Long Term Financial Planning & Asset Management

Fitting the pieces together
DNV Highlights

• Information is stimulating new thinking & confidence in decision making
• Our asset plans are ~99% complete
• Our LTFP is an evolving process that’s helping to shape community investments and outcomes
• AMP’s are integrated, saving us time, building teams and informing policy directions
Simple Steps

- Get the right people in place working together
- **Improve Information** on Municipal Services
- Make case for investments based on community outcomes and ROI
Big Picture

Official Community Plan

- Strategic Plans
- Long Term Financial Plan

Services

- Corporate Plan

Finances

- Annual Budget / Reporting
- Program level

Goals, Strategies, Actions
Service Levels
Demand management
Success measures

Financial Policy
Forecast and Analysis
Capital (AM) Plan
Funding Priorities
Success measures
OFFICIAL COMMUNITY PLAN

CORPORATE PLAN

KEY PLANS:

PRIORITY ACTIVITIES

STRICT DOCUMENTS

STRATEGIC FOCUS AREAS

DNV STRATEGIC DIRECTIONS

CCC

BDP

EF

DSE

Org. Health

TOWN + VILLAGE CENTRES

PARKS

TRANSPORTATION

SOCIAL WELL-BEING

WATER

HOMING

ENVIRONMENTAL MANAGEMENT

CLIMATE CHANGE

LIQUID + SOLID WASTE

EMPLOYMENT LANDS

JOBS

MAPELEWOOD ECONOMIC DEVELOPMENT

CLIMATE CHANGE ADAPTATION STRATEGY

MAPLEWOOD HOUSING

TOWN CENTRES

BALANCE REC.

TRANSPORTATION

MANAGE CHANGE

ENGAGED AND NIMBLE

FINANCIAL HEALTH

SERVICE EXCELLENCE

MONITOR PROGRESS

INFRA-STRUCTURE

CORP. PERFORMANCE

How to solve this problem?

Service Wants

Funding Reality
1. Complete strategic plans to prioritize investments by service area
2. Define programs and desired outcomes then rank them so adjustments can be made
3. Complete asset plans and determine lowest cost path to support program service levels
4. Forecast combined impacts of the plans and revisit financial policy and related measures
5. Use business cases to approve programs / projects which move you towards desired future state
Prioritize Investments

Development/Land Use
- Town Centres
- Housing Strategy
- Economic Development

Utilities
- Water
- Liquid & Solid Waste
- Watershed/Drainage
- Climate & Energy

Transportation
- Transit
- Roads and Bridges
- Pedestrians and Bicycles

Protection
- Police & Fire
- Emergency Planning
- Bylaw Enforcement

Community
- Parks and Open Spaces
- Recreation, Arts & Culture
- Library
- Social Services

Governance & Mgmt
- Corporate Business Plan
- Information and Technology
- Finance and Taxation

**Official Community Plan**
Set Policy

Financial Policy

- Affordable
  - Public / private good, allocations, development, grants
- Municipal Price Index (MPI)
- Demand, Condition, Reserves
- Sustainable Debt Leverage
- Triple bottom line

- Competitive Rates
- Fairness in Tax and Fees
- Cost of Service
- Asset Sustainability
- Sustainable Debt
- Return on Investment
Rank Programs

Program Attributes

- Mandate
- Cost Recovery
- Demand
- Service Providers

Priority Results

- Community Health & Well Being
- Safety
- Utilities & Environment
- Transportation
- Government

Which services and how best to deliver them

Which service level to achieve target outcomes

Rank Programs
Funding framework …

- Short, medium and long term views (1,5,10+)
- Inflation adjust revenues and costs
- Private benefits through fees
- Steady state capital renewal (1%)
- Risk adjust reserves, address project timing
- Replace, upgrade, expand, initiatives = bus. case
- Payback = innovation fund
- Development pays for development
- Debt for renewal gaps or new assets
- Land management policy
- Adjustments
Use Business Cases

<table>
<thead>
<tr>
<th>&quot;Total Impact™&quot; Sustainability Matrix</th>
<th>Areas of impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic</td>
<td>• Tax rates</td>
</tr>
<tr>
<td>Environmental</td>
<td>• Job creation</td>
</tr>
<tr>
<td>Social</td>
<td>• Asset utilization</td>
</tr>
<tr>
<td>Customer</td>
<td>• Leverage and risk</td>
</tr>
<tr>
<td>Organizational Investment</td>
<td>• Return on investment</td>
</tr>
<tr>
<td></td>
<td>• Air emissions and greenhouse gases</td>
</tr>
<tr>
<td></td>
<td>• Water, waste water and solid waste</td>
</tr>
<tr>
<td></td>
<td>• Aquatic quality of life</td>
</tr>
<tr>
<td></td>
<td>• Vegetation quality of life</td>
</tr>
<tr>
<td></td>
<td>• Safety</td>
</tr>
<tr>
<td></td>
<td>• Active living</td>
</tr>
<tr>
<td></td>
<td>• Rental housing</td>
</tr>
<tr>
<td></td>
<td>• Citizenship</td>
</tr>
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<td></td>
<td>• Stimulate knowledge and social growth</td>
</tr>
<tr>
<td></td>
<td>• Quality</td>
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<td></td>
<td>• Cost</td>
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<tr>
<td></td>
<td>• Perceived value</td>
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<tr>
<td></td>
<td>• Capital investment</td>
</tr>
<tr>
<td></td>
<td>• Operating investment</td>
</tr>
<tr>
<td></td>
<td>• Commitment of people and other organizational resources</td>
</tr>
</tbody>
</table>

Successful Sustainability
LTTP Five Pillars

- Connection to Other Plans
- Forecast & Analysis
- Programs & Service Levels
- Financial Policy
- Engagement
Fitting the pieces together
Define cost types

- **Renewal** (physical quality) – repairs or replacement of an existing asset to return it to its original service capability or purpose
- **Upgrade** (functional ability) - alterations to enhance the service potential, and/or extend the useful life of an asset
- **Expansion** (service capacity) - the acquisition or expansion of an asset by purchasing, construction or contribution
A word on Programs

Keep it simple, three steps

1. Identify programs in each service area
2. Full costing including allocations for
   - Support costs
   - Ongoing capital (AMP’s)
   - Customer costs (user fees)
3. Identify program outcomes and measures
# Program Allocations

Keep cost pools simple

<table>
<thead>
<tr>
<th>Cost Pool</th>
<th>Allocation Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Management *</td>
<td>Number employees</td>
</tr>
<tr>
<td>Facility Space</td>
<td>Sq. feet</td>
</tr>
<tr>
<td>Insurance</td>
<td>Replacement values</td>
</tr>
<tr>
<td>Project Management</td>
<td>Unit hours and rates</td>
</tr>
<tr>
<td>Assets &amp; Debt</td>
<td>Service areas benefiting</td>
</tr>
</tbody>
</table>

*includes finance, IT, HR, Legal, etc.*
A word on other funding

- Ongoing grants better than one time
- Grant programs not always in alignment with local priorities
- Some communities are close to sustainment funding levels but are challenged by growth (upgrade and expansion to support development)
- Need strategic + asset plans to prioritize and maximize benefits
Asset Management Plan Basics

- Levels of Service
  - Condition assessment
  - Risk analysis
- Lifecycle costing and Sustainability Measures
## Levels of Service

<table>
<thead>
<tr>
<th>Key Performance Measure</th>
<th>Level of Service (LOS)</th>
<th>Performance Measure Process</th>
<th>Current Level of Service</th>
<th>Optimal Level of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMMUNITY LEVELS OF SERVICE</strong></td>
<td></td>
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<tr>
<td>Quality</td>
<td>All bridges are in Fair physical condition or better; ‘fit for purpose’; smooth ride; good bridge aesthetics</td>
<td>Request For Service (RFS) from the public, and defects reported from preventative inspection on ride quality</td>
<td>Less than 5 RFS and inspection defects in total per year.</td>
<td>Zero complaints of quality per year</td>
</tr>
<tr>
<td>Function/capacity</td>
<td>Allow passage and greater connectivity between areas; Dual Use Path for cyclist and pedestrians</td>
<td>Community service requests related to functionalities of the bridges</td>
<td>Some complaints about lane closures due to construction.</td>
<td>Zero complaints of functional issues per year</td>
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<tr>
<td>Safety</td>
<td>Free of hazards, such as railing damage, trip hazards, potholes, ponding.</td>
<td>RFS received; community requests, and safety issues reported from preventative inspection</td>
<td>2 to 3 RFS per year for bent or rusted railings or other safety issues.</td>
<td>Zero complaints of safety issues per year</td>
</tr>
</tbody>
</table>
# Condition assessment - example

<table>
<thead>
<tr>
<th>Asset</th>
<th>Target physical condition (optimal level of service)</th>
<th>Current physical condition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vehicle bridges</strong></td>
<td>B - Good</td>
<td>Some are C</td>
</tr>
<tr>
<td><strong>Pedestrian bridges</strong></td>
<td>C - Fair</td>
<td>All C</td>
</tr>
</tbody>
</table>
Risk Analysis

- Risk profile help to understand Level of Service
  - Consequence = criticality
- Integrated planning process
  - Capital project risk score comes from risk register

<table>
<thead>
<tr>
<th>Project</th>
<th>Physical</th>
<th>Demand/Capacity</th>
<th>Function</th>
<th>What risk is being addressed? (RISK)</th>
<th>What happens if risk is not addressed? (EVENT)</th>
<th>When will the risk occur? (TIMING)</th>
<th>What is the chance of the event occurring? (PROBABILITY)</th>
<th>Health &amp; Safety</th>
<th>Service Interruption</th>
<th>Environment</th>
<th>Financial</th>
<th>Reputation</th>
<th>SCORE</th>
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</tr>
</tbody>
</table>
## Lifecycle Costs and 10 year work plan - DNV

<table>
<thead>
<tr>
<th>Asset group</th>
<th>Current Replacement Value</th>
<th>% of CRV</th>
<th>Annual lifecycle cost - capital</th>
<th>10 year average renewal</th>
<th>10 year total upgrade/expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AMP completed</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td>$676</td>
<td>33%</td>
<td>$7</td>
<td>$7</td>
<td>$84</td>
</tr>
<tr>
<td>Buildings</td>
<td>348</td>
<td>17%</td>
<td>14</td>
<td>12</td>
<td>64</td>
</tr>
<tr>
<td>Parks</td>
<td>58</td>
<td>3%</td>
<td>3</td>
<td>3</td>
<td>34</td>
</tr>
<tr>
<td>Technology</td>
<td>17</td>
<td>1%</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Library</td>
<td>4</td>
<td>0%</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Water</td>
<td>378</td>
<td>18%</td>
<td>6</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Sanitary</td>
<td>238</td>
<td>12%</td>
<td>4</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>Drainage</td>
<td>296</td>
<td>14%</td>
<td>7</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td><strong>AMP pending</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicles &amp; Equipment</td>
<td>19</td>
<td>1%</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>$2,034</td>
<td>100%</td>
<td>$44</td>
<td>$37</td>
<td>$205</td>
</tr>
</tbody>
</table>
Sustainability Measures

1% to 15% Operating surplus ratio (the percentage by which major controllable revenue varies from expenses adjusted with asset lifecycle costs)

(100%) Maximum Net financial liabilities ratio (the significance of net amount owed compares to revenue)

90% to 110% Asset sustainability funding ratio/Asset renewal funding ratio (the extent to which assets are being replaced at the rate they are wearing out).
## Sustainability Measures

### Operating Surplus Ratio

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Surplus (Deficit) Ratio</td>
<td>-11%</td>
<td>-8%</td>
<td>-5%</td>
<td>-3%</td>
<td>0%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Minimum Benchmark</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

### Net Financial Assets (Liabilities) Ratio

<table>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets (Liabilities) Ratio</td>
<td>28%</td>
<td>35%</td>
<td>40%</td>
<td>46%</td>
<td>52%</td>
<td>51%</td>
<td>52%</td>
</tr>
</tbody>
</table>

### Asset Sustainability Ratio

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Sustainability ratio</td>
<td>74%</td>
<td>75%</td>
<td>72%</td>
<td>72%</td>
<td>72%</td>
<td>72%</td>
<td>Pending</td>
</tr>
<tr>
<td>Minimum benchmark:</td>
<td>90%</td>
<td>90%</td>
<td>90%</td>
<td>90%</td>
<td>90%</td>
<td>90%</td>
<td>90%</td>
</tr>
</tbody>
</table>
AMP Summary

- Asset Management Plans allow:
  - Track progress on your infrastructure gap
  - Project future life cycle financial requirements
  - Ensure you’re on path to financial sustainability
  - Communicate performance on AM stewardship obligations
Our current state

- Strategic and asset plans are 80% complete
- Financial policies are evolving. Capital funding has tripled since 2003, gap is closing
- Program inventory is supporting ongoing budget adjustments
- Asset plans are charting a path to asset sustainability including development impacts
- Business case methodology is improving
Our future state

- Plans and policies complete, tools are working and information on services is current
- We’re more confident in our decisions and invest over $600 million capital and $1.5+ billion operating over next 10 years
- An ongoing community dialogue on goals, priorities, and policy shapes decision making
- Services are adjusted to meet changing community needs and target outcomes are achieved
Final comments

• Working across the organization improves everything!
• Information and a good process improves confidence
• Have a vision and stick with it
• Manage growing pains and find time to celebrate success
• Collaborate with others!
Thank you

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Andrew Zhou
• zhoua@dnv.org  604-990-3849
Asset Management Roadmap

Goals

1 - Define needs, evaluate and report on state of infrastructure

2 - Develop solutions, what needs to be done, when, how much will it cost?

3 - Secure funding through the Long Term Financial Plan
South Australia - 2011

- Within ten years South Australian Councils were in fact spending 3½ times as much on asset renewal and at the same time had effectively eliminated operating deficits (inclusive of Fair Value Depreciation).
Why NAMS?

- Built by municipal government for municipal government
- Provides a clear well documented path
- **NAMS is scalable to any size municipality**
  - Largest – Vancouver – pop. 651,000 +
  - Smallest – Village of Torquay, Sask. - Pop. 236
- Municipalities trained on NAMS
  - Canada – 60 in Western Canada
  - Australia – 300 +
  - New Zealand – 70
AM Framework - Sustainable Foundation

- PSAB / Inventories
- IIMM
- NAMS
- GFOA
- SALGA
- Financial Sustainability Indicators
- Financial Planning
- Asset Management
- Engineering Standards
- Accounting Standards
NAMS
(National Asset Management Strategy)

• Australia & New Zealand are years ahead of Canada

• AMP keys:
  • Defined Levels of Service
  • Fair/Replacement Value
  • Asset Conditions & Risk Registers
  • Life cycle costs and 10 year financial requests

• http://www.ipwea.org/AssetManagement/AboutNAMSAU/NAMSAustralia
Facility AMP supports many plans
Transp. AMP supports Transp. and Development
Sample – Building & Permitting

<table>
<thead>
<tr>
<th>PROGRAM DESCRIPTION/OUTCOME</th>
<th>ALL FUNDS (Incl. Capital)</th>
<th>% Cost Recovery</th>
<th>Measures (2011 Data)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2012 Budget</td>
<td>FTE's</td>
<td></td>
</tr>
<tr>
<td>The Building and Permitting Services program ensures construction is regulated in accordance with the Building Regulation Bylaw, Electrical Bylaw and Gas Bylaw. In addition, varied environmental permits, such as tree, soil, aquatic and streamside permits regulate and protect environmental assets. Activities include customer enquiries and assistance, permit receipt, review and approval, permit issuance, inspections and enforcement. The desired outcome is to provide District residents and developers with the necessary permits in an efficient manner to enable construction activity within the municipality, while ensuring compliance with District regulations and the general health and safety of individuals within buildings located in the District. In addition, environmental permits ensure the protection of the natural environment within the District.</td>
<td>$3,833</td>
<td>45.7</td>
<td>58%</td>
</tr>
</tbody>
</table>

- Demand increasing
- Cost recovery rate low
- Service level is improving