

# **Community Capital Pilot Project in the District of Sechelt**

**by**

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## **Abstract**

This research represents the inaugural use of the Community Capital Tool as applied in the District of Sechelt. The Community Capital Tool has been developed through the combined work of Simon Fraser University's Centre for Sustainable Community Development in Canada and Telos, the Brabant Centre for Sustainable Development, at Tilburg University in the Netherlands. The Community Capital Tool has been developed to guide local level planning and development processes in efforts to achieve optimized social, economic, and environmental objectives. The results of the study can be drawn upon to develop a greater understanding the current capacity of the community capitals in the District of Sechelt. Findings also show that further commitment is required by the community to create optimization and balance among the six Community Capitals. This study contributes a greater understanding of sustainable community development by establishing a quantitative method of measuring the social, economic and environmental impacts of planning and development decisions.

**Keywords:** sustainable community development; local authorities; community economic development; sustainability frameworks

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# 1. Introduction

## 1.1. Background and Context

The concept of sustainable development was developed to address the relationship between human activity and increased environmental degradation (Hopwood, Mellor, and O'Brien 2005). The 1987 Brundtland Report first popularized the term sustainable development, stating that it is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED 1987). Twenty-five years later the Brundtland definition persists as the mostly widely recognized and accepted definition.<sup>1</sup>

Sustainable community development (SCD) means applying the concepts of sustainable development at the local level. SCD has been developed as an alternative to more traditional approaches to land use development, emphasizing the integration of economic, social and environmental objectives for a defined place (Roseland 2000; Roseland 2012). SCD acknowledges that sustainable development requires democratic decision-making, placing emphasis on community engagement throughout the planning process (Jeb Brugmann 1997; Hermans, Haarmann, and Dagevos 2011).

Since the 1992 United Nations Conference on Environment and Development (UNCED), local authorities have been challenged to be the decision-making authorities to pursue sustainable development. In Agenda 21, the official conference document, world leaders asserted that "so many of the problems and solutions being addressed by Agenda 21 have their roots in local activities" (UNCED 1992). More recently local

<sup>1</sup> Critics often describe sustainable development as an oxymoron, stating that there is a contradiction between the finite capacity of the earth and the need for growth and development (Robinson 2004).

authorities have been required, through federal and provincial/state mandates, to create comprehensive sustainable community development plans (Conroy and Berke 2004). For example, in British Columbia, the *Local Government (Green Communities) Statutes Amendment Act (S.B.C. 2008, c.23)* requires municipalities to incorporate greenhouse gas emissions inventories and reduction targets into community plans. In Wisconsin, the “Smart Growth Law”, is statewide comprehensive planning legislation, specifying fourteen land use goals that each community must consider through comprehensive land-use planning processes (Edwards and Haines 2007).

## **1.2. Research Problem**

Increasingly, local authorities are adopting sustainable development frameworks as tools to direct community planning priorities and achieve development outcomes that balance the economic, environmental and social considerations of the community (Roseland 2005). In Canada, numerous communities have prioritized the need to plan for sustainable futures: the Resort Municipality of Whistler created Whistler 2020 through the use of The Natural Step (Resort Municipality of Whistler 2012); the City of Calgary facilitated a public engagement process called ImagineCalgary (City of Calgary 2012); and the Hamilton-Wentworth region took cues from Agenda 21 with its creation of a citizens Task Force on Sustainable Development (McHattie 2012).

These and other sustainable community planning frameworks and decision-making processes used to define, implement, and monitor sustainable development priorities remain predominantly underdeveloped when compared to European communities. Municipal governments in Europe are far more advanced in sustainability planning than their North American counterparts by having developed and applied sustainability planning frameworks and decision-making processes for many years. Opportunities exist to explore the integration of successful sustainability planning practices advanced in Europe to enable a more generalizable, transparent and effective means of advancing local sustainability planning in Canada.

### **1.3. Research Objectives**

The Centre for Sustainable Community Development (CSCD) at Simon Fraser University and Telos at Tilburg University (Netherlands) have each developed frameworks to define, implement and assess local and municipal level sustainability planning policies and initiatives. CSCD has created the Community Capital Framework, a model with six of the main types community capitals, which excels at guiding community visioning and planning processes. The CSCD framework, however, lacks the ability to transparently monitor and assess the impacts of an already implemented project. The Telos Method is primarily focused on monitoring and assessing already implemented projects achievement of sustainability objectives by using a series of stocks and indicators to measure, monitor and communicate sustainability in a clear and succinct manner (Dagevos 2011).

Through this research, CSCD and Telos have committed to collaborate to create a shared tool that can be applied in both North American and European contexts.

The research objectives of this study are:

- Review the planning, decision-making and sustainable development literature to identify key characteristics of sustainable community development frameworks;
- Develop a combined Community Capital Framework (CCF) and Telos Method tool called the Community Capital Tool (CCT) to guide and evaluate municipal level community development initiatives and decisions;
- Apply the Community Capital Tool (CCT) in the District of Sechelt to assess the community's newly adopted Sustainability Action Plan.

The District of Sechelt was chosen for the Community Capital Pilot project for three specific reasons:

- Commitment to sustainable community development through the District's Sustainability Action Plan and endorsement of the BC Climate Action Charter;
- Availability of a wide variety of data sets required for the CCT; and
- Willingness to participate in the study.

## **1.4. Project Organization**

The subsequent chapters of this report are divided into two parts. Chapters 2 and 3 provide a theoretical overview of sustainable community development frameworks. Specifically, Chapter 2 discusses the literature related to the use of sustainable community development frameworks to guide community planning and development and Chapter 3 describes the Community Capital Framework and the development of the Community Capital Tool. Chapters 4 and 5 provide an overview of the practical application of the Community Capital Tool. Chapter 4 introduces the study area and provides an overview of the methods used to apply the Community Capital Tool in the District of Sechelt and Chapter 5 presents the results and analysis of the application of the Community Capital Tool. Chapter 6 summarizes the research and discusses directions for future work.

## **2. Sustainable Community Development Frameworks**

### **2.1. Overview**

There is an established body of research that catalogues and evaluates the efforts of local governments to pursue sustainability (Lindstrom 1998; Portney 2003). Recently the literature has given greater attention to the use sustainable community development frameworks (Seymoar 2004; Marbek and Tomalty 2009; Edwards and Haines 2007). While many researchers start from the premise that SCD is desirable (eg, Pezzey 1992; Gladwin, Kennelly, and Krause 1995; Roseland 2012; Robinson 2004), some (eg., Whitehead 2003; Bulkeley and Betsill 2005; Leigh 2005) question whether there is too much focus on SCD planning processes and not enough on measurable SCD outcomes.

This chapter examines the use of sustainable community development frameworks to guide local community planning processes using a review and analysis of the existing literature. Its objectives are threefold:

- Provide an overview of the use of frameworks to guide sustainable community development in North America;
- Review the planning, decision-making and sustainable development literature to develop a set of characteristics used to assess sustainable community development frameworks;
- Assess the identified sustainable community development frameworks based on the list of characteristics.

### **2.2. Overview of Frameworks**

Local authorities must overcome some barriers of process and implementation in order to pursue sustainability objectives. For example, without the use of proper

facilitation and decision-making structures to guide the sustainability planning process, Bridger and Luloff (1999) argue that dominant issues, such as narrow economic interests, are likely to govern development decisions. Sustainable community development frameworks can avoid this trap by examining the relationship between community and development differently than traditional planning frameworks. Sustainable community development frameworks place equal emphasis across the environmental, social, economic objectives of development, while realizing that communities are part of a larger, interconnected system and must consider the impacts of their decisions on future generations. Sustainable community development frameworks have been described as planning tools designed to guide community development planning and decision-making processes toward reduced environmental impact while improving economic and social well-being (Roseland 2005). Often they are used by local authorities to guide processes that direct the development of sustainability plans which, in turn, shape existing policies, bylaws, plans and actions to be more equitable.

A literature review identified four frameworks designed to guide sustainable community development that are used frequently by local authorities: Local Agenda 21, Community Capital, The Natural Step, and Smart Growth (Seymoar 2004; Marbek and Tomalty 2009). Though there are other frameworks used for sustainable community development, these four frameworks were chosen for review because of their widespread use by local authorities mostly in North America but also in Europe and documentation within the literature. Local authorities often chose these frameworks to work with because each have been developed logically from a set of principles grounded in sustainable development theory, that can be adapted to local situations, to drive the planning process (Marbek and Tomalty 2009).

The following paragraphs provide a brief description of each of the four frameworks. Sections 2.3 and 2.4 provide greater analysis of each of the frameworks.

### ***2.2.1. Local Agenda 21***

Local Agenda 21 (LA21) was established at the 1992 United Nations Conference on Environment and Development held in Rio De Janeiro, Brazil. It is a small chapter

of a much larger Agenda 21, which calls upon local governments to create partnerships with citizens and stakeholders to apply concepts of sustainable development. LA21 forms sustainability as a community issue and calls upon local authorities to create their own, unique Local Agenda 21 strategy. The framework prioritizes citizen engagement and dictates that each community strategy contains three core elements: 1) Vision Statement; 2) Action Plan; and 3) Implementation Mechanisms.

To further the goals set out in LA21, the International Council for Local Environmental Initiatives (ICLEI) created a guiding document that reinforces LA21 as a participatory, long-term, and strategic sustainable development planning process (ICLEI 1996). The guiding document lays out five major milestones for each local authority to achieve (Seymoar 2004): 1) Baseline; 2) Forecast/Backcast/Target; 3) Plan; 4) Implement; 5) Monitor/Report.

### ***2.2.2. Community Capital Framework***

The Community Capital Framework (CCF) was developed to consider the consequences of development decisions on six forms of community capital- natural, economic, physical, human, social, and cultural.<sup>2</sup> The framework has been developed under the principle that a sustainable community successfully optimizes and balances all forms of capital through thoughtful visioning and decision-making processes. The CCF theorizes that an increase in the capacity of one capital can generate multiple benefits across the community. Conversely, a decrease in one capital can generate a loss among the other capitals (Roseland 2012). A more detailed description of the CCF is provided in Chapter 3.

<sup>2</sup> Community capital is a term borrowed from economics. A capital is a collection of local assets grouped together to form a larger unit. More information on Community Capital can be found in Chapter 3.

### **2.2.3. The Natural Step**

The Natural Step (TNS) is a science-based, systems approach to sustainable community development developed by a Swedish oncologist named Karl Henrik Robert (1991). It was first applied in Sweden and now has been used in communities in many places the world, including Whistler, BC. The framework has also been adapted and used by businesses to guide their operations to be more sustainable. It is built from four *system conditions* that proponents of this approach argue must be met for a sustainable society (James and Lahti 2004):

- Nature is not subject to systematically increasing concentrations of substances extracted from the Earth's crust.
- Nature is not subject to systematically increasing concentrations of substances produced by society.
- Nature is not subject to systematically increasing degradation by physical means.
- People are not subject to conditions that systematically undermine their capacity to meet their needs.

The system conditions are used by a community to systematically develop policies, practices, tools and metrics that promote sustainability (James and Lahti 2004 pp. 10).

### **2.2.4. Smart Growth**

Smart Growth, a planning concept that concentrates on compact and walkable community design, was originally propelled into the American planning dialogue through the *Maryland Smart Growth and Neighbourhood Conservation Act* (1997). Perhaps not under the same title, the principles of Smart Growth have been discussed among planning professionals and researchers for much longer (Edwards and Haines 2007). Sometimes described more as a movement than a planning model, Smart Growth is officially supported by ten government agencies, national organizations, and non-profit organizations in the United States alone, creating a strong network of support for local authorities who choose to use Smart Growth to guide community development (Edwards and Haines 2007; Marbek and Tomalty 2009).

The Smart Growth framework is built from a set of ten defined development principles that support the idea that decisions on development need to be made thoughtfully because they affect the everyday lives of current and future residents (Environmental Protection Agency 2012). The ten principles are:

1. Mix land uses.
2. Build well-designed compact neighbourhoods.
3. Provide a variety of transportation choices.
4. Create diverse housing opportunities.
5. Encourage growth in existing communities.
6. Preserve open spaces, natural beauty, and environmentally sensitive areas.
7. Protect and enhance agricultural lands.
8. Utilize smarter, and cheaper infrastructure and green buildings.
9. Foster a unique neighbourhood identity.
10. Nurture engaged citizens. (Smart Growth BC 2012)

### **2.3. Key Characteristics of Sustainable Community Development Frameworks**

Traditional planning frameworks are not designed to tackle the complex, and often conflicting priorities of sustainable community development (Brugmann 1996). As a result, there is a need for frameworks that assimilate principles of sustainable development with traditional planning principles to drive the sustainability agenda at the local level. Though sustainable community development frameworks can exist in many different shapes and forms, five characteristics of frameworks have been distilled from the literature: (Brugmann 1996; Conroy and Berke 2004; Seymoar 2004; Marbek and Tomalty 2009; Roseland 2012)

1. Grounded in Sustainable Development Theory
2. Integration of Competing Interests
3. Stakeholder Participation
4. Measurement of Progress
5. Adaptive Management

The following section describes each of the characteristics, provides a rationale for its importance to sustainable community development frameworks, and, when appropriate, identifies any notable points related to the four frameworks introduced previously.

### **2.3.1. Grounded in Sustainable Development Theory**

While there are many different definitions of sustainability, there are key themes which the literature regularly reinforces for the concept. The first definition of sustainable development came from the 1987 Brundtland Report, “Our Common Future”, and is still one of the most widely accepted definitions: “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED 1987). This definition reinforces two concepts: 1) people have needs that must be met; and 2) the earth has a finite carrying capacity.

When considering the two concepts of *needs* and *limitations*, sustainable development theory recognizes the world as a holistic system that is connected over space and time (IISD 2012). This means that humans are not separate from the natural environment, they are, in fact, intrinsically connected to it (Wackernagel and Rees 1996). Therefore in a system connected over space, sustainable communities must consider how their actions impact other communities and ecosystems around the world (Wackernagel and Rees 1996). Or as Roseland (2000) asserts, a community cannot “import sustainability”. A system connected over time means that decisions must consider the future impact of their outcomes. This philosophy is commonly referenced in some Aboriginal cultures in Canada, where each new generation is given the responsibility to ensure the survival of the seventh generation to follow them (Cappon 2008).

Of the four frameworks described earlier, all employ a systems thinking perspective to sustainable development to varying degrees. The Natural Step does so by using an approach that is grounded in scientific theory (Robert 1991; James and Lahti 2004). The framework is guided by four system conditions—(1) not extract substances from the earth’s crust that cannot be readily assimilated, (2) not increase pollution, (3) not degrade the natural environment, and (4) not undermine the ability of people to

meet their needs—that are used to “systematically develop policies and practices toward sustainability” (James and Lahti 2004). It should be noted that TNS is criticized for its unbalanced emphasis on protecting the natural environment, while understating social and economic objectives (Marbek and Tomalty 2009).

Sustainable development theory extends beyond this view of systems thinking. To be sustainable a community must understand how it relates to time and space parameters, while simultaneously considering social, economic and environmental goals (Pezzey 1992; Fischer et al. 2012). Often these goals compete or conflict with each other adding an increased complexity of balancing trade offs (Conroy and Berke 2004). Similar to TNS, the Community Capital Framework (CCF) is grounded in scientific theory through its extensive development of capitals, stocks and indicators. However, the CCF challenges the conventional three-pillar approach to sustainability by viewing communities from a more nuanced framework (Roseland 2000, 2005, 2012g). The CCF divides community conditions/characteristics into six categories (or capitals, as they are referred to in the CCF)— natural, economic, human, physical, social and cultural— all of which must be balanced to achieve sustainability. This approach is known to resonate with different communities by being adaptable and enabling citizens to think systematically and holistically with regard to existing capacity, sustainability principles, and potential long-term impacts of specific projects, policies, and activities (Roseland 2012). (More discussion on the six capitals can be found in Chapter 3).

### ***2.3.2. Integration of Competing Interests***

Sustainability priorities need to be integrated in two ways: 1) environmental, economic, and social objectives must be linked to one another; and 2) the interests of all stakeholders need to be adequately represented (Evans and Theobald 2003; Hermans, Haarmann, and Dagevos 2011). This section discusses the integration of sustainability objectives across sectors, and briefly touches on the role of participation in light of competing stakeholder interests. The following section, titled Stakeholder Participation, discusses the need for meaningful participation in greater depth.

Although the very nature of planning is to be integrative and consider all aspects of the community, the reality is that a silo approach, in which decisions are made in

isolation, is the practicing norm in many communities (Marbek and Tomalty 2009). Of course this is problematic when silos have goals that compete with one another, subsequently undermining progress toward achieving sustainability. The Brundtland Report (WCED 1987), for example, contends that issues of sustainability originate across many local authority sectors— finance, energy, transportation, and social services, for example— however the primary responsibility for each sector is never directly aligned with sustainability objectives. This results in a need to re-think the functional structure of community governance to ensure that sustainability objectives are a priority across all sectors. In *Governing the Commons*, Ostrom (1990) supports this thinking and suggests a need for institutional reform to break down silos and integrate priorities among sectors, while establishing collective choice arrangements and creating accountability through agreed upon rules.

Stakeholder engagement, whether it is for community leaders, sector representatives, citizens, or other interest groups, is one of the most effective ways to integrate competing interests in a sustainable community development planning process. To achieve this, sustainable community development frameworks employ visioning and goal development activities early on in the process. These types of activities are successful at integrating interests across sectors and social groups because they create overarching sustainability objectives that use a common language and, if developed properly, represent all interests at the table (Brugmann 1996; Hermans, Haarmann, and Dagevos 2011).

Through the use of guiding principles designed to integrate competing objectives with stakeholder interests, both LA21 and Smart Growth emphasize a long-term, multidisciplinary approach to sustainable community development while providing enough flexibility to adapt to the unique needs of individual communities (Marbek and Tomalty 2009; Evans and Theobald 2003; Smart Growth BC 2012). TNS also accomplishes this by employing a method called backcasting. Backcasting asks stakeholders to develop a starting point of a desirable future, where sustainability principles are met, and stakeholders work backwards to develop a series of plans, policies, and tools to help the community move toward making the vision a reality (Robèrt 2000). The CCF employs a similar philosophy to TNS, where stakeholders are asked to complete visioning activities near the beginning of the planning process to

define a sustainable future. The outcome is a vision and set of goals that are used to drive the remainder of the planning process (Roseland 2012). From there, the CCF further ensures integration by seeking a “balance” among all six forms of community capital.

### **2.3.3. Stakeholder Participation**

Stakeholder participation is an essential element of sustainable community development. The very nature of sustainability is that it is democratic and cannot be prescribed from the top down (Brugmann 1997). Principle 10 from the 1992 UNCED Rio Declaration states that environmental issues are best handled with the participation of all concerned citizens (UNCED 1992; Selman 1998) and Roseland (2012) stresses that sustainable community development is “about the quantity and quality of empowerment and participation of people”.

For local sustainability planning efforts to be effective in achieving economic, social and environmental objectives, they must mobilize stakeholders through a robust, fair, and empowering participation process (Roseland 2005). The literature supports many reasons why this is true. Portney and Berry (2010) have stated that there is a “plausible connection” between local sustainability and meaningful community participation. In their 2010 study the researchers found that the top sustainability focused cities in the U.S. are “participatory places”, meaning that residents are engaged in decision-making and policy development. As well, other researchers provide evidence that participation in decision-making process creates ownership and support for development and implementation (Potapchuk 1996), and that more robust and inclusive stakeholder engagement processes result in a greater likelihood of the outcome surviving future political and governance regime changes (Seymoar 2004).

Stakeholder participation processes may also be unproductive, time consuming, inefficient and costly (Irvin and Stansbury 2004). Conroy and Berke (2004) state that participation processes that are not equally empowered and adequately informed lack depth and lead to token participation. Sustainable community development frameworks must have the ability to guide stakeholder identification and engagement processes to facilitate shared decision-making while ensuring equitable, meaningful

involvement is fulfilled. It should be noted that to achieve shared decision-making the process must recognize the values and interests of all stakeholders as legitimate (Roseland 2000). As well, frameworks focused on participation outcomes rather than process are likely to disappoint (Ife 2002). Therefore it is imperative that a framework draws out the local community's strengths, values, knowledge, and expertise to establish meaningful participation and shared decision-making (Roseland 2000; Ife 2002; DIA 2011). A study of the use of LA21 in Swedish communities showed that the framework applies these concepts effectively to "broaden participation [of citizens] in decision making and planning" and enhance young people's influence on municipal decisions (Jörby 2002).

LA21 has been criticized by some for its lack of defined goals and implementation tools to guide planning processes (Marbek and Tomalty 2009). However, in the early days of using LA21, others praise its less structured approach for allowing local authorities to think creatively about solutions for public participation (Freeman, Littlewood, and Whitney 1996). A study comparing three British communities using the LA21 framework found that, although each community followed the process properly, each successfully developed different participation structures to guide engagement (Freeman, Littlewood, and Whitney 1996). Similarly, Smart Growth was used in the Town of Golden, British Columbia, to engage over one thousand of the four thousand residents in the official community plan development process. The framework provided the local authority with the opportunity to design a creative consensus decision-making process focused on small groups and target different populations, such as youth (Smart Growth BC 2012b).

Analogous to Ife's (2002) views about process versus outcomes in community participation, the CCF's engagement philosophy is that "successful engagement is as much about process as it is about outcomes" where "an imperfect but shared analysis of community sustainability is more useful than a perfect analysis that is not shared" (Roseland 2012). To find the balance between process and outcomes, the framework combines the scientific rigor of an expert-led top-down approach with bottom-up engagement of community members (Reed, Fraser, and Dougill 2006).

### **2.3.4. Measurement of Progress**

*“What gets measured gets done”*. This common phrase borrowed from the commerce world is equally applicable to sustainable community development. A sustainability planning process that uses a monitoring program to measure progress toward achieving sustainability may accomplish its goals more readily than one without. When used correctly, monitoring results provide a gauge for progress, creating motivation for the community to stay committed to sustainability efforts (Maclaren 1996). As well, monitoring results can be used as an instrument to garner support and resources to pursue further initiatives (Maclaren 1996). Lastly, monitoring programs are valuable to adaptive management processes (described below), as they provide vital information about how the process can be improved to achieve better results.

Monitoring programs are most commonly completed through the use of carefully selected indicators chosen to measure the community’s sustainability objectives. The literature suggests that for a chosen indicator to be successful it must be simple, directionally clear, represent the local conditions, and integrate the community’s environmental, economic, and social objectives (Maclaren 1996; Valentin and Spangenberg 2000). When choosing indicators, local authorities must be forward-thinking and consider what information they may want or need in the future (Valentin and Spangenberg 2000). Indicator selection is a political process (Hermans, Haarmann, and Dagevos 2011). Indicators and their associated data must be recognized and approved by the community, as indicators prescribed from higher levels of government often either are unavailable at the local scale or misrepresent the local context (Reed, Fraser, and Dougill 2006). Therefore community participation in indicator development and use, also called participatory monitoring, is wise, as it empowers the community and establishes buy-in into the process while creating community capacity for implementation of the monitoring program (Fraser et al. 2006; Hermans, Haarmann, and Dagevos 2011).

TNS, as applied in the Resort Municipality of Whistler for the sustainability plan Whistler 2020, provides an excellent example of an effective monitoring program. While defining their sustainability objectives, the community engaged stakeholders in creating a monitoring and reporting system, based on indicators, that tracks the status and progress toward the defined community vision (Resort Municipality of Whistler

2012). The indicators are updated annually through community surveys, census data, and other reported information. Similarly, the CCF uses a suite of indicators in its monitoring tool, called the Sustainability Balance Sheet. The tool itself assembles the indicator data into a visual diagram that displays advancement toward or retreat from the sustainability vision (Roseland 2012).

### **2.3.5. Adaptive Management**

Adaptive management is an approach borrowed from biological sciences and modified to meet sustainable community planning needs. When applied in the planning context, adaptive management allows for policies, plans, regulations, and projects to be treated like experiments. Seymoar (2004) describes the adaptive management approach as enabling “mid-course corrections, learning from experience and failure, and seizing opportunities as they emerge”. She furthers this by describing adaptive management as “akin to a living organism using its senses to adjust its behaviour in its environment by remaining alert, seeking opportunities and ensuring its survival” (Seymoar 2004).

One cannot predict with any kind of certainty what kind of challenges a community will face in the future, but you can be certain that the community will face some kind of challenge in the future. An adaptive management approach helps control and prepare for uncertainty by providing the mechanisms to be proactive, adjust, or react to future changes in the community (Seymoar 2004). Communities have continually changing economic, social, and environmental conditions. These changes are amplified over the multigenerational time scales of sustainable community development (Briassoulis 2001). Therefore planning processes must include adaptive management in response (Roseland 2000).

Of the four frameworks examined, none explicitly build adaptive management measures into the planning process. LA21, CCF, and TNS, are compatible with adaptive management principles because they are long-term and promote continual improvement (Seymoar 2004). Of those three, TNS promotes adaptive management the greatest through its use of backcasting with feed-back loops (Seymoar 2004). The CCF provides information about expected impacts from a proposed project, providing an opportunity for adaptive management early on in the planning process (Roseland 2012). As

well, since the tool employs long-term monitoring, it can be argued that the tool employs adaptive management. Smart Growth is primarily focused on current development decisions and does not forecast into the future. Therefore, of the four frameworks, it is the least likely to employ adaptive management (Seymoar 2004).

## 2.4. Summary

Table 2.1, provides a summary of how each of the four sustainable community development frameworks embody the five characteristics derived from the literature. Integration of competing interests and stakeholder participation are the two characteristics fulfilled by all frameworks. Sustainable community development theory was slightly under represented by TNS and fully represented by the rest and both LA21 and Smart Growth under represented the measurement of progress characteristic. Adaptive management was the most under represented characteristic, with no frameworks fulfilling it completely.

The summary depicts that none of the frameworks fulfill all five of the characteristics completely. The analysis uncovered larger gaps in the characteristics for both LA21 and Smart Growth and show that TNS fulfills most of the characteristics, with the exception of adaptive management and slightly under represents sustainable development theory. The CCF met all five of characteristics to the greatest degree, supporting the use of the framework for this study.

**Table 2.1: Summary of Analysis.**

	Sustainable Community Development Theory	Integration of Competing Interests	Stakeholder Participation	Measurement of Progress	Adaptive Management
Local Agenda 21	●	●	●	◐	◐
Community Capital Framework	●	●	●	●	◐
The Natural Step	◐	●	●	●	◐
Smart Growth	●	●	●	◐	○

*Note.* Assessment of sustainable community development frameworks against the characteristics derived from the literature. The level of dark blue in the circles represents

*the amount to which the framework embodies the characteristic.*

## **3. Community Capital Framework and Tool**

### **3.1. Overview**

The Community Capital Tool is the product of collaboration between the Centre for Sustainable Community Development at Simon Fraser University in Canada with the Telos, the Brabant Center for Sustainable Development, at Tilburg University in Holland. Telos has developed its contribution to this tool by working extensively in the Netherlands, while the SFU group developed its contribution to this tool by working in rural, urban and aboriginal Canada, as well as in Mexico, Ukraine, and Bolivia.

This chapter provides an overview of the Community Capital Framework followed by a detailed description of the Community Capital Tool. The text has been adapted, with permission, from Mark Roseland's book *Toward Sustainable Communities: Solutions for Citizens and Their Governments (2012)*.

### **3.2. The Community Capital Framework**

There are myriad ways to understand and conceptualize community. For sustainable community development, it is useful to borrow economic concepts to describe a community. Examining a community in terms of so-called capitals, a collection of local assets, one can begin to understand how community resources can produce other benefits through investment (Flora, Flora, and Fey 2004). For example, the economic capital of a community has money as one of its assets. If the money within a community stays in the bank generating interest, it provides very little benefit for the community. However, if that same money were used to build a community center, it would generate a variety of immediately realized benefits for the community. These benefits can be considered community income (Emery, Fey, and Flora 2006). The SFU Centre for Sustainable Community Development (e.g., Roseland 2000) and others (e.g.,

Emery, Fey, and Flora 2006) use this notion of community capital as the foundation for sustainable community development.

Originating from the World Commission on Environment and Development's definition of sustainable development, there have been several efforts to describe sustainable community development in terms of three types of capital: economic, social and ecological (e.g., Goodland 2002; Rainey et al. 2003). However, working with the three large types of capital is cumbersome and challenging. Therefore the Community Capital Framework has been designed to use six smaller, more nuanced, forms of capital to better represent the resources found within a community: natural, physical, economic, human, social, and cultural capital. These six forms of capital are the backbone of the Community Capital Framework (Figure 3.1), which seeks *balance* between all the capitals. For example does the preservation of a natural ecosystem encourage economic development through tourism or will it hurt industry in the area? Can trails be added to the protected area to promote physical health benefits in the community? And can the same protected area be used for education and cultural events?



**Figure 3.1. The Community Capital Framework.**

*Note. Sustainable development requires mobilizing citizens and their governments to strengthen all forms of community capital. Community mobilization is necessary to coordinate, balance, and catalyze community capital.*

The Community Capital Framework has been developed to consider the effects of decision-making on each form of community capital. It has been designed with a systems thinking perspective that regards each form of community capital as a sub-system of the larger whole community system. It is important to understand that an increase in a single capital can generate multiple benefits across the other forms of capital (Gutierrez-Montes 2006). For example, an increase in economic capital through successful community economic development initiatives may create opportunities for more jobs (human capital) and generate financial resources to maintain and replace aging community infrastructure, such as roads and public buildings (physical capital). If economic development initiatives thoughtfully consider the needs of the community, they can also increase social and cultural capital. This flow of resources across capitals has been termed the “upward spiral” of community capital (Emery, Fey, and Flora

2006; Wheeler 2004). But this same effect can happen as a “downward spiral”, too—when one form of capital becomes deeply eroded, then the others will likely decrease.

### **3.2.1. Six Forms of Community Capital**

#### **3.2.1.1. Natural Capital**

Although the term *natural capital* has been around for almost a century, it was ecological economists such as Robert Costanza (1995) and Herman Daly (1990) that introduced it into the dialogue around sustainability. Natural capital refers to any stock of natural assets that yields a flow of valuable goods and services into the future. It includes non-renewable resources such as fossil fuels and minerals, renewable resources that can provide goods and services (such as food, clean water, and energy) over the long run if managed sustainably, and the capacity of natural systems to continue providing critical goods and services while absorbing our pollutants and emissions (such as the atmosphere’s capacity to regulate the planet’s climate). Because the flow of benefits from ecosystems often requires that they function as intact systems, the structure and biodiversity of ecosystems is another important component of natural capital (Wackernagel and Rees 1996; Goodland 2002). As well, irreplaceable areas of outstanding natural beauty are considered natural capital.

Enhancing a community’s natural capital means living within its ecological limits: using less of nature; minimizing waste; leaving more of it untouched; and generally ensuring that human actions do not degrade the functional integrity of ecosystem services. The benefits that flow from natural capital can be considered *natural income*.

#### **3.2.1.2. Physical Capital**

Physical capital is the infrastructure that helps people obtain their basic needs, such as shelter, access to clean water, unspoiled food, and a supply of energy. It also creates an opportunity for people to be productive by providing stocks of material resources such as equipment, buildings, machinery and other infrastructure that can be used to produce goods and a flow of future income.

The origin of physical capital is the process of spending time and other resources

constructing tools, plants, facilities and other material resources that can, in turn, be used in generating other products (Ostrom 1993). Physical capital is sometimes referred to as produced capital (NTREE 2003), manufactured capital (Goodland 2002) or public capital (Rainey et al. 2003).

There is a strong relationship between physical capital and human capital. Insufficient physical capital can limit human capital by requiring more effort to satisfy basic needs and achieve productivity. In rural communities challenged by poor sanitation facilities the time lost when someone becomes sick limits community members' ability to focus on productive financial gain. This will limit new resources from entering the community. In higher density communities, physical capital could be impacted by the availability of for productive use, such as residential, industry, or agricultural purposes.

Improving physical capital includes focusing investment, both financial and non-financial, on community assets such as public facilities (e.g., hospitals and schools); water and sanitation; efficient transportation; safe, quality housing; adequate infrastructure, and telecommunications.

### **3.2.1.3. Economic Capital**

Economic capital refers to the ways in which we allocate resources and make decisions about our material lives. It is essential for building a stable and viable economy. Economic capital within a community consists of two distinct types of resources, *financial* and *business*. Individuals and organizations use *financial resources*, such as money and access to affordable loans, to achieve well-being and generate wealth through goods and services production. *Business resources*, such as locally owned and operated companies, are the suppliers and consumers within a community that generate employment and income. They transform community resources into products and services that encourage the circulation of money within the community.

Economic capital can be maintained and strengthened by supporting economic diversification across sectors and employers, local needs production to reduce economic leakage caused by importing, and by support local enterprise development through access to loans and credit and technical assistance.

#### **3.2.1.4. Human Capital**

Human capital is the “knowledge, skills, competencies and other attributes embodied in individuals that facilitate the creation of personal, social and economic well-being” (OECD 2001). Human capital contributes directly to the labour productivity of a community and is sometimes described as the “livelihood asset”, representing a person’s ability to pursue and achieve individual livelihood objectives (DFID 2003). Such objectives vary from person to person and have a variety of influences, such as culture, income, and personal preferences. Health, education, skills, knowledge, leadership and access to services all constitute human capital (Callaghan and Colton 2008).

Human capital is formed consciously through training and education and unconsciously through experience (Ostrom 1993). It needs continual maintenance by investments throughout one's lifetime (Goodland 2002). It is eroded through the inability of a person to meet basic needs, such as access to food, clothing shelter, and education, as well as failure to achieve expectations in work and productivity (Callaghan and Colton 2008).

Increasing human capital requires a focus on areas such as health, education, nutrition, literacy, and family and community cohesion. Increasing human capital also requires input from other forms of capital—physical (shelter, schools and medical infrastructure), economic (employment and income), social (peace and safety), and cultural (identity and belonging) capitals are all needed to enhance human capital (Hancock 2001). Human capital also requires creating opportunities to build pride and freedom through realistic expectations and achievements (Callaghan and Colton 2008).

#### **3.2.1.5. Social Capital**

Social capital constitutes the “glue” that holds communities together. It represents community cohesion, connectedness, reciprocity, tolerance, compassion, patience, forbearance, fellowship, love, commonly accepted standards of honesty, discipline and ethics, and commonly shared rules, laws, and information. Social capital has both an informal aspect related to social networks and a more formal aspect related to institutions and social development programs. The Organisation for Economic Co-operation and Development (OECD 2001) defines social capital as “the

relationships, networks and norms that facilitate collective action”. Others describe it as the shared knowledge, understandings, and patterns of interactions that groups of people bring to any productive activity (Coleman 1994; Putnam, Leonardi, and Nanetti 1994).

Social capital differs from other forms of capital in several significant ways. It is not limited by material scarcity, meaning that its creative capacity is limited only by imagination. Consequently, it suggests a route toward sustainability, by replacing the fundamentally illogical model of unlimited growth within a finite world with one that is less constrained by the availability of material resources (Tainter 1995; Prigogine, Stengers, and Pagels 1985). It has two distinct characteristics that make it unique from the other capitals: social capital does not wear out upon being used, and if unused, social capital deteriorates at a relatively rapid rate (Ostrom 1993). Social capital also has limitations that other forms of capital do not. It is non-transferable, cannot be created instantly, and the very fact of trying to consciously create it or direct it can create resistance. People resist being instrumentalized for even the best of reasons (Flora and Flora 1993; Dale and Newman 2010).

Multiplying social capital contributes to stronger community fabric, and establishes bonds of information, trust, and inter-personal solidarity (Jacobs 1961; Coleman 1988; Lehtonen 2004), whereas a loss, or deficit of social capital results in high levels of violence and mistrust (Jacobs 1961).

Past sustainable development efforts have focused less on building social capital (and human and cultural capitals) than other capitals (Lehtonen 2004). Why is that so? A number of studies identify governance structures as the main barrier to social capital development (Dale and Newman 2010). Though social capital is largely neglected in discussions of public policy, Putnam (1994) reasons that social capital substantially enhances returns to investments in physical and human capital. However, unlike conventional capital, social capital is a public good, i.e., it is not the private property of those who benefit from it. Thus, like other public goods, from clean air to safe streets, social capital tends to be under-provided by private agents. The ties, norms and trust that constitute social capital are most often created as a byproduct of other social

activities and then transferred from one social setting to another (Hayami 2009).

The modern concept of social capital is described as the relations between individuals and groups. It can take several forms, some of which are mutually recognized bonds, channels of information, and norms and sanctions.

In this sense, social capital is related to the concept of social ecology, as developed in the works of the late Murray Bookchin (1987). Social ecology is the study of both human and natural ecosystems, and in particular, of the social relations that affect the relation of society as a whole with nature. Social ecology goes beyond environmentalism, insisting that the issue at hand for humanity is not simply protecting nature but rather creating an ecological society in harmony with nature. The primary social unit of an ecological society is the sustainable community, a human-scale settlement based on ecological balance, community self-reliance, and participatory democracy (Bookchin 1987).

Enhancement of social capital requires communication, interaction and networking between community members (Dale and Newman 2010; Onyx, Osburn, and Bullen 2004). It requires attention to effective and representative local governance, strong organizations, capacity-building, participatory planning, access to information, and collaboration and partnerships.

#### **3.2.1.6. Cultural Capital**

Cultural capital is the product of shared experience through traditions, customs, values, heritage, identity, and history. Although sometimes subsumed under the heading of social capital, it deserves its own category.

Cultural capital is the cultural and traditional resources of a community (Flora, Flora, and Fey 2004). French sociologist Pierre Bourdieu (1986) was the first to describe cultural capital, believing it exists in three different states: embodied (state of the mind/body), objectified (through cultural objects like instruments and costumes), and institutionalized (“rules of the state”). It is many things both tangible and intangible: singing, dancing, stories, food, rituals, spirituality, ceremonies, celebrations, heritage buildings, and art. It is shared across generations and defines a community, influences

decision-making, and shapes how people communicate with one another (Callaghan and Colton 2008).

In mainstream western society, particularly in the US and Canada, cultural capital is often under-valued. However it is particularly important in aboriginal communities that use local ecological knowledge to guide resource management and decision-making (Cochrane 2006). Cultural capital also plays a strong role in communities with long histories and traditions.

In communities rich with culture and natural resources, cultural capital has influence over management objectives, efficiency of process, and demand for natural resources (Cochrane 2006). When embraced, cultural capital can increase human and social capitals by improving health and well-being and promoting stewardship and preservation of natural capital (Cochrane 2006). Cultural capital can be used to increase economic capital through productivity and tourism opportunities (Flora, Flora, and Fey 2004).

Enhancing cultural capital requires attention to traditions and values, heritage and place, the arts, diversity, and social history. It is closely linked to social capital, in that the amount of social capital present in the community will either constrain or promote cultural capital (Callaghan and Colton 2008).

### ***3.2.2. Community Mobilization***

Strengthening these six forms of community capital is the foundation for Sustainable Community Development. The key to understanding this approach to development is recognizing that it is based largely on appreciation of community assets (as well as realistic acknowledgement of challenges or, in conventional terms, deficits).

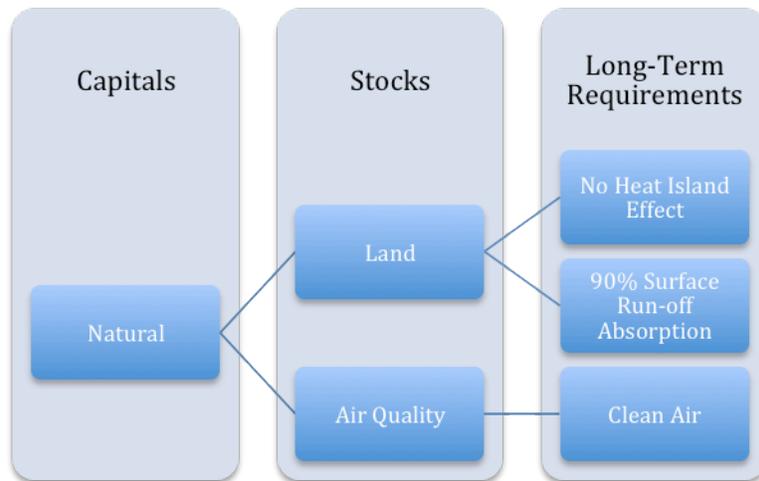
The Community Capital Framework (Figure 3.1) conceives of sustainable community development as a balanced enhancement of all of these capitals, with a critical element at its center: community mobilization. Why? Because there is no single sustainability prescription that would fit all communities, because every path forward comes with opportunity costs that need to be carefully considered, and because participatory planning is critical to the sustainable development process—from

visioning through to evaluation of results. For people to prosper anywhere they must participate as competent citizens in the decisions and processes that affect their lives (Gran 1987). Sustainable community development is thus about the quantity and quality of empowerment and participation of people.

### **3.3. The Community Capital Tool**

The Community Capital Framework has been adapted into a decision support and assessment tool designed to facilitate and ground community discussion about integrated planning and monitoring called the Community Capital Tool (CCT). This tool has been built from the idea that sustainability has a unique meaning in every community and uses local knowledge to establish sustainable community development as a democratic process that represents a community's unique characteristics and needs. The tool aligns community priorities with capacity in each form of community capital.

The CCT is comprised of two related instruments, the Community Sustainability Balance Sheet (*Balance Sheet* for short) and the Community Capital Scan (*Scan* for short). These two instruments are built from Telos' original methodology by sharing an analytical framework consisting of six forms of capital, each broken down into a set of smaller *stocks* and *requirements* used to measure capital capacity and progress toward achieving sustainability. Figure 3.2 and the following paragraphs describe the relationship between capitals, stocks, and requirements.



**Figure 3.2. Capitals, Stocks, and Requirements.**

*Note.* The figure depicts the analytical framework for the Community Sustainability Balance Sheet and the Community Capital Scan.

The six forms of capital have a relationship to every other form of capital. To better understand how these relationships are formed, the state of each capital in terms of *stocks*—universal subsystems that influence the state and development of each capital as a whole. Born out of empirical research and scientific evidence and moderated by local factors, stocks are the assets within a capital that influence its quantity and quality. The table below offers examples of stocks commonly associated with each form of capital. The long-term requirements are a set of ambitious goals designed to direct the capital and stocks towards a more sustainable direction. The development of the long-term requirements is discussed in more detail in Section 3.3.1.1.

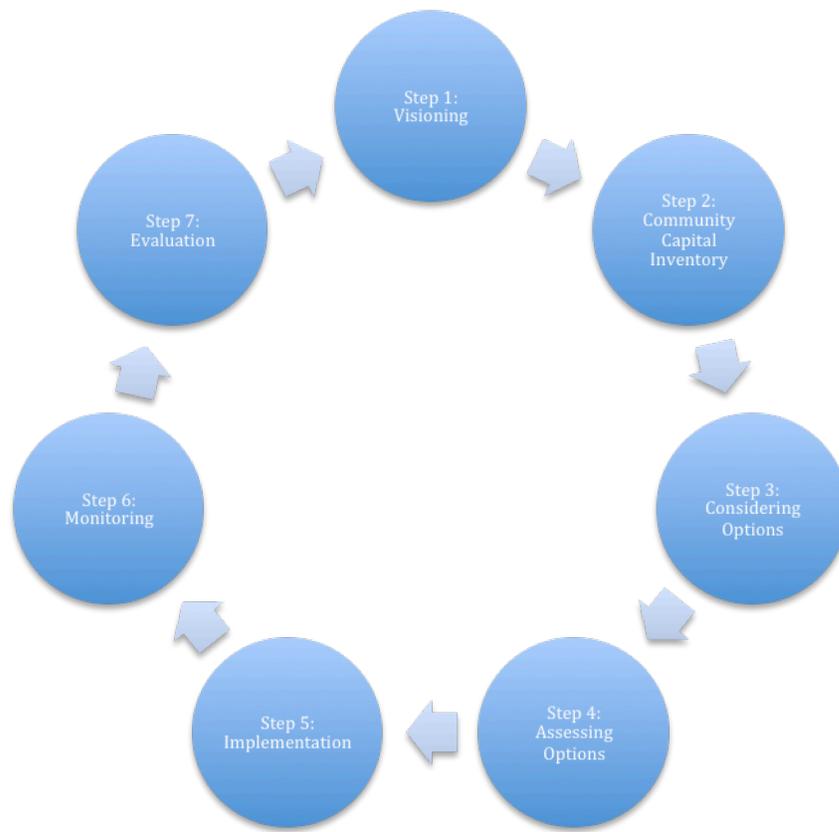
**Table 3.1. Community Capitals and Stocks.**

Capitals	Stocks
Natural	Soil Groundwater Air Surface Water Minerals and Non-Renewable Resources Land

<b>Capitals</b>	<b>Stocks</b>
Physical	Infrastructure Land Transportation Public Facilities Housing and Living Conditions
Economic	Labour Financial Resources Economic Structure
Human	Education Health and Well-being
Social	Citizenship Safety
Cultural	Cultural Heritage Identity and Diversity

### ***3.3.1. Seven Steps of the Community Capital Tool***

The CCT can be applied to integrated and pro-active community-wide planning activities (e.g., developing an overall sustainability plan, or modifying an official community plan) as well as to neighborhood-specific, re-active processes (e.g., proposal evaluation and responding to development applications). It is applied in seven distinct steps—visioning, community capital inventory, considering options, assessing options, implementation, monitoring, and evaluation (Figure 3.3). Throughout all of these steps, community participants, chosen for both their expertise and representation of the community, play a key role in applying the tool successfully.



**Figure 3.3. Community Capital Tool Steps.**

Note. The seven steps of the Community Capital Tool are similar to other seven-step strategic planning processes (e.g., Markey et al., 2005, p. 123). The added value of the Community Capital Tool, however, is the framework itself; it provides well-defined activities and instruments to permit clear and rational decision-making.

### **3.3.1.1. Step 1: Visioning**

In order for stocks to develop sustainably they need to develop in a certain direction, toward a (sometimes utopian) target. Early in the planning process the CCT is used to engage community members in visioning exercises designed to define their ideal sustainable community. The outcome is a vision and set of goals that are used to guide decision-making throughout the steps of the tool. These goals are called the long-term requirements and their development is arguably the most important step in the decision analysis phase. Each stock has one or more long-term requirements associated with it (Figure 3.2). The long-term requirements create a shared language of sustainability making it easier to discuss and measure progress (Hermans, Haarmann, and Dagevos 2011). Each goal is developed through an extensive iterative process with

community members, leaders and technical experts and may include ambitious milestones such as clean air and water, no poverty, 100 percent literacy, and so on.

### **3.3.1.2. Step 2: Community Capital Inventory**

The Community Capital Inventory step is similar to the situation analysis step in strategic planning processes (e.g., Markey et al. 2005). It differs from a typical situation analysis however, because community capital provides a distinct and unique framework for analysis, through the use of the Community Sustainability Balance Sheet. The Balance Sheet is an instrument designed to provide a measurement for each of the capitals and stocks existing in the community and the results create a picture of the strengths and weaknesses of each stock. For example, what ecological services are provided by the land stock in natural capital and are they being threatened (the gap between the need for certain type of services and the provision of these needs)? How does the land stock impact economic capital? Does it impact the labour, financial resources, or economic structure stocks? Is there a need for more employment opportunities within the community? Does the community have strong social or cultural values?

Within the Balance Sheet, each stock is related and measured in comparison with the requirements defined in the visioning step. For instance, building from the natural capital example used above, the ecological services stock may have a related requirement to eliminate the heat island effect in the community.

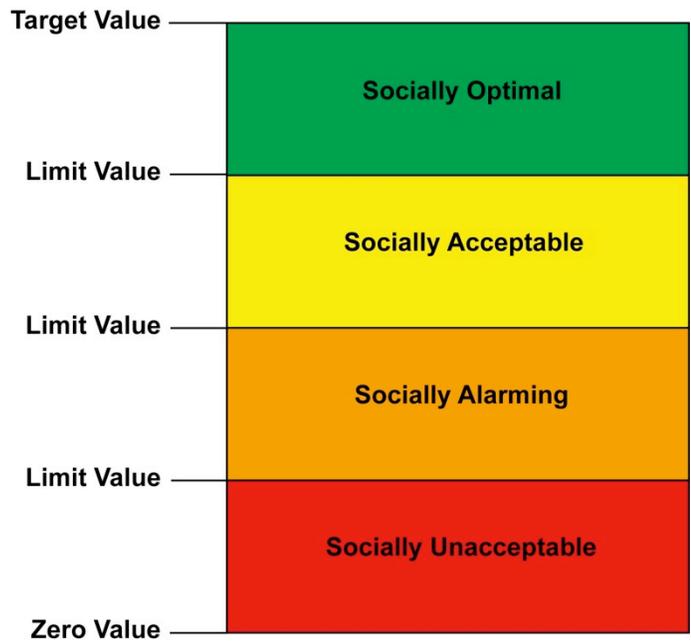
To measure the fulfillment of the requirements, however, indicators are needed. Indicators are the specific measurements used to operationalize the requirements. There is often more than one indicator per requirement and the weighting of importance can vary from indicator to indicator. Once again, with the ecological services stock, an indicator of the heat island effect is the ambient air temperature in a community measured at pre-determined times, locations, and frequencies.

Additionally, the Balance Sheet uses norms as a series of measurements used to assess progress for each indicator on a unique scale from socially optimal to socially unacceptable. Norms are best practices and policies, appropriate for the situation, which are applied in other jurisdictions or described in policy and research documents. Norms

are used for benchmarking to provide an indication of the community's performance compared to similar communities in the province, region, or country.

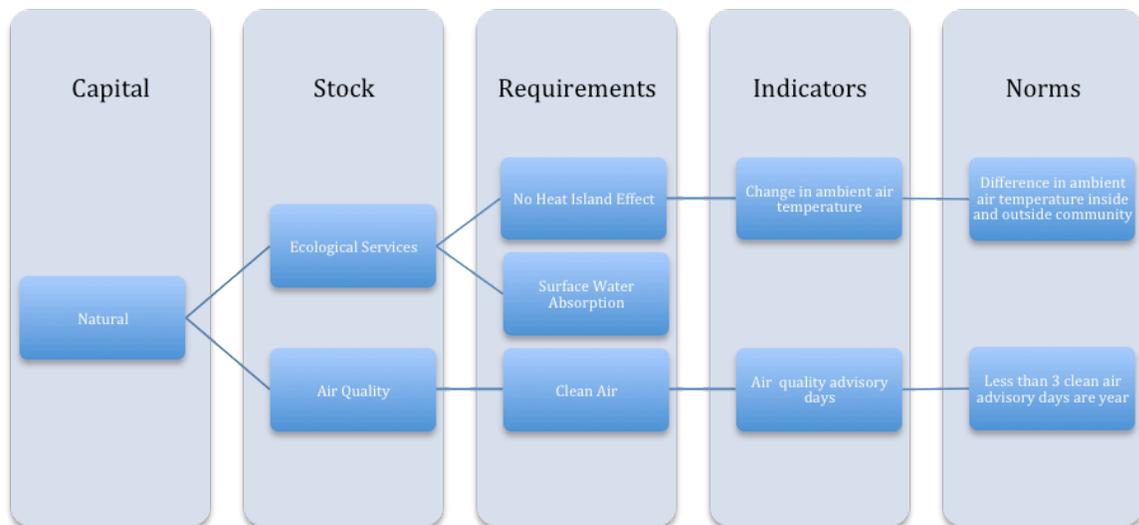
Norms are a way of expressing what level of impact society is comfortable with. For example, with the air quality stock and pollution indicator, a community may be satisfied with (i.e., find socially acceptable) a daily average reading of 6 micrograms per cubic meter of particulate matter. One to three days with readings higher than this over the course of a year may be socially alarming and four or more days may be considered socially unacceptable.

The measuring scale for norms is shown in Figure 3.4 below. The scale consists of a series of norms with specific target values attributed to each of the four categories (socially optimal, socially acceptable, socially alarming, socially unacceptable). The further away an indicator is from the target value identified for socially acceptable, the quicker an intervention or action is needed to strengthen this indicator. Target values are established from participant workshops, policy documents, comparison with other regions, and comparison with indicator levels over time.



**Figure 3.4. Indicator Measuring Scale.**

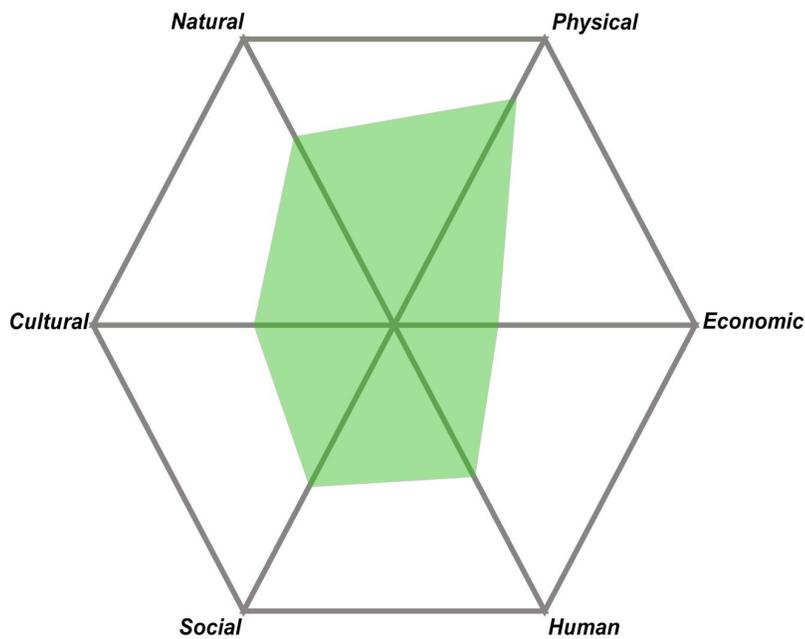
Note. A unique measuring scale is developed for each indicator.



**Figure 3.5. The Community Sustainability Balance Sheet Framework.**

Note. An overview of the relationships between capitals, stocks, requirements, indicators, and norms is shown for natural capital.

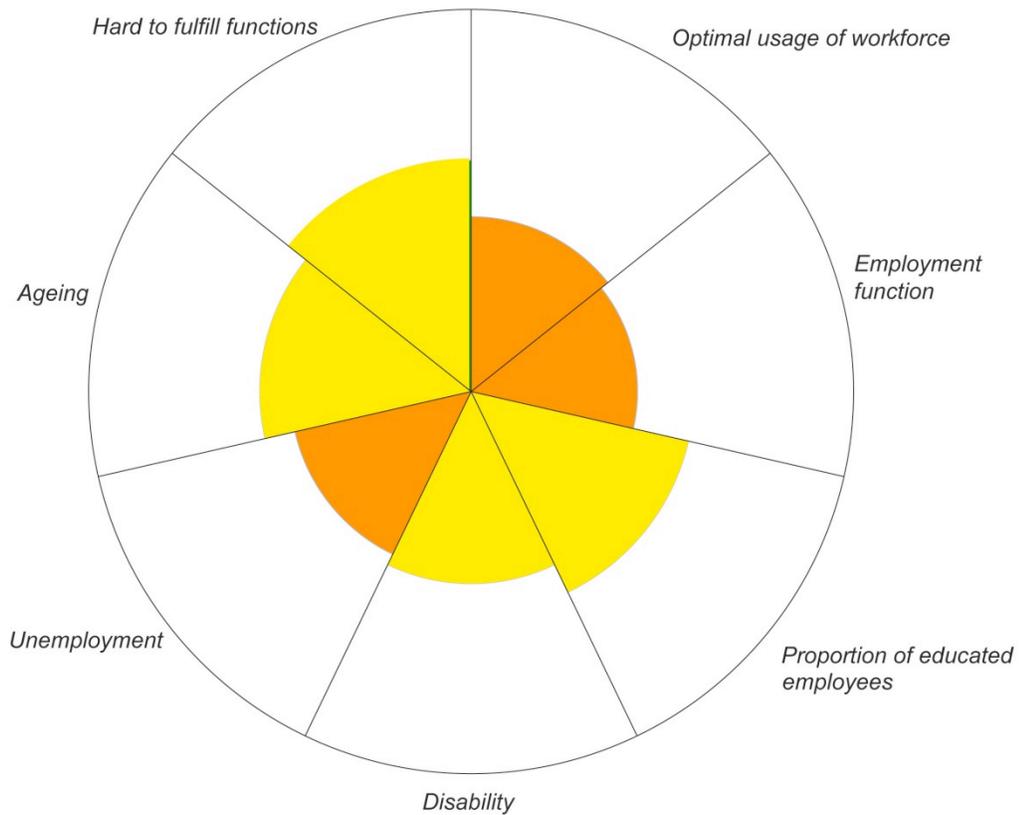
The outcome of the Balance Sheet completed in *Step 2: Capital Inventory*, is a complete account of the capacity of the capitals and stocks within the community. The results can be presented in a visual summary that maps out all of the capitals together (Figure 3.6) and a more detailed fact sheet for each stock (Figure 3.7).



**Figure 3.6. Existing Community Capital.**

Note. This figure represents the final outcome of the Sustainability Balance Sheet. It depicts the original state of capital in a community after completing the Community Capital Inventory.

# Labor



**Figure 3.7. Community Sustainability Balance Sheet—Labor Stock.**

Note. The output for the Labor Stock visually displays the capacity for each indicator. The colours of the pie slices represent where the indicator measures on the scale of socially optimal to socially unacceptable (see Figure 3.4). Yellow is socially acceptable and orange is socially alarming. Green (socially optimal) and red (socially unacceptable) are not shown.

Some challenges communities face while completing this step relate to their size

and resource capacity. Often smaller communities have difficulty finding the data required for input into the Balance Sheet. Frequently the data are not presently being collected and they do not have the resources available to complete primary data collection, so the community must rely on outside technical experts for this information. This is neither an advantage nor disadvantage when compared to other communities who conduct the work in-house; it is merely a different way of gathering the required information.

### **3.3.1.2.1. Stocks and Requirements**

The following table is a list of all six forms of capital, each with its associated stocks and requirements. While the stocks are fairly universal and will be largely the same from place to place, the specific requirements will vary according to country, community size, historical development, specific economic, social, and ecological structures, and proposed initiative, among other things.

**Table 3.2. Stocks and Requirements.**

<b>Capitals</b>	<b>Stocks</b>	<b>Requirements</b>
Natural	Soil	Eliminate all pollutants and contaminants
		Expand the preservation of fertile agricultural land
		Eliminate soil erosion or instability
	Groundwater	Eliminate all pollutants and contaminants
		Preservation of existing reservoirs and replenishment through natural processes
	Air	Eliminate all pollutants and contaminants
	Reduce green house gas emissions	
	Surface water	Eliminate all pollutants and contaminants
		Ensure that surface water quality is suitable for human and agricultural use.
	Minerals and Non-Renewable Resources	Reduce the extraction rate of non-renewable resources
		Use only environmentally safe extraction practices
Land	Ensure protection of biodiversity.	
	Increase preservation of natural and sensitive ecosystems by parks or conservation areas.	
Physical	Infrastructure	Provide safe and reliable water to all citizens
		Ensure that waste management systems are clean and efficient

Capitals	Stocks	Requirements
		Ensure that energy is transmitted through a safe, efficient, and reliable system
		Provide adequate access to reliable telecommunications systems for all citizens
	Land	Suitable land available for different uses, included housing, industry, and agriculture.
	Transportation	Create a robust and reliable public transportation system
		Provide safe, efficient, and well maintained rail and road infrastructure
	Public Facilities	Ensure adequate facilities for schools, hospitals, community centers, etc.
	Living Conditions	Ensure adequate access to housing, food, and clothing for every citizen
Economic	Labour	Balanced labour market that includes a variety of job types and salary ranges.
		Adequate training for workforce.
		Work is safe, healthy and allows for appropriate work life balance.
		Wages are adequate to provide decent livelihoods
	Financial resources	Circulating money within the community.
		Debt reduction or elimination.
		Reduced likelihood of depletion or instability.
	Economic structure	Local companies are able to make sufficient profit and investment.
		A good mix of productive and service industries.
		Constant economic regeneration through new enterprise development and re-location to the community.
		Companies are investing in emissions and pollution prevention and reducing the use of non-renewable resources.
Human	Education	Opportunities meet the needs of both society and individuals.
		Opportunities are high quality and easily accessible
	Health and Well being	Citizens are physically, mentally, and spiritually healthy.
		All citizens have access to health care services for illness prevention and treatment.
Social	Citizenship	Community has social cohesion.
		Social solidarity between citizens.

Capitals	Stocks	Requirements
		Opportunity for citizens to build strong networks between each other.
	Safety	No poverty or exclusion. Citizens feel safe and have access to support systems which encourage safety.
		No violent crime.
Cultural	Cultural Heritage	Art is encouraged and celebrated. Community acknowledges traditions and celebrations. A diversity of culture and tradition is present. Cultural heritage is preserved.
	Identity and Diversity	Citizens are encouraged to express individual identity while not restricting others' freedom of expression. The community has a defined identity.

*Note. The table is a list of all forms of capital and associated stocks and requirements. While the stocks are generally universal from community to community, the requirements will vary to reflect the specific community's characteristics and needs.*

### **3.3.1.3. Step 3: Considering options**

Once the inventory is complete, the next step is to create a small suite (approximately two to six) of options, or alternatives, for the project, plan, or policy with the objective to assess them in Step 4. Options should be created to reflect the findings of the inventory. One way to interpret this step is to treat it as a summary of the capital inventory. For example, when considering options for an economic development strategy, it is important to find options that build from the community's more robust capitals and others which aim to strengthen weaker capitals. It is imperative to revisit the community vision while developing the suite of options to confirm that all options, in some way or another, aim to move the community toward the vision. Each option will have its own advantages and disadvantages with respect to the community capitals.

### **3.3.1.4. Step 4: Assessing Options**

Once the Balance Sheet and the options have been defined participants can use the Community Capital Scan to assess the potential impacts of each option on the capitals. The Scan is a series of predetermined questions designed to direct participants to identify which stocks may be strengthened and which may be

weakened by the proposed activity (examples of questions can be seen in Table 3.3). For each option participants are asked to answer the questions on a scale of -5 (most negative impact) to +5 (most positive impact) to assess whether the proposed activity is contributing to the fulfillment of the community's requirements. The output is a series of



diagrams, divided by capitals, that shows the anticipated impact on the stocks. Below the diagrams are charts that show the range (from -5 to +5) and frequency of answers among the participants (Figure 3.8).

**Figure 3.8. Detailed Community Capital Scan Results.**

Note. The solid bars show the variance in answers among the group. The green bar represents a positive mean value across all respondents, whereas red represents a negative value.

**Table 3.3. Community Capital Scan. This table shows a sample the specific questions asked to community stakeholders.**

Capital	Example Question
Natural	Will the proposed development improve air quality?
Physical	Will the proposed development improve physical infrastructure that the community needs?
Economic	Will the proposed development increase employment opportunities?
Human	Will the proposed development provide education and training opportunities?
Social	Will the proposed development promote social cohesion?
Cultural	Will the proposed development strengthen the cultural identity of the community?

Of course, the goal of the CCT is to find balance between the capitals where each is achieving optimum performance. Therefore the information provided in this step will help facilitate the discussion to compare the impact of each option on the current community capital capacity, ultimately helping participants choose the best option to maximize the use of available resources for the greatest sustainability gain.

**3.3.1.5. Step 5: Implementation**

The steps above relate to the planning phase of a proposed project, policy, or activity, whereas the following three steps relate to implementation.

Once the assessment is complete an implementation plan should be created. The implementation plan should pay special attention to the decisions made during the Step 1: Visioning and provide clear direction of how to implement the option chosen in the Step 4: Assessing Options. Once this plan is complete the option should be implemented. Implementation is the process of moving an idea from concept to reality; in this context it might refer to those actions relevant to carrying out, executing, or practicing a plan, method, or design in order for something to actually happen, such as assigning responsibility (who's in charge?), budget (how much staff and/or money over

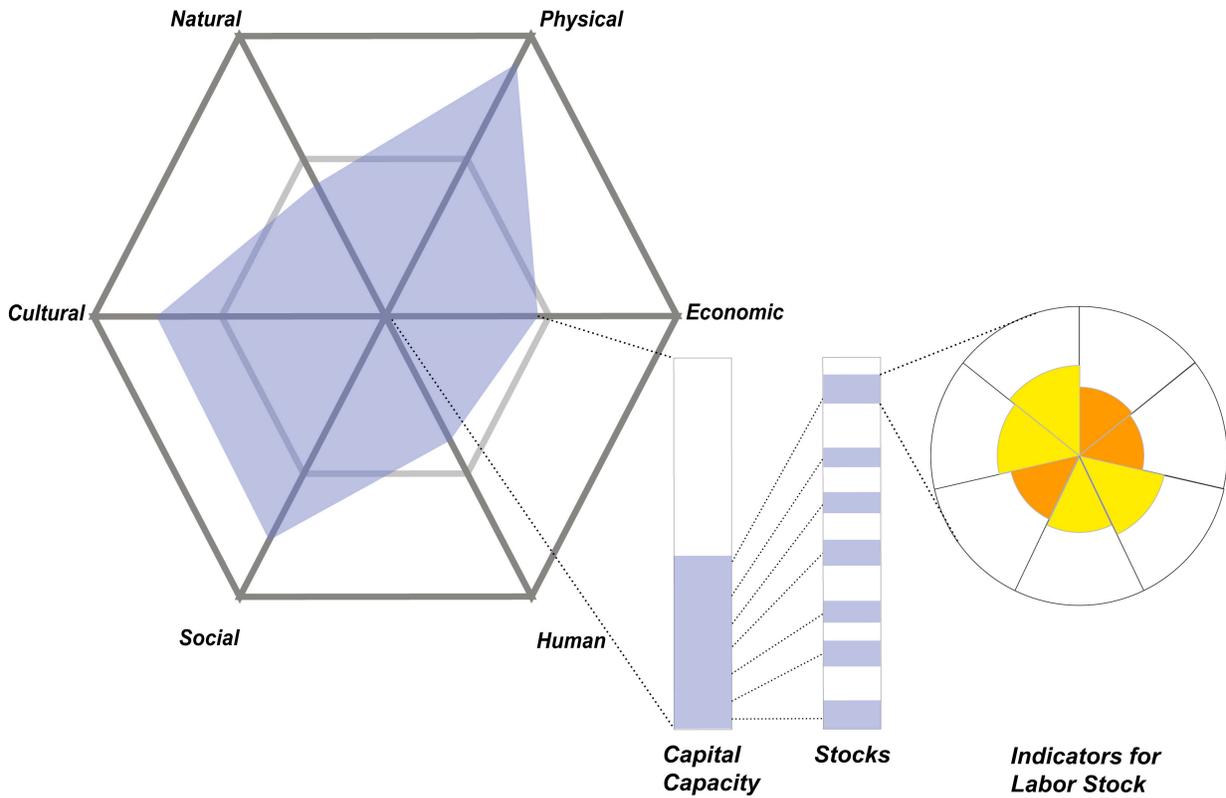
how long?), and reporting requirements (what kind of information, how often, to whom?).

#### **3.3.1.6. Step 6: Monitoring**

The first consideration for monitoring is to determine whether the project has been implemented yet. If has not, it is important to identify what barriers may be holding up progress.

If the project has been implemented, the next step is to monitor its impact on each of the community capitals. This step requires greater input through consultation from technical experts, such as economists, biologists, engineers, and so on. Similar to the Step 2: Community Capital Inventory, the ultimate output of this step is the Community Sustainability Balance Sheet.

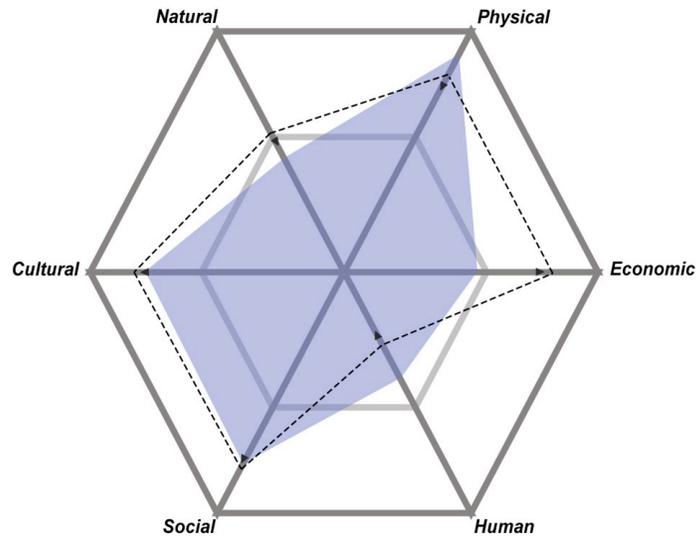
The Balance Sheet is used to monitor and assess how the stocks have changed over time. For example, since the implementation of the project, has the unemployment rate changed? Have the number of air quality advisories been reduced? While it may be possible to attribute these changes to a specific initiative, observing the change in values from the original Balance Sheet completed prior to implementation will give a more objective indication of how the community is progressing toward its long term sustainability vision.



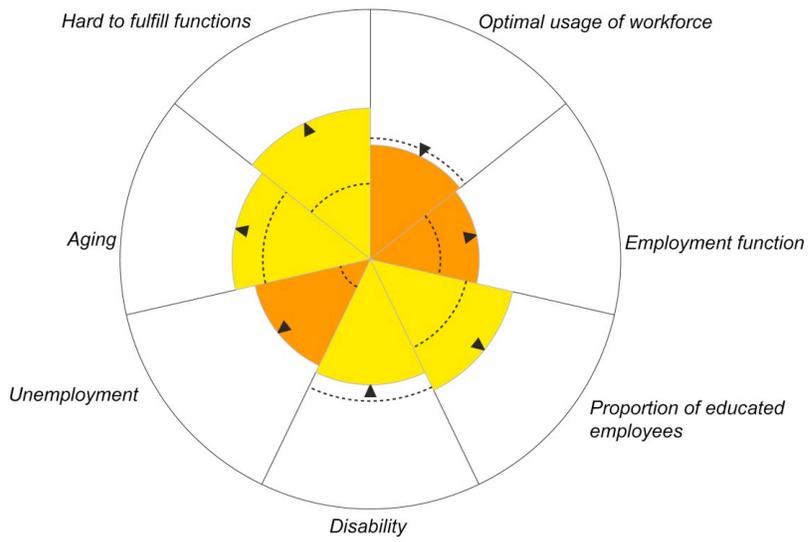
**Figure 3.9. Community Capital Monitoring Results.**

Note. This figure shows the capacity of each capital after implementation of a hypothetical project for a hypothetical community where there is a decrease in natural, economic, and human capitals and an increase in physical, social, and cultural capitals after implementation. The figure also shows a more detailed image of the changes in economic capital. The bar graph to the left displays the cumulative capacity of the capital, while the bar to the right shows the same capacity broken down by stocks. The circle to the far right displays the results of each indicator (See Figure 3.7 for the individual title for each indicator).

### Change in Capital



### Change in Labor Stock



**Figure 3.10. Monitoring Results.**

Note. This figure shows aggregated hypothetical monitoring results overtime for a community. The monitoring data is aggregated to show impacts over time. This figure shows hypothetical results of how a project can have positive impacts on some capitals (economic, social, and cultural) while compromising others (natural, physical, and human). The circle shows more specific detail of the changes in the indicators for the Labor Stock.

**3.3.1.7. Step 7: Evaluation**

The evaluation of the project is based on the results of the initiative and will ultimately identify what contribution the project has had on changes to the community. This will give an indication of whether the initiative should continue or be cancelled. A rationale outlining the decision for either course of action is required.

**3.4. Community Engagement**

The CCT works best with successful community engagement. Community engagement is as much about process as it is about outcomes. An imperfect but shared analysis of community sustainability may be more useful than a perfect analysis that is not shared.

There are two types of methodological paradigms for determining strategies for sustainable community development: the expert-led (top-down) and the community-based (bottom-up) (Reed, Fraser, and Dougill 2006). The Community Capital Tool has been designed with the understanding that the best approach is to combine the scientific rigor of the expert-led top-down approach with the engagement process of the bottom-up participation of community members. In other words, it strives for the best of both worlds.

Participants are selected to provide a representation of the whole community. They are selected based on their knowledge of the community, expertise, and stake in a capital, and/or their ability to represent a distinct population within the community. There are three types of participants—the general public, stakeholders, and technical experts. General public participation is widespread across the community and represents the whole community profile. This group tends to have interest in the initiative but generally less knowledge of and expertise on the technical issues. Stakeholders are the

people in the community who have a stake, or vested interest, in the project. They may be business owners, local experts, or professionals who are impacted and/or knowledgeable about the project and related issues. Stakeholders are a rich source of expertise and they often explore issues more deeply than the general public group. It is important to find a balance between stakeholder interests with general public interests, because their interests may differ. Technical experts are used to conduct research to fill gaps in the data and analysis. Usually they are hired help, such as consultants and professional researchers. The trick for every community is to find the right proportion of all three types of participants to meet the community needs.

The combination of community-based and expert-led participation benefits each step of the Community Capital Tool for several reasons. First, community input is necessary to complete the visioning exercises and assess the present conditions of each capital. Second, community participants, along with professional experts, define the relevant stocks of the regional socio-economic and ecological system that need to be optimised. Third, participants help formulate the requirements and targets for each stock. By doing so the contours of a desirable future are defined. As this is often a subjective and normative step, the community input is indispensable. Not all requirements can be satisfied at short notice and sometimes participants will need to weigh the different requirements, indicators, and stocks within the tool. Finally, participants can be used to pick the indicators directly, or their opinions can be used as input at the indicator level. Examples might be an indicator that measures community satisfaction with the quality of the regional landscape or their perception of their influence on regional politics.

## **4. The Community Capital Tool and the District of Sechelt**

### **4.1. Overview**

Chapters 1, 2, and 3 of this report detail the development and theoretical application of the Community Capital Tool (CCT) and Chapters 4 and 5 provide the results and discussion of the practical application of the Community Capital Tool in the District of Sechelt. Specifically, this chapter provides an overview of the methods used to complete the Community Capital Pilot Project and presents the Sechelt Model.

### **4.2. The District of Sechelt**

The District of Sechelt is located on the Sunshine Coast, 32 km north west of Vancouver on the western side of Howe Sound (District of Sechelt 2008). Though the Sunshine Coast is considered part of the mainland, Sechelt is connected to the Metro Vancouver area through a 40-minute ferry connection between Horseshoe Bay and Langdale, at the southern end of the Sunshine Coast. With 9,200 residents, Sechelt makes up 31% of the Sunshine Coast Regional District population. It is the largest community in the region (District of Sechelt 2010a). The community spans 4,289 hectares and is made up of eight neighbourhoods: the Village (Downtown), Selma Park, Davis Bay, Wilson Creek, West Sechelt, East Porpoise Bay, West Porpoise Bay and Sunshine Heights, Sandy Hook, and Tuwanek (District of Sechelt 2008). The community is bordered on the north and south by water: the Strait of Georgia bounds Sechelt to the south and Sechelt Inlet borders the community on the north.



**Figure 4.1. The District of Sechelt.**

Note. The District of Sechelt (2012).

Like many other communities in British Columbia, District of Sechelt staff and elected officials have identified economic uncertainty as a concern for the community (District of Sechelt 2011). Other identified issues of concern are climate change, new growth and development, population shifts, and increasing energy costs. The District staff are using planning tools such as community wide visioning, official community planning, and neighbourhood planning, to be proactive in addressing these concerns.

### **4.3. Community Capital Pilot Project**

Research for the Community Capital Pilot Project was completed from December 2011 to June 2012. A conceptual framework for the project process is illustrated in Figure 4.1 below. All work was derived from an analysis of Sechelt's Sustainability Action Plan leading to the creation of the Sechelt Model.

The primary objectives of applying the CCT Tool in the District of Sechelt are to:

- Use the CCT to assess Sechelt's newly adopted Sustainability Action Plan to establish a greater understanding of how well the plan considers the core components of the Community Capital Framework; and
- Create a transparent, visual output for measurement and evaluation of sustainable community development in Sechelt.



**Figure 4.2. Community Capital Tool Pilot Project Process.**

Note. The District of Sechelt’s Sustainability Action Plan was used to direct the development of the Sechelt Model (described in Section 4.3). The Sechelt Model was then used to guide the development and application of the Community Sustainability Balance Sheet.

#### **4.4. Sechelt Model**

The Sechelt Model is a framework for policy assessment that has been specifically designed to reflect Sechelt’s unique character. It was built by aligning the specific goals set out in the Sustainability Action Plan and other community documents, with the capitals and indicators of the Community Capital Framework (CCF). The outcome, as shown in Table 4.1 The Sechelt Model, is a conceptual framework used to guide the Sustainability Balance Sheet and the Community Capital Scan processes.

Development of the Sechelt Model was comprised of three activities:

1. Document Review: A detailed examination of the District of Sechelt’s Sustainability Action Plan, Official Community Plan, and Vision Plan was completed to identify community planning policies, goals, and objectives.
2. Long-term Requirement and Stock Definition: Based on the findings of

the document review, long-term requirements (LTR) were developed, in collaborations with District staff, to represent the Sechelt's policies, goals, and objectives as they relate to the Community Capital Framework. A list of stocks relevant to Sechelt was developed to represent the LTRs.

3. Long-term Requirement Review: Sechelt staff and project researchers reviewed the draft list of LTRs and stocks to ensure adequate community representation. A finalized list of twenty-five LTR was developed and each was aligned with one of the fifteen stocks and six community capitals.

#### **4.4.1. Sustainability Action Plan**

The District of Sechelt's Sustainability Action Plan (SAP) was used as the guiding policy document for the development of the Sechelt Model. The SAP was born out of the desire for the District to "lead the way", demonstrating the municipality's commitment to grow and develop sustainably (District of Sechelt 2011). The plan uses the Brundtland Commission's (1987) original definition of sustainability, stating that sustainability means "living well today, while preparing for our future" and draws on holistic systems theory, emphasizing the interconnections between economy, environment, and community (International Institute for Sustainable Development (IISD) 2012; District of Sechelt 2011).

The SAP emphasizes five concepts of sustainability: 1) creating a shared understanding of a successful future; 2) living within the means of the community; 3) understanding the opportunities to reduce costs through long-term thinking and asset management; 4) understanding the interconnectedness and interdependence between the economy, society, and the environment; and 5) recognizing that small actions can have a large impact between the present and the future (District of Sechelt 2011). The document has been designed to be a guide of principles and actions, including a decision-making framework and checklist, designed to integrate sustainability into the District of Sechelt's operations.

The District of Sechelt staff developed the SAP through a series of brainstorming sessions to determine sustainability priorities. Contributions from Council and other municipal staff were also influential in plan development (District of Sechelt 2011). No direct community stakeholder participation processes were employed during the plan development, however input from other stakeholder processes, such as the

Sechelt Visioning Plan (2007), informed the final SAP.

**Table 4.1. The Sechelt Model.**

<b>Capital</b>	<b>Stocks</b>	<b>Long-Term Requirements</b>
Natural	Land	Sechelt is developed in harmony with its unique natural environment. Sechelt protects and supports biodiversity by protecting contiguous open spaces, wildlife corridors and interface areas. Sechelt uses water responsibly and efficiently and ensures a sustainable supply.
	Ground and Surface Water	Sechelt's sewage system minimizes impacts on streams and marine receiving waters. Sechelt water supply is clean and protected from contamination.
	Air	Sechelt's air is clean and protected from contamination.
	Minerals and Non-Renewable Resources	Sechelt is a compact and energy efficient community that has reduced dependence on fossil fuels and promotes the use of renewable energy. All household and industrial waste in Sechelt is diverted from landfills.
	Public Infrastructure	Sechelt is a leader in innovative building design and green infrastructure. The Downtown Village is the heart of the community and is attractively designed, exciting, and a safe place in which to live, learn, recreate, shop, visit, and work.
Physical	Housing and Living Conditions	All residents of Sechelt live in good quality, affordable housing. Sechelt's housing stock supports adaptability (age in place).
	Transportation	Sechelt is accessible, complete, compact, and pedestrian oriented where residents can meet many of their daily needs within an easy walk, cycle, transit trip or drive.
	Land	Sechelt has available land suitable to meet the community's industrial, agricultural and residential needs.
Economic	Labour	The labour market is balanced and offers enough job opportunities for all residents of Sechelt.
	Financial Resources and Economic Structure	Sechelt's businesses are competitive, profitable and invest in the community. Sechelt is an attractive tourist destination, especially for eco-tourists.
Human	Education	Sechelt has high quality educational services.

Capital	Stocks	Long-Term Requirements
		Sechelt's residents are able to meet their learning aspirations through education, volunteer, and workplace learning opportunities, and the community and its members are committed for lifelong learning.
	Health and Well-Being	Sechelt is a healthy community.
Social	Community Participation	Sechelt is an intergenerational community with a balanced age profile. All citizens of Sechelt are able to participate in society.
	Safety	Sechelt is a safe community where citizens are at low risk of becoming victims of crime, accidents, or disasters.
Cultural	Cultural Heritage	Sechelt celebrates its arts and preserves its rich cultural heritage. Sechelt supports and enhances the arts, culture, and heritage sector as a vital component of Downtown life.

#### **4.4.2. Sechelt Model Development**

The Sechelt Model (Table 4.1) is the conceptual framework for the Community Capital Pilot Project. It was developed through careful review of the District's plans, policies, and guiding documents and vetted through staff to ensure it represents the community adequately.

Table 4.2 shows a comparison of the policy goals of District of Sechelt's Sustainability Action Plan against the principles of the Community Capital Framework. The analysis shows that the SAP addresses each of the six capitals with at least one, or more, of the policy goals. The comprehensive application of sustainability principles in the SAP make it a good fit for the Community Capital Tool.

The development of the Sechelt Model from the SAP was straightforward. The policy goals in the SAP provided the backbone for the model in determining the stocks and the majority of the long-term requirements. Other policy documents, such as the Official Community Plan (2010) and Vision Plan (2007), were used when required to flesh out the long-term requirements.

The process of developing the Sechelt Model revealed that not every stock defined in the CCF is suitable to represent the District of Sechelt. Two stocks were removed: Soil and Identity and Diversity. Both stocks were removed after discussion with District staff. Soil was not included in the Sechelt Model because the community addresses soil concerns through priorities captured in the Land stock. Identity and Diversity was removed because priorities for Cultural Heritage overlapped with the stock and the District staff felt it did not represent the community’s priorities. Six other stocks were grouped together to form three new stocks that better represent the community’s characteristics: Ground and Surface Water; Infrastructure and Public Facilities; and Financial Resources and Economic Structure.

In Chapter 5, the framework is used to guide the completion of the Sustainability Balance Sheet.

**Table 4.2: The Sustainability Action Plan and the Community Capital Framework.**

Sustainability Action Plan Policy Goals	Natural	Physical	Economic	Human	Social	Cultural
To demonstrate progressive ideas and practices that provide a model for others in the community, and ensure sustainable thinking is reflected in daily activities and long-term planning for the municipality.						
To ensure the long-term financial health of the District of Sechelt and continue to provide cost-effective services to the community.			X			
To continuously improve the way the District of Sechelt engages with its citizens, partners, and staff by providing opportunities for meaningful dialogue and input.				X	X	
To create a diverse and thriving local economy that provides meaningful employment opportunities and a positive business environment.			X			
To coordinate development of Sechelt as a compact and energy efficient community.	X	X				
Foster a culture of conservation, reduce dependence on fossil fuels and promote and use of renewable energy to reduce green house gas emissions.	X					
To become a “Zero Waste” community and treat effluent to the highest standards and reduce noise/smell to the greatest extent possible.	X					
Ensure that municipal infrastructure is integrated and energy efficient and has the lowest environmental impact possible.	X	X				
To foster social well-being through health, housing, education, and support for the arts and cultural initiatives.					X	X

Sustainability Action Plan Policy Goals	Natural	Physical	Economic	Human	Social	Cultural
To create a pedestrian-focused, accessible and interconnected transport system.		X		X		
To use water responsibly and efficiently and ensure a sustainable supply.			X			
<p>Note. The policy goals of the SAP have been analyzed against the principles of the CCF to determine if there are any gaps that could hinder sustainable community development efforts in the District of Sechelt.</p>						

## **5 The Community Sustainability Balance Sheet Results**

### **5.1 Overview**

The Community Balance Sheet was completed for the District of Sechelt in the winter and spring of 2012. The following chapter describes the outcomes of the Balance Sheet and provides analysis of the results as they relate to the community's policy goals.

### **5.2 District of Sechelt's Community Sustainability Balance Sheet**

The Balance Sheet was completed to determine the baseline conditions for each of the community capitals in the District of Sechelt. The outcome provides an overview of the state of the stocks for each capital, as determined from the community's sustainability ambitions defined in the Sustainability Action Plan. The specific steps undertaken to complete the study are detailed below.

Balance Sheet Preparation: In preparation for the Balance Sheet, a list of indicators and their associated norms were derived from review of the Sechelt Model and discussion with Sechelt staff. One or more indicators were chosen for each long-term requirement and a set of norms was identified for each indicator. Indicators were chosen based on the availability of data already existing for Sechelt. Collaboration with Sechelt staff was undertaken to examine these data and determine their value for input into the Balance Sheet. In cases where no benchmark data were available to determine the norms, an educated and informed decision was made to determine the norm thresholds.

Balance Sheet Application and Evaluation: Data for each indicator were collected and analyzed against the norms. Data sources include the District of Sechelt staff, documents and monitoring programs, the Province of British Columbia Statistics, and Statistics Canada. All indicators were weighted equally with the other indicators in the same stock.

Once the data for each indicator had been gathered and inputted into the Balance Sheet, a series of fact sheets were generated (Appendix A). The fact sheets contain the following information:

- A description of the indicator;
- The associated capital, stock, and long-term requirement;
- The norms and benchmark data for the indicator;
- The weighting of the indicator; and
- The value of the indicator.

The results of the Balance Sheet are detailed in the following text. Each Capital is described, followed by the Stocks and their associated Indicators.

Section 5.3 describes the results of the Balance Sheet. The results are initially described by a brief overview of the Capital and overall Stock performance. Each Stock then is described by its set of Requirements and Indicator performance. Section 5.4 provides an analysis of the Balance Sheet results.

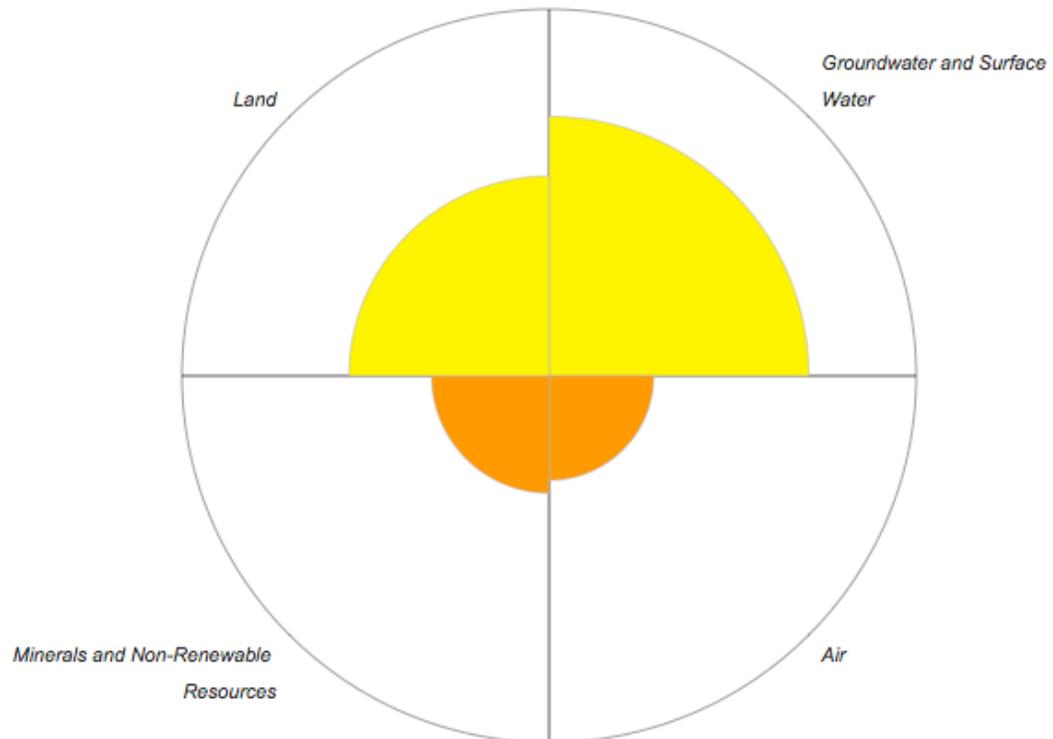
## **5.3 Community Sustainability Balance Sheet Results**

### ***5.3.1 Natural Capital***

Enhancing natural capital requires living within the ecological limits of the community. It entails preserving natural resources, reducing waste, and maintaining biodiversity. The natural capital of the District of Sechelt contains of both marine and freshwater riparian areas. Two major watersheds, Chapman and Gray Creeks, terminate in the District, providing a valuable freshwater source for the Sunshine Coast Regional District (SCRD) and groundwater recharge services (District of Sechelt 2008). Within the community's boundaries there are environmentally sensitive ecosystems, including eel grass beds and wetlands, and habitat for many types of wildlife, including species at risk

of endangerment or extinction (District of Sechelt 2008).

**Figure 5.1. Natural Capital Stocks.**



### **5.3.1.1 Groundwater and Surface Water**

The ground and surface water stock provide a very important value to any community. This stock assesses both the quality and consumption of all of the freshwater resources in the community: creeks, lakes, ponds, springs, and ground water.

The Chapman Creek watershed is the primary water source for the District of Sechelt and supplies water for 90% of SCR D residents (SCR D 2012). Water quality data from Chapman Creek was obtained from the SCR D water quality monitoring program. Freshwater zones provide habitat for fish populations, such as salmon,

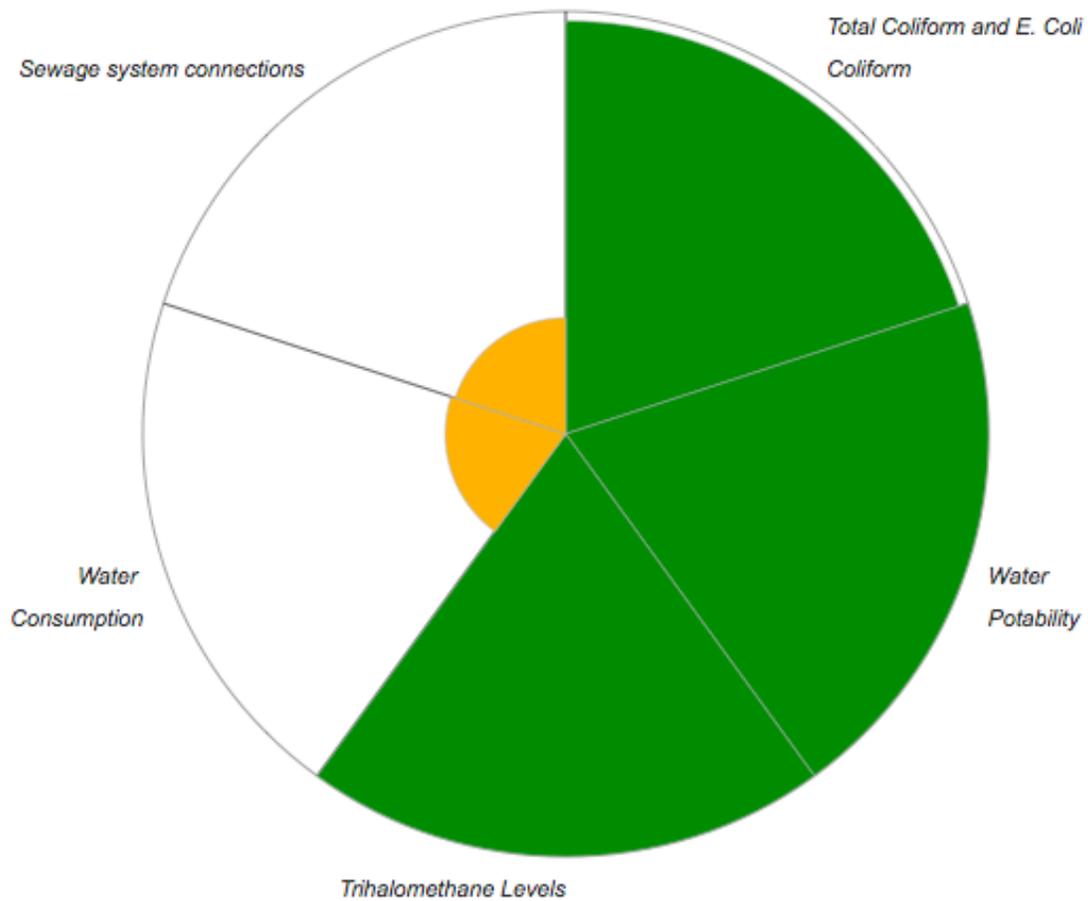
steelhead trout, Cutthroat trout and Rainbow Trout (Community Profile 2008).

**Table 5.1. Ground and Surface Water Requirements and Indicators**

<b>Requirements</b>	<b>Indicators</b>
Sechelt's water supply is clean and protected from contamination.	Total Coliform and E. Coli Coliform Water Potability Trihalomethane Levels
Sechelt uses water responsibly and efficiently to ensure a sustainable supply.	Water Consumption
Sechelt's sewage system minimizes impacts on streams and marine receiving waters.	Sewage System Connections.

The results of the assessment show that the District of Sechelt has very good quality water that is free of contamination. However the indicators related to water use—water consumption and sewage system connections—scored low. The results found that water consumption rates are among the highest in the country and the large number of properties on septic increase the likelihood for contamination of the water source. Further investigation of why water consumption rates are so high would provide a greater understanding the indicator to help direct water conservation efforts.

**Figure 5.2. Ground and Surface Water Indicators.**



### 5.3.1.2 Air

The air stock relates to the susceptibility of the atmosphere to contamination from pollution. Air quality is strongly influenced by the presence of industrial and manufacturing and transportation emissions.

The District of Sechelt has little industrial operations impacting air quality. Provincial historical air quality monitoring results show that most air contamination in the community is attributable to back yard burning, woodstoves, and clear cutting (District of Sechelt 2010a). Recently though, this monitoring station has been decommissioned, making current air quality data unavailable.

Climate change is a risk for the District of Sechelt. Provincial climate models

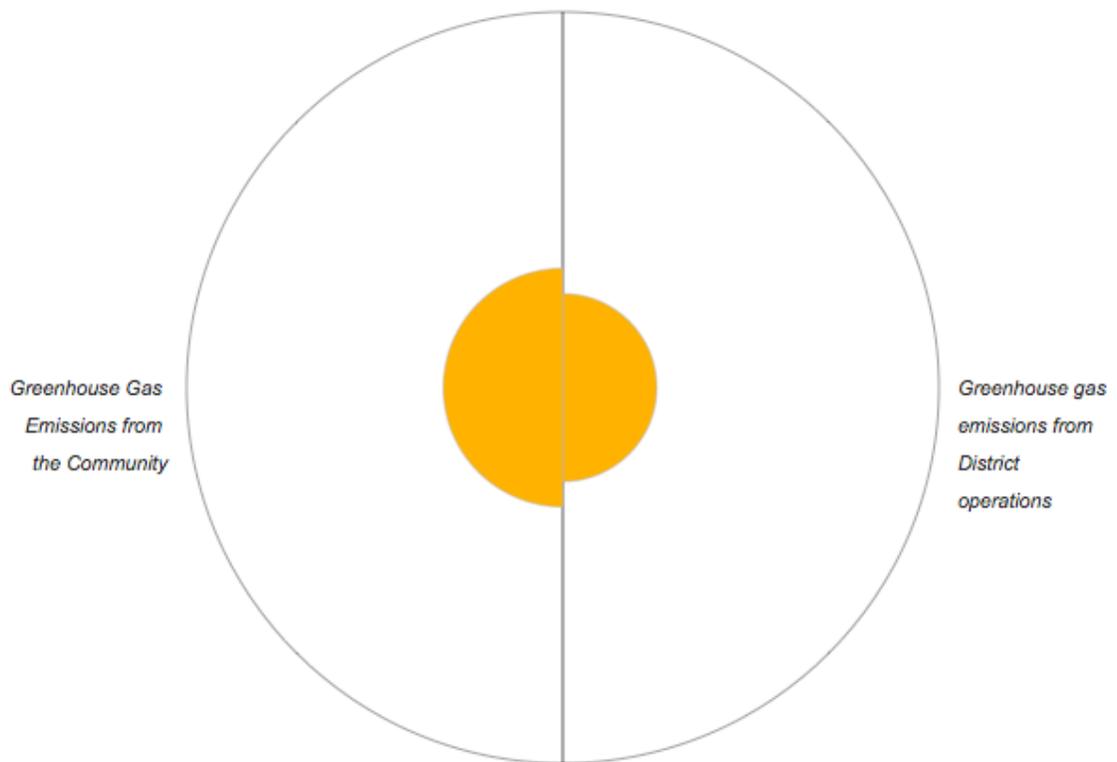
predict an increased risk of coastal flooding, storm surges, and severe weather events for the community (District of Sechelt 2010a).

**Table 5.2. Air Requirements and Indicators**

Requirements	Indicators
Sechelt's air is clean and protected from contamination.	Greenhouse gas emissions from District operations Greenhouse gas emissions from the Community

The results of the air stock score as socially unacceptable. These less than positive results are attributable to the District's efforts in reducing both its municipal and community greenhouse gas emissions. The community's commitment to reduce GHG emissions by 30% by 2015 will require great efforts and cooperation by many community stakeholders. No indicators for air pollution unrelated to GHG emissions were developed because of the lack of current data for the region.

**Figure 5.3. Air Indicators.**



### **5.3.1.3 Minerals and Non-Renewable Resources**

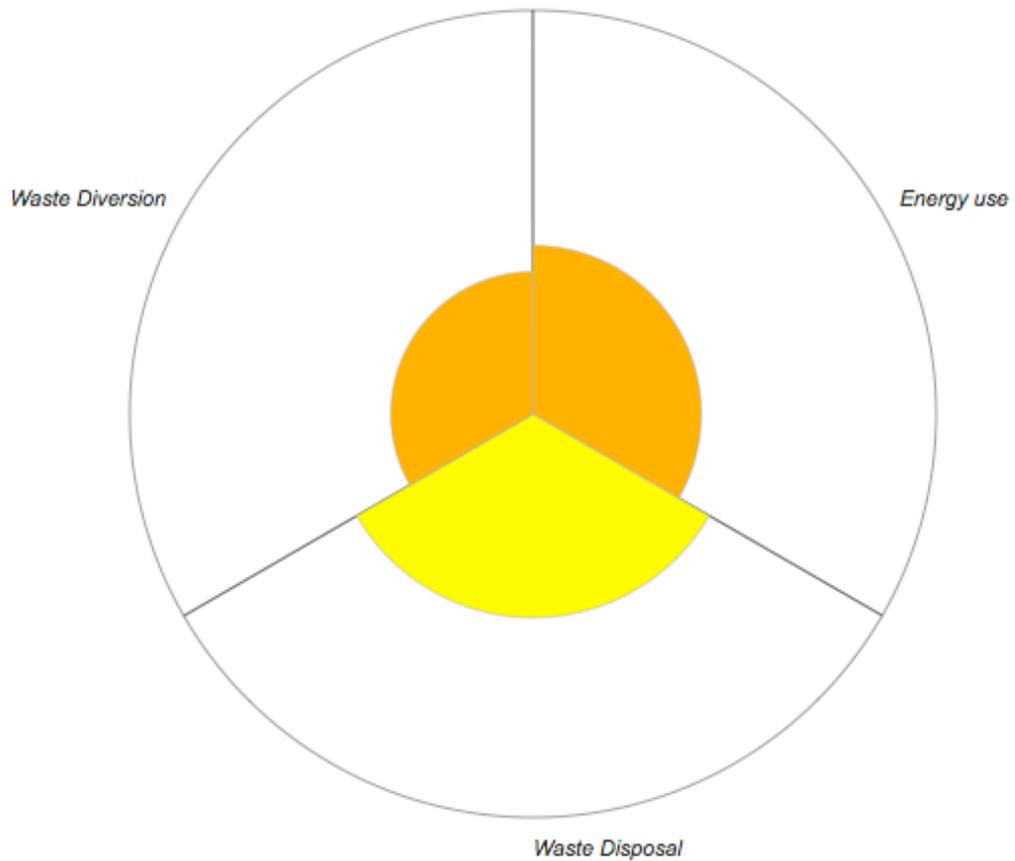
The minerals and non-renewable resources stock assesses energy generation, mineral resources use, and waste generation for a community. The District of Sechelt is located on a large, profitable, gravel resource that is mined and managed by the Sechelt Indian Band (District of Sechelt 2008). The community receives waste for the majority of the Sunshine Coast at the Sechelt landfill, located on Dusty Road (SCRD 2012b).

**Table 5.3. Mineral and Non-Renewable Resources Requirements and Indicators**

<b>Requirements</b>	<b>Indicators</b>
Sechelt is a compact and energy efficient community that has reduced dependence on fossil fuels and promotes the use of renewable energy.	Energy Use
All household and industrial waste in Sechelt is diverted from landfills.	Waste Disposal Waste Diversion

The overall result of the minerals and non-renewable resources stock is socially unacceptable. These results are attributable to low waste diversion rates when compared to national averages and high energy use of the community when compared to similar communities in BC. The waste disposal indicator scored as socially acceptable because the community generates much less waste per capita than the provincial average.

**Figure 5.4. Minerals and Non-Renewable Resource Indicators.**



#### 5.3.1.4 Land

The District of Sechelt is uniquely situated in a biologically rich environment. The community is located in the Coastal Western Hemlock biogeoclimatic zone that is characterized by temperate rainforest and provides high quality habitat for birds, mammals, insects, fungi, lichen, and understory vegetation (District of Sechelt 2010). The land stock evaluates how well this land is protected and managed in light of growth and development of the community, by valuing biodiversity, natural landscapes, habitat corridors, and ecosystem function.

**Table 5.4. Land Requirements and Indicators**

Requirements	Indicators
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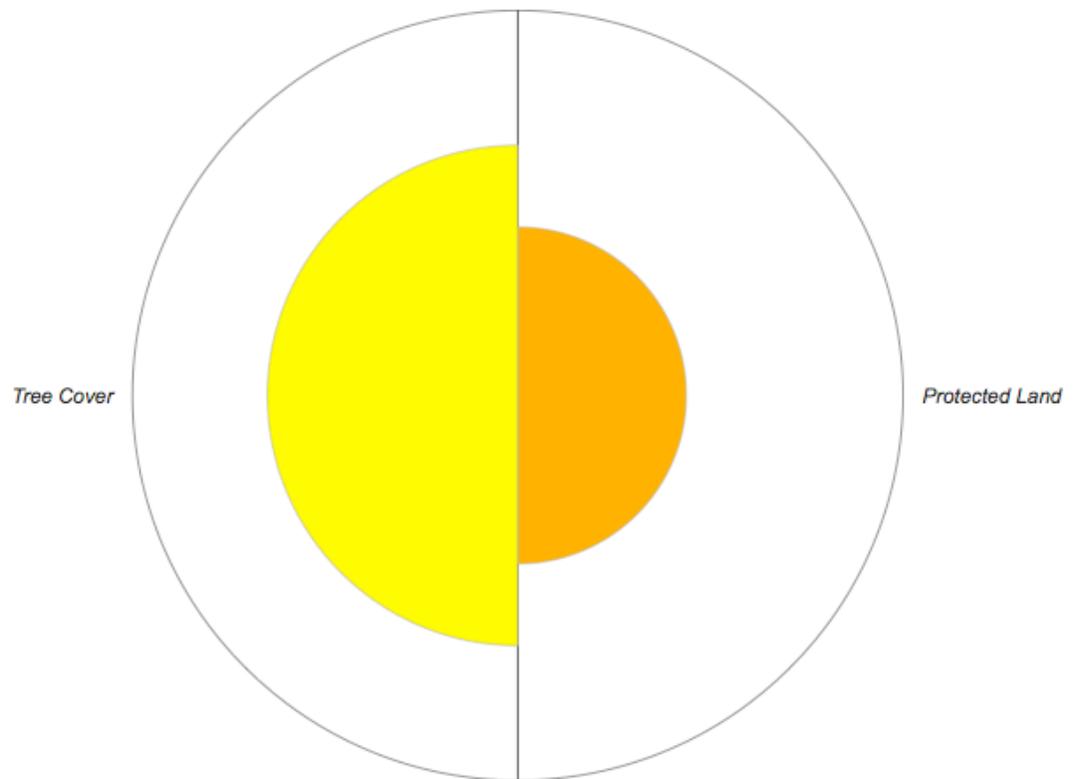
Sechelt protects and supports biodiversity by protecting contiguous open spaces, wildlife corridors and interface areas.	Protected Land
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Sechelt is developed in harmony with its unique natural environment.	Tree Cover
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The overall results for the land stock are socially acceptable, contributing to the community's natural capital assets. The tree cover indicator scored high, suggesting the community is developing in harmony with nature, however it does not adequately measure biodiversity. Indicators designed to measure biodiversity would strengthen these results.

The protected land indicator scored lower because the community's protected land is low in comparison to the land base. Measuring the change in protected land over time would strengthen these results by providing an indication of whether protected land is increasing or decreasing.

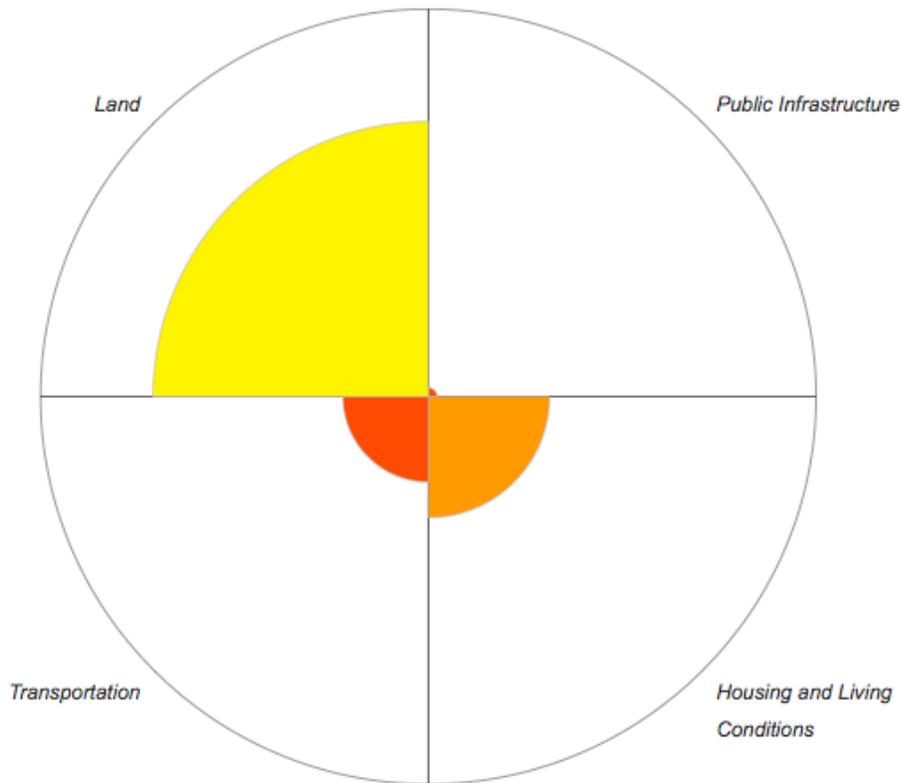
**Figure 5.5. Land Indicators.**



### **5.3.2 Physical Capital**

Physical Capital satisfies needs of shelter, access to drinking water, energy, and transportation. To be improved and maintained, Physical Capital requires both financial and non-financial investment into community facilities. The District of Sechelt has four distinct types of physical capital: public Infrastructure in the form of community centres, St. Mary's Hospital, and a public library; transportation infrastructure, including Highway 101 entering and exiting the community; residential housing and other living facilities; and the availability of land for agricultural, commercial, industrial and residential uses (District of Sechelt 2010a; District of Sechelt 2008).

**Figure 5.6. Physical Capital Stocks.**



### 5.3.2.1 Public Infrastructure

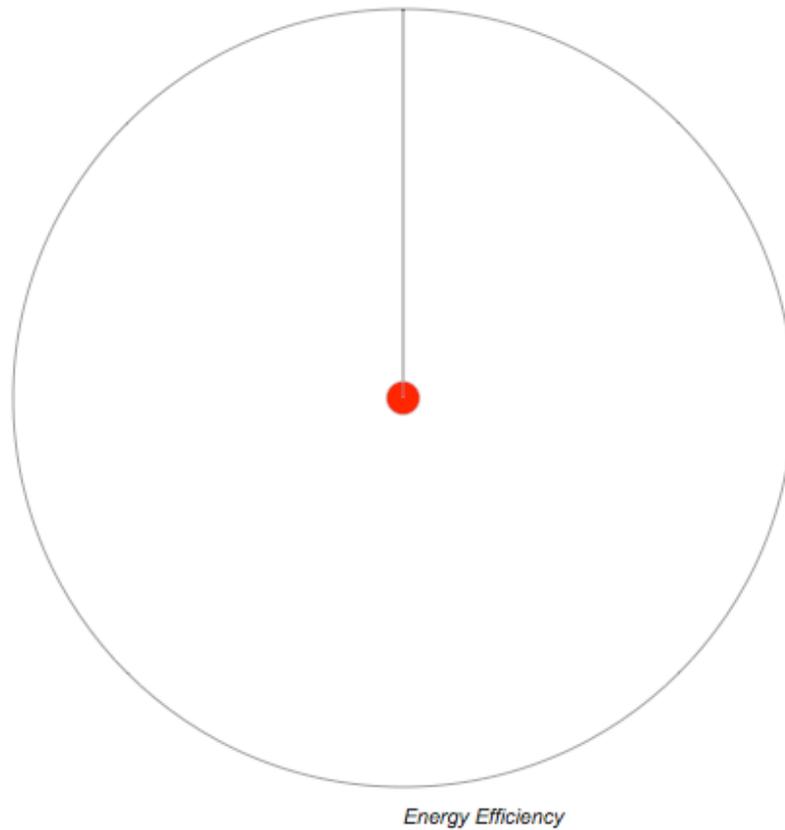
The public infrastructure stock measures the quality of infrastructure available to the public. Specifically for Sechelt, this stock assesses public perception of the ability of the infrastructure in the Downtown Village to support working, playing, shopping, and living.

**Table 5.5. Public Infrastructure Requirements and Indicators**

Requirements	Indicators
The Downtown Village is the heart of the community and is attractively designed, exciting, and a safe place in which to live, learn, recreate, shop, visit, and work.	None measured
Sechelt is a leader in innovative building design and green infrastructure.	Energy Efficiency

The overall results for the public infrastructure stock are socially unacceptable. However, these results do not depict a fulsome indication of the stock. The only indicator represented is energy efficiency, which scored particularly low because there are no buildings owned and operated by the District or homes in the community that rate higher than 80 on the EnerGuide rating system. Other indicators initially identified to measure the requirement “the Downtown Village is the heart of the community and is attractively designed, exciting, and a safe place in which to live, learn, recreate, shop, visit, and work”, included an assessment of public buildings and other infrastructure in the Down Town Village. No data are available for these indicators. A community survey could provide a useful measurement of this stock.

**Figure 5.7. Public Infrastructure Indicators.**



### **5.3.2.2 Housing and Living Conditions**

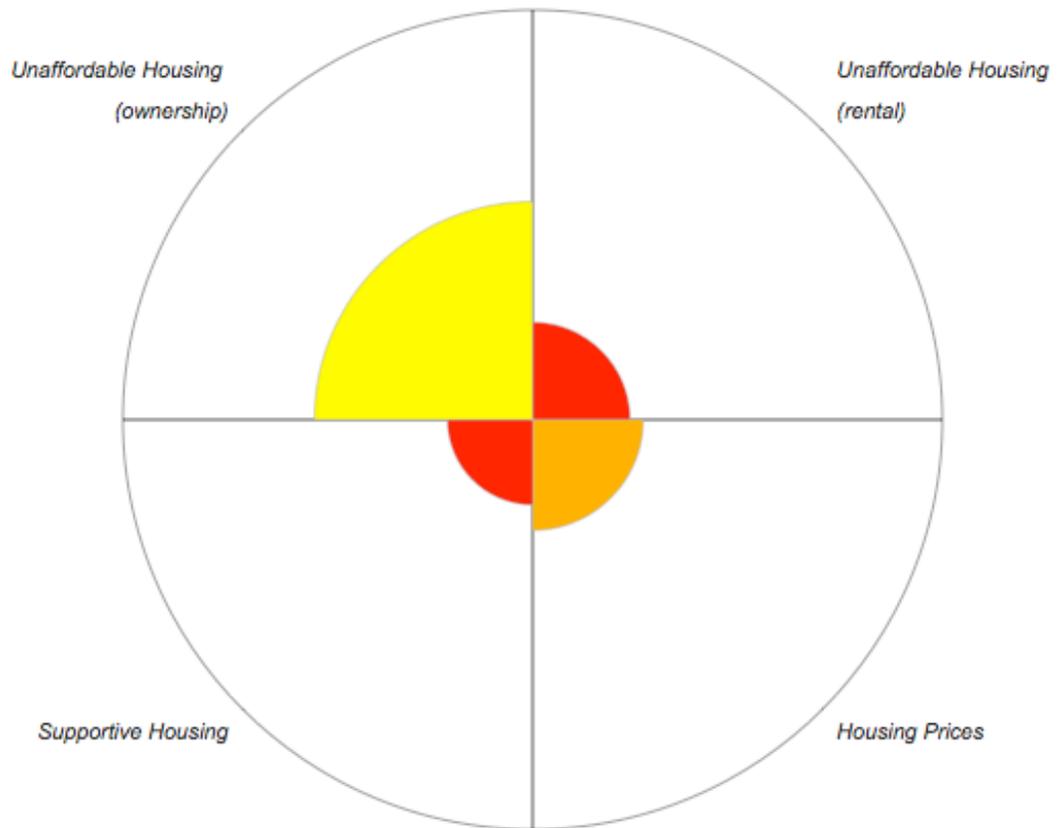
The housing and living conditions stock measures the access to good quality housing options in the community. The District of Sechelt has made a commitment in its Official Community Plan to provide a range of housing options that are affordable and meet residents' needs (District of Sechelt 2010a). To assess performance on this commitment, this stock considers the affordability of both rental and ownership options and access to supportive housing.

**Table 5.6. Housing and Living Conditions Requirements and Indicators**

Requirements	Indicators
All residents of Sechelt live in good quality, affordable housing.	Unaffordable Housing (rental) Housing Prices Unaffordable Housing (ownership)
Sechelt's housing stock supports adaptability (age in place).	Supportive Housing

The overall result of the housing and living conditions stock is socially unacceptable. These results are attributable to the absence of supportive housing and the high cost of renting. Forty-eight percent of renters, as compared to the provincial average of 37.7%, pay more than 30% of their income toward housing costs. Housing ownership and housing prices scored higher, likely due to the provincial averages including Metro Vancouver, one of the most expensive places to own a house in Canada.

**Figure 5.8. Housing and Living Conditions Indicators.**



### 5.3.2.3 Transportation

The transportation stock measures the availability and quality of all types of transportation infrastructure—walking, cycling, transit, and automobile—in the District of Sechelt. This transportation system design can influence each form of community capital and therefore must be developed with care and thoughtful planning (Litman 2004).

The District of Sechelt is an automobile dominated community. Highway 101 is the main thoroughfare in the District of Sechelt, connecting the community to Gibsons in the south and Earl's Cove ferry terminal to the north. The highway is part of the northern section of the Pan-American Highway which runs along the western coast of the Americas from the south of Chile through the Sunshine Coast, to Lund, north of the

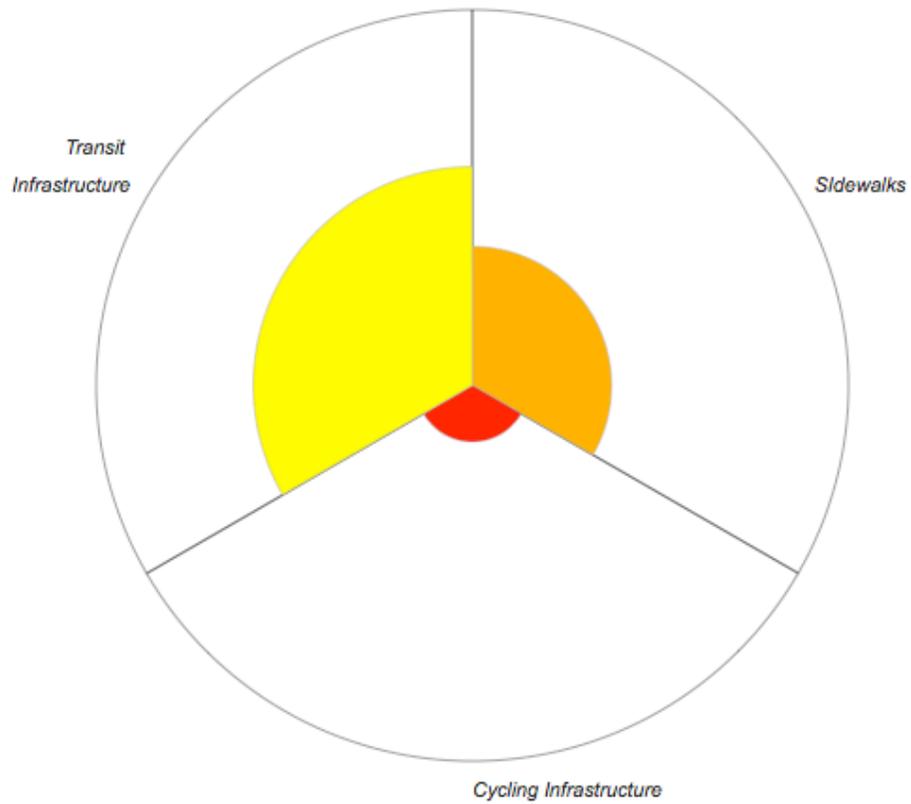
District of Sechelt. Vehicles access the Sunshine Coast by BC ferries. The ferry departs from Horseshoe Bay, and it is a 40 minute crossing to arrive in Langdale, 27 km south of the District of Sechelt. The region is also accessible from Vancouver Island, where a ferry can be taken from Comox to Powell River and then from Saltery Bay, south of Powell River to Earl's Cove, north of Sechelt. The District is accessible by both a floatplane terminal in Porpoise Bay and the Sechelt Airport, located on Field Road in Wilson Creek (District of Sechelt 2008).

**Table 5.7. Transportation Requirements and Indicators**

Requirements	Indicators
Sechelt's neighbourhoods are complete, compact, and pedestrian oriented where residents can meet many of their daily needs within an easy walk, cycle, transit trip or drive.	Sidewalks Transportation infrastructure Cycling Infrastructure Transit Infrastructure Access to Sechelt

The overall results show the transportation stock as being socially unacceptable. These results are attributable to the cycling infrastructure indicator ranking socially unacceptable, with only 6% of paved roads including designated cycling infrastructure, and the sidewalk infrastructure indicator ranking socially alarming, with 36.9% of paved roads containing sidewalks. The Transit Infrastructure indicator ranked as socially acceptable, with 70% of homes located within 400 m of a transit stop. This indicator, along with the cycling indicator, was benchmarked against Metro Vancouver data. Other indicators initially identified for the Transportation stock included an assessment of other transportation related infrastructure, such as roads and railway, and access to the community. No data are available for these indicators, but a community survey, could be used to measure these indicators in the future.

**Figure 5.9. Transportation Indicators.**



#### **5.3.2.4 Land**

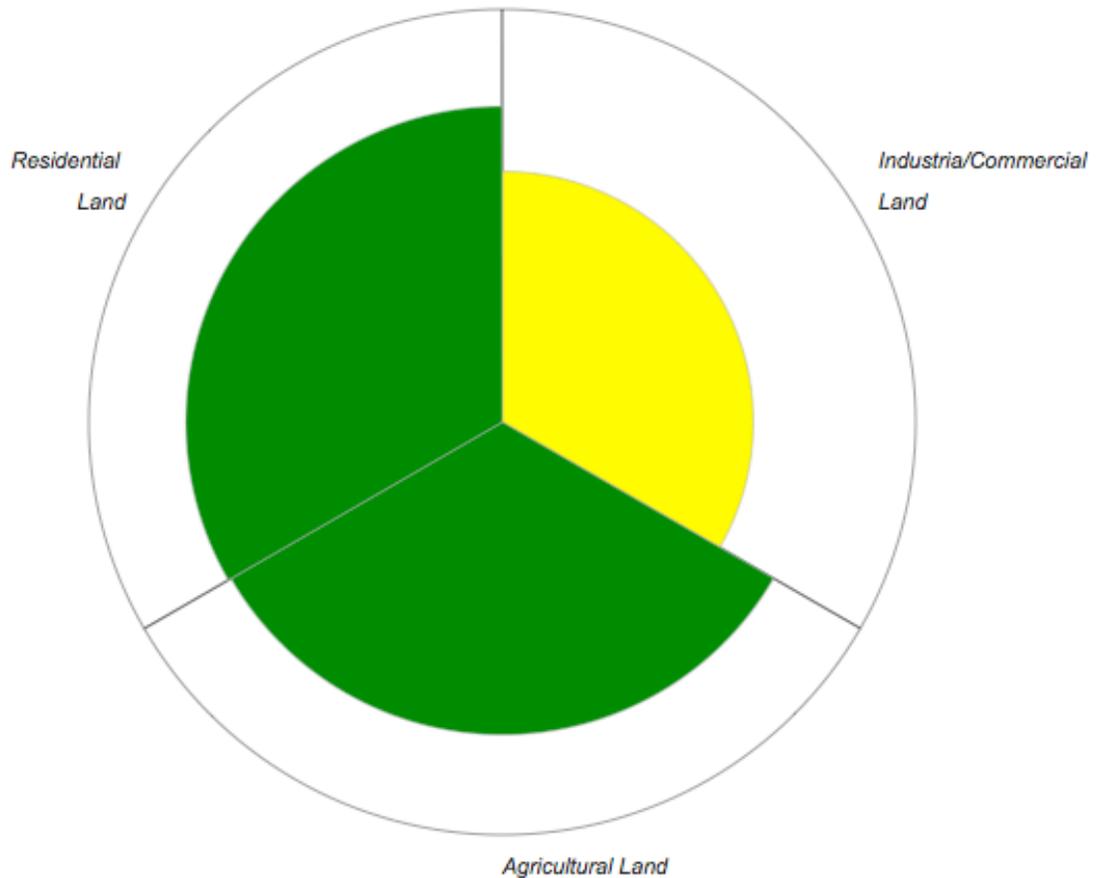
The availability of land is important for a community to grow and develop.. High prices for scarce land could force residents and businesses to move elsewhere. As well, land is an important resource for food security. Therefore it is important that as a community grows it protect arable land for agricultural.

**Table 5.8. Land Requirements and Indicators**

Requirements	Indicators
Sechelt has available land suitable to meet the community's industrial, commercial, agricultural, and residential needs.	Industrial/Commercial Land Agricultural Land Residential Land

Currently the District of Sechelt has very good land resources. There is land available for the community to grow, increase economic activity and produce more food. However, there are no benchmark data for these results and therefore they should be considered carefully. Measuring the change in the land profile over time would strengthen these results to provide a better indication of the direction in which Sechelt is developing.

**Figure 5.10. Land Indicators.**

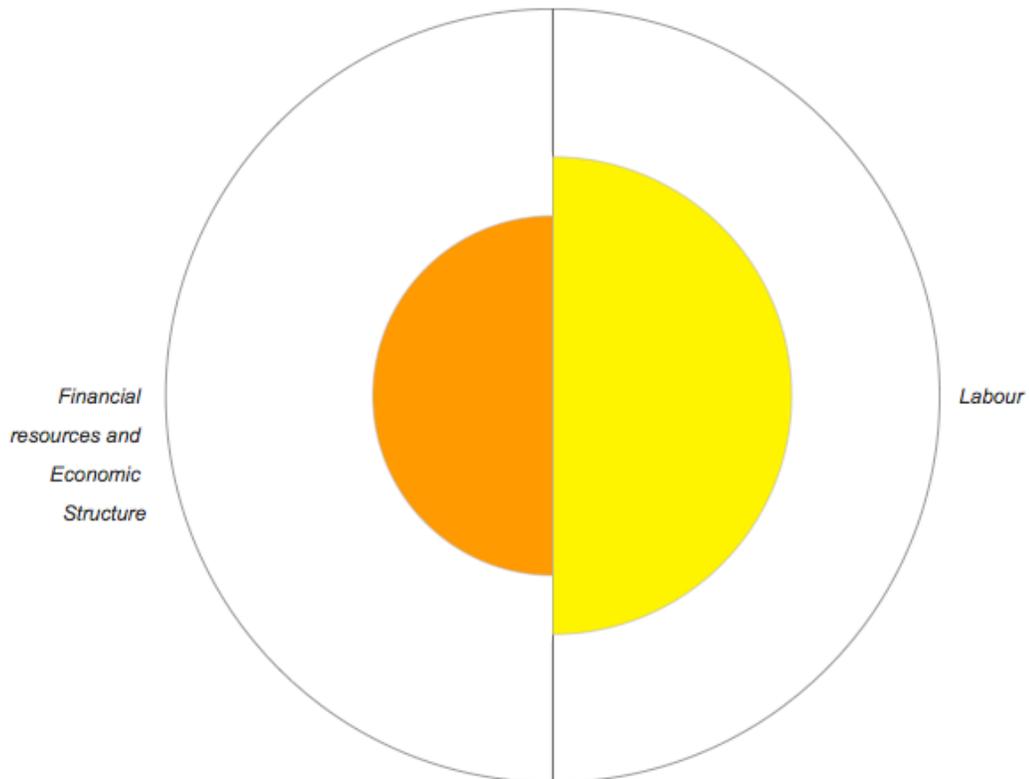


### **5.3.3 Economic Capital**

Creating economic diversity among business sectors and employers strengthens economic capital. Historically the District of Sechelt has been mainly reliant on one industry, forestry, for economic capital. Located in one of the eight timber supply regions in the Vancouver Forest Region, the community's forestry sector supports spin-off industries, such as Howe Sound Pulp and Paper, saw mills, log sorting, and value added timber producers (District of Sechelt 2008). However due to changes in provincial forestry policies, decline of timber supply, and an increased in recreational coastal forest activities, the forest sector has seen a decline in economic activity (District of Sechelt 2008). This decline has created an opportunity for the District of Sechelt to

diversify its economic capital. Recently the mining industry has strengthened in the District of Sechelt, with the primary operator Construction Aggregate Limited (CAL), a Sechelt Indian Band owned sand and gravel extraction operation, increasing its capacity and labour force (District of Sechelt 2008). Other industries growing in the District include tourism, construction, and real estate (BC Statistics 2011).

**Figure 5.11. Economic Capital Stocks.**



### 5.3.3.1 Labour

Labour is an important input for economic process. The Labour stock refers to

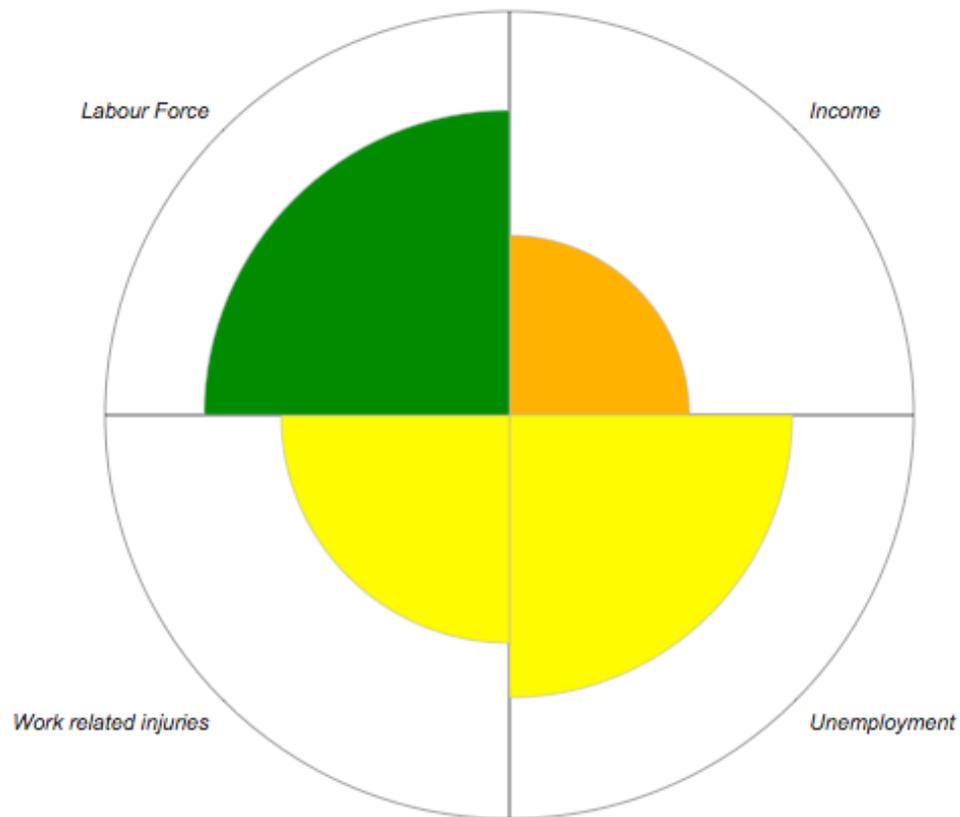
the ability of residents to contribute to strengthening economic capital through the productions of goods and services. The quantity and quality of the labour force is important to both residents and employers. Qualitative and quantitative metrics are used to measure the stock.

**Table 5.9. Labour Requirements and Indicators**

Requirements	Indicators
The labour market is balanced and offers enough job opportunities for all residents of Sechelt.	Income Unemployment Work Related Injuries Labour Force

The overall results for the Labour stock score socially acceptable levels. The labour force indicator scored socially optimal because the change in the labour force from 2001 to 2006 was 12%, significantly greater than the provincial average of 8% (BC Stat 2011). Both the unemployment and work related injuries indicators performed better than the provincial averages. Average income for Sechelt residents (\$37,842) is \$2,894 below the provincial average (\$40,736), resulting in the income indicator scoring socially unacceptable (BC Stats 2008).

**Figure 5.12. Labour Indicators.**



### **5.3.3.2 Financial Resources and Economic Structure**

The strength of a local economy is generally reliant on a diverse range of activities, industries, and businesses operating in the community. Businesses operating in the community should both be profitable and contribute back into the local economy, minimizing economic leakage. When financial resources within a community are considered to be diverse, the community may be better equipped to absorb economic shocks (Wagner and Deller 1998). As well, to be financially sound the community must have adequate revenue generation to cover infrastructure, services, and operations expenses.

The financial resources stock captures this type of information by examining the growth rate of businesses in the community and municipal revenue generation.

Tourism industry outcomes are also included in this stock to capture the District of Sechelt's goal to increase tourism as a means to diversify economic capital.

**Table 5.10. Financial Resources and Economic Structure Requirements and Indicators**

Requirements	Indicators
Sechelt's businesses are competitive and profitable and invest in the community.	Local Businesses Municipal Revenue
Sechelt is an attractive tourist destination, especially for eco-tourists.	Tourist Visits

The overall results for the Financial Resources stock score at the socially alarming level as each indicator recorded a decrease in value over time. It is likely that these trends are influenced by the 2008 global economic crisis, which caused diminished economic activity among many sectors globally (Fidrmuc and Korhonen 2010). The results show that municipal revenue decreased and the number of businesses operating in the community declined. Tourist visits for the community decreased by 19.2% from 2010 to 2011. This value is consistent with other communities in the region, however it still indicates that there is opportunity to strengthen the tourism industry. Employment opportunities for residents are spread across four major sectors: retail trade (15%), health care (11.8%), and social assistance, construction (10.8%). The forestry and mining industries each employ less than 7% of the labour force (BC Stats 2011).

**Figure 5.13. Financial Resources Indicators.**

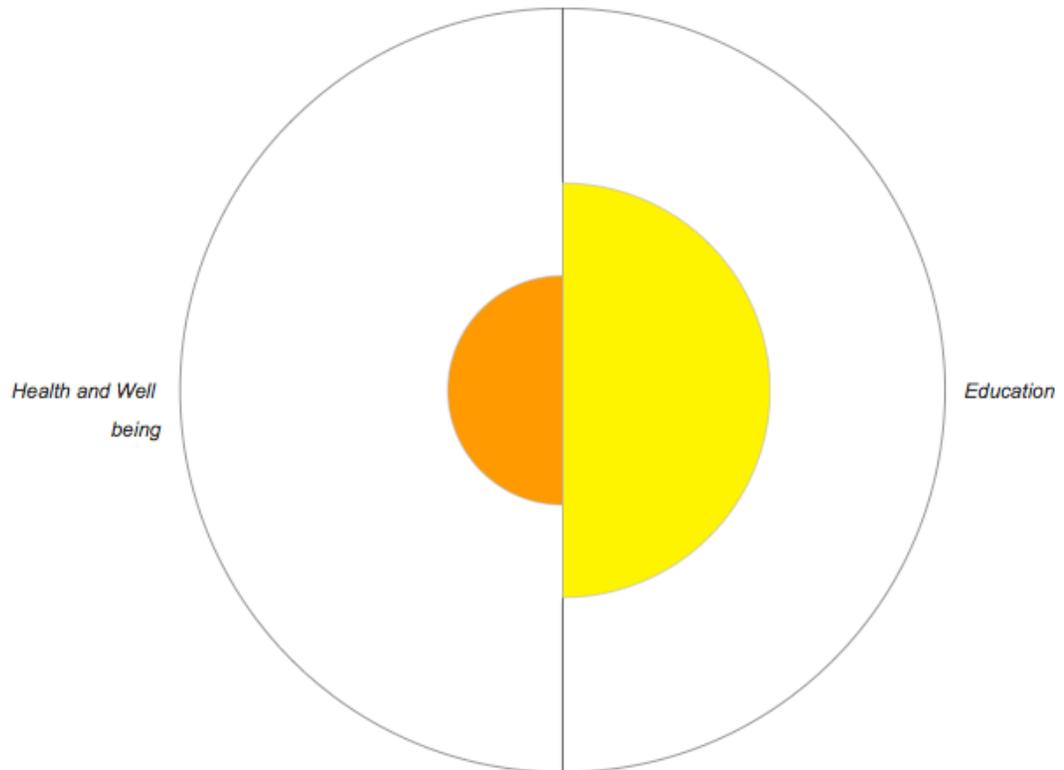


### **5.3.4 Human Capital**

Human capital relates to a person's ability to pursue and achieve individual livelihood objectives, therefore contributing to the labour productivity of a community (DFID 2003). It is strongly related to the labour stock and therefore increasing human capital requires a commitment to education, training, and health promotion.

The District of Sechelt has an identified need to strengthen human capital as a strategy to attract young adults to the community. To do so, District staff have prioritized support for the increased adult educational opportunities and health care services in the Official Community Plan (District of Sechelt 2010a).

**Figure 5.14. Human Capital Stocks.**



### **5.3.4.1 Education**

Education is an important consideration for all community members, young and old. It can be used as a tool to transfer knowledge and help community members increase the capacity to contribute to society, strengthen the local economy, and improve their well-being. The education stock is evaluated based on access and quality to primary, secondary, and tertiary education and early childhood development.

The District of Sechelt is located in Sunshine Coast School District 46, serving approximately 3,340 students in nine elementary schools and four secondary schools throughout the SCR. Of these schools, four elementary, one alternative, and one secondary school operate specifically in Sechelt. The secondary school,

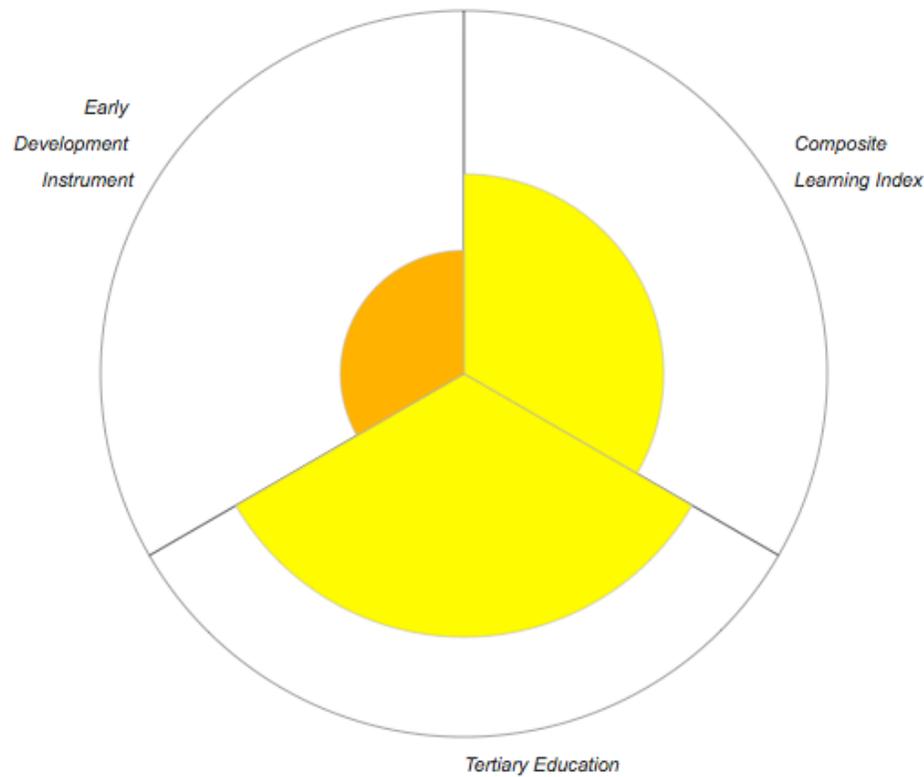
Chatelech Secondary, is a designated *community school*, offering extending community services such as breakfast programs, early childhood education, and other community based services. Both Kinninnick Elementary and Chatelech Secondary schools work with the Sechelt Indian Band Education Department to provide sháshishálhem (shíshálh) Language and Culture Program (School District 46 2012). Capilano University has a campus in Sechelt, providing post-secondary education opportunities on the Sunshine Coast. Programs offered at the campus include: adult education; career and vocational courses; personal management and planning; literacy; residential care; business administration; early childhood care and education (District of Sechelt 2008).

**Table 5.11. Education Requirements and Indicators**

Requirements	Indicators
Sechelt has high quality educational services.	Life Long Learning Early Development
Sechelt's residents are able to meet their learning aspirations through education, volunteer, and workplace learning opportunities, and the community and its members are committed for lifelong learning.	Tertiary Education

Overall, the District of Sechelt's education stock scored socially acceptable. The lowest scoring indicator, and the anomaly, was the Early Development Instrument. School District 46 scored four points below the provincial average, indicating that children in the district are more vulnerable, on average, when entering elementary school. Both the Composite Learning Index and tertiary education indicators scored as socially acceptable, with values similar to the provincial average.

**Figure 5.15. Education Indicators.**



#### 5.3.4.2 Health and Well Being

The physical and psychological health and well-being of citizens is an important measurement of Human Capital. Indicators have been chosen to reflect the complexity of the health and well-being stock. The model includes objective measures, such as rates of mortality and disease, and subjective indicators, such as citizen perceptions of their health. The effect of community layout and design on physical health has also been considered through the inclusion of the active transportation indicator, which measures the percentage of residents walking or cycling to work.

The District of Sechelt is within the North Shore/Coast Garibaldi Health Services Branch of the Vancouver Coastal Health Authority, which encompasses the whole SCRD. Health services offered in the SCRD include: health protection, health promotion, disease prevention, community mental health services, and continuing care (District of Sechelt 2008). St. Mary's Hospital, a 32-bed facility located in the District of Sechelt, is the only hospital in the SCRD. The facility is equipped to provide emergency,

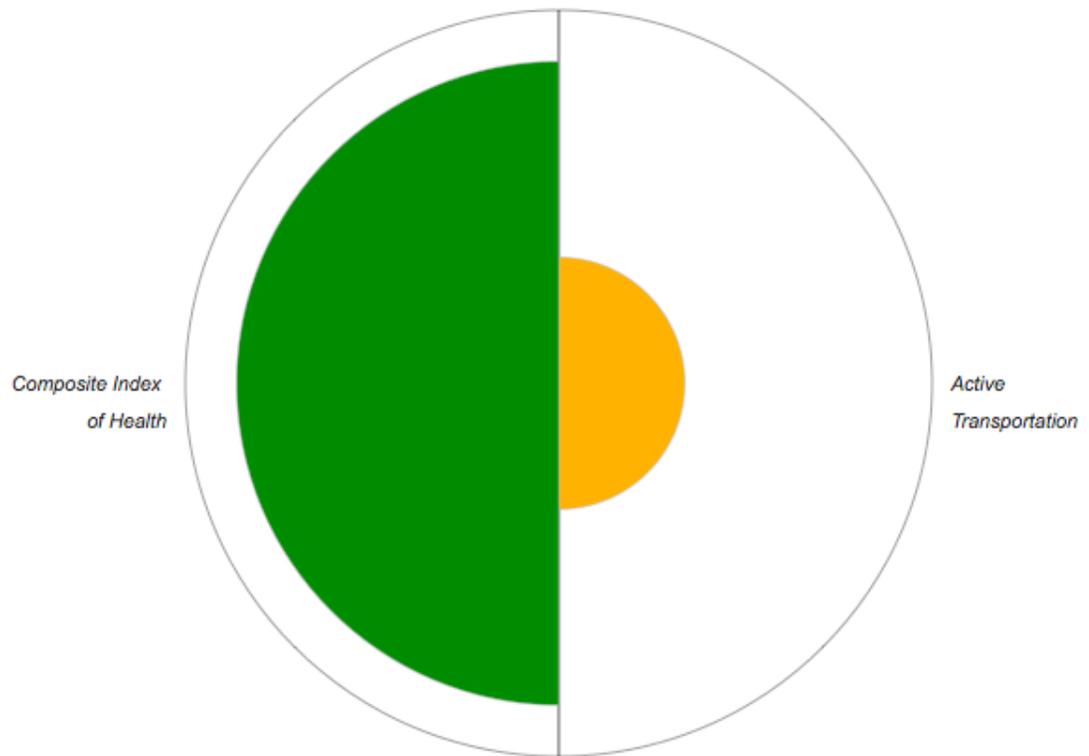
intensive care, maternal health, extended care, mental health and addiction, physiotherapy, occupational therapy, pharmacy, clinical nutrition, radiology, and laboratory services (Community Profile 2008). Other health services offered independently of St. Mary's Hospital include: optometry, dentistry, registered massage therapy, chiropractic, naturopathic, and other alternative healthcare services. Long-term care, home nursing, community rehabilitation and seniors housing facilities are all available in the SCRD.

**Table 5.12. Health and Well-being Requirements and Indicators**

Requirements	Indicators
Sechelt is a healthy community.	Active Transportation Composite Index of Health

The overall value for the Health and Well-being stock is socially alarming. The District of Sechelt scored well in the Composite Health Index. This national metric factors statistics such as life expectancy and potential loss of life from accidents, natural causes and suicide and suggests that Sechelt measures well on health indicators when compared to national statistics. The active transportation indicator scored socially unacceptable when compared against statistics from Metro Vancouver. Other indicators initially identified to the Health and Well Being stock included an assessment of citizen health and physical activities rates. No data are available for these indicators, however a community survey could be used for measurement in the future.

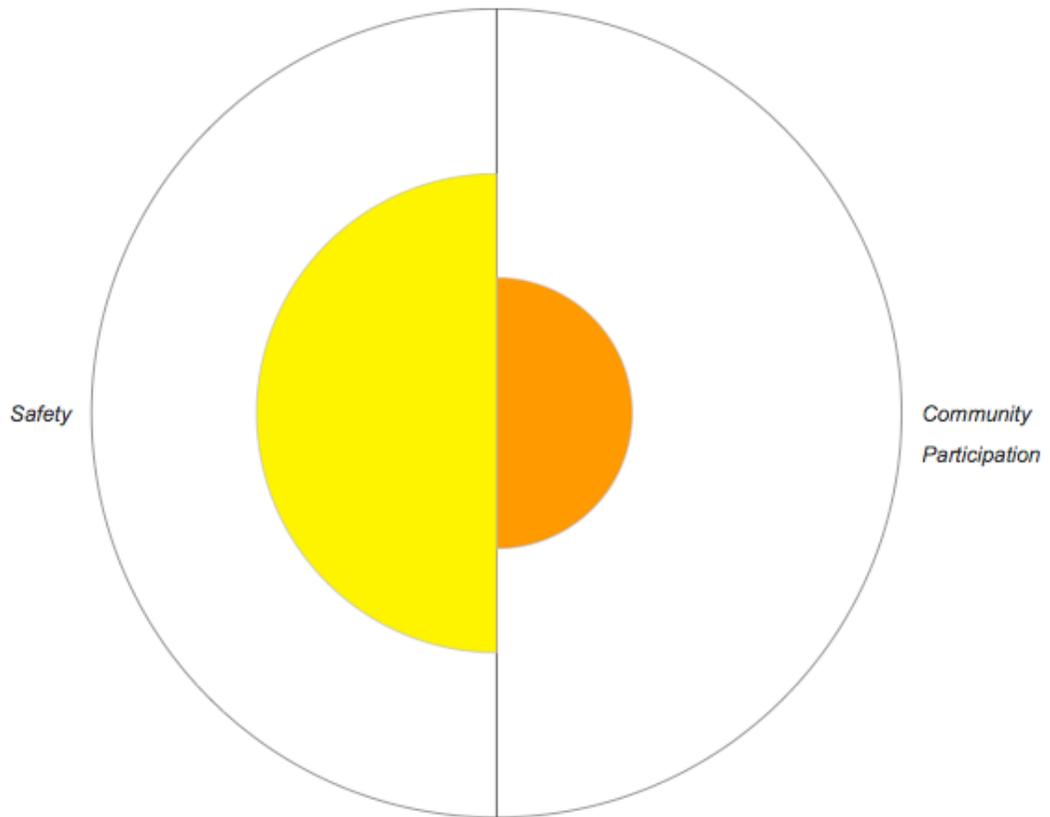
**Figure 5.16. Health and Well-being Indicators.**



### **5.3.5 Social Capital**

Social capital is the “glue” that holds a community together. Increasing the capital means strengthening social cohesion, encouraging citizens to communicate, interact, and network amongst each other. The two stocks assessed for Sechelt are community participation and safety. Community participation assesses both diversity and ability to participate through indicators of age distribution, cultural representation, democracy and use of community support services. The safety stock underscores that theory indicates that citizens need to be safe from crime or accidents to build social capital.

**Figure 5.17. Social Capital Stocks.**



### **5.3.5.1 Community Participation**

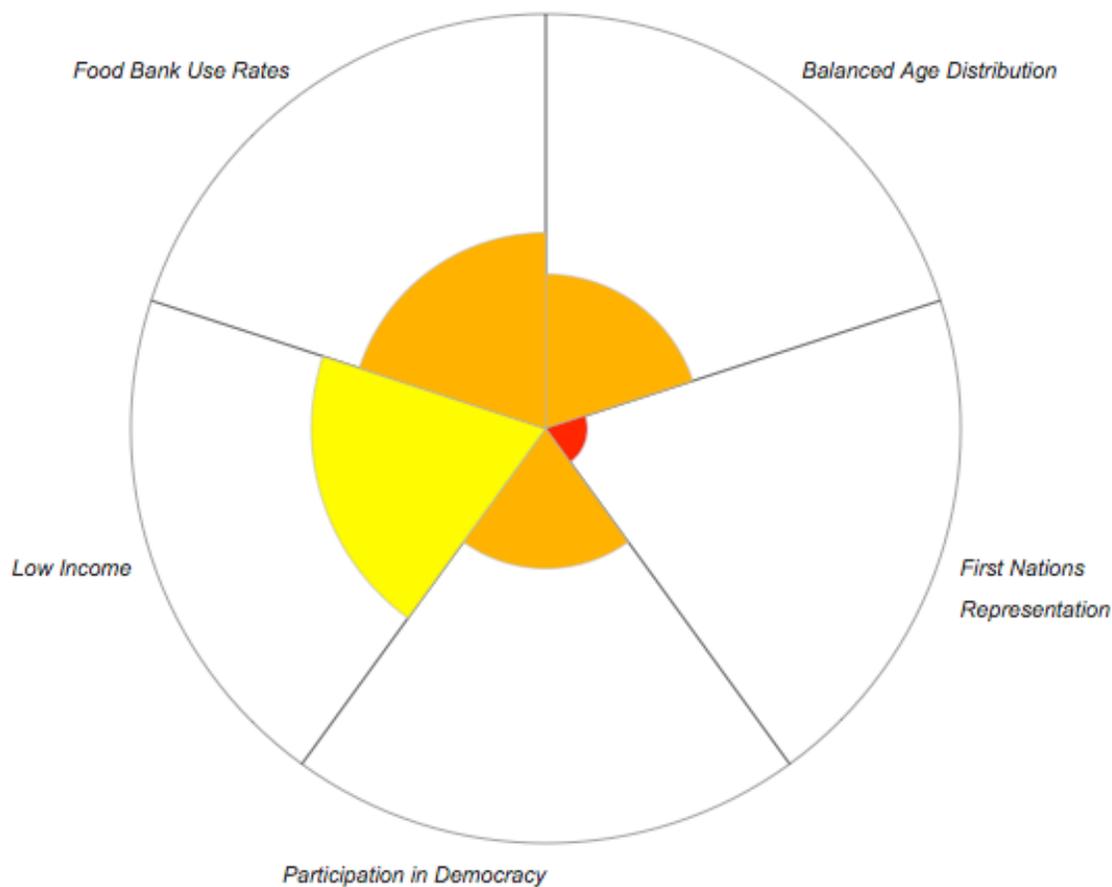
Community participation relates the social, economic, and political situations of the citizens of a community. Participation is the backbone of social capital because a society cannot form or function without contribution from citizens. Community participation in the District of Sechelt considers two requirements: an intergenerational community and the ability of citizens to participate in society.

**Table 5.13. Community Participation Requirements and Indicators**

<b>Requirements</b>	<b>Indicators</b>
Sechelt is an intergenerational community with a balanced profile.	Balanced Age Distribution
All citizens are able to participate in society.	First Nations Representation Participation in Democracy Low Income Food Bank Use Rates

Overall, community participation was rated as socially unacceptable. The reality is that Sechelt is challenged by a decline in the number of younger residents residing in the community, there is no representative from the Sechelt Nation in any municipal decision-making body, participation in municipal elections is low, and food bank use rates are higher than provincial averages. The low-income indicator scored as socially acceptable, ranking higher than the provincial average.

**Figure 5.18. Community Participation Indicators.**



### 5.3.5.2 Safety

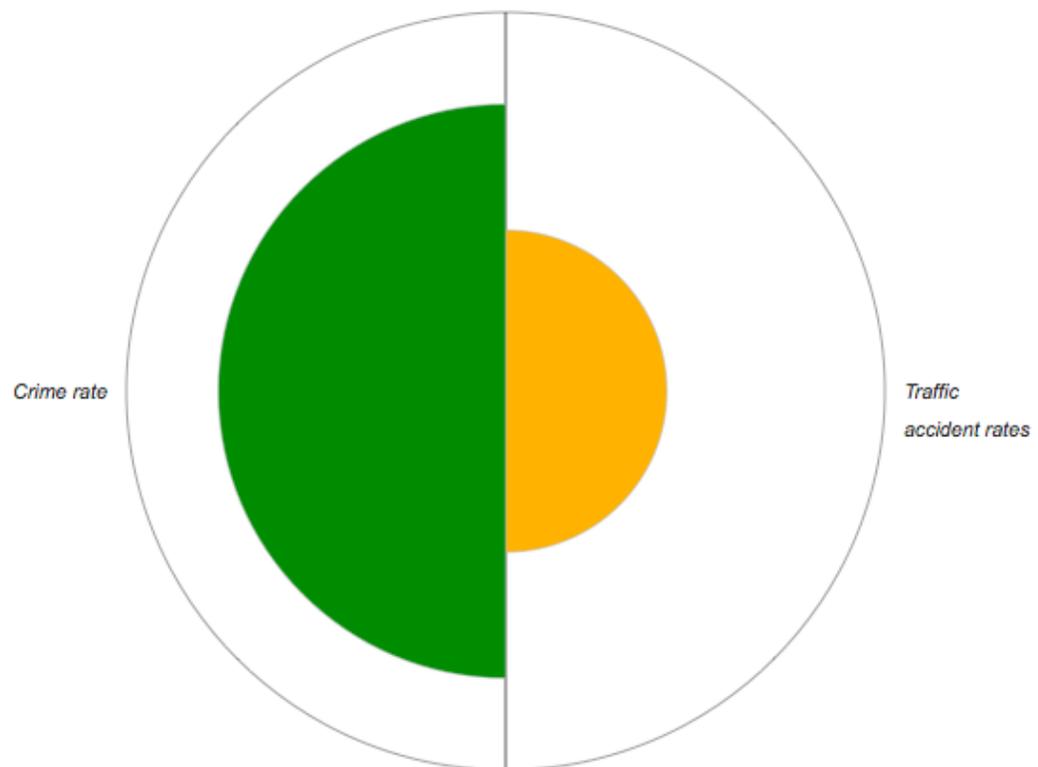
A certain level of safety is required for any society to function. Safety is comprised of two dimensions: 1) actual risk of danger, and 2) perceived risk of danger. When citizens are unsafe, or perceive themselves as being unsafe, they are less likely to participate in society (Coleman 1988).

**Table 5.14. Safety Requirements and Indicators**

Requirements	Indicators
Sechelt is a safe community where citizens are at low risk of becoming victims of crime, accidents, or disasters.	Traffic Accident Rates Crime Rate

The overall measure of safety in the District of Sechelt is socially acceptable. The crime rate is low, or socially optimal, when compared to provincial averages. However traffic accident rates rank just below the provincial average, scoring as socially unacceptable. Though the safety stock includes perceived and actual risk of danger, actual risk is only measured for this stock. Asking the citizens to rate their perception of safety, to establish a measurement on the second dimension of the stock, would strengthen the results.

**Figure 5.19. Safety Indicators.**



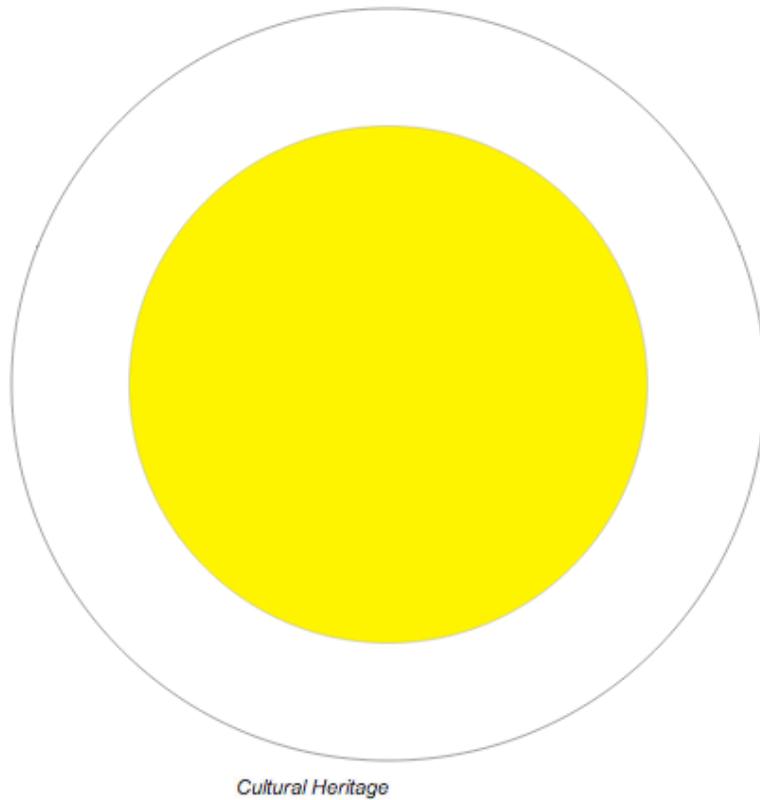
### **5.3.6 Cultural Capital**

Cultural capital is unique to every community. It plays an important role in communities rich in resources, like Sechelt, by influencing management objectives and spiritual beliefs (Cochrane 2006). Building cultural capital is about preserving cultural

heritage while supporting the development of the arts and culture community.

Through the creation of an Arts, Culture, and Heritage strategic plan, the District of Sechelt has committed to enhancing cultural capital by promoting events, festivals, projects, and council directives to support arts and culture (District of Sechelt 2007b). The community has a rich cultural heritage originating with the Shishalh (Sechelt) people, who were the first people to inhabit the Sechelt area, and a number of heritage resources, such as archaeological sites, such as middens, burial grounds, and other habitation areas (District of Sechelt 2007b). The community also has two facilities to host arts and cultural events Rockwood Centre and the Sechelt Arts Centre used to host events such as the festival of the Written Arts and the Sunshine Coast Festival of the Performing Arts.

***Figure 5.20. Cultural Capital Stocks.***



### **5.3.6.1 Cultural Heritage**

Cultural heritage is an important expression of a community's unique identity. Sechelt, meaning the land between two waters, derives its name from its rich First Nation heritage. The community also draws on its history as a forestry town to celebrate cultural heritage (District of Sechelt 2008).

A strong arts and cultural community contributes to civic pride, identity, leadership, and economic prosperity (District of Sechelt 2010a). The identity and diversity stock attempts to assess these sentiments, but of course they are hard to measure.

**Table 5.15. Cultural Heritage Requirements and Indicators**

<b>Requirements</b>	<b>Indicators</b>
Sechelt celebrates its arts and preserves its rich cultural heritage.	Cultural Events Sechelt Indian Band Cultural Events

The cultural heritage stock is strong in the District of Sechelt. The overall results of the stock are socially acceptable. The results reflect that the community celebrates its cultural heritage. The high number of cultural events specifically related to the Sechelt Indian Band hosted annually demonstrates that there is recognition of the community's First Nation's heritage. However these results are weakened by the fact that they are not benchmarked against regional, provincial, or national data. Future indicators would benefit from measuring the change in the number of events and number of participants to gain a better understanding of the stock. As well, other indicators initially identified for the stock included an assessment of participation and satisfaction in cultural heritage events and activities. No data are available for these indicators, however data collected in a community survey could be used for measurement in the future.

**Figure 5.21. Cultural Heritage Indicators.**



## 5.4 Discussion

Through the adoption of the Sustainability Action Plan (2011), District of Sechelt has committed to “shift from a business-as-usual” and moved toward a sustainability driven approach to development. The results of the Balance Sheet provide evidence of the District prioritizing sustainable community development and reveal that the District has a long way to go yet before the community capital is optimized.

The Sustainability Action Plan poses eleven policy goals intended to lead the community to shift away from the business-as-usual model of development. When analyzed against the Community Capital Framework, the policies tackle all six forms of capital (Table 5.1). Natural capital, addressed by four different policies, received the

greatest emphasis by the SAP. Physical capital was tackled by three policies and economic, human, and social capitals were each the focus of two policies. Cultural capital was addressed by one policy and another policy did not address any of the six forms of capital. These results were somewhat expected because the staff of the District have a strong understanding of the concept of sustainability and the commitment needed to develop successfully.

The Sechelt Model consists of 25 long-term requirements, representing 15 stocks, and 44 indicators. The Model was designed to reflect the policies outlined in the SAP, ensuring that each of the eleven policies was adequately represented in the framework. Therefore, the results in of the policy analysis shown in Table 4.2, in the previous chapter, provide evidence that all capitals are represented in the Sechelt Model.

The results of the Balance Sheet are variable and paint a picture of a community in its early stages of sustainable community development. For many capitals—natural, economic, and social—the District is performing well. As for the others—human, physical, and cultural—greater effort is needed to achieve optimization of the capitals.

#### **5.4.1 Dataset Limitations**

The objective of the Balance Sheet is not to obtain a precise measurement of each of the community capitals; rather the tool has been designed to gain a better understanding of the trends of development. Therefore the following discussion of the results provides insight into how well the indicators of the stocks meet the objectives of measuring the long-term requirements.

To complete the Balance Sheet in the most efficient manner possible, all of the indicators were developed based on existing and available data. These data constraints left some stocks and requirements better represented by the indicators than others. For example, Natural Capital has four stocks and eight requirements. The ground and surface water stock has adequate water quality data, obtained from the Sunshine Coast Regional District, to support the long-term requirement “Sechelt’s water supply is clean and protected from contamination”. Indicators related to water abundance are deficient, however. Only one indicator, water consumption, represents the requirement “Sechelt

uses water responsibly and efficiently to ensure a sustainable supply”. The objective of this requirement is to ensure a sustainable supply of water, and therefore a more complete representation should include indication of the amount of water resources available in the community.

For Physical Capital, the land stock is under represented by the available data. The requirement for the stock, “Sechelt has available land suitable to meet the community’s industrial, agricultural, and residential needs”, is poorly represented by the industrial/commercial, agricultural, and residential land indicators. Currently these indicators provide a percentage of the land available for each use. Though this information paints a picture the land available for development, a more valuable indicator to have is the change in available land, by use, over time. Decision-makers can use these indicators to develop informed policies that support a balance of land-uses in the community.

For Social Capital, the suite of indicators for safety can be improved to provide better insight into the development of the stock. The requirement for the stock states “Sechelt is a safe community where citizens are at low risk of becoming victims of crime, accidents, or disasters”. This statement describes safety as being comprised of two dimensions, actual risk and perceived risk. The two indicators, traffic accident and crime rates, provide a good indication of actual risk, however, there is no indicator to assess perceived risk by citizens. The indicators for the stock also mention risk from disasters, something that is not addressed by the indicators.

In some cases there is a lack of statistical evidence to support a stock. Some indicators for the well-being, the cultural heritage, and the transportation stocks, have no quantitative data to support them. In the future it would be useful to complete a community survey to gather qualitative information to address this constraint. Though quantitative data is desirable, the survey results provide important information regarding resident’s perception of the value of the stock.

## **6 Conclusion**

### **6.1 Summary of Findings**

This study represents the development and inaugural application of the Community Capital Tool (CCT). The study offers a unique contribution to the body of sustainable community development research by combining the methods of Simon Fraser University's Centre for Sustainable Community Development in Canada and Telos at Tilburg University in the Netherlands to develop the CCT. Through the CCT development, this work contributes to a greater understanding of sustainable community development practice by establishing a quantitative method of measuring the social, economic and environmental impacts.

In applying the CCT, the policy goals in the District of Sechelt's Sustainability Action Plan provided the backbone for the Sechelt Model. The process of developing the community specific model revealed that not every stock defined in the CCT is suitable to represent the District of Sechelt. As a result, two stocks were removed and six other stocks were grouped together to form three new stocks.

The results of the Community Sustainability Balance Sheet can be drawn upon to develop conclusions about the current capacity of the community capitals. The Balance Sheet shows evidence of the community making positive efforts to achieve sustainable community development and provide indication that all capitals require further attention to be optimized and find balance between them.

The results can be used to inform policy development and planning initiatives in the District of Sechelt. The Balance Sheet outcomes reveal both discrepancies and alignments between community goals and outcomes that can be used to inform community leadership and policy development. For example, a discrepancy is demonstrated by the goal to attract young people to Sechelt. The community has high living costs and low-income levels, which make it challenging for young people to settle

in Sechelt. Municipal staff can use these results to better understand why it is difficult to attract young people to the community and respond appropriately with policy adjustments, programs, and other initiatives. Conversely, an alignment was demonstrated by Sechelt's goal to use water responsibly and efficiently to ensure a sustainable supply. The indicators for water quality showed that the community's water supply is clean and protected from contamination. Municipal and regional staff can use these results to evaluate their current water protection efforts and build upon them to safeguard future success.

## **6.2 Lessons Learned**

Through this study, the Community Capital Tool process has demonstrated that it is robust enough to be applied at multiple scales (community, region, or province) and in different kinds of situations (government, institution, non-profit organization, or for profit company). Whether the CCT is used for measuring and monitoring a policy, project, or other initiatives, the stocks, requirements, indicators, and norms, can all be tailored to meet specific community, industry, or institutional objectives.

Other process related lessons learned refer to the quality and type of information available to input into the Balance Sheet. While working with municipal staff to obtain data, it became evident that perfect information to measure the indicators is not always available. Many times it was necessary to make an informed decision to optimize the resources needed to obtain the required information and the quality of the results the information will garner. In some situations it was better to obtain less precise qualitative information through an expert, the community or a survey, rather than undergoing a detailed study. As well, considering the use of regional versus local indicators and data proved to be necessary. Many indicators used for this study could not be examined in isolation for Sechelt and therefore regional or provincial information was used. For example indicators evaluated with regional data include water and air quality because they are transboundary resources and economic structure, housing and living conditions because they are influenced by regional trends.

## 6.3 Directions for Future Research

The design of the Community Capital Tool is to be applied across a time series, monitoring progress in community capital optimization. Specifically, the Balance Sheet provides insight into the strengths and weaknesses of a community as they relate to their sustainability objectives. Further research that repeats this analysis with either future or historical data would gain insight into how Sechelt is developing toward its objectives outlined in the Sustainability Action Plan.

This study, although contributing to the sustainable community development field of research, is not without flaws. Future research can also be used to mitigate these flaws to produce better results. Of course, the objective of the Balance Sheet is not to obtain a precise measurement of each of the community capitals, but rather to gain a better understanding of the trends in their development. This study did just this. However some stocks used, such as Health and Well Being, were under represented by the indicators, leading to less accurate results. Further research into developing more indicators to represent the stocks would provide a more detailed picture of the District of Sechelt's community capital. As well, this study was limited by the availability of data for the indicators and their associated benchmarks. For example, the indicators representing the change in available land for Physical Capital should measure the change in area across a time series, rather than area available at only one point in time. Future research into developing stronger indicator and benchmark datasets would improve the finding of the Balance Sheet.

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## **Appendices**

## Appendix A

### Community Capital Balance Sheet Fact Sheets

#### Natural Capital

##### *Groundwater and Surface Water*

Indicator	1	<b>Total Coliform and E. Coli Coliform</b>
Natural	Groundwater and Surface Water	
Requirement	Sechelt's water supply is clean and protected from contamination.	
Color code	green	

Indicator description
<p>The presence of total coliform and E. coli coliform indicates bacterial contamination of the watershed. Possible sources of total coliform contamination include human, animal, soil, and vegetation sources, whereas E. coli coliform originates from human or animal waste (SCRD 2012). The Sunshine Coast Regional District conducts monthly tests of source water, prior to treatment, for total Coliform and E. coli coliform presence in the watershed. The indicator measured is the percentage of the 2011 annual samples that tested positive for coliform presence.</p>

Relation with requirement
<p>Coliform is considered an indicator organism for the presence of disease causing organisms in the water supply (SCRD 2012). The Guidelines for Canadian Drinking Water Quality state drinking water samples should contain no E. coli coliform and up to 10 CFU/100 ml of total coliform (Health Canada 2010).</p>

Unit	percentage
(Des)aggregation	SCRD
Weight	20
Color code	-
Norm Red	> 6%
Norm Orange	4% - 6%
Norm Gold	2% - 4%
Norm Green	< 2%
Data Sources	Sunshine Coast Regional District (SCRD). 2012. "Water Supply and Distribution." <a href="http://www.scrd.ca/Supply--Distribution">http://www.scrd.ca/Supply--Distribution</a> .

Value	0.19
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Benchmark
Communities throughout British Columbia conduct similar tests on their watersheds. Though no provincially wide data was available to be used for comparison, the City of Nanaimo conducted 1009 samples in 2010 and detected no presences of total coliform or E. coli coliform (City of Nanaimo 2010).

Indicator	2	<b>Water Potability</b>
Natural	Groundwater and Surface Water	
Requirement	Sechelt's water supply is clean and protected from contamination.	
Color code	green	

Indicator description

Water potability is the measurement of physical, chemical, and biological contaminants in the water source that could potential cause harm if consumed (SCRD 2012). Possible sources of contamination include urban runoff, industrial pollution, agricultural runoff, and human and animal waste. The Sunshine Coast Regional District conducts regular tests for the presence of contamination in the watershed. Appendix A lists the specific contaminants measured by the SCRД. The indicator measured is the number of samples collection 2011 that exceed one or more of the Guidelines for Canadian Drinking Water Quality standards (Health Canada 2010).

Relation with requirement

Water is a limited natural resource that is fundamental for good health, therefor access to clean, safe water drinking water is a basic human right (Rajepakse 2003). This indicator unearths water contamination from a variety of sources, including industrial, agricultural, and municipal services.

Unit	score
(Des)aggregation	SCRD
Weight	20
Color code	-
Norm Red	> 10
Norm Orange	6 - 10
Norm Gold	3 - 6
Norm Green	< 3
Data Sources	Sunshine Coast Regional District (SCRD). 2012. "Water Supply and Distribution." <a href="http://www.scrd.ca/Supply--Distribution">http://www.scrd.ca/Supply--Distribution</a> .
Value	0

Benchmark

Indicator	3	<b>Trihalomethane Levels</b>
Natural	Groundwater and Surface Water	
Requirement	Sechelt's water supply is clean and protected from contamination.	
Color code	green	

Indicator description

Trihalomethanes (THMs) are byproducts of disinfection solutions that form in the presence of naturally occurring organics and react with chlorine in water. The Guidelines for Canadian Drinking Water Quality state the Maximum Acceptable Concentration of THMs allowed in drinking water as 100 ug/L (Health Canada 2010). The Sunshine Coast Regional District conducts regular tests for the presence THMs in the watershed. The indicator measured is the number of samples collect in 2011 that exceed the Maximum Acceptable Concentration for THMs (SCRD 2012).

Relation with requirement

Exposure to THMs over time is known to pose a health risk. The guideline is based on the risk associated with chloroform, the THM most often present in greatest concentrations in drinking water (SCRD 2012).

Unit	score
(Des)aggregation	SCRD
Weight	20
Color code	-
Norm Red	> 3
Norm Orange	2 - 3
Norm Gold	1 - 2
Norm Green	< 1
Data Sources	Sunshine Coast Regional District (SCRD). 2012. "Water Supply and Distribution." <a href="http://www.scrd.ca/Supply--Distribution">http://www.scrd.ca/Supply--Distribution</a> .
Value	0

Benchmark

Indicator	4	<b>Water Consumption</b>
Natural		Groundwater and Surface Water
Requirement		Sechelt uses water responsibly and efficiently to ensure a sustainable supply.
Color code		orange

Indicator description

The SCRD supplies fresh, treated water to residents along the sunshine coast. This indicator provides measurement of the average amount of water consumed per capita per day (L/capita/day). Some properties are not connect to the regional service and therefore are not considered in this indicator.

Relation with requirement

Fresh water supplies must be used wisely to ensure the integrity of the supply for future generations. Water consumption data provides a gauge of how well the resource is being managed over time.

Unit	score
(Des)aggregation	Sunshine Coast Regional District
Weight	20
Color code	-
Norm Red	> 600
Norm Orange	400 - 600
Norm Gold	250 - 400
Norm Green	< 250
Data Sources	Environment Canada. 2010. Municipal Water Use Report: Municipal Water Use 2006 Statistics.
Value	573

Benchmark

Canadian provincial water consumption averages span from 156 L/capita/day (PEI) to 659 (NFLD) L/capita/day. The Canadian average is 300 L/capita/day.

Indicator	5	<b>Sewage system connections</b>
Natural		Groundwater and Surface Water
Requirement		Sechelt's sewage system minimizes impacts on streams and marine receiving waters.
Color code		orange

Indicator description

The District of Sechelt manages wastewater services for developed properties. However some properties, especially those that are rural, are not connected to the municipal sewage and drainage system. This indicator measures the percentage of developed properties within the sewer area of the District of Sechelt that are not connected to the sewer system.

Relation with requirement

Properties not connect to the district sewage infrastructure are on septic systems. Septic systems have greater known risks of adverse environmental effects than district run processing systems. This indicator tells us about the potential for environmental contamination from septic systems.

Unit	percentage
(Des)aggregation	District of Sechelt
Weight	20
Color code	-
Norm Red	> 50%
Norm Orange	30% - 50%
Norm Gold	15% - 30%
Norm Green	< 15%
Data Sources	District of Sechelt. 2012. Municipal Data. Obtained March 2012 from Andre Boel.
Value	48

Benchmark

**Air**

Indicator	1	<b>Greenhouse gas emissions from District operations</b>
Natural	Air	
Requirement	Sechelt's air is clean and protected from contamination.	
Color code	orange	

## Indicator description

The annual recorded greenhouse gas (carbon dioxide) emissions produced by the District of Sechelt's operations (measured in tonnes).

## Relation with requirement

Greenhouse gases produced by anthropogenic activities are the primary contributor to climate change. Climate change is widely recognized as a serious threat the natural environment and is largely a consequence of unsustainable energy production and consumption (Alberti and Sayed 2007). The District of Sechelt has signed on the Province of BC's Climate Action Charter, where communities have committed to making their operations carbon neutral by 2012 (Province of British Columbia 2007).

Unit	
(Des)aggregation	District of Sechelt
Weight	50
Color code	-
Norm Red	> 340
Norm Orange	290 - 340
Norm Gold	235 - 290
Norm Green	< 235
Data Sources	District of Sechelt. 2010. Corporate Carbon Neutral Plan. 2009 Emission Levels. Accessed March 2012: <a href="http://www.district.sechelt.bc.ca/DesktopModules/DNNCorp/DocumentLibrary/Components/FileDownloader/FileDownloaderPage.aspx?tabid=276&amp;did=1389&amp;pid=0&amp;Irf=/">http://www.district.sechelt.bc.ca/DesktopModules/DNNCorp/DocumentLibrary/Components/FileDownloader/FileDownloaderPage.aspx?tabid=276&amp;did=1389&amp;pid=0&amp;Irf=/</a>
Value	340

**Benchmark**

Sechelt has a corporate goal to reduce GHG emissions by 15% by 2015 and 30% by 2020.

Indicator	2	<b>Greenhouse Gas Emissions from the Community</b>
Natural		Air
Requirement		Sechelt's air is clean and protected from contamination.
Color code		orange

Indicator description

The annual recorded greenhouse gas (carbon dioxide) emissions produced annually by the community (measured in tonnes).

Relation with requirement

Greenhouse gases produced by anthropogenic activities are the primary contributor to climate change. Climate change is widely recognized as a serious threat the natural environment and is largely a consequence of unsustainable energy production and consumption (Alberti and Sayed 2007).

Unit	
(Des)aggregation	District of Sechelt
Weight	50
Color code	-
Norm Red	> 63000
Norm Orange	55000 - 63000
Norm Gold	45000 - 55000
Norm Green	< 45000
Data Sources	Province of British Columbia. 2010. Sechelt District Municipality: Updated 2007 Community Energy and Emissions Inventory. Ministry of the Environment, Climate Action Secretariat, Community Energy and Emissions Inventory. Accessed April 2012: <a href="http://www.en">http://www.en</a>
Value	60825

Benchmark

This District has a goal to reduce emissions by 29% from 2006 levels by 2031, to 44,273 tonnes of CO2 (District of Sechelt, 2011).

*Minerals and Non-Renewable Resources*

Indicator	1	<b>Energy use</b>
Natural	Minerals and Non-Renewable Resources	
Requirement	Sechelt is a compact and energy efficient community that has reduced dependence on fossil fuels and promotes the use of renewable energy.	
Color code	orange	

Indicator description

This indicator measures the annual energy use per capita for transportation, buildings and solid waste management services in the District of Sechelt (GJ/Capita).

Relation with requirement

Energy is a key requirement for municipal services. However, its production, use, and by-products can create substantial pressures on the natural environment through resource depletion and pollution production (Alberti and Sayed 2007).

Unit	score
(Des)aggregation	District of Sechelt
Weight	33.33
Color code	-
Norm Red	> 160
Norm Orange	130 - 160
Norm Gold	100 - 130
Norm Green	< 100
Data Sources	Province of British Columbia. 2010. Sechelt District Municipality: Updated 2007 Community Energy and Emissions Inventory. Ministry of the Environment, Climate Action Secretariat, Community Energy and Emissions Inventory. Accessed April 2012: <a href="http://www.en">http://www.en</a>
Value	140

Benchmark

According to the City of North Vancouver's Community Energy and Emissions Plan, the annual energy use for the community in 2007 was 111.84 GJ/capita (HB Lanarc 2010).

Indicator	2	<b>Waste Disposal</b>
Natural		Minerals and Non-Renewable Resources
Requirement		All household and industrial waste in Sechelt is diverted from landfills.
Color code		gold

#### Indicator description

The annual amount of waste sent to the SCRDR landfill located north east of Sechelt. The indicators tonnes of waste disposed per capita per year.

#### Relation with requirement

This indicator reflects both waste generation and processing. The generation of waste reflects energy and material resources loss. Waste processing is energy intensive and increases potential for environmental pollution (Alberti and Sayed 2007).

Unit	score
(Des)aggregation	Sunshine Coast Regional District
Weight	33.33
Color code	-
Norm Red	> 0.8
Norm Orange	0.5 - 0.8
Norm Gold	0.2 - 0.5
Norm Green	< 0.2
Data Sources	Province of British Columbia. 2006. B.C. Municipal Solid Waste Tracking Report. Ministry of the Environment. Accessed March 2012: <a href="http://www.env.gov.bc.ca/epd/epdpa/mpp/pdfs/tracking-rpt2006.pdf">http://www.env.gov.bc.ca/epd/epdpa/mpp/pdfs/tracking-rpt2006.pdf</a>
Value	0.493

#### Benchmark

BC regional districts varied from 0.225 (1) to 1.695 (26). SCRDR ranked 11; BC average rate is 0.613 tonnes per capita.

Indicator	3	<b>Waste Diversion</b>
Natural		Minerals and Non-Renewable Resources
Requirement		All household and industrial waste in Sechelt is diverted from landfills.
Color code		orange

Indicator description

Percentage of waste diverted in the SCRD from the landfill on an annual basis through recycling, reuse, and composting.

Relation with requirement

Increased waste diversion rates reduce the potential for negative impacts caused by waste disposal, including energy and material resource loss, GHG emissions, and environmental contamination (Alberti and Sayed 2007).

Unit	percentage
(Des)aggregation	Sunshine Coast Regional District
Weight	33.33
Color code	+
Norm Red	< 30%
Norm Orange	30% - 60%
Norm Gold	60% - 90%
Norm Green	> 90%
Data Sources	Sunshine Coast Regional District. 2011. Solid Waste Management Plan- The Foundation for Zero Waste Plan- Final Draft. Accessed March 2012: <a href="http://www.scrd.ca/Solid-Waste-Management-Plan-Update">http://www.scrd.ca/Solid-Waste-Management-Plan-Update</a>
Value	42.4

Benchmark

The national average is 22% (FCM, 2009). SCRD has a goal of 69% by 2016 (SCRD 2011).

*Land*

Indicator	1	<b>Protected Land</b>
Natural	Land	
Requirement	Sechelt is developed in harmony with its unique natural environment.	
Color code	orange	

Indicator description

Percentage of land in the District of Sechelt that is protect as a park, conservation areas, and greenways.

Relation with requirement

Protected land, through municipal, provincial and national parks, as well as conservation areas, is an important indicator for the conservation of biodiversity.

Unit	percentage
(Des)aggregation	District of Sechelt
Weight	50
Color code	+
Norm Red	< 4%
Norm Orange	4% - 8%
Norm Gold	8% - 12%
Norm Green	> 12%
Data Sources	Province of British Columbia. 2010. Sechelt District Municipality: Updated 2007 Community Energy and Emissions Inventory. Ministry of the Environment, Climate Action Secritariat, Community Energy and Emissions Inventory. Accessed April 2012: <a href="http://www.en">http://www.en</a>
Value	7

Benchmark

The Province of British Columbia protects 14.4% of its land base d (BC Progress Board, 2011). This value is the largest among all Canadian provinces.

Indicator	2	<b>Tree Cover</b>
Natural		Land
Requirement		Sechelt protects and supports biodiversity by protecting contiguous open spaces, wildlife corridors and interface areas.
Color code		gold

Indicator description

Percentage of land base with tree cover.

Relation with requirement

A high percentage of tree cover over the land base indicates increased ecosystem health, biodiversity, a habitat.

Unit	percentage
(Des)aggregation	District of Sechelt
Weight	50
Color code	+
Norm Red	< 35%
Norm Orange	35% - 50%
Norm Gold	50% - 65%
Norm Green	> 65%
Data Sources	Data from: Sechelt Sustainability Action Plan District of Sechelt. 2010. Urban Forest Plan. Accessed March 12: <a href="http://www.district.sechelt.bc.ca/CityHall/DocumentLibrary.aspx">http://www.district.sechelt.bc.ca/CityHall/DocumentLibrary.aspx</a>
Value	59

Benchmark

There is no benchmark data for this indicator.

**Physical Capital**  
*Public Infrastructure*

Indicator	1	<b>Energy Efficiency</b>
Physical	Public Infrastructure	
Requirement	Sechelt is a leader in innovative building design and green infrastructure.	
Color code	red	

Indicator description

Percentage of buildings and homes with an EnerGuide rating of 80 or higher.

Relation with requirement

Measuring the energy efficiency of the building stock provides an indication of how well the community is using technology and innovation, such as green building techniques, to decreasing greenhouse gas emissions and other adverse environmental impacts.

Unit	percentage
(Des)aggregation	District of Sechelt
Weight	99.999
Color code	+
Norm Red	< 25%
Norm Orange	25% - 50%
Norm Gold	50% - 75%
Norm Green	> 75%
Data Sources	District of Sechelt. 2012. Discussion with Emanuel Machado.
Value	0

Benchmark

There is no benchmark data for this indicator.

*Housing and Living Conditions*

Indicator	1	<b>Unaffordable Housing (rental)</b>
Physical	Housing and Living Conditions	
Requirement	All residents of Sechelt live in good quality, affordable housing.	
Color code	red	

Indicator description
Percentage of residents with rental housing costs that are greater than 30% of their household income.

Relation with requirement
Affordable housing is defined by the Canadian Housing and Mortgage Corporation as “the cost of adequate shelter that does not exceed 30% of the household income”.

Unit	
(Des)aggregation	District of Sechelt
Weight	25
Color code	-
Norm Red	> 45
Norm Orange	25 - 45
Norm Gold	10 - 25
Norm Green	< 10
Data Sources	District of Sechelt. 2011. Sustainability Plan. Accessed March 2012: <a href="http://www.district.sechelt.bc.ca/CityHall/DocumentLibrary.aspx#dltop">http://www.district.sechelt.bc.ca/CityHall/DocumentLibrary.aspx#dltop</a>
Value	48

Benchmark
The BC provincial average for renters living in unaffordable housing is 37.7% (Statistics Canada, 2006).

Indicator	2	<b>Housing Prices</b>
Physical		Housing and Living Conditions
Requirement		All residents of Sechelt live in good quality, affordable housing.
Color code		orange

Indicator description

Ratio of housing prices to income.

Relation with requirement

The ratio between income and housing prices provides and signal of whether there is an imbalance between the two indicators that makes home ownership unaffordable for residents.

Unit	
(Des)aggregation	District of Sechelt
Weight	25
Color code	-
Norm Red	> 7
Norm Orange	4.5 - 7
Norm Gold	3 - 4.5
Norm Green	< 3
Data Sources	MLS, 2012 and Stats BC
Value	6.8

Benchmark

Calgary 4.2, Vancouver 11.2, Toronto 6.7, Fredericton 2.4

Indicator	3	<b>Supportive Housing</b>
Physical		Housing and Living Conditions
Requirement		Sechelt's housing stock supports adaptability (age in place).
Color code		red

Indicator description

Percentage of the housing stock that is designated supportive housing for citizens in need of care.

Relation with requirement

Supportive housing provides a valuable resource to those in need of extra care an assistance on a regular basis. With Sechelt's population aging, an increased demand of supportive housing will be observed. This indicator helps assess where Sechelt's housing stock is adaptable to support the current and future needs of the community. If the data allowed, a more useful indicator would be the percentage of citizens in need of supportive housing but unable to obtain it.

Unit	percentage
(Des)aggregation	District of Sechelt
Weight	25
Color code	+
Norm Red	< 1%
Norm Orange	1% - 5%
Norm Gold	5% - 7%
Norm Green	> 7%
Data Sources	District of Sechelt. 2012. Discussion with Emanuel Machado.
Value	0

Benchmark

There is no benchmark data for this indicator.

Indicator	4	<b>Unaffordable Housing (ownership)</b>
Physical		Housing and Living Conditions
Requirement		All residents of Sechelt live in good quality, affordable housing.
Color code		gold

Indicator description

Percentage of homeowners with housing costs greater than 30% of household income.

Relation with requirement

Affordable housing is defined by the Canadian Housing and Mortgage Corporation as “the cost of adequate shelter that does not exceed 30% of the household income”.

Unit	
(Des)aggregation	District of Sechelt
Weight	25
Color code	-
Norm Red	> 45
Norm Orange	25 - 45
Norm Gold	10 - 25
Norm Green	< 10
Data Sources	District of Sechelt. 2011. Sustainability Plan. Accessed March 2012: <a href="http://www.district.sechelt.bc.ca/CityHall/DocumentLibrary.aspx#dltop">http://www.district.sechelt.bc.ca/CityHall/DocumentLibrary.aspx#dltop</a>
Value	23

Benchmark

The BC provincial average for homeowners living in unaffordable housing is 19.2% (Statistics Canada, 2006).

*Transportation*

Indicator	1	<b>Sidewalks</b>
Physical	Transportation	
Requirement	Sechelt's neighbourhoods are complete, compact, and pedestrian oriented where residents can meet many of their daily needs within an easy walk, cycle, transit trip or drive.	
Color code	orange	

Indicator description

Percentage of paved roads with sidewalks one or both sides of the road.

Relation with requirement

The presence of sidewalks is a large component of a pedestrian oriented transportation system. Having a measurement of the amount of sidewalk infrastructure in the community provides an indication of how safe it is to walk in the community and how likely residents will walk as a means of transportation.

Unit	percentage
(Des)aggregation	District of Sechelt
Weight	33.33
Color code	+
Norm Red	< 25%
Norm Orange	25% - 50%
Norm Gold	50% - 75%
Norm Green	> 75%
Data Sources	District of Sechelt. 2012. Municipal Data. Obtained March 2012 from Andre Boel.
Value	36.9

Benchmark

There is no benchmark data for this indicator.

Indicator	2	<b>Cycling Infrastructure</b>
Physical	Transportation	
Requirement	Sechelt's neighbourhoods are complete, compact, and pedestrian oriented where residents can meet many of their daily needs within an easy walk, cycle, transit trip or drive.	
Color code	red	

#### Indicator description

Percentage of paved roads with designated bike lanes or other cycling infrastructure.

#### Relation with requirement

Cycling infrastructure is an important component of a pedestrian oriented transportation system. Having a measurement of the amount of designated cycling paths and roads in provides an indication of how safe it is to cycle in the community and how likely residents will cycle as a means of transportation.

Unit	percentage
(Des)aggregation	District of Sechelt
Weight	33.33
Color code	+
Norm Red	< 10%
Norm Orange	10% - 40%
Norm Gold	40% - 70%
Norm Green	> 70%
Data Sources	District of Sechelt. 2012. District GIS data
Value	6

#### Benchmark

The City of Vancouver has over 400 km of bicycle infrastructure (City of Vancouver 2012). The data to convert this into a percentage of the road share is not publicly available. (City of Vancouver. 2012. Cycling Towards Sustainability. [http://vancouver.ca/greencapital/pdf/VGC\\_Cycling\\_FactSheet.pdf](http://vancouver.ca/greencapital/pdf/VGC_Cycling_FactSheet.pdf).)

Indicator	3	<b>Transit Infrastructure</b>
Physical	Transportation	
Requirement	Sechelt's neighbourhoods are complete, compact, and pedestrian oriented where residents can meet many of their daily needs within an easy walk, cycle, transit trip or drive.	
Color code	gold	

Indicator description

Percentage of homes within 400 m of a transit stop.

Relation with requirement

Access to a transit stop within 400 meters of their home provides residents with a viable public transit option for commuting and daily travel. Public transit is one of the many transportation options needed for residents living in a complete community.

Unit	percentage
(Des)aggregation	District of Sechelt
Weight	33.33
Color code	+
Norm Red	< 30%
Norm Orange	30% - 60%
Norm Gold	60% - 90%
Norm Green	> 90%
Data Sources	District of Sechelt. 2012. District of Sechelt GIS Data
Value	70

Benchmark

Metro Vancouver regional district average is greater than 85% (personal communication with Translink planner).

*Land*

Indicator	1	<b>Industrial/Commercial Land</b>
Physical	Land	
Requirement	Sechelt has available land suitable to meet the community's industrial, commercial, agricultural, and residential needs.	
Color code	gold	

Indicator description

Amount of industrial/commercial land available (hectares).

Relation with requirement

The area of land available for industrial and commercial development provides an indication how well the community can meet its future industrial and commercial development needs.

Unit	
(Des)aggregation	District of Sechelt
Weight	33.33
Color code	+
Norm Red	< 1
Norm Orange	1 - 2
Norm Gold	2 - 5
Norm Green	> 5
Data Sources	District of Sechelt
Value	3.3

Benchmark

There is no benchmark data for this indicator.

Indicator	2	<b>Agricultural Land</b>
Physical	Land	
Requirement	Sechelt has available land suitable to meet the community's industrial, commercial, agricultural, and residential needs.	
Color code	green	

Indicator description

Amount of agricultural land available (ha).

Relation with requirement

The area of land available for agricultural use provides an indication how well the community can meet its agricultural needs.

Unit	percentage
(Des)aggregation	District of Sechelt
Weight	33.33
Color code	+
Norm Red	< 2%
Norm Orange	2% - 7%
Norm Gold	7% - 12%
Norm Green	> 12%
Data Sources	District of Sechelt. 2010. Official Community Plan: District of Sechelt Bylaw 492. District of Sechelt.
Value	15

Benchmark

There is no benchmark data available for this indicator. Recording the change in the amount of land designated for agricultural use over time would strengthen this indicator. ( 15.4%= 660/4,289 hectares)

Indicator	3	<b>Residential Land</b>
Physical		Land
Requirement		Sechelt has available land suitable to meet the community's industrial, commercial, agricultural, and residential needs.
Color code		green

Indicator description

Number of residential lots available.

Relation with requirement

The area of land available for residential development provides an indication how well the community can meet its residential development needs.

Unit	
(Des)aggregation	District of Sechelt
Weight	33.33
Color code	+
Norm Red	< 2
Norm Orange	2 - 7
Norm Gold	7 - 12
Norm Green	> 12
Data Sources	District of Sechelt
Value	17

Benchmark

There is no benchmark data available for this indicator. Recording the change in the amount of land designated for agricultural use over time would strengthen this indicator. ( 16.8%= 721/4,289 hectares)

## Economic Capital

### Labour

Indicator	1	<b>Income</b>
Economic		Labour
Requirement		The labour market is balanced and offers enough job opportunities for all residents of Sechelt.
Color code		orange

#### Indicator description

Average annual income per person.

#### Relation with requirement

Average annual income indicates the economic well-being of individuals within the community. The federal government of Canada's low-income threshold is \$21,359 for a single person and people living on incomes below this threshold can receive financial assistance (Statistics Canada 2011).

Unit	score
(Des)aggregation	District of Sechelt
Weight	25
Color code	+
Norm Red	< 30000
Norm Orange	30000 - 40000
Norm Gold	40000 - 44000
Norm Green	> 44000
Data Sources	BC Stats. 2008. BC Taxation Statistics, 2008. Accessed March 2012: <a href="http://www.bcstats.gov.bc.ca/Libraries/Income_and_Taxation_PDF/08txhand.pdf">http://www.bcstats.gov.bc.ca/Libraries/Income_and_Taxation_PDF/08txhand.pdf</a>
Value	37842

#### Benchmark

British Columbia annual average income per person is \$40,736 (BC Statistics, 2008).

Indicator	2	<b>Unemployment</b>
Economic		Labour
Requirement		The labour market is balanced and offers enough job opportunities for all residents of Sechelt.
Color code		gold

Indicator description

The percent of residents in the labour force (aged 15 or older) who are unemployed.

Relation with requirement

A high unemployment rate suggests an imbalance in the labour market, where the number of workers is greater the number of job opportunities. High unemployment rates can result underemployment and greater reliance on social assistance programs.

Unit	percentage
(Des)aggregation	District of Sechelt
Weight	25
Color code	-
Norm Red	> 8%
Norm Orange	5% - 8%
Norm Gold	3% - 5%
Norm Green	< 3%
Data Sources	BC Stats. 2011. Community Facts: Sechelt, District Municipality. Accessed March 2012: <a href="http://www.bcstats.gov.bc.ca/Files/91f1ddfe-f0c4-4fe3-bf50-dab36996aff9/CommunityFacts-SecheltDM.pdf">http://www.bcstats.gov.bc.ca/Files/91f1ddfe-f0c4-4fe3-bf50-dab36996aff9/CommunityFacts-SecheltDM.pdf</a>
Value	3.4

Benchmark

British Columbia average 6.0%

Indicator	3	<b>Work related injuries</b>
Economic		Labour
Requirement		The labour market is balanced and offers enough job opportunities for all residents of Sechelt.
Color code		gold

Indicator description

Number of short-term disability, long-term disability and fatal claims paid by WorkSafe BC per year.

Relation with requirement

The number of work related injuries or death indicates how safe it is to work in industries in the community.

Unit	percentage
(Des)aggregation	Sunshine Coast Regional District
Weight	25
Color code	-
Norm Red	> 15%
Norm Orange	10% - 15%
Norm Gold	5% - 10%
Norm Green	< 5%
Data Sources	WorkSafe BC. Worksafe Statistics 2009. Accessed March 2012: <a href="http://www.worksafebc.com/publications/reports/statistics_reports/assets/pdf/stats2009.pdf">http://www.worksafebc.com/publications/reports/statistics_reports/assets/pdf/stats2009.pdf</a>
Value	8.7

Benchmark

Total number of reported claims in British Columbia was 2.4% based on the BC labour of BC (residents aged 15+) (51,292 injuries Worksafe BC; BC Stats 2006).

Indicator	4	<b>Labour Force</b>
Economic		Labour
Requirement		The labour market is balanced and offers enough job opportunities for all residents of Sechelt.
Color code		green

#### Indicator description

Percentage change in the labour force from 2001 to 2006.

#### Relation with requirement

Labour force values provide an indication of how many people in the community can contribute to goods and service production. Examining this indicator with the unemployment rate offers insight into the relationship between the labour market and the labour force.

Unit	percentage
(Des)aggregation	District of Sechelt
Weight	25
Color code	+
Norm Red	< -5%
Norm Orange	-5% - 0%
Norm Gold	0% - 10%
Norm Green	> 10%
Data Sources	BC Stats. 2011. Community Facts: Sechelt, District Municipality. Accessed March 2012: <a href="http://www.bcstats.gov.bc.ca/Files/91f1ddfe-f0c4-4fe3-bf50-dab36996aff9/CommunityFacts-SecheltDM.pdf">http://www.bcstats.gov.bc.ca/Files/91f1ddfe-f0c4-4fe3-bf50-dab36996aff9/CommunityFacts-SecheltDM.pdf</a>
Value	12

#### Benchmark

The average change across the Province of BC is 8.1% (BC Stats 2011).

*Financial Resources and Economic Structure*

Indicator	1	<b>Local Businesses</b>
Economic	Financial resources and Economic Structure	
Requirement	Sechelt's businesses are competitive and profitable and invest in the community.	
Color code	orange	

Indicator description

Change in the number of businesses with employees operating from 2010 to 2011.

Relation with requirement

Using the annual change in the number of local businesses operating in the community provides indication of whether the local economy is strong enough to support local business development. Businesses operating in the community should both be profitable and contribute back into the local economy, minimizing economic leakage.

Unit	percentage
(Des)aggregation	Sunshine Coast Regional District
Weight	33.33
Color code	+
Norm Red	< -10%
Norm Orange	-10% - 0%
Norm Gold	0% - 10%
Norm Green	> 10%
Data Sources	BC Stats. 2011. Community Facts: Sechelt, District Municipality. Accessed March 2012: <a href="http://www.bcstats.gov.bc.ca/Files/91f1ddfe-f0c4-4fe3-bf50-dab36996aff9/CommunityFacts-SecheltDM.pdf">http://www.bcstats.gov.bc.ca/Files/91f1ddfe-f0c4-4fe3-bf50-dab36996aff9/CommunityFacts-SecheltDM.pdf</a>
Value	-1.2

Benchmark

The average change among businesses across BC from 2010 to 2011 is -1.6%.

Indicator	2	<b>Municipal Revenue</b>
Economic		Financial resources and Economic Structure
Requirement		Sechelt's businesses are competitive and profitable and invest in the community.
Color code		orange

Indicator description

The change in municipal revenue between 2009 and 2010 fiscal years.

Relation with requirement

Municipal revenue provides the community with the means to improve infrastructure, provide social services, and fulfill operational duties. A budget deficit leaves a community with little opportunity to improve local conditions. A considerable increase in revenue provides resources to pursue projects and initiatives to further progress towards achieving community goals.

Unit	percentage
(Des)aggregation	District of Sechelt
Weight	33.33
Color code	+
Norm Red	< -10%
Norm Orange	-10% - 0%
Norm Gold	0% - 10%
Norm Green	> 10%
Data Sources	District of Sechelt. 2010. Financial Statement. <a href="http://www.district.sechelt.bc.ca/CityHall/DocumentLibrary.aspx#dltop">http://www.district.sechelt.bc.ca/CityHall/DocumentLibrary.aspx#dltop</a>
Value	-7.95

Benchmark

The municipal revenue in 2009 was \$14,258,651 and was \$13,125,605 for 2010. This is a decrease of 7.95% not adjusted for inflation.

Indicator	3	<b>Tourists Visits</b>
Economic	Financial resources and Economic Structure	
Requirement	Sechelt is an attractive tourist destination, especially for eco-tourists.	
Color code	orange	

Indicator description

Change in the number of tourists visiting Sechelt annually.

Relation with requirement

The change in the number of tourists visiting Sechelt indicates the health of a the tourism industry. The District of Sechelt has identified increased tourism opportunities as an option to diversify and strengthen the economic capital of the community.

Unit	percentage
(Des)aggregation	District of Sechelt
Weight	33.33
Color code	+
Norm Red	< -25%
Norm Orange	-25% - 0%
Norm Gold	0% - 25%
Norm Green	> 25%
Data Sources	District of Sechelt. 2012. Visitor Centre Statistics Program Year Over Year Report 2012.
Value	-19.2

Benchmark

Change in the number of tourists visiting: Gibsons, -22.6% Powell River, -18%. Data for visitors from 2010-2011.

**Human Capital***Education*

Indicator	1	<b>Life Long Learning</b>
Human	Education	
Requirement	Sechelt has high quality educational services.	
Color code	gold	

## Indicator description

The Composite Learning Index is an annual measure of progress in lifelong learning based on a four measures: learning to know; learning to do; learning to live together; and learning to be. The Canadian Council on Learning produces the index.

## Relation with requirement

Lifelong learning supports citizens in creating better job opportunities, improving health, building stronger economies and connections between communities (CCL 2010).

Unit	score
(Des)aggregation	School District 46
Weight	33.33
Color code	+
Norm Red	< 60
Norm Orange	60 - 70
Norm Gold	70 - 80
Norm Green	> 80
Data Sources	Canadian Council on Learning. 2010. 2010 CLI Profile Sechelt, British Columbia. Accessed March 2012: <a href="http://www.cli-ica.ca/en/results-by-year/communities.aspx?letter=s&amp;page=26">http://www.cli-ica.ca/en/results-by-year/communities.aspx?letter=s&amp;page=26</a>
Value	72

## Benchmark

The national average of the Composite Learning Index is 75.

Indicator	2	<b>Tertiary Education</b>
Human	Education	
Requirement	Sechelt's residents are able to meet their learning aspirations through education, volunteer, and workplace learning opportunities, and the community and its members are committed for lifelong learning.	
Color code	gold	

Indicator description

Total population, aged 24-64 years old, without a certificate, degree, or diploma.

Relation with requirement

Tertiary education opportunities are important to provide residents with opportunities to continue to learn beyond high school. Tertiary education can be university, college, apprenticeship, or other trade skills programs. It helps develop employable skills and contributes to lifelong learning.

Unit	percentage
(Des)aggregation	District of Sechelt
Weight	33.33
Color code	-
Norm Red	> 9.1%
Norm Orange	7.1% - 9.1%
Norm Gold	5.1% - 7.1%
Norm Green	< 5.1%
Data Sources	BC Stats. 2011. Community Facts: Sechelt, District Municipality. Accessed March 2012: <a href="http://www.bcstats.gov.bc.ca/Files/91f1ddfe-f0c4-4fe3-bf50-dab36996aff9/CommunityFacts-SecheltDM.pdf">http://www.bcstats.gov.bc.ca/Files/91f1ddfe-f0c4-4fe3-bf50-dab36996aff9/CommunityFacts-SecheltDM.pdf</a>
Value	5.3

Benchmark

British Columbia average 6.9%

Indicator	3	<b>Early Development</b>
Human		Education
Requirement		Sechelt has high quality educational services.
Color code		orange

#### Indicator description

The early development instrument is a population-based measure of readiness of children for school through the measurement of vulnerability. Vulnerability is measured on five scales: physical health and well-being; social competence; emotional maturity; language and cognitive development; and communication and general knowledge.

#### Relation with requirement

The Early Development Instrument creates a metric to understand how well educational programs are serving young children. Early childhood education is an important first step in education and important part of the District of Sechelt's education program.

Unit	percentage
(Des)aggregation	School District 46
Weight	33.33
Color code	-
Norm Red	> 34%
Norm Orange	23% - 34%
Norm Gold	16% - 23%
Norm Green	< 16%
Data Sources	Human Early Partnership (HELP). 2011. Vulnerability on the EDI: Fact Sheet 2011. University of British Columbia. Accessed March 2012: <a href="http://earlylearning.ubc.ca/media/uploads/documents/fact_sheet_-_vulnerability_-_6oct2011.pdf">http://earlylearning.ubc.ca/media/uploads/documents/fact_sheet_-_vulnerability_-_6oct2011.pdf</a>
Value	30

#### Benchmark

The BC provincial average for 2007-2009 is 26%.

*Health and Well being*

Indicator	1	<b>Active Transportation</b>
Human	Health and Well being	
Requirement	Sechelt is a healthy community.	
Color code	orange	

Indicator description
Percentage of residents walking or biking to work.

Relation with requirement
The participation rate of residents in active transportation provides a measurement of physical activity. Physical activity is an important measurement of the requirement of Sechelt being a healthy community. Participation in active transportation is influence by Physical capital to make it safe and accessible for residents.

Unit	percentage
(Des)aggregation	District of Sechelt
Weight	50
Color code	+
Norm Red	< 5%
Norm Orange	5% - 15%
Norm Gold	15% - 25%
Norm Green	> 25%
Data Sources	District of Sechelt. 2011. Sustainability Action Plan.
Value	8.5

Benchmark
15.9% of Vancouverites cycle or walk to work. District of Sechelt has set a goal to increase the value by 20% by 2012.

Indicator	2	<b>Composite Index of Health</b>
Human	Health and Well being	
Requirement	Sechelt is a healthy community.	
Color code	green	

#### Indicator description

The index score is determined based on life expectancy and birth and potential years of life being lost.

#### Relation with requirement

The Composite Index of Health provides an objective measurement of the health status of residents. The measurements used in the indicator are statistics commonly used to assess the overall health status of an area.

Unit	score
(Des)aggregation	Sunshine Coast Regional District
Weight	50
Color code	-
Norm Red	> 1
Norm Orange	0.4 - 1
Norm Gold	-0.2 - 0.4
Norm Green	< -0.2
Data Sources	BC Stats. 2011. Indicators of Health Problems. Accessed March 2012: <a href="http://www.bcstats.gov.bc.ca/Files/70348b75-dc7f-49e8-84bd-ea998a9f445a/Socio-EconomicIndicesIndicatorsofHumanEconomicHardshipbyRD2010.pdf">http://www.bcstats.gov.bc.ca/Files/70348b75-dc7f-49e8-84bd-ea998a9f445a/Socio-EconomicIndicesIndicatorsofHumanEconomicHardshipbyRD2010.pdf</a>
Value	-0.47

#### Benchmark

British Columbia regional district values range from 1.23 to -0.92, where the lower the index score, the higher the ranking. The Sunshine Coast Regional District was ranked 3rd out of 26 districts.

## Social Capital

### Community Participation

Indicator	1	<b>Balanced Age Distribution</b>
Social	Community Participation	
Requirement	Sechelt is an intergenerational community with a balanced age profile.	
Color code	orange	

#### Indicator description

Ratio between the population of residents aged 20-29 to 45-64 years old. The calculation for the indicator is: [(Age group 20-29 year Sechelt) - (age group 20-29 year BC)] + [(Age group 45-64 year Sechelt) - (age group 45-64 year BC)]

#### Relation with requirement

The District of Sechelt is aging, creating an imbalance in the age profile of the community. Having an imbalanced age profile is troublesome. As the population ages they require greater support from younger generations and contribute less to the growth of the economy. Conversely, younger generations benefit from the knowledge and experience of older generations. Therefore a balanced intergenerational community profile is desirable.

Unit	score
(Des)aggregation	District of Sechelt
Weight	20
Color code	+
Norm Red	< -1
Norm Orange	-1 - 1
Norm Gold	1 - 4
Norm Green	> 4
Data Sources	BC Stats. 2011. Community Facts: Sechelt, District Municipality. Accessed March 2012: <a href="http://www.bcstats.gov.bc.ca/Files/91f1ddfe-f0c4-4fe3-bf50-dab36996aff9/CommunityFacts-SecheltDM.pdf">http://www.bcstats.gov.bc.ca/Files/91f1ddfe-f0c4-4fe3-bf50-dab36996aff9/CommunityFacts-SecheltDM.pdf</a>
Value	-0.02

#### Benchmark

The data is measured provincial averages, where the B.C. ratio is 0.0.

Indicator	2	<b>First Nations Representation</b>
Social		Community Participation
Requirement		All citizens of Sechelt are able to participate in society.
Color code		red

Indicator description

The percentage of Sechelt Indian Band representation on community council, committees, or other leadership organizations.

Relation with requirement

First nations representation on municipal committees, councils, and other leadership organizations measures the ability of First Nations citizens to participate in society. Without a representative, it is harder for the First Nations community to ensure that their needs and values are being considered in community decisions.

Unit	score
(Des)aggregation	District of Sechelt
Weight	20
Color code	+
Norm Red	< 30
Norm Orange	30 - 50
Norm Gold	50 - 80
Norm Green	> 80
Data Sources	District of Sechelt
Value	0

Benchmark

There is no benchmark for this indicator.

Indicator	3	<b>Participation in Democracy</b>
Social		Community Participation
Requirement		All citizens of Sechelt are able to participate in society.
Color code		orange

Indicator description

Percentage of citizens voting in municipal elections.

Relation with requirement

Voter turn out in municipal elections is an indicator of citizen participation in the political aspects of society. This indicator measures whether citizens are willing to participate community decisions.

Unit	percentage
(Des)aggregation	District of Sechelt
Weight	20
Color code	+
Norm Red	< 40%
Norm Orange	40% - 60%
Norm Gold	60% - 90%
Norm Green	> 90%
Data Sources	District of Sechelt (2011)
Value	47

Benchmark

No data available for benchmarks; unable to obtain the provincial average.

Indicator	4	<b>Low Income</b>
Social	Community Participation	
Requirement	All citizens of Sechelt are able to participate in society.	
Color code	gold	

Indicator description

The percentage of family households with low income.

Relation with requirement

A high rate of low income earning residents is used as an indicator of low community participation. The indicator has been selected because often low income earners spend more time and resources than others to obtain the basics, such as food and shelter. This leaves less time and energy to participate in society.

Unit	percentage
(Des)aggregation	District of Sechelt
Weight	20
Color code	-
Norm Red	> 15%
Norm Orange	10% - 15%
Norm Gold	5% - 10%
Norm Green	< 5%
Data Sources	BC Stats
Value	8.7

Benchmark

The average percentage of households with low income in British Columbia is 13.3%.

Indicator	5	<b>Food Bank Use Rates</b>
Social		Community Participation
Requirement		All citizens of Sechelt are able to participate in society.
Color code		orange

Indicator description

Percentage of children using the food bank during the annual Hunger Count conducted nation wide in March.

Relation with requirement

Similar to the low income indicator, high food bank use rates indicate a likely low level of community participation. This indicator was selected by citizens concerned with obtaining food from community services are using more time and energy than others to meet their basic needs, thus reducing their ability to participate in society.

Unit	percentage
(Des)aggregation	Sunshine Coast Regional District
Weight	20
Color code	-
Norm Red	> 45%
Norm Orange	30% - 45%
Norm Gold	15% - 30%
Norm Green	< 15%
Data Sources	Sunshine Coast Food Bank
Value	31.72

Benchmark

British Columbia average 31.7% and Canadian average 37.9%.

*Safety*

Indicator	1	<b>Traffic accident rates</b>
Social	Safety	
Requirement	Sechelt is a safe community where citizens are at low risk of becoming victims of crime, accidents, or disasters.	
Color code	orange	

Indicator description

Number of hospitalizations due to motor vehicles accidents of citizens age 15-24, per 1000 people.

Relation with requirement

Traffic accident rate measures the likelihood of citizens being in traffic accidents. If driving is unsafe in a community, it directly impacts the safety of citizens and their ability to contribute to society.

Unit	score
(Des)aggregation	Sunshine Coast Regional District
Weight	50
Color code	-
Norm Red	> 2.5
Norm Orange	1.5 - 2.5
Norm Gold	0.3 - 1.5
Norm Green	< 0.3
Data Sources	BC Stats. 2011. Community Facts: Sechelt, District Municipality. Accessed March 2012: <a href="http://www.bcstats.gov.bc.ca/Files/91f1ddfe-f0c4-4fe3-bf50-dab36996aff9/CommunityFacts-SecheltDM.pdf">http://www.bcstats.gov.bc.ca/Files/91f1ddfe-f0c4-4fe3-bf50-dab36996aff9/CommunityFacts-SecheltDM.pdf</a>
Value	1.8

Benchmark

British Columbia average 1.5, Sunshine Coast Regional District ranked 15th out of 26 regional districts.

Indicator	2	<b>Crime rate</b>
Social	Safety	
Requirement	Sechelt is a safe community where citizens are at low risk of becoming victims of crime, accidents, or disasters.	
Color code	green	

Indicator description

Serious crime rate (offences per 1,000 population); includes violent and property crime.

Relation with requirement

Crime rate considers the risk of citizen's face to becoming victim to a crime. A high crime rate indicates that citizens are more susceptible to becoming a victim, leading to mistrust and loss of social capital.

Unit	percentage
(Des)aggregation	Sunshine Coast Regional District
Weight	50
Color code	-
Norm Red	> 16%
Norm Orange	12% - 16%
Norm Gold	8% - 12%
Norm Green	< 8%
Data Sources	BC Stats. 2011. Community Facts: Sechelt, District Municipality. Accessed March 2012: <a href="http://www.bcstats.gov.bc.ca/Files/91f1ddfe-f0c4-4fe3-bf50-dab36996aff9/CommunityFacts-SecheltDM.pdf">http://www.bcstats.gov.bc.ca/Files/91f1ddfe-f0c4-4fe3-bf50-dab36996aff9/CommunityFacts-SecheltDM.pdf</a>
Value	7.8

Benchmark

British Columbia average 12.3%

**Cultural Capital**  
*Cultural Heritage*

Indicator	1	<b>Number of cultural events hosted annually</b>
Cultural		Cultural Heritage
Requirement		Sechelt celebrates its arts and preserves its rich cultural heritage.
Color code		green

Indicator description
Number of cultural events hosted annually.

Relation with requirement
The number of cultural events hosted in a community annually measures the strength of the cultural heritage stock. This measurement provides an indication of whether a community embraces and preserves its cultural heritage and encourages it to be enhanced. It can be presumed that a community with little to no events has likely lost touch with its cultural heritage.

Unit	
(Des)aggregation	District of Sechelt
Weight	50
Color code	+
Norm Red	< 3
Norm Orange	3 - 6
Norm Gold	6 - 9
Norm Green	> 9
Data Sources	Coast Cultural Alliance
Value	10

Benchmark
There is no benchmark data.

Indicator	2	<b>Number of Sechelt Indian Band cultural events hosted annually</b>
Cultural		Cultural Heritage
Requirement		Sechelt celebrates its arts and preserves its rich cultural heritage.
Color code		gold

Indicator description

Number of cultural events hosted by the Sechelt Indian Band.

Relation with requirement

The number of cultural events specifically related to the Sechelt Indian Band hosted annually measures the strength of the cultural heritage stock by assessing the recognition of the community's First Nation's heritage. This measurement provides an indication of whether a community embraces and preserves its cultural heritage and encourages it to be enhanced. It can be presumed that a community with little to no events has likely little connection with its heritage.

Unit	
(Des)aggregation	Sechelt Indian Band
Weight	50
Color code	+
Norm Red	< 2
Norm Orange	2 - 5
Norm Gold	5 - 8
Norm Green	> 8
Data Sources	Sechelt Indian Band (value from June 2011-12)
Value	6

Benchmark

There is no benchmark data.