Reducing Greenhouse Gas Emissions in the Islands Trust Area

September 30, 2009

Islands Trust

*Preserving **Island** communities, culture and environment*

Introduction—Trust Council's Climate Commitment

I am proud to introduce our new publication *Reducing Greenhouse Gas Emissions in the Islands Trust Area*. This document was prepared to assist our elected officials in meeting the Islands Trust's long-standing commitment to sustainable and low-carbon communities through innovative land use planning.

Complying with Bill 27, the *Local Government (Green Communities) Statutes Amendment Act,* is currently the primary focus of our climate change work. To comply with this Act the Islands Trust will need to amend 19 Official Community Plans by May 2010 to include targets, policies, and actions to reduce greenhouse gas emissions.

Because the Islands Trust's primary responsibility is land use planning (see below) we are uniquely positioned to take leadership on reducing greenhouse gas emissions with land use planning tools.

This document, written by Emily Keller, Trust Area Policy Analyst and Robert Kojima, Island Planner sets the stage for us to create sustainable community design and settlement patterns that reduce the energy used in transportation and buildings.

Throughout the world, local governments are working together to address this global crisis. I hope that others who share our goals will find this document helpful.

Linda Adams
Chief Administrative Officer
Islands Trust

About the Islands Trust—A Unique Form of Local Government

The Islands Trust is a unique federation of local island governments with a provincial mandate from the *Islands Trust Act* to make land use decisions that will "preserve and protect" British Columbia's southern Gulf Islands—the only government in Canada and, perhaps, the world, with a legislated mandate to preserve and protect a special area.

The Trust Area covers the islands and waters between the mainland and southern Vancouver Island, including Howe Sound and as far north as Comox.

The Trust Area is a unique and special place composed of 13 major islands and more than 450 smaller islands, with an exceptional variety of species of birds, fish, wildlife and vegetation.

In total there are 26 elected trustees, including two municipal trustees from Bowen Island Municipality. These trustees form Local Trust Committees, responsible for land use decisions within their Local Trust Areas. Together they meet four times per year as Trust Council, which makes decisions about overall policy.

The Islands Trust achieves its mandate through planning and regulating land use, education, cooperation with other agencies, and land conservation.

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1 Climate Change

The Science

Climate change refers to the increasing concentration of heat-trapping greenhouse gases (GHGs) in the atmosphere as the result of human activities—primarily the burning of fossil fuels and large-scale deforestation. A 2007 report from the Intergovernmental Panel on Climate Change reveals that between 1970 and 2004, GHG emissions have increased by 70%.[1] This dramatic rise in atmospheric GHG concentrations has in turn triggered an increase in the average temperatures of near-surface air and ocean water, with temperatures projected to rise 1.1° to 6.4° C over the next century. Although seemingly slight, these temperature changes will have dramatic and negative impact on ecological systems around the globe.

Coastal Climate Change

Not surprisingly, coastal areas such as the Islands Trust are particularly vulnerable to the effects of climate change. A recent study by the Capital Regional District describes the impacts projected for southern areas of coastal BC, including:

- An increase of 6-7 mm in precipitation during December and January
- An increase of 10-20% in average annual precipitation
- Continued sea level rise (over the past century, BC has experienced a 4-12 cm rise)
- An increase in average air temperatures of up to 3º C in summer and 5º C in winter
- More extreme weather events (e.g. summer droughts, heavy rains, winter storms)

Impact on Islands Trust Communities

Ecological changes resulting from climate change will challenge the social and economic systems on which Islands Trust communities depend. A few of the impacts expected in the Trust Area include:[2]

- Forced re-settlement from shoreline areas and re-location of transportation routes
- An expanded food growing season, but a decrease in soil moisture levels
- Changes to critical ecological services (e.g. groundwater supply)
- New human health concerns (e.g. heat wave stress and related illness, altered geographic range of vector-borne diseases)
- More frequent natural disturbances (e.g. forest fires and pest outbreaks)
- Disturbance to and loss of natural ecosystems and wildlife habitat

Links + Resources

For further reading on the science and impacts of climate change, please see the following websites:

Intergovernmental Panel on Climate Change
www.ipcc.ch/

BC Ministry of Environment
www.env.gov.bc.ca/epd/climate/about/index.htm

BC Climate Exchange
www.bcclimateexchange.ca/index.php?p=home

David Suzuki Foundation
www.davidsuzuki.org/Climate_Change/

Pembina Institute
http://climate.pembina.org/

1 Leo Meyer, "2007 Fourth Assessment Report" (PowerPoint presented at the pre-COP Intergovernmental Panel on Climate Change Workshop, Warsaw, Poland, October 2, 2008. www.ipcc.ch/pdf/presentations/pre-cop-warsaw-2-10-2008/pres-warsaw-mitigation-climate-change-meyer.pdf

2 For further information on the social impacts of climate change, please see the *Capital Region Climate Change District Adaptation Study* (Capital Regional District, 2007), Section 3. Available online at www.crd.bc.ca/rte/documents/CAPITAL_REGION_CLIMATE_ADAPTION_STUDY_PHASE_1__PROJECT_SCOPING_REPORT.pdf

2 GHG Commitments + Legislation

Provincial Context

In the 2008 Speech from the Throne, the BC Premier committed to a 33% reduction in provincial GHG emissions from 2007 levels by the year 2020, and an 80% reduction from 2007 levels by the year 2050. The Province has subsequently developed a number of policies to achieve these targets, including the BC Climate Action Charter and Bill 27—the *Local Government (Green Communities) Statutes Amendment Act*.

BC Climate Action Charter

Jointly developed by the Union of BC Municipalities and the Province of BC, the BC Climate Action Charter is a non-binding statement of commitment by local governments to take action on climate change. Charter signatories commit to develop strategies and take action to achieve three goals:

- Achieve carbon neutral operations by 2012
- Measure and report on community GHG emissions
- Create complete, compact, more energy efficient rural and urban communities

A total of 174 local governments have now signed on to the commitments of the Charter. The Islands Trust Council endorsed the BC Climate Action Charter in September 2007.

Bill 27: Local Government (Green Communities) Statutes Amendment Act

On May 29, 2008 Bill 27—the *Local Government (Green Communities) Statutes Amendment Act*, came in to force. The intent of the *Act* is to reduce GHGs, conserve energy, and create more sustainable communities. Most significantly, Bill 27 amends the *Local Government Act* to require that all local governments include GHG emission reduction targets—and policies and actions to achieve those targets—in their Official Community Plans (OCPs):

> *(3) An official community plan must include targets for the reduction of greenhouse gas emissions in the area covered by the plan, and policies and actions of the local government proposed with respect to achieving those targets.*

All OCPs must be amended to meet these requirements by May 31st, 2010, while Regional Growth Strategies must be amended by May 31st, 2011.

Links + Resources

For further reading on these commitments and legislation, please see:

BC Climate Action Charter, Ministry of Community and Rural Development
www.cd.gov.bc.ca/ministry/whatsnew/climate_action_charter.htm

BC Climate Action Charter, Questions and Answers
www.bimbc.ca/files/mayors_reports/071022%20Mayors%20report%20-%20attach%202.pdf

Bill 27, Local Government (Green Communities) Statues Amendment Act
http://qp.gov.bc.ca/38th4th/1st_read/gov27-1.htm

Bill 27, Ministry of Community and Rural Development, FAQs
www.cd.gov.bc.ca/lgd/intergov_relations/library/Bill27_Green_Communities_FAQs.pdf

3 Key Players in GHG Reduction

Trust Council Commitments to GHG Reduction

Trust Council's commitment to creating sustainable and low carbon communities is demonstrated in the following decisions:

- March 2005: Committed to develop an advocacy program on climate change, energy conservation and GHG reduction
- September 2006: Committed to offer community education on reducing GHG emissions
- September 2007: Committed to the BC Climate Action Charter
- September 2009: Recommended that Local Trust Committees and Island Municipalities:
  - Amend their work programs to make compliance with the requirements of the *Local Government (Green Communities) Statutes Amendment Act* (Bill 27) a top priority;
  - Use the menu of policy options and actions (pages 18-25) to meet Bill 27 requirements; and
  - Provide updates on progress towards meeting Bill 27 requirements at the following Trust Council meetings: December 2009, March 2010, and June 2010.

Local Trust Committees + Island Municipalities

ROLE

The authority of Local Trust Committees (LTCs) is defined by the *Islands Trust Act* and the *Local Government Act*. These Acts grant LTCs jurisdiction over land use and development—two of the key drivers of GHG emissions. The areas of LTC responsibility relevant to GHG emissions include:

- Official community plans
- Zoning
- Density bonusing
- Parking requirements
- Runoff control
- Screening and landscaping
- Development permit areas
- Subdivision servicing standards for roads, sidewalks, water distribution, sewage collection and disposal, and drainage

RESPONSIBILITY

The opportunity to reduce GHGs through land use depends entirely on LTCs. As regional districts amend their Regional Growth Strategies in 2011, their work may be influenced by the way LTCs and Island Municipalities have responded to this opportunity.

Island Municipality and LTC actions on GHGs as of September 2009 include:

Bowen Island Municipality

Community Energy Planning Options Report

Established a baseline inventory of energy consumption and GHG emissions and provided policy options to reduce emissions.
www.bimbc.ca/files/embedded/Bowen%20Island%20CEP%20Final.pdf

Greenhouse Gas Action Plan

Updates the GHG emissions inventory, outlines actions taken since 2003, and provides new policy recommendations to reduce emissions.
www.bimbc.ca/files/embedded/Bowen%20Island%20GHG%20Action%20Plan-%20FINAL%20REPORT.pdf

Green Buildings Standards for Residential Re-zoning Policy

Used to evaluate the energy efficiency and green building practices of all residential rezoning applications
www.bimbc.ca/files/policies/Green%20Building%20Standards2.pdf

Community Action on Energy Efficiency (CAEE) Pilot Community

Committed to adopting standards for new residential construction requiring rezoning; creating building/development guidelines; and integrating community energy plan options into a broader community planning framework.
www.saveenergynow.ca/bowenisland

Draft 2020 Vision and Sustainability Framework

Includes energy and emissions as key elements, and establishes GHG reduction target of 33% below 2007 levels by 2020; 80% below 2007 levels by 2050. It also establishes a target to reduce emissions from transportation by 50% by the year 2020 (2007 baseline).
www.bimbc.ca/files/embedded/Sustianability%20Framework%20July%202008.pdf

Denman Island LTC

Official Community Plan

Denman Island OCP includes policies on climate change. See Section C4 of the OCP.
www.islandstrust.bc.ca/ltc/de/pdf/debylbaseocp00185.pdf

Salt Spring Island LTC

Official Community Plan

Salt Spring Island OCP includes policies on climate change. See Section A6 of the OCP.
www.islandstrust.bc.ca/ltc/ss/pdf/ssbylbaseocp434vol1.pdf

Sustainability Checklist

A guide for residential construction, including additions, renovations and accessory buildings.
www.islandstrust.bc.ca/ltc/ss/pdf/sssustainchecklist.pdf

Salt Spring Community Energy Strategy

A community-based organization that has produced several relevant studies and reports:

- *The Energy Strategy* measures emissions, sets short-term reduction targets to reduce energy consumption and GHGs to 2002 levels by 2012, and recommends actions to achieve these targets
  www.saltspringenergystrategy.org/docs/SS_Energy_Strategy.pdf
- *The Energy and GHG Implications of Different Settlement Patterns on Salt Spring Island*
  www.islandstrust.bc.ca/ltc/ss/pdf/ssocpreviewfinalrptssighgstudyjul2007.pdf
- *Microhydro Feasibility Study for Salt Spring Island*
  www.saltspringenergystrategy.org/docs/Microhydro.pdf

Community Action on Energy Efficiency (CAEE) Pilot Community

Established targets for energy consumption in new and existing buildings, and produced several relevant studies and reports: www.saveenergynow.ca/saltspring

- *Density Bonus & Other Policy Options for Energy Efficiency*
  www.saltspringenergystrategy.org/docs/Policy%20Options%20CAEE%20Gold%20Final%20July%2031%202008_2.pdf
- *Energy and Greenhouse Gas Emissions Analysis for New Residential Buildings*
  www.saltspringenergystrategy.org/docs/Pembina%20-%20Energy%20GHG%20Analysis%20-%20Oct24.pdf

Salt Spring Island Transportation Commission

Established by the CRD to administer public transit, construct pedestrian and cycling infrastructure, and develop other strategies to reduce auto dependence.
www.crd.bc.ca/regionalplanning/transportation/ssitranscom.htm

Public Transit System

An island bus established as partnership initiative between the CRD and Ministry of Transportation.
www.toolkit.bc.ca/success-story/public-transit-saltspring-island

Area Farm Plan

To be integrated into OCP to encourage local food growing.
www.saltspringenergystrategy.org/docs/Plan%20to%20Farm%20-%20Jan%202008.pdf

The Province

ROLE

The provincial government has authority over GHG reduction in the following areas:

- Transportation infrastructure (including neighbourhood zero emission vehicles)
- Building code (internal building design—e.g. fixtures and faucets)
- Taxation (carbon tax, tax exemptions, incentives and rebates)
- Subdivision approval

RESPONSIBILITY

The Province appears to be taking GHG reduction seriously. The 2008 Budget allocated almost $1 billion dollars over four years to initiatives related to climate change, and Bill 27 and the requirements being placed on local governments are just one component of provincial climate change initiatives.

Other provincial initiatives include:

Governance

Climate Action Secretariat

A special team housed within the Ministry of Environment directed to achieve the Province's GHG emissions reduction targets, including carbon neutral operations within government.

Climate Action Team

Panel of leaders from environmental organizations, private enterprise, the scientific community, First Nations and academia established to offer expert advice to the Province on interim targets and identify short/medium term actions to meet the 2020 target.

Cabinet Committee on Climate Action

Chaired by the Premier, this Cabinet Committee brings together key government ministries to make policy related to greenhouse gas (GHG) reduction and climate change adaptation.

Climate Action Working Groups

The Province has established 11 stakeholder working groups to provide input on the development of cap and trade regulations and identify emissions reductions opportunities in agriculture, cement, electricity, forestry, manufacturing and small business, mining, oil and gas, transportation, waste, environmental non-governmental organizations, and labour.

Green Communities Committee and Working Group on Small Communities Strategies and Actions

Jointly established by the Province and UBCM to provide practical tips, strategies and guidance to support local governments in taking action.

Action Planning

BC Climate Action Plan

Outlines strategies and initiatives to achieve BC's GHG reduction target of 33% by 2020.

BC Air Action Plan

Sets out 28 actions to reduce air pollution, complementing the government's Climate Action Plan and the BC Energy Plan.

BC Energy Plan

In addition to oil and gas, the plan considers clean alternative energies to meet BC's energy needs: bioenergy, geothermal, tidal, run of river, solar, and wind.

Energy Efficient Buildings Strategy

Sets new building energy targets that support the BC Energy Plan and includes climate action at the home, workplace, and community levels.

Western Climate Initiative

The Province is a participant in the Western Climate Initiative (WCI), which is developing a regional cap and trade system to help reduce greenhouse gas (GHG) emissions from industrial polluters.

The Climate Registry

BC was one of the first Canadian members of the Climate Registry, an international partnership working to create a common approach to measuring and reporting GHG emissions.

Legislation and Regulatory Amendments

Bill 37, Carbon Tax Act

Imposes a tax on carbon-based fuels.

Greenhouse Gas Reduction (Cap and Trade) Act

Enabling legislation that allows the Province to establish a cap and trade system.

Motor Vehicle Act Regulations Amendments

Gives municipal councils the authority to permit operation of Neighbourhood Zero Emission Vehicles on roads with speed limits up to 50km/hr.

Green Building Code

New Building Code requirements to increase energy and water efficiency that set some of the highest standards in Canada.

Environmental Management Act Amendments

Addresses GHG reduction at waste management and electricity generating facilities.

Bill 16, Greenhouse Gas Reduction (Renewable and Low Carbon Fuel Requirements) Act

Requires fuel distributors to measure the average carbon intensity of their products and reduce it over time.

Bill 36, Greenhouse Gas Reduction (Vehicle Emissions Standards) Act

Applicable to vehicle manufacturers, this act sets vehicle GHG emission standards equivalent to those laid out in California's 2004 tail-pipe standards regulation.

Regional Districts

ROLE

The authority of regional districts is primarily determined by the *Local Government Act*. The jurisdiction over GHG reduction granted by this Act includes:

- Development cost charges
- Building permits and regulation (construction, repair, heating, appliances, etc.)
- Infrastructure development and maintenance, including solid waste, parks and transit
- Anti-idling bylaws

RESPONSIBILITY

Regional districts must incorporate targets, actions, and policies into their OCPs by May 31st, 2010, and into their regional growth strategies (RGS) by May 31st, 2011.

To date, regional districts that overlap with the Trust Area have taken the following actions on climate change:

Capital Regional District

Climate Action Plan (formerly the Community Energy Plan)

Passed by the CRD Board in February 2008, the plan is a strategy to manage energy consumption and GHGs throughout the region's 13 municipalities and 3 electoral areas.
www.crd.bc.ca/climatechange/communityenergyplan.htm

GHG Reduction Target

In February 2008, the CRD Board adopted a GHG target of 33% reduction in emissions by 2020 (from 2007 levels).

Bylaw No. 3510, CRD Climate Action and Adaptation Service Establishment

A bylaw to establish and provide climate action services in the CRD was adopted by the Board in February 2009, including a $100,000 annual budget for staffing and air quality monitoring.

Capital Region Draft Strategic Plan (2009-2011)

Climate action is a strategic priority in the CRD 2009-2011 draft strategic plan. Goals within this priority include reducing regional GHG emissions by 33% by 2020 (based on 2007 as a base year) and strengthening capacity of member municipalities to achieve their own GHG reduction goals.
www.crd.bc.ca/documents/strategic-plan-draft.pdf

Regional Sustainability Strategy (formerly the Regional Growth Strategy)

The CRD is currently working with local government partners to update the RGS as a Regional Sustainability Strategy. Sustainability, climate change, and Bill 27 requirements will be incorporated as central themes.

Salt Spring Island Transportation Commission

Established by the CRD in 2007, the Commission manages transit, cycling, and pedestrian infrastructure on the island.
www.crd.bc.ca/regionalplanning/transportation/ssitranscom.htm

Comox Valley Regional District

Regional Growth Strategy

The RGS is being created over a two-year period (2008-2010) with an approved RGS policy document to be adopted by December 31, 2010. Will incorporate Bill 27 Requirements.
www.rdcs.bc.ca/section_rgs/content.asp?id=3211&collection=71

Regional Sustainability Strategy Draft

Currently under development, the draft RSS outlines sustainability goals and actions to meet these goals, including: a reduction in overall carbon emissions by 80% by 2050 and a reduction in energy use per capita by 50%. These goals and actions will be incorporated into the Comox Valley RGS and OCPs. A grant from the Federation of Canadian Municipalities' Green Municipal Funds provided $180,000 to cover half the total costs of the project.
www.rdcs.bc.ca/section_rgs/content.asp?id=3214&collection=71

Cowichan Valley Regional District

CVRD Environment Commission

A group of 15 community members appointed in April 2007 to provide advice to the CVRD Board on policy, regulations and issues related to the environment draft an environmental strategy.
www.12things.ca/12things/about.php

Environmental Strategy and Plan

Adopted by the CVRD Board in November 2008, the draft Environmental Strategy outlines "12 Big Ideas", including get real about climate change, be energy smart, and clear the air to reduce carbon emissions. CVRD staff are now developing an implementation plan outlining priorities and actions consistent with this strategy.
www.12things.ca/12things/big-ideas.php

Regional District of Nanaimo

Integrated Region-wide Energy, Air Quality and GHG Management Plan

Currently under development, this plan will set out a future energy and emissions strategy for the region, including targets and strategies to reduce GHG emissions from residential, commercial and industrial buildings; transportation; and solid waste. A draft of the plan is expected to be completed this fall. The RDN will receive a grant of $45,120 from Ministry of Community and Rural Development for this project—in addition to $50,000 grant received from the Federation of Canadian Municipalities Partners for Climate Program to prepare corporate and community greenhouse gas management plans.
www.rdn.bc.ca/cms.asp?wpID=1436

Green Buildings Action Plan

A plan adopted in 2007 to increase the number of green buildings in the RDN.
www.rdn.bc.ca/cms/wpattachments/wpID1046atID2011.pdf

Regional Growth Strategy Review

The RDN's RGS is currently under review. Significant possible changes that have been identified include targets and measures for reducing GHG emissions and reducing energy use; clearly stated sustainability principles and policies; and direction on creating complete, compact communities. Discussion and background papers on RDN approach to including GHG targets and actions in the RGS are available on the website.
www.shapingourfuture.ca/

Powell River Regional District

Sustainability as a Priority Issue

The Board of Directors has identified sustainability planning as a priority issue. The PRRD does not have a RGS, but has 3 rural area OCPs: Texada, Southern Region, and Lund.

OCP Review

The Southern Region OCP is currently under review, including consideration of Bill 27 requirements.

Sunshine Coast Regional District

Regional Growth Strategy Development

The SCRD is in Phase One of developing a RGS that will incorporate Bill 27 requirements.
www.scrd.ca/index.php?page_id=502

Local Community Groups

A number of local grassroots community groups are actively working on issues related—directly or indirectly—to climate change and greenhouse gas reduction. It is important to engage these groups and local residents in meeting Bill 27 requirements.

ENERGY AND CLIMATE CHANGE

Gabriola Climate Action Network (GabCAN), Gabriola Island

Proposing a ride share program and supporting eco-planning to reduce GHGs.

Renewable Energy Denman Island (REDI), Denman Island

Operate the IslandRideShare program and Green Flag program (car stop).

Community Energy Strategy, Salt Spring Island

An island initiative coordinated by the Earth Festival Society, with the help of The Salt Spring Island Conservancy, Island Natural Growers and other island groups. The initiative aims to save energy, reduce GHGs, reduce air pollution, and achieve—at minimum—a 20% reduction in emissions by 2012.
www.saltspringenergystrategy.org/index.htm

Lasqueti Community Clean Energy Working Group, Lasqueti Island

A working group promoting the use of renewable energy, reduction of greenhouse gas emissions, and enhancement of energy security. The initial priority is raising funds for a Community Energy Plan with a focus on False Bay School and other public facilities on Lasqueti.

How-To Guide to Carbon Neutral Living on the Gulf Islands

A project to publish a 'how-to' book of local climate change solutions collected from local experts and activists. It will include a comprehensive list of local resources and community groups working on these issues.

TRANSPORTATION

Moving Around Pender (MAP) Alternative Transportation Society, Pender Islands

Making cycling and walking safer and more accessible, including the car stop program and a partnership with the Ministry of Transportation and Infrastructure to develop and designate cycling paths on the highways network.

Car Stop Program, Pender, Mayne, Hornby, and Gabriola Islands

Initially launched by Moving Around Pender on North and South Pender Islands where 29 car stop locations now exist, the Car Stop Program is rapidly expanding to other Gulf Islands: 25 car stops are planned for implementation on Mayne Island in September 2009, and Hornby and Gabriola are well along in the planning process.
www.barrymathias.com/car_stops.htm

Transportation Advisory Committee (through LTC), Pender Islands

Working with Paths on Pender; bike path designated, working with Ministry of Transportation and Infrastructure to create pullouts for community shuttle.

Gabriola Public Transit Committee, Gabriola Island

Reviewing need for a bus or other alternative transportation modes.

Non-Motorized Trails Committee, Hornby Island

Constructs and maintains trails for walkers, joggers, and bicyclists.

RealHornby, Hornby Island

Projects include a rideshare program coordinated through an online system. The program also included "ride offered" dashboard signs for use on inter-island ferries.
www.realhornby.com

GREEN BUILDINGS

Mudgirls Natural Building Collective, Lasqueti, Denman, and Salt Spring Islands

The collective builds affordable, energy efficient structures with local, natural and recycled materials.
www.mudgirls.ca

FOOD SECURITY

Community Food Program, Galiano Island

Community food program, emphasis on food security and practical 'how-to's' (e.g. cooking, canning, etc.).

SPUDS, Denman Island

Local food growing initiative.

Mayne Island Agricultural Society, Mayne Island

Increase emphasis on local farming activities and the local farmers market.

Pender Organic Community Garden Society, Pender Island

Building community garden space through individual plots, shared plots, and community supported agriculture. The project aims to enhance food security, reduce climate change impact, provide affordable and nutritious food, and foster sense of community.
www.penderislandweb.com/garden

Lasqueti Potato Co-op, Lasqueti Island

Inspired by similar groups on Cortes and Denman, members cooperatively grow organic potatoes on borrowed land to encourage local food security and community collaboration.

Lasqueti Saturday Market Association, Lasqueti Island

Organizing and promoting a weekly farmers market to support local food security and local economy.

Salt Spring Island Natural Growers (ING), Salt Spring Island

An association of organic growers that also provides community education in sustainable agriculture.

The Agricultural Alliance, Salt Spring Island

A key recommendation of the Spring Island Local Area Farm Plan, the Alliance supports local food production and distribution by linking growers, producers, retailers, and consumers.

Island Farmers Institute, Salt Spring Island

A 110-year old organization that , supports farmers in their quest for sustainability and encourages the preservation and development of agriculture on Salt Spring Island through advocacy and education initiatives.
www.ssifi.org/

Crop Circle, Hornby Island

A discussion group working to strengthen local food security. Projects include promotion of "100 kilometre" dinners and a 10-acre community garden project.

Gabriolans for Local Food Choices, Gabriola Island

Established a food charter for Gabriola Island.
www.gabriolafoodchoices.org

Gabriola Commons, Gabriola Island

Includes a farm management team and permaculture and community garden groups.
www.gabriolacommons.ca/

NATURAL AREAS

Galiano Conservancy Association, Galiano Island

The Conservancy Association works to protect land and improve ecosystem health through restoration. Projects include a study of the impact of restoration treatments on forest carbon sequestration and a climate change education program.
www.galianoconservancy.ca

The Pender Conservancy, Pender Islands

Promotes NAPTEP program and administers the fund that pays fees associated with qualifying NAPTEP applications.

Healthy Ecosystems Healthy Community Initiative, Salt Spring Island

An initiative to provide a comprehensive "health check-up" on SSI's ecosystems; assess the implications for the health and well-being of the community; identify key indicators of the health of ecosystems and community and create a solid basis for action to restore ecosystem health.
www.i-sea.org/pdf/Healthy_Ecosystems_Healthy_Community_Initiative_FEB_16_2008.pdf

COMMUNITY SUSTAINABILITY

Institute for Sustainability Education and Action (I-SEA), Salt Spring Island

To facilitate and support the creation of a sustainable community. Projects include Eco-Options, a directory of local suppliers, builders and designers contributing to sustainable, green development on Salt Spring Island; Design Charrettes, village planning scenarios sketched and drawn; and GreenWise Map Development.
www.i-sea.org/index.html

Environmental Action Group Encouraging Responsibility, Salt Spring Island

A high school youth group working to green school operations. Also publishes an eco-shopping guide and works with community retailers to eliminate use of paper and plastic bags.

Islands Sustainability Initiative (ISUNI), Mayne Island

Projects include the Cool Islands initiative to reduce GHGs (carbon offsets bought by participants used to finance sustainability projects), publication of climate change articles, local food dinners.
www.sustainmayne.org/

Gulf Islands Alliance

One of the priorities of the Alliance is to support a range of approaches to address climate change. The Alliance is currently coordinating an inter-island community climate change event for October 2009.
www.gulfislandsalliance.ca/about-us.html

4 GHG Target Setting

Bill 27 Target Requirements

Bill 27—the *Local Government (Green Communities) Statutes Amendment Act*—requires that each Local Trust Committee (LTC) set GHG emissions reduction targets in their OCP. At least one of the targets set by the LTC must be a measurable and numerical emissions reduction target, expressed as a percentage reduction or number of tonnes reduction in GHGs. This requirement can be met by:

1. **Setting an overarching target encompassing emissions from all sectors of emissions within the LTA. For example:** ***reduce GHG emissions by x percent by the year x.***

AND/OR:

2. **Setting one or more sector-specific targets that include a conversion to a numerical reduction in tonnes of GHG emissions. For example:** ***increase cycling and pedestrian trips by x percent by the year x, to achieve x percent reduction in GHGs.***

These numerical targets are intended to be challenging and motivating. Their purpose is to inspire and stimulate action, rather than be easily achieved. While not required by Bill 27, it may be useful to set both interim and long-term targets.

What Makes a Useful Target?

The usefulness of a GHG target to a community depends on the following:

- **Realistic.** Given LTC resources and authority, is the target realistic and achievable?
- **Motivational.** Is the target ambitious and challenging enough to prompt action?
- **Measurable.** Are the indicators used to assess progress towards the target easily measured? Are there simple equivalencies for converting the targets to GHG emission reductions?
- **Data Availability.** Is the indicator data available and affordable?
- **Data Reliability.** Is the indicator data from a reliable source, and will the source and method of data collection remain consistent over time?

How to Decide Which Target(s) to Use

You can use the following questions to decide which targets are most useful for your local trust area (LTA):

What do our inventories tell us?

The emissions inventories calculated for each LTA provide estimates of the energy consumption and GHG emissions for three main sectors (e.g., buildings, transportation, and solid waste) in the Trust Area. There are varying degrees of accuracy of data in each sector due to limitations of data availability. Electricity data for each LTA is derived from BC Hydro data and is considered 'very accurate,' whereas vehicle kilometers travelled (VKT) data is not specific to each LTA and is based on the estimated VKT for the LTA's regional district. Solid waste data is 'accurate' and is provided by the regional landfill manager.

The inventories also exclude other emissions sources such as woodstoves, gas and diesel generators, and propane. There are no data sources for these energy types and therefore, each source must be estimated using local knowledge. Other sources that are not typically required in a community inventory such as off-road vehicle use, and off-island travel are not tracked and are also not included.

'Secondary' emission sources, in other words the chain of embodied energy associated with an activity (e.g., the energy required to grow and transport the food consumed by residents of an LTA) are also not captured in the inventories. These types of sources are extremely difficult to track and data is not considered credible at this time. Regardless, estimates are important to provide a sense of the magnitude of such emissions and emphasize that actions are required to reduce the emissions associated with the source.

Despite the limitations outlined above, the emissions inventories provide an important reference point for

target setting, establish a baseline to facilitate assessment of progress towards targets and effectiveness of strategies and actions, and offer a consistent point of comparison with other BC communities.

Words of caution

The inventories establish a consistent measuring stick but it is important to remember that comparing sector totals between communities may be misleading. For example, if an industrial plant is located within community boundaries, it would skew sector emissions in comparison with communities without industry. The primary importance of the inventory is to establish the base year emissions from which the emissions forecast and associated target is calculated. Further, the emissions inventories provide the LTAs with a method of tracking emissions over time and measuring progress, or lack thereof.

Another potential drawback of the inventories is the tendency to let the numbers distract from the real task at hand—taking concrete and effective action to reduce each LTA's contribution to GHGs. It is important to view the inventories as a catalyst for action—only one of several tools and sources of information that will influence the development of an LTC's targets, policies, and actions.

What does science tell us about what GHG levels are 'safe'?

What is a 'safe' concentration of GHGs in the Earth's atmosphere? Modeling done by the Intergovernmental Panel on Climate Change (IPCC) indicates that temperature increases must be limited to 2-3 degrees C from pre-industrial levels in order to avoid 'dangerous anthropogenic interference with the climate system.'[3] According to six stabilization scenarios conducted by the IPCC, in order to cause no more than a 2-3 degree temperature increase, atmospheric concentrations of CO2 must remain below 440 parts per million (ppm). However, studies by other leading climate scientists show that warming over 1.7 degrees C from pre-industrial levels will result in species extinction and ice sheet melting.[4] According to these studies, 350 ppm is the upper limit of 'safe' CO2 levels in the atmosphere.[5] In 2008, atmospheric levels of CO2 measured 385 ppm.

What emissions reductions are required to achieve this 'safe' concentration of GHGs? Scenario modeling done by the IPPC shows GHG emissions reductions of 50-85% below 2000 levels are required by 2050 to achieve a CO2 concentration of 350-450 ppm. According to this scenario, this reduction will result in global average temperature increase of 2-2.4 degrees C above pre-industrial levels and an average global rise in sea level of 0.4 to 1.4 m—excluding contributions from melting ice sheets, glaciers, and ice caps. As this study does not account for all possible feedback loops between the carbon cycle and temperature increases, it is likely that emissions reductions required to achieve a certain stabilization concentration are underestimated.

Links and Further Reading

Hansen et al. 2008. Target Atmospheric CO2: Where Should Humanity Aim? The Open Atmospheric Science Journal 2: 217-231. Available at: http://safeco2.org/index.php/Science/humanitys-target-for-atmospheric-co2.html

Intergovernmental Panel on Climate Change (IPCC), Climate Change 2007, Solomon S, Dahe Q, Manning M, et al. (eds), Cambridge Univ Press: New York 2007; pp. 996. Available at: www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf

Mastrandrea MD, Schneider SH. Probabilistic integrated assessment of "dangerous" climate change. Science 2004; 304: 571-5. Available at: www.sciencemag.org/cgi/content/abstract/304/5670/571

How do current LTA emissions compare with other communities and the provincial average?

In 2007, the BC Ministry of Environment launched a GHG reporting system called the Community Energy and Emissions Inventory (CEEI) to provide emissions inventories for municipalities and regional districts in BC. These reports currently capture annual community-wide energy consumption and GHG emissions estimates for three key sectors—on-road transportation, buildings, and solid waste. Estimates of GHG emissions caused by deforestation as a result of land-use changes (settlement and agriculture) are available at the regional district level only.

3 James Hansen et al., "Target Atmospheric CO2: Where Should Humanity Aim?," *The Open Atmospheric Science Journal 2* (2008): 217-231.

4 James Hansen et al., "Dangerous human-made interference with climate" *Atmospheric Chemistry and Physics Journal 7* (2007): 2287-312.

5 James Hansen et al., "Target Atmospheric CO2: Where Should Humanity Aim?" 217-231.

Table 1. GHG Atmospheric stabilization concentrations modeling by the IPCC[6]

Scenario	CO2 Concentration at Stabilization	Peaking year for CO2 emissions	Change in global emissions in 2050 (percent of 2000 emissions)	Global average temperature rise above pre-industrial levels	Global average sea level rise above pre-industrial levels*
	parts per million	year	percent	degrees Centigrade	Metres
Actual	385 ppm	2008			
I	350-450	2000-2015	-85 to -50	2.0 to 2.4	0.4 to 1.4
II	400-440	2000-2020	-60 to -30	2.4 to 2.8	0.5 to 1.7
III	440-485	2010-2030	-30 to +5	2.8 to 3.2	0.5 to -1.9
IV	485-570	2020-2060	+10 to +60	3.2 to 4.0	0.6 to 2.4
V	570-660	2050-2080	+25 to +85	4.0 to 4.9	0.8 to 2.9
VI	660-790	2060-2090	+90 to +140	4.9 to 6.1	1.0 to 3.7

*excluding contributions from melting ice sheets, glaciers and ice caps

Table 2. Percentage Change in Population 1966-2006**

	1966-1971	1971-1976	1976-1981	1981-1986	1986-1991	1991-1996	1996-2001	2001-2006
Salt Spring	41.6%	39.2%	23.4%	13.2%	27.7%	17.5%	1.4%	4.3%
Saturna	65.7%	5.7%	24.5%	7.0%	9.0%	8.2%	10.4%	12.5%
Mayne	75.4%	68.9%	11.7%	13.6%	17.7%	20.3%	-1.0%	26.4%
Galiano	35.4%	27.8%	26.7%	12.9%	20.4%	9.9%	7.2%	17.5%
North Pender	44.5%	77.3%	25.8%	15.3%	34.0%	***18.2%	***7.3%	12.4%
South Pender	-14.3%	100.0%	27.4%	-2.8%	31.7%	***18.2%	***-1.9%	48.4%
Thetis	*32.1%	*20.1%	*25.4%	*8.3%	0.4%	44.5%	2.3%	6.6%
Gabriola	67.1%	74.7%	37.0%	27.0%	24.8%	32.3%	3.2%	15.0%
Lasqueti	1.0%	145.7%	15.9%	0.3%	8.7%	14.7%	-1.9%	-2.2%
Hornby	*16.9%	*89.5%	*-14.0%	16.6%	15.5%	7.0%	-2.3%	11.2%
Denman	*16.9%	*89.5%	*-26.2%	29.0%	16.8%	18.0%	-3.1%	7.8%
Gambier	*-30.9%	*26.9%	*-56.5%	*151.4%	23.7%	4.3%	105.0%	27.2%
Bowen	60.6%	68.0%	91.3%	28.6%	42.3%	33.0%	8.0%	13.7%

*These enumeration areas are not consistent with those of later years making the data unreliable for comparative purposes

**Island specific means the data referred to pertains only to the Island listed and not any outlying Islands.

***1996 North and South Pender census information was provided as a combined total population of 1817; therefore the 1996 numbers for each island have been calculated based on a percentage of the 1991 numbers.

6 S. Solomon et al., eds., *Climate Change 2007: Intergovernmental Panel on Climate Change*. New York: Cambridge University Press, 2007), 996.

In compliance with the *Greenhouse Gas Reductions Target Act*, the Ministry of Environment now produces a biannual provincial GHG inventory. The 2006 inventory indicates that B.C.'s emissions intensity was 4.5 tonnes of CO2 equivalent per capita.

Links and Further Reading

BC Ministry of Environment, Community Energy and Emissions Inventories database: www.env.gov.bc.ca/epd/climate/ceei/a-z.htm

BC Ministry of Environment, Provincial-level emissions inventories: www.env.gov.bc.ca/epd/climate/reduce-ghg/emissions.htm#total.

How will projected population growth affect emissions?

It is essential to consider how emission increases related to population growth may negate reductions achieved elsewhere. While population projection data is not available for the Trust Area, Table 2 on page 15 illustrates population growth from 1966 to 2006.

What is the scope of LTC authority over key GHG sources in the LTA?

It is estimated that BC municipalities and regional districts have direct control or influence over 45% of provincial GHG emissions.[7] However, the legislative authority of an LTC laid out in the *Islands Trust Act* differs from the authority granted to other local governments in the province—LTC authority includes land use and development, but—unlike municipalities and regional districts—does not encompass provision of infrastructure and services.

While this means that LTCs are able to influence a smaller percentage of provincial GHG emissions, land use planning can have significant impact on GHG emissions of other sectors—for example, recent studies offer evidence that arrangement of streets, building types, and land use directly influence per capita vehicle use and building energy consumption.[8] LTCs can also influence emissions from other sectors through advocacy programs and partnerships with regional districts and provincial ministries.

Links and Further Reading

Islands Trust Act, www.islandstrust.bc.ca/poi/acts.cfm

What targets have been set by the BC provincial government?

The Province has committed to the following GHG emissions reduction targets:

Interim Target(s)		Long Term Target		
Percent Reduction	By the Year…	Percent Reduction	By the Year…	Baseline Year
6%	2012	80%	2050	2007
18%	2016			
33%	2020			

What targets have been set by overlapping regional districts?

When setting a target for an LTA, consideration should be given to existing GHG reduction targets that overlap with the area. There is some lack of clarity surrounding how overlapping targets should be acknowledged and taken into account, and no clear direction has been provided by the Province on this issue. Given this ambiguity, it is recommended that LTAs review the climate change work underway in relevant regional districts, open dialogue with relevant staff and politicians, and consider partnerships where appropriate.

Capital Regional District

In February 2008, the CRD Board adopted a GHG target of 33% reduction in emissions by 2020 (from 2007 levels).

Comox Valley Regional District

The CVRD draft Regional Sustainability Strategy indicates a commitment to a GHG reduction of 80% by 2050.

7 BC Ministry of Environment, "Community Energy and Emissions Inventory (CEEI) Initiative," BC Ministry of Environment. www.env.gov.bc.ca/epd/climate/ceei/index.htm

8 Reid Ewing and Fang Rong, 2008. "The Impact of Urban Form on U.S. Residential Energy Use." *Housing Policy Debate 19* (2008); Reid Ewing et al. *Growing Cooler: The Evidence on Urban Development and Climate Change.* (Chicago: Urban Land Institute, 2007).

What targets have already been set within the Islands Trust area?

The following community GHG reduction targets have been set within the Islands Trust:

Salt Spring Island

The Community Energy Strategy sets the following targets:

- Stabilize GHG emissions at 2002 levels by 2012, a reduction of 23% below projections excluding BC Ferries' emissions.
- Reduce toxic emissions by 25% below 2002 levels by 2012.
- Reduce energy expenditures by approximately 20% below projections ($22 million) as an indirect result of GHG reductions.

Bowen Island Municipality

Following the Province's lead, BIM has set targets of 33% by the year 2020 and 80% by the year 2050 (below 2007 baseline).

What targets have been set by other local governments in BC and beyond?

Targets set by municipalities and First Nation groups in BC include:

The District of Central Saanich

The Central Saanich Community Energy Plan lays out a short-term target of a 5% reduction in community emissions by 2012 from 2007 levels. Long term targets will be established over the coming year.

Metro Vancouver

Metro Vancouver has committed to a 15% reduction by 2015 and a 33% reduction by 2020 below 2007 levels.

City of Langford

The Community Energy and Emission Reduction Strategy (in development) will set goals that meet or exceed provincial GHG emissions reduction targets.

City of Vancouver

The City of Vancouver has established the following targets below a 2007 baseline: 6% by 2012, 33% by 2020, and 80% by 2007.

City of North Vancouver

The City of North Vancouver has committed to a 6% reduction in emissions by 2012.

City of Colwood

Following the Provincial lead, the City of Colwood has committed to reducing GHG emissions by 33% by 2020, relative to 2007 levels.

Dawson Creek

Matching goals set by the Province, Dawson Creek has committed to a GHG reduction target of 33% by 2020, and 85% by 2050. An interim target of 14% by 2012 has also been set.

T'sou-ke Nation

Through the Solar Energy Community project to install solar panels to pre-heat hot water and photovoltaic panels to create clean electricity, the T'sou-ke Nation aims to achieve a 30% energy reduction by 2010 and a 50% reduction by 2012.

Partners for Climate Protection

The Federation of Canadian Municipalities (FCM) Partners for Climate Protection program requires member local governments to commit to reducing community GHG emissions by 6% over ten years.

The City of Copenhagen and ICLEI

The City of Copenhagen and ICLEI are in the process of developing an international catalogue of local governments' GHG emissions reduction targets and climate change mitigation achievements. The targets found in this database provide a reference point for LTCs as they develop their own local targets. Once an LTC has established a target—or targets—these can be added to the catalogue.

5 GHG Policies + Actions

Relevant Planning Tools

The following land use planning tools can be employed by LTCs through OCP policies to help meet the requirements of Bill 27.

ZONING

Zoning regulations determine where specific types or development occur, as well as building size, setback, and height. An LTC can adjust zoning bylaws to eliminate disincentives and encourage energy efficient building construction and retrofits in a number of ways. For example, an LTC can:

- Exclude features designed to increase energy efficiency from calculation of Floor Area Ratio (FAR)
- Reduce or eliminate building setbacks to encourage construction of thicker walls
- Exclude renewable energy equipment from height calculations
- Permit small-scale renewable energy equipment in setback area
- Make zoning approval subject to site specific requirements related to GHG emissions

VARIANCE*

A tool used to provide a one-time exemption to an established zoning rule or standard.

DEVELOPMENT PERMIT AREAS (DPAs)*

A development permit area (DPA) is an area identified in an OCP within which all subdivisions, new construction, and building additions or alterations require a development permit. In order to receive a permit, developers must conform to a set of development requirements determined by an LTC. Bill 27 allows local governments to establish DPAs specifically intended to reduce GHG emissions and promote energy and water efficiency. Permit requirements within these DPAs may include stipulations around site landscaping (e.g. natural shading, insulation, and wind-breaks to reduce building energy consumption), siting of buildings, exterior form and design of buildings, equipment and systems external to buildings and other structures, and restrictions on type and placement of trees and vegetation. Requirements such as parking stalls for small electric vehicles and plug-ins can also be required through DPA guidelines. DPAs address land use and exterior building design only, and cannot influence construction standards and interior building design.

PARKING REQUIREMENTS*

LTCs have bylaw authority to determine the amount, size, design, surfacing of off-street parking required by a building. Bill 27 expanded parking requirement authority: LTCs can now reduce off-street parking requirements for development that is in proximity to alternative transportation services, and can also require developers to provide cash in lieu of required off-street parking for development of walk ways, bicycle paths, public transit and other alternative transportation infrastructure.

DENSITY BONUSES

Established through zoning bylaw, a density bonus allows developers to surpass the allowable density (measured in FAR) in exchange for the provision of community amenities. A community amenity is broadly defined as features that a LTC considers of value to its residents. Amenities related to GHG mitigation include: energy efficient and green building design, use of an alternative energy system, public walking and bicycle trails, tree preservation, and ecosystem restoration. Amenities can be provided on-site or off-site.

DENSITY TRANSFER

Density transfer is tool that allows the voluntary transfer of the development potential of one property (the 'sending property') to another property (the 'receiving property). Density transfer can be used to help an LTC gradually move towards a sustainable development pattern and low-GHG build-out plan (e.g. concentrating future development in nodes to increase density, reduce transportation needs, and preserve forested lands). 'Sending' and 'receiving' areas are identified in an OCP, and density transfers are carefully considered on a one-by-one basis.

* Bill 27 expands local government authority to allow more effective use of this tool to reduce GHG emissions.

DESIGN GUIDELINES

Design guidelines are a set of land use principles established by an LTC to help shape development in a specific area. If desired by an LTC, design guidelines can include an emphasis on energy efficient and low GHG development. While such guidelines are not binding on developers, they can be an effective tool—particularly when designed to complement and expand on zoning requirements.

COMPREHENSIVE DEVELOPMENT ZONES

Comprehensive Development zones (CD zones) are OCP-identified zones in which an LTC can establish guidelines and requirements for all aspects of development in a coordinated and integrated way. This tool can be used to mitigate GHG emissions in a number of ways—for example, CD zones:

- Allow an LTC to establish specific and detailed zoning requirements that support sustainable land use patterns
- Create opportunity for a LTC to extract commitments for community amenities such as tree retention, green infrastructure, and energy efficient buildings from a developer
- Allow an LTC to cluster development in one area of the development zone to minimize site disturbance and create compact land form

RUN-OFF CONTROL REQUIREMENTS

LTCs can establish a bylaw to reduce the percentage of land that can be covered by impermeable material, and manage and provide for ongoing disposal of surface runoff and stormwater.

DEVELOPMENT COST CHARGES (DCCs)

While LTCs do not directly control DCCs, they can encourage regional districts to execute this new DCC authority. DCCs are one-time charges levied on new subdivision and buildings to cover the cost of off-site infrastructure required to service the new development. Bill 27 allows local governments to waive or reduce DCCs for small-lot subdivisions and construction that advances low-GHG development patterns.

TAX REVITALIZATION EXEMPTIONS

Property value tax exemptions are available only to municipalities and not to other communities within the Islands Trust Area. Exemptions can be awarded to properties within a specified area that meet bylaw-established criteria for property improvement upgrades. Revitalization exemptions can be strategically used to promote investment in 'green' building designs and energy-efficiency improvements.

ADVOCACY AND PARTNERSHIPS

While not planning tools per se, advocacy initiatives and partnerships can be effective OCP policies that play an important role in reducing GHG emissions associated with land use.

OCPs Containing Climate Change Policies

A number of BC local governments have already developed official community plans that contain policies related to GHG mitigation and energy efficiency. The following OCPs offer examples of best practice policies that may be useful examples for LTCs developing climate change policies for their OCPs.

Salt Spring Island OCP includes policies on climate change. See Section A6 of the OCP.
www.islandstrust.bc.ca/ltc/ss/bylaws.cfm

Denman Island OCP includes policies on climate change. See Section 4 of the OCP.
www.islandstrust.bc.ca/ltc/de/pdf/debylbaseocp00185.pdf

Village of Kaslo OCP (Draft) contains policies on local food security and decreasing GHG reduction and reliance on external energy sources.
www.kaslo.ca/files/%7B2A595F63-B29E-4E5F-ABDD-B816D1CCE50F%7DDRAFT%20OCP%20Jan%202009.pdf

District of Saanich OCP contains policies on climate change and sustainable land use.
www.gov.saanich.bc.ca/business/development/plan/pdfs/ocp%20files/ocp_adopted_jul808.pdf

District of Squamish OCP (Draft) includes policies on energy use and air and GHG emissions.
www.squamish.ca/files/OCP_Draft_2_Aug_2007.pdf

District of Ucluelet OCP contains policies modeled on smart growth principles, including compact and mixed use development, alternative development standards, and multi-modal transportation.
www.ucluelet.ca/UserFiles/File/Bylaws/OCP/OCP%20Jan%2011%202007.pdf

City of Vernon OCP contains policies on energy efficiency.
www.vernon.ca/ocp/index.html

OCP Policy Options: Land Use

Land use decisions made by local trust committees can have significant impacts on per capita vehicle kilometers traveled by community residents as well as building energy consumption. Compact, complete, and connected settlement patterns—such as amenity nodes and mixed residential-commercial uses, clustering of development, and road and trail network connectivity—reduce distances traveled to reach daily amenities while increasing convenience and viability of alternate forms of transportation. Multi-unit buildings and clustered development with shared walls use less energy and increase the viability of district energy systems.

Objective	Potential Policies: ***The LTC will consider…***	Planning Tool(s)
To achieve compact, complete, and connected land use patterns, reduce vehicle dependency, support alternative modes of transportation, and reduce building energy use.	Reviewing existing policies, zoning regulations, and build-out plan to ensure they do not discourage compact, complete, and connected development.	Zoning, subdivision regulations
	Amending existing policies, zoning regulations, and build-out plan to promote land uses and densities that reflect the principles of compact, complete, and connected communities.	Zoning, subdivision regulations
	Developing guidelines and criteria for assessing rezoning applications that reflect the principles of compact, complete, and connected communities. *Note: this may be limited to those applications involving an increase in density or significant change of use.	Guidelines
	Establishing density transfer policies where they do not yet exist. Use guidelines for compact, complete, and connected communities to assess density transfer applications.	Density Transfer
	Locating new density in proximity to amenities and services, and reduce density in areas that are not in proximity to services.	Zoning, Comprehensive Development Zones
	Establishing minimum residential density standards.	Zoning, Comprehensive Development Zones
	Permitting secondary suites, cottages, secondary dwellings over commercial areas, clustered dwellings, and attached dwellings in areas close to amenities and services.	Zoning, Development Permit Areas, Comprehensive Development Zones
	Encouraging development of all infill sites before developing greenfield areas.	Zoning, Development Permit Areas, Comprehensive Development Zones
	Allowing mixed residential and commercial uses in appropriate areas, and facilitate creation of neighbourhood amenity nodes.	Zoning, Development Permit Areas, Comprehensive Development Zones
	Locating new density along transportation corridors, and reduce density in areas that are not in proximity to transportation corridors.	Zoning, Development Permit Areas, Comprehensive Development Zones, Density Transfer
	Density thresholds for viable public transportation when assessing zoning and settlement patterns.	Zoning

OCP Policy Options: Transportation

Transportation is a key source of greenhouse gas emissions in the Trust Area. Although responsibility for transportation infrastructure on the islands lies with the provincial government, local trust committees can indirectly influence transportation emissions by advocating and educating for alternative transportation options.

Objective	Potential Policies: ***The LTC will consider…***	Planning Tool(s)
To increase accessibility and convenience of zero or low-emission modes of transportation, and reduce the need for vehicle-based transportation.	Reviewing existing policies, zoning regulations, and build-out plan to ensure they do not necessitate or promote automobile use and discourage use of alternative transportation.	Zoning
	Amending existing policies, zoning regulations, and build-out to discourage automobile use and encourage use of alternative transportation.	Zoning
	Accepting bicycle and walking trails as a community amenity where density bonusing is used.	Density Bonusing
	Reducing vehicle parking requirements and requiring alternate transportation amenities (such as bicycle racks) in new commercial development.	Parking Requirements, Development Permit Areas
	Amending parking standards to reduce requirements based on differing transportation circumstances (e.g. reduces requirements near transit stops or other alternative transportation infrastructure)	Parking Requirements (new Bill 27 authority)
	Requiring, where applicable, existing parking requirements be provided in the form of cash-in-lieu for use in developing walk ways, bicycle paths, public transit, and other alternative transportation infrastructure.	Parking Requirements (new Bill 27 authority)
	Supporting transit, bicycle paths/lanes, connecting trails, sidewalks, car stops, car share initiatives, and anti-idling bylaws.	Advocacy, Partnerships
	Working with Ministry of Transportation and Infrastructure to identify and establish a network of roads on which neighbourhood zero-emission vehicles are permitted.	Partnerships
	Supporting development of accessible electronic communication infrastructure where appropriate and safe (e.g. wireless internet, public videoconferencing facilities, etc.)	Advocacy, Partnerships

OCP Policy Options: Exterior Building Design, Siting + Landscaping

Building energy consumption is a key source of greenhouse gas emissions in the Trust Area. New development permit area authority established by Bill 27 allows local trust committees to influence exterior design, orientation and placement, and landscaping of new and re-development. Smaller living spaces and shared walls reduce energy demand, while siting and orienting buildings to maximize passive solar gain increases opportunity for use of solar panels and hot water heaters. Green infrastructure and landscaping – such as trees, bioswales, permeable surfacing, and green roofs – can create carbon sinks, reduce heat island effect, and lessen energy consumption by naturally cooling buildings during the summer months and providing wind protection and insulation during cold winter months.

Objective	Potential Policies: ***The LTC will consider…***	Planning Tool(s)
To promote energy efficient and low-emission design, siting, orientation, and landscaping for all new buildings and buildings undergoing retrofit.	Reviewing existing policies and zoning regulations to ensure that they do not discourage or preclude energy efficient building design, siting, and landscaping.	Zoning, Development Permit Areas
	Amending existing policies, zoning regulations, and build-out to promote energy efficient building design, siting, and landscaping.	Zoning, Development Permit Areas
	Establishing design guidelines for energy efficient building design (e.g. shared walls), building siting (e.g. passive solar orientation), landscaping (e.g. trees/vegetation as natural cooling/insulation), and externally-located alternative energy system equipment.	Design Guidelines, Development Permit Areas
	Using established guidelines to create a voluntary checklist for energy efficient design, siting, and landscaping.	Checklist
	Using established guidelines to create a Development Permit Area requiring some or all new development to meet standards for energy efficient design, siting, and landscaping.	Development Permit Area (new authority through Bill 27)
	Expediting development permit and rezoning applications that meet established guidelines/standards for building design, siting, landscaping.	Administrative Policy
	Accepting energy efficient and LEED building design features as a community amenity when implementing density bonusing (*applicable only to development located outside of Development Permit Areas requiring these features).	Density Bonusing
	Limiting maximum allowable floor area for new single family development OR reduce lot coverage area for new single family development.	Zoning
	Amending servicing regulations to require green infrastructure for significant developments.	Zoning
	Encouraging Ministry of Transportation and Infrastructure to require sidewalks.	Advocacy

OCP Policy Options: Energy Source + Supply

Reducing GHG emissions in the Trust Area will require a two-pronged approach: reducing demand for conventional energy sources and producing renewable energy to meet the remaining demand. Islands Trust communities are well-situated to capitalize on opportunities for local green energy production through micro-hydro, photovoltaics, wind turbines, and other renewable technologies. Small-scale neighbourhood or residence-based energy systems can reduce greenhouse gas emissions in Trust Area communities, lessen reliance on gas and diesel-fired generators, propane, and wood heating, and increase energy resiliency and security.

Objective	Potential Policies: ***The LTC will consider…***	Planning Tool(s)
To promote small-scale community/ neighbourhood/ residence-based production and use of green and renewable energy.	Reviewing existing policies and zoning regulations to ensure that they do not discourage production and use of green and renewable energy (e.g. height restrictions).	Zoning
	Amending existing policies to permit and promote small-scale, community-based production of renewable energy.	Zoning
	Establishing a Development Permit Area requiring renewable energy systems in new commercial development.	Development Permit Area (new authority through Bill 27)
	Encouraging and supporting initiatives to upgrade woodburning appliances.	Advocacy
	Supporting a feasibility study on district energy system in village areas.	Advocacy, Partnerships
	Supporting a feasibility study for residential renewable energy potential (e.g. microhydro, solar, wind, waste heat, etc.).	Advocacy, Partnerships

OCP Policy Options: Food + Agriculture

Agricultural production and food transportation is a major source of greenhouse gas emissions. In North America, produce is shipped an average of 2,100 – 3,200 kms from farm to fork. Approximately half of the ingredients used in an average BC meal are produced outside provincial boundaries. To provide a local example, the Salt Spring Energy Strategy estimates that Salt Spring Island's groceries in 2002 were responsible for the diesel oil equivalents of about 41,000 tonnes of greenhouse gas emissions. Local and regional food systems reduce GHG emissions not only by reducing food transportation distances but also by using less energy-intensive production techniques. According to Salt Spring Energy Strategy estimates, 'local food production using organic techniques is estimated to use about one-tenth of the energy used to produce and transport conventional food.' Co-benefits of local agricultural production include increased food security and increased nutrient content.

Objective	Potential Policies: ***The LTC will consider…***	Planning Tool(s)
To promote, support, and expand local agriculture and food production, processing, and distribution to reduce GHG emissions.	Reviewing existing policies and zoning regulations to ensure that they do not discourage local food production, processing, and distribution. *Note: food may be defined to include produce, grains, and meat and other animal products.	Zoning
	Amending existing policies and zoning regulations to permit and promote local food production, processing, and distribution	Zoning
	Considering initiative to include additional farmland in the ALR.	Partnerships
	Allowing community gardens in all zones except natural and protected areas OR identify suitable sites for community gardens and amend zoning to permit their establishment.	Zoning
	Identifying suitable sites for community markets and amend zoning to allow for commercial use.	Zoning
	Identifying suitable sites for food processing facilities (e.g. abattoirs, cold storage, value-added processing) and amend to allow for industrial use.	Zoning
	Accepting community gardens as a community amenity when implementing density bonusing.	Density Bonusing
	Supporting and encouraging creation of community gardens, backyard gardens, and farmer's markets.	Advocacy, Partnerships

OCP Policy Options: Natural Areas + Ecosystems

Large-scale shifts in land use—such as deforestation and urbanization—intensify the greenhouse effect. Forests act as an important carbon sink—absorbing and storing carbon that would otherwise be circulating in the atmosphere. By supporting the Trust Fund Board and other land conservancies, local trust committees can promote conservation and restoration of forested land in the Trust Area thereby helping to reduce the greenhouse effect.

Objective	Potential Policies: ***The LTC will consider…***	Planning Tool(s)
To preserve and restore natural areas and forest ecosystems as a means to reduce greenhouse gas emissions.	Working with Trust Fund Board to set targets for protecting and restoring forest land.	Partnerships
	Promoting conservation of sensitive ecosystems and forested land—especially unfragmented areas.	Zoning, Partnerships
	Establishing a Development Permit Area limiting removal of trees over a certain diameter, restricting clearing, and requiring restoration of damaged forest during subdivision or development.	Development Permit Area (through new Bill 27 authority)

OCP Policy Options: Other

Objective	Potential Policies: ***The LTC will consider…***	Planning Tool(s)
To reduce methane emissions from landfills.	Supporting recycling and composting.	Advocacy, Partnerships
	Encouraging regional districts to develop zero waste strategies for the region.	Advocacy, Partnerships

Climate Action Resource List

This is a selection of climate action resources compiled by Islands Trust staff. If you are aware of other resources or find broken links, please email info@islandstrust.bc.ca

Provincial Actions

Bill 27, *Local Government (Green Communities) Statutes Amendment Act*

Passed in May 2008, this provincial Act requires all local governments to include GHG emissions reduction targets, and policies and actions to achieve those targets, in their official community plans.
www.cd.gov.bc.ca/lgd/intergov_relations/green_communities_legislation.htm

BC Climate Action Charter

Jointly developed by the Union of BC Municipalities and the Province of BC, the Charter is a non-binding statement of commitment by local governments to take action on climate change.
www.cd.gov.bc.ca/ministry/whatsnew/climate_action_charter.htm

BC Climate Action Plan

Outlines strategies and initiatives to achieve BC's GHG reduction target of 33% by 2020.
www.livesmartbc.ca/government/plan.html

BC Air Action Plan

Sets out 28 actions to reduce air pollution, complementing the government's Climate Action Plan and the BC Energy Plan.
www.bcairsmart.ca/about/highlights.html

BC Energy Plan

In addition to oil and gas, the plan considers clean alternative energies to meet BC's energy needs: bioenergy, geothermal, tidal, run of river, solar, and wind.
www.energyplan.gov.bc.ca/default.htm

Energy Efficient Buildings Strategy

Sets new building energy targets that support the BC Energy Plan and includes climate action at the home, workplace, and community levels.
www.energyplan.gov.bc.ca/efficiency/

Western Climate Initiative

The Province is a participant in the Western Climate Initiative (WCI), which is developing a regional cap and trade system to help reduce GHG emissions from industrial polluters.
www.westernclimateinitiative.org/

The Climate Registry

BC was one of the first Canadian members of the Climate Registry, an international partnership working to create a common approach to measuring and reporting GHG emissions.
www.theclimateregistry.org/

100,000 Solar Roofs

A SolarBC project sponsored by the BC government, this $5 million program encourages homeowners, schools, social housing projects and first nations communities to install solar water heating systems and help reduce GHG emissions.
www.solarbc.ca/about

Regional District Actions

CAPITAL REGIONAL DISTRICT

Climate Action Plan (formerly the Community Energy Plan)

Passed by the CRD Board in February 2008, the plan is a strategy to manage energy consumption and GHGs throughout the region's 13 municipalities and 3 electoral areas.
www.crd.bc.ca/climatechange/communityenergyplan.htm

Capital Region Draft Strategic Plan (2009-2011)

Climate action is a strategic priority in the 2009-2011 draft strategic plan. Goals within this priority include reducing regional GHG emissions by 33% by 2020 (using 2007 as a base year), and strengthening capacity of member municipalities to achieve their own GHG reduction goals.
www.crd.bc.ca/documents/strategic-plan-draft.pdf

COMOX VALLEY REGIONAL DISTRICT

Regional Growth Strategy

The Regional Growth Strategy (RGS) is being created over a two-year period (2008-2010) with an approved RGS policy document to be adopted by December 31, 2010.
www.rdcs.bc.ca/section_rgs/content.asp?id=3211&collection=71

Regional Sustainability Strategy Draft

Currently under development, the draft RSS outlines sustainability goals and actions to meet these goals, including: a reduction in overall carbon emissions by 80% by 2050 and a reduction in energy use per capita by 50%. These goals and actions will be incorporated into the Comox Valley RGS and OCPs. A grant from the Federation of Canadian Municipalities' Green Municipal Funds provided $180,000 to cover half the total costs of the project.
www.rdcs.bc.ca/section_rgs/content.asp?id=3214&collection=71

COWICHAN VALLEY REGIONAL DISTRICT

CVRD Environment Commission

A group of 15 community members established in 2007 to provide advice to the CVRD Board on policy, regulations and issues related to the environment, and draft an Environmental Strategy.
www.12things.ca/12things/about.php

Environmental Strategy and Plan

Adopted by the CVRD Board in November 2008, the draft Environmental Strategy outlines '12 big ideas,' including get real about climate change, be energy smart, and clear the air to reduce carbon emissions. CVRD staff are now developing an implementation plan outlining priorities and actions consistent with this strategy.
www.12things.ca/12things/big-ideas.php

REGIONAL DISTRICT OF NANAIMO

Integrated Region-wide Energy, Air Quality and GHG Management Plan

Currently under development, this plan will establish an energy and emissions strategy for the region, including targets and strategies to reduce GHG emissions from residential, commercial and industrial buildings; transportation; and solid waste. A draft of the plan is expected to be completed this fall. The RDN received a grant of $45,120 from Ministry of Community Development for this project—in addition to $50,000 grant received from the Federation of Canadian Municipalities Partners for Climate Program.
www.rdn.bc.ca/cms.asp?wpID=1436

Green Buildings Action Plan

A plan adopted in 2007 to increase the number of green buildings in the RDN.
www.rdn.bc.ca/cms/wpattachments/wpID1046atID2011.pdf

Regional Growth Strategy Review

The RGS for RDN is currently under review. Possible changes that have been identified include targets and measures for reducing GHG emissions and energy use; clearly stated sustainability principles and policies; and direction on creating complete, compact communities. Discussion and background papers on the RDN approach to including GHG targets and actions in the RGS are available on the website.
www.shapingourfuture.ca/

San Juan County Actions

Council Resolution pledging action on climate stabilization in 2008.
www.sanjuanco.com/Council/ClimateChange.aspx

Municipal OCPs Containing Climate-Change Policies

Village of Kaslo OCP (Draft)

Contains policies on local food security and decreasing GHG reduction and reliance on external energy sources.
www.kaslo.ca/files/%7B2A595F63-B29E-4E5F-ABDD-B816D1CCE50F%7DDRAFT%20OCP%20Jan%202009.pdf

District of Saanich OCP

Contains policies on climate change and sustainable land use.
www.gov.saanich.bc.ca/business/development/plan/pdfs/ocp%20files/ocp_adopted_jul808.pdf

District of Squamish OCP (Draft)

Includes policies on energy use and air and GHG emissions.
www.squamish.ca/files/OCP_Draft_2_Aug_2007.pdf

District of Ucluelet OCP

Contains policies modeled on smart growth principles, including compact and mixed use development, alternative development standards, and multi-modal transportation.
www.ucluelet.ca/UserFiles/File/Bylaws/OCP/OCP%20Jan%2011%202007.pdf

City of Vernon OCP

Contains policies on energy efficiency.
www.vernon.ca/ocp/index.html

LTC Actions: OCPs, Plans, Studies, Model Bylaws + Guidelines

SALT SPRING ISLAND LTA

Official Community Plan

Climate change policies have been incorporated into the SSI OCP.
www.islandstrust.bc.ca/ltc/ss/pdf/ssbylbaseocp434vol1.pdf

Sustainability Checklist for Residential Development

A guide for residential construction including additions, renovations, and accessory buildings.
www.islandstrust.bc.ca/ltc/ss/pdf/sssustainchecklist.pdf

Salt Spring Community Energy Strategy

A community-based organization that has produced several relevant studies and reports:

- *The Energy Strategy* measures emissions, sets short-term reduction targets to reduce energy consumption and GHGs to 2002 levels by 2012, and recommends actions to achieve these targets.
  www.saltspringenergystrategy.org/docs/SS_Energy_Strategy.pdf
- *The Energy and GHG Implications of Different Settlement Patterns on Salt Spring Island*.
  www.islandstrust.bc.ca/ltc/ss/pdf/ssocpreviewfinalrptssighgstudyjul2007.pdf
- *Microhydro Feasability Study for Salt Spring Island*
  www.saltspringenergystrategy.org/reports.htm

Pilot Community for the Community Action on Energy Efficiency (CAEE) initiative

Committed to achieving an EnerGuide for New Houses rating of 80 by 2010, reducing average energy consumption in new homes by 32%; reducing energy consumption in 12% of existing buildings by an average of 17% by 2010.
www.saveenergynow.ca/saltspring

Funding received through this program was used to produce several relevant studies and reports:

- *Density Bonus & Other Policy Options for Energy Efficiency*
  www.saltspringenergystrategy.org/docs/Policy%20Options%20CAEE%20Gold%20Final%20July%2031%202008_2.pdf
- *Energy and Greenhouse Gas Emissions Analysis for New Residential Buildings*
  www.saltspringenergystrategy.org/docs/Pembina%20-%20Energy%20GHG%20Analysis%20-%20Oct24.pdf

Salt Spring Island Transportation Commission

Established by the CRD to administer public transit, construct pedestrian and cycling infrastructure, regulate parking (with provincial approval) & implement traffic demand management and other strategies to reduce auto dependence on Salt Spring Island.
www.crd.bc.ca/regionalplanning/transportation/ssitranscom.htm

Public transit system

An island bus established as partnership initiative between the CRD and Ministry of Transportation and Infrastructure.
www.toolkit.bc.ca/success-story/public-transit-saltspring-island

Area Farm Plan (2008)

To be integrated into OCP to encourage local food growing.
www.saltspringenergystrategy.org/docs/Plan%20to%20Farm%20-%20Jan%202008.pdf

DENMAN ISLAND LTA

Official Community Plan

A section on climate change has been incorporated into the Denman OCP.
www.islandstrust.bc.ca/ltc/de/pdf/debylbaseocp00185.pdf

GABRIOLA LTA

Work Program Priorities

Climate change has been adopted as a top work program priority (2009).

LASQUETI LTA

Work Program Priorities

Climate change adopted as the number one work program priority (2009).

BOWEN ISLAND MUNICIPALITY

Community Energy Planning Options Report

Established a baseline inventory of energy consumption and GHG emissions and provided policy options to reduce emissions.
www.bimbc.ca/files/embedded/Bowen%20Island%20CEP%20Final.pdf

Greenhouse Gas Action Plan

Updates the GHG emissions inventory, outlines actions taken since 2003, and provides new policy recommendations to reduce emissions.
www.bimbc.ca/files/embedded/Bowen%20Island%20GHG%20Action%20Plan-%20FINAL%20REPORT.pdf

Green Buildings Standards for Residential Re-zoning Policy

Used to evaluate the energy efficiency and green building practices of all residential rezoning applications.
www.bimbc.ca/files/policies/Green%20Building%20Standards2.pdf

Pilot Community of the Community Action on Energy Efficiency (CAEE) initiative

Committed to adopting standards for new residential construction requiring rezoning; creating building/development guidelines; and integrating community energy plan options into a broader community planning framework.
www.saveenergynow.ca/bowenisland

Draft 2020 Vision and Sustainability Framework

Includes energy and emissions as key elements, and establishes GHG reduction target of 33% below 2007 levels by 2020; 80% below 2007 levels by 2050. It also establishes a target to reduce emissions from transportation by 50% by the year 2020 (2007 baseline).
www.bimbc.ca/files/embedded/Sustianability%20Framework%20July%202008.pdf

Trust Area Community Group Actions

ENERGY AND CLIMATE CHANGE

Gabriola Climate Action Network (GabCAN), Gabriola Island

Proposing a ride share program and supporting eco-planning to reduce GHGs.

Renewable Energy Denman Island (REDI), Denman Island

Operate the IslandRideShare program and Green Flag program (car stop).

Community Energy Strategy, Salt Spring Island

An island initiative coordinated by the Earth Festival Society, with the help of The Salt Spring Island Conservancy, Island Natural Growers and other island groups. The initiative aims to save energy, reduce GHGs, reduce air pollution, and achieve—at minimum—a 20% reduction in emissions by 2012.
www.saltspringenergystrategy.org/index.htm

Lasqueti Community Clean Energy Working Group, Lasqueti Island

A working group promoting the use of renewable energy, reduction of GHG emissions, and enhancement of energy security. The initial priority is raising funds for a Community Energy Plan with a focus on False Bay School and other public facilities on Lasqueti.

How-To Guide to Carbon Neutral Living on the Gulf Islands

A project to publish a 'how-to' book of local climate change solutions collected from local experts and activists. It will include a comprehensive list of local resources and community groups working on these issues.

TRANSPORTATION

Moving Around Pender (MAP) Alternative Transportation Society, Pender Islands

Goal to make cycling and walking safer and more accessible, including the car stop program and a partnership with Ministry of Transportation and Infrastructure to develop and designate cycling paths on the highways network.

Car Stop Program, Pender, Mayne, Hornby, and Gabriola Islands

Initially launched by Moving Around Pender on North and South Pender Islands where 29 car stop locations now exist, the Car Stop Program is rapidly expanding to other Gulf Islands: 25 car stops are planned for implementation on Mayne Island in September 2009, and Hornby and Gabriola are well along in the planning process.
www.barrymathias.com/car_stops.htm

Transportation Advisory Committee (through LTC), Pender Islands

Working with Paths on Pender; bike path designated, working with Ministry of Transportation and Infrastructure to create pullouts for community shuttle.

Gabriola Public Transit Committee, Gabriola Island

Reviewing need for a bus or other alternative transportation modes.

Non-Motorized Trails Committee, Hornby Island

Constructs and maintains trails for walkers, joggers, and bicyclists.

RealHornby, Hornby Island

Projects include a rideshare program coordinated through an online system. The program also included "ride offered" dashboard signs for use on inter-island ferries.
www.realhornby.com

GREEN BUILDINGS

Mudgirls Natural Building Collective, Lasqueti, Denman, and Salt Spring Islands

The collective builds affordable, energy efficient structures with local, natural and recycled materials.
www.mudgirls.ca

FOOD SECURITY

Community Food Program, Galiano Island

Community food program, emphasis on food security and practical 'how-to's' (e.g. cooking, canning etc.).

SPUDS, Denman Island

A local food growing initiative.

Mayne Island Agricultural Society, Mayne Island

Increase emphasis on local farming activities and the local farmers market.

Pender Organic Community Garden Society, Pender Island

Building community garden space through individual plots, shared plots, and community supported agriculture. The project aims to enhance food security, reduce climate change impact, provide affordable and nutritious food, and foster sense of community.
www.penderislandweb.com/garden/

Lasqueti Potato Co-op, Lasqueti Island

Inspired by similar groups on Cortes and Denman, members cooperatively grow organic potatoes on borrowed land to encourage local food security and community collaboration.

Lasqueti Saturday Market Association, Lasqueti Island

Organizing and promoting a weekly farmers market to support local food security and local economy.

Salt Spring Island Natural Growers (ING), Salt Spring Island

An association of organic growers that also provides community education in sustainable agriculture.

The Agricultural Alliance, Salt Spring Island

A key recommendation of the Spring Island Local Area Farm Plan, the Alliance supports local food production and distribution by linking growers, producers, retailers, and consumers.

Island Farmers Institute, Salt Spring Island

A 110-year old organization that supports farmers in their quest for sustainability and encourages the preservation and development of agriculture on Salt Spring Island through advocacy and education initiatives.
www.ssifi.org/

Crop Circle, Hornby Island

A discussion group working to strengthen local food security. Projects include promotion of "100 kilometre" dinners and a 10-acre community garden project.

Gabriolans for Local Food Choices, Gabriola Island

Established a food charter for Gabriola community.
www.gabriolafoodchoices.org

Gabriola Commons, Gabriola Island

Includes a farm management team and permaculture and community garden groups.
www.gabriolacommons.ca

NATURAL AREAS

Galiano Conservancy Association, Galiano Island

Works to protect land and improve ecosystem health through restoration. Projects include a study of the impact of restoration treatments on forest carbon sequestration and a climate change education program.
www.galianoconservancy.ca

The Pender Conservancy, Pender Islands

Promotes NAPTEP program and administers the fund that pays fees associated with qualifying NAPTEP applications.

Healthy Ecosystems Healthy Community Initiative, Salt Spring Island.

An initiative to provide a comprehensive "health check-up" on SSI's ecosystems; To assess the implications for the health and well-being of the community; identify key indicators of the health of ecosystems and community; create a solid basis for action to restore ecosystem health.
www.i-sea.org/pdf/Healthy_Ecosystems_Healthy_Community_Initiative_FEB_16_2008.pdf

COMMUNITY SUSTAINABILITY

Institute for Sustainability Education and Action (I-SEA), Salt Spring Island

Works to facilitate and support the creation of a sustainable community. Projects include Eco-Options, a directory of local suppliers, builders and designers contributing to sustainable, green development on Salt Spring Island; Design Charrettes, village planning scenarios sketched and drawn; and GreenWise Map Development.
www.i-sea.org/index.html

Environmental Action Group Encouraging Responsibility, Salt Spring Island

A high school youth group working to green school operations. Also publishes an eco-shopping guide and works with community retailers to eliminate use of paper and plastic bags.

Islands Sustainability Initiative (ISUNI), Mayne Island

Projects include the Cool Islands initiative to reduce GHGs (carbon offsets bought by participants used to finance sustainability projects), publication of climate change articles and local food dinners.
www.sustainmayne.org/

Gulf Islands Alliance

One of the priorities of the Alliance is to support a range of approaches to address climate change. The Alliance is currently coordinating an inter-island community climate change event for October 2009.
www.gulfislandsalliance.ca/about-us.html

Resources on Inventories + Targets

Community Action on Energy and Emissions Inventory (CEEI) system

A Ministry of Environment reporting system providing GHG emissions inventories for all BC local governments. Inventories currently include rough emissions estimates from the transportation, buildings, and solid waste sectors.
www.env.gov.bc.ca/epd/climate/ceei/reports.htm

Developing Inventories for GHG Emissions and Energy Consumption

A guidance document for Partners for Climate Protection members that includes information on developing inventories and targets.
www.sustainablecommunities.fcm.ca/files/Capacity_Building_-_PCP/pcp-ismd-pub-en.pdf

The City Climate Catalogue

Under development by the City of Copenhagen and ICLEI, the City Climate Catalogue is an international compilation of local government greenhouse gas reduction targets.
www.iclei-europe.org/index.php?id=6905

Inventories, Targets, and Actions: Implementing GHG and Energy Reduction Measures for Bill 27 and More

The regional workshop materials prepared by Ministry of Community and Rural Development to support local governments in meeting Bill 27 requirements.
www.toolkit.bc.ca/

Resources On OCP Policies + Actions

BC Climate Action Toolkit

A climate action resource and tool for knowledge sharing and collaboration between BC local governments developed by UBCM, Smart Planning for Communities, and the Province. The Toolkit provides the latest news, best practices, and practical advice to help reduce GHG emissions – including a section for rural communities.
www.toolkit.bc.ca/

Taking Action on Climate: BC Local Government Examples (Draft)

This draft document produced by Ministry of Community and Rural Development is a compilation of best practice BC local government climate change actions in strategic planning, land use and transportation, buildings, waste and water, and natural environment. Not yet available online; please request copy from TAS staff.

Inventories, Targets, and Actions: Implementing GHG and Energy Reduction Measures for Bill 27 and More

The regional workshop materials prepared by Ministry of Community and Rural Development to support local governments in meeting Bill 27 requirements.
http://toolkit.bc.ca/sites/default/files/Inventories,%20Targets%20and%20Actions-%20Implementing%20GHG%20and%20Energy%20Reduction%20measures%20for%20Bill%2027%20and%20more.pdf

Green Bylaws Toolkit

Provides local governments and the public with practical tools for conserving sensitive ecosystems and green infrastructure, including bylaw language and legal approaches to protection.
www.greenbylaws.ca/

Opportunities for Local Government Action on Energy Efficiency in New Buildings

A document to assist local governments in promoting energy efficiency in new buildings.
www.bcclimateexchange.ca/doc/LocalGovernmentEnergyPart1.pdf

Energy Efficiency & Buildings: A Resource for BC's Local Governments

A resource manual for BC local governments providing an overview of policy tools and leading civic building operations that advance energy efficiency.
www.bcclimateexchange.ca/pdfs/EnergyEfficiencyOnlineGuide2009.pdf

A Guide to Green Choices

Produced by Ministry of Community Development, this guide provides practical advice and ideas for land use to build green communities.
www.cd.gov.bc.ca/lgd/planning/greenchoices.htm

CEA Energy Sustainability Case Study Guide

A directory of practical, energy-related case studies to assist local governments in energy planning, efficiency, and renewable energy.
www.communityenergy.bc.ca/sites/default/files/CEA%20Case%20Study%20Guide.2008Oct.pdf

Density Bonus and Other Policy Options for Energy Efficiency

Prepared for the Capital Regional District and Salt Spring Island, this report analyzes policy options to help Salt Spring meet targets to reduce energy consumption in new residential buildings.
www.saltspringenergystrategy.org/docs/Pembina%20DC%20%20CAEE%20GOLD%20Summary%20-FINAL%20October24.pdf

Microhydro Feasibility Study for Salt Spring Island

Prepared for Salt Spring Island Community Energy Strategy and the CRD, this study provides an overview of the potential for microhydro generation on Salt Spring Island.
www.saltspringenergystrategy.org/docs/Microhydro.pdf

The GHG Implications of Different Settlement Patterns on Salt Spring Island

This study assesses the impacts of different settlement land use patterns on GHG emissions for the maximum density allowed under current zoning (build-out). Three scenarios were created to highlight the effect of transferring potential density to different locations on the island.
www.islandstrust.bc.ca/ltc/ss/pdf/ssocpreviewfinalrptssighgstudyjul2007.pdf

Energy and Greenhouse Gas Emissions Analysis for New Residential Buildings

Prepared for Salt Spring Island LTC, this report provides an assessment of the potential costs and benefits, energy savings and GHG reductions resulting from physical changes to new homes on Salt Spring Island.
www.saltspringenergystrategy.org/docs/Pembina%20-%20Energy%20GHG%20Analysis%20-%20Oct24.pdf

Reducing Global Warming and Air Pollution: the role of green development in California

This article by Lawrence Frank and Company describes the impact of land use on GHG emissions.
www.solutionsforglobalwarming.com/docs/EDF-AppendixBFrankISRreport.pdf

Resources On Energy + Sustainability Planning

Community Energy and Emissions Planning: A Guide for BC Local Governments

Produced by Community Energy Association, this guide describes the purpose and content of a community energy and emissions plan, its benefits, and how to go about creating one. The guide provides practical tips, examples from BC communities, and links to more detailed information.
www.communityenergy.bc.ca/resources-introduction/community-energy-emissions-planning-guide

Smart Planning for Communities

A BC-wide initiative support and provide local governments with the resources and tools to plan socially, culturally, economically, and environmentally sustainable communities. Regional Sustainability Facilitators help build partnerships and facilitate information sharing.
www.fraserbasin.bc.ca/programs/smart_planning.html

Energy Sustainability Planning: What's in it for my Community?

A brief for elected government officials on the benefits of community energy planning produced by Community Energy Association.
www.communityenergy.bc.ca/sites/default/files/CEA%20Brief_Sept07.pdf

Partners for Climate Protection. Federation of Canadian Municipalities

PCP program details a five-milestone framework for reducing GHG emissions, including development of a local action plan.
www.sustainablecommunities.fcm.ca/Partners-for-Climate-Protection/PCP_Milestone.asp

Resources On Transportation Planning

Transportation Demand Management: A Small and Mid-Size Communities Toolkit

Produced by the Fraser Basin Council, this TDM toolkit offers insights on how to expand transportation options and reduce overall vehicle use in your community – including case studies to illustrate successful bicycle and active transportation programs, intercommunity transit, carpooling, car-sharing and parking strategies.
www.fraserbasin.bc.ca/programs/documents/FBC_TDM_toolkit_web.pdf

Casual Carpooling: A Background Guide

Prepared by UVic Environmental Law Centre Society researcher Shannon Gibson, this 40-page guide focuses on legal and administrative issues involved in establishing a car stop system; investigates carpooling systems in other communities; and offers recommendations.
www.elc.uvic.ca/documents/Casual-Carpooling-Memo.pdf

Resources on Other Relevant Issues

Greenhouse Gas and Energy Co-Benefits of Water Conservation

A 2009 report by Carol Mass at the University of Victoria POLIS Project on Ecological Governance examines the interconnections and implications for both energy and water policy and conservation. The author quantifies the significant untapped opportunity for water conservation to reduce energy, save municipal dollars and mitigate Greenhouse Gas (GHG) emissions. This study demonstrates how conserving water translates into saving energy and is an important element in any climate change policy.
www.poliswaterproject.org/sites/default/files/maas_ghg_.pdf

Dig It! A Practical Toolkit: How Local Governments Can Support Community Gardens

Developed by UBCM and Ministry of Community and Rural Development, this report highlights the benefits of community gardens, identifies the barriers local governments face in developing community gardens, and outlines best practices and tools for facilitating the creation of community gardens.
http://ubcm.civicweb.net/contentengine/launch.asp?ID=4161

Islands Trust

Preserving **Island** communities, culture and environment