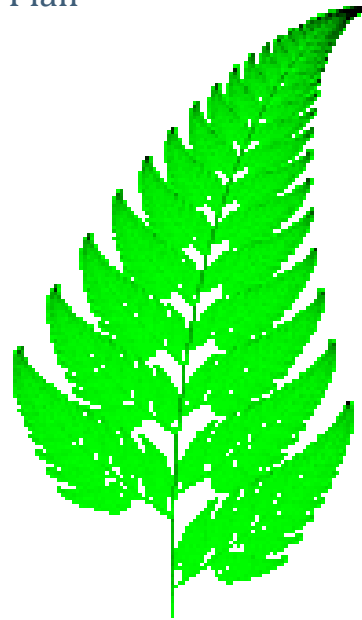2011

SUSTAINABLE COLWOOD

A strategy for a Climate Action Plan

Prepared for:

Royal Roads University CMDV561
Dr. Marilyn Hamilton
Dr. Richard Kool
Ann Perodeau, M.A. and
The City of Colwood

Prepared by:
Leanne Bilodeau
Ione Brown
Vickie Clarke
Don Grant
James Gudjonson
John Kirbyson
Iren Koltermann
Tracy Steere

Executive Summary

Colwood forecasts the need to be prepared for a doubling of the region's population over the next few years (West, 2009) and should be aware that, as Hamilton (2008) has described "the city is not sustainable if its ecoregion is not sustainable" (p. 154). This presents Colwood with both challenges and opportunities to prepare for future growth. The challenges lie in ensuring that Colwood has a community vision and long-term strategic plans in place for sustainability and opportunities being in the mitigation of climate change impacts and the formation of a healthy and functioning community.

Participation, the active engagement of the minds, hearts and energy of the people, is to sustainable development what movement is to dance, or what the making of sound is to music (Bopp & Bopp, 2006). Taylor (2008) suggests that the transformation of society will start from the bottom up through engaging individuals and establishing authentic and healthy relationships. Bopp & Bopp (2006); Dale (2001) and Hamilton (2008) agree that community engagement is more than just asking residents what their concerns are, or what they envision as an ideal future for their community; community engagement is also about building relationships, unity, trust and empowering community members not only to envision their ideal future, but to be involved every step of the way.

The recommendations for a community engagement process for the City of Colwood have been developed based on an assessment of prior community engagement activities and strategies employed by Colwood, the identification of gaps and opportunities, and the exploration of best practices in community engagement.

Municipal governments are on the front lines of leading sustainable community development initiatives. However, without a governance structure that embraces and adopts

sustainability as a guiding planning principle, implementing objectives becomes difficult and invariably ineffectual (Ling et al, 2009. p. 242). Dale (2001) proposes that governments adopt a *Framework for Reconciliation* which includes: revitalizing democracy, devolving power and authority, catalyzing community empowerment, developing strategic partnerships, being flexible, adaptive, open and inclusive, and creating transdisciplinary networks of collaboration to reach across all sectors of the community.

We have reviewed the governance models for five top ranked sustainable cities in Canada and the three top US cities and used these to develop recommendations for practical, action-oriented strategies aligned with the sustainability goals for Colwood to use to meet their Climate Action targets and create a culture of sustainability within the community.

Review of Governance Approaches

Colwood has a strong commitment within their leadership to move towards sustainability as has been expressed through their OCP, sustainability goals and support of the Economics of Happiness Report (West, 2009). The City of Colwood should initiate an ongoing iterative process which incorporates adaptive management and a set of Sustainability Principles, reflecting community goals, vision and values for living and working in the city. These principles will provide direction for the city to integrate sustainability into their policies and mandate, to align operations, track and measure performance and provide feedback to the OCP and Climate Action Plan. Cities such as Whistler and Portland require that all city decisions are evaluated against established sustainability principles. Our recommendations are intended to guide Colwood to meet their Climate Action targets, their OCP goals and create a culture of sustainability within the community. This section emphasizes the need to understand the

complex, diverse needs of residents and makes recommendations on city leadership and

governance that would support this process over the short-term and the long-term (>5 years).

1) **Lead by example.** Sustainability leadership can be described as each of us doing our

part to build the kind of world we want our children and grandchildren to inherit;

becoming aware of the choices and behaviours that influence the intricate balance of

social, ecological and economic systems; and expanding such awareness through

conversations that lead to joint action. Leaders may best support SD through their daily

decisions and actions (Ferdig, 2007).   Colwood has an opportunity to provide leadership

within its community and to inspire the vision for a sustainable future.   Leaders foster

conversations for generating relationships and partnerships, co-creating possibility and

opportunity, and defining action. A leader is someone who is not only concerned with

improving existing frameworks and mindsets, but with gearing up to lead processes that

shift the frameworks and mindsets themselves (McEwen & Schmidt, 2007).

  i.   **Continue to implement city programs and initiatives**, such as

SolarColwood or electric city vehicles, which demonstrate a

commitment to sustainability. The city should continue the following

initiatives:

  ii. **Use Solar Colwood to demonstrate "a whole community moving**

towards energy conservation and renewable clean energy"

(www.solarcolwood.ca). Climate change is a very real threat to

sustainability and Colwood has committed to meeting the provincial

targets for greenhouse gas emission (GHG) reduction. The Solar

Colwood project is in the beginning stages and is a good example of

what a community can do, with support from government funding, to make a substantial move towards sustainability.

      iii. Continue to develop and implement the Community Energy and Emissions Plan

      iv. Continue utilization of the Mayor's Task Force on Energy and Economic Growth

2) **Create a Community Advisory Committee** encompassing representatives from all sectors, to assist with implementation and monitoring with direct feedback to Council. Evolve this model over time, similar to the models used by Whistler or Kingston, which assign greater authority and responsibility to the community groups for actions to achieve OCP goals and Climate Action targets.

3) **Create a Sustainability Plan for Colwood**. This would be an overarching document that utilizes and builds on existing guidance from the OCP, the future Climate Action Plan and Community Energy and Emissions Plan.

      i. **Ensure there is accountability** and that all departmental operations reflect the mandate. Publically report on progress satisfying the public's expectation for more openness and transparency.

      ii. **Embed sustainability into city internal organizational structures** and assign direct responsibility for sustainability initiatives to individuals or departments and to expand new duties not typical of cities such as community liaison, education, building partnerships, monitoring and reporting.

4) **Continue to mobilize the community.** Expand and support community groups such as Climate Action West Shore (Westshore Chamber of Commerce, 2011) and provide more opportunities and convening space to bring the community together. There is strong and consistent commitment to building social capital and ongoing community engagement through support for neighbourhood associations and advocacy groups, opportunities for volunteerism, hosting special community events to bring stakeholders together, creation of public spaces and public events for dialogue, and ongoing extensive community information, education and awareness building to foster holistic worldviews.

5) **Explore opportunities to create partnerships with other jurisdictions** including neighbouring cities, school and health authorities and service providers, especially to remove silos and improve efficiency. The interdependence between sustainable cities and successful commerce is frequently highlighted. Businesses are seen as key stakeholders in strategies that promote corporate responsibility, increase city revenues, promote employment reduce and provides resources to the city.   For example, Kingston created the Centre for Green industry, a non-profit network of sustainable energy businesses, researchers, educators, public sector institutions, professionals, students, and interested individuals, which attracted an international solar panel manufacturing company which applied the technology to city infrastructure. Portland created the Best Business Centre which is a one- stop shop for businesses that want to become greener and more profitable. (Portland, 2011) and is currently exploring a private partnership to create a wind plant to supply power to the city (Regelson, 2005).

   i. **Recommend sharing a community energy manager with neighbouring cities through BC Hydro's Power Smart Program.**

6) **Promote corporate and citizen responsibility at all levels**. Implementing the plan is the responsibility of everyone. Increase city efforts at public education and awareness and engaging the community. Dechaine and Strashok (n.d.) found that the public's respect and appreciation for the natural environment increased with opportunities to volunteer in restoration projects. Colwood has appealing natural resources. The City of Seattle provides support to local natural history clubs to operate environmental learning centres with a mandate to help reconnect people with nature. The case studies showed that large corporations can play an increasingly creative role in achieving sustainability goals through partnerships with governments.

7) **Participate on Regional planning processes**. The case studies demonstrate the value of coordinated regional sustainability planning to address overlapping issues such a growth management and transportation. Strong regional governance is a cornerstone principle of sustainable cities (International Society of City and Regional Planners, 2010). The city must ensure that the CRD's regional sustainability strategy (CRD, 2010) reflects and supports Colwood's initiatives and directions.

8) **Explore the feasibility of creating a Green Business Centre**, based on the city's Green Learning University City motto, following Toronto's success at creating a consortium between local colleges and businesses which were used to attract other green businesses to develop green technologies and find solutions for sustainability to provide economic benefits. Cities are building strong networks of collaboration with local experts and universities, while monitoring global initiatives, reflecting the principles of managing complex systems.

i. **Encourage the evolution of partnerships and strategic alliances** which support the local economy and a sustainable ethic.

i. **Create a registry of actions and a wish list aligned with what city wants to achieve**

ii. **Utilize support offered for leaders from Royal Roads University staff/students through volunteer time**

Leading by example is how Colwood can bring the community together and embed sustainability principles into its own municipal operations. Such transformational leadership is crucial for success in SD to not only change the visible behaviours and systems, but to also evolve individual mindset and cultural norms. Transformational leadership is also critical to the engagement and empowerment of the community to define and work toward its intended future.

Prior Community Engagement Processes

The City of Colwood has initiated numerous activities and programs, which have engaged the community. A key initiative undertaken was British Columbia's first joint review in the development of an Official Community Plan (OCP) with the City of Langford (OCP, 2008). Another important activity that actively engaged the community was the Economics of Happiness project implemented in November of 2009 (West, 2009). With an aim to engage multiple stakeholders, the Mayor's Task Force on Energy and Economic Growth was established in 2009, and is comprised of representatives of the City of Colwood, the local community, businesses, developers, the Chamber of Commerce and Royal Roads University. A core team of this task force oversaw the implementation of a community engagement strategy to develop the Community Energy and Emissions Plan (CEEP) (J. Fisher, personal communication, July 4, 2011).

Complementary to the City of Colwood's efforts, various local community and not for profit groups have engaged citizens with an aim to increase awareness about climate change and sustainability issues. These can be identified as the diversity generators in the community, which attract those with similar interests and create a sense of unity and collective will within communities (Hamilton, 2008; Dale and Newman, 2010).

Identification of Gaps and Opportunities

An analysis of existing community engagement activities has brought to light two key opportunities within the City of Colwood:

1) **Opportunity to increase the number of residents engaged:** Colwood and Langford residents and other stakeholders were invited to develop the OCP, and according to Cullington (2011) about one-third (213) of the 650 participants represented Colwood. The 2006 census reported the population of Colwood to be 14,687 (Statistics Canada, 2006); therefore we can surmise that 1.5% of Colwood's population participated. Thus there are challenges in deciphering the number of participants from Colwood. In future the City may wish to collect basic demographic information from participants in order to track participation levels. More significantly, there are opportunities to more fully engage Colwood citizens with particular reference to achieving community climate action targets, detailed in the next section.

2) **Core groups**: While Colwood has ensured to welcome diverse stakeholders to its engagement processes and has formed a Mayor's Task Force to oversee sustainability and economic development as well as the development of CEEP, there is an opportunity to build on these efforts. First, Colwood can support the momentum of existing formal and informal community groups that are advancing the sustainability agenda in Colwood.

Secondly, modelling the stakeholder engagement process undertaken by the City of Whistler, there is an opportunity to attract a greater diversity of individuals and groups that could become engaged in Colwood's sustainability goals and objectives. Please refer to Appendix A for a comprehensive stakeholder analysis. The Whistler model can be viewed in Appendix B, which has been adapted as a model the City of Colwood can use to develop diverse core groups.

Where to Begin:

1) **Build Core Groups to Advance the Vision:**

The City of Colwood has identified that they want to become the Green Learning University City, and an integral component to its success will be the development of core groups. Core groups, made up of community members and supportive professionals, can build from the individual energy and passions within each member of the group towards the collective community vision (Bopp & Bopp, 2006). Core groups build social capital and are instrumental in community driven, community development process; they are the seeds of change.

Social capital is about connections individuals make with one another and the possibilities that open up to these people as a result of their connections (Dale and Newman, 2010). Ling & Dale (2001) define social capital as the resources embedded in a social structure that are accessed and/or mobilized in purposive action. Putnam's (1995) concept of social capital focuses on the generation of active connections between people, which includes the trust, mutual understanding, shared values and the behaviour that binds members of human networks and communities, thus making cooperative actions possible. Networks can be developed informally, or formally as in the case of the Mayor's Task Force on Energy and Economic Growth defined below.

The Mayor's Task Force on Energy and Economic Growth is an example of a core group that has been formed to tackle a specific task or issue. There is a need for more core groups to be formed. These groups can be formed in several different ways. Core groups facilitate the advancement of sustainability goals and channel public input. In Whistler the core groups were retained after the sustainability plan was developed to advance its goals. These groups work throughout the year and come together annually to share and build upon their plans. To form such groups, the City of Colwood can invite specific stakeholders representing different levels of knowledge and commitment to Climate Action. These representatives can then form a steering committee, members of which hold diverse worldviews and perspectives. The steering committee can be taken through a process of forming strong unity of vision and action around the goals and objectives of OCP, Economics of Happiness Report and Climate Action Plan. The purpose of this steering committee would be to build on what steps have already been taken and consider the implications and impacts of various initiatives on different groups. For example, presently the City of Colwood has 300 residents who have enquired about participating in the Solar Colwood project (personal conversation, Judith Cullington 2011), there are also groups such as Climate Action West Shore, staff working at RRU who are residents of Colwood, volunteers who are engaged in The Hive, parents who volunteer at school, and even those who have voiced their concerns with the climate action plan's goals and objectives, and last but not least those residents who are concerned with the financial strains put on them due to increase of taxes, and find sustainability expensive and unaffordable. All of these residents have one common interest, the present and the future of the city of Colwood. To build an effective plan addressing some of the issues and challenges faced by Colwood, there needs to be an agreement and commitment by representatives of these stakeholders to a well defined long term vision and

action. They need to become engaged in a process "through which the group is moved from being a gathering of people who have the same itch…to becoming a group of people who have formed a bond with each other that will lead to mutual aid and support, collective reflection, and a sustained series of actions (Bopp and Bopp, 2006, p. 110 & 111)." The issues that the groups have to deal with are not as important. "What is really important is that the people form mutually supportive and transformative relationships (such as core groups) through which they can increase their individual and collective capacity to transform themselves and the world within which they must live (Bopp and Bopp p. 111, 2006)."

3) **Solar Colwood as the Flagship for Community Engagement**

The Solar Colwood project, which is currently being implemented, can become the flagship for sustainability in the community. Recent media attention signals an interest in the project and Colwood could harness this attention for the purposes of public education and to create critical mass. Critical mass is "the buildup of sufficient quantum of energy within a system to trigger a chain reaction that amounts to a rapid transformation" (Bopp & Bopp, 2006, p.47). New science reveals that only about 10 to 15% of the population needs to change for a whole-systems shift (Hamilton, 2008, p.67). Colwood can utilize projects such as Solar Colwood to further engage its residents and develop the critical mass needed for a shift in the system to occur.

Implementing new community engagement strategies in Colwood that directly link to the Solar Colwood project presents potential for the City to move in a positive direction towards achieving objectives listed in the OCP. For example, there is an opportunity to engage the community in a forum with coordinating stakeholder to provide information about its feasibility,

energy savings opportunities and overarching sustainability goals, as they relate to reduced community emissions and achievement of OCP goals.

Moving forward with these initiatives also presents potential to consider unintended consequences. "The law of unintended consequences… [indicate] that actions of people—and especially of government—always have effects that are unanticipated or unintended" (www.econlib.org). These can be either positive or negative outcomes of various sustainability projects such as Solar Colwood and are important to develop in advance of project implementation. Appendix C provides examples of potential unintended consequences for the Solar Colwood project.

4) **Tools to Develop Community Engagement to Achieve Climate and OCP Goals:**

   i.   **Asset Based Community Development Model:**

One of the most successful ways of eliciting action is through an Asset Based Community Development or ABCD Process. This development process facilitates the identification of projects or actions by community members based on an understanding of local assets. Assets can be defined as the people or 'the gifts of the individual' which are inherent in each person can contribute; local organizations like environmental groups, social welfare organizations and businesses; and local institutions and resources like libraries, government buildings, parks and schools (Green, 2009, p. 12-13).

An excellent example of this approach in action is the Kaikoura Whale Watch in New Zealand which was initiated by five Maori families in an impoverished village. They came together and realized that their assets were their people, the ocean and hundreds of years of traditional knowledge about whales. They borrowed enough money for one boat in the mid-eighties and have developed it into a Maori owned and operated business with over 250 staff, a

fleet of 6 custom boats, revenues of NZ$10 million and 100,000 customers per year (Kenyon, 2011, slides 48-55).

> *When people become more productive together, they exercise their power to address problems and realize dreams (Green, 2009, p 10).*

ii.   **Appreciative Inquiry Model**

To assist the City of Colwood residents reaching the goals and objectives set in their OCP, and Climate Action Plan, the community could be taken through an Appreciative Inquiry process of dreaming and articulating a desired state, the vision of Colwood, as a Green Learning University City. This vision building process would benefit from taking a systems perspective and can use the 4D model of the Appreciative Inquiry, i.e. Discover, Dream, Design and Deliver (adapted from Watkins & Mohr, 2001). The ABCD model described above is complementary to this process and can be undertaken at the same time. The first stage of the 4-D model is to discover:

- **Discover -** Story telling that enables the community members to take pride in sharing the best of the past and present success stories of Colwood (including the OCP, EOH, and Solar Colwood engagements).

Colwood is well positioned to generate "discovery" within the community through existing assets including Colwood Community Place, Climate Action Westshore, Go Local West Shore food strategy, community garden and Royal Roads University. These resources provide places of engagement, education and development for community members that help to build social capital within the community. The City of Colwood may also wish to engage the community in a formal 4-D process.

- **Dream -** Imagine the best possible vision for Colwood including the optimal relationship with each stakeholder group.

- **Design -** Establish goals, strategies, frameworks and core groups to actualize the vision of Colwood.

- **Deliver** – The overarching community vision guides the core groups through cycles of goals, objectives and strategies which considering the key leverage points specific to the issues surrounding their core group.

Conclusion

Hamilton (2008), states that "…behaviour in the city does not change in isolation of intention, culture and social systems; support for this change is needed including educating messages, cultural peer pressure, legislated distribution or installation and judicial enforcement of practices" (p. 126). If Colwood wants to become a leader in clean energy and sustainability then a leadership approach coupled with a governance model that endorses and adopts sustainability principles in this community is necessary. Thoughtful and purposeful leadership will seek the attainment of environment and social *values* while concurrently addressing economic prosperity, by aligning policy, decisions, and organizational and community actions toward achieving the principles of SD, unleashing the potential of a new green economic base leveraging collaborative industry, partnerships, and community sustainable design. Leading by example is another key opportunity available for Colwood through embedding sustainability principles into its own municipal operations. Such transformational leadership is crucial for success in SD to not only change the visible behaviours and systems, but to also evolve individual mindset and cultural norms.

Sustainable community development is beyond the capacity of any one sector or discipline or level of government to implement (Dale, 2001). However municipal governments, because of their locally elected, representative and accountable bodies responsible for community decision making, are critical players in the movement and are on the front lines of implementing initiatives (Ling et al., 2009; Roseland 2005, p. 193). Examples of eight sustainable Canadian and American cities that have adopted new governance models, reflecting a worldview ethic and an attitude of partnership, collaboration, co-management and community involvement, along with adaptation and innovation, are making great strides in achieving sustainability.

References

Bopp, M., & Bopp, J. (2006). *Recreating the world: A practical guide to building sustainable communities, 2nded.* Four Worlds Press. Calgary, Alberta.

Capital Regional District. (2010). M*aking a difference together: The regional sustainability strategy.* Retrieved July 14, 2011 from http://sustainability.crd.bc.ca/

Colwood, C.o. (2008). *Official Community Plan 2008.* Retrieved January 8, 2011 from: http://colwood.ca/siteengine/activepage.asp?PageID=38

Copenhagan agenda for sustainable cities. (2010). 10 principles for sustainable city governance. Retrieved July 13, 2011 from http://www.8-80cities.org/Articles/10_principles%20for%20sustainable%20city%20governance.pdf

Cullington, J, (July 14 13, 2011) *Personal conversation,* Sustainable Community Development Student (CMDV563), Royal Roads University, Victoria, BC

Dale, A. (2001). *At the edge: Sustainable development in the 21st Century.* Vancouver, Canada: UBC Press.

Dale, A., & Newman, L. (2010). Social capital: a necessary and sufficient condition for sustainable community development? *Community Development Journal, 45(1)*, 5-21.

Dechaine, N. and C. Strashok (n.d.) Urban biodiversity: Building community capacity for ecological restoration. Community Research Connections. Retrieved June 14, 2011 from http://www.crcresearch.org/case-studies/crc-case/studies/urban-biodiversity-building-community-capacity-ecological-restoration

Ferdig, M.A. (2007). Sustainability leadership: Co-creating a sustainable future. *Journal of Change Management*, 7(1), 25-35. DOI: 10.1080/14697010701233809

Green, M., Moore, H, & O'Brien, J. (2009).*When People Care Enough to Act*. Inclusion Press: Toronto.

Hamilton, M. (2008). *Integral city: Evolutionary intelligences for the human hives.* New Society Publishers, Gabriola Island, BC.

Hamilton, M. (2011a). Integral City meshworks: The blog, Almere Principles guide city growth. Retrieved July 13, 2011 from

http://marilyn.integralcity.com/2011/04/20/almere-principles-guide-city-growth

Kenyon, P. (2011). Changing Focus – The Asset Based Community Development Approach (A.B.C.D.). Retrieved from www.bankofideas.com.au

Kingston, C.o. *Sustainable Kingston*. Retrieved July 14, 2011 from

http://www.susstainablekingston.ca/

Kirbyson, J. (2011). *Community Assessment, City of Colwood;* Path to Sustainable Recreation. Unpublished paper from Sustainable Community Development (CMDV 562), Royal Roads University, Victoria, BC

Library of Economics and Liberty, (2008) *The Concise Encyclopedia of Economics, Unintended Consequences* Retrieved July 16, 2011 from

http://www.econlib.org/library/Enc/UnintendedConsequences.html

Ling, C., Dale, A., Hanna, K. (2007). *Integrated Community Sustainability Planning Tool.* Retrieved July 5, 2011 from http://www.crcresearch.org/innovator-database/ann-dale

Living in Victoria, Retrieved July 9, 2011 from http://www.livinginvictoriabc.com/

McEwen, C. A., & Schmidt, J. D. (2007). *Leadership and the corporate sustainability*

   challenge: Mindsets in action. Avastone Consulting, Roswell, GA. Accessed from the

   Experience Integral website: http://www.experienceintegral.org

Perodeau, A. (2006). *Resources on Ethics for Sustainable Community Development.*Challenge

Management Development Ltd. Retrieved July 16, 2011 from

 http://learner.royalroads.ca/moodle/course/view.php?id=729

Portland, C.o. Bureau of Planning and Sustainability. Retrieved July 12, 2011 from

   http://www.portlandonline.com/bps/index.cfm?c=28534

Regelson, K. (2005). Sierra Club. Sustainable cities: Best practices for renewable energy and

   energy efficiency. Austin, Chicago, Fort Collins, Portland. Retrieved June 30, 2011:

   http://rmc.sierraclub.org/energy/library/susstainablecities.pdf

Toronto, C.o. 2000. Clean, Green and Healthy. A plan for an environmentally sustainable

   Toronto. Retrieved July 12, 2011 from http://www.toronto.ca/council/pdf/etfepfin.pdf

Vancouver, C.o. Vancouver 2020. A bright green future.An action plan for becoming the

   world's greenest city by 2020. Retrieved July 11, 2011 from

   http://vancouver.ca/greenestcity/PDF?Vancouver2020-ABrightGreenFuture.pdf

Victoria, C.o. 2009. Draft sustainability framework report version 3. Retrieved July 12, 2011

   from http://www.victoria.ca/cityhall/pdfs/sustainability-framework-concept-0907.pdf

Taylor, G, 2008. *Evolution's edge: The coming collapse and transformation of our world.*

   New Society Publishers, Gabriola Island, BC.

Watkins, J. M., and Mohr, B. J. 2001. *Appreciative Inquiry: Change at the Speed of*

   Imagination. San Francisco, CA: Jossey-Bass/Pfeiffer,

West, D. (2009). *TheEconomics of Happiness: Community happiness roundtable*: Colwood

2010 and beyond. Retrieved February 8, 2011

from<u>http://colwood.ca/siteengine/activepage.asp?PageID=38</u>

Whistler, C.o. (2011). Whistler 2020. Moving towards a sustainable future. Retrieved July 11,

2011 from

<u>http://www.whistler2020.ca/whistler/site/homepage.acds?instanceid+1930792&context=</u>

<u>193051</u>

Appendix A Stakeholder Analysis of Interest, Attitudes, Impacts & Opportunities

The City of Colwood Stakeholder Analysis was adapted based on stakeholder models in Perodeau (2006), *Resources on Ethics for Sustainable Development* and also in reference to Hamilton, 2008, Kirbyson, 2011, Statistics Canada, 2007 and West, 2009.

Stakeholders	Stake/Interest	Perceived Attitudes	Potential impacts	Engagement Opportunities
I=Subjective/Psychological				
Residents who support climate change initiatives	May possess awareness of climate change issues and a sense of personal responsibility. Accessibility to services and support for change will be important to continued engagement.	Open to contributing to measures that reduce impacts of climate change. Approximately 17% of the population take public transit, walk or cycle, or mode-share to work. 7% are passengers (Statistics Canada, 2006)	Financial implications (i.e. home retrofits, hybrid car purchase) Accessibility of public transit, carpool and mode share opportunities	37% want to contribute more to the community (West, 2009). Engage them in climate action initiatives. 3% aboriginal identity, 4% visible minority, 11% immigrants per Statistics Canada, 2006)
Residents who do not support climate change initiatives	May not possess awareness or interest. Perception that going green = expensive	May not be open or aware or may be openly opposed. 75% drive to work (Statistics Canada, 2006)	Financial implications (i.e. home retrofits, hybrid car purchase)	Use of social marketing; engage them in venues where they will be, versus expecting them to come.
Tourists	Accessibility to goods and services.	Looking for meaningful personal experience	Potential impacts on climate through travel, consumption, waste. Generate economic activity.	Engagement and awareness building through tourism agencies, seasonal attractions (i.e. farmers markets) and local businesses
Visitors	Travel to Colwood on business, education or to visit relatives	Impressionable. Come with an open mind. Potential to live here.	Potential impacts on climate through travel, consumption, waste. Generate economic activity.	Engagement through business, engagement and relatives (word of mouth)
Seniors	Retired members of community could	Looking for ways to contribute in meaningful	Can support extended families	Potential to be coaches leaders.

	contribute years of expertise	way	because seniors not ignored or put out to pasture	
Future Generations	Inheritors of past and current actions.	May or may not have an interest in future or in staying in Colwood.	Future champions of climate change	Use of social media; engagement through schools and university

Stakeholders	Stake/Interest	Perceived Attitudes	Potential impacts	Engagement Opportunities
IT=Objective/Behavioral				
City Mayor, Council & Mayor's Task Force	Leadership and stewardship. Must meet Provincially mandated GHG reduction targets for Civic operations and targets set for community emission reductions.	Most are supportive. Balancing fiscal responsibilities and public perception.	Coming election Political pressures from those opposed to sustainability projects. Pressure from outside community groups and agencies and business sector. Ability to encourage green development by creating tax incentives or reducing permit fees.	Can lead and facilitate community engagement to define vision and actions. Can develop priorities based on community input. Potential to change residents' mindsets by demonstrating tangible benefits
City staff	Responsible for the provision of services. Particular role to play in reduction of GHG emissions within civic operations; as well as systems/structures to support GHG emission reductions in the community.	Most are supportive	Changing priorities and demands.	Support /Facilitate planning and community involvement. Provide information and support to community.
Capital Regional District	Comprised of 13 municipalities and three electoral areas.	There may be dissonance in perspectives and priorities between jurisdictions that comprise	Support or lack of support influences provision of services to	Opportunity for community engagement related to

	Coordinating function largely related to infrastructure.	the regional district	individual municipalities.	regionally-coordinated infrastructure development and adjacencies between jurisdictions (i.e. industrial ecosystems)
Victoria Regional Transit Commission	Represents transit service for the region and make decisions regarding services and funding on behalf of the region. Currently, there are 7 members on the committee that represent the districts of Oak Bay, Saanich, Sooke (on behalf of the Western region) , Central Saanich and Victoria. The Cities of Colwood and Langford have been past representatives on the committee on behalf of the Western Region – this representation rotates *(personal communication, Chair, Victoria Regional Transit Commission, July 14, 2011).*	Supportive. Balancing the needs and priorities of each city within the region may be a challenge.	Potential to act as the connector between jurisdictions to ensure a systems approach to transit service delivery on the Island	Ensure all stakeholders interests are equally and equitably represented. Can be engaged in strategies to reduce community emissions from transportation which represents the highest community emissions source.
School district 62	Education	supportive	Potential to impact future generations toward climate awareness, stewardship.	Opportunity to engage school children as members and influencers of the community.
Royal Roads University	Higher education, research, teaching, mobilization of knowledge, stewardship and model for the community.	Supportive, champions, knowledge generators and thought leaders.	Mobilize knowledge, build capacity, partnerships	Existing MOU with City of Colwood and student projects to support climate change efforts. Also look at support FOR leaders from RRU
Provincial and Federal Governments	Provincial commitment to climate action and greenhouse gas emission	Provincial support but limited funding, jurisdictional overlaps and	Centralization Policy	Funding and grants toward energy

Stakeholders	Stake/Interest	Perceived Attitudes	Potential impacts	Engagement Opportunities
(general)	reductions (Livesmart BC). Legislation for GHG reduction targets.	competing interests	development Distribution of resources to individual municipalities Disharmony between service delivery and societal needs	conservation, clean energy generation, and bio-energy strategies
Department of National Defence (DND)	Federal department that provides support to the Canadian Forces. Landholders in Colwood	Past challenge to engage in Solar Colwood		
Utility Companies	Increasing role in energy conservation	Supportive	Future projected rate increases	Funding, grants and energy management services to reduce energy emissions and utility costs within organizations and communities.

| Stakeholders	Stake/Interest	Perceived Attitudes	Potential impacts	Engagement Opportunities
WE=Cultural/Collective Worldviews				
Not for profit community groups and associations (many - Colwood Farmers' Market Society, Colwood Arts Network Society, Climate Action West Shore; West Shore Healthy Communities Council, The Hive)	Community support and services – grassroots engagement. Intern need support to fund their activities	Supportive, champions	Funding Time and energy	Existing websites, community events Thought leaders and coaches

Stakeholders	Stake/Interest	Perceived Attitudes	Potential impacts	Engagement Opportunities
Business Sector	Provide products and services.	May be more concerned with profit than climate/environment. May have misconceptions about cost and feasibility of "going green" Increasingly moving toward triple bottom line	Economic downturn	Potential to engage on best practices for sustainable businesses
Developers	Lead developments that meets demands and values	Mixed	Higher cost of sustainable development (real or perceived) Impacted by services and infrastructure Permitting costs Inspection complexities where building code requirements do not keep up with technological innovation/imple mentation.	Engage and support "diversity generators" – the creativity market leaders and inventers (Hamilton, 2008)
Westshore Chamber of commerce	Support community, business and economic development.	supportive	Awareness and change	Mechanism to engage community business members

Appendix B

Core Group Development Diagram
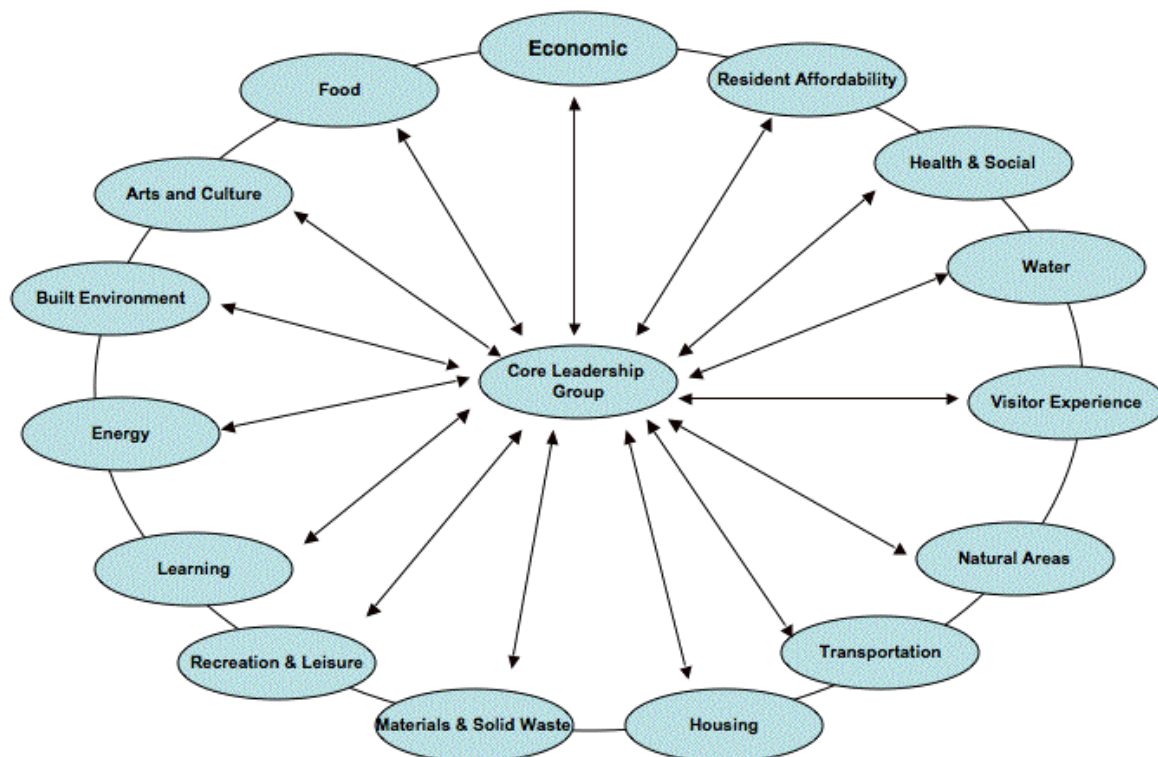
All Core groups are connected and can if needed collaborate together. A Core Leadership group will at later stages of the delivery of the plan replace the initial group, e.g. Steering committee that assisted and encouraged the formation and development of the core groups. These core groups will act as "seed crystals of change." (Bopp and Bopp p. 127) Please note that the core group categories are adapted from Whistler2020 Taskforce Members 2008 list (Reference). It can be reduced, increased or adjusted to the needs of Colwood.

Appendix C Unintended Consequences

Type	Scenario	Further consequences	Risk Level
Positive	Market develops for green products/services	Entrepreneurs attracted to the area to start new businesses	Moderate
Positive	New businesses employing residents of Colwood	Reduced commutes resulting in reduced GHG emission Residents have more personal time resulting in increased social activities and/or increased time spent with family	Low to moderate
Positive	Local businesses may be positively influenced to change business practices to be more in line with developing market and philosophy	Less waste produced, reduction in GHGs, sustainable choices become easier for the consumer	Moderate to high
Positive	Jobs not initially identified as possibilities created in the area by changing practices	Increased employment opportunities for Colwood residents. Increased skills training opportunities for the underemployed	Low
Positive	Residents and entrepreneurs of other municipalities observing positive results	Residents and entrepreneurs pressuring local governments to moved towards more sustainable practices	Moderate to high
Negative	New Technologies for sustainable energy developed competing with Solar energy industry	Market unable to support Solar industry resulting in lost jobs	Low
Negative	Local small business and special interest groups develop opposing views where previously good rapport existed	Previous community partnerships dissolving	Low to moderate
Negative	Local businesses negatively affected by loss of sales with changing lifestyles in the area	Businesses closing down and jobs lost	Low
Negative	Conflict amongst community members with opposing views	Social capital reduced	Low to moderate