Implementation of an Asset Management Plan

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The Canadian municipal infrastructure deficit:

- Estimated at $50 - $60 billion
- Growing at $2 - $3 billion a year
Recent headlines:

- Hamilton - “…faces a $500 million infrastructure deficit over the next 10 years”
- Edmonton - “the tab is $3.2 billion and rising over the long-range plan”
- Winnipeg - “has a backlog of $188 million this year for infrastructure upgrades”
- Halifax - “has a $150 million infrastructure deficit”
- Montreal - “estimated water and wastewater infrastructure deficit of $4 billion over next 20 years”
Municipal Challenges

There are many…

• Increasing municipal funding burdens
• Limited sources of available funding
• Short term political cycle
• Lack of complete understanding of current infrastructure stock and asset condition
• “Financial information gap”
“Financial information about the stock and use of infrastructure must be at the forefront of public sector decision making”

- Accounting for Infrastructure in the Public Sector (Canadian Institute of Chartered Accountants, 2002)
What is Asset Management?

- Described as a systematic process of maintaining, upgrading and operating physical assets cost-effectively
- Combines engineering principles with sound business practices and economic theory
- Provides tools to facilitate a more organized, logical approach to decision making
Why Should You Do It?

Building Code (Bill 124)

Sustainable Water and Sewage Systems Act (Bill 175)

“Building a Better Tomorrow” (MPIR - July 2004)

Municipal Act requires PSAB reporting

Asset Management and Reporting
What’s the Real Reason?

**A few benefits:**

- Facilitates the establishment of policy objectives and measurement of performance
- Provides better and consistent levels of service to the public, at less cost
- Allows for better decisions regarding resource allocation
- Reduces risk to the municipality
- Leads to more effective communication with ratepayers, elected officials, and financial rating organizations
Ensure that water and wastewater systems generate sufficient revenue to recover fully all of the long-term operating and capital costs required to provide residents with clean, safe water.
Prepare a business case that outlines the expected costs directly related to preparing and implementing the asset management plan and the benefits of implementation

- Should identify the short and long-term objectives
- A work plan
- Roles and responsibilities
- Schedule
- Budget for various milestones
- Deliverables
**Essential Elements**

What do you have and where is it? (*inventory*)

What is it worth? (*Historical costs/replacement cost*)

What is its condition and remaining service life? (*life cycle*)

What is the level of service expectation? (*risk*)

How much will it cost to replace and when? (*life cycle*)

How do you pay for it? (*financing*)

Who needs to know? (*accountability and reporting*)
Asset Management Flow Chart

1. USER GROUPS
   - Consistent Terminology
   - Identify Existing Capital Databases
   - Projects Under Development
   - Identify Missing Assets

2. COMPLETE CAPITAL DATABASE
   - Identify Existing Capital Databases

3. VALUATION
   - Fair Market Value
   - Historical Cost
   - Estimation
   - Surplus Assets
   - Thresholds
   - Sales

4. RISK ASSESSMENT
   - Insured
   - Reserves
   - Surplus Assets
   - Sales
   - Revenue Enhancement

5. DEFERRED MAINTENANCE
   - Service Level
   - Financing
   - Maintenance (Major) Schedule
   - Debt Management
   - Replacement
   - Betterment

6. LIFE CYCLE
   - Depreciation
   - Maintenance

7. MANAGEMENT REPORTING
   - Financial Statements
   - Full Cost Recovery
   - Adjust User Fees

8. AUDIT COMMITTEE
   - Council
   - Public
A Combined Perspective
What is Required?

**Capital Database (inventory)**

- Consistent terminology
- Thresholds
- Betterment vs. maintenance
- Integration (GIS to financial system)
- Data collection (public works/facilities/finance/parks)
- Recording consistent with accounting policies
What’s it Worth?

Valuation

• Historical cost
• Deflated reproduction/ replacement costs
• Fair value
• Capitalization of carrying costs
• Contributed assets
• Betterment vs. maintenance
• Maintain documentation for audit
What is its Condition?

Risk Assessment

• Materiality vs. risk of failure
• Adequate insurance
• Adequate reserves
• Surplus assets
What is the Expected Service Life?

*Life cycle costing*

- Capital and operating costs
- Maintenance
- Major maintenance
- Expected life
- Replacement costs
Life Cycle Asset Management

![Diagram illustrating the total life cycle cost and decision points for rehabilitation, replacement, and failure. The graph shows the relationship between time, level of service, maintenance, optimal rehabilitation, slipped rehabilitation, and failure, with associated costs.]
Closing the Financial Information Gap

Financial Information Gap

Infrastructure Deficit (Funding Gap)
Full Cost Recovery Model and Funding Gap Framework

- **True Full Life Cycle Costs**
  - Direct Costs: Direct labour, Chemicals, etc.
  - Indirect Costs: Administration, Debt service, etc.

- **Capital Costs**
  - Upgrades
  - Deferred Maintenance
  - Renewals
  - Growth

- **Operating Costs**
  - Life Cycle Costing
  - Costs of meeting new regulations

- **PRELIMINARY FUNDING GAP**

- **Funding Sources**
  - Internal Sources: Property Tax, General Reserves, Dedicated Reserves
  - External Sources: Debt Financing, Government Funding, Private Sector Partner
  - User Fees: Consumption billings, Connection charges, etc.
  - Other Funding Sources: Development Charges, Special Levies

- **Track using 3-way integrated financial projection model**
Benefits of Full Cost Recovery Model

• Improved focus on the need to consider the long-term in planning the amount and timing of infrastructure expenditures
  – Reporting infrastructure as a depreciating asset focuses attention on its finite life, and the need to spend to maintain it

• Improves internal accountability and financial monitoring

• Provides a flexible scenario analysis tool

• Provides a useful “selling tool” for discussions with elected officials and other stakeholders

• Assists in proactively:
  – meeting the “true full cost” and “full cost recovery” reporting requirements under SWSSA (Bill 175), Building Code (Bill 124)
  – meeting the “Building a Better Tomorrow” objectives
  – preparing for the introduction of the public sector accounting rules
Who Needs to Know?

Financial reporting requirements

• Currently PSAB requires local governments to provide information about physical assets

• PSG -7 Tangible Capital Assets requires disclosure in notes to the financial statements about tangible capital assets by January 1, 2007 or earlier

• Tangible Capital Assets will be required to be reported on financial statements by January 1, 2009 (with comparables 2008) or earlier

• Budgetary impacts
Who Needs to Know?

**Accountability**

- Audit Committee
- Council
- Public
- Training and Education
Reporting Approach

- Asset Management System
- Policies and Procedures
- Support and Audit Trail

Financial Accounting System

- Budget
- Financial Statements

Audit Committee

- Committee of the Whole
- Council

Operations

Public

Training

External Auditor
Start getting the tools in place now!

- Need to be ready starting January 1, 2007
- Better understanding of:
  - Infrastructure inventory, condition assessment and investment needs
  - True full cost of “infrastructure” operations on a life cycle basis
  - Current and planned revenue/funding sources
  - “Funding Gap” that may exist
- Basis for more informed strategic planning and decision making
- Useful “selling tool” for discussions with elected officials and other stakeholders