Asset Management Planning

Prepared by:

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Overview

1. Cowichan Valley Regional District (CVRD)
   a) Location, Population
   b) Organization Structure
   c) Services and Assets
2. Asset Management
   a) Getting Started
   b) Objectives
   c) Our Approach
   d) Where are we now?
3. Challenges
Cowichan Valley Regional District

Population = 80,000
Area = 3,473 km²
CVRD Organizational Structure

Board of Directors

Brian Carruthers
Chief Administrative Officer

Cynthia Lockrey
Manager
Strategic Services

Allison Nelson
Executive Assistant

Mark Kueber
General Manager
Corporate Services Department
- Finance
- Human Resources
- Information Technology
- Legislative Services
- Procurement

Hamid Hatami
General Manager
Engineering Services Department
- Asset Management
- Capital Projects Management
- Environmental Services
- Recycling & Waste Management
- Water Management

Ross Blackwell
General Manager
Land Use Services Department
- Community & Regional Planning
- Development Services
- Economic Development
- Building Inspection & Bylaw Enforcement
- Parks & Trails

John Elzinga
General Manager
Community Services Department
- Public Safety
- Facilities & Transit
- Arts & Culture
- Cowichan Lake Recreation
- Island Savings Centre
- South Cowichan Recreation
3 Recycling Centres

Peerless Rd. Recycling Centre

Bings Creek Recycling Centre
6 Fire Halls

Malahat Fire Department

Honeymoon Bay Fire Hall

Mesachie Lake Fire Hall
6 Community Halls

Youbou Hall

Honeymoon Bay Hall

Mesachie Lake Hall
53 Parks

Kinsol Trestle

Mill Bay Community Wharf
19 Water Systems & 16 Sewer Systems

Saltair Water Treatment Plant
3 Recreation Centres with Ice Plants

Largest Hockey Stick in the World
Getting Started

1. What initiated the CVRD Asset Management Planning Process?
2. How did the CVRD get buy-in from Senior Management?
3. How did the CVRD get buy-in from the Board?
Strategic Focus Areas

1. Excellence in Regional Land Use Planning
   - Actions
     - Growth and Development
       Develop a regional planning strategy that addresses a range of land use issues and influences across all municipalities and electoral areas to ensure sustainable and coordinated management of growth and development.

2. Response to Climate Change
   - Actions
     - Climate Change Risk Assessment
       Undertake a comprehensive risk assessment of climate change impacts on land use planning, infrastructure, operations and public safety.
     - Climate Change Adaptation Strategy
       Based on risk assessment outcomes, develop prioritized strategies for responding and adapting to the impacts of climate change.
     - GHG Reduction Strategy
       Develop strategies for the reduction of corporate greenhouse gas emissions (GHG) and achievement of carbon neutrality.

3. Sound Fiscal Management
   - Actions
     - Use of Resources
       Undertake a regular process to examine the delivery of various CVRD services to ensure the effective use of resources.
     - Asset Management Plan
       Develop a comprehensive plan, strategies and associated policies to ensure sustainability of infrastructure and the services they provide.
     - Budget Transparency
       Improve the financial planning process and supporting information to promote greater awareness of and confidence in the CVRD five-year financial plan.
     - Achieving Objectives
       Implement a process for measuring the CVRD's performance in delivering services and achieving objectives.
Asset Management - Objectives

The main objective is to develop a detailed Asset Management Plan (AMP).
We have divided the project in 3 phases:
1. 1st Phase – Asset Inventory development
2. 2nd Phase – Asset Policies development
3. 3rd Phase – Asset Management Plan preparation
In future we will start with the Natural Capital Assets.
Our Approach

Phase 1
- Asset Inventory

Phase 2
- Asset Policies

Phase 3
- Plan Preparation

Progress so far…

- Identifying Key Internal Stakeholders
- Forming Steering Committee
- Developing a list of Asset Groups
- Creating Datasets
- Populating Database
- Conducting Condition-Based Assessment
- Defining Required Levels of Service for each asset group
- Developing Asset Management Strategy
- Developing Financial Strategy
- Preparing the Asset Management Plan

CVRD
Asset Management BC Framework
## Roles and Responsibilities

### ACTIVITIES

<table>
<thead>
<tr>
<th></th>
<th>Steering Committee</th>
<th>Executive Steering Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Utilities</td>
<td>Solid Waste</td>
</tr>
<tr>
<td><strong>Phase I - Asset Inventory</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Setting Up the 1st SC meeting</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td><strong>Asset Groups</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developing an Asset Group List (including sub-groups)</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td><strong>Datasets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developing a Dataset to capture Asset Types, quantity, and age for each Asset group</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td><strong>Database Population</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Populating the Dataset</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td><strong>Condition-Based Assessment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conducting a Condition-Based Asset review based on standard engineering practices</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Submitting the Condition-based asset review to SC for Comments</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Finalizing the Condition-Based Asset Review as per rec’d comments</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Phase I - Asset Inventory Complete</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

P – Prime, Accountable; R – Reviews Deliverables; C – Creates Deliverables; I – Provides Input; N – Notified
<table>
<thead>
<tr>
<th>Condition (Grade)</th>
<th>Performance</th>
<th>Structure</th>
<th>External</th>
<th>Internal</th>
<th>Services</th>
<th>Fittings</th>
<th>Typical Useful Life Remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 /5</td>
<td>Excellent (A)</td>
<td>Fits for Future</td>
<td>Sound structure.</td>
<td>Constructed with sound materials, true to line and level. No evidence of deterioration or discolouration</td>
<td>Constructed with sound materials, true to line and level. No evidence of deterioration or discolouration</td>
<td>All components operable and well maintained.</td>
<td>Greater than 45%</td>
</tr>
<tr>
<td>3 /5</td>
<td>Fair (C)</td>
<td>Requires Intervention</td>
<td>Adequate structure, some evidence of foundation movement, minor cracking</td>
<td>Appearance affected by minor cracking, staining, or minor leakage. Indications of breaches of weatherproofing. Minor damage to coatings.</td>
<td>Appearance affected by minor cracking, staining, or minor leakage, some dampness or mildew. Minor damage to wall/ceiling finishes</td>
<td>Occasional outages, breakdowns or blockages. Increased maintenance required.</td>
<td>Generally operational. Minor breakage.</td>
</tr>
<tr>
<td>2 /5</td>
<td>Poor (D)</td>
<td>At Risk</td>
<td>Structure functioning but with problems due foundation movement. Some significant cracking.</td>
<td>Damaged, weakened or displaced. Appearance affected by cracking, staining, overflows, or breakages. Breaches of weatherproofing evident. Coatings in need of heavy maintenance or renewal.</td>
<td>Damaged, weakened or displaced. Appearance affected by cracking, staining, dampness, leakage, or breakages. Breaches of waterproofing evident. Finishes of poor quality and in need of replacement.</td>
<td>Failures of plumbing electrical and mechanical components common place.</td>
<td>Fittings of poor quality and appearance, often inoperable and damaged.</td>
</tr>
<tr>
<td>1 /5</td>
<td>Very Poor (F)</td>
<td>Unfit for Sustained Service</td>
<td>Structure has serious problems and concern is held for the integrity of the structure</td>
<td>Badly damaged or weakened. Appearance affected by cracking, staining, overflows, leakage, or damage. Breaches of waterproofing. Coatings badly damaged</td>
<td>Badly damaged or weakened. Appearance affected by cracking, staining, leakage, or wilful damage. Breaches of waterproofing. Finishes badly damaged, marked and in need of replacement.</td>
<td>Plumbing electrical and mechanical components are unsafe or inoperable.</td>
<td>Most are inoperable or damaged.</td>
</tr>
</tbody>
</table>

## Condition Assessments

<table>
<thead>
<tr>
<th>Component</th>
<th>Condition</th>
<th>Performance</th>
<th>Yr New or Last Major Action</th>
<th>Assessment Date</th>
<th>Age in 2017</th>
<th>Typical Life Cycle or Action Interval</th>
<th>Est. Time Remaining to EOL or Major Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>A10 Foundations</td>
<td>Good</td>
<td>Fits for Future</td>
<td>1971</td>
<td>31-May-17</td>
<td>MH</td>
<td>46</td>
<td>75</td>
</tr>
<tr>
<td>B2010 Exterior Walls</td>
<td>Good</td>
<td>Fits for Future</td>
<td>1971</td>
<td>31-May-17</td>
<td>MH</td>
<td>46</td>
<td>60</td>
</tr>
<tr>
<td>B2010 Exterior Walls</td>
<td>Fair</td>
<td>Fits for Future</td>
<td>1982</td>
<td>31-May-17</td>
<td>MH</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>B2020 Windows</td>
<td>Fair</td>
<td>Requires Intervention</td>
<td>1971</td>
<td>31-May-17</td>
<td>MH</td>
<td>46</td>
<td>35</td>
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<tr>
<td>B3010 Roof Coverings</td>
<td>Poor</td>
<td>At Risk</td>
<td>1998</td>
<td>31-May-17</td>
<td>MH</td>
<td>19</td>
<td>20</td>
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<tr>
<td>C1020 Standard Interior Doors</td>
<td>Good</td>
<td>Fits for Future</td>
<td>1971</td>
<td>31-May-17</td>
<td>MH</td>
<td>46</td>
<td>75</td>
</tr>
<tr>
<td>C1030 Toilet and Bath Accessories, Rehab</td>
<td>Fair</td>
<td>Fits for Future</td>
<td>1971</td>
<td>31-May-17</td>
<td>MH</td>
<td>46</td>
<td>20</td>
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<tr>
<td>D3090 HVAC Systems and Equipment</td>
<td>Good</td>
<td>Fits for Future</td>
<td>2010</td>
<td>31-May-17</td>
<td>MH</td>
<td>7</td>
<td>25</td>
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<tr>
<td>D2020 Domestic Water Distribution</td>
<td>Fair</td>
<td>Fits for Future</td>
<td>2006</td>
<td>31-May-17</td>
<td>MH</td>
<td>11</td>
<td>20</td>
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<tr>
<td>D5010 Electrical Services and Distribution</td>
<td>Fair</td>
<td>Fits for Future</td>
<td>1971</td>
<td>31-May-17</td>
<td>MH</td>
<td>46</td>
<td>60</td>
</tr>
<tr>
<td>G301005 Fire Protection Water Storage</td>
<td>Poor</td>
<td>Requires Intervention</td>
<td>1947</td>
<td>31-May-17</td>
<td>MH</td>
<td>70</td>
<td>70</td>
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</tbody>
</table>
Challenges

Internal Challenges:
1. Understanding of Asset Management
   a) Staff
   b) Politicians
2. Staffing Capacity
   a) Interdepartmental Coordination
3. Software Package
4. Role of GIS

External Challenges:
1. Integration of Climate Change Risks
Next Steps

1. Levels of Service – Q4 2017 to Q1 2018
2. Developing Asset Management Strategy – Q2/Q3 2018
3. Developing Financial Strategy – Q3/Q4 2018
4. Preparing Detailed Asset Management Plan – Q4 2018
Questions?