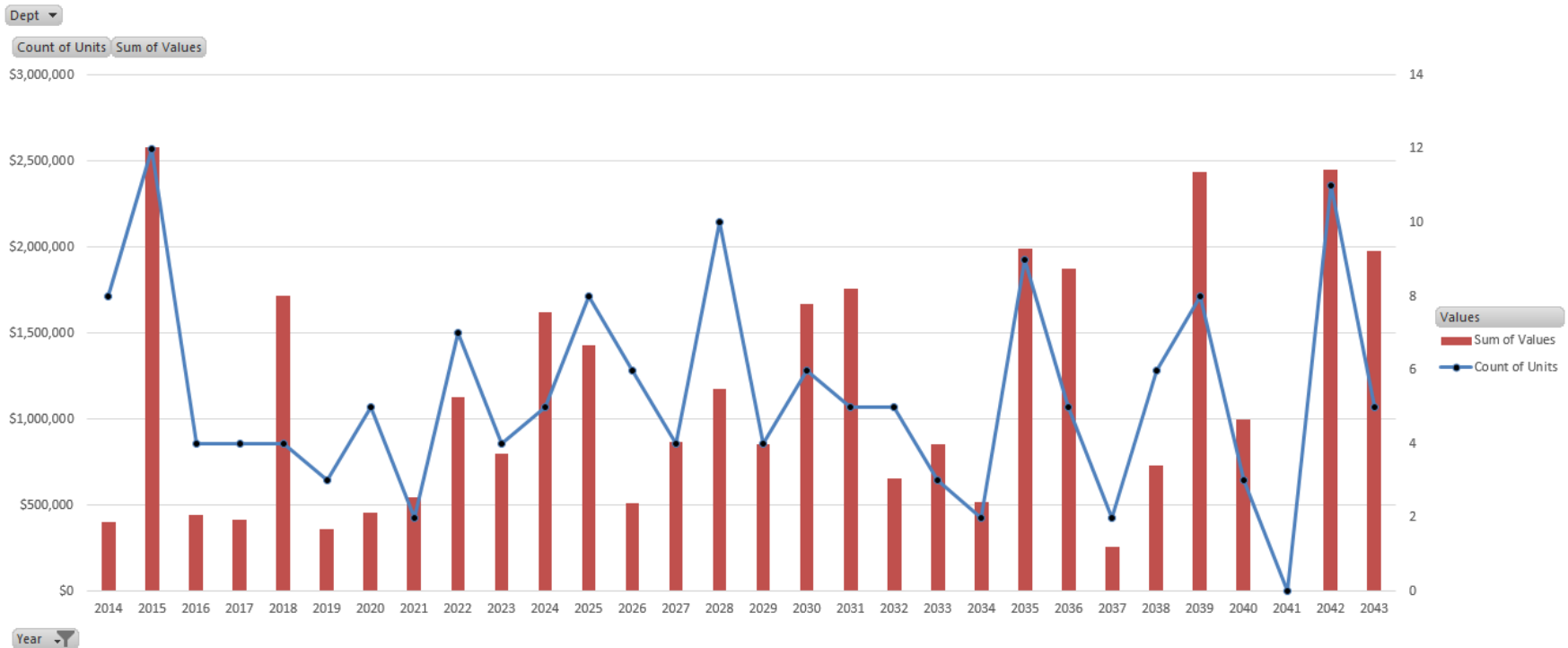


Successes

- AM direction
- Development of AM Steering Group (AMSG)
 - Senior Management Involvement.
 - COO & CFO – AM Champions
 - CEO
- Improvement of Software Systems
 - Infor (Hansen)
 - GIS
 - CMMS
- Fleet Replacement Procedure
 - Buy-in from Dept. Managers



Fleet Replacement Projections



Going Forward

- Improvement Action Plan – fill in the gaps.
- Develop and document corporate wide LOS.
- Develop first Asset Management Plan (AMP)
- Continue to improve current software systems.
- Continuous improvement.



Questions and Discussion

www.Aquatera.ca



Thank you for listening



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