

**SPEECH TO CHF Canada Annual Meeting
June 9, 2007
KELLY HAWKE BAXTER**



Thank you Richard. Hello everyone. Thank you for inviting me here today. I am so thrilled to have the opportunity to speak to you today on such an important topic – our sustainable future. And it's not often that I get to speak to such an enthusiastic audience full of so many committed people. I am just amazed at all the fantastic work already being done by housing coops to “go green.”

Today I'm going to talk to you about this new buzz word called sustainability and what it means to coop housing, but first I'll give you a bit of background on my organization, The Natural Step.



As Richard said, I am Executive Director of a national charity called The Natural Step. We provide education, training and coaching to organizations on how to integrate environmental, social and economic priorities into decision-making.

So we work with senior management teams and a cross section of people within an organization to help them work together to solve their organization's most pressing environmental and social challenges.



Our work is based on what we call The Natural Step Framework. The Natural Step Framework, is a strategic planning framework for long-term change.

It provides a shared understanding of what sustainability means and gets everyone on the same page, which is useful if you want to get lots of people, departments and organizations working together.

It helps organizations understand where they are today, where they want to be in a sustainable future and to make strategic choices to start moving in the right direction. It's hard to know if you're moving in the right direction if you don't have a clear destination in mind and a clear set of criteria to chart your course.

So The Natural Step is like a compass – we help you know where you want to go and whether you're moving in the right direction.



Internationally, the Natural Step has offices in 11 countries and we've worked with hundreds and hundreds of different organizations. In Canada most of our work has been at the community level. We've worked with dozens of municipalities, businesses, non-profits and co-ops across the country.

We've worked with Whistler and Canmore to help them engage stakeholders in their community to develop long-term sustainability plans. We've just started working with five new communities in Alberta.

And we've just launched a regional project in Atlantic Canada where we're working with 15 sustainability partners representing municipalities, businesses, universities and non-profits, on how to move the whole region towards sustainability. If any of you are from Atlantic Canada and would like to know more or get involved, please come talk to me after.



Vancity

I'm really proud of the fact that we've worked with The Cooperators this past year to help them figure out what sustainability means to them. The Cooperators is taking this challenge very seriously and we've been so impressed with the commitment, enthusiasm and innovative ideas that we've seen. They've done an analysis of where they are today with respect to sustainability, they've researched best practices in the insurance industry and they've come up with a list of strategic priorities to embed sustainability into their strategic plan and operations.

And I'm also very proud of the fact that we've had the opportunity to work with the Cooperative Housing Federation this year to help you implement environmental resolutions.

We have worked with you to look at some of the sustainability challenges you are facing in cooperative housing today, and to identify some of the opportunities to move you toward more sustainable living.

I hope that some of you attended the sustainable housing workshop on Thursday with my colleague, Laura Mackay.

And we've also acted as advisors to VanCity Credit Union, another well known co-operative. We've advised them on their recently announced carbon neutrality strategy. **Vancity will be carbon neutral by 2010.** That means the net effect of their operations will be to emit no carbon dioxide by 2010.

I'm not going to spend more time on The Natural Step today, but I'd be happy to answer any questions at the end.



So why are we talking about the environment? Why is it important? Why is the theme of this year's meeting **Co-operative housing: Environmentally active, environmentally aware?**

Now I can talk to you about the economic and business reasons for paying attention to our environment – and there are lots. But let me just ask.....How many of you have children? How many of you have grandchildren?

Well, I think that's one BIG reason that we're having this conversation today. We're talking about THEIR future. Their world. Their air, their water, their health, their climate. We'd all do anything for our children. There's nothing more important. So collectively, why wouldn't we want to safeguard their future, to make sure that they have access to the same quality of life that we do?

So, I can't think of a more important conversation that we could possibly be having today — about our collective commitment to take action toward protecting and restoring the earth's ecological balance. Because, ladies and gentlemen, as we all know, **our planet is in trouble.**



We have all seen images of the earth from space. The blue and white sphere against a black background -- beautiful, and somehow small. It's when you look at the earth from this vantage point, that you realize it's all we've got.

Whatever we do to the earth, we do to ourselves.

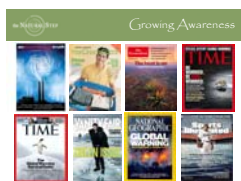
And this is something I want to emphasize because **one of the biggest obstacles to a clear understanding of what our environmental crisis is all about is this:** Many people today still assume – mistakenly – that the Earth is SO BIG that we human beings cannot possibly have any major impact on the functioning of the planet's ecosystems.

That may have been true at one point in time, when we were many, many fewer people on this planet and we lived much simpler lives with fewer cars and fewer airplanes and without the technologies that help us cut more trees, harvest more food, pump more oil, and catch more fish. But it's not the case any more.

We have grown so numerous – now at 6.5 billion and still growing – and our technologies have become so powerful, that we are now capable of having a significant influence on the earth’s ecosystems.

The most vulnerable part of the Earth’s ecological system is the atmosphere. It’s vulnerable because it’s so thin.

I don’t know how many of you realize this, but the atmosphere is the equivalent of taking a sheet of saran wrap and wrapping it around a soccer ball. If the soccer ball is earth, then our atmosphere is no thicker than that **single sheet of saran wrap**. By burning fossil fuels and clearing forests we have dramatically increased the amount of carbon dioxide in the Earth’s atmosphere and that is causing that sheet of saran wrap to get thicker. As a result, the temperature of the Earth’s atmosphere and its oceans is getting dangerously warmer and it’s causing some pretty significant impacts. **THAT is what the climate crisis is all about.**



There has been a huge shift in awareness over this past year, hasn't there. How many of you have seen An Inconvenient Truth? From Al Gore to Time Magazine to Vanity Fair to Sports Illustrated, the environment has become THE issue in the media. And when Sports Illustrated starts talking about the environment, you know it's serious.

But it's not just the headlines. The headlines reflect what's happening on the ground. It's what we can see and feel for ourselves. It's the polar

bears on receding ice floes, it's the disappearing glaciers, it's hurricane Katrina, its water shortages in Vancouver, it's the unpredictable weather we've all experienced. It's the increased rates of asthma and respiratory illnesses, it's the increasing rates of cancer. And hand in hand with that increase in awareness has been the realization that the environment is not about saving cute little furry creatures or protecting a national park. The environment is the air we breathe, the water we drink and the food we eat. The environment is not just out there – it's in here. It's in this room with us.

And we are no longer talking about what **might** happen if we don't start to reduce our impact on nature. We're talking about what **is** happening right now. It's in our papers every day. It was a top issue at the G8 Summit this past week. It is the top priority for Canadians. And we all feel a sense of urgency.



Human activity is now putting such a strain on the environment, that the ability of the planet's ecosystems to sustain future generations can no longer be taken for granted.

For the first time in the history of earth, **all living systems are in decline**. That means the Earth's capacity to provide life supporting resources such as clean air, clean water, food and fiber, is systematically decreasing.

We know that we have lost hundreds of thousands of species in five decades. At least 1,000 species go extinct every year.

Almost half the forests that once covered the earth are gone. Deforestation is expanding and accelerating. We have also destroyed more than half the world's wetlands.

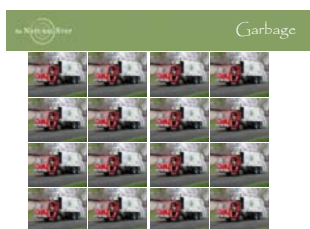
All fisheries around the world are in decline.

Almost all of the mountain glaciers in the world are now melting, many of them quite rapidly. They're all sources of drinking water and they're disappearing. The Himalayan glaciers have been among the most affected by global warming. And they provide more than half the drinking water for 40% of the world's population.

If today is a typical day on planet earth, humans will add 15 million tons of carbon to the atmosphere, destroy 115 square mile of tropical rainforest, create 72 square miles of desert, eliminate between 40 to 100 species, erode 71 million tons of topsoil, and increase their population by 263,000. And over 800 million of us will go to bed hungry tonight. That's just in one day.

And thanks to Al Gore, I don't even have to give you any of the statistics on climate change. Climate change is, beyond a doubt, the most serious crisis we have faced as a planet, with profound social and economic implications.

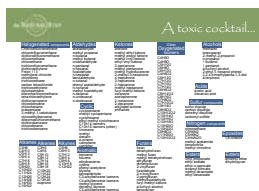
Scientists tell us we have 15 years -- 15 years -- to turn things around. And we've got some work to do.



We know that Canadians produce more garbage per person than just about any other country in the world. The average person in Ontario generates a whole ton of trash a year.

We know that each Canadian throws away about half a kilogram of packaging per day.

In North America, we produce enough garbage each day, to fill 70,000 garbage trucks. Lined up bumper to bumper, over a year, they would stretch halfway to the moon. Surely we can do better.



Did anyone read the Globe and Mail article about six months ago about the toxic chemicals found in the blood of our politicians? The analysis was done by an group called Environmental Defense and they are trying to raise awareness about the widespread existence of toxic chemicals and the need to do something about it.

Environmental Defense has done a number of studies now that have confirmed that no matter where people live, how old they are or what they do for a living, they are contaminated with measurable levels of man-made chemicals that can cause cancer and respiratory problems, disrupt hormones, and affect reproduction and neurological development. These include PCBs, flame retardants, pesticides, insecticides and many others.

These things are accumulating in all our bodies every day. They're in us, they're in our children. They're in mother's milk when we breastfeed.

This slide, with all the long names that I can't even pronounce represents an analysis of the chemicals found in breast milk somewhere in the United States. (Pause).

And so what? What's the problem with chemicals?

Well the problem is most of them are man-made and while they all provide useful functions that contribute to our quality of life, part of what makes them useful, is that they're designed so that they don't break down. So they last a long time – they are persistent. But the problem is, when they get into nature, nature doesn't know how to break them down either. They don't break down in the water, and they don't break down in the air, and they don't break down in the soil, so eventually they get into our food, the animals and fish we eat, our lungs, our bodies. They don't go away.



So the statistics I've just given you represent a trend that's getting worse.

On the one hand the earth's life supporting resources such as clean air, clean water and fertile agricultural land are declining. And on the other hand, our consumption of those resources and our production of waste is increasing.

This trend is unsustainable. It's as if we're in a funnel whose walls are narrowing, and as each day passes, it's getting worse and worse.

Ok, so I've got your attention, but by now you're feeling pretty depressed, right? You're thinking, I thought this was going to be an upbeat, positive presentation about all the great things we can do in our coops, not a doom and gloom speech, right? So why am I telling you this?

Well, a couple of reasons. First, sometimes we need to feel a sense of urgency to get us going. I want you to feel this in your guts so that you are motivated to continue doing the great work you're doing. And secondly, I want to explain that what I've just told you isn't a bunch of unrelated statistics. They represent a systemic problem. A design challenge. Understanding this design challenge is absolutely essential to being able to find solutions.

The problem isn't that we're losing trees. It's that we're losing more and more. It's not that we're losing fish, it's that we're losing more and more. It's not that we're producing garbage. It's that we're producing more and more. The problem is at the systems level. Our societies and economies are so designed that pollutants are bound to continue to systematically increase, and we can't help but to continue to systematically remove and erode nature.

It's inherent in the way we've designed our economies. We **take** stuff out of the ground, we **make** stuff with it –essential products and services – and then we throw it away. It becomes garbage – molecular garbage in

our air, liquid effluent or sludge in our water systems and solid waste in our landfills. That dynamic – take-make-waste -- is inherently unsustainable.

Sustainable, literally, means lasting. So **sustainability** is about the ability to go on and on, doing what we're doing forever. It means living within nature's limits. And clearly we can't go on and on doing what we're doing forever.

Sustainability means we stop things from getting worse. It means we stop those trend lines from meeting and we open up the walls of the funnel.

There is no question that the challenge of becoming sustainable – of living within nature's limits -- is enormously complex and there are no easy answers. **This is not a quick fix.** It has never been done before.

Nevertheless, ladies and gentlemen, we have to try. What we need to succeed is nothing less than **transformational change.**

We're not talking about doing a little bit better than what we did yesterday. Using a little less energy, a little less paper, creating a little less waste. That's incremental change – but it just mean we slow down our progress in the wrong direction. It's like a car speeding down the highway toward a cliff. If we slow down, we'll still eventually go off the cliff. What we need to do is change directions and turn the car around.

We need to fundamentally redesign the way we do things. We need to move from linear systems – where we take, make, and waste -- to circular systems, where we close the loop, where we eliminate waste and dramatically reduce our footprint.

To do this we need to be smart. We need to know that what we do in one part of the system affects other parts, sometimes in unforeseen ways. We need to work upstream at the design level not downstream where we deal with impacts one at a time.

We need to begin with the end goal in mind – **what does it mean to be sustainable** – rather than just doing a little bit better than we did yesterday. We need to take time to do it right, rather than doing it quickly. And that means first figuring out where it is we want to go. And then we need to be **bold** enough to imagine that we will succeed, and even though we have no idea how to do it all yet, we need to get started. We need to **dare** to move step by step in the right direction. We need to **transform** our homes and our co-ops and our communities.

To succeed we need to reduce our impact on the earth. We need to dramatically reduce the amount of greenhouse gases we send into the atmosphere. We need to dramatically reduce our use of chemicals and heavy metals, and stop letting them escape into the environment. We need to dramatically reduce our impact on ecosystems – by using all our resources more wisely, and creating less waste.

The good news is **this is all possible**. And it's starting to happen.

Think of the change you've seen in your lifetime. Two weeks ago I just went to my 25th high school reunion. I was reflecting on how much had changed since I graduated in 1982. There were no computers, no laptops, no cell phones, no blackberries. There was definitely no internet. There weren't even fax machines. In fact, I did my undergrad degree on a typewriter. That makes me feel really old. I don't think my kids have ever SEEN a typewriter.

But seriously, who could have foreseen the way the internet and all this wonderful communications technology could have fundamentally changed the way we live, work and communicate to one another?

So I'm equally positive that the next 25 years, with all the new technology that will emerge, will be just as transformational. But this time we need to fix the planet.

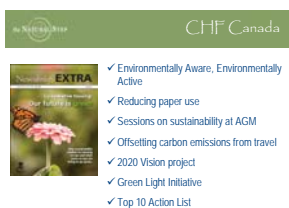


So what on earth does this have to do with cooperative housing? Well, I thought you'd never ask.

Sustainability is really a local issue. As co-operative housing members, you face choices every day about how much fossil fuel energy you use, how your buildings are renovated and retrofitted, what kinds of materials you use, and what you buy. You decide how you manage your waste and what to recycle.

In Canada, buildings are responsible for 30% of total greenhouse gas emissions and 40% of the raw materials used.

We all make choices everyday, as part of the co-operatives in which we live, and as individuals. And those choices when they all add up, can contribute to being part of the problem, or part of the solution. It's up to us.



And the Canadian co-operative housing sector is already showing tremendous environmental leadership. I am absolutely amazed and excited by all the great work you're doing. With this Annual Meeting, you **ARE** Environmentally Aware and you **ARE** Environmentally Active. Congratulations.

You have already launched a movement in co-operative housing from which there will be **no turning back**. You have already committed to support environmental initiatives in your own co-ops and communities, and to share best practices with other co-ops. I'm sure you've been sharing lots of great ideas with each other during the past few days.

The work that many of you are already doing is extraordinary. When I spoke to Nick Sidor last week, he gave me a copy of this special edition of your newsletter. (*on screen*) How many of you have had a look at this? If you haven't, you must. It is really inspiring.

I just want to highlight a few initiatives that are in here – and I apologize in advance that I'm not mentioning more. And I know that what's in here is only the tip of the iceberg of what's going on across the country.

Through the values that all of you share as part of a cooperative, you already put great emphasis on social sustainability, providing affordable housing, taking care of each other, and taking care of your communities.

You've thought through how to minimize the environmental footprint of this meeting. You've made better use of the internet to cut back on paper waste. And your meeting materials are printed on environmentally friendly paper.

The Cooperative Housing Federation is offsetting its travel emissions, which means you are calculating how much CO₂ your staff are emitting during travel and you are taking steps to offset the same amount through either investing in green energy systems or planting trees.

You've launched a Vision 2020 project to help co-ops create visions for the future and then work towards those visions.

You've developed a fantastic "Sustainability Top 10 action list" for housing cooperatives.

You've had all kinds of great sessions over the past few days, on making sustainable choices, on showcasing best practices, and on what sustainable housing looks like.

Members in Ontario are already working with the Green Light Initiative, a program to lower energy and water use in Ontario's social housing community.



Who's here from the Hugh Garner Housing Co-op?

You've started a green roof project. And when it's finished it will be the largest and most innovative project of its kind in Ontario. Congratulations!!

You've also made some great improvements to energy efficiency and waste management.

Now, how many of you know what a green roof is?

For those who don't, a green roof is a roof with plants on it. It uses that space that is normally concrete or tiles or some other building material, and turns it into a garden. It can be anything from low-maintenance grasses if you aren't going to spend time on the roof, to a roof top garden.

A green roof provides insulation which prevents heat loss in the winter and helps with cooling in the summer. It provides meeting space. It can provide local food production. It provides habitat for wildlife and bees. The plants on a green roof contribute to better air quality by trapping particulate matter, and by converting carbon dioxide into oxygen.



- ✓ Green roof
- ✓ Energy efficiency
- ✓ Solar hot water heating
- ✓ Green Toronto Award

Who's here from Arcadia Housing Co-op? Arcadia also has a green roof. They've also switched to compact fluorescent lights, energy efficient fridges, low-flow showerheads and toilets.

And Arcadia won the 2006 Green Toronto Award for a major project that uses solar panels to heat their hot water. Congratulations on your great work.



- ✓ Thermal insulation
- ✓ High efficiency heating
- ✓ Good use of solar heat
- ✓ Day-lighting features
- ✓ Storm water reservoir for storm water run-off
- ✓ Recycled content in building
- ✓ Low-flow plumbing fixtures

Is there anyone here from the Conservation Co-op in Ottawa? They've built a multi-unit building with a wide range of environmental and health features in the design, while also being cost effective.

Energy efficiency has been a priority, but the Conservation Co-op has also used recycled building materials, and has taken a "green" approach to landscaping and site use. It is also state-of-the-art in terms of indoor air quality, comfort and usability. The Conservation Coop has a green code of conduct that all members must agree to for waste management and other daily practices.

Now, I know I'm not doing justice to these great initiatives by running through them so quickly. But these are just a very few of the fantastic, innovative projects you in this room are already doing to start being **environmentally aware and environmentally active.**

So, for those of you who are just starting to wrap your heads around this, what are some of the things you need to focus on as you start to think about what sustainability means to your housing co-op? Here are some of the big ones.



Closing the loop means creating cyclical processes. In a sustainable future, we want to move towards eliminating waste all together.

Zero waste. That's the ultimate goal. Its going to require a shift in thinking, and it's going to take some time. Because, ladies and gentlemen, **we are a wasteful society**. We produce more garbage per person than any other country in the world, other than the United States.

So we need to start thinking about that image of the earth surrounded by black space, and remember – **there is no “away.”** In grade 10 science we learned that matter is neither created nor destroyed. It only changes form. So the same atoms that were here billions of years ago are here today. When we put gas in a car and drive it, the gas doesn't disappear. It changes form. It becomes molecular garbage. When we throw out used carpet, it doesn't disappear. It takes years to breakdown in landfill and eventually seeps into the soil and water table. When we throw batteries out, they don't disappear. They eventually break down and the heavy metals in them contaminate the water and soil. So, waste is a big problem for us. What do we need to do?

Well, ultimately we need to create A LOT less waste in the first place and then reuse or recycle the rest. What waste we do create needs to get turned into something else – that's what closing the loop means. So carpets get turned into new carpets, electronics get disassembled and built into new component parts, paper gets turned into new paper products. In a sustainable future, the product manufacturers will be responsible for taking back their products at the end of their useful life, which will put the responsibility on them to design things that last, to design things that aren't toxic, and to design things that can be disassembled and used again.

So, some guidelines for you as you start to think about what this means for you in your co-op:

- √ Repair things that are broken rather than throwing them out.

- √ Give away the things you no longer want to someone that can make use of them. Don't throw them out.

- √ Encourage your members to create less waste.

- √ Bring your own bags to the store when you shop – Did you know that Canadians take home over 55 million plastic shopping bags every week?

- √ Use less packaging – remember we all throw out about a pound of packaging per day. Buy in bulk.

- √ And this is a big one. Get yourself a reusable water bottle and stop buying those single use bottles of water.

Did you know that it takes 1.5 million barrels of oil annually to make the plastic water bottles that Americans buy (sorry I only have US statistics on this one). That's enough to fuel some 100,000 U.S. cars for a year.

Worldwide, some 2.7 million tons of plastic are used to make bottles of water each year.

And 86 percent of plastic water bottles used in the United States become garbage or litter. They're not even recycled. I'm sure the statistics in Canada are similar.

So the next time you buy a bottle of water, think about the plastic and energy that was used to make it, the truck that was used to ship it across the country, and what's going to happen to it after you've finished with it.

So, what else....

- √ Compost your organic waste.
- √ Improve your recycling programs. Help co-op members recycle hazardous waste, electronics and appliances. Electronics contain toxic elements such as cadmium, mercury and lead. These are toxic in even small amounts and you can help keep them out of landfills.

You can also organize sustainable purchasing practices for your housing coop. Here are some of the things to consider:

- √ Food – buy local. Think about where your food comes from. Don't be afraid to ask. If you can, eat foods that are grown closer to home so they don't need to be transported as far. Buy organic. Eat less meat.
- √ Buy local products in general. The less it has to travel, the better.
- √ Think about what is in the products you buy. Don't be afraid to ask. Look for products that don't have chemicals, are renewable, recyclable or biodegradable.
- √ Buy environmentally friendly cleaning products
- √ Use environmentally friendly paints.
- √ Switch to organic lawn care
- √ Buy paper products with the highest recycled content possible.
- √ Chose products that don't undermine people's ability to meet their needs. Don't be afraid to ask who made the products you buy, and under what conditions.
- √ Buy things that last.



There's so much we can all do to save energy.

Use compact fluorescent bulbs. They last 10 times longer, use 66% less energy, and end up saving you money.

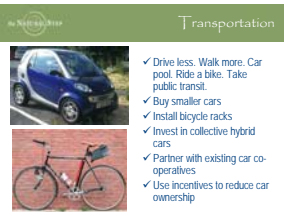
- ✓ Turn off lights when they're not in use.
- ✓ Turn off everything when it's not in use.
- ✓ Pay attention to the thermostat.
- ✓ Get better insulation
- ✓ Install meters to keep track of your energy use. Studies show 20% improvements in energy use when people actually track their use.
- ✓ Install energy efficient appliances
- ✓ Install solar panels on your roof.



Water is going to be the next big global crisis. It already is a crisis in many parts of the world. And we are extremely wasteful of water. **Canadians consume more water per person than any other**

country in the world. We need to do better. Some things to consider:

- ✓ Encourage residents to use water efficiently
- ✓ Use rain barrels to capture rainwater for outdoor use
- ✓ Install low flush toilets and low flow showers
- ✓ Install water meters
- ✓ Plant native species outside that don't need as much water
- ✓ Use more efficient appliances (eg. Front load washers)



Transportation -- while this is more of an individual issue than a coop issue, as a coop you have the ability to influence your members. Some ideas:

- ✓ Drive less. Walk more. Car pool. Ride a bike. Take the public transit.
- ✓ Encourage members to buy fuel efficient cars.
- ✓ Install bicycle racks
- ✓ Invest in collective hybrid cars
- ✓ Use incentives to reduce car ownership, such as limiting the availability of parking spaces

So those are some of the easy things you can do to get started. But what about the bigger steps you can take? Where do you go next?

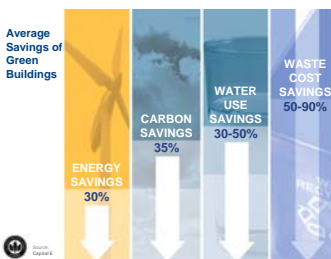


One next step is embracing the concept of green buildings. This is a HUGE, growing area in North America. Green Building Councils in the US and Canada

have been established to **transform the way buildings and communities are designed, built, and operated.** Most of you have likely heard of the LEED which is the widely accepted green building standards in commercial buildings. LEED stands for Leadership In Energy and Environmental Design. They have now come up with LEED standards for residential housing which is being piloted in the US and will come to Canada soon. This is the way of the future.

So green buildings include consideration of the site, the use of water, the use of energy, the use of materials, and the indoor environmental quality.

So as you consider renovations to your buildings, you should consider the most energy efficient renovations possible, switch to renewable energy systems and consider the use of green building practices.



The benefits of green building practices are huge. In addition to energy, carbon, water and waste improvements, there are economic and social benefits as well.

On the economic side, green buildings cost less to operate, you save tons on energy and maintenance costs, it enhances the value of the property. On the social side, people are happier and healthier in green buildings. This is proven. The air quality is better, the access to daylight is better.



These are some of the practices associated with green buildings (I won't read them all).

Another thing you can do as a next step, is to make a sustainability plan for your coop. Do an analysis of your current ecological footprint. How much energy do you currently use, how much water? How much waste do you produce? And then decide what your ultimate goal is as a housing

coop – what does sustainability mean to you? Zero waste? Zero emissions? And then you can consider some actions that will move you in the right direction – dividing them into short, medium and long-term. Some actions can be done immediately, some are bigger investments

And the next big step beyond green buildings is green communities. Designing neighbourhoods with sustainability in mind. This is the future. This is where development is heading. Communities of the future will be pedestrian oriented, more compact, with mixed land use, district energy systems, zero waste, and self sufficient water treatment systems. Waste from one system will provide fuel for another.



Some Examples



There are some great examples of sustainable neighbourhoods popping up. There are a lot in Europe, and some great projects in North America as well.




- 1,700 sq. ft., semi-detached, three-bedroom family dwelling on 4 floors
- Based on the winning design of the CMHC Healthy Housing Design Competition
- Designed and constructed to promote occupant health, enhance energy efficiency, improve the efficient use of natural resources, and encourage environmental responsibility.
- It affordable, with total annual operating costs expected to be under \$300.

The Canada Mortgage and Housing Corporation is a great source for ideas on building green and healthy houses. They've got all sorts of resources on their website. Here's one example of a health house that

was built in Toronto.

This is a family house designed to promote health, enhance energy efficiency, improve the efficient use of natural resources, and encourage environmental responsibility.


CMHC Healthy House

- **Totally self-sufficient.** It is not dependent upon existing water and sewer systems or hydro and gas utilities.
- Water consumption reduced to one-tenth of a typical household. Depends on rainfall for its water supply and recycles 80% of the water used.
- Water purification systems mimic the natural path that rain follows when it passes through the ground to a spring.
- Water is conserved through the use of low-volume toilets, low-flow shower heads and aerated faucets.
- Solar panels provide electrical energy. A co-generator provides back-up power and heat.
- Low heating and cooling costs are achieved through airtight wall and roof construction, thermally efficient windows and doors, and high levels of insulation and airtight resistance.
- Materials used to furnish and decorate the house emit low chemicals and vapors, improving indoor air quality.

I'm not going to read all these bullet points except the first. **This house is totally self-sufficient.** It is off the grid. It is not dependent upon existing water and sewer systems or hydro and gas utilities.

- It uses 1/10th the water of a typical household.
- It uses solar panels
- It has great insulation, including efficient windows
- The materials used are low in toxicity.

AND it costs less than \$300 a year to operate this house. Check out the CMHC website to learn more.

So that's an example of a green house. Here's an example of a green community.


Dockside Green
Vision Statement


"Dockside Green will be a socially vibrant, ecologically restorative, economically sound and just community. It will be a distinct collection of beautifully designed live, work, play and rest spaces designed to enhance the health and well being of both people and ecosystems, both now and in the future."

Dockside Green is a made in Canada community being built in Victoria, BC. Comprised of 26 buildings on 15 acres, the project will include 1000 apartments, condos and townhouses, in addition to over half a million square feet of commercial and retail space. If all goes to plan, will be the "greenest" development of its kind in North America — it is slated to be the first LEED platinum development.


Dockside Green

- LEED™ platinum certification
- Centralized waste wood gasification plant
- First North American community development to be Green House Gas positive from an energy perspective
- 100% of all sewage to be treated on site
- Heat will be recovered from the sewage treatment
- No potable water will be used for flushing toilets, irrigation or water features
- Projected annual potable water savings are 66.5%, or 70 million gallons
- Naturalized approach to storm water treatment. Municipal storm water system will not be utilized
- Meters in each residential unit to measure water, heat, electricity
- Green roofs
- Environmentally friendly building materials

Dockside Green will have a closed-loop design, so it will function as a largely self-sufficient, sustainable community where waste from one area will provide

fuel for another.

The development will showcase a variety of sustainable innovations including generating energy from wood waste, and on-site storm water and sewage treatment. For transportation there will be a dock to access a ferry service that goes to downtown, and a vehicle co-op (with smart cars and hybrids only).

Also interesting is the project's water management system. All sewage will be treated on-site and reused in toilets and irrigation, saving nearly 70 million gallons of water each year (this amounts to roughly 60 percent less water usage than traditional developments).

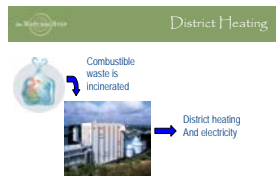


Hammarby Sjöstad (pronounced show-stad) is a neighbourhood in Stockholm. This is an example of how an industrial brownfield site was transformed into a model of green neighbourhood design.

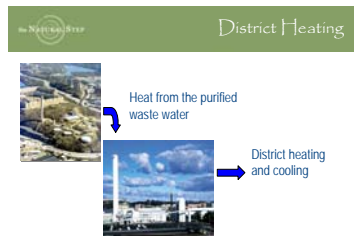


This is another example of a closed loop community where waste from one system becomes fuel for another. And this is becoming widespread practice in Swedish communities.

This model shows how sewage processing and energy provision interact. The arrows show the cyclical nature of the systems.



Solid waste is combusted for district heating and electricity.



The heat from waste water treatment becomes biogas and is captured and used for district energy.

Storm water is captured and recycled.

I could spend another hour talking about these new developments but you've got an annual meeting to get on with. So I want to wrap this up by saying the new developments in green building, and in sustainable community development are part of a growing movement. Think back to that slide with all the magazine covers. Something's going on out there. People aren't waiting for their political leaders to figure this out. While our prime ministers and presidents are stalling on commitments at the G8 summit, the real leaders are getting on with real change. Hundreds of communities in North America and Europe are figuring out how to make their communities livable, healthy, environmentally friendly places.

We've seen a sea change this past year. I think the next few years are going to see extraordinary change as well. Here are just a few examples of this growing movement.



You can buy green electricity in Ontario through bullfrog power the **first 100% green electricity retailer** in Ontario.



New York is greening it's ENTIRE fleet of taxis. By 2010 they're going to have **the largest, cleanest fleet of taxis on the planet.**



The big US securities firms and banks – Goldman Sachs, Bank of America and Citigroup -- are investing **BILLIONS** in green projects. This is mainstream investing now.

Also in the US, 300 Mayors have signed The U.S. Mayors Climate Protection Agreement.

So there's something REAL going on here. It's a growing movement. And it's about time.

Sustainability is the challenge of our generation. And if we are going to succeed, it's going to take unprecedented leadership.

What the world needs now, more than ever is leadership. Role models. Good examples. People who are willing to stand up and make a difference.

And leaders aren't only CEOs and politicians. Leaders can be champions at any level of an organization. Leaders can be individuals. Leaders can be managers, janitors, teachers, technicians, engineers, stay-at-home moms, stay at home dads, students. Leaders have a special combination of passion and competence. They care deeply enough to make change happen, even if the obstacles seem great. And they are competent enough and committed enough to identify those obstacles and remove them one by one.

Leaders don't wait for someone else to solve the problem. This is not something we can let our kids figure it out. We've got to do it. Now. Not tomorrow. Not in a year. Now. Today.



It's time for each of us to look in the mirror and ask ourselves "do we want to be part of the problem or part of the solution?"

You have already decided to be part of the solution. You are taking action. You are leading. You are making a difference. The world needs more role models like you. You give me hope, but more importantly, you give my children hope.

Thank you.