leadership makes a difference

leading edge policy and inspirational initiatives for communities

Going for Green
Leadership Series
Volume 2

CENTRE FOR CIVIC GOVERNANCE

Leadership Makes a Difference:
Leading Edge Policy and Inspirational
Initiatives for Communities

Going for Green Leadership Series
Volume 2

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Introduction

The momentum for "going green" is building. Canadians want action on climate change and the triple bottom line of social, environmental, and economic sustainability. Communities are rising to the occasion with inspiring strategies and meaningful action.

From Squamish's global warming pledge, to Okotok's pioneering build-out boundaries, to the Ucluelet sustainability plan that took the UN's top prize, to tackling issues like the pressing problem of affordable housing, this reader provides examples of how local governments are forging innovative, homegrown methods of making environmental, economic, and social sustainability their reality.

At the same time, school trustees have an opportunity to take action against climate change while enhancing conditions for student learning – and improving budgets – through building green schools and supporting innovative curricula.

As part of its mandate to build strong, progressive communities, the Columbia Institute Centre for Civic Governance has gathered some of the best hard-won wisdom and examples of leadership making a difference in this second volume in the Going for Green Leadership Series.

PART 1

What the People Think

The Columbia Institute Centre for Civic Governance Checks in on the Public Pulse

A poll commissioned by the Columbia Institute Centre for Civic Governance shows that citizens trust their local government officials above all other levels of government. In particular, the public supports local governments taking strong action on global warming and they're willing to pay more taxes and give up other services to make it happen. Continue reading to find out how the numbers stack up.

> LOCAL GOVERNMENT

LOCAL GOVERNMENT MOST RESPONSIVE

Respondents were asked, "In general, when you're facing a problem in your community, whom would you expect to be most responsive in dealing with that problem?" In B.C., 34.5 per cent indicated their local councillor, while in Ontario 60.6 per cent of respondents felt their local councillor was most responsive.

MORE FUNDING FOR LOCAL GOVERNMENT

Seventy-one per cent of Ontarians and 69 per cent of British Columbians believe that the provincial and federal governments should provide local governments with more regular and more flexible sources of funds.

> PUBLIC EDUCATION

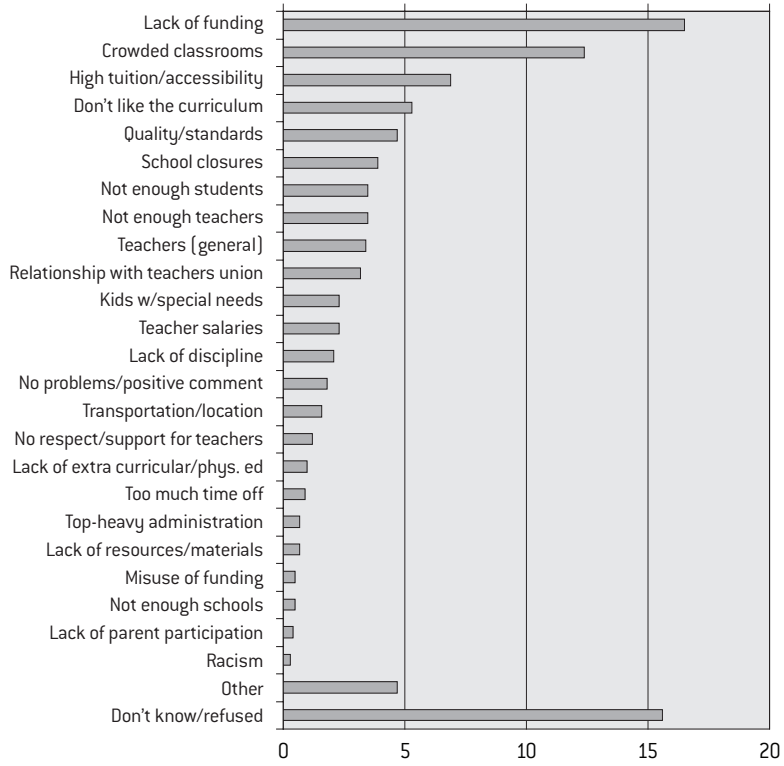
TRUSTEES MOST TRUSTED WITH PUBLIC EDUCATION

When asked "Who is doing the best job in relation to the public education system in your community?," 44.8 per cent of Ontarians responded that their local school trustee is doing the best job, while just 20.7 per cent named the Ontario government. In B.C., more than half of respondents – 56.1 per cent – named their local school trustee and only 15.8 per cent cited the provincial government.

LACK OF FUNDING TOPS THE LIST

Lack of funding is the most pressing issue facing the public education systems in British Columbia and Ontario. Concerns stemming from a lack of funding

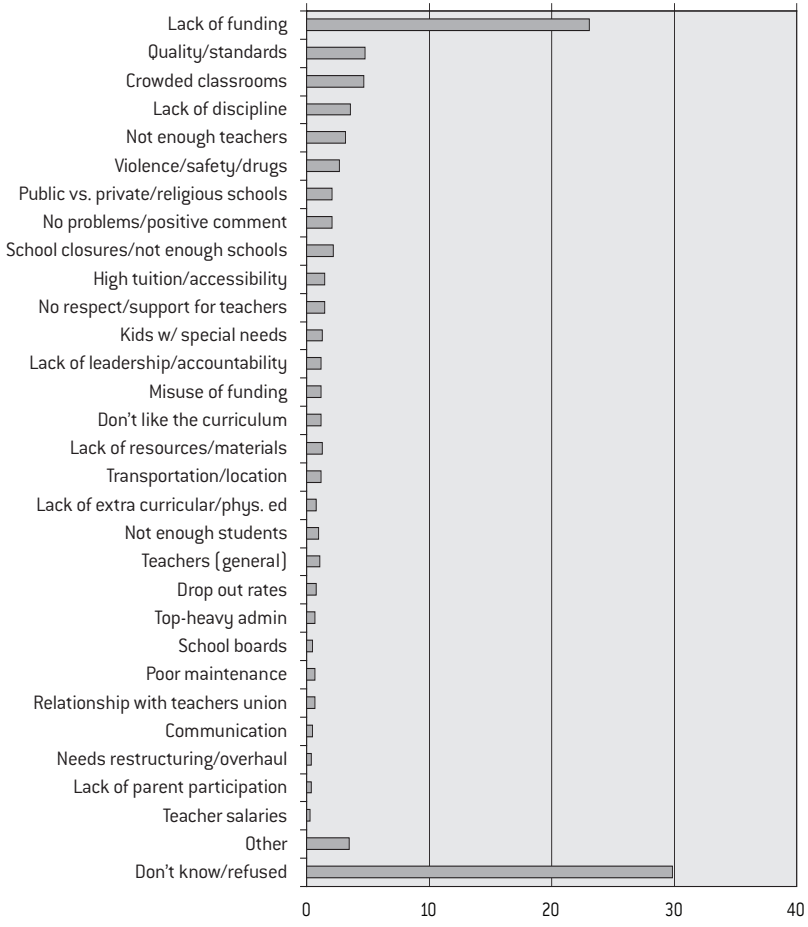
WHAT IS THE MAIN PROBLEM FACING THE PUBLIC EDUCATION SYSTEM IN YOUR COMMUNITY? (BC)



add up to 40.3 per cent in British Columbia and 36.6 per cent in Ontario, by far the biggest group of responses in both provinces. Such concerns include crowded classrooms, help for students with special needs, school closures, too few teachers, lack of resources/materials, and lack of extra curricular activities.

Concerns stemming from a lack of funding add up to 40.3 per cent in British Columbia and 36.6 per cent in Ontario, by far the biggest group of responses.

WHAT IS THE MAIN PROBLEM FACING THE PUBLIC EDUCATION SYSTEM IN YOUR COMMUNITY? (ONTARIO)



> GLOBAL WARMING: LOCAL GOVERNMENT ROLES

GLOBAL WARMING A PRIORITY FOR LOCAL GOVERNMENT

In our poll, 58.4 per cent of British Columbians said they agree that local government should take strong action on global warming, even if it means having fewer funds available to provide other important services to the community. A similar number – 59.4 per cent – of Ontarians also agreed with this statement.

HIGHER TAXES FOR GLOBAL WARMING ACTION

Even stronger support for action on global warming was shown by British Columbians and Ontarians when they were asked if they would pay higher taxes in order to enable local government to take strong action on global warming. In the poll, 64.8 per cent of British Columbians and 53.2 per cent of Ontarians answered yes.

Both the British Columbia and Ontario polls were fielded by Strategic Communications and are accurate 19 times out of 20 with a margin of error of +/- 4 per cent. The Ontario poll was fielded between June 5 and 11, 2007 and the British Columbia poll was conducted between March 15 and 27, 2007.

PART 2

Get With The Plan

Communities Plot Sustainability

The maxim "If you fail to plan, you plan to fail" is particularly apt when it comes to planning for sustainable communities. Sustainability requires communities to revision, rethink, and rework how they function on a scale few have previously attempted. But the four groundbreaking communities profiled in this section did just that, and they've not only succeeded in making progress towards a sustainable future – some have even won national and international accolades.

Victoria's Capital Regional District beat out the rest of Canada to develop a community energy plan. The small Albertan community of Okotoks bucked its province's trend of explosive, oil-fueled development and became one of the first communities in the world to limit its growth with a built physical boundary. Dawson Creek's sustainability planning led to a flurry of action, successes and awards. Patricia Heintzman, a relative newcomer to municipal politics, serves up inspiration as she explains how she got some "local motion" happening with a global warming action pledge. And tiny Ucluelet took home the United Nations' global prize for community sustainability.

How did they do it? Read on.

PART 2.1

Energizing the CRD

The First Regional Energy Reduction Plan in Canada

JUDY BROWNOFF has been serving as a District of Saanich councillor since 1993 and is the past chair of the Capital Regional District (CRD).

> ENERGY MANAGEMENT AND WATER CONSERVATION PROJECT

While chair of the Capital Regional District I was approached to initiate an Energy Management and Water Conservation Project for the district. This project identified 45 municipally and regionally owned buildings in the district to receive energy retrofits. A business case for each showed there would be a three- to 10-year payback of up-front investment, and a 9.5 per cent savings on future utility bills. We'll save about 1,629 tonnes of greenhouse gas (GHG) emissions (the equivalent of getting 393 mid-sized cars off the roads) and 62 million units of bottled water a year while creating economic development equivalent to 102 person months of employment for local trades from the retrofits.

> TOWARDS A CRD COMMUNITY ENERGY PLAN

Next, the Chamber of Commerce approached us about what we could do regionally to reduce greenhouse gas emissions and energy consumption. Together with 13 letters of support from all member municipalities, we were successful in leveraging funds from the FCM Green Funds and others. We then developed the first regionally-based GHG emission and energy inventory baseline, with reduction targets and a reduction plan. This was the first such plan in Canada.

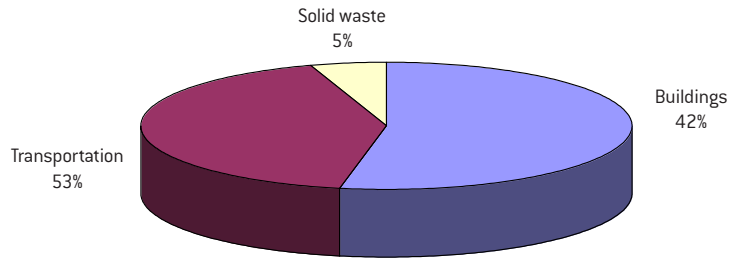
We'll save about 1,629 tonnes of greenhouse gas (GHG) emissions (the equivalent of getting 393 mid-sized cars off the roads) and 62 million units of bottled water a year while creating economic development equivalent to 102 person months of employment for local trades from the retrofits.

We wanted to translate individual actions into community sustainability, through coordinating stakeholder efforts, raising awareness and thus building the capacity to act. Our goal was to foster a sustainable region by supporting the development and application of new technology, modified practices, green infrastructure, and transportation planning.

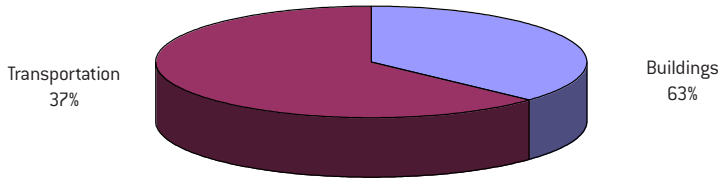
To get the plan approved, we explained to the board that if we do nothing, then in the next 20 years:

- Fossil fuels will be 88 per cent of the world's energy supply and a new 1,000 MW power plant would have to be built every two days;
- Higher energy and infrastructure costs will threaten our economic prosperity and quality of life; and
- Global warming could have severe weather implications and that could create financial losses locally.

GHG EMISSIONS: CAPITAL REGIONAL DISTRICT COMMUNITY-WIDE INVENTORY



ENERGY USE: CAPITAL REGIONAL DISTRICT COMMUNITY-WIDE INVENTORY



> GREENHOUSE GAS AND ENERGY CONSUMPTION INVENTORIES

SOLID WASTE-RELATED CO_2 EMISSIONS IN THE CAPITAL REGIONAL DISTRICT

- 1995: CO_2 emissions = 198,870
- 2004: CO_2 emissions = 84,945
- Reduction: 57 per cent

This reduction is a result of introducing the Hartland Landfill Gas Capture program, which converts methane gas to energy, creating enough electricity to power 1,600 homes. The Hartland program has been the recipient of a number of awards, including the Silver Award for Landfill Excellence from the Solid Waste Association of North America, and two awards from the Union of British Columbia Municipalities – the first time the organization has ever awarded two awards to one agency.

TRANSPORTATION-RELATED CO_2 EMISSIONS IN THE CRD

- 1995: CO_2 emissions = 881,930
- 2004: CO_2 emissions = 810,930
- Reduction: 8 per cent reduction

oneday...

With agreement from the City of Vancouver, we adapted the One Day Vancouver website to ours: www.onedaycapitalregion.bc.ca. One Day is the City of Vancouver's community engagement process in support of its Community Climate Change Action Plan.

The assumption is that this reduction relates to the increase of smaller and more efficient vehicles on the road, but as the population increases, this reduction will be nullified if we don't change transportation habits.

GOALS OF THE PLAN

- Improve energy efficiency of buildings;
- Increase transportation efficiency;
- Diversify the energy supply;
- Educate and engage residents and businesses; and
- Demonstrate local government leadership.

CONCRETE ACTIONS – VEHICLE FLEETS

- Improve fleet vehicle performance through driver training and education, i.e. NRCan's FleetSmart Driver Training;
- Establish a right-sizing program for fleet vehicles; and
- Evaluate biofuels in various fleet types.

OTHER POSSIBILITIES

- Maximize the cost-effective diversion of waste from landfill;
- Develop an energy efficient purchasing policy, specifying the minimum energy performance requirements for major products; and
- Develop internal education programs for staff.

> NEXT STEPS

Many members are already engaged with "sustainable," "smart growth" and "climate change" initiatives. We want to make sure we support their work and move the region forward in a collaborative fashion. The board recently approved $75,000 to go into a fund to establish a climate change function at the CRD. We have also approved the development of a multi-year climate change action plan, including steps for implementation, to be brought forward to the CRD Environment Committee in October 2007.

PART 2.2

Okotoks

Cowboy Country Goes Green

RICK QUAIL is Okotoks' Municipal Manager
and a member of the Alberta Water Council.

> THE TOWN

The little town with two 'ok's is 20 minutes south of Calgary on the beautiful Sheep River and the second fastest-growing mid-sized urban municipality in Canada. Between 2001 and 2006 there was a 47.6 per cent growth rate, from 11,500 to well over 17,000 people.

> SUSTAINABILITY PLANNING: THE BEGINNING

In the mid-1990s, the province of Alberta decided to end regional planning commissions, and instead organize planning around municipalities. Inter-municipal plans and long-range planning were to be negotiated for each community.

Okotoks had been conceptually growing towards a community of 40,000 to 60,000 people. We started looking at traditional growth methods and at the need for regional utilities and continuous boundary annexations to achieve that kind of growth.

We began a community dialogue through council-sponsored letters to the editor and community open houses about living within our ecological footprint, our sustainable capacity, particularly as related to the Sheep River. This is the goal our community has decided to pursue: we're one of the first communities in the world to purposely create a physical boundary for growth and growth management.

We decided to live within a physical built boundary through doing some minor annexation modifications, particularly as it related to diversifying our assessment base. That made it possible to build a planned and contained community, not through mandating a population cap, but through build-out boundaries.

> WHY A SUSTAINABLE COMMUNITY?

Okotoks wanted to become a sustainable community because of necessity, desire, willingness, and commitment.

- Necessity was the new provincial statutory planning framework requiring long-range plan development.
- Desire relates to our 2006 community vision: "In the year 2030, Okotoks is a leader in sustainability, driven by an involved, connected and creative community. Through visionary leadership, citizens are engaged in maintaining a safe, caring and vital community that honours our culture, heritage and environment."
- We were willing to create a sustainable community. We wanted to listen to ideas, to think outside the box, and to consult with residents.
- Commitment: Our 2006 community survey showed significant support for our sustainability initiatives.

> THE LITTLE TOWN WITH TWO 'OK's

Okotoks had been conceptually growing towards a community of 40,000 to 60,000 people. We started looking at traditional growth methods and at the need for regional utilities and continuous boundary annexations to achieve that kind of growth.

> SUSTAINABLE OKOTOKS: TARGETS

Sustainable Okotoks is premised on four foundations: environmental stewardship, economic opportunity, social conscience, and fiscal responsibility.

With respect to fiscal responsibility, we're aiming for a non-residential assessment base of 22 per cent. We're at about 10 per cent right now – 90 per cent of our assessment base is residential and only 10 per cent is commercial/industrial. The commercial/industrial assessment base supports the services required by the residential assessment base. To survive as a community, that percentage must be increased, or there will be over-reliance on the residential assessment base.

We're aiming to have 20 per cent of Okotoks' total land area, including all the river valley within the flood-risk area and the flood plain, as open space. We also stipulated densities (11.5 residential units per gross hectare), water consumption (318 liters per capita per day), and a 20 per cent reduction in greenhouse gases.

In Okotoks, if we grow continuously, we need to import utilities and water and we need to export sewage. To live within our means, i.e. the 11.8 inches (300 mm) of rainfall we receive annually and the shallow aquifers of the Sheep River, with flows that fluctuate dramatically between fall, winter, and spring, we have to reduce water consumption per capita by 30 per cent over 1998 consumption patterns. We also have to treat our effluent and return it to that receiving water body just to maintain aquatic habitat.

> A COMMUNITY FOR FUTURE GENERATIONS

TRADITIONAL PLANNING

- Planned growth without limits
- By intent – regional utilities
- Continuous boundary adjustments
- Continuous annexation as required

CHOOSING FOR OURSELVES

- Planned density
- Live within the carrying capacity of the sheep river
- Minor boundary adjustments
- Self reliance
- Long term watershed management

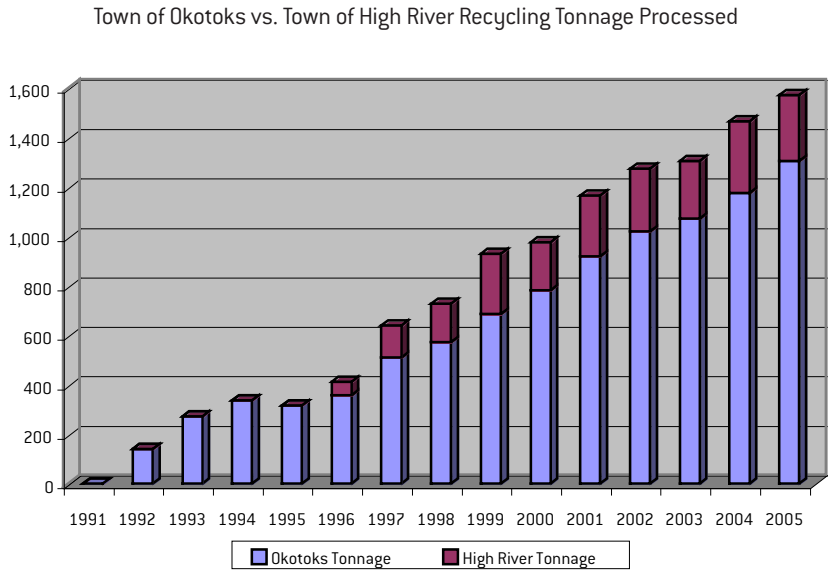
This requires strategic growth and clear targets determined well in advance. For example, our title convenances obligate developers to pre-scarify subsoil, add at least eight inches of topsoil, and install and maintain low-flow water fixtures throughout dwellings. Through our comprehensive and sophisticated water distribution monitoring and metering systems, we're able to determine if someone is cheating or has high water consumption patterns. We have a very aggressive water utility rate structure that supports and rewards water conservation and penalizes excessive users.

We're designing Okotoks neighbourhoods to allow people to live, educate, recreate, and worship in their own communities without using cars, while facilitating transit systems and offering dedicated pedestrian corridor systems to encourage walking over driving.

We're designing Okotoks neighbourhoods to allow people to live, educate, recreate, and worship in their own communities without using cars, while facilitating transit systems and offering dedicated pedestrian corridor systems to encourage walking over driving.

We've been pushing environmental stewardship in our community. We have an annual river clean up, a three-bag garbage limit, water conservation initiatives, community composting, an integrated pest management program, and an award-winning recycling program.

SOLID WASTE MANAGEMENT



In 1991 we had a garbage production rate of 0.9 kg per day. In 2006 we were at 0.7 kg per day. (2005 was an anomaly as we had some significant floods and property damage that year.) Since 1994, when we aggressively implemented recycling and limitations on curbside pickup, there has been a steady creep in garbage output, which we're going to be working on more aggressively. Continuous work on these initiatives is essential. We are expecting 3,000 new residents to move to Okotoks; we'll have to integrate them into our social and cultural identity, that sense of community about who we are – including living within the limits we've determined.

Recycling and yard waste drop-off facilities saved taxpayers $1.5 million in tonnage fees and processing fees between 1991 and 2006. (We also process High River's recycling because we have a regional recycling facility.)

Recycling and yard waste drop-off facilities saved taxpayers $1.5 million between 1991 and 2006.

We produce almost a third less garbage because of recycling. In 1991, Okotoks' population was approximately 9,000; in 2007 it is approximately 18,000. Imagine what our landfill would look like if we hadn't undertaken these initiatives!

Okotoks has also become known for energy efficiency initiatives, beginning in the mid-1990s. Due to an Alberta Energy Utilities Board ordered rebate, our power provider forwarded a $90,000 rebate. Council put the money into an eco-efficiency fund, used to purchase and install energy efficiency initiatives throughout the community. The net savings were poured back into the fund in order to continuously fund energy efficiency initiatives. That initial $175,000 has resulted in many, many times that savings over the years. For example, we've installed a solar water heating system in our Aquatic Centre, a solar

> SELECTED TARGETS

- Build out population of 25,000 to 30,000
- Downtown as geograhic centre, with 50 per cent of the population north and 50 per cent south of the river
- 22 per cent non-residential assessment base
- 20 per cent of total land area as open space
- 100 per cent river valley lands owned by the town
- 11.5 per cent residential units per gross hectare
- 318 litres (70 gallons) per capita water use per day
- 20 per cent reduction in greenhouse gas emissions

ice resurfacing system in our arenas, and a solar wall heating system at our operations centre.

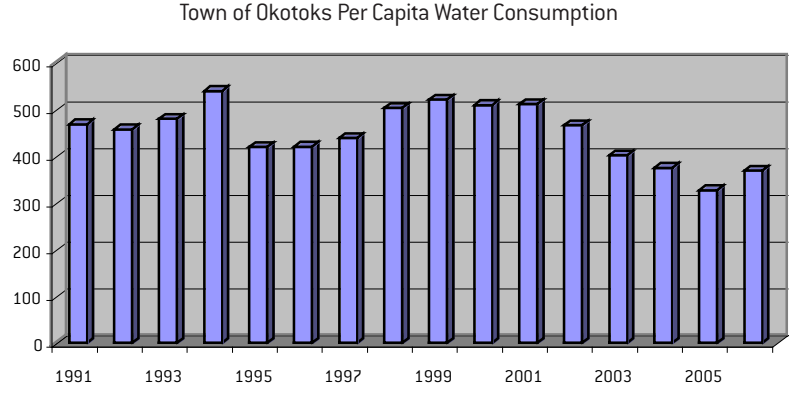
Okotoks has almost doubled its electricity consumption (for municipal items such as streetlights, fans, motors, recreation centres) while natural gas consumption increased by less than a third. When you almost double community size and put in $25 million recreation facilities and streetlights, etc., that electricity increase is inevitable.

However, we've been able to reduce our actual greenhouse gas emissions by 15 per cent over the same time period. During the electricity energy deregulation of the 1990s we aggregated our loads and purchased on the marketplace (stabilizing our pricing) and stipulated certifiable renewable energy minimums. Sixty per cent of Okotoks' electricity now comes from certified renewable energy generation sources. (Note: As of May 2007, council has increased that amount to 80 per cent certified renewable generation electricity.)

We produce almost a third less garbage because of recycling. In 1991, Okotoks' population was approximately 9,000; in 2007 it is approximately 18,000. Imagine what our landfill would look like if we hadn't undertaken these initiatives!

In another initiative, we developed a 52-lot, seasonal solar storage district heating system in collaboration with the federal and provincial governments and private sector partners. We installed solar panels on the detached roofs of the garages behind 52 homes. The solar-thermal energy is stored in the ground then pumped out in the winter to heat the homes. Ninety per cent of the space-heating needs for these homes comes from solar energy.

WATER MANAGEMENT



> LESSONS LEARNED

- Leap outside of the box.
- Have a clear vision.
- Make your goals tangible and deliverable.
- Find and form partnerships.
- Determine who needs to be at the table.
- Adapt and adopt from others.
- And most importantly, make sustainability the business that you're in, not a program.

"We didn't inherit the Earth from our parents. We're borrowing it from our children." Chief Seattle's words are the credo by which our community is planning for the next generation.

PART 2.3

How We Did It

Sustainable Successes in Dawson Creek

EMANUEL MACHADO is the Deputy Director of Development Services for Dawson Creek. He has been involved in the building trades for several years and is currently using that experience managing facilities and overseeing capital projects in the Mile Zero City.

JOSHA MACNAB is a member of the Sustainable Communities Group of the Pembina Institute where she is engaged in community energy and sustainability planning with communities in Western Canada. She has been working with Dawson Creek to design their Integrated Community Sustainability Planning process.

Dawson Creek, in the beautiful Peace River area, is an agriculture-based town of just over 13,000. Economically, forestry and tourism are also important, and there's mining in the area, and oil and gas exploration.

A 2003 community visioning process showed that the community wanted to be sustainable. People wanted emissions reductions and renewable energy because there were a lot of people in the town involved with testing for wind, as well as oil and gas exploration. We worked with the Pembina Institute to develop a community energy plan, starting with determining our energy costs. We found Dawson Creek consumes about $1 million worth of energy a year. Half goes to electricity, a third to natural gas, and the rest is fuel.

We then started sustainability planning, which provides a decision-making framework that goes beyond economics to the social and environmental. We've been able to show how social and environmental considerations also provide very good economic opportunities. Sustainability planning also provides an

opportunity to integrate all existing and future plans. We were surprised at how many plans in different departments needed revision. We also found a lot of duplication of effort and areas we were missing.

There are many community sustainability planning processes, but we chose the Natural Step method because it is internationally recognized and had already been used in Calgary and Whistler. Natural Step staff came to Dawson Creek to train staff, councillors, the mayor, and key community members, which provided a crucial common language, as well as a bit of excitement to kick things off.

The Natural Step's four principles of sustainability are:

- Decrease substances removed from the Earth's crust;
- Decrease substances produced by society;
- Decrease degradation of the Earth; and
- Ensure all people's needs are met.

Dawson Creek's planning process has three phases:

- Visioning;
- Creating strategies and actions to move to where we want to be; and
- Integrating strategies and actions into city operations, and developing a monitoring plan with indicators to ensure over 10 to 15 years there is progress towards sustainability.

Dawson Creek's old vision was:

To establish Dawson Creek and District as:

- the place to live, work and retire in the Peace River area;
- the business and service centre for the Peace River area; and
- the transportation centre of the Peace River area.

This vision is economically focused, with a bit about quality of life, but with nothing about the environment at all.

There has been a lot of action and a lot of early success. We've installed solar hot water and energy-efficient streetlights, instituted an anti-idling and a green power policy, and developed a college training program. We've also gotten a lot of awards, including 2006 Best Practices in Sustainability and 2006 Community Energy Planning awards, which really helped move the process forward.

Our new vision is:

- Dawson Creek will be a visionary community that works together for innovative social, cultural, economic and environmental vitality.
- This vision is based on community member input and on the four Natural Step principles of sustainability, put in easier-to-understand language.

There has been a lot of action and a lot of early success. We've installed solar hot water and energy-efficient streetlights, instituted an anti-idling and a green power policy, and developed a college training program. We've also gotten a lot of awards, including 2006 Best Practices in Sustainability and 2006 Community Energy Planning awards, which really helped move the process forward.

> WHAT'S WORKED

1. We took advantage of provincial funds, such as the Federation of Canadian Municipalities' Green Municipal Fund and Ministry of Community Services funds including:
    - Gas tax funding;
    - Local Motion/Towns for Tomorrow;
    - Green Cities awards; and
    - Infrastructure grants.
2. We've had outstanding political leadership.
3. We've been flexible. For example, we started with the Natural Step framework, but have deviated from it substantially.

We also documented the process so we can share it with other communities – something we didn't have, but which would have been really helpful.

PART 2.4

Squamish Greenhouse Gas Addiction Gets 12 Step Pledge

PATRICIA HEINTZMAN, a councillor for the District of Squamish since November 2005, instigated a pledge to ramp up local action on global warming.

In February 2007, the District of Squamish Council unanimously passed a 12-step Global Warming Action Pledge (see page 28). I'll explain how it came about, and how it's influencing policy and actions.

> INCEPTION

In my first year on council, I pushed for bike lanes, water metering strategies, heritage tree designations, a pesticide free bylaw, a soil removal bylaw, and a comprehensive riparian bylaw. I was an advocate of innovative affordable housing solutions, new urbanism and smart growth, anti-sprawl, public transportation enhancement, alternative energy strategies, a pesticide free community and collaborative governance. Most met with conditional support but no overwhelming enthusiasm from my cohort, and many disappeared into our bureaucratic abyss. Although the population of Squamish is changing rapidly because of mill closures, the Olympics, and an influx of city professionals and families, council is still mostly representative of the old "industry town" mindset.

I realized what was missing was a big picture policy that could act as an umbrella or a leverage point for these initiatives. Council needed something giving very clear direction to staff and providing a basis for clearer decision-making.

We needed a high profile issue we could agree on; we have had challenges finding consensus and I needed a shot of adrenalin to keep going on my initiatives.

At the same time, Al Gore's *An Inconvenient Truth* became a runaway hit and brought global warming into the public's consciousness like never before. I had read about how the Mayor of Seattle had initiated a global warming pledge in response to the Bush administration's denial of Kyoto, and that more than 350 American mayors had taken this pledge. I had also read about the World Mayors' and Municipal Leaders' Declaration on Climate Change. As the Conservative government in Ottawa continued to avoid acting on climate change, it became more evident that we needed to make this a local issue and initiative.

> COUNCIL STRATEGY

I brought the notice of motion regarding the pledge to council in early December 2006 and asked that it be brought forward to council one month later. At that point, not one of my fellow council members had seen *An Inconvenient Truth*. I wanted to give council enough time to research and understand the implication of this pledge and global warming. I bought a DVD of the film and gave it to council to watch. I also talked a friend into running a film series at our Adventure Centre on global warming and peak oil. Movies like *End of Suburbia*, *Crude Impact*, *Who Killed the Electric Car* and *An Inconvenient Truth* were featured in the local papers and were in the public's consciousness. For a variety of circumstances (a death in my family), the motion was deferred until early February 2007. This delay actually worked in my favour, as global warming became the topic du jour in January. Had I pushed the Global Warming Pledge in November or December, it likely would not have passed. Timing is very important.

On the day of the vote, I made sure that council chambers were filled with citizens, and after quite a bit of debate and an attempt to soften the language of the motion and pledge, the motion was unanimously accepted as it was presented.

> RESULTS

Staff, particularly the planning department, were almost bubbling with excitement because they saw this pledge by council as something that not only legitimized many of the policy initiatives they had been working on but fueled their momentum. The local cable TV channel approached me to do a series of shows on how to bring this pledge into everyone's daily lives. The first topic of the Whistler Forum for Leadership and Dialogue cafes in Squamish, Whistler and

> SQUAMISH'S 12-STEP PLEDGE TO REDUCE GREENHOUSE GAS EMISSIONS

The District of Squamish will strive to meet and ideally exceed Kyoto Protocol targets and timelines for reducing global warming pollution by taking action in our own operations and our community by committing to initiating and achieving the following:

1. Do an inventory of global warming emissions in municipal operations and in the greater community in order to set reduction targets and create an action plan.
2. Adopt and enforce anti-sprawl land-use policies, preserve open spaces, and create compact walkable/bikeable communities.
3. Promote transportation options such as bicycle/pedestrian commuter trails, commute-trip reduction programs, incentives for car-pooling, expanded public transit and regional transportation options, and adopt traffic policies that reduce idling.
4. Encourage and increase the use of clean, alternative, renewable energy. Purchase only "green," non-greenhouse gas producing fuels.
5. Make energy efficiency a priority through building code improvements, i.e. building bylaws that set highest standards for insulation, mandatory that all new homes be "solar ready," all new homes have smart meters, practice and promote sustainable building practices using LEED standards or a similar system.
6. Purchase only Energy Star [or comparable] equipment and appliances for municipal use; help develop a program that encourages residents to purchase energy-efficient equipment, use only reusable grocery bags and encourage businesses and residents to minimize plastic bag usage.
7. Increase efficiency of existing municipal facilities and infrastructure by retrofitting municipal building with energy efficient lighting, urging employees to conserve energy, solar water heating systems, car pooling programs, etc.
8. Increase the average fuel efficiency of the municipal fleet i.e., hybrid/biodiesel; reduce the number of vehicles in fleet; launch an employee education program. Encourage fuel alternatives for the community.
9. Evaluate opportunities to increase pump efficiency in water and wastewater systems; institute water metering programs to encourage conservation, to locate leakage and inefficiencies, and maximize existing infrastructure; recover wastewater treatment and landfill methane for energy production.
10. Increase recycling rates in District operations and in the community through a complete compost, recycling and waste collection system.
11. Maintain and encourage healthy urban forests; promote tree planting where necessary and institute a tree removal bylaw to increase shading and maximize CO_2 absorption.
12. Educate the public, schools, other jurisdictions, professional associations, businesses and industry about reducing global warming pollution and be an example of how it can be done efficiently, economically and sensitively.

Pemberton was the Global Warming Pledge. A group of local concerned citizens organized an Earth Day celebration to raise awareness of the pledge, the issue of global warming and other local ecological issues. A resident has presented a plan to council to make Squamish one of the first B.C. communities to be plastic bag free. The pledge has given bike lane and trail advocates motivation where they were feeling disheartened by council's lack of attention. Time will tell if it will have a long-term influence, but it has certainly galvanized people.

The other members of council could see the general population's overwhelming concern for the environment and undestand the political benefits in becoming an advocate for environmental issues. I don't see this sudden adoption of the environment by my cohort as a political threat. It is rather a validation of the concerns of a great number of Squamish residents.

Of course I had hoped that there would be greater action and faster movement on some of the other objectives I have espoused, but I've come to learn that if one pushes too hard too fast, one often ends up even further behind from where one started. Sometimes I have to be satisfied with simply affecting the inertia of an entrenched political bureaucracy so that it is actually moving in a positive and progressive direction and able to gain momentum.

Council also later ratified the following:

RECOMMENDATION THAT Council endorses all of the programs recommended during the February 27, 2007 target-setting workshop as follows:

1. One Tonne Total: Greenhouse gas emissions per capita for regional energy systems are reduced to less than one tonne by 2030.
2. Stepping towards Net Positive Energy: Total renewable energy generation on-site exceeds the total energy consumption for buildings and transportation by 2015.
3. Self-reliance and security for critical energy: on-site infrastructure can separately satisfy critical energy needs, including essential lighting, communications and space conditioning.
4. Adaptable and diverse homes and businesses: At least five distinct energy sources each provide 5 per cent or more of the total energy for buildings and total for transportation by 2015.

RECOMMENDATION THAT Council directs staff to discuss the greenhouse gas emission targets, research partnerships, and investigate and identify catalyst projects in order to bring back recommendations for a community stakeholder event.

PART 2.5

Tiny Ucluelet Wins United Nations Top Prize!

FELICE MAZZONI is Director of Planning for the District of Ucluelet.

> A HIGH-INTENSITY COMMUNITY PLAN

In 2004, we wanted to create a real grassroots plan for Ucluelet, a small town on the west coast of Vancouver Island. We hired a couple of students from Malaspina University College to help us through a seven-month community consultation process. We chose a high-intensity, short process to keep up the steering committee's motivation, which worked well.

To get the word out we used mail-outs, TV, radio, and newspaper ads; we went to the schools, to seniors, coffee klatches, and met in peoples' homes. In a community of 1,900, it is possible to have really intimate planning sessions in peoples' backyards and living rooms. We actually got on a one-on-one basis with a lot of people in Ucluelet and had great buy-in.

> THE PUBLIC WANTS, THE PUBLIC GETS

Public-driven initiatives in the completed plan included such things as ADS (Alternative Design Standards) including narrower road designs and French storm drains instead of typical 100-year storm drain gutters for new subdivi-

sions. Ucluelet receives 14 feet of rain a year. While 100-year storm drains were getting overwhelmed every few months, leading to flooding, the areas with French drains don't flood. Our new development design is also very pedestrian oriented. Instead of "curb and gutter" design, we put paths off to the side of the road into the trees, and we also created pedestrian linkages between developments as well as to our Wild Pacific Trail.

The community wanted waterfront access, so now the Wild Pacific Trail is developed and protected through a public right-of-way along all our waterfront and in front of all new waterfront developments. We require the trail be built by developers as part of their approval process. Although developers initially reacted negatively, citing a decrease in relative value of the waterfront land, we received buy-in by emphasizing the marketing connection with the Wild Pacific Trail, a world-class attraction.

> AN EASY $11 MILLION

In 2004 we only had a budget surplus of $36,000. That year we began density bonusing (which exchanges density for parkland, amenities, or cash). We've since raised $11 million from both formal and informal negotiation. About half of that has gone to building our new community centre. We also created a $100,000 basketball court, a $300,000 skateboard park, and a million-dollar multiplex sports field.

Informal negotiations have resulted in $4.4 million of cash and fee simple land being acquired by the municipality, through encouraging developers to "give back" to the community. Now developers begin negotiations by saying, "We know you want a lot so here's what we're going to give you." I don't even have to ask for it anymore!

> AFFORDABLE HOUSING, BY LAW

Along with offering density bonusing as an incentive for affordable housing, we require 20 per cent of the units in new condominium and multi-family development be in the form of affordable housing. Because the policy is in our official community plan, developers are actually building those at their cost. If a developer is building a 100-unit, multi-family development, 20 units beyond the density are built by the developer as affordable housing. Half of them have to be sold at an affordable rate and half of them have to be rented at an affordable rate (as defined by CMHC). We have 120 units of affordable housing being

built in Ucluelet over the next five years. In a community of 1,900, that's a big deal. We can do it because we have heavy development demand.

We have a similar policy for hotel development. Twenty per cent of the units must be in the form of on-site staff accommodation. This is our solution to affordable housing in the context of where we are located and the development demand we are experiencing. The principles can be transferred to other towns and municipalities.

> SUSTAINABILITY INITIATIVES THAT BROUGHT HOME THE GOLD

We are exploring wave-power generation off our coast. It is our goal to use the storms that usually create power outages to create power through wave energy. We've also created our own riparian area regulations for protecting the environment in and around creeks and streams. We use comprehensive development zoning to create innovative and unique development sites that offer flexibility to developers.

Often local governments are indirectly handcuffed by the local government act, so we use innovative techniques to "push the envelope" in terms of planning policy. We created a Social Development Reserve Fund through our official community plan process where developers contribute money, which goes towards funding the "social infrastructure" of the community such as our local childcare society, and similar groups.

Often local governments are indirectly handcuffed by the local government act, so we use innovative techniques to "push the envelope" in terms of planning policy.

We're aiming for LEED Gold for a lot of our new development, and we have our own unofficial LEED guidelines for different types of construction and new commercial and industrial development. We are currently implementing LEED guidelines for residential development this year.

In 2006, Ucluelet was invited to China to take part in the United Nations Livable Communities competition. We represented Canada in the under 20,000 population category, competing against 47 communities in 27 countries. Ucluelet won gold for our official community plan, silver for most livable community, and the global prize for community sustainability. We are a tiny community, so it was validation that we're doing something right.

PART 3

Home Sweet Sustainable, Affordable Home

Shelter is one of our most basic needs and yet housing costs are escalating and the homeless population is growing. How can locally elected officials stimulate affordable housing equitably and sustainably in their communities?

This section outlines inventive, progressive approaches to making housing affordable – and sustainable – for everyone in our communities. Learn about a program that graduates families from subsidized housing to home ownership, powerful underused tools for local governments, how Smart Growth and affordable housing are intertwined, springboard mortgages, the future of social housing and the minimum wage campaign, and get hard-earned advice from America's most populous state, all in the following pages.

PART 3.1

Hot Tips for Smart – and Affordable – Growth

CHEEYING HO is Executive Director of Smart Growth BC, and recently served on the Prime Minister's External Advisory Committee on Cities and Communities.

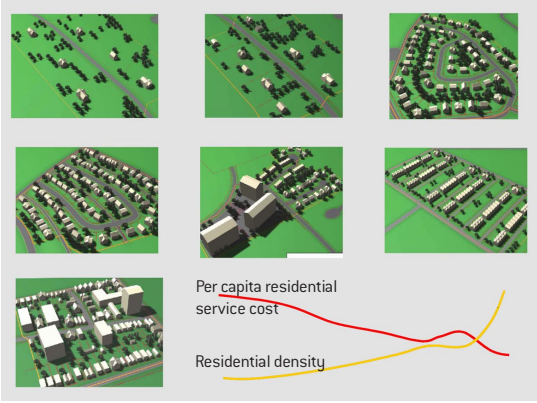
Smart Growth BC is a non-profit, non-governmental organization with a mandate to create more livable communities in British Columbia. "Smart Growth" is land development that protects the environment, uses infrastructure and tax dollars efficiently, and creates livable, walkable communities.

> LOLLIPOP ON A STICK

This pattern is known as the "lollipop on a stick," or sprawl. This is how we used to, and in many cases still do, develop. This type of development tends to be lower density, single use, with residences separated from shopping and work, forcing people to use cars and increasing transportation costs. It doesn't use our land most efficiently for housing and tends to provide little diversity of housing choices. There are fewer local economic development opportunities in sprawling neighbourhoods. Sprawl increases short and long-term infrastructure costs to taxpayers.

A typical low density development costs $23,520 per unit, compared to $4,000 for more compact development, a cost that is shared by both developers and taxpayers.

As residential density increases, the per capita service cost decreases. The more intensively and efficiently we use our land, the lower the per capita costs for infrastructure and servicing.



Affordable housing:

- Is an explicit goal of Smart Growth;
- Encompasses much more than non-market housing; and
- Means that families and individuals of all income levels and lifestyles can find suitable places to live and can enjoy a stable, secure home.

> WHY SHOULD WE CARE ABOUT AFFORDABLE HOUSING?

In Greater Vancouver, the median house price is currently 6.6 times the median income, almost double the average for Canada's major cities (3.6). High housing costs have put increased pressures on rental housing, resulting in extremely low vacancy rates.

Approximately 700 people were homeless in Greater Victoria in January 2005. Their average age was 34 and they ranged from 16 to 67 years. In 2001, 21 per cent of B.C. owner households and 44 per cent of B.C. renter households spent more than 30 per cent of their household income on shelter, which is the threshold for affordable housing.

The BC Chamber of Commerce reports that the issue of affordable housing is generating more calls to its office from members than any other single subject.

The BC Chamber of Commerce reports that the issue of affordable housing is generating more calls to its office from members than any other single subject. Workers, such as our teachers, health care providers, professionals, and retail employees, need to be able to afford to live in the communities they serve. Seniors need to be able to find smaller, lower maintenance homes in the neighbourhoods they know and love.

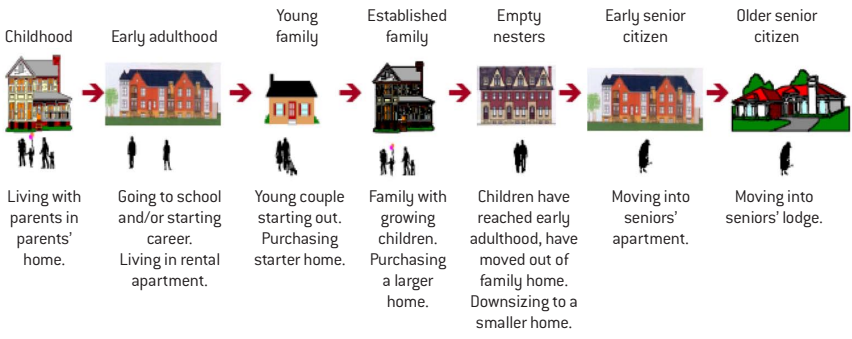
> HOW CAN WE PROVIDE MORE AFFORDABLE HOUSING THROUGH BETTER LAND USE?

HOUSING CHOICE

In general, low-density single-family homes use more land and infrastructure than other housing types (e.g. townhouses, row-houses, apartments, secondary suites, and compact single-family homes). By introducing a range of housing types, the average cost of housing in a community can be reduced.

In B.C. in 2001, 72 per cent of households were seniors, young graduates, single-parent families, and non-"nuclear" families. We are moving away from the typical nuclear family home of two parents and 2.2 kids. Yet single-family homes comprised 60 per cent of all 2004 housing starts in the Kelowna area and 93 per cent of 2004 starts in the Prince George area. In Squamish, single-detached houses accounts for more than 60 per cent of all private dwellings. However, multi-family housing represented 70 per cent of starts in the Vancouver CSA (Census Metropolitan Area) in 2005.

HOUSING CHOICE



What type of housing is missing in your community?
How might that impact you or your family? Who doesn't fit this "middle-class" mold?

HOUSEHOLD TYPES IN B.C.

As a single young adult, you probably want an apartment downtown where you can walk to a bar or coffee shop. As a younger couple, you might want a nicer apartment. Families with young children tend to want a smaller house. Families with older children want a bigger house, but once the children move out, the couple move back to smaller accommodations. Are we providing these housing choices in our communities?

HOUSEHOLD TYPES IN BC		
	2001	% change 1996 to 2001
Population – private households	3,858,730	4.9%
Total private households	1,534,335	7.7%
Couples with children	423,460	0.9%
Couples without children	437,915	8.9%
Singles	418,135	16.1%
Other	254,825	5.0%

> DENSITY

Housing affordability is also closely related to density. Most communities strictly separate residential, commercial, and other uses, and build these uses at low densities. Yet well-designed, attractive density has numerous benefits, including housing affordability. In a higher-density neighbourhood, more units share infrastructure and land costs.

Market economists and industry analysts often attribute the housing crisis to an issue of supply and demand. They rationalize that since our demand is exceeding our supply of housing in the province, simply building more supply will automatically solve the affordable housing situation by driving down the per unit cost of housing. That's true to a certain extent, but most housing advocates believe that governments – local governments in particular – need to provide incentives to reduce housing costs.

Municipal initiatives such as Vancouver's EcoDensity initiative have real potential to increase neighbourhood densities, using green energy technology to build more complete neighbourhoods and meet social, environmental, and economic goals.

> TRANSPORTATION

Residents who live close to shopping, employment, schools and transit are more likely to walk, cycle, or take transit. Having one fewer car or no cars can free up income to pay for other things, including housing.

The Canadian Automobile Association estimates that the average Canadian spends at least $8,000 per year to own and operate each vehicle. A Neptis Foundation study in Greater Toronto found that seemingly higher housing costs in central locations are more than offset by lower transportation costs.[1] Public transportation is much more effective and cost-efficient when communities

[1] Neptis Foundation, Travel and Housing Costs in the Greater Toronto Area: 1986–1996 http://www.neptis.org/travelhousing.asp

are compact. And when affordable housing is located in areas well served by transit, residents without a car can access employment opportunities throughout the region.

> VIBRANT ECONOMIES

Regional economies are strengthened when jobs are located near a variety of affordable, attractive housing choices. Productivity is higher among workers with easy commutes and turnover rates and associated training costs decrease. The ability to live near work and/or transit enables employees to spend less time and money commuting. Communities that provide affordable housing choices near employment may enjoy a competitive advantage in attracting skilled employees.

According to Toronto Board of Trade 2003 Affordable Housing Report:

> *Ultimately, the supply of affordable housing affects the success of all businesses. Along with other infrastructure components, it helps to determine whether or not companies and employees locate in the city. A lack of affordable housing can lead to a host of other, more serious social and economic problems.*

> MIXED NEIGHBOURHOODS

A range of affordable housing choices should be integrated into all neighbourhoods, including in existing communities (through strategies such as suites and laneway housing). Providing affordable housing throughout towns and regions can alleviate development pressure in undeveloped areas.

> DESIGN

Good design can contribute to the affordability of housing by ensuring efficient use of land, infrastructure and resources. Affordable housing should be well designed and sensitively integrated into existing neighbourhoods. Good design in public spaces, parks and greenways, maintenance of important views, and other public amenities will help ensure affordable housing in compact communities is livable, embraced and promoted.

This typical Vancouver neighbourhood shows single family, duplex and triplex housing.

This triplex redevelopment maintained a heritage house and built a legal coach house in the back.

This Vancouver redevelopment fits five detached houses on one lot. The city gave a variance here so the developer didn't have to put in any on-street parking, which reduced the cost of development significantly. This development wouldn't have been possible without the variance.

This photo shows a really creative infill: two duplexes replacing one single family housing that straddled two lots.

This photo illustrates the Greater Vancouver trend of intensifying arterials by building residences above commercial spaces.

> GREEN STANDARDS

"Green" standards for buildings and infrastructure (energy efficiency, water conservation, minimization of paved surfaces, etc.) can improve housing affordability. For example, energy and water efficiency can reduce utility costs for renters and homeowners; an energy-efficient home can use up to 30 per cent less energy than a standard home.

> RECOMMENDATIONS

Smart Growth BC supports the provision of a range of housing choices that are affordable to residents of a variety of income levels, life stages, and lifestyles, in compact and complete communities and in every neighbourhood.

MUNICIPAL AND REGIONAL GOVERNMENTS SHOULD

Implement land use policies and regulations that support affordable housing and compact, complete communities promoting:

- A wide range of housing choices (including a variety of dwelling types, tenures, and sizes) throughout all neighbourhoods;
- A match between the type, tenure and price of the housing stock and the income levels and demographics of the community;
- Integration of rental, ownership, market and non-market housing within neighbourhoods and buildings (inclusionary zoning);
- Protection of the existing affordable rental housing stock;
- Development and re-development at sufficient levels of density to promote transportation choice and efficient use of infrastructure;
- A mix of uses within neighbourhoods and within buildings;
- Infill and intensification in existing areas that are already served by municipal or regional infrastructure (such as sewers, water, roads, transit, schools, health facilities, and community facilities);
- An appropriate range of transportation choices;
- Proximity of housing near employment centres;
- A high standard for design of buildings and neighbourhoods; and
- Green standards for buildings and infrastructure.

Municipal and regional governments should also:

- Establish an urban growth boundary, greenbelt system, servicing limit, or similar measure, along with complementary policies to increase housing choice and supply within the developable area;
- Legalize secondary suites;
- Apply Development Cost Charges (DCCs) that vary by housing type, density, unit size, and location, to account for the lower servicing costs for compact development in existing serviced areas;
- Provide clear design guidelines integrating compact housing forms on a neighbourhood and building scale, developed through an inclusive community-based process;
- Reduce parking standards (in walkable neighbourhoods with transportation options) to reduce the construction costs of parking;
- Set a target for the minimum percentage of homes in the local housing stock that are not low-density single-family; and
- Set a target for the minimum percentage of housing for rent in the local housing stock.

CITIZENS SHOULD

- Proactively support the introduction of well-designed housing choices into all neighbourhoods, to capture the benefits of density and alleviate pressure for development on the fringes of towns and regions.

FEDERAL AND PROVINCIAL GOVERNMENTS SHOULD

- Fund and/or provide housing as necessary as well as ensure that infrastructure investments (e.g. transportation projects) contribute to and are compatible with compact, complete communities with a range of housing choices.

FEDERAL AND PROVINCIAL GOVERNMENTS SHOULD

- Provide incentives to local governments for promoting housing affordability and Smart Growth (such as cost sharing for infrastructure in compact communities, or grants in response to zoning changes that increase capacity, density and affordability).

FINANCIAL INSTITUTIONS SHOULD

- Recognize and promote the financial value of living in "location efficient" areas (near transportation choices).

PART 3.2

Affordable Housing Vancity Style

DAN PARIS is Director of Development at Vancity Enterprises and is responsible for Enterprises' real estate development projects. He is also involved in Vancity's affordability and sustainability initiatives.

Vancity Enterprises is a real estate developer like any other, except that we value environmentally and socially beneficial projects. Although we need to make a profit, as all developers do, we use triple bottom line criteria to assess our projects, meaning we are willing to trade some of our profit in exchange for additional social and environmental benefits – something many developers would not do. But it's our corporate mandate and we want to do it to illustrate to others that it is possible.

I'm going to describe:

- Four examples of Vancity Enterprises' affordable initiatives;
- Challenges; and
- Recommendations to municipal leaders.

> EXAMPLES OF VANCITY ENTERPRISES' AFFORDABLE INITIATIVES

1. SPRINGBOARD MORTGAGES

The "Springboard mortgage" was created through Vancity's Community Leadership group. The program offers 100 per cent financing to qualified buyers who have lived in a social housing project for two years and have a perfect rental record. The 100 per cent financing enables them to become a home owner, which frees up existing social housing units for other families without having to build more units.

The mortgage consists of two components. The first is a 20 per cent term loan payable over 10 years at zero interest. It's a forced saving program, in effect. The second component is an 80 per cent term loan in which you pay interest only during the initial 10 years, after which the loan converts to a conventional interest-and-principal loan repayable over the next 20 years. It extends the amortization period to 30 years, but it also enables the buyer to come in with zero equity and end up a homeowner. The person applying for and receiving a springboard mortgage is required to attend a workshop on homeownership. Springboard mortgages are a way of improving affordability and home ownership without building new social housing stock.

2. BRANCH 6 PROJECT, BURNABY

Although Vancity Enterprises normally builds residential buildings and is not usually involved with the construction of Vancity branches, we are redeveloping a branch site in Burnaby. The project will consist of a new Vancity branch on the ground floor and a combination of 45 market condos and seven rental units above it. Although the city did not require rental units, we chose to build them and offered to rent them slightly below market rental rates (approximately 5 per cent below). It's going to be an extremely green building, with geothermal heating, a green roof, ultra-low energy and water consumption, and will be built using high-efficiency materials.

Branch 6 in Burnaby will consist of a new Vancity branch on the ground floor and a combination of 45 market condos and seven rental units above it. Although the city did not require rental units, we chose to build them and offered to rent them slightly below market rental rates. It's going to be an extremely green building, with geothermal heating, a green roof, ultra-low energy and water consumption, and will be built using high-efficiency materials.

3. VERDANT AT SFU UNIVERCITY

Verdant is one of our best examples of what can be done by any developer with the right partner – in this case, Simon Fraser University. SFU sold us land at half-price and we transferred that cost to the owners by reducing the purchase price. We also built the most energy-efficient, four-storey, wood-frame building in Canada. We will be applying for LEED Silver (and possibly Gold) certification. We were able to sell units at a very low price, partly because of the discounted land price, and partly because we reduced other costs and our profit levels slightly.

We sold units at 20 per cent below market and all the units were snapped up. We'll be protecting the unit affordability in perpetuity through a restrictive covenant that we call a 'resale control agreement.' It requires owners to resell in the future at 20 per cent below whatever the market value is at the time of resale.

4. DOCKSIDE GREEN

Dockside Green is a master project we're undertaking with Windmill Developments. We're committed to build it to the LEED Platinum standard, which will make it one of the greenest large-scale projects in North America.

Dockside Green has two affordable housing components. First, as with the SFU project, we're selling below-market/market-affordable units that are protected by a resale control agreement, except at Dockside they'll be sold for 25 per cent below market value. Second, in collaboration with the Capital Regional District, we're developing a 44-unit social housing rental project that will be administered by M'AKOLA Housing. We will be contributing in excess of $3 million to both projects as well as the land for the social housing project.

Other developers and municipalities have used various types of legal agreements, such as restrictive covenants, to protect affordable units in perpetuity, but the agreements can be difficult to administer and may have very weak legal "teeth." There is often no buy-back clause, so if someone inadvertently or purposefully tries to resell a unit at market prices, there's really no mechanism to hold them accountable. But at SFU and Dockside Green, the resale control agreement includes buy-back options that provide strong legal "teeth."

At UniverCity, SFU has the right to buy back units at 75 per cent below the below-market price. If an owner, purposefully or otherwise, decides to resell at a fair-market value (above the permitted resale price), SFU can buy the unit back from the new purchaser at 75 per cent of the below-market price, and resell it at the below-market price, using the difference to pay for legal costs and contribute to an affordable housing fund.

At Dockside Green, there's a sliding scale. Buy-back prices could be as much as 95 per cent of the below-market value.

Both of these agreements have very strong legal "teeth" and are not likely to be subject to legal argument. The Dockside agreement is even better than SFU's in that BC Housing is the holder of the restrictive covenant. BC Housing has indicated it is willing to hold similar agreements anywhere in the province.

At UniverCity, SFU has the right to buy back units at 75 per cent below the below-market price. If an owner, purposefully or otherwise, decides to resell at a fair-market value (above the permitted resale price), SFU can buy the unit back from the new purchaser at 75 per cent of the below-market price, and resell it at the below-market price, using the difference to pay for legal costs and contribute to an affordable housing fund.

> CHALLENGES

AFFORDABLE HOUSING CHALLENGES FOR DEVELOPERS

- Land and construction costs are very high;
- Developers are often unwilling to take on the role of affordable housing provider;
- Developers often lack understanding of affordable housing needs;
- Capital subsidy programs are often not available;
- Different policies in different municipalities result in inconsistent requirements and frustration; and
- Every affordable deal is different and complex – it's hard to create a boilerplate system.

AFFORDABLE HOUSING CHALLENGES FOR MUNICIPALITIES AND HOUSING AUTHORITIES

- Some legal protection agreements (i.e. section 219 of the Land Title Act) may be inadequate or unenforceable;
- Need to be flexible in negotiations with developers and their non-profit partners; and
- May need to change legal status or strategic direction to enable pursuit of new affordable initiatives (i.e. Capital Regional District intends to change its Letters Patent to enable the Capital Region Housing Corporation to deal with private affordable home ownership).

> RECOMMENDATIONS TO MUNICIPAL LEADERS

- Make land available for free on a leasehold basis;
- Amend official community plans (OCPs) and/or rezone land to permit density bonus;
- Adopt consistent documentation and processes between municipalities: specifically, use identical section 219 agreements (Land Title Act), let BC Housing "hold" the agreement and let local non-profits administer the agreement;
- Seek out developers like Vancity Enterprises and work out partnerships to achieve development goals;
- Enable developers to build "pilot projects" to test new concepts and to take risks; and
- Support developers who face NIMBYism against new concepts.

PART 3.3

Affordable Housing

Powerful (and Often Underused) Tools for Local Governments

LINDA ALLEN is a principal with City Spaces Consulting, a community planning and management consulting firm.

Local governments can create the environment for inclusive communities – with a range of incomes, lifestyles and ages – over the long term.

> B.C.: AN AFFORDABLE HOUSING PIONEER

Traditionally, providing affordable/social housing has not been a local government role. However, in 1992 the federal government stopped investing in social housing except for ongoing subsidies for existing social housing projects. Since then, B.C. became an affordable housing pioneer, which here means housing that is rented or owned, affordable to those of low or moderate income – individuals or couples who make 80 per cent or less than the median income.

In the mid-1990s, Premier Harcourt and Minister of Municipal Affairs Darlene Marzari worked to mandate that official community plans (OCPs) must contain policies related to affordable rentals and special needs. This is a powerful tool that not enough local governments use effectively.

The B.C. government also built into legislation the opportunity to acquire a wide range of amenities including housing. Section 905 of the Local Government Act gives local governments the power to enter into an agreement with a housing provider in a relationship to tenure, rent, build, and share prices. Once it has entered into an agreement, the Land Titles Act can be used to restrict and essentially provide a covenant on title. This is a fabulous tool that's not used nearly enough. In 2004 the government brought in the Community Charter,

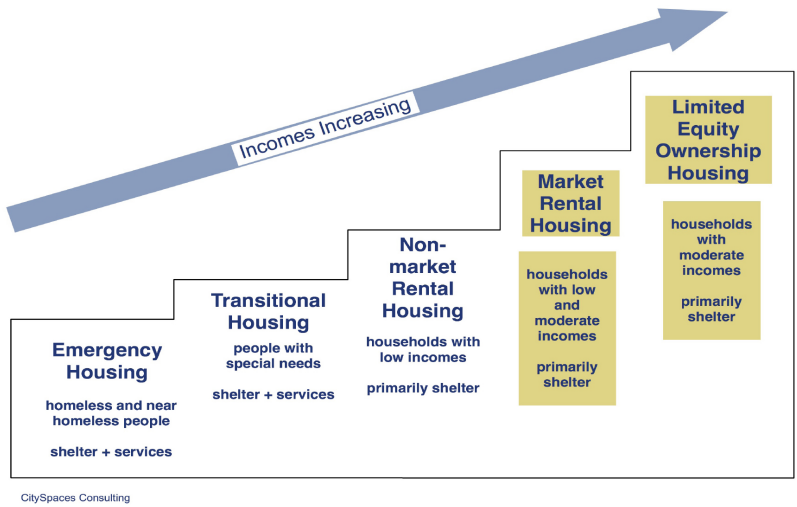
which gives local government even more flexibility to negotiate for housing. In early 2007, an introduction to the Local Government Act said for the first time that development cost charges can be used for housing for local governments in a resource setting. I'm hopeful we'll see more opportunity to use development cost charges for affordable housing.

> LOCAL GOVERNMENT TOOLS

One of the key things that local government can do is establish an environment that allows the private market to build affordably. Ninety per cent or more of housing is going to be built by the private sector; local governments need to work with that. But local governments also need to set expectations of the private market to build affordably. Ways to do that include:

- Providing a serviceable supply of land, zoning diversity;
- Having a clear, fair, and consistent framework;
- Establishing a Housing Reserve Fund;
- Forming partnerships;
- Creating a housing corporation;
- Gifting or leasing land; and
- Advocating and educating.

THE HOUSING CONTINUUM



> HOUSING: A SOCIAL AMENITY

Apart from big cities like Vancouver and Toronto, Canadian local governments have been slow to use housing as a social amenity, but there are some Canadian examples, especially in resort communities.

Whistler, B.C. has:

- 1,300 units;
- Employee housing requirement on commercial developments;
- One employee per 50 square meter gross floor area (GFA);
- One employee per five hotel rooms;
- Alternative = $5,600 per employee;
- Resident restricted / deed restricted; and
- Negotiable items.

Canadian local governments have been slow to use housing as a social amenity, but there are some Canadian examples, especially in resort communities.

Canmore, Alberta, with a population of 12,000, has:

- 60 units;
- Incentives for Perpetually Affordable Housing (PAH) on-site, surcharge if not;
- Deed-restricted;
- Below median income and a need to reside;
- Fees go to PAH Capital Reserve Fund; and
- Raised $138,000 in 2005 directed to non-profit housing corporation.

In Toronto, large sites (greater than five hectares) must be:

- Minimum 30 per cent multi-unit; and
- Minimum 20 per cent affordable.

Vancouver has had an "income mix policy" since 1988 with:

- 20 per cent non-market;
- 30 sites – 800 built plus 1,700 capacity; and
- City acquires site option, leases for 60 years.

Langford has:

- 1 per 10 lots required, limited equity gain; and
- Multi-unit = $1,250/townhouse; $750/apartment.

Colwood has:

- $500 per unit to reserve fund.

Outside of Canada, examples include:

- Redmond, Washington: 10 per cent of units in 10-plus development;
- Boulder, Colorado: 20 per cent permanently affordable;
- San Diego: 20 per cent of units in all development, 500+ units;
- Santa Barbara: 5 to 20 per cent in five-plus developments, 30 years, 2,400+ units; and
- Highland Park, Chicago: 20 per cent of units in five-plus development.

Think about:

- Target population;
- Percentage of units (5 to 30 per cent);
- Project threshold (two to 50 units);
- Greenfield or infill;
- Comparable units design and finish;
- Onsite or offsite;
- Cash in lieu;
- Developer offsets – bonus floorspace, variances, DCC credits, tax deferrals;
- Administration program; and
- Measuring success.

PART 3.4

Tackling Homelessness and the Public Housing Trap in Victoria

DEAN FORTIN is enjoying his second term on Victoria City Council, is the council liaison for the Social Planning Advisory committee, and has directed the Burnside Gorge Community Centre for 15 years.

> AFFORDABLE HOUSING AND HOMELESSNESS IN VICTORIA

Research shows the cost of ignoring homelessness is greater than the cost of eliminating homelessness. The main remedies for homelessness are housing, adequate income support, and mental health support. These are all traditional federal and provincial government responsibilities and they also have the funding. Municipalities get 8 per cent of the tax dollar while federal and provincial governments get 92 per cent. Property taxes are neither appropriate nor suitable for raising large amounts of money to address these issues.

The Capital Regional District, through the Affordable Housing Trust Fund, built 33 housing units in 2005 and 50 units in 2006. Unfortunately, over the same period our homeless population grew from 700 to about 1,200. At Burnside Gorge we had 100 calls from homeless families in January 2007. Four years ago we had calls from an average of 15 families a month. While there's an incredible growth in the economy right now, and those who can participate in it are successful, single parents who don't have the ability to participate in the economy are being left behind.

On the 2003 and 2005 City of Victoria citizen surveys, the number one issue was what's happening on the downtown streets of Victoria. When citizens were asked how homelessness would be best addressed, the number one answer given was affordable housing. Often you hear people just want more police, but increased law enforcement was tenth on the list. Eighty-seven per cent of our citizens are willing to pay more taxes if it means that we actually start to deal with some of these issues. These numbers helped push some of the more reluctant members on our council to action.

Research shows the cost of ignoring homelessness is greater than the cost of eliminating homelessness.

I've been working with colleagues to create the Victoria Housing Trust Fund. Since 2002, we've put half of our $500,000 GST tax refund into the Housing Trust Fund. We've also been working towards legalizing secondary suites, which help seniors and young families, densifying without eating up green space.

Outside of council, I work with the Burnside Gorge Family Self-Sufficiency program, an innovative asset-development-type approach to breaking the cycle among families in poverty and families trapped in ongoing generational public housing.

> FAMILY SELF SUFFICIENCY PROGRAM: INITIAL SUCCESSES

A 2002–2005 pilot of the Burnside Gorge Family Self-Sufficiency program working with 38 families had the following results:

	Beginning of program	End of program
Employment	4 part time, 1 full time	19 full time
Income/employment assistance	29	9 *
Volunteering	5	22
Enrolled in education programs	2	11
Involved in unemployment programs	0	9 **
Reporting health issues	26	9
Moving to home ownership	0	8
Completed program		31 ***

* Eight reassessed as permanently disabled; previously wrongly classified.
** Enrolled or had completed unemployment programs.
*** Two participants left because of major health concerns; another left because of a child's major health concern.

The government liked the success, but wanted statistically valid numbers. So in 2005, phase two began with 100 families instead of 38. These families are all from subsidized housing and are living below the BC Housing core income threshold. Of participants in the pilot and the phase two programs:

- Over 90 per cent have experienced family violence;
- Ninety-three per cent of participants are single mothers, with an average age of 38; and
- The number one barrier to employability is mental health issues.

Our funders are the Ministry of Employment Income Assistance, BC Housing and Vancity, who is a big funder both of this project and of Burnside Gorge. We're very grateful to the Vancity Credit Union and the Vancouver Foundation.

> FAMILY SELF SUFFICIENCY PROGRAM: IN-DEPTH

Families in the program have three years to build resources to develop self-sufficiency. The applicant comes in, signs a contract, and meets with a family advisor to help define the goals that will help her/his family meet self-sufficiency. The advisor then helps to connect the person to employment programs. There are check-ins throughout the three-year period. Participants also meet with a financial advisor to begin the process of cutting up credit cards, dealing with debt, talking to creditors, and actually start saving money, probably for the first time in their lives.

Moving out of subsidized housing is not one of the program goals, but it does seem to be one of the results of it; as families begin to manage their debts, structure and increase their income, and deal with other issues, they have an opportunity to move out.

In public housing, 30 per cent of family income goes to housing. As your income goes up, your rent goes up, and so there's a disincentive to change. In the Family Self-Sufficiency program, we've convinced the different levels of government that instead of increasing the rent when income goes up, the difference is put into an escrow account, so at the end of the three years the family has a bit of savings. As the escrow account grows, the family moves towards home ownership. Some people are also using the money to further their education or do other things necessary to achieve family self-sufficiency.

We have also introduced an Individual Development Asset (IDA) account to help families determine what would constitute success in this program and how they're going to get there. Thanks to Vancity grants, we have job coaches and

financial advisors and for the first six months we match the family's contribution to their IDA account. For the next six months we'll double the amount, and for the final six months we'll triple it. So at the end of a three-year period, again, these families have a financial asset. The Ministry of Income and Assistance agreed the families can keep that money. We have independent yearly evaluations of the program and participants also have an opportunity to evaluate the program.

The program breaks down the generational patterns of reliance on government subsidies by developing action plans and following through on them.

> RESOURCES

For more information on the Burnside Gorge Family Self-Sufficiency program, visit the Burnside Gorge Community Centre website at www.burnsidegorge.ca.

PART 3.5

California Dreamin'

Affordable Housing

JULIE SPEZIA is the Executive Director of Housing California, the leading statewide non-profit advocate for affordable housing.

Housing California gets favourable affordable housing policy adopted: we advocate for policy change and work to make funds available to increase the supply of affordable homes.

> ISSUES AFFECTING HOUSING IN CALIFORNIA

Like B.C., California's population is always increasing. We're at 37 million now. Although our economy is very robust, such a huge population creates incredible pressure for decent places to live. Demand has remained constant but supply has become increasingly constrained, and we have a significant homeless problem.

> SOCIETAL VALUES AND AFFORDABLE HOUSING

Harmful attitudes about how people of different races and socioeconomic backgrounds may affect property values makes building affordable housing more difficult.

We have discovered that it is crucial to understand how peoples' values impact their thinking and voting trends. The Republicans have done this very

well. For example, they coined the phrase 'tax relief,' which implies that we're overburdened by taxes and require relief, framing the debate around taxes so that they must be addressed in terms of being already too high. We're trying to frame the debate around affordable homes. I don't use statistics on homelessness and the home affordability crisis in California because the problem is very well known. Instead, we encourage affordable home advocates to tell stories and use phrases evoking shared American values.

Focus group research showed Californians recognize the affordable-home crisis and even when they have a stable home, they experience stress related to the crisis. But they tend to think of it as a "supplyanddemand" issue (all one word): meaning too many people are coming to California and very little thought is given to increasing supply; it is a consumer issue with the market providing homes and the individual trying to figure out how to find a home he/she can afford.

We do have a demand problem, but if we did a better job of providing the supply – zoning land for homes, easing the entitlement process, etc., we wouldn't have an affordable-home crisis.

We do have a demand problem, but if we did a better job of providing the supply – zoning land for homes, easing the entitlement process, etc., we wouldn't have an affordable-home crisis. So we've been talking to people about the "broken" market. We use a grocery store analogy: if the store only carried caviar and filet mignon and there was no hamburger or macaroni, many would go hungry because they could not afford to eat. Similarly, there should be housing at different price points. We don't frame it in terms of fixing the situation for others. Instead we remind people: "You can't find something *you* can afford, your children can't find something *they* can afford; there's something wrong with the market." Then we begin talking about solutions.

> AFFORDABLE HOMES AND THE AMERICAN PSYCHE

America myths are making social housing a tough sell. The idea of the 'rugged individualist,' the person who picks him/herself up by the bootstraps and becomes successful with very little help, is still very strong. A recent poll shows about 62 per cent of people agree that success is mostly determined by things inside our control. However, support for a government safety net for the poor is at its highest point in many years because of events like Hurricane Katrina and 9/11. About 69 per cent of people believe that government has a responsibility to take care of people who can't take care of themselves.

People don't really understand the term inclusionary housing. It's often described as, "Every time a development is built, a few homes are set aside to sell or to rent to people at below-market rate, so that everyone in the community has an affordable place to live." But we're still looking for a term that resonates; mixed-income zoning or housing seems to work best. About 170 of California's 500-plus cities have adopted inclusionary housing or mixed-income zoning.

Housing trust funds are an important tool at the local level. Areas like the Silicon Valley, San Francisco, and even Los Angeles and Orange County, which aren't necessarily as progressive, are looking at the local housing trust fund as a way to encourage businesses to contribute to building homes for their employees.

> DON'T SAY 'DENSITY'!

The only way developers are going to make a project work is by increasing density. But the single family home is the American dream – and increasingly the goal is a single family home with a lot of space around it, even a compound. 'Density' is often perceived negatively. But density can be very attractive. Affordable-home developments are often very innovative and fun.

For example, Columbia Square, pictured below, is a low-rise, 50-unit multi-family development in a mixed-use area of San Francisco. The development integrates affordable family housing with commercial establishments at street level. Concrete, wood and galvanized steel are used to reflect the neighbouring

Columbia Square is a low-rise, 50-unit multi-family development in a mixed-use area of San Francisco.

light industrial workshops and warehouses. This four-storey apartment building maintains an urban edge along Folsom Street while reducing in mass toward the main entry on Columbia Square, a small alley. Its tenants are primarily working families who previously lived in overcrowded conditions or who paid an extremely high proportion of their income to rent.

> REDEVELOPMENT AGENCIES

When an area is redeveloped, through building and rehabilitating housing, infrastructure, community centres, libraries, parks and other community facilities, land values and property taxes rise. A redevelopment agency can keep the resulting increased tax increment to pay for these improvements.

The downside to redevelopment agencies is that the local governments have expropriated property for redevelopment, and in America, whenever a debate comes down to people versus property rights, property rights usually win. Redevelopment agencies have become adept at policing themselves, particularly with small business owners and people who own homes, as that is usually where the backlash originates.

Most of the developments subsidized by the state's multi-family housing program are three- and four-bedroom apartments with families paying just 30 per cent of their income in rent. This also allows children in these families to stay in the same schools, stabilizing lives and letting children grow up as part of a community.

Since 1994 redevelopment agencies are required to deposit 20 per cent of the property tax increment into a special "Low- and Moderate-Income Housing Fund" used for increasing, improving, and preserving the community's supply of affordable housing for very low, low, and moderate income households. This helps replace substandard housing that is often demolished and helps avoid complete gentrification. The policy has resulted in more than 73,000 homes for low- and moderate-income residents.

Since 2002 California has passed bond issues, in large part because of Housing California. The first one was the biggest in the nation: $2.1 billion to fund capital expenditures to build affordable homes. Most goes to multi-family programs, because the market does not build rental apartments with more than two bedrooms, yet we have lots of families that need more than two bedrooms. Most of the developments subsidized by the state's multi-family housing program are three- and four-bedroom apartments with families paying just 30 per cent of their income in rent. This also allows children in these families to

stay in the same schools, stabilizing lives and letting children grow up as part of a community.

> HOMELESSNESS IN CALIFORNIA

We have a serious homelessness problem. When Reagan was Governor, he 'reformed' mental health institutions leaving many deinstitutionalized and on the street. In Los Angeles 90,000 are homeless every night, concentrated around an area called Skid Row, which was created because city council thought it would be better to concentrate the homeless population in one area. Now there is an enormous problem of high drug use and a cycle of homeless people moving from Skid Row to jail to Skid Row to the hospital to Skid Row then back to jail. Now for-profit developers want to start developing high-end apartments for wealthy and upwardly-mobile people. Instead of shelters, we need housing suitable for people with chronic mental illness or substance abuse problems. If you can provide enough supportive homes (apartments with wraparound services), homeless people will find a place that works for them and can begin to live successful and healthy lives.

We're currently working on a proposal that would get the Department of Corrections to help pay for housing for people with mental illness coming out of prison. We have a 70 per cent recidivism rate in California. Ex-cons can't get work, have no place to live, and they commit theft or petty crime and get thrown back into prison at a huge public expense. Parolees with mental illness create a bigger impact. It costs taxpayers $110,000 a year to house a prisoner who needs mental health services and only an average of $11,000 a year to provide a stable home and services appropriate for the disability.

> HOUSING AND LOCAL PLANNING

The state requires local governments to describe housing as part of their general plan, explaining how the area will provide for the existing and projected housing needs of all economic segments of the community. The "housing element" process is controversial, because it means that you are accepting growth, and most people like to live under the illusion that growth is occurring elsewhere. This is the crux of the problem: we want to think that things will pretty much continue the way they always have. That is what we are facing with global warming; we like to think that it will not happen somehow. We do not want

to change our behaviour today, and a similar pattern of denial is why we have big battles over the housing element.

The housing element is about trying to keep pace with demand and matching wages with housing needs. If a community is accepting a lot of Wal-Mart clerk jobs, then the community cannot be building mini-mansions because the people with the Wal-Mart jobs will not be able to afford to live in the community. Homes should reflect the socioeconomics of the community.

> RESOURCES

Housing California: www.housingca.org.

Mixed-Income zoning and challenges of rural communities: www.calruralhousing.org.

For tools for local governments go to the Institute for Local Government on www.cacities.org.

For planning tools and technical assistance for better growth go to the Local Government Commission: www.lgc.org.

For more information on supportive housing contact the Corporation for Supportive Housing: www.csh.org.

PART 3.6

Affordable Housing Through Fair Wages

The Campaign

DARRELL MUSSATTO has been North Vancouver's Mayor since November 2005 and is a Director of the Greater Vancouver Regional District.

Between 2000 and 2005:

- Employment in B.C. grew by 9 per cent;
- Minimum wage earners grew by 36 per cent;
- Minimum wage of $8 per hour has not increased in five years; and
- In 2001, a $6 per hour training wage applied to workers who had not accumulated 500 hours of work experience.

Minimum wage earners:

- 115,000 people in B.C. earn less than $17,000 per year;
- The Low Income Cut Off or poverty line is $17,219 after taxes;
- A single person working for $8 per hour, 40 hours per week earns $15,613 after taxes;
- 72 per cent of minimum wage earners are 25 and older; and
- Two out of three minimum wage earners are female.

A Vancouver Sun article boiled down the case against raising the minimum wage to two arguments. The first argument is it increases labour costs to employers; because employers have to pay the workers a bit more, they may not hire as many people. But try to name one area in British Columbia right now that's not doing very well and doesn't need the workers – there are 'help wanted' signs all over the Lower Mainland. The second argument is it increases the high school drop-out rate, which is silly because 72 per cent of minimum wage earners are over 25 years of age.

- The monthly net income for a minimum wage earner is $1,301;
- The average market rent for a one-bedroom apartment in the Vancouver area[1] is $816; and
- That leaves just $500 for transportation, food, entertainment, and education, which is very little.

In 1977 it cost between $75,000 and $80,000 to purchase a detached house. In 2006, that price soared to $800,000. A single family home without a basement suite in North Vancouver costs $1.3 million. If you put 25 per cent down, you'd have a monthly mortgage payment of $5,700 and need an income of $233,000 a year for it to be affordable.

The affordability measure is the percentage of a typical household's pre-tax income taken up by home ownership costs, including mortgage payments, utilities and property taxes. The measure is based on 25 per cent down and a 25-year mortgage loan at a five-year fixed rate. This table shows the proportion of median pre-tax income required to service the cost of mortgage payments (principal and interest), property taxes and utilities for different housing types.

MINIMUM HOUSING WAGE

The minimum housing wage determines the hourly wage required in order for households to rent without paying more than 30 per cent of their gross income for rent (the nationally adopted affordability norm).

	Minimum Housing Wage				Minimum Wage October 2005
	Bachelor	1 Bedroom	2 Bedroom	3 Bedroom	
Toronto	13.92	17.08	20.23	23.71	7.45
Vancouver	13.04	15.15	19.31	22.67	8.00
Halifax	10.62	12.04	14.65	17.83	6.80
Victoria	10.38	12.63	16.10	18.62	8.00
Winnipeg	7.79	10.37	13.13	15.25	7.25

Source: Canadian Housing and Renewal Association, Focus Consulting Inc.

[1] CMHC *Rental Market Report*, December 2006. The average market rent for a two-bedroom apartment is $1,045.

In the 1960s you needed one person working to pay the mortgage. In the late 1960s and early 1970s each partner needed to earn wages. Today, couples often must rent rooms and build illegal suites to pay for the mortgage.

The City of North Vancouver reviewed the facts:

- Minimum wage has not been adjusted in five years;
- B.C. has the second highest rate in Canada of employees working for minimum wage or less; and
- Full time employment at the current minimum wage would leave individuals below the "poverty line."

Therefore, in February 2007 the City of North Vancouver's council unanimously passed a resolution calling on the provincial government to increase the minimum wage to $10 per hour.

In February 2007 the City of North Vancouver's council unanimously passed a resolution calling on the provincial government to increase the minimum wage to $10 per hour.

North Vancouver sent the resolution to members of the Union of British Columbia Municipalities, and resolutions in support of raising minimum wage to $10 have already been received from Vernon, Nanaimo, Port Alice, Creston, Canal Flats, Bulkley-Nechako, Hudson's Hope, and Clinton, with more to come. There is no silver bullet answer to solving the problem of the affordability of housing and rental accommodation. The City of North Vancouver has policies including legalizing secondary suites, excluding floor area from bigger buildings going up if affordable units are being put in, and relaxing parking regulations.

Last year we put one per cent of our tax increase, or $270,000, into an affordable housing reserve fund; we use the money to partner with non-profits to purchase affordable non-market units.

Local governments and non-profits cannot do this alone. Provincial and federal governments and the private sector have roles. The private sector will build to make a profit, but through regulation we can make sure we get what we want, whether it's affordable units or density.

HOUSING AFFORDABILITY MEASURE			
Housing Type GVR	Average Price	Qualifying Income	Affordability Measure
Bungalow	$541,889	$117,172	68.5%
Two-storey house	$578,697	$125,631	74.9%
Townhouse	$407,927	$88,287	51.5%
Condo	$273,313	$60,444	35.4%
Source: Royal Bank of Canada, March 2007			

So why do we need to increase the minimum wage? Because when times are good, we have a responsibility to meet the needs of the poorest in our society. And times are very good in British Columbia. People deserve at least $10 an hour.

> RESOURCES

BC Federation of Labour, *Minimum Wage: More than 100,000 Reasons to Raise the Minimum Wage*, November 2006: www.bcfed.ca.

Canadian Housing and Renewal Association, *Minimum Housing Wage 2006: Housing Continues to Move out of Reach for Minimum Wage Workers*, Focus Consulting, January 2007: www.chra-achru.ca.

Royal Bank of Canada, *Affordability Report*: www.rbc.com/economics/market/pdf/house.pdf.

ReMax, *Affordability Report 2007*: www.remax-oa.com/MarketReports_PDF/Mar07.

Real Estate Board of Vancouver, *Average Price Graph CMHC Market Rental Report*, December 2006: www.cmhc-schl.gc.ca.

PART 3.7

Partnering for Social Housing in B.C.

ALICE SUNDBERG is the former Executive Director of the BC Non-Profit Housing Association.

The BC Non-Profit Housing Association (BCNPHA) is the umbrella group for non-profit housing providers. We have an excellent working relationship with the provincial housing ministry (Housing and Construction Office in the Ministry of Forests and Range) and BC Housing, allowing us to advocate on behalf of members and collaborate to find solutions. BC Housing is the provincial housing authority and does not provide housing, except for 8,000 units it directly manages. The agency's major role is to administer the subsidies that are delivered through provincial and federal cost-shared programs.

> NON-PROFIT SOCIAL HOUSING

The bulk of social housing in B.C. is operated by municipal or private non-profits. The municipal providers are the Capital Region Housing Corporation and the Greater Vancouver Housing Corporation; together they operate about 5,500 housing units.

Over 500 private B.C. non-profits hold thousands of properties in hundreds of communities. They are often sponsored by churches, ethnic communities, service clubs, or support agencies. Most are self-managed with administration and maintenance staff and several retain a property management company for some or all administration and maintenance.

> CO-OPS

Non-profits are landlords: they operate under the Residential Tenancy Act and so people living in this kind of housing are tenants and are independent of the housing itself. Co-ops, however, provide long-term, affordable housing to low- and moderate-income households, including people with special needs. The people living there are co-op members, who purchase very affordable co-op shares. Some pay market rent and others pay rent geared to income. Members don't own their own homes, but have the right to access a unit. Co-ops operate under the Cooperative Association Act and members are not protected under the Residential Tenancy Act. Co-ops are democratically controlled by member-residents who elect a resident board of directors. Usually they are managed by professional companies or staff.

There are currently 260 co-ops in British Columbia, mainly concentrated in the Lower Mainland and on Vancouver Island:

- 213 in Lower Mainland, Fraser Valley;
- 34 on Vancouver Island;
- eight in Thompson/Okanagan;
- three in Northern B.C.; and
- two in the Kootenays.

> BENEFITS AND DRAWBACKS TO CO-OPS AND NON-PROFIT SOCIAL HOUSING

Most of the non-profit affordable housing that continues to be affordable over time is operated by non-profits or co-ops, which partner with government through a variety of programs. The development aspect is a private partnership between government and a non-profit but the management aspect is taken on solely by the non-profit or co-op itself. Because these organizations are community-based, they tend to be much more than just a roof. They provide community, security, and in an increasing number of cases, a supportive environment and connection with support services.

These models have strengths and weaknesses. Not-for-profits are resident-focused, with their objective being to encourage people to live there permanently. They're also cost-effective and a long-term community asset. On the other hand they tend to be dependent on government programs. Often they lack technical skills, and like all non-profits they have some difficulties finding volunteers.

> GOVERNMENT ROLES

Governments provide programs that enable us to produce affordable housing. In 'demand programs' such as vouchers and rent supplements, the government gives money to someone to enable him/her to go into the private sector rental market and purchase affordable housing. The government pays the difference between the actual rent and 30 per cent of the person's income, but an adequate supply of housing must be available for people to access. 'Supply programs' facilitate the development of new supply, either through capital grants or ongoing subsidies. Today, the focus is more on demand-based programs, relying more on the private sector, and addressing the most vulnerable.

Non-profit affordable housing provides a community, security, and in an increasing number of cases, a supportive environment and connection with support services.

> PARTNERSHIPS FOR NON-PROFITS

Ever since non-profit housing first developed in the 1950s, non-profits have had to partner with government and the private sector – realtors, developers, architects and engineers. There are many concerns around forming public-private partnerships (P3s), but building affordable housing for low-income and vulnerable populations is impossible without some kind of partnership.

> ISSUES AFFECTING SOCIAL HOUSING

Currently, we don't have enough government programs, or enough flexibility in the programs, to address community needs. Because co-ops and non-profits are community-based, they are very aware of community needs.

Non-profits and co-op housing stock is aging. Many of the buildings were constructed in the 1970s, the heyday of subsidized housing construction through government programs. The mostly wood-framed buildings are about 35 years old. Non-profits don't have the equity to address this. The high cost of land and construction are also significant obstacles.

> THE FUTURE OF SOCIAL HOUSING

Social-housing providers entered into agreements with governments that provide subsidies to make housing affordable for low-income earners. Those agreements went with the mortgage, so after the 30-year mortgage is paid, the operating agreement expires and there will be no more government intervention, no more subsidies, no more mortgage, and aging buildings.

This is a looming problem. It could also be a looming solution. The land owned is generally less dense than it could be. The density could be increased, and a portion of land could even be sold to pay for that increase.

The BC Non-Profit Housing Association will inventory social housing in B.C. to identify opportunities and will be discussing options like increased density. We'll need to work with local governments, come up with unusual arrangements, and make zoning changes.

Partnerships are complex, and the more partners, the greater the complexity. But by forming partnerships, we can create models we can replicate, rather than reinventing the partnership wheel every time. We can't afford to do that. We need to create templates everyone can use. That's the future that I see.

> RESOURCES

BC Non-Profit Housing Association: www.bcnpha.ca.

Canada Mortgage and Housing Corporation (CMHC): www.cmhc-schl.gc.ca.

BC Housing: www.bchousing.org.

Canadian Housing and Renewal Association (CHRA): www.chra-achru.ca.

Raising the Roof: www.raisingtheroof.org.

Housing Again: housingagain.web.ca.

PART 3.8

Out of Molly's Reach

Unaffordable Housing in Gibsons (and Solutions)

Gibsons town councillor **LEE ANN JOHNSON** explains how her council is tackling affordable housing issues in Gibsons.

Gibsons is a small town of 4,000, part of a Sunshine Coast community of about 28,000. A growing retirement community, Gibsons already has the number of senior citizens that the province expected us to have in 2025.

> AFFORDABLE HOUSING

The lack of affordable housing is affecting every sector of our community. We have more job vacancies now than anyone can remember, but they're service jobs with wages that don't pay the rent here, as we've lost an enormous amount of rental stock. Property values have doubled in less than five years; houses are now about $400,000 for a single family house.

Like many rural communities, Gibsons has a shortage of health care workers and professionals. Three new doctors interested in living in our community turned it down, because they – doctors! – could not afford housing.

We're also developing a major homelessness problem. Last winter we identified 30 people homeless on the Sunshine Coast. This year the numbers are close to 300; most are living in the woods.

> LACK OF SOCIAL HOUSING

We don't have family social housing in Gibsons. We have one subsidized housing project for seniors and one assisted living health care facility that is called housing. The provincial government talks about new affordable social housing, but what it's doing is developing seniors' health care facilities. Former facilities are being closed and seniors are being diverted to what they call 'social housing.' But it's not: you don't get to live there unless you need the health care.

> AFFORDABLE HOUSING INITIATIVES

Gibsons and Sechelt are moving to legalize secondary suites. We've involved the Chamber of Commerce, community economic development people and agencies like the Rotary Club so we can overcome expected objections with very broad support.

Three doctors interested in living in our community turned it down, because they – doctors! – could not afford housing.

We're also developing our last two substantial chunks of land, 110- and 120-acre greenfield sites. On them we're designing new zones, which will include freehold townhouses and cluster zoning on quarter-acre lots where up to four houses of varying sizes can be developed, providing density.

We're also developing live-work zoning for those who need public access. (We already allow home-based businesses but we restrict them when they require customers to be coming and going.)

> SMALL TOWN DENSITY

Density in Gibsons means density appropriate for a small community. Local developers and builders simply don't know how to build multiple-family developments, such as apartments or townhouses that must be built all at once. What they do know how to build are single-family houses and garages with cottages above. They also know how to build small houses, although they haven't had the economic motivation to do so until now; we're designing small housing zones. We're hoping the zoned building sizes and the land uses will lead to greater affordability in these areas. But even greater affordability is not going to really address our workers' needs.

> REDEFINING AFFORDABLE HOUSING

To redefine affordable housing we're using new language like 'workforce housing' (affordable housing for workers). Household size in our community is shrinking very rapidly. That's happening across the province, but particularly affects retirement communities. Most of our population is one or two-person households. There are many reasons, including the environmental considerations, that single people do not need 2,000 square feet.

> COMMUNITY LAND TRUSTS AND HOUSING RESERVE FUNDS

As soon as we get through our two community plans, we hope to pursue a community land trust model, banking rural land in particular. One Gibsons family has donated part of their land as part of their estate, and other families are interested. If we can put that land in a land bank, we'll be able to achieve a lot more for our communities. The key to affordability is disconnecting land ownership from the right to use land. Land trusts or "banks" can do just that.

PART 4

Eco-Ed, From Buildings to Books

- Want kids to get higher marks?
- Want schools to spend less on utilities and more on teaching?
- Want kids to be able to navigate our future sustainable society?
- Think that would all be nice, but not sure how to do it when budgets are strained and staff are overwhelmed?

Then you're in the right section. In these pages, Kevin Millsip explains how a little coordination helps schools green up with minimal effort (some even got free solar panels to boot). Karen Marler, who's been building green schools for decades, explains how green schools can save money while improving the scholastic experience, not to mention kids' marks. And Patrick Robertson outlines how environmental education in B.C. will help create a generation of sustainable citizens.

PART 4.1

Free Rooftop Solar Panels for Schools!

(And How We Got Them)

KEVIN MILLSIP began the Sustainable Schools project while serving as a Vancouver School Board trustee.

The 'Sustainable Schools' project started with a process called 'Cool Schools' that we began while I was on the school board. It paralleled Vancouver city council's 'Cool Vancouver' project, which brought stakeholders together to see how the city could meet and surpass Kyoto greenhouse gas reduction targets. For Cool Schools we invited anyone involved with Vancouver School Board (VSB) environmental education and programming, including non-profits, community groups, federal and provincial government representatives, City of Vancouver departments, as well as parents, teachers, and students.

We explained that we wanted to dramatically expand environmental education and action, but had no money for this. At the same time, teachers and principals were telling us they supported Cool Schools' objectives but were unable to handle yet another program.

We assessed what made already-existing programs successful, and explored what environmental education programs would look like in an ideal world. Then we asked, "What are the barriers to achieving our dream scenario?" We discovered there were many things we could do around access, outreach, communication, and coordination that would give existing programs more impact without costing money.

We started a pilot project with two high schools, two elementary schools, and one adult education centre. The schools met with the Cool Schools committee to talk about their environmental education dreams. We discovered there were a lot of city resources of which people were unaware. There were also a lot of programs that had funding or staffing and just needed more schools to become involved.

After the 2005 municipal election, I was no longer on the school board. The Cool Schools project idea was going ahead slowly, but needed a champion. Although it was strongly endorsed, no one had the time to push it forward. So we took it to Check Your Head, the non-profit that I direct, and through that we were able to raise funds to hire a staff person.

We're now in a pilot year, with 10 VSB schools – two high schools and the eight elementary schools that feed into them. This is one of the reasons the funders were interested: we established a system where a child in elementary school will graduate to a high school on the same track around environmental education and action. Each school formed an internal team which has come up with its environmental education and action vision.

So now there are free solar panels on King George Secondary roof, which are heating the school's water and which are connected to the Grade 9 Science curriculum. All these resources existed in the community. We just had to get everybody in the room at the same time to have the conversation.

We track energy use, garbage output, walking and cycling trips to schools, and we connect these ideas with programs and resources through the coordinator. We've gotten excellent feedback about having a person devoted to finding these connections. By the end of the year we aim to have a simple 'how to' guide, available free to any school in the province. Our coordinator is also setting up champion training systems within the schools to train students and teachers to be coordinators in their own school.

One of the challenges with champions in public schools is that they leave. Kids graduate and teachers change schools, and programming can just die without a knowledgeable champion. To address this challenge, we've set up a bi-annual training system to train current champions as well as new champions.

One tangible example of success comes from King George Secondary, a busy downtown Vancouver school. School reps wanted rooftop solar panels. A person at the first visioning session worked for a private solar installation firm and knew of a new program through an NGO that would help the school to access funds for rooftop solar panels. Someone else knew of lesson plans that make the link between solar water heating and the Grade 9 science curriculum.

So now there are free solar panels on King George Secondary roof, which are heating the school's water and are connected to the Grade 9 science curriculum. All these resources existed in the community. We just had to get everybody in the room at the same time to have the conversation.

At the same school, the young woman who runs the cafeteria is very passionate about local food-sourcing, so she is starting community gardens tended by the school. The food from the gardens is used in the school and she's connecting that to the foods and nutrition curriculum. Another program there encourages cycling and walking to school. Together, these three initiatives are very tangible examples of the kind of systems change that Sustainable Schools is helping to make in the Vancouver School Board.

> RESOURCES

Youth Environmental Network: The networking place for the Canadian youth environmental movement. www.yen-rej.org.

Environmental Youth Alliance: A Vancouver-based group with amazing projects, opportunities, resources and information. www.eya.ca.

Canadian Youth Climate Coalition: A united movement of youth from across Canada tackling the emerging climate crisis. www.ourclimate.ca.

Indigenous Environmental Network: A network of Indigenous Peoples empowering Indigenous Nations and communities towards sustainable livelihoods, demanding environmental justice and maintaining Indigenous traditions. www.ienearth.org.

BC Climate Exchange: Promoting learning about climate change. www.bcclimateexchange.ca.

Walking the Talk: A network of people and organizations in British Columbia interested in sustainability education. www.walkingthetalk.bc.ca.

Reclaim the Future: Check out their inspiring and innovative work on the Green Wave, Green Collar Economy and the Reclaim the Future curriculum! http://ellabakercenter.org/page.php?pageid=5.

Climate Justice and Equity: An excellent article about social justice and climate change. www.globalissues.org/EnvIssues/GlobalWarming/Justice.asp.

PART 4.2

Green Schools Get Top Marks

KAREN MARLER is a Principal with Hughes Condon Marler : Architects (HCMA) and a LEED Accredited Professional. She is currently overseeing UBC's University Boulevard Mixed-Use Redevelopment as well as the rezoning for a new sustainable master planned community for 13,000 residents in the East Fraserlands area of Vancouver. HCMA is one of less than 100 companies in British Columbia purchasing Green Power Certificates for 100 per cent of their power requirements.

We are hearing about the damage to our environment every day. We all recognize that we need to live sustainably, and as leaders and decision-makers, it's our responsibility to be informed on how we can contribute to sustainability. At the same time, more and more of today's children and youth are well aware of the growing need to address environmental issues and concerns. Building green schools can make a significant contribution to the lives of our children, fostering a healthy environment for learning, while at the same time creating a living case study for sustainable design.

Building green does not mean applying high-tech, sustainable technologies indiscriminately. First and foremost, building green is about designing a building to optimize passive performance. Building green schools means:

- Paying attention to site conditions, i.e. solar orientation, prevailing winds;
- Minimizing water runoff;
- Choosing water conserving fixtures, such as showers, toilets, faucets;
- Planting drought-resistant plants to reduce the need for irrigation;

- Reducing energy demand by incorporating passive energy strategies, i.e. daylight, natural ventilation, renewable natural energy sources;
- Eliminating unnecessary finishes;
- Favouring local products;
- Using salvaged and recycled materials and installing low-maintenance materials; and
- Using low-toxicity products and materials, green housekeeping, and recycling.

> BENEFITS TO BUILDING GREEN

Environmentally, green schools:

- Use 30 to 50 per cent less energy than conventionally designed schools; and
- Produce 40 per cent less CO_2 and 30 per cent less water.

Socially, green schools:

- Improve occupant performance and health;
- Reduce absenteeism and turnover;
- Are a wise use of public money; and
- Attract and retain teachers.

Economically, green schools:

- Are durable;
- Have lower operational costs; and
- Reduce liability and improve risk management.

Educationally, green schools:

- Increase productivity by 13 per cent through the use of natural daylighting;
- Improve student test scores by 20 per cent; and
- Serve as a most immediate case study and can be used as a teaching tool.

> LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED)

The U.S. Green Building Council monitored the capital cost increase of LEED Buildings in 2003. LEED (Leadership in Energy and Environmental Design) is a green building evaluation and rating system recognized in Canada and the U.S. Many municipalities in the Lower Mainland and throughout B.C. are using LEED principles for the design and construction of municipal projects.

Average capital cost increase for green buildings in the U.S. in 2003:

- LEED Level 1 (Certified): 0.66 per cent;
- LEED Level 2 (Silver): 2.11 per cent;
- LEED Level 3 (Gold): 1.82 per cent; and
- LEED Level 4 (Platinum): 6.50 per cent.

> GREEN BUILDING STRATEGY: MULTIPLE FUNCTION DESIGN

One green building strategy involves designing buildings so materials and finishes have more than one function. For example, Hughes Condon Marler Architects (HCMA) designed an aquatic pool for the Township of Langley. The acoustic panels over the pool area also act as lane markers for back-stroke swimmers and reduce glare by reflecting light from light fixtures. This means that the pool doesn't need to be drained in order to change the light fixtures, which reduces downtime. Similarly, the glass doors at the side of the pool can be opened to provide natural ventilation and access to the outdoor patio. This feature also can provide additional seating space during competitive events.

WALNUT GROVE: **Glass doors at the side of the pool open to bring in fresh air and improve indoor air quality.** GARY OTT PHOTO

> GREEN BUILDING STRATEGY: REUSING EXISTING FACILITIES

The adaptive re-use and renovation of existing facilities is another cost-effective green building strategy. For example, Hughes Condon Marler : Architects' adaptive re-use of the West Vancouver Aquatic Centre retained an existing 25 metre pool. Some of the green strategies implemented include low-flow fixtures, water-efficient irrigation and native, drought-resistant plants, durable materials, high-efficiency boilers, and recovering waste energy. Following Hughes Condon Marler : Architects' renovation and expansion of the West Vancouver Aquatic Centre, the facility experienced a 300 per cent increase in visits.

> EXAMPLES OF GREEN SCHOOL BUILDING

UNIVERSITY HILL ELEMENTARY is a replacement school built on a very restricted area. A grove of trees and playfield had to be retained and the school had to continue to operate at full capacity while the school was being built. The teachers recognized the positive influence the park setting had on the children's behaviour and so wanted each classroom to have a door to access the forested park setting.

The University Hill Elementary design eliminates unnecessary finishes. The roof decking and the wood structure are the interior finishes, and all the wood was left in a natural state. The storage cabinets along the side of the hallway are the room dividers, eliminating the need to build additional walls.

WEST VANCOUVER: **Reusing existing facilities is another green building strategy.**
HUGHES CONDON MARLER : ARCHITECTS PHOTO

The design of the ROGERS ELEMENTARY SCHOOL in Saanich employs numerous green building strategies including:

- Minimal site disturbance;
- Solar orientation;
- Natural cross ventilation; and
- Use of durable, low-emitting materials.

Despite using green strategies, Rogers Elementary was built using the same budget formula as all the other schools built in the province at that time. The abundance of daylight, natural ventilation, and views from the classroom exceeded students' and teachers' expectations and created a strong pride of place.

CLEARVIEW ELEMENTARY SCHOOL in Hanover, Pennsylvania is a LEED Gold certified project, using:

- 30 per cent less water;
- 40 per cent less energy; and
- Ground-source heat pumps for heating and cooling.

It cost 2.15 per cent more than traditionally built elementary schools constructed during the same period, and the payback was under seven years based on energy savings alone (U.S. Department of Energy Energy Efficiency and Renewable Energy).

UNIVERSITY HILL: The roof decking and the wood structure are the interior finishes, and all the wood was left in a natural state.
SIMON SCOTT PHOTO

HERITAGE WOODS SECONDARY SCHOOL in Port Moody is a recent example of a LEED Silver green school, with:

- 22 per cent less water consumption;
- 80 per cent recycled construction waste;
- Exterior glazing with shading devices;
- A ground-source heat pump; and
- Energy performance that is 53 per cent less than the model National Energy Code.

(Credit: Killick Metz Bowen Rose Architects Planners Inc.)

THOMAS L. WELLS PUBLIC SCHOOL in Scarborough, Ontario is another LEED Silver green design. The prominent windows draw rave reviews from teachers and are so effective the lights are rarely turned on. The students are more attentive and alert in contrast to schools with fewer windows and less natural light. (Credit: Baird Sampson Neuert Architects.)

ROGERS ELEMENTARY: **The school was built using the same budget formula as others constructed at that time. The abundance of daylight, natural ventilation, and views from the classroom exceeded students' and teachers' expectations and created a strong pride of place.**
HUGHES CONDON MARLER : ARCHITECTS PHOTO

> COSTS OF BUILDING GREEN

Green schools have direct capital costs and indirect costs that should be factored in. This chart illustrates the importance of the soft cost benefits associated with sustainable school design. With green schools, capital costs increase relative to investment, but in return operational savings are great. Ask parents: would they rather have higher performing students, higher test scores from their children, or lower capital costs? They'll pick the former every time. With green schools you can have both!

> FINANCIAL BENEFITS OF GREEN SCHOOL DESIGN ($/FT^2)

Soft Cost Benefits Case Study

Energy	$14
Emissions	$1
Water and wastewater	$1
Increased earnings	$37
Asthma reduction	$4
Cold and flu reduction	$4
Teacher retention	$4
Employment impact	$3
TOTAL	$68
COST OF GREEN DESIGN	$4
NET FINANCIAL BENEFITS	$60–$70

Source: National Review of Green Schools: Costs, Benefits, and Implications for Massachusetts, Cap E 2005

PART 4.3

Environmental Education in B.C.

A Systems View

PATRICK ROBERTSON is president of the Environmental Educators Provincial Specialists' Association (EEPSA) of the BC Teachers' Federation (BCTF). He currently teaches in the West Vancouver School District.

Beginning in 2006, I led a research endeavour that explored the factors enabling and constraining environmental education (EE) in B.C. The study looked at factors across four system levels:

- The individual (educator, administrator, learner);
- Curriculum and program;
- The institutional and community level; and
- Governance and policy.

The diagram on the opposite page (from Robertson, 2007) reflects what we learned through surveys and focus groups with close to 100 practicing educators from across the province. The four system levels that emerged as most relevant are represented as concentric circles, with the individual level nested within the various, more expansive system levels.

The vertical axis shows enabling factors on the left and challenges to the right. Some factors can enable or constrain EE depending on context, and thus straddle the axis. For example, curriculum can enable, but it can also be a challenge depending on contextual factors such as where you teach (elementary/secondary/in the community). The lines emanating out of some factors show the degree to which they were reported more as a bridge or a barrier by

study participants. Factors reported exclusively as bridges or barriers are found on the left or right side of the axis respectively.

Three notable factors supporting green learning in B.C. and worthy of further discussion are:

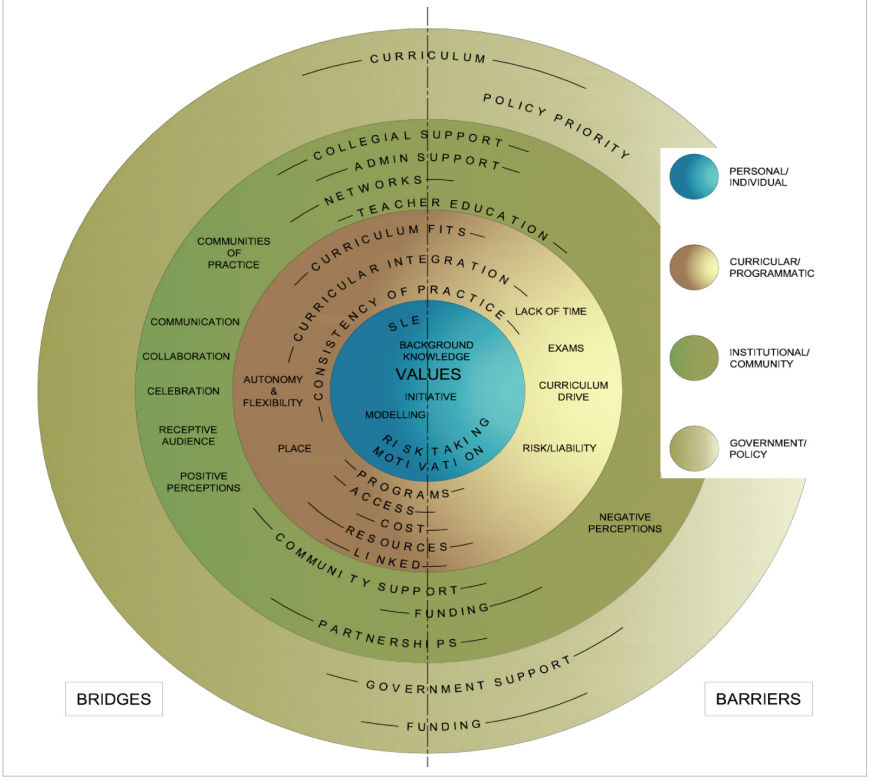
1. Curriculum;
2. Resources and programs; and
3. Networks.

> ENVIRONMENTAL EDUCATION IN B.C. CURRICULUM

EE has been part of B.C.'s curricula for over three decades. The BCTF led the way in the early 1970s by initiating a ministry-supported task force on EE which recommended the development and support of various EE learning resources and program offerings.

In 1995, a foundational EE framework for B.C. curricula, Environmental Concepts in the Classroom, was developed. EE was also included as an important

BRIDGES AND BARRIERS TO ENVIRONMENTAL EDUCATION IN BC



element of the 'cross-curricular connections' found in numerous Instructional Resource Packages (IRPs) that have served as our curriculum documents since the 1990s. Importantly, however, EE learning outcomes were not enshrined explicitly in IRPs and, therefore, were not mandatory content for teachers.

Early in the new millennium, EE was 'under siege' from ministry cutbacks, a renewed focus on standardized testing, and other political factors. Nonetheless, in 2005, an intrepid group of educators began the revisioning and revival of the 1995 Environmental Concepts in the Classroom document. This group, which initially included partners from Simon Fraser University, Royal Roads University, and EEPSA, spent 16 months consulting across the province with educators, administrators, policy-makers and other stakeholders. The process, supported in principle by the Ministry of Education, led to a draft document called Environmental Learning and Experience (ELE).

With the need for effective EE in our schools and community learning environments clearer than ever and the rapidly growing public interest in environmental issues over the last few years, the Ministry of Education is now fully supporting the distribution and implementation of the new ELE curriculum framework. It's great to see the convergence of informed opinion and public opinion resulting in political will and action.

> THE ENVIRONMENTAL LEARNING AND EXPERIENCE (ELE) FRAMEWORK

The ELE framework takes the core principles of the ECC document from 1995 and splits them into two main foci: The Learning Cycle and C.A.R.E. The Learning Cycle emphasizes the foundational role of 'direct experience' in environmental learning. Direct experience can then serve as a foundation for the processes of reflection, negotiation and conceptualization. Teaching and learning strategies that incorporate all elements of this learning cycle are likely to lead to the deepest learning.

> C.A.R.E.

C.A.R.E. stands for Complex systems, Aesthetic appreciation, Responsibility, and Ethics. Learners need to develop the ability to think in terms of systems and complexity, to develop a sense of awe, wonder, and beauty, to understand the consequences of our actions and associated responsibilities, and to learn how to live in ways that are sustainable. Ecoliteracy lies at the confluence of the four C.A.R.E. elements.

> NEXT STEPS FOR ELE

Over the next six to eight months, the development and implementation of ELE will continue. Next steps in the process include:

1. A team will map learning outcomes across curricula and grade levels to provide teachers with effective and efficient ways to link the document with their teaching.
2. We intend to create web-based portals of community program and resource links so teachers can readily and effectively access resources and programs to support EE implementation.
3. The ministry plans to put the document on the web for public input. Once finalized, the ministry will also support a distribution and implementation plan including linkage with curricula across K–12 subject areas.

Learners need to develop the ability to think in terms of systems and complexity, to develop a sense of awe, wonder, and beauty, to understand the consequences of our actions and associated responsibilities, and to learn how to live in ways that are sustainable.

> RESOURCES AND PROGRAMS

Each B.C. community has dedicated champions and organizations that sustain EE. The best resources and programs are often locally developed. Several local and provincial networks assist with the linking of teachers with quality community resources. Some of these resources and programs include: the GVRD, BC Hydro, and NGOs including Check Your Head, the David Suzuki Foundation's Nature Challenge, Destination Conservation, the Environmental Youth Alliance, Evergreen, Fored BC, the Labour Environmental Alliance Society, Passion for Action, the Pembina Institute, the Sierra Club, and WildED.

NOTABLE EE NETWORKS IN B.C.

Various networks exist in B.C. to facilitate and support the implementation of EE:

- The Environmental Educators Provincial Specialists' Association (EEPSA) is part of the BCTF; it provides professional development, networking, curriculum support and leadership in EE.
- Wild BC is a B.C. government-sponsored education program providing EE resources, programs, workshops, and partnership opportunities.

- The Environmental Educators of BC (EEBC) is B.C.'s network of formal and informal environmental educators and a public gateway to current ideas, information and resources.
- The BC Working Group for Sustainability Education (BCWGSE) is a multi-sectoral, online network for individuals and organizations interested in sustainability education.

> CONCLUSIONS

Current research involving stakeholders across the province tells us much about potential directions toward enhancing the bridges and overcoming the barriers to EE in B.C. With a new provincial curriculum framework for environmental learning, a wide range of highly effective resources and programs available, and several existing networks to support implementation, the future for EE looks bright. At a time when public awareness of environmental issues and community need for ecoliteracy is growing daily, this is good news indeed.

For more information or enquiries regarding EE in B.C., or to receive a copy of Environmental Learning and Experience 2007, please contact Patrick Robertson at pabrobo@shaw.ca.

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PART 5

Greening Up

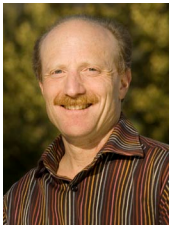
Tools and Resources

You're convinced: green's the way to go. But getting started can be daunting. Where should you begin? How can you get others – and your entire community – onside? What is a green building, exactly?

The good news is you don't have to figure this out on your own: others have gone before you. Whistler's been making decisions using a sustainability framework for years. Groups like the Community Energy Organization and the Canada Green Building Council exist solely to make your green-up easier. People have developed toolkits and tax tips. They've battled bylaws, befriended developers, and raised the (green) roof for the sake of a healthier planet, and you can benefit from their treasury of experience – starting with the smart ideas detailed in this section.

PART 5.1

Whistler's Sustainability Vision in Action



KEN MELAMED has been Mayor of the Resort Municipality of Whistler since 2005. Previously he served as a Whistler councillor since 1996.

Whistler's Sustainable Decision-Making Frameworks

> WHISTLER 2020

Whistler 2020 is the vision we adopted in 2004, after a long process through which we developed a shared idea of how to implement sustainability and define long-term success. We set up 16 task forces, which meet annually to compare our shared descriptions of success with our most current performance and suggest appropriate actions – not just for the Resort Municipality of Whistler (RMOW), but for all of our community partners. For example, a task force may decide that Whistler Blackcomb should recycle more – a decision that Whistler Blackcomb can either accept or refuse. However, we have enjoyed an approximate 75 per cent acceptance rate on suggested actions throughout the community – about 45 per cent of which are recommended to the RMOW itself.

Each task force has its description of success posted on the Whistler 2020 website. For example, one of the 10 Materials and Solid Waste Descriptions of Success is: "Local businesses, residents and visitors are knowledgeable about material flows, and demonstrate a strong ethic of responsibility and stewardship toward resources and materials."

> THE NATURAL STEP

Based on the principles of the Natural Step Framework, we developed four objectives to focus our sustainability efforts. They are based directly from 'The Natural Step,' a framework developed by Swedish oncologist Dr. Karl-Henrik Robert:

- Reduce and eventually eliminate our contributions to systematic increases in concentrations of substances taken from the earth's crust (e.g. use less or different stuff);
- Reduce and eventually eliminate our contribution to systematic increases in concentrations of substances produced by society (e.g. make less or different stuff);
- Reduce and eventually eliminate our contributions to systematic degradation of nature (e.g. reduce our impact on life-sustaining ecosystems); and
- Reduce and eventually eliminate our contribution to systematically undermining the ability of others to meet their basic human needs (e.g. meet human needs fairly and efficiently).

> SUSTAINABLE PURCHASING GUIDE

Building on our commitment to upstream solutions to materials issues, the Sustainable Purchasing Guide was produced by our staff on behalf of the community. These six steps are what we use to test a purchasing decision against our sustainability framework:

1. Identify the product's service;
2. Assess the need for the product;
3. Identify the product's content;
4. Identify the product's current sustainability impacts;
5. Envision a sustainable product/service(s); and
6. Identify and prioritize more sustainable options.

As an example, we preference fair trade certification in procurement decisions and as a way to inform staff about the sustainability and ethical attributes of products like coffee and others.

Our Sustainability Purchasing Guide includes a quick find section of commonly-purchased products for purchasing agents who don't have time to go through the full assessment. This guide gets updated frequently, so if a manager has gone through a detailed process, he/she can share that information by upgrading the online purchasing guide.

> FUTURE PROJECTS

One additional goal we have is to get corporate social responsibility investment criteria integrated into our investment ladder through our finance department. One example of that is through the Olympic Legacy Fund, which has been created to sustain the venues after the Games. There's $150 million in that fund, which has been set up so that the investment manager can choose 10 per cent of the fund to go into a socially responsible investment. It's not as definitive as we'd like, but we're committed to keep moving along our journey to sustainability 'one step at a time.'

> RESOURCES

www.whistler2020.ca (the purchasing guide is located on the resources pages).

www.naturalstep.ca.

www.planning.org/policyguides/sustainability.htm (from the American Planning Association).

PART 5.2

Easing Your Transition To Green Energy

The Community Energy Association

LAURA PORCHER is the Executive Director of the Community Energy Association, a non-profit society promoting energy conservation through community energy planning.

The Community Energy Association (CEA) assists B.C. local governments with energy efficiency, conservation and renewable energy, offering resources for elected officials and staff support. CEA is made up of UBCM, the province, the Planning Institute of B.C., as well as partners like BC Transit and Translink, BC Hydro, Pacific Northern Gas and Infrastructure Canada. We've been around for about 10 years, previously under the name BC Energy Aware Committee. You may have heard of the Energy Aware Award presented annually at the UBCM convention; in 2006 it went to Dawson Creek.

Canadians are the fourth highest per capita energy users in the world, spending $4,300 per person, per year on energy. B.C. municipalities influence at least 44 per cent of B.C.'s overall greenhouse gas (GHG) emissions, and internally, municipal operations account for well over 9 per cent of B.C.'s GHG emissions. So every decision that every council makes has a big influence on energy.

> CEA'S ENERGY PLANNING TOOLKIT

Our toolkit is a three-volume set that can be downloaded from our website. It includes:

VOLUME 1 – AN INTRODUCTION

- What is community energy planning?;
- Energy as a local opportunity;
- Finding the money – investing, not spending;
- Working together – roles in the development process; and
- Getting the message out – and making it happen.

VOLUME 2 – ENERGY IDEAS

- Regional growth strategies;
- OCPs and zoning bylaws;
- Neighbourhood and site planning;
- Transportation – reducing demand, reducing emissions;
- Building design – site design, retrofits;
- Municipal/regional facilities and infrastructure; and
- Energy supply options.

Volume 2 acts like a template that you can use for community energy planning in your community.

VOLUME 3 – CASE STUDIES (CURRENTLY BEING UPDATED)

> ENERGY TOOLS FROM OTHER ORGANIZATIONS

- Smart Growth BC toolkit;
- Air Quality Planning Tool and Clean Air Toolkit (Ministry of Environment);
- Provincial community energy use inventory;
- Halifax Regional Municipality Community Energy Planning RFP template;
- Green Electricity Resources of BC – BC Hydro green electricity map; and
- Federation of Canadian Municipalities
  - Partners for Climate Change Program
  - Centre for Sustainable Community Development
  - Adapting to Climate Change.

> FUNDING GUIDE

The CEA Funding Guide outlines all the energy or climate change-related funding programs for local governments. The guide has two parts:

- Funding guide:
  - Funds for climate change action, energy planning, energy efficiency and renewables; and
  - Comprehensive listing of all programs for which B.C. local governments are eligible.
- Resource guide:
  - Non-financial resources for local governments; and
  - Financial incentives for community groups, businesses and residents.

These documents are available on our website, and the CEA can help you pursue those funding sources.

> BUILDINGS

Green Buildings BC:

- Provincial initiative to support building energy retrofits;
- Existing program for health and education buildings;
- CEA pilot program newly implemented for municipal buildings and facilities; and
- Sample RFPs and contracts, how-to-guide, and support person.

CEA local government guide to buildings:

- Policies to improve energy efficiency in private sector buildings and municipal facilities; and
- Lessons from the Community Action on Energy Efficiency program (research buildings-related program undertaken by the province with 29 local governments).

> CEA WEBSITE

New launch in 2007:

- Benefits and opportunities;
- Taking action;
- Best practice showcase; and
- Tools and resources.

> KEY ASPECTS OF ENERGY PLANNING

LAND USE

- Focused, density, supporting transit, mixed use; and
- Protection of greenfield.

TRANSPORTATION

- Infrastructure supporting rail, transit, cycling, pedestrians; and
- Alternative energy: for fleets, transit, other.

BUILDINGS

- District heating, site design, solar ready, green buildings, retrofits.

ENERGY EFFICIENT INFRASTRUCTURE

ENERGY SUPPLY

- Renewable, waste energy utilization; and
- Adaptability.

> POLICIES

Incorporate sustainability/energy/GHG goals into policies:

- Density bonusing;
- Fast-tracking green rezoning applications; and
- Bylaws designating solar-ready or district heating service areas.

> LOCAL GOVERNMENT OPERATIONS CAN LEAD BY EXAMPLE

- Making new buildings energy efficient and use renewable energy;
- Retrofitting existing buildings;
- Reclaiming sewer heat;
- Using landfill and sewer gas;
- Using fleets that are right-size, efficient and use alternative fuels;
- Implementing ethical purchasing policies.

> B.C. COMMUNITIES ARE TAKING ACTION

- Whistler – Integrated sustainability planning, renewable energy;
- Vancouver – GHG Plan, district heating, renewables;
- Dawson Creek – Natural Step, CEP, bylaw for solar-ready homes;
- Revelstoke and Prince George – CEP, district heating;
- Kelowna – Heat reclaim from wastewater to heat college;
- Victoria – Landfill gas 1.6 MW green power, Dockside Green;
- Lake Country – Electrical generation from water supply;
- Sun Rivers – Ground source heating community;
- Langford – LEED certified neighbourhood; and
- Sparwood – Biodiesel fleet.

> RESOURCES

Visit the Community Energy Association's website:
www.communityenergy.bc.ca.

PART 5.3

Tax-shifting

A Sustainability Power Tool

DONNA MORTON is founder and Executive Director of the Victoria-based Centre for Integral Economics (CIE), which "promotes innovative economic tools and policies that redirect the marketplace toward sustainability." Below are excerpts from her talk and from an interview on the specifics of tax shifting.

> *We are out of time. We can no longer take for granted that the Earth's life support system will be there for us.*
>
> *Our economic infrastructure is working against us, at cross-purposes with everything we love and contributing to everything that's harming our community.*
>
> *There has been an erosion of our ability to pass adequate legislation, and that's where taxes come in as an interesting, radical set of tools. The power to tax is the most powerful tool that any government has.*

Q: What is tax shifting?

A: Tax shifting is a strategy to move the largest power any government has, the power to tax, and align that power with sustainability objectives. Tax shifting moves the media and societal emphasis on how much to tax and places it on the terrain of what we tax and for what reason. Done right, tax shifting can deliver social, environmental and economic benefits.

The most powerful part of tax shifting for me is the continued improvements that can be built into tax shifting; rewarding best performers and making

laggards pay for the costs of their messes. If designed in a predictable manner taxes can drive our economies towards greater sanity and justice for those here today and for future generations.

Tax shifting can take some of the most egregious harm caused by the short-comings of the market economy and align the creativity and energy of entrepreneurs with a way of life that can last.

Q: What should we tax to make cities more sustainable?

A: Key targets for tax increases include: single level parking lots, empty buildings, sprawl, congestion and high consumption and throughput (garbage and water).

Q: What is the first thing you'd change about tax policy in B.C.?

A: B.C. municipalities need more jurisdictions around taxation. The federal government collects far too much of the overall tax burden and then plays politics with far too much of the undedicated revenue. Provincial governments also need to devolve not just responsibilities to the local level but commensurate revenue streams.

One great example is the London congestion tax, which charges a fee of approximately $15 Canadian for entering the core of the city. The local government paid for mass transit by taxing congestion.

Q: Is there anything we're doing right in terms of taxing in B.C.? In Canada?

A: Splitting property and land taxes are steps that make sense and there is room to allow local governments far more flexibility in designing a more locally appropriate land and property split. The B.C. government, which once led the country in discussing and testing tax shifting, has been asleep at the wheel for years.[1]

Q: What's an example of good and bad environmental tax policy?

A: One great example is the London congestion tax, which charges a fee of approximately $15 Canadian for entering the core of the city. The local government paid for mass transit by taxing congestion.

Worst examples include ineffective Canadian feebates on gas-guzzlers. The lack of substance to the Ontario feebate and the most recent federal actions make feebates look like weak policy tools, when in fact governments designed the feebates to be weak.[2]

Q: Which level of government should be given the most tax authority in order to create beautiful and sustainable communities?

A: Local governments require more political and financial authority. Our system is far too top heavy, concentrating power and waste in Ottawa. Provinces are seemingly only interested in their own power with the federal government and at every turn local governments are left to clean up messes with little funding.

Local governments are the most legitimate in many ways in terms of public participation in decisions, in access to political officials, and in terms of scales that make sense and where democracy can be built and grown. We need to build a renewed movement to reassert the legitimacy of local governance.

Sustainability in North America is being incubated at the local level: we need to harness that momentum and taxes can be systems levers that point citizens and businesses towards greater and continued sustainability.

> NOTES

[1] Taxing land separately from property (or buildings) is a more progressive way to tax, as those who live in larger dwellings on bigger portions of land pay more through the land tax than those who live in an apartment building and have a much smaller footprint.

[2] 'Feebates' are designed to shift purchasing behaviour towards lower fuel consumption vehicles by charging a tax on less fuel efficient vehicles and giving rebates for those who purchase fuel efficient vehicles. Critics of the Ontario feebate (also known as the Ontario Tax for Fuel Consumption) charge that the tax was ineffective because it was too small to have influence on purchasing behaviour and was not advertized sufficiently enough to have an impact on purchasing decisions.

> RESOURCES

Centre for Integral Economics: www.integraleconomics.org.

Pembina Institute: www.pembina.org.

National Round Table on the Environment and the Economy: www.nrtee-trnee.ca.

Sightline Institute (U.S.): www.sightline.org.

Foundation for the Economics of Sustainability (Ireland): www.feasta.org.

Carbon Tax Centre (U.S.): www.carbontax.org.

Wuppertal Institute (Germany): www.wupperinst.org.

PART 5.4

Vanquishing Energy Monsters

Green Municipal Building Programs

THOMAS MUELLER is President of the Canada Green Building Council (CaGBC).

Building industry leaders created the national Canada Green Building Council (CGBC) four years ago to get the building industry producing more sustainable buildings and communities. One of our main tools is the LEED building rating system. There are now 350 buildings registered with us for LEED certification, representing about 50 million square feet of buildings across Canada. These buildings are more energy and water efficient, and make better use of recycling and materials.

But we haven't really made a difference in greenhouse gas (GHG) emissions. The 30,000 member Architecture Institute of America found that 76 per cent of U.S. electricity is used just to operate buildings, and 48 per cent of greenhouse gas emissions are associated with buildings.

To make a difference in GHG emissions, the CGBC believes we need 100,000 buildings and close to a million homes to be operating at a much higher efficiency, and zero impact communities and buildings by 2025.

Our Kyoto target is to reduce GHG emissions to 572 mega-tonnes per year. Currently we produce 740 mega-tonnes per year, a figure that is rising. If we cut building energy use by half, we'd save about 87 mega-tonnes. That would take us half way to meeting the Kyoto target. The technology exists to do this; all that is needed is the political will. We have to look at energy efficiency, renewable energy, building location, waste energy exchange, community-wide systems, and upstream sources of energy.

> CaGBC's MUNICIPAL GREEN BUILDING TOOLKIT

The CaGBC Green Building Toolkit looks beyond climate change and LEED to look at areas including water, construction waste, infrastructure, and land use. It includes:

- Context of green buildings;
- Opportunities and challenges;
- Business case for green buildings;
- Training and education;
- Greening municipal buildings;
- Greening private developments;
- Monitoring and verifying green buildings; and
- Practices and technologies.

We seem to be very good at planning and knowledge-building, but when it comes to implementation suddenly there is less staff available, less money available and, I suppose, less patience available on the part of senior staff and elected officials. The toolkit addresses how municipalities can actually implement 'building greening,' since they have such a crucial role in getting green buildings built. It shows what cities and municipalities have done in regard to different green building technologies, practices, and approaches.

ENVIRONMENTAL BENEFITS AND ENERGY SAVINGS OF CANADIAN LEED CERTIFIED BUILDINGS				
				
	White Rock Operations Centre	Vancouver Works Yard	Earth Rangers	EMS Fleet Centre
Size (square feet)	6,785	40,000	60,009	22,001
LEED	Gold	Gold	Gold	Gold
CO_2 emissions (t/yr)	30.1	231	526	109
Energy efficiency[1]	50%	55%	58%	62%
Energy savings (Kwh)	74,401	751,890	2,269,540	442,490
Water efficiency	87%	76%	63%	90%
Water efficiency[2] (l/yr)	1,693,775	2,081,560	1,973,000	3,495,700
Construction waste	98%	80%	n/a	75%
[1]Ashrae 90.1; [2]EPA Policy Act 1992				

> LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED)

- Defines "green" by providing a common framework or language;
- Verifies actual performance through measurement and third-party certification;
- Supports performance benchmarking with other jurisdictions;
- Is the national green building standard for new buildings;
- Results in the lowest lifecycle cost;
- Ensures strategic design objectives are followed through;
- Relatively simple to implement with mainly performance-based credits; and
- Drives innovation and enhances building performance.

Many municipalities have committed to LEED certification for their buildings, as have provinces and the federal government, including:

- 2010 Winter Olympics;
- Vancouver, Richmond, Calgary, Kingston, Ottawa, York Region, Niagara-on-the-Lake, Waterloo;
- Victoria Dockside Green;
- Toronto Waterfront Revitalization;
- Alberta Infrastructure;
- University of Calgary;
- Province of Manitoba;
- Manitoba Hydro;
- Province of B.C. (2008);
- Province of New Brunswick;
- Federation of Canadian Municipalities;
- Public Works and Government Services Canada; and
- La Société Immobillière du Québec.

Municipalities are leaders: 20 per cent of all buildings which are LEED registered and certified are from local governments.

Municipalities are leaders: 20 per cent of all buildings which are LEED registered and certified are from local governments.

> IMPLEMENTATION STRATEGIES

The Toronto Regional Conservation Authority measured the energy performance of schools across Canada, and found a Quebec school uses a quarter of the energy of an Ontario school. Although budgets are similar, and the schools are all three to five years old, the buildings have totally different energy performances. There's obviously a problem with design, quality assurance, and quality control.

Along with the toolkit, the CaGBC will be delivering workshops across the country specifically for municipalities. We'll be helping to develop capacity in four areas:

- Green building policy and standards;
- Education and training;
- Performance verification and benchmarking; and
- Leadership in green municipal buildings.

This toolkit is about action, the Canada Green Building Council is about action, and we need to take action.

PART 5.5

PoCo Tops on Green Roofs

KIM FOWLER is Director of Development Services for the City of Port Coquitlam and leads its Sustainability Initiative implementation.

Port Coquitlam is the first Canadian municipality to regulate green roofs. The green roof initiative is one component of Port Coquitlam's Sustainability Initiative.

The major components of the Sustainability Initiative are:

- Official community plan (OCP);
- Sustainability checklist for rezoning and development permit applications;
- Annual departmental business plans;
- Triple bottom line assessment matrix for annual budget decision packages;
- Potable water source control program;
- Green building technology for city buildings;
- Green roof regulation;
- Green building and social housing incentive policy and social housing fund;
- Social planning study;
- Cash-in-lieu of parking variance;
- City land sales project; and
- Tree bylaw.

> WHAT DO GREEN ROOFS LOOK LIKE?

What we call green roofs are not like the Vancouver Public Library, which has an eight-inch green roof, or the Vancouver Law Courts, which actually has landscaped roofs. The green roofs we'll be implementing will be only three to six inches deep.

> WHY GREEN ROOFS?

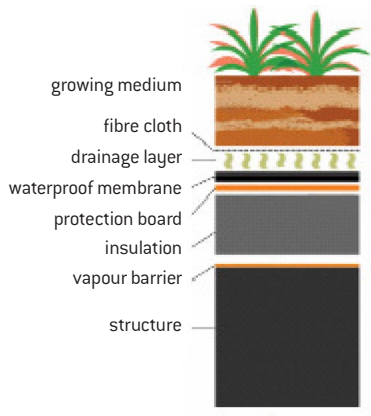
Buildings in Canada are inefficient, high energy consumers. In the Greater Vancouver Regional District, buildings use:

- one-third of our total energy consumed;
- 35 per cent of carbon dioxide emissions;
- two-thirds of our electricity;
- one-eighth of our water; and
- 40 per cent of raw materials.

Buildings in Canada produce:

- Over one million tons of waste, or 30 to 40 per cent of total landfill waste; and
- 35 per cent of carbon dioxide emissions – a principal greenhouse gas.

GREEN ROOF



3 to 6 inch total depth

Source: BCIT

Green Roof Benefits:

- Reduce storm water peak, volume and quality by 28 per cent;
- Reduce energy consumption for building temperature control;
- Add aesthetic improvements/value;
- Add biodiversity;
- Reduce diurnal heat range by approximately 66 per cent;
- Have competitive life cycle costs; and
- Reduce the Urban Island Heat Effect.

Green roofs reduce storm water volume and energy while adding aesthetic improvements and biodiversity – with competitive life cycle costs. Diurnal heat range is the shrinking and expansion caused by temperature change. Green roofs last twice as long as conventional ones because they're not shrinking and expanding all the time.

> GREEN ROOFS IN PORT COQUITLAM

Our green roof regulation was adopted by council on December 11, 2006. We were the first municipality in Canada to regulate green roofs, and we did it using a landscaping regulation in our zoning bylaw. The new regulation states that all new commercial and industrial buildings over 5,000 m^2 (53,821 ft^2) must have an engineered green roof installed on 75 per cent of their surface.

We also have a variance process. For an unheated 300,000 square foot industrial storage building, a green roof would likely cost around $3 million more than a conventional roof, and the builder would likely go elsewhere. The "meet or beat" variance provides for the environmental and social benefits while still meeting economic viability.

> RESOURCES

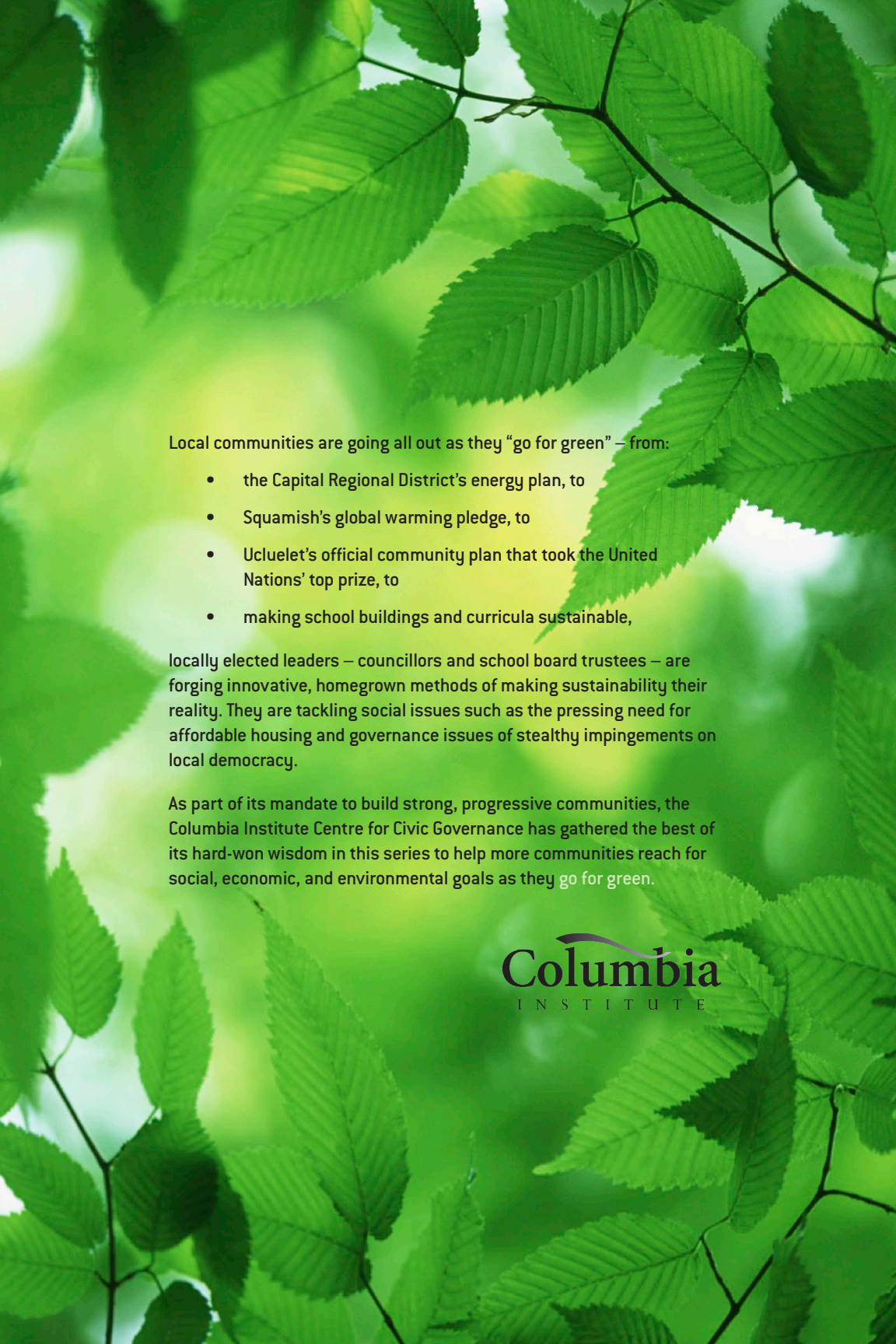
BCIT Centre for the Advancement of Green Roof Technology: www.commons.bcit.ca/greenroof/.

Earth Observatory: http://earthobservatory.nasa.gov/Study/GreenRoof/.

Blackdown Horticultural Consultants: www.greenroof.co.uk.

Xero Flor Canada: www.xeroflor.ca.

Royal Institution of Chartered Surveyors Green Value Report: www.rics.org.



Local communities are going all out as they "go for green" – from:

- the Capital Regional District's energy plan, to
- Squamish's global warming pledge, to
- Ucluelet's official community plan that took the United Nations' top prize, to
- making school buildings and curricula sustainable,

locally elected leaders – councillors and school board trustees – are forging innovative, homegrown methods of making sustainability their reality. They are tackling social issues such as the pressing need for affordable housing and governance issues of stealthy impingements on local democracy.

As part of its mandate to build strong, progressive communities, the Columbia Institute Centre for Civic Governance has gathered the best of its hard-won wisdom in this series to help more communities reach for social, economic, and environmental goals as they go for green.

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