

Biodiversity



Economy



Energy



Food



Mobility



Water



Research Roundtable
Draft Indicators
August 31, 2009

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Executive Summary

In 2050 Metro Vancouver will be amongst the most livable and sustainable regions in the world. It will be a place where four million residents can live, work, learn, and play within their local communities and collectively generate fewer negative environmental impacts than today's region of two million.

Sustainability by Design Vision

The goal of the Sustainability by Design Initiative (SxD) is to use design as a collaborative decision-making tool to support the leaders and citizens of Metro Vancouver in generating and implementing holistic, sustainable community development plans and policy at the regional and local scales. Our work provides the critical link between sustainable community design, policy generation, and development implementation and builds public support for regional and local sustainability.

The Research Roundtable brings together leading local scholars, practitioners, as well as NGO and government representatives to discuss leading research and applied projects relating to six sustainability themes: food, energy, mobility, water, natural habitat, and economy. In two workshops, participants collaborated to determine and inform design indicators and discuss targets for each theme. The outputs of these discussions will inform a design charrette that is intended to result in a "2050 Sustainability Vision" for Metro Vancouver.

Two workshops were held on April 16 & June 16, 2009 respectively, engaging a diverse group of over 60 experts from local, provincial and federal government, academia, private sector and not-for-profit organizations. Discussions took place in thematic streams and were facilitated by the following chairs, with assistance from DCS staff.

- Kim Stephens, BC Water and Waste Association (Water)
- Valentin Schaefer, Restoration of Natural Systems Program, University of Victoria (Natural Habitat)
- Dale Littlejohn, Community Energy Association (Energy)
- Tom Leung, Global Retail Strategies, Inc. (Economy)
- Duncan Cavens, Researcher, University of British Columbia (Mobility)
- Kevin Connery, PWL Partnership (Food)

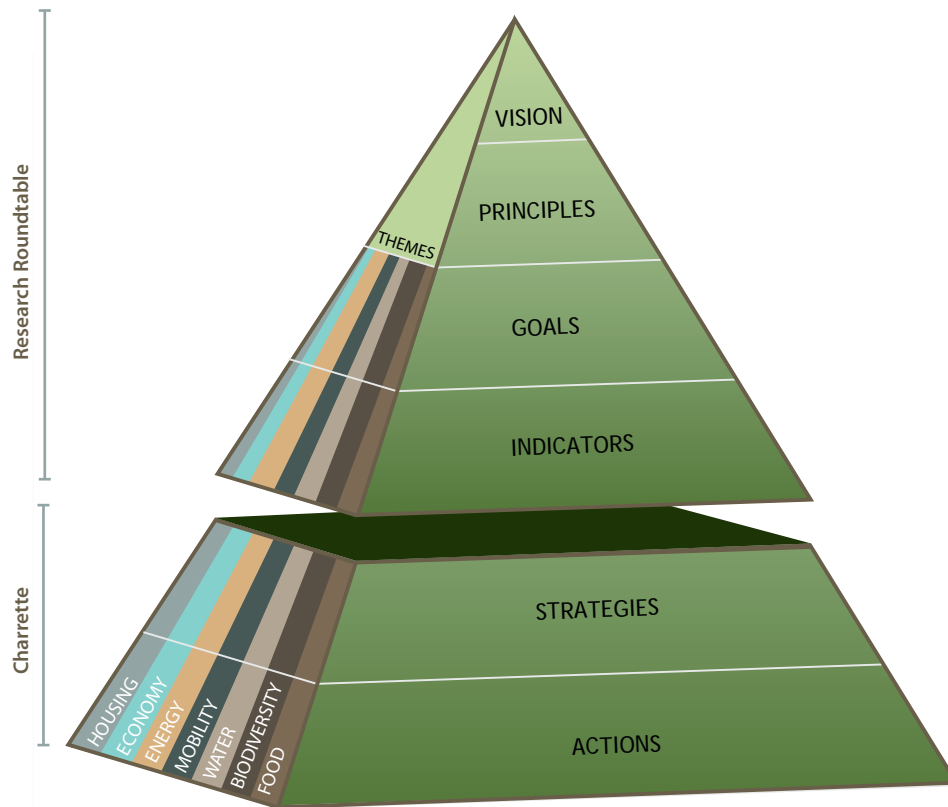
In addition to identifying critical issues, participants were encouraged to determine key goals and sustainability indicators for their respective themes. At the end of the day, a representative of each stream presented their findings, including many specific recommendations and suggestions for indicators.

This document provides a compilation of the recommendations and results of these workshops as well as a list of proposed goals and design indicators based on this input. The resulting set of indicators, as well as best practices and targets for sustainable development in the Metro Vancouver region, will inform a Design Brief and Foundational Research Bulletins, which in turn will help to guide the discussion and decisions at the Sustainable Metro Vancouver Region 2050 Design Charrette.

INDICATORS

Decision Support Framework

The work of the DCS, including the SxD Initiative, is guided by a “Decision Support Framework”. The framework provides a clear structure that assists in associating concrete strategies and actions with achieving a preferred future (vision) and measuring performance through indicators. This enables a charrette team to evaluate decisions and compare alternative scenarios. The diagram below illustrates the interrelated elements of the Decision Support Framework.



DESIGN Indicators

Situated in the context of a sustainability framework, indicators are conceptual tools that measure progress toward (or away from) a goal or objective. Their role is to ‘indicate’ performance and as such they provide a basis for setting targets and for comparing one alternative means to achieve that target relative to another one. In urban planning and design, indicators play a crucial role in translating aspirations and concepts (“big picture visioning”) into implementable actions, including the design and spatial arrangements of infrastructure, buildings and open space. Sustainability indicators can also be used to compare sustainability performances of a number of communities or projects relative to each other.

Draft Goals

Based on the input from the Research Roundtable Workshop participants, the following goals have been developed for each theme:

BIODIVERSITY

To ensure a healthy and diverse environment supported by networks of intact natural areas within green surroundings that serve to protect the intricate ecological web that sustains regional health and well-being.

ECONOMY

To enable a sustainable regional economy that is based on economic development wherein managed growth occurs through enhanced efficiency that serves to increase regional wealth by decreasing costs of living and of doing business.

To achieve resiliency by focusing on business activities contributing to regional self-reliance and enhance national and international competitiveness.

ENERGY

To enable a sustainable regional approach to energy production, distribution, and use that is focused on shifting to resilient, decentralized, low-carbon energy sources and reduced consumption.

FOOD

To ensure the region's rich agricultural lands are preserved, restored or created in order to continue to provide an integral source of regionally grown, fresh food for local and export markets.

MOBILITY

To create a comprehensive, integrated frequent transit network and a hierarchical system for transit, cycling, pedestrian and vehicular travel throughout the region.

To minimize the amount of public right-of-way used for car travel.

To implement major transit and transportation decisions by 2020 to ensure appropriate infrastructure investment and build-out 100 years into the future.

WATER

To utilize a 'design with nature' approach to water use and rainwater management in a decentralized system (where feasible), with both climate change and population growth as key considerations.

Draft Indicators

The following indicators have been developed based on the Research Roundtable Workshop discussions. In the associated chart, the relationship between each indicator and multiple cross-cutting themes demonstrate the broad applicability of each. The following sections, organized by theme, describe each indicator in detail, including associated metrics and strategies.

