
CITY OF KELOWNA

MEMORANDUM

Date: April 2, 2008
File No.: 6430-05
To: City Manager
From: Manager, Policy/Research/Strategic Planning
(on behalf of the Sustainability Working Group)
Subject: City of Kelowna Action Towards Sustainability

RECOMMENDATIONS:

THAT Council receive the April 2, 2008 update report from the Sustainability Working Group for information.

BACKGROUND:

Council Direction

On August 20, 2007 Council directed staff to pursue specific actions towards sustainability. The action items were intended to be completed over an 18 month period. It was recommended that the City Manager monitor compliance with Council-endorsed directions on sustainability and ensure a "check-up" by early 2008. The City Manager has, as directed, met with the Sustainability Working Group to discuss progress. This report provides a six month update, with the intent of providing related information to Council and the community-at-large.

Follow-up by SWG

The action items endorsed by Council have been assigned to staff across the organization. The Sustainability Working Group (SWG), a team of six managers representing multiple departments within the city organization, has coordinated activities, encouraged action, helped remove barriers, and monitored progress. The SWG has met nine times since August 2007 to fulfill those functions.

Progress Report

The following table summarizes progress to date.



TABLE 1: Actions* Towards Sustainability – Six Month Progress Report

	Action	Substantially Complete	Ongoing	Not Started	Comments
1.	Incorporate Principles of Sustainability		*		This action item is truly on-going and will never, as such, be "complete".
2.	Increase Natural Open Space		*(10%)		Parks planning efforts currently underway will identify options for delivering on this action item.
3.	Set up Mitigation Banking		*(30%)		Related policies were adopted by Council in December 2007. This action item will now be furthered through implementation of those policies.
4.	Plant trees		*(30%)		Related vegetation studies have been completed. Council recently asked staff to set future tree canopy goals and develop strategies for achieving those.
5.	Reduce Water Consumption by further 15%	*(90%)			A plan has been completed to reduce water consumption in City-owned buildings by 17% in 2008. Plan will be presented to Council in Spring 2008.
6.	Develop GHG Reduction Action Plan	*(90%)			Report to Council to come shortly.
7.	Obtain Fleet Review	*(90%)			Report to Council to come shortly.
8.	Ensure Sustainable Development at Central Green		*(30%)		Concept Plan is being developed so as to ensure sustainability.
9.	Contract Triple Bottom Line Consultant		*(10%)		Consultant proposal has been solicited.
10.	Develop Organizational Sustainability Indicators	*(80%)			Initial consultant assignment has been completed. Now awaiting completion of related action items (#9,12,13) before finalizing this work.
11.	Recognize Staff Implementing Sustainability Practises	*(80%)			Program has been developed. First award expected to be delivered this Spring.
12.	Explore approaches for funding projects with higher up-front capital costs, but lower long- term operating costs		*(70%)		This is being undertaken in conjunction with activities related to the Energy Management Plan.
13.	Develop Sustainable Purchasing Policy		*(10%)		Some initial research has been completed. Given other staff commitments, this item may require engagement of consultant resources.
14.	Identify Opportunities for Solar Power		*(15%)		A partnership has been developed between NRCAN, Carmanah and the City towards a \$1 million solar lighting initiative for civic facilities. The Energy Management Committee continues to explore opportunities for solar power.
15.	Identify costs associated with demonstrating improvements in green space and environmental function		*(15%)		This can probably be most effectively advanced through a Triple Bottom Line budgeting process (item 9).
16.	Identify costs associated with ensuring LEED standards for municipal buildings	*(90%)			Recent research suggests that, under the right circumstances, there is no cost premium to building to LEED standards.

*The actions noted in this table are in addition to a long list of sustainability-related initiatives that have been and continue to be implemented across the organization. Previous reports have identified those initiatives. Related information is available on the city's website. This table focuses purely on the *additional* activities that Council asked staff to initiate (August 2007).

Six months into the 18-month implementation period, staff have commenced action on all 16 assigned items. Six action items are now 'substantially complete', with related reports to Council expected imminently.

One of the action items (listed as #16 in the summary table) involved identifying costs associated with ensuring LEED standards for municipal buildings. Specifically, staff were asked to:

1. *Identify costs associated with preparing an Action Plan for ensuring that all new municipal buildings over 500m² be capable of achieving "LEED Gold" standard with full CaGBC Certification or equivalent/better beginning in 2008 and bring forward these costs for consideration as part of the 2008 budget process.*
2. *Identify costs associated with preparing an Action Plan for ensuring that all existing municipal buildings over 500m² are capable of achieving "LEED Silver" or equivalent/better within 7 years and bring forward these costs for consideration as part of the 2008 budget process.*
3. *Identify costs associated with a requirement that all buildings constructed or renovated to meet LEED standards be audited at the third year of occupancy to demonstrate that reductions in energy consumption, GHG emissions, and the savings derived from increased productivity have been achieved and bring forward these costs for consideration as part of the 2008 budget process.*

With respect to item #1 above, staff have now investigated the matter and can relay that although early experiences showed a cost premium associated with LEED construction, that premium has now largely disappeared. Earlier experiences with LEED Gold buildings showed a capital cost premium of about 5% that would be repaid in operational savings and increased productivity in relatively short times. By 2003, Greg Kats released a study showing that the average construction premium for a sample of 33 LEED certified buildings across the US was 1.84% with the 6 LEED Gold buildings in the sample having a capital cost premium of 1.82%. In 2004, Lisa Fay Matthiesen and Peter Morris of real estate consultant Davis Langdon used their firm's proprietary construction cost database to compare the cost of 45 buildings seeking LEED certification against 93 conventional buildings. The conclusion that emerged was that *"many projects achieve sustainable design within their initial budget, or with very small supplemental funding."* Further, *"the costs per square foot for buildings seeking LEED certification fall into the existing range of costs for buildings of similar program type."* Another study by Mattheissen (2007) on laboratory buildings showed that green buildings are randomly distributed throughout the sample costs of all projects whether "green" or not, arguing that the factors that influence construction cost more significantly than sustainability measures include program components, regional construction market variation, and the experience of the design team in the building type. Robin Guenther and Gail Vittori (2008, Sustainable Healthcare Architecture, p.109) concur and summarize that the most significant contributions to capital costs are:

- o the earlier the green features are incorporated into the design, the lower the cost
- o costs decline with increasing experiences and as market transformation occurs
- o green buildings provide financial benefits that brown buildings do not.

Given the above, it is suggested that rather than prepare an Action Plan, as initially directed, that

Civic Properties begin taking a two-phased (two-year) approach to future capital projects. With a two-phased approach, Civic Properties would in the first year undertake an integrated design process. The purpose of that design process would be to identify opportunities to make a given project low-energy, LEED certifiable, and 'low-carbon'. The second phase (second year) would then involve a budget submission for construction. With the integrated design process having been completed, staff would be in a position to advise how, and at what cost, the city's objectives could be achieved. Council could then decide on the budget for the project with full information in hand. Civic Properties proposes to shortly come forward to Council with a report suggesting this approach.

With respect to item #2 above, staff will be in a better position to identify associated costs once the Canadian Green Building Council releases the LEED guidelines for existing construction (expected later in 2008). Transforming existing buildings to LEED will probably follow current practices of pay-back analysis. Kats (2003) stated the general principle: "The financial benefits are in lower operating costs, lower environmental costs and increased productivity and health. Over twenty years, the benefits are over ten times the additional costs."

With respect to item #3 above, it is suggested that monitoring building performance should be a normal part of good building operation practice. Due diligence in monitoring energy consumption is part of regular building inspections and provides necessary information to achieve optimum building performance and to ensure that the building achieves its full service life potential. In conjunction with the City's tangible capital assets initiative, Civic Properties is establishing a maintenance management system to operationalize these goals. This cost is not associated with "green" or "conventional" construction, but is a matter of good business practice. It is also anticipated that better buildings will benefit staff health and productivity.

Next Steps

Over the next year, staff will, unless directed otherwise, aim to complete the action items now underway.

The action items noted in the summary table are focussed on the City's *internal* operations with the intent that the City make progress on "putting its own house in order" before attempting to further influence the actions of other players such as developers, builders, home owners, and residents. Having said that, it is recognized that everyone has a role to play in achieving a sustainable city. It will be important for the City to work with other partners and players to maximize impact. The Official Community Plan review process will provide an opportunity for the City to implement sustainability on a more comprehensive, community level.

INTERNAL CIRCULATION TO:

Sustainability Working Group:

- Environment Manager
- Transportation Manager
- Civic Properties Manager
- Risk Manager
- Water and Drainage Manager

EXISTING POLICY:

The pursuit of more sustainable city operations is consistent with the goals of the City's Strategic Plan (2004), which are to:

- maintain, respect and enhance our natural environment
- foster a strong, stable and expanding economy
- foster the social and physical well-being of residents and visitors.

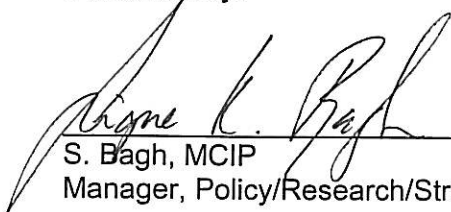
COMMUNICATIONS CONSIDERATIONS:

It is recommended that this update report be added to the sustainability portion of the City's website.

CONSIDERATIONS THAT WERE NOT APPLICABLE TO THIS REPORT:

TECHNICAL REQUIREMENTS
LEGAL/STATUTORY AUTHORITY
LEGAL/STATUTORY PROCEDURAL REQUIREMENTS
FINANCIAL/BUDGETARY CONSIDERATIONS
PERSONNEL IMPLICATIONS
EXTERNAL AGENCY/PUBLIC COMMENTS

Submitted by:



S. Bagh, MCIP
Manager, Policy/Research/Strategic Planning

Approved for Inclusion:

Ron Mattiussi
City Manager

cc: *Sustainability Working Group*