Sustainable Highlands

District of Highlands'

Integrated Community Sustainability Plan

October 25, 2011

Prepared by:

CENTRE for SUSTAINABILITY
WHISTLER

Contents

1.0 Introduction

Sustainability is generally defined as meeting our needs today without comprising the needs of future generations. It means that we have a healthy and just society supported by a robust economy within a functioning and thriving environment. Highlands, like all communities, faces global challenges such as climate change, rising energy costs, concerns about water and food security, and availability of jobs and affordable housing. More specifically, Highlands needs to determine strategies to reduce greenhouse gas emissions, mostly from transportation, keeping the community active and interactive, keeping the natural environment healthy and natural, and not run out of groundwater. It also needs to address the issue of potential future growth and development in the community. Development has significant implications for many sustainability issues, but could also bring benefits to the community, if done by following the vision outlined in this document.

1.1 Summary

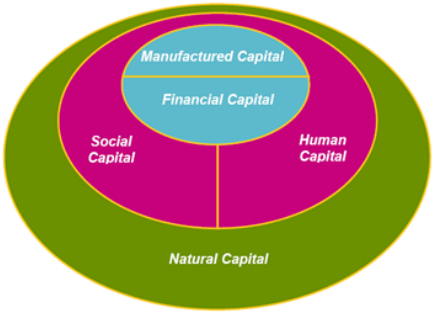
The District of Highlands Integrated Community Sustainability Plan (ICSP) was developed based on the work and final report of the Highlands Sustainability Task Force (STF) and the input of the Sustainability Strategy Advisory Committee (SSAC). The ICSP is the community's highest level policy and will guide all future planning and decision-making. The Highlands' Official Community Plan (OCP) will be updated to align with the vision and goals of the ICSP. The District's OCP and the Annual Report contain more detailed profiles of the community.

The Highlands ICSP comprises the community's vision statement, the sustainability objectives derived from the Natural Step, the nine strategy areas and their descriptions of success, which describe a successful and sustainable Highlands by the year 2030. A current reality was developed that describes the current situation in Highlands in each strategy area in the year 2010; from the current realities and the descriptions of success, the recommendations of the STF were assessed and prioritized for immediate implementation. Moving forward, the other recommendations from the STF will be reviewed for implementation, and other actions will be identified that will move Highlands towards its articulated descriptions of success. A set of indicators was also developed to measure Highlands' progress toward a sustainable future. Each year, performance in these indicators will be measured and reported, and performance will inform future action planning. A decision-making framework, based on the ICSP, can be used to guide all corporate decisions. By undertaking this planning process on an annual and ongoing basis, Highlands will continue to move toward a sustainable future.

1.2 Background

In January 2009, the District of Highlands Council established a Sustainability Task Force (STF) to examine multiple aspects of sustainability that relate to the Highlands community, and to recommend key initiatives to help move the community towards a sustainable future.

The Highlands was blessed with STF resident members who had backgrounds in scientific research, business, and government (provincial and local). The sustainability models they explored included The Natural Step (TNS)[1] developed in Sweden and the Five Capitals[2] developed in the United Kingdom. The latter model particularly influenced how the STF thought of the challenges facing the Highlands. The model nests manufactured and financial capital within social and human capital and all within natural capital.



Over the course of eight meetings, the STF brought together background information and suggested initiatives within a suite of 42 recommendations. To provide some structure and guidance to council and staff, the STF classified recommendations using two dimensions: significance of potential impact on sustainability, and difficulty of implementation. The recommendations within each group were then ranked to suggest a 'road map' to make it easier for Council to begin the process of addressing these recommendations.

In early 2010, District of Highlands Council received the STF report. A staff review regarding how to proceed with recommendations suggested that the recommendations be put in four groups to be addressed in the 2010 Strategic Plan. The first group of recommendations needed to be addressed by further work and a potential Official Community Plan amendment. The Municipal Planner drafted Terms of Reference that outlined a more comprehensive, integrated community sustainability plan and process. This included the need for a strategy for developing an overall community vision, and then prioritizing the recommendations from the STF report for their implementation. The Whistler Centre for Sustainability (the Centre) was engaged to assist with the development of a community sustainability plan.

[1] Founded in 1989 in Sweden by oncologist Dr. Karl-Henrik Robert, the Natural Step is a non-profit organization with offices in 12 countries that work with hundreds of corporations, municipalities, academic institutions and non-profit organizations to help them achieve their sustainability goals. See: thenaturalstep.org

[2] The Five Capitals model emphasizes humankind's reliance on nature and how decision-making needs to comprehensively consider the use of underlying resources, sinks and processes--or capitals--and reverse the trend of global degradation. See: Jonathon Porritt's non-profit forumforthefuture.org (a partner with government, business and educational organizations) and book: Capitalism as if the World Matters, 2007, Earthscan.

1.3 Why Integrated Community Sustainability Planning?

Creating a plan for a more sustainable and successful community may be one of the most important public engagement initiatives undertaken by a local government. Engaging a community in the creation of an inspirational vision and strategies for moving toward that shared vision is, in effect, creating a strategic plan for your community that addresses economic, social and environmental goals.

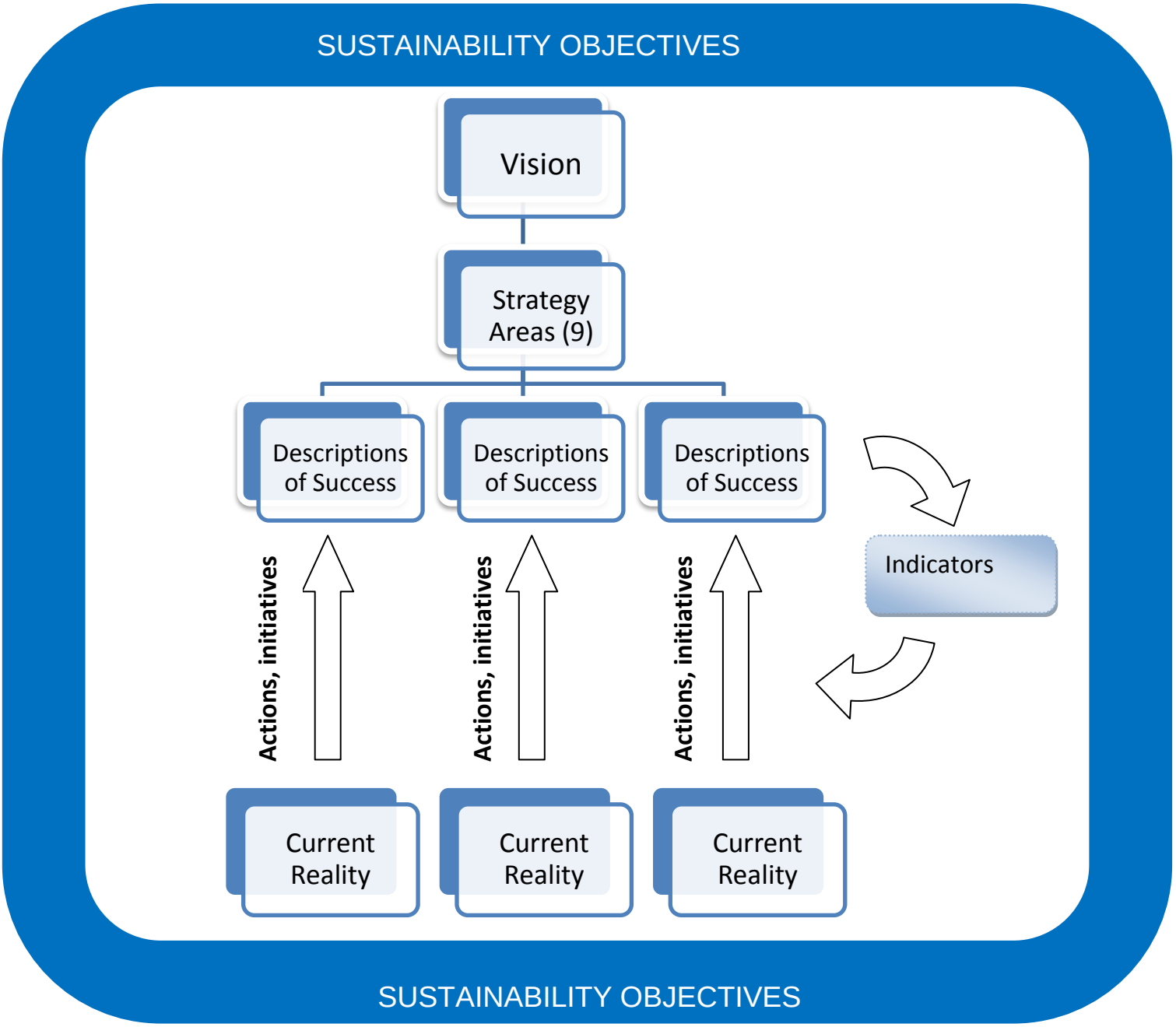
Sustainability planning helps communities gain insight into their long-term goals for success. The goals then shape and inform investment and infrastructure decisions, so efficiencies can be realized and potential costly short-term initiatives avoided. Significant benefits accrue to communities moving in the direction of long-term success. Sustainability planning serves as a catalyst to energize, motivate and galvanize conversation for the community, helps alleviate potential deadlock issues, attracts new community members and niche businesses, and retains and motivates municipal talent. With a plan and strategy in hand, local economies are positioned for the long-term impacts of climate change, rising energy prices and shifting global priorities and costs for goods and services. Community members are then able to commit to maintaining their resilience, networks and quality of life through demographic shifts and other social challenges. Municipalities save significant money over time through reduced energy and waste management costs and are able to access funding through a variety of mechanisms through the sustainability plan.

1.4 What is an Integrated Community Sustainability Plan?

An Integrated Community Sustainability Plan (ICSP) is a document that involves and helps guide the community toward its articulated vision of a successful and sustainable future. The ICSP describes the interdependent systems in the community and what a successful community would be in each of those community systems. The ICSP identifies strategies and actions for implementation, monitors progress, and is reviewed and updated every year. An ICSP is the community's highest level policy document that integrates all existing plans and policies, gives direction to all future initiatives and provides a comprehensive framework for community decision-making.

An ICSP is as much a process as it is a plan; it is an on-going process of engaging the community in creating and updating a community vision and using that vision to guide realistic planning and actions today. ICSPs take a long-term view – about a generation into the future – and involve collaboration between community members and stakeholders. Partnerships are created and ongoing monitoring and evaluation help ensure success.

The District of Highlands' ICSP process is called Sustainable Highlands. The main components of the Highlands ICSP are:



1.5 How was the ICSP developed?

Highlands' ICSP was developed by reaching out to the community through public events, local press, the monthly Highlands News and a Highlands website sustainability page. A Sustainability Strategy Advisory Committee (SSAC) was formed to oversee the process and provide ongoing input. . The SSAC was appointed by Highlands Council and comprised a cross section of community members, including several people who sat on the former Sustainability Task Force. They were:

Ann Baird	Dave Mackas
Allen Dobb	Bob McMinn
Bob Flitton	Libby McMinn
Sally Gose	Jon Munn (staff/ consultant)
Warren Lee	Aniko Varga
	Ken Williams

During a full-day workshop and subsequent refinement, the SSAC developed the descriptions of success and current reality statements for each of Highlands' strategy areas. Once the descriptions of success and current reality were developed, the 42 recommendations from the STF report were reviewed and defined as specific actions. An Action Assessment Tool, Appendix C: Action Assessment Tool was developed for the SSAC to review and prioritize actions to be implemented immediately that met a set of criteria (e.g. moved toward the descriptions of success). Fifty-four indicators were developed to monitor progress in the nine strategy areas; 25 were recommended as the priority ones to begin monitoring. The recommended indicators were selected for Highlands that would measure progress towards the descriptions of success, and for which data was available. A complete list of indicators that will be used to monitor progress is in **Appendix E: List of All Indicators.**

1.6 How will the ICSP be implemented?

An ICSP is as much a process as it is a plan, so progress will be measured and reported regularly via the District of Highlands website. The plan will be undertaken by the District of Highlands and community partners implementing actions that will help the community become more sustainable. Key organizations in the community will be brought on board to develop and undertake actions each year. The SSAC, or another committee created for carrying out Sustainable Highlands, will lead the creation of additional committees, action teams or task forces that will share the responsibility with the District of Highlands of moving towards the descriptions of success.

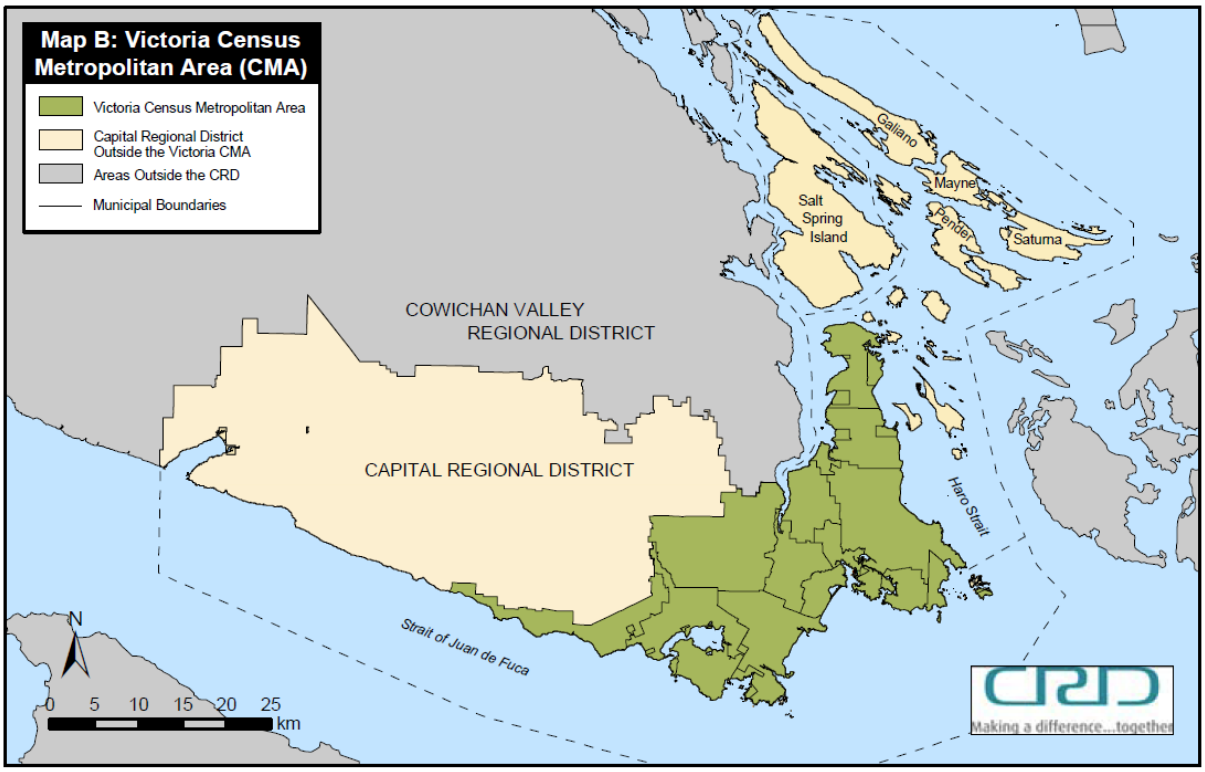
In addition, the District of Highlands will be updating its Official Community Plan by incorporating the strategy areas and descriptions of success from the ICSP into the OCP directions and policies to ensure that all land-use related decisions are consistent with the ICSP.

Finally, the District of Highlands is anticipated to adopt a set of corporate decision-making tools based on the ICSP that will align decisions by Council with the directions of the ICSP.

1.7 Relationship of Highlands' ICSP to the Region

The District of Highlands forms a rural edge of the Capital Regional District (CRD), with about 168 hectares (4% of Highlands) in the south within the regional urban containment boundary. Much of the land base is second growth forest, with about 39% of the total land base as land protected in park. Highlands plays an important role in the region by providing much of its parkland, trails and recreational areas. The greenspace and natural areas play an important function in terms of ecological services such as water filtration, clean air, carbon capture, and sustaining the ability for people to feel connected to nature.

Conservation covenants[3] over private land are also common. Much of the community is permanent green space. These large connected natural areas provide significant ecological roles within the CRD's Sea to Sea Green Blue Belt.



The land areas (including lakes) of the District of Highlands and Victoria Census Metropolitan Area (CMA) are 37.45 km^2 and 695.35 km^2 respectively. The CRD is 2341.02 km^2 in area and includes the Southern Gulf Islands to the east and Juan de Fuca forest lands to the west in addition to the CMA.

Employment, climate and lifestyles attract people to the region and contribute to the demand for residential and other land uses. The CRD has the second highest land values after the lower mainland of BC. Highlands land and housing values are high because of the location in the popular urban-dominated region. As a largely residential community,

[3] Conservation covenants are legal documents registered on private land to protect natural areas.

Highlands' community members have beautiful forested surroundings, but need to go outside the District for almost all services. The community is dependent on relationships with the communities and urban centres in the region, radiating out to include the rural and urban areas of the CRD, south Vancouver Island and the BC south coast. Most Highlanders travel outside the community for work, and the Highlands is within the commuter shed of jobs located in the CRD. The many connections between Highlands and its neighbouring communities include: social networks, economy, transportation, food services, health services, and energy providers.

The provincial laws of British Columbia are increasingly considering aspects of sustainability such as encouraging or requiring greenhouse gas reduction and preparing for decreased dependence on fossil fuels as world prices rise. Local governments, including municipalities, regional districts and school districts are increasingly considering the long-term effects of lands, infrastructure and the cost of providing services. In 2010, the CRD initiated a review and transition of its Regional Growth Strategy to a Regional Sustainability Strategy. Highlands' identified vision, descriptions of success and actions will require linkages and collaboration with its neighbours and the region; the ICSP will position Highlands well to integrate its vision and actions with a regional strategy and actions.

2.0 Envisioning Sustainability in the Highlands

Highlands' Official Community Plan looks toward a more sustainable future. The OCP vision includes the following statement:

> *The Highlands will strive to diversify its economy while preserving our natural systems, including the aquifers on which we depend so heavily. Land use decisions will be guided by a community plan, with the ongoing involvement of residents.*

The STF definition of sustainability remains a primary guiding principle for the ICSP:

> *Sustainability, in the context of the Highlands municipality and community, is defined as meeting the needs of the present community without compromising the ability of future generations to meet the same needs, and without degrading the functioning of local to global ecosystems as a result of resource use within the Highlands.*

The primary guiding principle above can be seen as a combination of the following principles:

- *Intergenerational equity* - providing future generations with the same environmental potential as presently exists,
- *Decoupling economic growth from environmental degradation* - managing economic growth to be less resource intensive and less polluting,
- *Integration* - integrating environmental, social and economic sectors when developing sustainability policies,
- *Ensuring environmental adaptability and resilience* - maintaining and enhancing the adaptive capacity of the environmental system,
- *Preventing irreversible long-term damage to ecosystems and human health,*
- *Ensuring distributional equity* - avoiding unfair or high environmental costs on vulnerable populations,
- *Accepting global responsibility* assuming responsibility for environmental effects that occur outside areas of jurisdiction and
- *Education and grassroots involvement* - people and communities investigating problems and developing new solutions.

3.0 Sustainability Objectives

As sustainability is a complex and multi-faceted concept, and there are many ways to define it, it is useful to provide some specific objectives so that it is clear what the final end goal is, i.e. when we have become a sustainable community. Four objectives derived from The Natural Step will help guide how we think and act regarding future decisions in order to always move towards becoming a sustainable community. They are:

We will reduce our dependence on the use of materials extracted from the Earth's Crust and the creation of associated wastes. We will work towards the use of renewable low-impact resources, such as solar energy, and not depend on limited resources taken from the earth.

We will reduce our contribution to the progressive build-up of synthetic materials produced by society. We will create or use manufactured products that can be easily absorbed in an environmentally benign way, such as packaging made out of compostable materials.

We will reduce our contribution to the ongoing physical degradation of nature. We will use resources only from well-managed eco-systems, pursuing the most productive and efficient use of those resources. We will exercise caution when modifying the natural environment.

We will reduce our contribution to conditions that undermine people's ability to meet their basic needs. We will support and maintain socio-cultural and economic systems that promote a quality of life for people that include food security, affordable housing, and a living wage.

4.0 Highlands' ICSP Structure

4.1 Sustainability Strategies

The first step to develop an integrated community sustainability plan is to determine the community issues that affect sustainability, and then formulate strategies to address them. As communities and society are a complex system, issues cannot be addressed in isolation; they are best addressed by looking at the community as a system of inter-related areas.

There are a number of ways to understand and conceptualize community and community issues. While it is important for an ICSP to address relevant community sustainability issues such as climate change, affordability, global financial crises, etc., the purpose of the ICSP is to address the issues in an integrated manner that looks at all the issues and the inter-relationships among them.

Highlands' ICSP is organized to address the opportunities or challenges from all of the important issues within a set of community systems. For example, a community's energy system is the way that various organizations, infrastructure, and people combine to meet the community's energy needs, and includes where the energy comes from as well as how it is used and the resulting impacts (e.g. emissions, air quality, climate change, water ecology).

The way in which a system functions well – or not – is often the root cause of multiple issues, so addressing the system as a whole will bring us one step closer to solutions.

For the Highlands' ICSP, nine community systems are suggested, and therefore there are nine strategy areas for addressing these community systems.

Buildings and Sites
Economy and Work
Education and Leisure
Energy
Healthy Community
Food
Land Use and Natural Areas
Transportation and Mobility
Water and Waste Systems

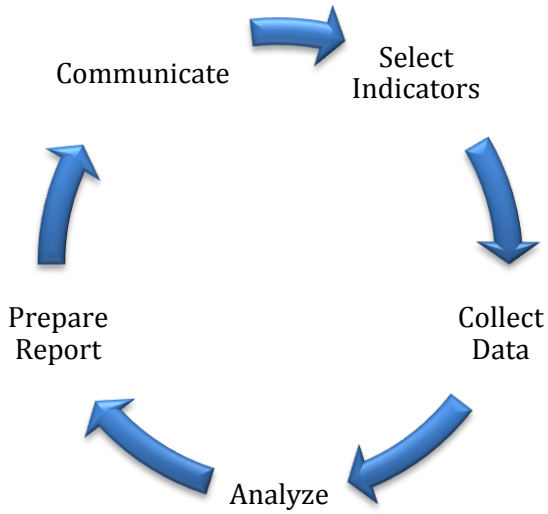
4.2 Descriptions of Success

A sustainability plan includes a vision of what a successful and sustainable future for the community looks like in each of the community systems in a specified year in the future. These specific visions are described as Descriptions of Success (DoS) statements that:

- describe what a sustainable community will look like in each strategy area
- are used for determining actions and decisions that need to be taken in order to move the community towards a sustainable and successful future
- guide the development of community indicators for measuring progress toward the sustainability vision.

4.3 Monitoring and Reporting

An ongoing monitoring and reporting system is an essential component of a community sustainability plan for measuring sustainability performance as well as communicating results and progress. The process for ongoing monitoring and reporting follows these steps.



The set of indicators developed for Highlands was based on measuring progress in each strategy area, not towards individual descriptions of success, as that would have meant potentially hundreds of indicators. The indicators selected were also based on current data availability and accessibility, and collectively will provide an effective performance monitoring tool.

While developing a set of indicators and collecting and analyzing data on them yearly is an essential part of a complete monitoring and reporting system, it is also very useful to informally collect qualitative data on sustainability progress. This can be done annually through a discussion of the SSAC with the District of Highlands, through a community survey (e.g. Survey Monkey) based on the descriptions of success, through informal community cafes hosted by the municipality, etc., to gather perceptions and qualitative feedback on whether the community is moving forward toward sustainability.

4.4 Current Reality

Descriptions of current reality describe the community today in each of the strategy areas relative to the descriptions of success that have been identified. The current reality does not need to be an in-depth research project that delves into all issues; it needs to provide sufficient information to inform on the current state of each strategy area in order to determine actions for implementation, and needs to be assessed each year before action planning. The current reality provided in this ICSP is for the year 2010.

- The intent is to perform a high-level analysis to identify some high priority areas for action
- Comprises a list of five to seven key sustainability gaps facing the community in each strategy area
- Comprises a list of community assets that already exist and can be leveraged (current initiatives, programs, policies, actions)
- Includes an analysis of key stakeholders who are affected by and can influence efforts.

Once the current reality is identified, then actions and initiatives can be developed that will move the community from its current situation to a sustainable future described in each strategy area.

5.0 Achieving Success through Sustainability in Highlands

Highlands' ICSP is the guide for helping the community move from where it is now towards its desired future in each of the nine strategy areas. This section of the ICSP provides a detailed description of each strategy area, the descriptions of success developed by the SSAC and community, and the indicators selected for monitoring performance. The descriptions of current reality and specific priority actions identified for each strategy area are attached as **Appendix A: Descriptions of 2010 Current** Reality and **Appendix B: Priority Actions.**

Appendix C: **Action Assessment Tool** is a tool for assessing which actions should be undertaken to support the ICSP. **Appendix D: Action Monitoring Tool** provides a tool for monitoring the progress of actions.

Appendix E: List of All Indicators is a list of all potential indicators; the recommended initial indicators for monitoring are listed after each strategy area in the following section.

5.1 Buildings and Sites

Scope

The Buildings and Sites strategy addresses how the physical characteristics of Highlands' buildings and sites keep the community rural, inclusive, livable and sustainable. It includes residential, commercial, institutional and industrial buildings as well as their surrounding natural landscape, manicured landscape and paved areas. It deals with infrastructure, materials and practices related to the building or site, but generally excludes community infrastructure such as roads, and energy, water and sanitation systems.

Descriptions of Success

By the year 2030 in the Highlands,

1. New residential, commercial, industrial and institutional development conforms to the long term vision of the community.
2. New and renovated buildings use water and energy conservation measures, have low-impact design and are mostly built with sustainable materials.
3. Scale of development and overall impact on natural areas has no net-negative environmental impact.
4. Heritage buildings, heritage landscapes and archaeological sites are preserved.
5. The form and character of buildings and sites reflect the rural character of the community.
6. The costs of extending services for new developments are borne by the development. Ongoing costs for services are borne primarily by the owner of the property being serviced.
7. Buildings are free of toxic materials.
8. There is housing in the community accessible for people of all abilities (physical and economic).
9. Ornamental landscaped areas consist of non-invasive plant species that minimize the need for use of potable water for irrigation and of chemical pesticides and fertilizers.
10. Community members will be involved in the green building sector.

Key Indicators

Indicator	Description	Rationale	Where will we capture the data from?	Related strategy areas
Green Buildings	Proportion of new development that is built to a comprehensive 'green building' standard	Buildings, while critical for housing and numerous commercial and recreation activities, can have significant contributions to resource intensive and unethical material sourcing, clearing of natural areas, and wasteful resource use during the building's life. Human health and productivity can be impacted by poor design and material selection while construction and deconstruction can introduce significant amounts of waste to local landfills. Comprehensive 'Green Building Standards' have the ability to reduce the negative impacts of building often creating a more livable space. Additionally many of the design features even offer a direct return on investment.	DoH	Energy Water and Waste Healthy Community
Housing Affordability	Median housing assessed value to CRD median income	Housing costs are a significant factor in the overall cost of living equation and therefore quality of life. Additionally, housing costs can help indicate whether there is a diversity of housing options for community members and newcomers through a variety of stages in life.	BC Assessment and BC Stats Taxfiler income for CRD	Healthy Community
Renewable Energy Installations	Number of site based renewable energy (solar, wood or pellet stoves, wind, micro hydro, biogas, etc.)	Energy is critical for day to day living. Non-renewable energy sources are limited, and their use typically has significant local and global impacts on ecosystem and human health. Many types of renewable energy have the ability to reduce many of these impacts associated with non-renewable energy, but are not completely without their own impacts challenges. Due to the rural	DoH	Energy

	installations on sites	nature of Highlands, most renewable energy opportunities for buildings and sites will be site based vs. community based due to the rural land use patterns.		

Related indicators

Energy Use

Sensitive Habitat

5.2 Economy and Work

Scope

The Economic and Work Strategy seeks diversification that is consistent with Highlands' rural character and that sustains and utilizes the natural environment. It focuses on bringing in sufficient dollars into the community and optimizing the impact of dollars within in order to help support local services and attractive livelihoods. It also addresses opportunities for meaningful work and creating a positive climate for local businesses and working from home.

Descriptions of Success

By the year 2030 in the Highlands,

1. An increased proportion of income is generated through business and employment opportunities located in the community.

2. Business licensing is subject to an appraisal to determine suitability based on the environmental, social, economic impacts and sustainability principles.

3. There is small scale agriculture and forestry suitably located, and consistent with land capability and environmental constraints.

4. Recreational, cultural and tourism uses are consistent with environmental and community values and are an integral part of the Highlands economy.

5. Appropriate communications services are available to support local and regional enterprise.

6. Businesses make the highest and best use of natural materials as they move toward more sustainable business practices.

7. Learning activities help develop local economies and a skilled workforce for the local and regional economy.

8. There is appropriate development of commercial and industrial lands to help diversify the local economy.

9. An informal system of sharing goods and services exists to support the local community.

10. The District has mechanisms in place for financial sustainability over the long term.

Key Indicators

Indicator	Description	Rationale	Where will we capture the data from?	Related strategy areas
Unemployment Rate	Highlands unemployment rate	Unemployment rate is a key indicator of economic health as well as general societal health. A lack of employment often relates to decreased individual and family wellbeing through reducing career options and the ability to purchase goods and services required for day to day living.	Statistics Canada Human Resources and Skills Development Canada	Healthy Community Education and Leisure
Place of Work	Proportion of Highlanders working in the Highlands	The majority of Highlanders commute outside of the community for work and career opportunities. While access to a range of opportunities in the near vicinity is something of value, there is a desire for more Highlanders to work closer to home.	Statistics Canada	
Median Income	Real median income (after-tax)	Median individual income can help reflect a community's overall economic wellbeing. As a proxy of purchasing power, it is also one measure contributing to individual quality of life. Median income is a commonly measured indicator and is readily comparable across communities.	BC Stats, Neighbourhood Taxfile Income Data or Census	Healthy Community
Reserve Contributions	Ratio of ongoing annual reserve contributions to depreciation/replacement costs of municipal assets.	This looks at the ability of the local government to take care of community assets.	DoH	

Related Indicators

Park Availability	Trail Length
Education Attainment	Low Income Prevalence

5.3 Education and Leisure

Scope

The Education and Leisure Strategy addresses activities taking place outside of paid or unpaid work. It includes arts, culture, recreation, and education participation or observation activities, and their supporting built and natural infrastructure, resources, and delivery agents. It also addresses conditions required to make these activities accessible and inclusive with a low environmental impact.

Descriptions of Success

By the year 2030 in the Highlands,

1. Community members of all ages have access to formal and informal learning opportunities and are encouraged to be life-long participants in learning, arts and cultural activities.

2. Leisure activities have minimal impact on the environment, are consistent with the rural ambiance and are an integral part of the Highlands community.

3. The park system allows access to a range of ecosystems for people of all abilities.

4. The park system provides non-motorized recreational opportunities.

5. Heritage values related to places, events and eras are a recognized and celebrated aspect of community knowledge.

6. There are ongoing educational opportunities related to the environment such as green buildings, forest management, food production, and natural history.

7. Artists and artisans have opportunities to present their craft.

8. Recreation, learning and arts form part of the local economy.

Key Indicators

Indicator	Description	Rationale	Where will we capture the data from?	Related strategy areas
Park Availability	Area of landscaped/natural park per capita	Accessible park areas are used by a wide variety of people and they enrich community life. Urban parks facilitate interaction amongst all demographic groups where as nature based park areas can provide easy access to nature and leisure pursuits.	DoH	Land Use and Natural Areas Economy and Work
Education Attainment	Proportion of community members who have completed a post secondary education program	Individuals' prosperity, economic opportunity, inclusion, health and sense of wellbeing are often tied to education. Education also generally contributes to a skilled and productive workforce, and can help communities to better address opportunities and challenges as these arise.	Stats Canada Census	Economy and Work Healthy Community
Trail Length	Total length of natural and commuting trails	One of Highland's greatest assets is the abundance of trails through the landscape. These trails provide both community members and day visitors to the area the special opportunity to recreate and or/connect with nature.	DoH	Economy and Work Land Use and Natural Areas

Related Indicators

Unemployment Rate Low Income Prevalence Child Development

5.4 Energy

Scope

The Energy Strategy is concerned with meeting Highland's energy needs in an affordable, reliable and sustainable way that fits into Highlands' rural and natural character. It focuses on energy delivery systems and management practices related to the municipality's operations and community as a whole and to a lesser extent the demand driven by transportation, buildings and land use.

Descriptions of Success

By the year 2030 in the Highlands,

1. Community members and local businesses are knowledgeable about energy and understand principles of conservation, efficiency, generation, storage and transmittance.

2. Homes use significantly less energy. Conservation of energy is achieved through increased efficiency and life style choices.

3. "Net-zero" energy, water and zero-waste is the standard for all developments.

4. Energy systems are based on renewable sources and are efficient, clean and integrated.

Key Indicators

Indicator	Description	Rationale	Where will we capture the data from?	Related strategy areas
Energy Use	Total primary energy used	Energy is a critical input to certain aspects of day to day life in Highlands. At the same time, non-renewable energy use has an impact on future energy supplies as well as ecosystem and human health locally and abroad. Even large renewable projects such as hydroelectric dams have significant impacts on land and aquatic ecosystems. An ability to reduce Highlands' dependence on energy resources may help the community better adapt to future price shocks, reduce overall environmental impact, and avoid associated negative health issues.	Community Energy and Emissions Inventory (CEEI)	Land Use and Natural Areas Transportation Buildings and Sites
Energy Use per Capita	Total primary energy used per capita	This is a measure of how much energy is used per person.	CEEI, then divided by total population	Land Use and Natural Areas Transportation Buildings and Sites
Greenhouse Gas Emissions	Total greenhouse gas (GHG) emissions	Greenhouse gas emissions (GHG) contribute to global climate change. This changing climate will impact on Highlands' local economy, community life, as well as directly on the local natural environment. Climate change and GHG emissions are global and local issues that require solutions at all levels and reducing Highland's contribution is an important aspect of our commitment to stewardship of the natural environment, environmental responsibility and long-term sustainability.	CEEI	Transportation Water and Waste Land Use and Natural Areas

Greenhouse Gas Emissions per Capita	Total greenhouse gas emissions per capita	This is a measure of the amount of greenhouse gas emissions per person.	CEEI, then divided by total population	Transportation Water and Waste Land Use and Natural Areas

Related Indicators

Green Buildings Registered Vehicles

5.5 Food

Scope

The Food Strategy addresses how Highlands supports an affordable and reliable food system that nourishes residents' appetite, celebrations and culture. The strategy maintains the integrity of the land and people providing the food while moving toward a more sustainable and resilient system. It deals with food systems from farm to fork to disposal.

Descriptions of Success

By the year 2030 in the Highlands,

1. More community members grow food.

2. There are community gardens, demonstration operations, food sharing networks, and sale of locally grown produce through farm gate sales and the Highlands' Market.

3. Community members are consuming more locally and regionally organically grown food.

4. Food waste is increasingly diverted from landfills to composting.

5. The community is knowledgeable about food: growing seasons and zones, the social, economic and environmental benefits and impacts of growing its own food.

6. There is a common vision for a sustainable food system that is integrated with the region.

7. The food system comprises chemical free, water conserving, organically grown products, is transported sustainably, and is available year-round at prices affordable to all in the region.

Key Indicators

Indicator	Description	Rationale	Where will we capture the data from?	Related strategy areas
Community Gardens	Number of community gardens	Due to its size and limited capabilities for agriculture, data captured by direct users is considered the best, primary source. The number of community gardens can give an indication of the viability of growing local food in the community.	Highlands Food Group (established in 2011)	
Highlands Market	Number of occurrences of the Highlands market per year	The prevalence, frequency and number of stalls/produce offerings can give an indication of the demand and viability of producing and providing local food.	HDCA, DoH, Highlands Food Group	

5.6 Healthy Community

Scope

Highlands' Healthy Community Strategy is concerned with meeting community members' physical, mental, emotional, spiritual health through services, infrastructure, interactions, relationships and a strong community fabric. It also includes community safety. From an individual perspective it addresses access to local and regional care services and health promotion, and to lesser extent, health enablers of such as recreation.

Descriptions of Success

By the year 2030 in the Highlands,

1. The community is thriving, built upon trust, common core values and a sense of belonging. Meaningful opportunities exist for participation in all aspects of community living and decision making.

2. The community is diverse, inclusive and respects and understands a broad spectrum of viewpoints.

3. A strong volunteer base exists within the community.

4. A broad range of housing options exists to support multiple generations and all income groups.

5. Community members support their physical, mental, emotional and spiritual health through access to regional prevention and treatment services.

6. Safety and protection services continue to engage in prevention activities and respond to crime and emergencies.

7. The community and visitors celebrate the Highlands' natural environment and participate in activities to help protect it.

Key Indicators

Indicator	Description	Rationale	Where will we capture the data from?	Related strategy areas
MSP Requirement Rate	Number of services per MSP Card holder	Monitoring the number of times that Highlands MSP holders use services per capita provides some insight into the health of Highlands' permanent population. As actual health statistics are difficult to access and track at the local level, this indicator was selected as a proxy measure. If a community survey is done, this indicator can be replaced with self-perceived health status as is used by Health Canada.	MSP, Information Resource Management, Knowledge Management & Technology Division, BC Ministry of Health Services	
Unlawful Incidents	Number of RCMP incidents – reported monthly	Safety and security are important aspects of community life. Information on crime rates and total numbers of crime incidents can provide a better understanding about actual and perceived safety of the community.	Monthly RCMP incident report from Council newsletter Aggregated Data: Ministry of Public Safety and Solicitor General, RCMP Uniform Crime Reporting Surveys (total # West Shore per 1,000 population)	
Local Events	Number of community social events	A greater number of well attended community wide social events is one indication of the strength of the social fabric and community in Highlands. Social fabric is the strength of the relationships among community members. These relationships are often important to help individuals and groups in a community to	DoH, HDCA	

		organize for work, play and community development.		
Population Changes	Population growth and/or decline	While Highlanders want to maintain their sense of place of as rural community, they desire a rich diverse community that is accessible to a variety of demographics including elderly people, families, children, youth and young adults. A population base that is not declining indicates a desire for people to live in Highlands and is a proxy for overall satisfaction with life in the community for various demographics.	BC Stats, MSP BC, Stats Canada, Sooke School District	
Safety Service Personnel	Vacancy rate for local safety service position	36 people comprising Highlands' safety service personnel is considered a full complement. This includes 35 total fire department personnel (includes chief and deputy) and one emergency coordinator	Highlands Volunteer Fire Dept. DoH	

Related Indicators

Housing Affordability

Unemployment Rate

Median Income

Education Attainment

5.7 Land Use and Natural Areas

Scope

The Land Use and Natural Areas Strategy seeks to address growth issues and manage development in a way that maintains Highland's rural character, livability, natural areas and natural resources, and supports limited economic development. The strategy addresses the locations, patterns and types of all physical development as well as the amount and timing of these developments. It also addresses how Highlands will protect and attempt to restore ecosystem integrity and biodiversity throughout the area and region.

Descriptions of Success

By the year 2030 in the Highlands,

1. Land uses support residential, employment, tourism and recreational activities, and are consistent with the rural character of Highlands.

2. All land use and design decisions seek to prevent unplanned growth, minimize impacts on the environment, and are based on an analysis of impacts on the social, human, financial, natural and manufactured capital of the community.

3. Land uses minimize encroachment on and ensure protection of natural areas.

4. Environmentally sensitive natural areas are protected through new and existing land use controls. These include lands with the potential for surface erosion or slope instability, rare ecosystems and archaeological and historic sites. Sustainable forestry management practices are applied and are well integrated with environmental conservation and protection goals.

5. Public and privately-held green corridors protect and maintain ecological connectivity both within the Highlands and to natural areas outside the Highlands.

6. Land uses and activities are compatible and integrated with the ecosystem functions, maintenance of viewscapes and other important environmental characteristics.

7. The night sky environment is preserved.

8. Recreational amenities such as meeting places, buildings, trails and playgrounds are situated, built, and maintained to minimize impact on natural landscape and ecosystems.

9. Natural ecosystems are protected from the impacts of development or other human activity through stewardship, conservation and restoration activities.

Key Indicators

Indicator	Description	Rationale	Where will we capture the data from?	Related strategy areas
Impervious surfaces	Percent of land covered by impervious surfaces	This indicator should measure amount of land developed for buildings, roads, parking, etc.	DoH Geographic Information Systems	
Build-out	Percent of achieved build-out of single family dwellings (or equivalents) *Example: For 2006: (730 total private dwellings / 1,020) x 100 = 71.57%*	The residential build-out of Highlands under its 2007 OCP is 1,020 single family dwelling equivalents (section 2.2, 2007 OCP). While a final build-out has not been established, the public input to that OCP showed a desire to do this. As the District works toward establishing a final build-out, this indicator will show the achieved percentage of the build-out.	DoH, Stats Can Census	
Sensitive Habitat	Total hectares of sensitive habitat developed as measured through development permits net of degraded land restored.	One of Highland's greatest assets is the abundance of healthy and intact land and water ecosystems. These areas should be maintained or enlarged. Failure to do so may contribute to the fragmentation and degradation of this critical environment.	DoH, BC Ministry of Environment Sensitive Ecosystems Inventory (SEI) Project	Buildings and Sites
Wildlife connectivity	Number of wildlife corridor connections	Ecological resilience is increased when green corridors allow native species to migrate and recolonize disturbed areas	CRD Natural Areas Atlas, DoH	

Related Indicators

Park Availability	Greenhouse Gas Emissions
Trail Length	Energy Use

5.8 Transportation and Mobility

Scope

The Transportation and Mobility Strategy is concerned with the movement of community members and materials to, from and within Highlands in a more efficient and sustainable manner that is consistent with the community's rural nature. It includes all modes of local and regional transportation and focuses on systems including vehicles, roads, trails, lighting, mass transit and supportive technologies, as well as opportunities for mixed-mode commuting.

Descriptions of Success

By the year 2030 in the Highlands,

1. Road safety, long term durability and environmental protection guide decisions regarding road design, construction and maintenance, and reflect the rural character of the Highlands.

2. Roads are safe for pedestrians and cyclists.

3. Roads and pathways are constructed to minimize width of cleared areas and hard surfaces.

4. There is an inter-modal transportation system to reduce the use of automobiles.

5. A variety of transportation nodes and corridors that are safe, attractive, convenient, and well used by community members and visitors link the Highlands to regional transportation networks.

6. An expanded network of non-motorized trails exists.

7. There are a greater number of accessible and energy efficient transportation options available.

8. Social and support networks help reduce the number of daily car trips through carpooling and assisting with errands.

Key Indicators

Indicator	Description	Rationale	Where will we capture the data from?	Related strategy areas
Registered Vehicles	Total number of registered personal use vehicles/capita	The number of registered vehicles gives an indication of the amount of driving done in the community.	CEEI	Energy
Commuting Mode	Proportion of residents travelling to work via carpool, public transit, walking or biking	An important goal is to see a shift away from single-occupant vehicle use to the other modes.	Stats Can	
Transit Use	BC Transit ridership in DoH	BC Transit provides handyDART service to Highlands, as well as a morning and evening peak hour commuter service. OCP objectives are to increase accessibility to transit and to encourage Highlanders to use it.	BC Transit	
Number of Trail Connections	Linkage of trails	Linked trails create a larger overall system that addresses connectivity and thus greater non-motorized mobility opportunities.	DoH or volunteer group to count	Education and Leisure

Related Indicators

Number of people of cycling, walking (this would be in future survey)

Energy Use Greenhouse Gas Emissions

5.9 Water and Waste Systems

Scope

The Water and Waste Systems Strategy is concerned with the supply of high quality water and materials for appropriate uses while minimizing environmental impacts. It focuses on the entire water system, including physical infrastructure and management, sourcing, delivery and use, as well as flood control. It includes materials sourcing, use and end of life systems, including waste, physical infrastructure and management practices of natural and human-made materials.

Descriptions of Success

By the year 2030 in the Highlands,

1. Human activities do not contribute to flooding, increased water run-off, soil erosion, or slope instability.

2. The basic ecological and hydrological functions of watersheds are enhanced and continue to support biodiversity.

3. Human activities in watersheds are managed to maintain natural drainage systems so as to protect water quality, to optimize groundwater recharge, manage summer flows and to minimize runoff damage in long term (e.g. 100-year) flood scenarios.

4. The supply of potable water from local natural sources is maintained for future generations.

5. Water is conserved through minimizing use, enhancing water retention, rain water harvesting and use of grey water.

6. The use of composting toilets is increasing and bio-solids are composted.

7. Solid waste is minimized through reduced consumption, backyard composting, and recycling.

8. Toxic substances are eliminated, replaced or managed in a way that is not harmful to human health or the environment. Very little plastic is used, and the plastic that is used is fully recyclable.

Key Indicators

Indicator	Description	Rationale	Where will we capture the data from?	Related strategy areas
Groundwater Supply	Based off monitoring well results in flows or volumes (Golder work)	Virtually all of Highlands is dependent on this critical natural resource. Ensuring an ongoing supply in light of climate change impacts, slow growth and other pressures is essential for maintaining a good quality of life in the Highlands.	DoH	
Material Use	Total materials used (landfilled/recycled/ composted) (kg or tones)	Maintaining lifestyles and needs currently requires significant quantities of various materials, which in turn can quickly produce 'waste' that is reused, recycled or landfilled. Waste is generally produced in all stages of making, packaging, transporting, using and finally disposing of products and residuals. Currently, all of these stages have potential negative environmental impacts. Managing material use is important and can contribute to a 'reduction' of all material flows regardless of recycling or not.	CRD http://www.crd.bc.ca/waste/reportspublications.htm http://www.crd.bc.ca/waste/documents/SolidWaste_AnnualReport_2009_web.pdf Community Energy and Emissions Inventory	

Related Indicators

Green Buildings

Greenhouse Gas Emissions

Sensitive Habitat

6.0 Next Steps: Ensuring Ongoing Success and Sustainability

Creation of the ICSP is just the first step of many in a community's journey toward sustainability. Ensuring continued progress towards the shared vision requires annual monitoring and reporting on progress, and continued development and implementation of actions and initiatives. This section outlines the main areas for building on Highlands' ICSP and creating an ongoing process for institutionalizing sustainability in the community.

Partner with Community Stakeholders on Implementation

Since an ICSP is a long-term plan for the whole community, it is imperative that community stakeholders participate as partners with the District of Highlands in the development and ongoing implementation of the plan. Community partners can participate in annual action planning, implement actions, participate in communicating sustainability and outcomes of the plan, and get other community partners on board.

To ensure that roles and responsibilities of community partners are clear, a partnership agreement signed between the municipality and the community partner is a useful tool. The partnership agreement should articulate a commitment to use the ICSP and its stated directions in decision-making, as well as some principles for community partnerships (e.g. collaboration, transparency). A **Sample Community Partnership Agreement** is attached.

While it is ideal that community partners come on board during the development of the ICSP, they can come on board at any time, as long as they are provided an understanding of the process and the benefits – to them and to the broader community – of participating in a long-term sustainability journey.

Create Task Forces

The Sustainability Strategy Advisory Committee (SSAC) can continue its role in the ICSP process and cover all strategy areas or a number of Task Forces comprised of community partners can be created to address specific strategy areas and develop actions in each area. The benefits of creating multiple Task Forces are that it increases the number of community members actively engaged in the process, shares the workload, and helps to broaden the perspectives and expertise brought to the table, thereby strengthening the outcomes overall. These benefits should be weighed against the resources it will take to convene multiple groups into the future. Two suggestions are offered for Task Force structure:

1. Each strategy has its own Task Force: In this option, there is one Task Force for each of the Sustainable Highlands strategy areas, i.e. nine Task Forces in total.
2. Groups of strategies share one Task Force: Here, related strategies are grouped together and one Task Force is convened for each grouping. For example, the SSAC recommends a future grouping of the strategy areas into the following six Task Forces:
    a. Land use and Natural Areas
    b. Buildings and Sites + Energy and Waste
    c. Water
    d. Transportation
    e. Food
    f. Healthy Communities + Economy and Work + Education and Leisure

Annual Action Planning

Regardless of whether the SSAC continues or Task Forces are created, one or the other should be engaged in annual action planning to ensure that the ICSP continues to be a living process and, most importantly, that it creates on-the-ground action and results. The SSAC or each Task Force reviews the results of past recommended actions, evaluates the most current indicator data, strategically assesses local and regional opportunities, and then develops and recommends actions for the following year. The action planning process should take place every year. Here is a high-level outline of the process:

1. Before the SSAC/Task Force meeting(s):
    a. Compile current reality information into strategy-specific documents for review by the SSAC or Task Forces before coming to the meeting. Current reality information should include: indicator performance data; status update on past actions; and updates on information critically relevant to the strategy area(s).
2. During the facilitated SSAC/Task Force meeting(s):
    a. Review the Descriptions of Success (DoS) statements to ensure common understanding;
    b. Review the current reality information and identify critical information gaps;
    c. Brainstorm action ideas to move the community from the current reality toward the DoS;
    d. Review and discuss the action ideas generated to ensure common understanding among the participants and to ensure that the actions will indeed move the community in the desired direction and won't have any unintended negative impact on other strategy area DoS;
    e. Prioritize the actions to maximize the return (economic, sociocultural and/or environmental) on the investment based on four strategic questions:

1. Does this action move us toward our Descriptions of Success?
2. Does this action move us toward our Sustainability Objectives?
3. Is this action a flexible platform for future improvement toward sustainability and success?
4. Is this action a good financial investment?

f. Review and discuss the prioritized list to identify any potential gaps in the final set.

3. After the meeting(s):
   a. Compile the actions;
   b. Review to eliminate any overlapping and conflicting actions; and
   c. Refine and finalize actions to ensure clarity (e.g. outcomes, lead organizations).

The prioritized actions are recommended to potential implementing organizations throughout the community, not just to the municipality, to reinforce that the ICSP is owned and implemented by a wide range of community partners.

An action monitoring spreadsheet is provided as **Appendix D: Action Monitoring Tool** for keeping track of actions and their progress/status.

Ongoing Monitoring and Reporting

Monitoring and reporting progress toward (or away from) Highlands' vision is essential to provide transparency, inform decision-making and enable continuous improvement.

Ongoing, reliable monitoring provides the community with a number of essential functions and benefits, including:

- Informing decision-making throughout the community;
- Informing action planning;
- Ensuring transparency and accountability to community stakeholders;
- Engaging businesses, community members and visitors in the journey toward the vision by providing meaningful and timely information in an interactive way.

Communicating results will build excitement and support for the overall process, and should ideally be done on a regular schedule in time for action planning. The most efficient method of reporting back to the community likely is through a website, and the highlights through a newsletter/newspaper story. Publically-accessible, easy to understand, and easily updated, a web-based platform is fast, efficient, and effective for communicating results. Reporting in the same format and using the same metrics year after year will allow for recognizing trends and systematic updating of indicators. If access to more specific data is available, it is a good idea to add to the initial set of indicators with supporting or more in-depth

ones. For example, total energy used can be reported on by sector and by energy type as well.

The initial set of indicators provided with Highlands' ICSP is based on data that is currently available. It's important to keep in mind that an indicator is not going to be very useful if there is no way to collect the data necessary to inform it, or that tremendous resources would be required.

Indicator assessment criteria usually include:

- Validity – to measure progress toward the descriptions of success
- Reliability – to provide consistently measured data over time
- Resource intensity (including information availability) – to achieve a balance of good data for good value
- Comparability – to benchmark against other communities where possible

It is useful to identify what currently exists in the community, region, or province that informs a particular strategy, and then to identify an indicator based on what that particular source might already track, or is able to track. For example, the number of vehicles on roads has a bearing on a transportation strategy and an energy strategy; the number of registered vehicles per community is currently tracked by ICBC, and the number of vehicles on highways is tracked by the Province. This is an example of a good, specific indicator that could track the progress of a couple of strategies.

Over time, indicators will evolve as further learning and increased capacity develops for useful reporting and monitoring. Common existing data sources include organizations such as Tourism BC, BC Hydro, ICBC, BC Transit and Statistics Canada, and in some communities, Community Surveys, which are a great way of collecting unique information for your community. New data collection tools and sources may come on stream in the future and should be included in the monitoring system to make indicator results more robust and reliable.

One of the most important, yet often forgotten, steps in the monitoring and reporting process is celebrating successes - big or small. Celebrating successes is one of the most impactful things that can be done to maintain enthusiasm and strengthen buy-in for the ICSP. The monitoring process provides the information for celebrating achievements by providing a clear reflection of the community's movement along its path towards the vision. Make community achievements public by posting on the DoH and partners' websites, advertising in the local newspaper, and presenting at local gatherings. Increased presence in the public eye will result in an increased interest in the ICSP process and in turn, more support and input from the community.

Align Decision-making with the ICSP

The ultimate goal for ICSP implementation is that *all* decisions are aligned with the ICSP, and this includes the formal decisions made by Council on policies, plans and

procedures, to the day to day decisions made by staff, partners and community members and organizations on projects, practices and purchasing.

There are two factors critical for successful alignment: training and tools. Decision-makers should understand the ICSP framework and how to apply it to their decision-making processes. Further, they will likely benefit from decision-informing tools, such as the one included in Sustainable Highlands, to assist them through the process.

Periodic Review and Refinement of the ICSP

Keeping the ICSP current and ensuring that it continues to connect with stakeholder values is another important factor to attend to moving forward. While the actions are reviewed and planned on an annual basis, the descriptions of success should be more constant so that they can effectively guide action planning. However, the need for constancy should not outweigh the importance of reflecting the community's changing vision for the future. The one thing that will remain unchanged is the set of long-term sustainability objectives that define sustainability in the future. A description of the other elements of the ICSP and suggestions for the frequency and method for updating them in the future are provided below.

- **Indicators:** A set of core indicators should be kept as constant as possible so that trends can be monitored and performance evaluated over time. However, transitioning to new and improved, and potentially more specific, indicators as they become available should be considered annually so that decision-makers are equipped with the best possible information.
- **Descriptions of success statements:** These should be reviewed and refined every five to ten years and be done by a SSAC team representing key community partners and stakeholders or by the Task Forces that may be created for each strategy area.
- **Vision:** The vision for the community should be reviewed and refined every ten to twenty years through a process that includes the community at large.

Sample Community Partnership Agreement

Sustainable Highlands Partnership Agreement

The Highlands is blessed with an exceptional abundance of scenic beauty, native plant and animal life, and public parkland. Those of us who live here place high value on the natural environment and our rural lifestyle. Highlanders are actively involved in the community, which fosters a spirit that is both self-reliant and cooperative. Together we can continue to build Highlands' success through sustainability.

As Partners, we share Highlands' Vision, Values and Sustainability Objectives.

As Partners, we commit to participating in Highlands' ongoing sustainability journey by:

- Participating on annual task forces to action plan
- Implementing actions assigned to us that are within our means
- Adopting the descriptions of success as guiding visions in the strategy areas that we impact through our work
- Incorporating sustainability planning and implementation strategies in the way we do business

As Partners, we are guided by our Partnership Principles:

COLLABORATION	**INTEGRITY**	**INNOVATION**
INCLUSIVE ENGAGEMENT	**TRANSPARENCY**	**OPEN COMMUNICATION**

7.0 Glossary

Backcasting: A basic planning approach where one begins with a vision of success in the future (in this case, a sustainable society) and then uses the question "what do we need to do to move from where we are today toward our vision?" to identify strategic actions.

Biodiversity: The diversity of plants, animals, and other living organisms in all their forms and levels of organization, including genes, species, ecosystems, and the evolutionary and functional processes that link them.

Clean energy: Clean energy, also referred to as green energy, is defined here as non-polluting energy from renewable sources.

Climate change: Warming of the Earth's climate resulting from the buildup of greenhouse gases (e.g., carbon dioxide, methane) in our atmosphere due to human activities (primarily the combustion of fossil fuels).

District energy: A locally-based energy system from renewable sources that supply a group of buildings located in close proximity to share infrastructure.

Economic diversification: The characteristic of business variety in the economy both across and within individual business sectors.

Ecosystem: A functional unit of any size consisting of all the living organisms (i.e., plants, animals, and microbes) in a given area, and all the non-living physical and chemical factors of their environment, linked together through nutrient cycling and energy flow.

Ecosystem management: A holistic approach to managing our environment and making land-use decisions. It meshes human purposes with natural systems, always asserting the protection of ecological integrity as its foremost environmental priority.

Environmentally Sensitive Areas: These areas incorporate unique and sensitive habitats such as streams, lakes, wetlands, old growth forests, alluvial forests, riparian areas, and the corridors connecting them. These areas are the focus for protection from development due to their fragile and rare nature.

Food Security: Residents of a food secure community have universal access to food that is healthful, nutritious, safe, and culturally acceptable. Food is acquired through dignified means and from non-emergency sources. The community has created a system of growing, manufacturing, processing, making available, and selling food that is regionally based and grounded in the principles of justice, democracy, and sustainability. (From the Capital Region Food and Agriculture Initiatives Round Table (CR-FAIR), and the Community Food Security Coalition, http://www.foodsecurity.org)

Lifelong learning: All learning activity undertaken throughout life, with the aim of improving knowledge, skills and competences within a personal, civic, social and/or employment-related perspective.

Living Wage: The minimum hourly wage necessary for an individual to meet basic needs, including shelter (housing) and other incidentals such as clothing and nutrition, for an extended period of time or a lifetime.

Locally-generated energy sources: Energy generated within the community, generally from renewable sources, for example, geothermal, wind or solar.

Low- impact: Technologies, supplies, fuels, etc, that produce little pollution (air, water, waste) or environmental impact (e.g. climate change).

Mixed-use: Developments that combine residential and commercial space in the same building or development. Residences above shops and live-work residences are examples of mixed-use developments. Mixed-use developments enable people to live close to work and amenities.

Natural Ecosystems Services: Natural ecosystems play a vital role and service by acting as filters and retainers of rainwater, providing natural habitat and shade, and other functions such as turning carbon dioxide into oxygen.

Net Negative: The cumulative impact of development decisions on the ecological will be positive, not negative. Wildlife, plants, water, air, soil and the processes that connect them will be better off or no worse tomorrow than they are today.

Official Community Plan (OCP): A bylaw adopted by Council that "a statement of objectives and policies to guide decisions on planning and land use management, within the area covered by the plan, respecting the purposes of local government." (Local Government Act)

Renewable energy: Energy from sources that produce electricity or thermal energy without depleting resources. Renewable energy includes solar, wind, water, earth and biomass power, and energy from waste.

Smart growth principles: A collection of urban development strategies to reduce sprawl and create compact communities that are fiscally, environmentally and socially responsible. Smart growth is development that enhances our quality of life, protects our environment, and uses tax revenues wisely.

Stakeholder: All individuals, groups, and interests that are affected by and/or affect Highlands and its activities. This includes the natural environment and future generations.

The Natural Step framework: A definition of sustainability and a long-term planning approach. See www.thenaturalstep.org/canada

Transportation alternatives: Commonly referred to as modes of transportation other than single-occupant gas or diesel powered vehicles.

Wildlife movement corridors: Linear habitat embedded in unsuitable habitat, which connects two or more larger blocks of suitable habitat. It is generally proposed for conservation in order to enhance or maintain the viability of wildlife populations in the habitat blocks.

Appendix A: Descriptions of 2010 Current Reality

Building and Sites

Description

Buildings and sites provide unquestionable benefits to community members and organizations. At the most basic level they provide shelter from the elements, but they also support and display a community's identity through architecture and aesthetics. Community members and organizations can be more effective because of buildings and the sites surrounding them. At the same time buildings, sites and associated utility systems can have a significant impact on the local and global environment from materials sourcing, construction and day to day operation. Additionally the structural design and ownership tenures can create barriers to interaction and accessibility for those with physical and financial challenges.

Challenges

Specific

A large majority of housing stock was built prior to the concept of green and healthy building really took off, so there is likely little application so far. Retrofits, replacements, and renovations require large investments, though some may still make economic sense.

The growth and desire to provide additional housing for community members and family increases demand on water sources.

The majority of residential properties obtain water from private water wells, which can be a challenge to ensuring there are sufficient collective water sources.

There is some concern whether recent subdivision patterns are appropriate for the Highlands.

Many of the undisturbed lands in the Highlands present special challenges for potential development in terms of erosion problems, stormwater drainage, groundwater management, and other environmental and visual impacts.

The contamination of groundwater from site specific septic systems is possible if not designed and maintained properly.

Typical of lower density communities, Highlands has one of the highest road lengths and encroachments into natural areas per capita in the province (per capita road length is 23m).

Highlanders value a rural lifestyle, which is an asset for sense of place, but also a challenge for collective infrastructure systems, such as transit, recycling facilities, etc., that can prove to be more efficient.

Highland homes are relatively large utilizing many resources, with energy inefficient houses compared to the BC norm. For example they use on average 108 GJ/year whereas Langford homes use 92 GJ/year, and Metchosin 87 GJ/year.

Low density development presents a challenge for more efficient collective energy systems.

The number of residential buildings is growing and the majority of new housing continues to be larger single family homes, which are generally less efficient and resource intensive than other tenures, such as multi-family strata apartments that use less infrastructure and land per family.

Large single family homes are generally more expensive the other housing styles such as multi-residential, which may exclude certain demographics from living in Highlands.

Homes are more expensive than the average BC home.

Buildings account for 18% of the community's GHG emissions, and 90% of building energy use is for residential buildings.

Residential buildings use a mixture of electricity, propane, natural gas, wood, heating oil for heating/cooking, which each has unique and similar negative impacts on the natural environment.

Fossil fuels for heating make up 16% of residential energy use, but 66% of the GHG from building energy use.

Highlands has a growing and aging population requiring housing, and the community is considering more diversity of land uses.

General

Invasive species may be included in certain landscapes, which can impact the local flora and fauna.

Natural water runoff from sites may be disrupted through development and contributing to impacts on local watercourses or ground water sites.

Water use by BC residents and Canadians in general is high when compared to similar countries around the world. Even if Highlanders are water conscious, usage is likely higher than some other developed countries.

There are limited regulatory or economic policy options to encourage more sustainable buildings beyond water and energy.

Assets and Opportunities

Context

Most Highlanders own their homes, which makes investing in buildings and sites more attractive.

There is a common concern for water scarcity, which is an attitude that might support conservation activities.

There is a widespread view that it is the "rural lifestyle" that draws people to the Highlands and the reason why they stay. Nature is a part of this lifestyle and something to protect.

Secondary suites, though not regulated, are prevalent throughout the community, and provide additional housing options.

Policies

Recent BC Building code updates to energy and water performance should improve building standards slightly.

Bill 27 requiring a GHG section in the OCP provides more tools for local governments to encourage progress in this area. Highlands has added this section to the OCP and has started to develop encouraging policies.

Highlands has the ability to regulate form, character, design and size of buildings, and zoning through which they can shift changes in new developments. In general, building size is the largest determinant of a building's impact.

Many policies within the current OCP support more sustainable buildings and sites in the areas of energy, water use, invasive species, riparian areas, alternative housing designs and ownership models.

Bear Mountain development area has a unique set of design guidelines that display movement toward more sustainable neighbourhood design.

The District has well defined development permit areas for sensitive areas such as steep slopes.

In BC, drinking water systems are governed under the Drinking Water Protection Act (the Act) and Drinking Water Protection Regulation (the Regulation).

Supportive Programs

Provincial green building incentive programs.

Groundwater Task Force report and policies.

Sustainability Task Force and associated reports.

Infrastructure

Most, if not all, residential sites are serviced by wells and septic tanks.

Research/Plans

The District of Highlands has been proactive in initiating a three-year groundwater study to provide the Highlands with the necessary tools and information to support the protection and conservation of the groundwater source.

Developments

There is not much commercial development yet, but interest, therefore there is a need to develop policies to make any commercial buildings and sites more sustainable.

Highlands is home to the "greenest modern home in the world" as deemed by the Cascadia Green Building Council and given partial certification as a "living building" by the International Living Building Institute.

Stakeholders

District of Highlands, landowners and developers, community members, utility suppliers, The Vancouver Island Health Authority, Provincial Government, CRD, BC Transit, local businesses.

Economy and Work

Description

Community market economies are made up of trading of products, services or labour in and out and within a community. The trading within the economy is the source of paid work and incomes for community members and a source of products and service they need. Incomes and specific work opportunities play a significant role in an individual's ability to lead a good quality of life, and therefore ensuring an efficient viable economy is important to providing these roles. At the same time, there are some potential negative impacts of creating some types of economies, such as social and environmental costs that the economy's services and respective prices don't take into account. Dismissing these costs leads to perverse patterns of production and consumption. Additionally, work and compensation isn't always fulfilling which can reduce quality of life.

Challenges

Specific

As a municipality, Highlands is somewhat unusual in that almost its entire land base is residential or rural. There is little area set aside that can be developed for non-residential uses. This has an impact on the community in at least two ways:

- a large majority of working people commute to work outside the Highlands; and
- the municipality is highly dependent on tax revenues from residential and rural properties.

Additionally, Highlanders need to commute away from the community (albeit not as far as for work) to purchase basic services and products that are not available in close proximity.

Commuting contributes significantly to Highlander's GHG emissions profile, and takes time that could be spent on other activities.

While Highlands brings in a fair amount of income on a per capita basis compared to the BC community average, much of it is spent or saved outside of the community.

The median household income in the Highlands was $75,045 from the last census.

While the prevalence of low income earners is lower than the BC average, 1 in 20 families are earning low incomes.

About 86% of Highlands' property taxes come from the residential category.

General

Economies in most communities in Canada are struggling to come out of the most recent recession.

Assets and Opportunities

Context

Highland community members earn relatively good incomes compared to the rest of BC residents and the community hosts more self employed income earners than the BC average.

The prevalence of low income earners is relatively low as is the unemployment rate.

Highlanders are relatively well educated and work primarily in business finance and administration roles along with trades, management and sciences occupations.

Industries supported by Highlanders at a much higher rate than the BC average include professional/scientific, public administration, construction and wholesale trades.

While a significantly large proportion of the population works outside the community, Highlands also has a higher than average rate of home-based businesses. There are now a number of people commuting to Highlands for work.

Policies

OCP has strong encouragement for economic diversification that is consistent with Highlands' rural character and the natural environment.

OCP has encouragement for home based businesses, and to maintain forestry as an economic activity in the Highlands, along with associated more sustainable management practices.

OCP has encouragement for local agriculture activity and local tourism based recreation, and opportunities for community members to work in Highlands.

Supportive Programs and Services

Infrastructure/Assets

Highlands has an abundance of green space, lakes and access to numerous parks from which to support a light recreation tourism industry.

The BC Government and the Capital Region own and manage large parks within the Highlands. These parks are enjoyed by Highlanders and thousands of visitors each year. They play a significant role in attracting people from outside the region and generate income and employment throughout the region. In 1993 Highlands had about 10% of its land base as natural park; in 2004 the area was 1,336 hectares, representing about 36% of the District's land base.

Research/Plans

At the present time the municipality does not have its own economic strategy. Highlands did, however, participate as a member of the Capital Regional District in the preparation of a regional economic strategy – The Opportunities Blueprint (2003). This strategy establishes a two-prong approach to improving the economic health of the region: overcoming problems that are negatively affecting the local business climate; and enhancing existing, or developing new, business enterprises that are compatible with the region's commitment to sustainability.

Developments

There is not much commercial development yet, but interest, therefore policies are needed to make these sites more sustainable than existing buildings and sites, including aspects of water and waste management. In particular, previously disturbed sites in South Highlands may be more appropriate for development. These commercial sites may encourage local services that may serve as a meeting place for local community members.

Stakeholders

District of Highlands, community members, local businesses, tourism professionals and businesses, forestry companies, investors, developers, CRD, BC and CRD Parks.

Education and Leisure Summary

Description

In the broadest sense, leisure involves activities that we freely choose to do with our time, such as playing sports, reading, meditating, learning or gardening. The physical, psychological, economic, and spiritual benefits that are provided by leisure are important for meeting basic needs and play a major role in the overall welfare of the community. For example, involvement in sports helps to develop teamwork and people skills, and regular outdoor exercise provides fresh air while curbing rising medical costs by maintaining health. Education and leisure opportunities are highly valued and enable quality lifestyles. Basic to advanced education services both provide a basis for better understanding the world and the perspectives of others, which, along with skill development, provide the basis for functioning in social interactions and specific work/career applications. Education and leisure activities and facilities can have impacts on local natural areas, and can contribute to high energy and water use and associated environmental impacts.

Challenges

Specific

While there are many lakes throughout the Highlands, there are currently few public accesses to swimming areas. However, OCP policy guides that the District should not seek public access to private lakes. This was done to encourage conservation rather than recreation.

Visitors to parks increase vehicular traffic to Highlands.

Cost of living in the region may be prohibitive to many self-employed artists and crafters, who provide opportunities for some leisure activities.

Community support for local events is low.

General

Building construction and renovation, including material selection for facilities and possible applications of fertilizer and/or pesticides, can impact the local and global environment.

Energy consumption in building and maintaining facilities and associated environmental impacts as well as site disturbance for infrastructure and other uses are negative impacts of some activities associated with education and leisure.

There is a lack of sufficient accessibility and affordable programs for education and leisure activities.

Assets and Opportunities

Context

The Highlands is home to artists and crafters.

Cultural events occur regularly (coffee house, craft fair, fling, market).

Arts and culture are an important expression of the diverse values, heritage and creative interests of Highlands' community members. Artistic and cultural activities bring the community together and energize it socially and economically.

Policies

Efforts to establish recreation facilities within easy access of community members, especially Highlands' youth, are encouraged.

Supportive Programs and Services

Highlands contributes financially and through leadership to the operation of the Juan de Fuca Recreation Commission. These facilities provide recreation opportunities for community members of the West Shore Communities and for all community members of the Capital Region for some specialized facilities.

Highlands also provides financial and leadership support to the CRD Arts Committee.

OCP encourages participation in the arts, and the creation of venues for artists.

Lake Stewardship Foundation

Highlands Trail Club; Highlands Riding Club; Coffee House; Highlands District Community Association; Highlands Heritage Park Society

Infrastructure/Assets

Highlands contributes financially and through leadership to the Greater Victoria Public Library, and shares ownership of the Juan de Fuca Branch with other West Shore Communities.

Highlands has an abundance of outdoor recreational opportunities, with a number of dedicated parks, and a network of public trails, including roadside trails. Hiking, horseback riding, biking and nature appreciation are all popular activities.

There are many lakes throughout the Highlands.

Caleb Pike Homestead.

Twinflower Park, next to the West Fire Hall, offers a variety of recreational facilities.

Eagles Lake.

The BC Government and the Capital Region own and manage large parks within the Highlands. These parks are enjoyed by Highlanders and thousands of visitors each year. In 1993 Highlands had about 10% of its land base as natural park; in 2004 the area was 1,336 hectares, representing about 36% of the District's land base.

A number of universities and schools are in relatively close proximity to Highlands.

Research/Plans

Trail Master Plan
Parks and Recreation Master Plan

Developments

Caleb Pike Homestead
Eagles Lake
Twinflower Park
Community Hall (in progress)

Stakeholders

District of Highlands, community members, school boards, universities, accessible libraries, volunteer organizations (Parks, recreation, arts, heritage), West Shore Parks and Recreation, BC Parks, CRD, CRD Arts Committee, Lake Stewardship Foundation.

Energy Summary

Description

Energy is essential to bringing comfort, mobility and services to community members. At the same time, non-renewable energy use has an impact on future energy supplies as well as ecosystem and human health locally and abroad. Even large renewable projects such as hydroelectric dams have significant impacts on land and aquatic ecosystems.

Challenges

Specific

It is estimated that half of community energy use is from transportation-related activities, but transportation energy use contributes 4.5 times more greenhouse gases (GHG) than energy used for buildings and infrastructure.

Buildings account for 18% of the community's GHG emissions, and 90% of building energy use is for residential buildings.

Residential buildings use a mixture of electricity, propane, natural gas, wood, heating oil for heating/cooking, each of which has unique and similar negative impacts on the natural environment.

Heating fuel makes up 16% of residential energy use, but 66% of the GHG from building energy use.

New pricing by utilities and energy demands are making energy more expensive, which primarily impacts low income households; however electricity is still very inexpensive, which drives consumption.

Energy use depends primarily on large regional or provincial supplies vs using what is available in the Highlands (except for wood).

There are limited regulatory or economic policy options to encourage more sustainable building beyond water and energy.

Large majority of housing stock was built prior to the concept of green and healthy building really took off, so there is likely little application so far. Retrofits, replacements, and renovations require large investments, though some may make economic sense.

The growth and desire to provide additional housing for community members and family is increasing the need for energy.

Typical of lower density communities, Highlands has one of the highest road lengths and encroachments into natural areas per capita in the province (per capita road length is 23m). This leads to increased travel and associated energy use.

Highlanders value the rural lifestyle, which is an asset for sense of place, but also a challenge for collective energy infrastructure systems that can be more efficient.

Highland homes are relatively large utilizing many resources, with energy inefficient houses compared to the BC norm. For example Highland homes use on average 108 GJ/year whereas Langford homes use 92 GJ/year, and Metchosin 87 GJ/year.

The number of residential buildings is growing and the majority of new housing continues to be larger single family homes, which are generally less efficient and more resource intensive than other tenures, such as multi-family strata apartments that use less infrastructure and land per family.

Secondary accommodation on larger single family homes, whether the residence is located within the house or a secondary building, also uses energy.

Most community members working away from home get to work driving a vehicle vs. using more efficient transportation methods such as transit.

Assets and Opportunities

Context

Most Highlanders own their homes, which reduces barriers to invest in building and site upgrades.

Policies

Recent BC Building Code updates to energy and water performance should improve building standards slightly.

Bill 27 requiring GHG section in the OCP provides more tools for local governments to encourage progress in this area. Highlands has added this section to the OCP and has started to develop encouraging policies.

Highlands has the ability to regulate form, character, design, size and zoning through which they can shift changes in new developments. In general, building size is the largest determinant of a building's impact.

Many policies within the current OCP support more sustainable buildings and sites in the areas of energy.

Municipalities need to pay an annual Provincial carbon tax. While it is generally revenue neutral to municipalities, the rising cost of the tax sends a price signal that increased use of carbon-based fuels will become increasingly expensive.

OCP encourages shared utility corridors to reduce site degradation associated with multiple corridors.

Supportive Programs

Provincial green building incentive programs.

Sustainability Task Force and associated reports.

BC Transit currently operates a custom transit service in the Highlands with one early morning and one evening trip each weekday on Millstream Road that connects to express service downtown. It carries approximately 40-120 people per month or 1-5 passengers per trip.

Infrastructure

Power generation and distribution systems are maintained by BC Hydro.

Heat generation is done on-site.

Research/Plans

CEEI Energy Use inventory tool.

Developments

Highlands is home to the greenest modern house in the world, the "EcoSense Home" as deemed by the Cascadia Green Building Council and given partial certification as a "living building" by the International Living Building Institute.

Stakeholders

District of Highlands, car suppliers, landowners and developers, community members, BC Hydro and fuel suppliers, The Vancouver Island Health Authority, Provincial Government, CRD, BC Transit, local businesses.

Food Summary

Description

Food is essential for human life. It provides the energy and nutrients required for day to day living, healthy lifestyles and everything we do. Food is also an essential component of cultural celebrations and it helps define who we are. Local services from farm to fork provide employment and help ensure a local supply of food is always available. While food is critically important, the current food delivery system impacts the environment, greenhouse gas emissions and often workers from the industry in negative manner.

Challenges

Specific

Water scarcity is an ongoing concern that may limit local food production.

There is very little arable land within the Highlands.

Access to adequate sunlight and space may require some cutting of trees and importing of organic matter.

Livestock production is dependent on imported feed.

The bulk of food consumed in Highlands is produced outside the District. There is insufficient light available to provide suitable growing conditions on some properties in the Highlands. Available light will continue to decrease as the second growth forest continues to age.

General

Farms can use excessive amounts of mined fertilizer and harmful substances that may build up in nature.

Certain methods of farming degrade the natural soil, and utilize enormous amounts of fresh water.

Concentrated facilities have the potential to release potent mixes of by-products unfit for the environment.

Fair working conditions do not exist on many farms.

Most food is imported from facilities far outside regional boundaries, which leads to dependency on transportation requirements, high energy consumption, and potentially unsecure supply chains.

A significant amount of energy is used throughout the food supply chain.

Highlanders shop for food outside of the community – an action that uses energy in transportation.

Assets and Opportunities

Context

Many Highlanders' homes are on large tracts of property that could support local, small-scale agriculture.

The weather is conducive to year round food production.

Fertile growing beds can be created within most residential parcels in the Highlands with the removal of stones and the addition of organic matter.

Bee keeping and egg and meat production on a limited scale is also considered feasible. However, moving bees as pollination sources by truck over long distances has an impact on energy.

Policies

OCP policy encourages appropriately sized and located agriculture production and processing.

Supportive Programs

Highlands market.
Virtual meeting place 'Highlands Sustainability Group' (facebook).

Infrastructure

Pike House – site for market.

Research/Plans

Stakeholders

District of Highlands, grocers, farmers markets, farms, community members, food and beverage related businesses.

Healthy Community Summary

Description

Services, infrastructure, programs aimed at promoting individual health and community health are critical to supporting a high quality of life in the Highlands. Many of these services and infrastructure systems help manage critical acute and chronic health issues and emergencies. Other programs seek to promote individual behaviour and enhance community social fabric and connections. All of these systems and services are of critical importance to the sustainability of Highlands, but at the same time they also have some sustainability issues related to the resources used for infrastructure, access to appropriate services and information, and quantity of service. At the same time, modern living pressures can create barriers to community health and social interactions. The health enabling nature of other strategies cannot be underestimated.

Challenges

Specific

Low density development and diverse work locations present a challenge for day to day social interaction amongst neighbours.

The community relies on its 20 – 30 volunteer fire fighters for fire protection and as emergency first responders. These volunteers are required to live within District boundaries, but due to the aging population and the high cost of housing the District has recently struggled with below-minimum numbers. The prospect to recruit an appropriate above-minimum number is low, and the cost of only two paid fire fighters is at least two times the existing fire operating budget.

General

Health service systems are slowly improving but facing extensive funding pressures.

Many communities have aging populations and are not prepared for aging in place.

Assets and Opportunities

Context

Volunteer-based organizations are the life-blood of the Highlands and cover many areas of community life.

Highlands is a relatively stable community with a smaller proportion having moved there in the last five years than the average for BC communities.

About 400-500 community members are of childcare, primary or secondary school age.

Policies

OCP has language that encourages volunteering, active citizens caring for the community and participating in community life, enhancement of history and heritage resources, respect for other's property and security, and inclusive housing options.

OCP talks about supporting the following determinants of health

- the socio-economic environment including social support, addressing violence in the home and community, and participating in civic activities;
- healthy child development;
- the physical environment including protecting the natural environment and addressing transportation, housing, personal health practices; and
- health services.

OCP encourages activities to promote public facilities for community members to meet for social activities.

OCP directs proactive policing policies and encourages proactive emergency management and fire prevention activities.

Supportive Programs and Services

District of Highlands Medal of Honour programs to highlight volunteers.

Volunteer fire services.

Vancouver Island Health Authority offers potable water testing services.

Infrastructure

Relatively quick access to Victoria General Hospital.

There are walk-in medical clinics close to the Highlands municipal boundaries.

Research/Plans

Developments

There is not much commercial development yet, but interest, therefore policies are needed to make these sites more sustainable than existing buildings and sites, including aspects of water and waste management. These commercial sites may encourage local services that may serve as a meeting place for local community members.

Stakeholders

District of Highlands, community members, Fire department, Highlands Fire Fighters Association, Goldstream Gazette, Highland Heritage Park Society (HHPS), Highland Park and Recreation Association (HPRA), police.

Land Use and Natural Areas Summary

Description

Overall land use patterns at the regional, community and neighbourhood level have a significant influence on the systems that provide community members' quality of life. Land use patterns emerge and are directed by government policy, and good land use patterns can lead to efficient mobility and travel, highly efficient and interactive spaces, protection of natural areas, easy access to work, parks and services, a sense of place for a community. On the other hand, poor choices can lead to inefficient mobility and transportation, inefficient and lonely spaces, the degradation of natural areas, long commutes to work or other activities and services.

Challenges

Specific

The growth and desire to provide additional housing for community members and family is placing pressure on the sustainability of high quality water sources and other ecological services. This is buffered by shared municipal and regional vision that protects the integrity of Highlands' rural character by directing growth to the urban areas within the region.

New subdivisions have road patterns and lot layouts that may be inappropriate for the Highlands.

Many of the undisturbed lands in the Highlands present special challenges for potential development in terms of erosion problems, stormwater drainage, groundwater management, and other environmental and visual impacts.

Typical of lower density communities, Highlands has one of the highest road lengths and encroachments into natural areas per capita in the province (per capita road length is 23m).

Highlanders value the rural lifestyle which is an asset for sense of place, but also a challenge for collective infrastructure systems such as energy and transit that can be more efficient.

The number of residential buildings is growing and the majority of new housing continues to be larger single family homes, which are generally less efficient and resource intensive than other tenures, such as multi-family strata apartments that use less infrastructure and land per family.

Large single family homes are generally more expensive per unit than other housing styles such as multi-residential, which may exclude certain demographic groups from living in Highlands.

It is estimated that half of community energy use is from transportation related activities, but transportation energy use contributes 4.5 times more GHG than energy used for buildings and infrastructure.

Buildings account for 18% of the community's GHG emissions and 90% of building energy use is for residential buildings.

Fossil fuel makes up a small percentage of residential energy use, but most of the GHG from building energy use.

Highlands has a growing population requiring housing. The community is also considering increasing non-residential development.

Land used for the built environment has already degraded natural areas.

At the present time, there is no retail commercial or office commercial in the Highlands. The geography of much of the District is not suitable for contemporary commercial and office uses.

Conservation of ecosystems in the Highlands has tended to focus on upland areas with less attention paid to connectivity and lowlands/wetlands.

Assets and Opportunities

Context

Highlands is located in one of the most spectacular physical settings in Canada, and occupies an area of 3,745 hectares within BC's Capital Region.

The Coastal Douglas Fir biogeoclimatic zone dominates Highlands' landscape. This is one of the smallest biogeoclimatic zones in BC, occurring only in southeastern Vancouver Island, the Gulf Islands and portions of the coastal mainland. It is a region of high biodiversity.

Highlands is a signatory to the Capital Regional District's Regional Growth Strategy, which foresees Highlands as a rural community with no long term role as an area for urban development.

Highlands is distinct from other municipalities in the extent of undisturbed natural areas and the proximity of diverse and attractive environmental features in relation to places where people live and work. The rugged topography and relative isolation from major growth centres in the region contribute to Highlands' green and rural character.

The total area of parkland is 1,336 hectares, approximately 39% of the District's land base. (In 1993, at incorporation, the equivalent figure was approx. 10%.)

Groundwater availability and the maintenance of natural ecosystem services will be the major factors determining future land use development in the District of Highlands.

An essential character of the Highlands comes from its large land holdings, where many homes are set well back from the road, often hidden from view, and occupy a small percentage of the total lot. This pattern of land ownership and use also allows for the retention of large tracts of natural landscape, sustaining a diversity of wildlife and vegetation. A few holdings are agricultural in nature, supporting livestock, small crops and orchards.

There is a widespread view that it is the "rural lifestyle" that draws people to the Highlands and the reason why they stay. Nature is a part of this lifestyle and something to protect. However, estate homes can create rural sprawl.

At present, there are two large areas that are being used for forestry and are designated "Managed Forest."

Currently, secondary suites are common, but not regulated.

Policies

There has been a significant shift to development and protection of parks since incorporation, and the OCP has numerous policies to encourage and require that land use doesn't severely impact the surrounding environmentally sensitive areas, biodiversity, and watersheds.

OCP policies encourage access to neighbourhood parks.

OCP encourages shared utility corridors to reduce site degradation associated with multiple corridors.

Bill 27 requiring GHG section in the OCP provides more tools for local governments to encourage progress in GHG reduction. Highlands has added a section to the OCP that includes the creation of development permit areas for this purpose.

Highlands has the ability to regulate form, character, design, size and zoning through which they can encourage and require new development types.

The Bear Mountain development area has a unique set of design guidelines that display some movement toward more sustainable neighbourhood design.

The District has well defined development permit areas for sensitive areas such as steep slopes and wetlands.

Trails are identified and prolific throughout the community.

Roads and networks are well identified and some objectives for managing changes and maintaining them are articulated in the OCP.

Supportive Programs

Groundwater Task Force.

Sustainability Task Force and associated reports.

Highlands Trails Master Plan.

Highlands Parks and Recreation Master Plan.

Research/Plans

The District of Highlands has been proactive in initiating a three-year groundwater study to provide the Highlands with the necessary tools and information to support the protection and conservation of the groundwater source.

Maps abound with information about environmentally sensitive areas in the district.

Developments

There is not much commercial development yet, but there is some interest in increasing it in select locations in the community.

Stakeholders

District of Highlands, landowners and developers, community members, utility suppliers, fire and police protection, Provincial Government, CRD, local businesses.

Transportation and Mobility Summary

Description

Transportation of goods and services and adequate mobility is essential for maintaining a high quality of life. Mobility systems allow users to access employment, socialize, learn and explore new regions, and access goods and services for day to day life. Transportation systems make goods accessible by moving them from extraction/production phases to market and ultimately end of life locations. Though mobility and transportation systems are essential, current characteristics such as inefficient technologies that pollute, route planning, and long distances all increasingly contribute to reduce environmental health and healthy conditions for human living, such as clean air.

Challenges

Specific

It is estimated that half of the intra-community energy use in Highlands is from resident automobile transportation related activities, and transportation energy use contributes 4.5 times more GHG than energy used for buildings and infrastructure.

Utilities and energy demands are making fuels more expensive, which primarily impacts low income households' ability to move.

Highlands depends primarily on large global, regional or provincial fuel supplies.

Typical of lower density communities, Highlands has one of the highest road lengths and encroachments into natural areas per capita in the province (per capita road length is 23m). This leads to increased travel and associated energy use.

Highlanders value the rural lifestyle, which is an asset for sense of place, but also a challenge for collective or alternative transit infrastructure systems, such as mass transit or carpooling that can be more efficient.

Most community members working away from home go to work driving a vehicle vs. more efficient transportation methods such as transit.

Virtually all vehicles in use are based on inefficient technologies.

Most goods need to be shipped into Highlands by community members or supplier.

The network of transportation routes, low density development, lack of local employment opportunities and land use design make owning an automobile almost essential for Highlands' community members. Vehicles are expensive and may not be accessible by lower income earners in the community.

Highlands is primarily a bedroom community dependent on the region (and beyond) for most needs. These needs are met largely through use of the private automobile.

There is no effective regional transportation planning structure or authority.

There is a lack of an alternative transportation network.

There is an increasing volume of traffic from outside the community cutting through the District of Highlands to avoid gridlock, and there is inadequate transportation planning elsewhere.

Assets and Opportunities

Context

The narrow, winding roads are an important part of the rural character and heritage of the Highlands. Pedestrian, cycling and equestrian trails are also important links within the community.

Collector roads provide service for average daily traffic of 2,000 to 10,000 trips. Millstream Road from the Langford boundary in the south to its intersection with Emma Dixon Road in the north is designated as a collector road.

Policies

The OCP encourages environmentally sensitive considerations for new roads and parking areas.

The OCP encourages road side trails to facilitate non-motorized opportunities along main arteries.

Policies within the OCP encourage developing greater public transit services.

Supportive Programs

Sustainability Task Force and associated reports.

BC Transit currently operates a custom transit service in the Highlands with one morning and one evening trip each weekday that connects to express service downtown. It carries approximately 40-120 people per month or 1-5 passengers per trip.

BC Transit provides handyDART service to community members in portions of Highlands. This service is critical to seniors and persons with disabilities to access services and programs both within and outside the District.

Infrastructure

Parking lots at parks.

Main and side roads.

Trails

Research/Plans

CEEI Transportation Energy Use inventory tool.

BC Transit Futures Plan.

Stakeholders

District of Highlands, car suppliers, landowners and developers, community members, fuel suppliers, Provincial Government, CRD, BC Transit, local businesses.

Water and Waste Summary

Description

Potable water is essential to human life and is a basic necessity for Highlands' community members. Water also provides opportunities for recreation, landscaping, cleaning and flushing of waste products. Demand for water and the systems used to collect, clean, distribute, use and clean it again can be energy intensive, wasteful, impact natural watercourses and reduce the ability of others to use water. Maintaining lifestyles and needs also currently requires significant quantities of various materials. Waste is generally produced and energy generally used (embodied) in all stages of extracting, making, packaging, transporting, using and finally disposing of products and their residuals. Currently, all of these lifecycle stages have negative environmental impacts and associated impacts on people working or living along the supply and disposal chain.

Challenges

Specific

The growth and desire to provide additional housing for community members and family is placing pressure on the sustainability of high quality water sources.

Majority of residential properties obtain water from private water wells, which can be a challenge to ensuring water is conserved for collective, community use.

Many of the undisturbed lands in the Highlands present special challenges for potential development in terms of erosion problems, stormwater drainage, groundwater management, and other environmental and visual impacts.

The contamination of groundwater from site specific septic systems is possible if not managed properly and the systems themselves take up large areas of land, while only delaying nutrient loading in local environment.

Highlanders value the rural lifestyle which is an asset for sense of place, but also a challenge for providing a collective water distribution system that can be more efficient.

There is a lack of coordinated waste management services, with some provided by private operators, some by the CRD and some by community members alone.

The number of residential buildings is growing and the majority of new housing continues to be larger single family homes which are generally less efficient and resource/material intensive than other tenures, such as multi-family strata apartments that use less infrastructure and land per family. Secondary accommodation also impacts resource and water use, and production of waste.

Based on Hartland Landfill reports, 0.4 tonnes of waste/person is sent to the landfill from CRD communities every year; this works out to about 800-850 tonnes from Highlands.

Highlands has a growing population requiring additional housing., The community is also considering increasing the commercial building stock. Increased water and materials use and waste are associated with increased development.

Existing solid waste sites in Highlands may or may not have ongoing impacts on the natural environment.

The 2004/2005 waste stream analysis at the Hartland landfill revealed that over 30% of the garbage going into Hartland landfill is organic material (yard and garden waste, food waste and soiled paper products) that could be composted.

Highlands does not have a 100 year flood plain map.

In Highlands, there is very high interest in alternative forms of water and waste management (e.g. rainwater harvesting).

Light industrial area of southern Highlands has ready access to CRD water resources.

Groundwater extraction is not currently monitored and is difficult to manage. Growth in home gardening and home-based livestock management increases demand for water.

Potential risks exist, such as currently existing septic fields being within the 100 year floodplain.

General

Water use for buildings and sites by BC residents and Canadians in general is high when compared to similar countries around the world, even if Highlanders are water conscious, usage is likely higher than some other developed countries.

In general, citizens from developed countries live a relatively highly consumptive existence compared to developing countries, and Canada may be more consumptive than other developed northern European countries.

Materials disposed of in solid waste or waste water systems may be acutely toxic to the natural environment/human health and they may build up in concentrations that cause toxic conditions in the natural environment or humans.

Often our purchasing gives little consideration to labour standards or human rights in the places where the products were manufactured.

Downstream commercial use of groundwater for recreation and climate change are potential threats to the sustainability of high quality water sources.

Assets and Opportunities

Context

Most Highlanders own their homes, which reduces barriers to invest in building and site upgrades.

There is a common concern for water scarcity, which is an attitude that might support conservation activities.

Policies

Recent BC Building code updates to energy and water performance should improve building standards slightly.

Bill 27, requiring a GHG section in the OCP, provides more tools for local governments to encourage progress in this area as related to solid waste. Highlands has added this section to the OCP and has started to develop encouraging policies.

Many policies within the current OCP support more sustainable buildings and sites in the areas of energy, water use, invasive species, flood risk, riparian areas, alternative housing designs and ownership models.

There is an OCP direction for encouraging efficient and environmentally acceptable solid waste practices supporting reduction of waste, reuse, recycling and backyard composting.

Bear Mountain development area has a unique set of design guidelines that display movement toward more sustainable neighbourhood design and systems.

There is OCP direction to encourage the conversion, and rehabilitation of existing landfill, waste burning and demolition/disposal sites.

Hartland landfill has a 'yard waste ban' as yard waste can be composted.

In BC, drinking water systems are governed under the Drinking Water Protection Act (the Act) and Drinking Water Protection Regulation (the Regulation).

Supportive Programs and Services

Provincial green building incentive programs.

Groundwater Task Force.

Sustainability Task Force and associated reports.

National eco-labelling programs that identify benign solid and liquid materials.

Environmental Health Officers from the VIHA do not monitor private wells; however, they are available upon request to assess wells and answer questions related to water quality.

Waste Services available by private contractor.

Recycling Services are available through CRD pickup and drop off programs.

Septic Savvy educational program.

Infrastructure

CRD Hartland landfill provides a waste management site as well as recycling and material reuse services to the region. Items collected include some benign materials and hazardous materials such as mercury containing products and electronics.

Depots may exist to collect items that may not be picked up through door to door recycling collection systems.

Research/Plans

The District of Highlands has been proactive in initiating a three-year groundwater study to provide the Highlands with the necessary tools and information to support the protection and conservation of the groundwater source.

The CRD has a Solid Waste Management Plan.

Developments

There is not much commercial development yet, but interest, therefore policies are needed to make these sites more sustainable than existing buildings and sites, including aspects of water and waste management.

Stakeholders

District of Highlands, landowners and developers, community members, the Vancouver Island Health Authority, Provincial Government, CRD, local businesses, Alpine Disposal, International Paper Industries Ltd. and other utility suppliers.

Appendix B: Priority Actions

Rec. No.	Recommendation from STF Report	Derived Action	Short Name	Description from STF Report (edited, with additions)	Main Strategy Area Link	Lead Organization	Assist
35	Create a volunteer local food production task force	Create a volunteer Local Food Production Task Force that would promote local food production and consumption.	Local food production task force	A Local Food Production Task Force could undertake the many initiatives that would promote local food production. These might include promotion in the Essential Highlands Guide, ensuring that the new Community Centre is supportive of a farm market, organizing local food production facility tours, community gardens, demonstration operations, and facilitation of farm gate, brown box and specialty product sales to restaurants. A Local Food Production Task Force appointed by council could evolve over the longer-term into a permanent Local Food Production Council.	Food	SSAC	
40	Create a 'Sustainability' section on Highlands website	Create an ongoing, interactive sustainability section on the District of Highlands website.	Website sustainability section	A Sustainability page on the Highlands website will make it easier for community members to educate themselves on sustainability, available clean technologies, share success stories, local experience and lessons learned. Content could include: • energy efficiency and alternative energy technologies available to Highlands homeowners, • information about the financial and environmental benefits of various technologies, • a forum for Highlands' community members to easily access and share success stories and lessons learned.	Healthy Community	DoH	
37	Adopt and utilize a sustainability appraisal form	Develop and adopt a sustainability appraisal form for buildings and developments.	Sustainability appraisal form	Revise and adopt the sustainability appraisal form developed by the STF to incorporate the goals and principles in the ICSP to encourage community sustainability objectives in new development and buildings. The form is to be used by Council in approving projects to ensure sustainability objectives are explicitly considered.	Buildings and Sites	DoH	
38	Develop a sustainability communication and education strategy	Develop and implement a communications strategy for the Highlands ICSP.	ICSP communications strategy	Council could demonstrate leadership by providing information on the ICSP and the importance of sustainability for Highlands (a Sustainability Road Map for the Future). This could be initiated in a Committee of the Whole meeting. A summary document from council	Healthy Community	DoH	Community groups

				outlining the ICSP and how it will be used for decision-making, along with the set of priority actions, delivered to each household, would set the stage for further discussions and community involvement. A key challenge is how to connect with community members, in particular youth.			
27	Protect/restore natural habitat representative of the Coastal Douglas-Fir ecological zone	Develop policies for protection and restoration of representative Coastal Douglas-Fir habitat in all land use and development policies, regulations and decisions.	Protect Coastal Douglas Fir	The District can and should maintain and enhance areas of Coastal Douglas-Fir habitat & connecting corridors by acquiring new publicly owned green space (e.g. through ecological gift programs) AND by developing zoning, taxation and land use policies that encourage strong and enduring protection of privately-owned green space.	Land Use and Natural Areas	DoH	
9	Improve public transportation, park & rides, and carpooling	Create a carpooling and park-n-ride strategy.	Carpooling strategy	Council could work with the HDCA and other community organizations to promote carpooling and to designate a central place where people can meet for carpooling near an existing shuttle stop, provide community members with information on the benefits of carpooling, and explore methods to help facilitate carpooling and communication (e.g. online scheduling, car-stop program). Consideration should be given to the advantages of linking community centre and village centre concepts with park and ride, and park and carpool locations.	Transportation	HDCA CISSC	DoH
8	Improve pedestrian and non-motorized corridors and road safety	Implement the Roadside Trail Plan and cycling lanes	Multi-use trail	Council should place a priority on provision and improvement of trails and corridors for non-motorized and high efficiency vehicle use (pedestrian, cycling, horseback riding, skateboarding, long-boarding, scooters) with a priority on the north south connector between the southern boundary near the Municipal Office and the Caleb Pike centre, with connections to Munn Road and the Thetis Lake trail system. Programs may include improvement to existing trails and establishment of near-road trails and point-to-point connectivity (non-roadside) trails. Council has prepared for more multi-use trails by formalizing the trails standards to support application for appropriate grants. This recommendation puts an emphasis on the Millstream corridor as the highest priority focal point for trails development.	Transportation	DoH	

7	Initiate ongoing dialog on transportation	Task CISSC to provide annual recommendations to Council on strategies to reduce car use in Highlands.	Recommendations to reduce car use	Council needs to establish a mandate for the Community Infrastructure and Services Select Committee to discuss and make ongoing, annual recommendations regarding transport options to reduce car use. The CISSC then could undertake a current reality for the transportation strategy each year, and then provide recommendations to Council on strategies to reduce car use. The recommendations can then be prioritized into actions.	Transportation	CISSC	
41	Engage existing networks within the community	Hold training sessions on how to use and implement the Highlands ICSP with committees and community groups.	Training on ICSP	The District of Highlands should provide sustainability training for committees and community groups such as the Fiscal and Environment Select Committee, the Community Infrastructure and Services Select Committee, Highland District Community Association, Neighbourhood Groups, the Highlands Stewardship Foundation, the Highlands Fire Department, and the Garden Club on how to incorporate the ICSP framework into their decision-making and planning.	Education and Leisure	DoH	

Appendix C: Action Assessment Tool

This is a summary of the action tool. The complete spreadsheet can be accessed separately.

Rec. Number	Recommendation	Derived Action	Short Name	Lead organization	Assist organization	Action Total	FINAL prioritizer! - allocate 10
35	Create a volunteer local food production task force	Create a volunteer Local Food Production Task Force that would promote local food production and consumption.	Local food production task force	SSAC		25	33
40	Create a 'Sustainability' section on Highlands website	Create an ongoing, interactive sustainability section on the District of Highlands website.	Website sustainability section	DoH		26	30
37	Adopt and utilize a sustainability appraisal form	Develop and adopt a sustainability appraisal form for buildings and developments.	Sustainability appraisal form	DoH		26	29
38	Develop a sustainability communication and education strategy	Develop and implement a communications strategy for the Highlands ICSP.	ICSP communications strategy	DoH		26	28
27	Protect/restore natural habitat representative of the Coastal Douglas-Fir ecological zone	Develop policies for protection and restoration of representative Coastal Douglas-Fir habitat in all land use and development policies, regulations and decisions.	Protect Coastal Douglas Fir	DoH		25	28
9	Improve public transportation, park & rides, and carpooling	Create a carpooling and park-n-ride strategy.	Carpooling strategy	CISSC	DoH	22	28
8	Improve pedestrian and non-motorized corridors and road safety	Implement the Roadside Trail Plan and cycling lanes	Multi-use trail	DoH		21	28
7	Initiate ongoing dialog on transportation	Task CISSC to provide annual recommendations to Council on strategies to reduce car use in Highlands.	Recommendations to reduce car use	CISSC		25	27
41	Engage existing networks within the community	Hold training sessions on how to use and implement the Highlands ICSP with committees and community groups.	Training on ICSP	DoH		24	27

Appendix D: Action Monitoring Tool

Ref #	Name of Action	Period	Status	Lead organization	Progress	Progress comment	Previous progress	Previous progress comment	Main Strategy	Strategy Links	Sustainability Objective(s)
35	Local food production task force			SSAC					Food	Healthy Community	
40	Website sustainability section			DoH					Healthy Community	Education and Leisure	
37	Sustainability appraisal form			DoH					Buildings and Sites	Land Use and Natural Areas	
38	ICSP communications strategy			DoH					Healthy Community	Education and Leisure	
27	Protect Coastal Douglas Fir			DoH					Land Use and Natural Areas	Healthy Community	
9	Carpooling strategy			HDCA					Transportation	Healthy Community	
8	Multi-use trail			DoH					Transportation	Energy	
7	Recommendations to reduce car use			CISSC					Transportation	Land Use and Natural Areas	
41	Training on ICSP			DoH					Education and Leisure	Healthy Community	

Appendix E: List of All Indicators

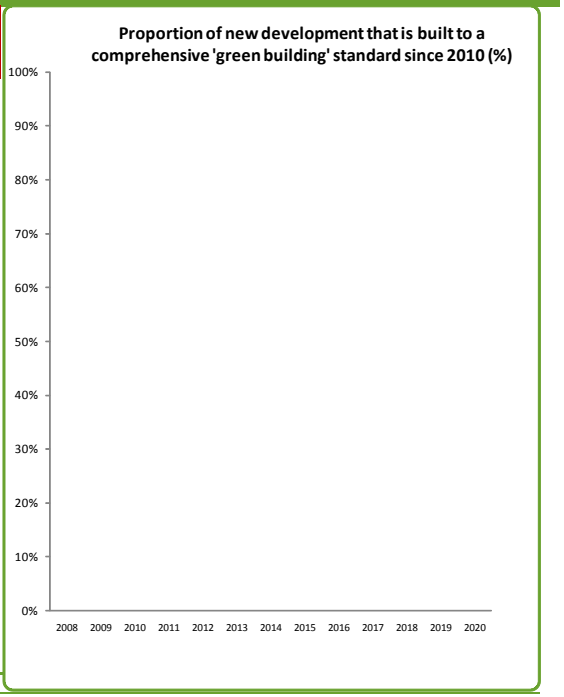
Appendix F: Monitoring and Reporting Spreadsheet

This is an example of the monitoring tool for one indicator; the complete spreadsheet is available as a separate document.

District of Highlands
ICSP Indicators (2010-2030)

Buildings and Sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Proportion of new development that is built to a comprehensive 'green building' standard since 2010 (%)													
Proportion of new development that is built to a comprehensive 'green building' standard since 2010 (%) - Absolute Change		-	-	-	-	-	-	-	-	-	-	-	-
Proportion of new development that is built to a comprehensive 'green building' standard since 2010 (%) - YOY % Change		-	-	-	-	-	-	-	-	-	-	-	-
Proportion of new development that is built to a comprehensive 'green building' standard since 2010 (%) - 3 year Rolling				-	-	-	-	-	-	-	-	-	-
Proportion of new development that is built to a comprehensive 'green building' standard since 2010 (%) - 3 year Rolling % Change				-	-	-	-	-	-	-	-	-	-

Notes or Commentary for Current Year:



Appendix G: Decision Making Framework

Sustainable Highlands Decision Making Framework Page 1

An Integrated Community Sustainability Plan is the community's highest level policy and guides decision-making at all levels. Ultimately, the vision articulated in the ICSP is implemented through daily decision-making. Below is a worksheet that outlines four strategic questions to help assess any type of action, (plan, policy, project, research, procurement, practice new or old) by using the **Sustainable Highlands** sustainability framework to inform decision-making. For a more comprehensive and user-friendly version of this tool, visit the www.highlands.bc.ca/sustainability web page.

NAME OF PROPOSED ACTION:

BRIEF DESCRIPTION OF THE ACTION:

DATE:

REVIEWED BY:

---

1 DOES THE ACTION MOVE HIGHLANDS TOWARDS OUR SHARED VISION OF SUCCESS?

Indicate the top **Sustainable Highlands** Strategy Areas that the action supports:

☐ 1. Buildings and Sites	☐ 2. Economy and Work	☐ 3. Education and Leisure
☐ 4. Energy	☐ 5. Food	☐ 6. Healthy Community
☐ 7. Land Use and Natural Areas	☐ 8. Transportation and Mobility	☐ 9. Water and Waste Systems

Which main Descriptions of Success would the action move us **toward**?	Are there any Descriptions of Success that the action may move us **away from**?
1.	1.
2.	2.
3.	3.

How could we **maximize** the positive impacts of the action?	How could we avoid or **minimize** these potential negative impacts of the action?
1.	1.
2.	2.
3.	3.

2 DOES THE ACTION MOVE HIGHLANDS TOWARD OUR SHARED SUSTAINABILITY OBJECTIVES?

To reduce and to eventually eliminate Highlands' contribution to:

	Toward Quickly	Toward Slowly	Neutral	Away	If 'away,' how could you **avoid or minimize** this?
 Ongoing build-up of **substances (scarce metals, fossil fuels) taken from the earth's crust**.	☐	☐	☐	☐	
 Ongoing build-up of **toxic substances produced by society**.	☐	☐	☐	☐	
 Ongoing **degradation of natural systems by physical means**.	☐	☐	☐	☐	
 **Undermining the ability of people to meet their human needs**.	☐	☐	☐	☐	

3 DOES THE ACTION PRESENT A FLEXIBLE PLATFORM FOR FURTHER MOVEMENT TOWARDS A SUSTAINABLE HIGHLANDS?

Eventually Highlands will need to **eliminate** the contribution to the four unsustainable practices above. In general, choosing actions that are as flexible as possible will help you avoid dead end situations that might prevent you from reconciling short term tradeoffs and fully meeting your sustainability objectives. If technical or economic conditions change in the future, investments in flexible solutions will help ensure that these changes do not bring overly punitive costs and do not limit our ability to adapt.

Use the space to the right to indicate how your action incorporates long-term flexibility.

The action incorporates long-term flexibility by:

4 DOES THE ACTION PRESENT A GOOD FINANCIAL INVESTMENT?

	Capital: $		Operating: $/year	
What is the approximate cost of the action?				
Does this action reduce long term operating costs/ have a strong return on investment?	☐	Yes	☐	No
If so, what is the approximate associated pay-back period for the investment?	Years:			
Have non-market costs been considered in your decision making?	☐	Yes	☐	No
Are there financial costs to other stakeholders or citizens from the implementation of this action?	☐	Yes	☐	No

Given your assessment of the benefits, challenges and long-term costs associated with this action, what is your level of comfort with moving forward?

☐	Strongly support this action
☐	Support in principle, but support will depend on how the action is executed
☐	On the right track, but more information and/or substantial changes are required. Currently, not comfortable supporting this action.
☐	The action as proposed is not supportable.