



LOW CARBON RESILIENCE PLANNING EXAMPLE: OFFICIAL COMMUNITY PLAN (OCP)/ COMPREHENSIVE COMMUNITY PLAN (CCP) PROCESSES

This case study illustrates how low carbon resilience may be incorporated into existing planning processes such as OCPs and CCPs and demonstrates that synergies and co-benefits associated with coordinating emissions reduction and adaptation can be achieved at the community planning scale.

Background

Climate change is driving environmental, social, health, and economic challenges for Canadians that are projected to intensify over the coming decades. Adaptation to climate impacts is essential because global temperatures have already risen and will continue to increase to some extent, even if we were to eliminate all greenhouse gas (GHG) emissions today.¹ The success of global emissions reduction efforts (mitigation) will determine the severity of future climate impacts, which will continue to escalate if we do not reduce global emissions by around 80%, the goal of Canada's Mid-Century Strategy.² Low carbon resilience (LCR) is a lens designed to achieve strategic systemic integration of climate change adaptation and mitigation, which have largely been planned separately to date. Continuing to do so is inefficient in terms of resource expenditure and risks building in vulnerabilities, adding to emissions and missing transformative co-benefits. Integrating the two at all levels of policy, planning and practice via LCR approaches³ will help align climate action goals and advance the transition toward a more energy efficient, resilient, and sustainable future.

Communities require integrative frameworks that can assist them in developing LCR policies.⁴ This scan of the OCP and CCP processes pulls together resources and components from existing tools and case studies to start to explore how LCR might be adopted into community plans and strategies. The examples used are existing policies in OCPs or CCPs that reflect plans either focused separately on mitigation and adaptation, or that use an integrated approach. They represent mandated and/or recommended considerations for particular developments within particular host communities.

Official Community Planning

An Official Community Plan (OCP) is intended to set a vision for a community for 5-20 years. Municipalities are encouraged to pursue planning processes that engage community members and government officials in establishing objectives and policies on land use, community development and operations. Communities then develop legally binding bylaws that support the OCP. Bylaws represent an area of opportunity for achieving LCR by identifying co-benefits and areas where adaptation and mitigation actions are mutually supportive.

Increasing community resilience to climate change impacts can be accomplished through taking a long-term approach to planning. The Government of British Columbia

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encourages incorporating climate change adaptation into OCPs.⁵ This is currently being achieved by most municipalities through a climate action section that generally treats adaptation and mitigation separately. Furthermore, most municipalities now have mitigation plans, but many are just starting on adaptation plans.

Adopting policies that build adaptive capacity into infrastructure and energy systems is an increasingly essential part of the planning process. This includes preserving and enhancing the natural environment and planning to minimize the impacts of extreme weather events, locating development away from hazardous areas, and developing site-specific recommendations for development or redevelopment, including energy efficiency, the incorporation of natural assets, and opportunities for renewable energy.⁶

The LCR approach can be used to assist in formation of climate action-oriented bylaws and other guidelines that consider adaptation and mitigation simultaneously within OCPs. Establishment of Development Permit Areas is one example of an existing OCP opportunity to enact mandated or recommended LCR-based approaches.

Development Permit Areas:

Development Permit Areas (DPAs) provide municipalities the opportunity to determine specific requirements or suggested standards for development or redevelopment within designated areas. A DPA includes site-specific considerations that all development applications are required to meet. The *Local Government Act* (ss.919.1-920) enables a local government, through its OCP, to designate areas based on factors such as, but not limited to, wildfire, flood and slope hazards as well as stormwater management, biodiversity and reductions in greenhouse gas (GHG) emissions.⁷ DPAs provide a set of guidelines that are applied when a development permit is requested and could be used to mandate or require that integrated climate action be considered/included in areas such as landscaping, siting of buildings, elements of form and exterior design of buildings, and specific features relating to the development and machinery, equipment and systems external to buildings and other structures.⁸

DPAs represent an opportunity for municipalities to incorporate climate action into the legislative authority of local governments.⁹ The site-specific nature of DPAs also provides an opportunity to integrate LCR thinking, with the potential to develop strategies and plans that enhance the resilience of a community through adaptation as well as consider reductions in emissions. Municipalities can use DPAs to apply LCR by using their authority to recommend or mandate that vendors and/or developers identify co-benefits and opportunities for integrated climate action in development and re-development applications. A number of communities have used DPAs to embed climate action, usually using either an adaptation or mitigation lens, within their OCP process; e.g., the District of North Vancouver's *Energy and Water Conservation and Greenhouse Gas Emissions Reductions DPA* encourages developers to use an integrated, performance-based approach to reduce energy and water consumption and GHG emissions while improving occupants' comfort and safeguarding health.¹⁰

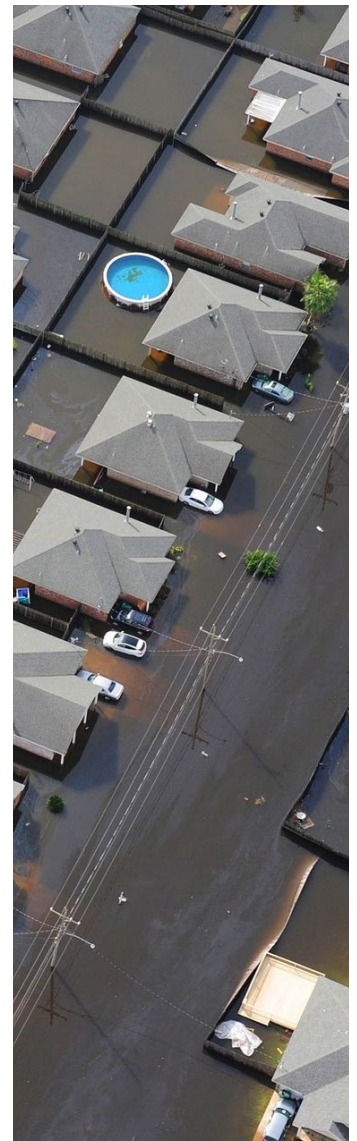
There are many other opportunities for integration of LCR in DPAs, which could for example require that near-shore developments provide soft-infrastructure defenses against storm surges and sea level rise, such as the approach advanced by Green Shores,¹¹ while also requiring them to locate energy-efficient power supply infrastructure above specified Flood Construction Levels (FCLs) to protect against flooding.¹²

Comprehensive Community Planning: Phase 4 – How will we get there?

The 4th phase of the Comprehensive Community Planning (CCP) process, developed by Indigenous and Northern Affairs Canada in partnership with BC First Nations,¹³ directs



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community planners and organizers to consider how the community will reach goals identified in the first three planning phases.¹⁴

In the third phase (“Where do we want to go?”), CCP planners are advised to consider asking the following questions:

- What climate change-related events have we noticed in our community?
- What are the priority areas we must consider related to the expected impacts from climate change?
- What climate change-related weather events can we anticipate seeing more of?
- What ideas do community members have that may help reduce the impacts of climate change?
- What have other communities done to reduce their vulnerability and how can we develop our own action plans?

Applying the LCR model to identify priority actions in Phase 4 could therefore produce plans that effectively integrate adaptation and mitigation. For example, the Westbank First Nation established a set of Sustainability Principles as part of its CCP process, identifying action areas that reflect the holistic relationship between the Four Food Chiefs: Black Bear (Governance), Spring Salmon (Economy), Bitterroot (Land), and Saskatoon Berry (Community). Principles within those areas include: Conserve sloped areas of greater than 30% grade in a natural state; support energy-conscious community planning and building design; explore alternative energy sources; and retain significant vegetation and trees native to sites. These principles are coupled with action plans within the CCP such as the development of a sustainability checklist; the creation and adoption of a plan to reduce GHG emissions on Westbank First Nation lands; and the development of a tree preservation policy.¹⁵

This action-focused planning process offers an opportunity for community organizers and leaders to apply LCR thinking. For example, they might identify projected high surface and air temperature areas and require planting and/or protection of tree species in these neighbourhoods to reduce the urban heat island effect, while reducing the amount of energy required to cool buildings in summer months.¹⁶ The Westbank First Nation is currently considering a sustainability plan to develop holistic and actionable items that reduce both emissions and vulnerability.

Environmentally Sensitive Areas:

Environmentally Sensitive Areas (ESAs) are a tool in the CCP process that could be used to advance LCR in a similar way to DPAs in the OCP process. CCPs offer an opportunity for communities to identify ESAs of land or water that may be sensitive to human presence, activities or land development or maintain significant and/or cultural natural asset values, and establish bylaws that govern the use of, and development within, these areas.¹⁷ Establishing criteria for the development of guidelines to undertake such an environmental assessment represents a significant opportunity for First Nation communities to adopt the LCR model.

For example, the Anticipating the Future section of the Official Land Use Plan of the Tla’amin Nation identifies local climate change impacts, including increased water temperatures, forced species migration, changes in weather, and sea level rise, and uses these projections to create action items designed to manage exposure to risk and reduce energy and water use.¹⁸ For example, in order to reduce emissions, Schedule B: General Land Use Designation recommends locating most housing within walking

distance of commercial and community services. To prepare for sea level rise, Schedule D-2: Hazard Area Guidelines recommends a 30-metre setback from the high-water mark to protect future developments. In order to protect ecological features, Schedule D-1: Sensitive Areas Guidelines recommends the protection of environmentally sensitive areas, e.g., riparian corridors and wetlands.¹⁹

The CCP General Land Use, Hazard Area and Sensitive Area Guidelines also represent opportunities for integration of LCR development. The appropriate setbacks and requirements are context dependent and should be set in each plan according to local climate projections and vulnerabilities.

ESA guidelines could also, for example, recommend or mandate that developments include green infrastructure and natural assets that achieve LCR and consider biodiversity and ecosystem health in order to provide habitat for climate change-induced species migration.

Co-Benefits Potential of LCR:

Application of the LCR model to OCP and CCP components such as DPAs and ESAs has the potential to produce a number of co-benefits. For instance, greater attention to soft-infrastructure adaptation approaches in the foreshore, wetlands, or as street shading in communities, not only minimizes emissions associated with infrastructure development and extreme weather impacts, but also increases biodiversity habitat and survival, improves human health, increases property values, and streamlines financial and human capital costs.²⁰



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END NOTES

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