

Livable Cities Forum: Advancing Low Carbon Resilience

Sept 18th-19th, 2017

Report from Councillor Ann Baird, District of Highlands

General Comments:

- ❖ Organized by ICLEI Canada: Local Governments for Sustainability
- ❖ Very intensive schedule, I attended 8 sessions and 2 plenaries. 14 hour days.
- ❖ 270 delegates
 - Highly informed policy and technical experts (staff) from 3 levels of government (local, Province of BC, and Canadian federal government), high level reps from universities, scientists, NGO's, communications specialists, various consultants (from across Canada and local), business groups, and the insurance industry.
 - Rather ironic that only 2 municipal councilors (Ann and Gord Baird) and 1 BC Mayor participated in the whole event.
- ❖ Incredible opportunity to speak one on one and in small groups (20-50) with leaders in climate mitigation and adaptation strategies from all over Canada.
 - Not a single climate denier...very professional event...more so than UBCM. Highly educated participants
- ❖ Conference was focused mostly on financial arguments for mitigation, adaptation, and resilience to Climate change however the other capitals like natural, social, and human capital also worked their way into sessions and conversations especially when discussing acute and chronic risk assessment.
- ❖ High degree of systems thinking was evident throughout.

Sept 18th

- ❖ **Opening Plenary: Working together for Low Carbon Resilient Communities**
 - Showcasing local leadership. Building a Business case. Maximizing co-benefits. Moving from planning to action
 - **Chief Thomas** said it's more than just climate change, it's human change. Reconciliation with each other and with nature.
 - **Lisa Helps** spoke about urgency and hope. Acting now is a matter of right and wrong. Create a circular economy based on reconciliation with each other and the planet. Recommended new movie by Al Gore – An Inconvenient Sequel.
 - **Honorable Minister George Heyman:** Mitigation: spoke about BC climate goals (40% reduction in CO2 by 2030 and \$5 per year rise in Carbon tax. Stressed resilience and adaptation because climate change is here now
 - **Barbara Turley-McIntre**, VP sustainability with the Co-operators (Insurance group).
 - They are moving their investments (insurance premiums) out of fossil fuels towards IMPACT investing. Invest to make a positive difference and not contribute to more climate change.
 - Are requiring flood plain mapping. DON'T issue building permits in flood areas...big implications for property owners when these maps are public. Local governments will face loss of revenue from taxes and permit fees.

- Suggested to governments that post disaster financial assistance is not sustainable...need to put this money into prevention first. Build differently or RETREAT from risky areas.
- Need better building codes for resilience...assume disasters will happen regularly.

❖ Revenue Strategies for Financing Low Carbon Resilience Initiatives:

- **Joanna Kyra** (Zizzo consultants)
 - Climate change is a business issue: strong financial rationale to adapt. Enormous business opportunities through mitigation, adaptation and resilience. (Exactly what I have been trying to get across to (SIIP) South Island Prosperity Project.) Must adapt to a low carbon future NOW. There are large financial costs in NOT adapting.
 - Legal Drivers:
 - ◆ global agreements like Paris and the Pan Can Framework
 - ◆ class action lawsuits which have the potential for major system disruption – get with the program or get sued. (Note: Highlands started this ball rolling in BC with the first climate accountability letters)
 - Municipalities are in the middle of this all as they face rapidly rising Acute and Chronic stress resulting from climate change
 - ◆ Local governments need more revenue in order to adapt: dedicated streams of revenue
 - storm water fees should be collected and put towards preparing for flooding
 - Road pricing etc
 - Need to track return on investment for projects. (Note: other local governments in the CRD have tools to do this and are willing to share)
- **Guillaume Couillard** from FCM
 - Went through the FCM list of grants and programs
 - Some webinars coming up and all info on website
 - DRAMATICALLY simplified application process for small municipalities
 - MCIP grants for next 5 years:
 - ◆ Adaptation plans, mitigation plans, risk assessment plans AND money for capital costs
 - Note: Highlands does not have a risk assessment plan OR a mitigation plan
 - ◆ Natural asset plans and regular asset mgmt. plans
 - ◆ **STAFF grant;** 80% of salary for a dedicated staff member working on implementing community plans related to resilience, adaptation and mitigation.
- **Rebecca Newlove**, Sustainability Planner from Saanich
 - Rebecca is amazing and knows climate change and related policy quite well. Rebecca sits in my CRD climate group.
 - Amazing what can be done in a large municipality

❖ Effective Climate Communication: Strategies For Getting Your Message Across

- Expert panel from UNBC, municipal government (Mississauga), climate communications expert, and ICLEI Canada
 - Take away points:

- Large gap between understanding the climate imperative and action – information is not enough
- All agreed that water is the unifying message regardless of who the target is.
- Choose appropriate messenger for the target audience. Someone they relate to and speaks their language.
- Message:
 - ◆ Make it PERSONAL, Make it NOW, Make it LOCAL
 - ◆ Frame the message: Who? What? Where? When? Why?
 - ◆ Simplify message for audience
 - ◆ Timing – look for teachable moments...ie during and after a hurricane, flood, fire, etc. No shortage of teachable moments these days.
 - ◆ Unique and creative
 - ◆ Use visuals and simplified maps
 - ◆ Invoke emotion
 - ◆ Avoid fatalism - support hope: talk 1/3 about how bad it is and 2/3 about solutions
 - ◆ Meet people where they are at
 - ◆ Define benefits...make everything personal
 - ◆ Avoid too much data and science (unless your audience is scientifically literate) or you'll get "a perception of climate change as a set of uncertain events, far in the future, relevant to other people in other places".
 - ◆ Use art as the medium where possible
 - ◆ Fear, guilt, dread don't work for most
 - ◆ Tell a story and keep it evolving

❖ **Highlight Reel: Municipal Climate Change Mitigation and Adaptation Plans**

- Session focused on cities/regions that have combined mitigation and adaptation plans and strategies in place. These documents are very different than Highlands Integrated Community Sustainability Plan (ICSP). **Highlands does not have a mitigation or adaptation plan.**
 - A first nation in Ontario, a small town in Alberta (1/2 size of Highlands), a large city (Mississauga), a regional district (CVRD), and fast-growing city (Surrey) shared their experiences.
 - It's ok to fail ...but design to "fail safe" and learn
 - All have different risks, capacities and challenges
 - All plans started from staff and pushed up to their councils/boards. CVRD board pushed back on the plan as the risks identified might not be good for business.
 - All agree that water was the biggest issue. Too much or too little. They also know that water and food are intimately connected. Disputes over who gets the water are only going to get worse. Some have wells, some have agriculture, some have piped, some have snow pack water from rivers, reservoirs, etc.
 - Note: As a general rule the risks discussed are what I call primary risks...like fire, flood, drought, earthquakes, etc. Only a few are discussing the secondary or tertiary impacts about what happens globally and how this translates into local impacts like climate refugees (population growth), food shortages, economic stressors, war and disease. This

was the elephant in the room, but understandable from what I learned in the communications workshop.

❖ **MAYOR'S DINNER: A night of networking and dialogue on low carbon resilience**

- Keynote: **Charles Montgomery**, urban design consultant, award-winning journalist, & author of *Happy City*. Excellent, fascinating learning about how design (buildings, roads, gardens, etc.) impact people - got some ideas to explore for Highlands for some of our traffic safety issues.
- Spoke with many delegates (planners, engineers, and senior government policy analysts from across Canada) regarding what it's like for them and what their climate impacts are. Most seem to know that adapting to climate change is only going to get more challenging. Shared some of the things that Highlands is doing with regards to our UBCM resolution on CEEI and our Climate accountability letter that is catching on with other local governments. Very well received.

Sept 19th

❖ **Opening Plenary: Meet Canada's newest Chief Resilience Officers: A program just for Canada's big cities or a model to be applied in all communities?**

- Yes, CRO's are a municipal job title in 4 Canadian cities in the global project for 100 Resilient Cities.
- TEAM Canada consists of 4 CRO's from Vancouver, Calgary, Toronto, and Montreal
- Cities are growing exponentially.
- Risks (just a few of the biggest most acute):
 - Vancouver: 30% chance of a catastrophic earthquake in next 30 years, floods, SLR
 - Calgary:
 - 2013: massive floods, sewage contamination, massive population growth (40,000 people in 1 year). 2014: unexpected wet snow resulted in \$35 Million cost to city trees. 2015: crash in oil prices – economic fall
 - Toronto: 2013 ice storms and floods...many high rises don't have A/C, rising inequality
- All are worried that we will spend all our time and money reacting to all the acute stressors with no time or money for mitigation and adaptation.
- All concerned that sustainability goals fly out the window when we react to these acute events.
- All recognize that the risks identified in their climate reports are going to escalate
- All agree it's important to NOT rebuild building or infrastructure the same way. Build more resilient or RETREAT.

❖ **The Circular Economy: Creating Climate Resilient Economies**

- Moderator was Fraser Work, Director of Engineering and public works, Victoria
- **Paul Shorthouse**, BC regional director for Delphi Group introduced Circular Economy
 - Ecological economics
 - Waste doesn't exist...only resources
 - Shift to systems thinking
 - Take into account full life cycle cost analysis

- Require economic incentives to eliminate toxic materials and to internalize externalities (manufacturers have to take responsibility for their full product including the “waste”)
- New business models (Industrial symbiosis – waste of one company is resource to another)
- The 5 R’s: Reduce, Repair, Reuse, Remanufacture, Refurbish
- New governance models for business
- **Natacha Beauchesne, Montreal.**
 - Reduce GHG 80% by 2050
 - Be an example for others to follow
 - Montreal is inserting the ideas of circular economy into planning tools, strategic plans, AND into economic development plan. (Note: Perhaps Highlands leads the way locally with our continued membership in South Island Prosperity Project, (SIIP), requiring some changes to the SIIP constitution to include goals of circular economy and an economy based on opportunity’s arising from mitigation and adaptation)
 - Montreal is actually in the process of turning landfill into Greenspace as a result of less waste
 - So far 300 circular economy initiatives identified
 - Procurement Policy: select better companies that are more in line with circular economy goals
- **Ryan Zizzo, Toronto, Engineer, technical director, Zizzo Strategies (consulting firm providing expertise in climate risk, resiliency and low-carbon solutions)**
 - Title of talk: “Life Cycle Assessment as a tool to Reduce Embodied Carbon and other Procurement based Environmental Impacts of Construction Projects”
 - Calculating carbon footprint of buildings needs to take into account embodied carbon...not just operations. There is waste at every step of manufacturing building materials...only a tiny bit actually ends up in the product. (Note: This is very much in line with Highlands CEEI UBCM resolution).
 - In general, the biggest hit in carbon is from the materials and only through time the operational carbon footprint catches up depending on energy used to heat/cool the building.
 - Some green buildings require full Lifecycle Assessment and there are tools to measure this
 - Note: I spoke with Ryan over lunch to learn more and discuss the Living Building Challenge which he said is by far the best Green building platform, but has not taken hold due to how hard it is to achieve and that most of green building is driven by industry, meaning it needs to be fast, easy and lucrative. He wanted to hear every detail about the Eco-Sense home and will be researching on line.
- **Dr. Jennie Moore, Associate Dean, School of Construction and the Environment, BCIT**
 - Title of talk, “Carbon and Ecological Footprint Analysis for Achieving One Planet Living”
 - Currently here in the CRD we use the resources of about FIVE planets
 - Dr. Moore did her PhD on the tool creation for a pie chart for emissions inventory for communities based on the component method rather than the compound method...much more accurate. (bottom up from rather than top down and averaged)
 - Tool she created is called the Eco-City Footprint and is consumption based meaning it DOESN’T matter where goods are manufactured. It seemed to include all emissions,

even aviation. (Note: I seriously started to feel giddy and light headed at this point as I have advocated for this for over 10 years).

- She did this work for Vancouver and for Saanich as part of a test pilot.

➤ I thanked all of them for their work on bringing embodied carbon forward and then initiated dialogue about the CEEI and informed everyone about Highlands UBCM resolution (there were cheers in the room). I spoke about how CEEI is being discontinued and replaced with BC Inventory which municipalities have no information on yet. I expressed concern that tiny municipalities like Highlands would not have the budget to create our own GHGe inventories. I asked if this new tool was going to be used by the BC Government for community GHG inventories? A fellow at the back of the room spoke up (turns out he is the one in charge of BC Inventory for the BC Gov't), and they are aware of the tool and looking into it. Much of the CEEI and BC Inventory has been done off the sides of desks...staff need political direction. Hopefully Highlands resolution will be supported at UBCM and action will result in more complete emissions inventories for all BC local governments.

❖ **Integrating Ecology and Nature into Low Carbon Resilience**

- Explored case studies from cities, organizations, and initiatives to integrate ecology into resilience planning. Included a presentation on Natural Assets Planning and transboundary ecosystem management.
- Presenters from Royal Roads, David Suzuki Foundation, creek restoration company, and SFU ACT
 - Benefits of creating nature within cities and connected separate greenspaces
 - Sometimes nature regenerates itself when we just get out of the way and sometimes we need major interventions to rebuild ecosystems.
 - Much can be done to protect and regenerate the damage done however first goal is to not damage ecosystem functioning...very expensive to fix.
 - Learned about many eco-system services for resilience.
 - Note: No mention of the rights of nature to exist or the intrinsic beauty of nature...mostly about translating into a financial argument to protect and regenerate nature.

❖ **The Role of Municipal and Regional Governments in Building and Mainstreaming more Local, Low-carbon, and Resilient Food Systems**

- **Virginie Lavallee-Picard**, Planner, Victoria - Growing in the City
- 90% of food arrives from BC Ferries
 - Many initiatives explored including temporary moveable community gardens.
 - Note: Highlands is well ahead in that we already allow agricultural use in all zones.
- **Jeff Weightman**, Planner SGI, CRD.
- Many difficulties encountered trying to encourage and enable more local food in the Gulf Islands.
 - Farmers are spread out and Islands are separated from each other
 - Very wealthy demographic that doesn't see value in local food,
 - Island markets do VERY well from summer tourists but farmers can't make a year round living as locals tend to buy at Big box stores on Vancouver Island,
 - Islanders are hard to organize and the few active people suffer from burnout.

- Ideas of a local coop that could receive all the farmers food and then sell it has been floated around but very difficult to get going.
- Lots of good relatively affordable farm land.

➤ **Brenda Wallace**, Saskatoon

- Interest in Local Food growing rapidly...lots of community gardens popping up

➤ **Barbara Emanuel**, Toronto Public Health

- 1/3 of GHGe come from production, transport, and packaging of food. This does not include loss of soil carbon from industrial agricultural methods
- NEW STUDY: Rise in atmospheric CO2 is resulting in food that is higher in sugar and lower in nutrients meaning the food in general is becoming less nutritious.
- Food deserts and huge amounts of waste
- Showed a chart that lists different foods by how much CO2 produced.
 - LOW: grains: Beans: Eggs: Milk: Chicken: Pork: Cheese: Lamb: Beef HIGH
 - Note: No mention of different CO2 emissions with types of agriculture. No mention of sequestering CO2 in agricultural soil.
- Need to push for more local food, more equity, more access to healthy food, and lower CO2 diets

❖ **Three Important Factors For Adapting to Climate Change: Location, Location, Location**

➤ Take away points:

- Although Metro Vancouver, CRD, and CVRD are all subject to similar expectations for climatic changes over the next few decades, there are very different local impacts and risks.
- Each area in the region has profound differences in local conditions including topography, hydrology, geology, ecology, economics, population density, food systems, water distribution systems, municipal infrastructure, and social structures, to name just a few. The impacts of climate change are going to play out very differently in all of these regions.
- Very different local risks are identified. Quite horrific to hear what each area is preparing for.
 - Biggest acute and chronic risks are all around water: Too much, not enough, and Sea Level Rise (SLR – Inundation).
- All worked with Trevor Murdock at PCIC to produce a Local Climate Impact Report. Worth reading each of these reports.
- Reports are being initiated by staff and the public and not specifically by Mayors and Councillors.

➤ Presenters: **Moderated by Amanda Broad**, Climate Action Secretariat

- **Trevor Murdock**, Climate Scientist, Pacific Climate Impacts Consortium
 - Provides local climate data that has been used by local governments and regions to prepare reports to be used by community planners and engineers to plan and adapt to the most probable future climate changes for the year 2050.
 - GHG emissions scenario used was RCP8.5 (Representative Concentration Pathway 8.5). Additional information from lower emissions scenarios (RCP4.5 and RCP2.6) is available for sensitivity analysis and to illustrate the relationship between adaptation and GHG emissions reductions. RCP 8.5 is used as it is the most likely scenario due to global and local inaction on climate change.

- **Lilian Zaremba**, Metro Vancouver. “Climate Projections for Metro Vancouver”
 - [Climate Projections for Metro Vancouver](#)
 - Project driven internally by CVRD staff
- **Nikki Elliott**, CRD “A Case for Refining Climate Data in the CRD”
 - [Climate Projections for the Capital Region](#)
 - Project driven internally by CRD staff and CRD board
- **Kate Miller**, CVRD “In the Land of Foodies – A made in Cowichan Recipe”
 - [Climate Projections for the Cowichan Valley Regional District](#)
 - Project driven by community in collaboration with CVRD staff with some push back by CVRD board
- **Gillian Aubie Vines**, Communications expert, Pinna Sustainability “Crafting a Regional Message to Evoke Change”
 - Translated the climate data from PCIC into an accessible report with the help of Trevor Murdock, regional staff, municipalities, and the public.
 - Important to get this information out to the public through carefully constructed press releases so that the media doesn’t change the message or cherry pick information.

❖ **Partners for Climate Protection and City of Victoria LCF Reception**

- A social with more one on one time with various delegates locally and from across Canada. Very useful and informative learning