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# Council Policy

## Sustainable Municipal Infrastructure

APPROVED March 8, 2010

RESOLUTION: R207/10/03/04  
 REPLACING: NA  
 DATE OF LAST REVIEW: March 2010

### A. BACKGROUND

In August 2007, Council approved the “City of Kelowna Actions Toward Sustainability”. It defined sustainability as “meeting the needs of the present while improving the capacity of future generations to meet their own needs.” The ‘Action Plan’, underpinned by 9 principles, documented the City’s accomplishments in a wide range of ‘green’ initiatives and included 18 recommendations that would move the Corporation toward greater corporate sustainability. Among these was a recommendation directing staff to develop a triple-bottom-line approach to prioritizing capital projects.

In late 2008, the Corporation of the City of Kelowna (City) reorganized, in part, to create an integrated approach to the planning, designing, constructing, managing, renovating, operating, maintaining, decommissioning and disposing of the growing inventory of City-owned infrastructure. This was expected to improve the City’s accountability for sustainable municipal infrastructure.

### B. DEFINITIONS

City-owned infrastructure: Infrastructure that is constructed, purchased, managed or financed by the City.

Condition Assessment: The systematic evaluation of the physical depreciation of an infrastructure asset relative to its anticipated service life. The Facility Condition Index (FCI) is used in Facilities Management to provide a benchmark to compare the relative condition of a group of facilities. FCI is the ratio of the combined value of Deferred Maintenance and Capital Renewal Deficiencies divided by the Current Replacement Value. Values greater than 15% represent poor condition. Values greater than 40% are a strong indication that further investment in the asset should be challenged. Although the term FCI is used for buildings, the concept of condition assessment is also applied to other infrastructure types.

Indicator: a measurable mission-critical result that can be directly affected by the actions of the City. Indicators can measure inputs (labour, material, money), the direct deliverables of business processes (outputs), or the outcomes that are fundamental to the corporate purpose.

Infrastructure: Durable assets that provide the physical structure of municipal services. Infrastructure plays a critical role in the capacity of Canadian communities to realize sustainable development goals and to enhance their competitiveness and prosperity, their ability to innovate, and their impact on climate change and the world’s consumption of non-renewable resources. Infrastructure includes:

transportation networks (for passenger and commercial vehicles, public transit, active transportation such as bicycles, and pedestrians);

utility networks (water supply and distribution[domestic and industrial]; wastewater collection and treatment; storm water collection/treatment/ and flood control; solid waste (recycling, composting, landfill); energy [renewable and non-renewable]);

municipal information and communications networks;

municipal vehicle and equipment fleet;

parks and natural areas; and

civic buildings (public protection [police, fire and emergency services]; operational [city hall and yards facilities], recreation and culture [sports fields and facilities, cultural facilities, public art and heritage]; and affordable/social housing).

## B. DEFINITIONS CON'T

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**Infrastructure Asset Management:** the discipline of managing infrastructure assets to achieve a Council approved “standard of service” for the minimum life-cycle cost. The standard of service is defined by global performance standards specified by the multiple bottom line framework, specific performance standards related to the service provided (ex. water quality and quantity) and the minimum acceptable condition of the asset.

**Life-cycle cost analysis:** An inclusive approach to costing infrastructure that includes all costs from cradle to cradle, direct and indirect, incurred through the service life of the facility. Direct costs often include construction, operation, maintenance, and demolition/recycling. Indirect costs can include productivity losses attributable to the asset, the costs of externalities including the health and environmental costs related to pollution. Life-cycle cost analysis considers the net present value of various design options to determine the best return on investment.

**Multiple-Bottom Line Framework (MBL for capital infrastructure):** A set of indicators, specific to Kelowna, that provide meaningful targets for a range of key results that can be closely attributed to municipal infrastructure. These results describe outcomes related to (a) the creation and accumulation of the full range of capital accounts, and (b) the organizational or governance capacities that are essential for municipal and global sustainability. The framework considers Kelowna’s current community goals (see Annex 1), sustainability principles (see Annex 2) and Corporate Strategic Plan goals and objectives that can be directly influenced by municipal infrastructure.

## C. POLICY

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The City’s municipal *infrastructure* provides the essential foundation for local economic prosperity and the quality of life for its residents, as well as making a fair and appropriate contribution to global sustainability.

The City of Kelowna will **provide leadership** among mid-sized cities in North America in developing and managing sustainable infrastructure that achieves minimum targets set out in the multiple-bottom-line framework.

The City will support the development, adoption, and implementation of **best practices** in the planning, designing, constructing, managing, renovating, operating, maintaining and demolishing of city-owned infrastructure to achieve benefits for the corporation and the residents, businesses and institutions of the City while achieving measurable life-cycle cost savings.

The City will be accountable for achieving *multiple bottom line framework* objectives at the infrastructure system level, rather than individual projects. The **holistic application** of this policy recognizes that it is the performance of the whole system that matters, and that the parts cannot be judged in isolation.

The City will use the *multiple bottom line framework* in the development of an Asset Management Plan for the stewardship of existing assets. The City will use the MBL framework to **plan investments** (capital and operating) in City-owned infrastructure through the annual budget, the 10-year capital plan, and the 20-year Servicing Plan and Financial Strategy.

The City will provide Council annual **reporting** on the actual performance of municipal infrastructure.

The City will **engage the public** in the ongoing evolution of the “multiple-bottom line” framework to ensure that the public interest is met.

The City will **share information** and support the implementation of these practices outside the Corporation.

## D. BUDGETING AND FINANCING

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The following financial principles are assumed:

Building sustainable infrastructure and using best practices in the operation, maintenance, and decommissioning of *infrastructure* will significantly reduce life cycle costs.

Annual budget investments in infrastructure will be expected to achieve minimum targets in all multiple bottom line framework indicators.

## E. ATTACHMENTS

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**Attachment 1:** Draft 2030 OCP Community Goals

**Attachment 2:** 9 Principles of Corporate Sustainability for the City of Kelowna

**REASON FOR POLICY**

The purpose of the Sustainable Infrastructure Policy is to ensure that all City-owned infrastructure is planned, designed, constructed, managed, renovated, operated, maintained, decommissioned and recycled:

- to achieve a full spectrum of common infrastructure performance targets
- to support a high quality of life for Kelowna residents,
- to support the prosperity of the City, its residents, and the profit and not-for profit sectors, and
- to assure the long-term fiscal health of the City.

Further, the purpose of this policy is:

- to provide guidance regarding infrastructure investments
- to ensure that the City provides the Council approved levels of infrastructure services to its citizens
- to demonstrate how the City is contributing to global sustainability
- to give measurable definition to how the City's infrastructure is benchmarked against North American mid-sized cities (100,000 -250,000 population).

**LEGISLATIVE AUTHORITY**

N/A

**PROCEDURE FOR IMPLEMENTATION**

**Achieving results:** The General Managers of Community Sustainability and Community Services and the Directors of City departments whose responsibilities include planning, designing, constructing, managing, renovating, operating, maintaining, decommissioning, demolishing and recycling City-owned infrastructure shall be responsible for working towards infrastructure that achieves the goals of the multiple bottom line framework.

**Coordinating Committee:** Directors responsible for municipal infrastructure shall be responsible for coordinating and sharing resources available to improve infrastructure performance relative to the multiple bottom line framework, to promote the achievement of sustainable infrastructure both within the City and to the public, and to improve the usefulness of the MBL framework. A Coordinating Committee of these departments, chaired by Infrastructure Planning, will be struck to identify barriers and opportunities and to develop and implement appropriate action plans.

**Annual Scorecard:** The Department of Infrastructure Planning shall be responsible for annually evaluating and reporting to Council on how well City infrastructure is meeting the targets of the multiple bottom line framework, and coordinate an action and investment plan for improvement where required. Both the `scorecard` of results and the action plan for improvement will be assembled, reviewed and approved by the Coordinating Committee.

**Best Practices and Business Processes:** Departments responsible for City-owned infrastructure shall develop, document and adopt best practices and business procedures to meet consistently high levels of performance in their area of accountability. The development of mutually agreeable interdepartmental best-practices and business processes will be led by the Coordinating Committee.

**Asset Management Plan:** Infrastructure Planning, working with all departments having infrastructure responsibility, shall coordinate an Asset Management Plan using the multiple bottom line framework. This will include business case formats to meet Council-approved 'levels of service', 'service life' expectations, and affordable investment plans and innovative financing strategies that will ensure that costs are born equitably by beneficiaries of infrastructure services in proportion to the benefit they receive. Infrastructure Planning shall ensure that the Asset Management Plan includes appropriate input regarding risk management, environmental regulation and the fiscal health of the Corporation.

**PROCEDURE FOR IMPLEMENTATION CON'T**

**Service Levels:** Council will approve service levels for municipal infrastructure that meet regulatory requirements, recognize best practices, address citizen needs, and are affordable.

**Annual and 10-year Capital Plans:** Infrastructure Planning shall coordinate the evaluation of the annual and 10-year capital plan with reference to the multiple bottom line framework and recommend investments that achieve the highest performance improvements within the available capital budget.

**Discretion:** The General Managers of Community Sustainability and Citizen Services shall have the discretion, in cases where the cost and time required to achieve multiple bottom line framework targets outweighs any resulting benefit, to adjust the targets of the multiple bottom line framework and still meet the intent of the Policy. The use of this discretion must be reported to in the annual infrastructure report to Council.

**Revision and Interpretation:** On-going improvements to the multiple bottom line framework --- an administrative instrument of this policy --- will be recommended by the Coordinating Committee and approved by the City Manager. Final interpretation of the multiple bottom line framework is made by the General Manager of Community Sustainability. Final interpretation of the Sustainable Infrastructure Policy is made by the City Manager.

- Recognize the natural environment as a functional system that supports local and global biodiversity and human health by protecting, maintaining, or enhancing natural areas, biodiversity and ecosystem values
- Reduce community greenhouse gas emissions 33% below 2007 levels by 2020 by reducing dependence on non-renewable energy resources, improving local air quality and addressing the impacts of climate change
- Conserve resources and reduce waste
- Maintain the quality of our drinking water and ensure ground water recharge
- Promote health, safety, and wellness for residents and visitors
- Promote a fair and caring community through providing equal opportunity, inclusive decision-making, honouring diversity, promoting intergenerational equity and accessibility of basic needs
- Create a sense of place by celebrating Kelowna's distinctive history, culture, identity and arts
- Promote and maintain a strong, stable economy that supports local, sustainable business opportunities and growth.

**ATTACHMENT 2: Nine Principles of Corporate Sustainability for the City of Kelowna**, adopted by Council as part of the “City of Kelowna Actions Toward Sustainability”, August 2007

1. Promote health, safety and respect in the workplace
2. Seek opportunities to collaborate with external groups in transparent relationships
3. Strengthen a shared corporate culture that demonstrates sustainability in policy and action
4. Protect biodiversity
5. Conserve resources and reduce pollution
6. Help restore the environment from harm already done
7. Maintain and enhance existing assets
8. Maximize use of physical infrastructure
9. Take a long-term, life-cycle and triple bottom line view for financial planning