

Planning for Municipal Sustainability: Policy Review and Assessment Tools

Jeffery Smith BSc, Tanushree Bhattacharya BArch, MTech, Morgan Elias BSc, Andrew Creighton BA, Derek Ellis BA, and Nicole Forbes BA
Western University, Centre for Environment and Sustainability, Masters of Environment and Sustainability (MES)

Background

- Official Plan revisions offer an opportunity to integrate sustainability into planning policies
- Project team composed of MES students with undergraduate backgrounds in planning, engineering, ecology, geography, environmental science, and philosophy
- Consulting project, seeking to offer value to our client, the City of London Planning Service Area

Methodology

- 29 municipalities reviewed
- Peers selected based on similar growth rate, population size, region, same legislative framework
- Sustainability leaders also reviewed
- Findings summarize best practice of sustainable policies and sustainability assessment strategies

Table 1: Municipalities Selected for Review

Municipality Reviewed	Reason for Selection
City of Boston, MA	2010 Sustainable Cities Institute Award of Excellence for Sustainable Community Development: Large City Runner-Up
City of Boulder, CO	Sustainability is the core driver of the City Plan
City of Brantford, ON	Comparable growth rate to City of London
City of Calgary, AB	Sustainability leader as 'Green Electricity Capital' with good waste removal, sewage systems, and water systems
City of Edmonton, AB	Emphasis on sustainable city planning
City of Guelph, ON	Comparable population size to City of London; Focus on natural heritage
City of Kingston, ON	Comparable population size to City of London
City of Minneapolis, MN	Leader as a sustainable community; 26 sustainability indicators used for implementation and monitoring
City of Nelson, BC	Used for review of city development sustainability tools
City of New Westminster, BC	Reference for sustainability reporting
City of North Vancouver, BC	Use of sustainable city development tools
City of Ottawa, ON	Comparable growth rate to City of London
City of Philadelphia, PA	Review of sustainability annual report card
City of Port Coquitlam, BC	Use of sustainable city development tools
City of Portland, OR	Active community assessment; Sustainability leader; Notable transit policy
City of Stockholm, Sweden	European Green Capital 2010; Emphasis on cycling
City of Surrey, BC	Sustainable practices checklist
City of Tacoma, WA	2010 Sustainable Cities Institute Award of Excellence for Sustainable Community Development
City of Toronto, ON	Sustainable city development tools
City of Windsor, ON	Comparable population size and growth to City of London; also close proximity
Greater Sudbury, ON	Comparable population size to City of London
Halifax Regional Municipality, NS	Similar population size and demographic profile to City of London
Masdar City, Abu Dhabi	Use of sustainability management system
Nanaimo Region, BC	Comparative growth rate as reviewed by Pembina Institute
San Francisco City, CA	Useful for best practices applicable to the Draft Official Plan
City of Santa Monica, US	Used for review of citywide sustainability report card
Tianjin Eco-City, China	Global leader in planned eco-cities; Feature City on BBC Horizons
Town of Oakville, ON	Environmental sustainability an embedded practice; Use of checklist tool for North Oakville
Town of Qualicum Beach, BC	Winner of 2013 FCM Neighbourhood Development Category for sustainability plan

1) modified from: City of Tacoma. (2013). *City of Tacoma Comprehensive Plan*. Tacoma, WA: Author

Deliverables

- Extensive lists of existing leading municipal policies fostering sustainability, organized for comparison with Draft Official Plan (to assist gap analysis)
- Best practice review of annual city sustainability report cards
- Best practice review of sustainability development checklists
- Evaluation of these two types of sustainability assessment options
- Creation of sustainability checklist for use as tool in development process

Figure 1: Checklist Excerpt

Criteria	Yes	No	Not Applicable	Self Review
1. Does your proposed project...?				
2. Implement stormwater management control measures?				
3. Provide access to public transit?				
4. Use local building materials?				

The Sustainability Checklist

- Organized in three sections: economic, social, and environmental assessment criteria, for completion by each new development application
- Numbered lists of check boxes are followed by text descriptions of criteria
- All criteria are given equal weight, with the City reserving the option to waive non-applicable criteria depending on the nature of the development
- Figures 1 and 2 show a sample from the checklist, and the implementation process designed for this assessment tool

Findings

- Over 20 pages of policies are identified to foster sustainability at the Official Plan level; sorted as "standard policies" found common to most peers, and "exceptional policies" from cities leading on sustainability
- Official Plan review offers an opportunity to assess sustainability aspects of municipal policies, via gap analysis against peers and leading cities
- Both annual city report cards and development checklists are effective tools for assessing municipal sustainability, each with their own benefits (see Table 2 (right) for details; Table 3 (below) for summary)
- Leaders in municipal sustainability integrate the concept into every aspect of city planning, with a centralized office specifically managing sustainability across all departments
- Sustainability measures must be tailored to the specific municipality's goals and needs, and process implementation requires stakeholder buy-in

Figure 3: Policy Examples¹

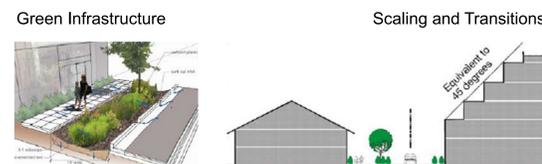


Table 3: Tool Evaluation Summary

Scenario	Project-by-Project Implementation	Annual Review
Greater Benefits	15	6
Greater Costs	3	12

Assessment Tools

While a combination of development checklists and annual reports is ideal, the project was asked to determine the *best* option and create a custom tool.

Table 2: Evaluation of Assessment Types

Category	Consideration	Implementation Scenario	
		Project-by-Project Implementation	Annual Review
Economic	Development Charges	May increase overall charges short-term for developers, but provides long-term cost savings for developers and the City	Lower overall development charges short-term, but may increase long-term costs for the City from remediation
	Operating Costs	Investment in staff training and cost of utilizing and enforcing a new extensive tool	Investment in staff training for yearly review
	Production Materials*	Investment into the development of a project-by-project checklist and implementation process	Investment into an annual review protocol, process, and further development of an assessment tool required
	Time Investment*	Longer per-application time requirements by proponent and City staff	Time investment incurred once annually
	Service	Value-added service, and sustainable return on investment	Practice may result in remedial services / reactionary project amendments which require monetary and time allocations
Support		In-line with vision of City staff and residents; Possible opposition from development proponents	In-line with vision of City staff and residents
Social	Development Charges	May increase division and proposal efficiency; Integrates Official Plan policy with development proposals	May add to annual review processes if already implemented and employed by City staff
	Operating Costs	Enhanced production capabilities long term and staff satisfaction from increased support and involvement in City sustainability	Provides an additional yearly task to be completed; Some disconnect by staff involvement in City sustainability
	Production Materials	Enhanced transparency; More thorough integration; Accessibility in online form	Enhanced transparency; Accessibility in online form
	Time Investment	Staff time allocated towards 'up-stream' sustainability approaches (anticipatory action)	Staff time allocated towards 'down-stream' action (reactionary)
	Service	Value-added service, and sustainable return on investment provides greater staff and resident satisfaction	Practice may result in remedial services / reactionary project amendments which require monetary and time allocations that may hinder Staff and resident approval / satisfaction
Support*		Greater integration of sustainability within Planning Service Area and with developers	Enhanced transparency and relationship with the public on City sustainability commitments
Environmental	Development Charges	Short-term and long-term benefit to environmental, economic, and social contexts	Reactionary / remedial benefits provided to the environment
	Operating Costs*	Investment in Staff training on sustainability	Investment in Staff training on sustainability
	Production Materials*	Low anticipated environmental impacts	Low anticipated environmental impacts
	Time Investment	Staff time allocated towards 'up-stream' sustainability approaches (anticipatory action)	Staff time allocated towards 'down-stream' action (reactionary)
	Service	Integrated sustainability assessment and encouragement for planning proposals	Sustainability assessment provided
Support*		Fosters enhanced connection between Staff, Council, to the environment and ecosystem services	Fosters enhanced connection between Staff, Council, and residents to the environment and ecosystem services

Green shaded cells indicate greater benefits

*Both scenarios provide comparable outcome

Acknowledgments

We would like to thank the City of London Planning Service Area, with special thanks to Heather McNeely and Gregg Barrett, for the opportunity to work on this project and for mentorship provided us. Thanks also goes to Western University's Centre for Environment and Sustainability, our course instructor Dean Sheppard, and coordinator Marnie Branfireun.

