

# Integrated Community Sustainability Planning Tool

Developed by Drs. Chris Ling, Ann Dale, Kevin Hanna  
Royal Roads University  
Infrastructure/SSHRC Funded Project - March 2007

*A community sustainability plan is about integrating social and economic imperatives into the quality of place (the ecological imperative). The integration of people, place and economy into a single plan over a long-term perspective is a critical process for achieving sustainable community development. In many ways an integrated sustainable community plan is a process of reconciliation, with the three imperatives of sustainable development being brought together in an integrated policy planning and collaborative decision-making framework.*

All Canadian communities now have access to a stable source of revenue for the development of integrated sustainable community plans (ISCs) through the Federal Gas Tax funding program announced in the **2005 Federal Budget**.

This tool presents a series of steps and questions for communities to build their own ICSP, and supports these steps with an introduction to a number of tools and techniques that are now available and readily accessible. Although uniquely designed for the Canadian experience, the tools and techniques described have come from a wide range of planning and municipal governance contexts.

What this tool is not is a proscriptive attempt to create a 'one-size-fits-all' approach for sustainable community development. By definition, an integrated sustainable community plan differs from conventional planning by being collaboratively developed in the community through participatory techniques that allow for the full involvement and engagement with the socio-economic life of the community, and the natural system upon which the community depends.

Integrated planning requires the strategic consideration of connectivity (temporal and spatial) among landscape, planning and development actions and social wellbeing. An integrated approach is holistic, planning focussed and inherently strategic. Such an approach considers the implications of human induced change for landscape integrity and environmental and social sustainability.

There can be little doubt that the opposite of integration - fragmentation - remains a substantial obstacle to improving local planning. Fragmented interests, jurisdictions, ownership, planning responsibility, budget allocations, social and ecological systems, information and knowledge all contribute to the challenge of planning on an integrated and sustainable basis. Addressing this fragmentation, in governance and conceptual thinking, is an essential part of making the ever more necessary fundamental changes for sustainable community development.

# 1. Pre-Planning Stage

The initial stages of plan development are not to start creating plans or policies but to identify the processes and critical stakeholders that will inform the process. This may consist of a pre-planning group that is representative of the sectors, key stakeholders and municipal government departments that need

to be involved. This pre-planning stage is about identifying the people that need to be brought together, and creating an atmosphere of inclusivity and institutional support. It is not about pre-supposing what the vision and goals of the community are going to be.

# 2. Mapping the Community - *understanding the place*

## Community Green Mapping

A comprehensive audit of the community's current ecological, social and economic capital base line provides a baseline against which to measure progress, and provides invaluable information to the community. This is not simply an asset management, but a review of the community (such as the maps produced through community green mapping) and the ecological resources (such

as the natural areas atlas produced by the Capital Regional District of British Columbia).

Tools such as [Google Earth](#) and [green mapping](#), can help in identifying key places, and can inform the development and protection of essential [green infrastructure](#).

## Land use and landscape planning

Existing frameworks in the management of growth and development in a community include: [The Natural Step](#), [Smart Growth](#), Systems Thinking, [New Urbanism](#), [Adaptive Management](#), [Ecocities](#) and [ICLEI's Local Agenda 21](#).

Tools that help to explore future scenarios in collaboration

with the community are [search conferences](#), [scenario building](#), [Forecasting; Planning for Real](#), [Future Search](#), [Integral City](#), [See-it](#) (Real Living Software) – used in-house by the [City of Vancouver](#) and futures workshops.

## Ecological systems

A community can be seen as a series of systems, ranging from the city-region, down to individual neighbourhoods and single buildings. The community is also situated within ecological systems of different scales, such as bioregions and watersheds. All these scales need to have a diversity of population, use and a vibrancy that allows for sustainable development. Since communities are not isolated from the broader environment, ICSPs need to consider essential ecological services along with social and economic concerns. These essential ecological services include:

- » regulation of local and global climate and energy balance;
- » the hydrological cycle  
(e.g. water catchments and groundwater recharge);
- » formation of topsoil and maintenance of soil fertility;
- » prevention of soil erosion and sediment control;
- » food production by food webs;
- » biomass production;
- » storage and recycling of nutrients and organic matter;
- » assimilation, storage, and recycling of waste;
- » maintenance of habitats for migration and rearing  
(e.g. estuarine resources, ravines, riparian corridors);
- » biodiversity;
- » provision of historic, spiritual, religious, aesthetic, educational, and scientific information, cultural and artistic inspiration, and the critical infrastructure to maintain their delivery.

All these systems will have a carrying capacity where increases in development or populations beyond a limit will cause the system to fail. Calculating the area's [ecological footprint](#) is also a useful step in determining the existing environmental impact of the community.

### 3. Engaging the Community - *getting people involved in the process*

#### **Representation: Determine Key Community Stakeholders**

Communities, regardless of scale, are amalgams of interest, values and sectors. A deliberative process will identify and engage key stakeholders—from business, community organizations, conservation groups, developers and government agencies within the community. Identifying those sectors and individuals who need to be involved in building an integrated community sustainability plan will be requisite, and in turn, these people form a pool from which representative

planning committees can be organized, and they provide links to the wider community. At this stage, building an image of networks, maps of organizations and groups and how they are connected, can help form the basis for understanding existing collaborative systems, enhancing connectivity and dialogue, as well as identify key community leaders who should be at the table. A useful freely available software organising and presenting this type of information is [FreeMind](#).

#### **Determine the principle of community engagement**

In order to actively and successfully engage with the community certain principles need to be observed:

» Acceptance: people will be involved for different reasons; will have different agenda, different levels of commitment and time and different priorities. These differences need to be accepted, and processes should be flexible to accommodate these differences. Even if the plan is in no small part a response to a unifying issues of concern, values and visions will inevitably be diverse.

» **Active Listening:** The role of the municipality is to actively listen to the community and help them achieve their goals – not to provide services and push pre-existing solutions.

» Collaboration: Cooperation and partnerships between different interest groups and stakeholders will aid plan development and implementation. The ICSP process can be structured to encourage and support such relationships and build new networks. As they form they may become lasting and provide long-term strategic support for sustainability planning policy, support that transcends political timelines.

» Follow up, communication and dissemination: Publicity, reporting to the community and dissemination of results of any process is vital to ensure continued engagement and the development of trust between the community and decision makers. A collaborative and deliberative process will provide this function throughout the process, and not just at the end. In this sense, the ICSP is inter-disciplinary, seeking synthesis and exchange of knowledge from the outset, and not only when results are being tallied.

» Inclusivity: A small group representing all sections of the community and affected people is more valuable than large group of like minded people.

» Ownership: Process and plan credibility and ease of implementation require that an engagement process needs to be owned by local people, not by planners, consultants, political decision makers, or narrow interests (economic or environmental).

» Scale: A number of smaller neighbourhood activities are more valuable than a single large city wide activity.

» Timing: The earlier community engagement occurs, the more likely an efficient process will ensue and (relative) consensus can be reached.

» Transparency: The purpose of the exercise, the identity of the people and groups involved and the limitations of the exercise need to be openly and honestly stated using plain language. This will avoid frustration and distrust, it reduces surprises, and supports implementation.

» Vision and Realism: Expectations should be high, but not to the extent that all the discussion at an event revolves around a utopia.

» Visualisation: Graphic presentations are powerful; sometimes more so than only text or speech. Providing images of growth and community change will help diverse community members visualize scenarios and facilitate discussions about preferences.

» Collective/community learning (capacity-building): the involvement of community stakeholders in the ICSP process can lead to a greater understanding and awareness of planning and land use considerations in that community, and implementation.

#### **Techniques and Tools: Determining the Community Engagement Processes**

Sustainable community development requires a planning process that fully engages with and involves the public and gives them actual influence in decision making and not just ‘consultation’ or information sessions. The involvement of as many stakeholders from the community as possible is crucial – although broad representation is more important than absolute numbers; they need to be fully engaged from the start and involved in all decision making concerned with the plan—see [Arnstein’s Ladder of Citizen Participation](#) and [Davidson’s wheel of participation](#). Some existing engagement tools include:

- a. [Designways](#)
- b. [Planning for Real](#)

- c. [Design Charrette](#)
- d. [Future Search](#)
- e. [MetroQuest](#)

and others many of which are described and explained at the [Community Planning network website](#). Engagement of the community is also critical to commitment to the plan, its full implementation and subsequent political accountability. Community engagement could include town hall venues, survey instruments and the potential for on-line participation and on-line real-time [e-dialogues](#).

## Learn from Other Communities

Conduct a scan of existing frameworks and research tools that could be adapted from the unique aspects of your community. Many times there is no need to “reinvent the wheel” - compare your community to others in terms of environmental characteristics, socio-economic needs, and available resources. See what types of frameworks other communities have found helpful. But avoid the template trap. It can be tempting to wholly adapt the plans of others, and some consultants are

adept at this, just because it seems to have worked elsewhere does not mean that a concept is entirely appropriate for your community. Learn from others, but be sure to recognize and map your community’s needs and unique attributes and challenges. The [community planning network](#) has comprehensive reference material of case studies, techniques and ideas for community planning and engagement.

## 4. The Plan - *creating a framework for future development and change*

### Defining a community vision and principles

The community plan should reflect the desired nature of the community which is also linked to the timeframe for the ICSP. This broader and integrated vision reflects the values the community places on things like diversity; self-sufficiency, accessibility to services, liveability, the nature of its development, current and future. In particular a community might set:

- » desired growth scenario (population, demographic profile);
- » form, e.g. built versus un-built space, area and location of parkland and natural area);
- » mix of residential, business, and agricultural space;
- » optimal density; and
- » sustainable requirements for new construction.

### Define the terms

The plan should define what the community means by its terms, in particular, its definition of sustainable community development. Engagement and plan creation will help do this. When a community faces the need to define what it means by

The community vision then must be linked to principles that are implemented through tangible actions, goals and targets set by the community and to allow progress towards the vision to be evaluated, see for example the [Melbourne Principles](#) and [ICLEI](#).

sustainable development, a dialogue starts about responding to change and articulating a vision for managing growth and change.

### Decide on the Timeframe of the Plan

Planning needs to be sufficiently long term to counteract against short term economic and political cycles and to reflect a time frame that maintains critical infrastructure, and yet, anticipates future trends and challenges. A long term view needs to be linked to intermediate and short term cycles and goals in order to allow for ongoing implementation, accountability and evaluation of plan performance.

An adaptive quality, one that allows for the dynamic interplay between the longer term planning and shorter and intermediate term action, also facilitates response to uncertainty, community desires, knowledge, technology and ecological limits. See [different examples of long term planning processes](#) that other communities have implemented.

### Decide on the Scale of the Plan

If we accept that the community is part of a nested, complex system, then the scales of attention must have a diversity of population, uses (human and other) and a flexibility that can respond to a sustainable development imperative. Since natural and human sustainable systems are interdependent, the ICSP needs to address its place within a system much broader, and increasingly more reliant than the scales of the observable community. Its scale needs to be able to sustain essential ecological services across dynamics as diverse, but inherently connected as climate, energy, water, soils, food,

waste, biodiversity, cultural and social assets, as well as the critical infrastructure to maintain these services.

A consideration for the scale of an ICSP is whether to concentrate on land use planning at a measured jurisdictional level or to move to a larger scale of attention such as through [ecosystem planning](#), or [ecosystem landscape planning](#). A community might also wish to outline what it is not including in the plan by setting boundaries, agreeing to leave certain areas to the free market, etc.

## Setting Goals

What does the community hope to achieve? Possible goals might include the preservation of natural areas, densification

## Determine the Objectives and Institutional Needs

These require a balance between the comprehensiveness that sustainable development demands and the strategic of focussed efforts, which tractability imposes. Consider the barriers to achieving objectives. The ICSP should be as comprehensive

## Determine Commitments

Actions to be undertaken during the period of the plan to achieve the related outcomes and that contribute to the goals and objectives.

## Identify Strategic Areas

Examine other integrated community sustainability plans to look at what sectors that community considered critical and adapt to your own unique needs. Areas should include the non-

## The Planning Cycle

This long term view needs to be strongly linked to intermediate and short term cycles in order to provide an understandable and coherent delivery mechanism, and a mechanism that is

## Outcomes

Once the long-term plan has been set in motion, after agreement has been reached with stakeholders as to the goals of the process, regular reporting needs to be made to measure progress, and to provide feedback to the stakeholders on progress. These reporting cycles should be linked to the short term

## Outline an Evaluation Process

Ideally conducted before the next election in order to hold elected officials accountable to the ICSP and define or justify any deviations. Evaluation supports ongoing implementation and institutional accountability. The evaluation process needs to consider the progress towards sustainable development objectives, goals and targets set by the community.

## Implementation

Imbedding the plan in a by-law or in municipal planning policy is an essential part of the ICSP process. If the plan has no legal authority the stakeholders involved in the process will be disillusioned and reluctant to engage in the future, and the content of the plan will be compromised by day to day economic imperatives, not the integrated, long-term imperatives of sustainable community planning.

Determine the strategic alliances, partnerships that need to be

of urban areas, improved transit options, attractiveness of the community to business, population increase/stabilization.

as possible, including a review and evaluation of existing by-laws, regulations and standards that may impede implementation of the plan details.

built and the built environment, as well as the social uses of place and space, and how they interact for sustainable community development.

flexible to allow for changes in community desires, knowledge of technology and ecological limits, and the always present uncertainty of the future.

action plans, and monitoring the development towards long term goals. Change can then be made to the next cycle of short term actions if progress is not being made, or conditions have changed.

The evaluation process needs to consider the progress towards objectives, goals and targets set by the community as well as progress towards a sustainable community.

developed in terms of developing commitment and implementation of the plan:

1. influencing decision-makers
2. educating community leaders
3. implementation
4. communication and outreach
5. sustainable community commitment

Develop a community outreach and communications strategy for plan dissemination and enduring community commitment.

## Review and Revise Planning policies, Bylaws and Regulations

Restrictive zoning is often one of the greatest barriers to sustainable community development. A review of bylaws can pinpoint problematic regulation that might impede desired sustainable development patterns. Potential concerns include:

- » zoning bylaws governing the mixing of uses;
- » parking requirements;
- » density bylaws;
- » restriction on the placement of buildings on lots;
- » road width bylaws; and
- » material bylaws (particularly important, as sustainable building practices such as green roofing might not have existed when the original guidelines were drafted)

Such a review could include striking a **multi-stakeholder** task force of elected officials, business leaders and officials to identify barriers, and to serve as an educational process for both the political and official levels. Examples of alternative urban design standards and innovative zoning practises have been presented by the **New Hampshire Office of Energy and Planning**.



## Integrated Community Sustainability Planning Tool

*Developed by:*  
Drs. Chris Ling, Ann Dale, Kevin Hanna

Royal Roads University  
Infrastructure/SSHRC Funded Project  
March 15, 2007

**Production of this research report has been made possible through a financial contribution from Infrastructure Canada. The views expressed herein do not necessarily represent the views of the Government of Canada.**