

# ICABCCI

Integrated Climate Action  
for BC Communities Initiative

## LCR Snapshot

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### LCR Communications and Implementation

Lessons from ICABCCI Partner Communities

APRIL 2020



**ACT** Adaptation to  
Climate Change Team



## Background

A low carbon resilience (LCR) lens coordinates and mainstreams adaptation, mitigation, and co-benefit strategies into policy, planning and implementation processes. **Deborah Harford**, Executive Director, ACT (the Adaptation to Climate Change Team), in the Faculty of Environment at SFU, and SFU Research Associate **Dr. Alison Shaw**, Principal, FlipSide Sustainability, co-developed ICABCCI (Integrated Climate Action for BC Communities Initiative) to produce action-based research that supports local governments in implementing effective, streamlined climate action. The research will be collated into guiding resources and an LCR Framework for Climate Action, to be used by local governments across BC and Canada and beyond.

This report captures lessons learned and reported through ICABCCI's third Peer Learning Workshop, held on January 30, 2020. LCR Champions from six partner communities presented on key communications, process steps, and lessons learned from their efforts to plan and implement LCR into local government decision processes. The report also documents key lessons learned about how to effectively communicate LCR to local government target audiences: elected officials, local government staff, and community residents.

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## Attendees

10 peer-learning network participants: **Iain Bourhill**, Town of Colwood, **Hillary Elliot**, Village of Silverton (attended remotely), **Michelle Gordon**, Village of Slokan (attended remotely), **Kate Letizia**, City of Nelson (attended remotely), **Tami Rothery**, District of Summerland, **Laura Sampliner**, City of Port Moody, **Erin Desautels & Maxwell Sykes**, City of Surrey, **Caitlin Hinton**, City of Revelstoke, **Sarah del Santo**, Tsleil-Waututh Nation

## Acknowledgments

ACT would like to extend thanks to ICABCCI expert advisor **Emanuel Machado**, CAO, Town of Gibsons, for his insights.

ACT gratefully acknowledges the support of the **Real Estate Foundation of BC** and **SFU's Faculty of Environment**.

ICABCCI is an initiative of **ACT (the Adaptation to Climate Change Team)** in the Faculty of Environment at SFU.





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# 1. LOW CARBON RESILIENCE

## 1.1 The Climate Imperative

Climate change is not just an environmental issue; it's a social one. Under current trends, climate change is a serious consideration in a wide range of decisions, including where to live, work and play. Decisions made now about assets, infrastructure, land use, transportation, and biodiversity influence the design of our communities over the next 50-80 years, and also have enormous impacts on how adaptable or vulnerable our communities are to climate changes, and to what degree they trend up or down as emissions sources.

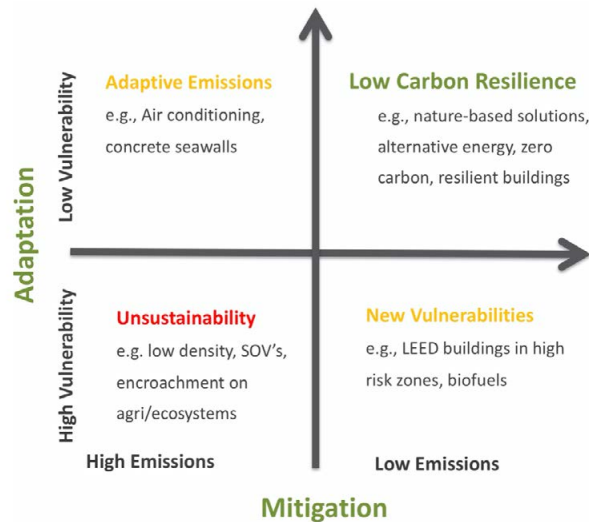
Communities are on the frontlines of climate change, increasingly being called on to respond to costly impacts, such as flooding and wildfires, while also planning for emissions reductions. While most municipalities in BC have committed to reducing emissions, they are now beginning to recognize that adapting to climate impacts is also a necessary and urgent priority. Many communities have declared a climate emergency, creating the imperative to prioritize policy, planning and projects that minimize the risks of climate impacts while also reducing emissions, and promoting strategies that build community resilience over time.

## 1.2 What is LCR?

LCR begins with the understanding that adaptation and mitigation have the same core goals: to reduce the impacts of projected climate change and build community resilience over time. Using criteria to determine how all policy, planning, and decisions reduce vulnerability to projected climate impacts (upper left quadrant) and reduce emissions (lower right quadrant) over time can help to identify new opportunities for moving toward low carbon resilience (LCR) and climate-ready communities.

A low carbon resilience (LCR) lens can be applied to every area of municipal decision-making and governance. An LCR approach streamlines and aligns decision-making and identifies strategic opportunities to address both mitigation (emissions reduction) and adaptation (vulnerability reduction) that would otherwise be left unaddressed.

Best available climate projections help communities understand key climate risks and vulnerabilities, as well as key emissions sources and trends over time. It's important to integrate these processes to prevent contradiction. Coordinating and co-evaluating strategies reduces/avoids risks and vulnerabilities of climate change and emissions into the future (upper right quadrant).



**Figure 1.** Adaptive actions that are emissions intensive (upper left side) or actions that position low carbon projects in high-risk areas (lower right side) lead to contradiction, and are to be avoided. Taking actions that co-evaluate options that reduce both emissions and vulnerability (top right), or at least define the trade-offs of one action over the other, helps to streamline and align climate action (adapted from Cohen & Waddell, 2009).

### 1.3 ICABCCI and Partner Communities Working Together

The Integrated Climate Action for BC Communities Initiative (ICABCCI), at ACT (the Adaptation to Climate Change Team), Simon Fraser University (SFU), is helping a network of local governments across the Province of BC to plan and implement LCR into their strategy, policy and planning, and operations. ICABCCI's 13+ partner communities consist of local governments of all shapes and sizes, all at different stages of climate action, working together with the ICABCCI team to develop LCR strategies, develop resources, and learn from one another through workshops and webinars.

This work is being translated into a suite of practical resources and tools to advance LCR in local government, and the findings will be analyzed and developed into an LCR framework of action that can be applied in communities across Canada. In addition, the ICABCCI team is promoting a peer-learning network of communities interested in following leading-edge practice, and other key actors, such as funders, consultants, and regulators in Canada's climate action ecosystem to mobilize ICABCCI's findings and accelerate the application of LCR in practice.

### 1.4 Good for Communities

Integrating LCR into local government planning and practice helps to prepare climate-ready communities now and into the future. The LCR approach streamlines limited resources and capacity. It emphasizes cross-departmental and cross-sectoral exchange, finding policy synergies and alignments, particularly across core service areas (e.g. energy, water, land-use, transportation, biodiversity), while advancing links between climate action and other priorities such as economic development, community health, equity, and biodiversity.

### 1.5 Taking Action

Many local governments are moving toward LCR and integrated climate action approaches. For some, it's a necessity in streamlining capacity and resources; for others, it simply makes strategic sense. Communities that act now to adapt to climate risks and shift toward low carbon approaches are likely to avoid contradictions and reap social, environmental, and economic benefits. The LCR approach seeks to climate-proof communities and ensure today's investments are effective tomorrow.

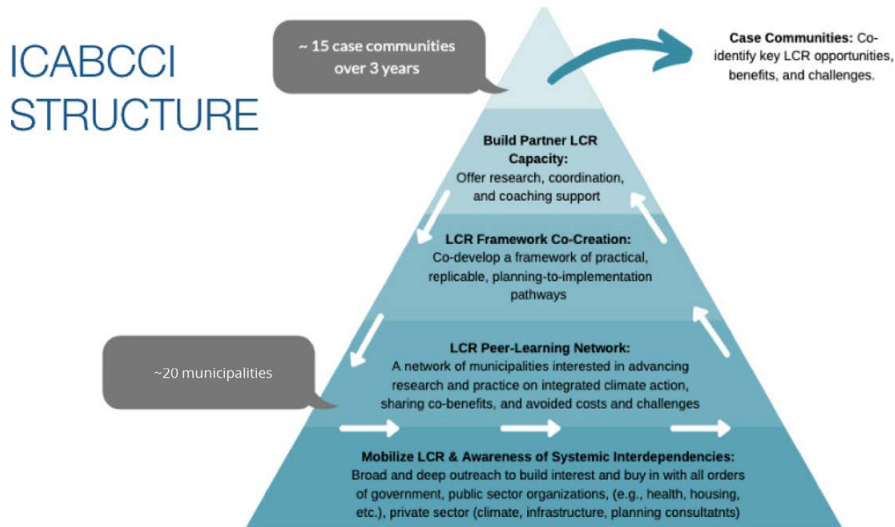


Figure 2: Tiers one to five of the ICABCCI structure.

## 2. ABOUT ICABCCI'S PEER LEARNING WORKSHOP #3

ACT's third ICABCCI partner workshop took place at SFU in Vancouver on January 30th, 2020. Seven partner communities attended in person, three joined via Zoom, and three sent regrets due to other commitments.

The objectives of the workshop were to:

- **Facilitate peer-learning and exchange:** Our first wave case communities presented updates and conclusions on their experiences to date integrating LCR, including key opportunities, challenges, and learnings from throughout the process.
- **Refine LCR communications:** Attendees were asked to provide feedback on ACT's existing LCR communications tools and language to inform effectiveness in communicating LCR at the local scale.
- **Onboard second wave communities:** We identified four new case communities that have a timely opportunity to embed LCR in emerging planning processes.

### 2.1 LCR UPDATES FROM FIRST WAVE CASE COMMUNITIES

Champions from ICABCCI's five first wave case communities presented on the LCR projects underway in their communities. Each champion provided progress updates, including existing opportunities for LCR integration, what stage they are at, key challenges and benefits, and how they have leveraged the expertise and

support of the ICABCCI team. These presentations and their important observations and findings are summarized in the following pages, organized as follows: progress to date, key LCR project partners and participants, key outcomes, and LCR highlights.



### 2.1.1 City of Port Moody

#### LCR Champion: Laura Sampliner

Port Moody began working with ICABCCI and collaborating with consultants in May 2019. With very little pre-existing work on climate change and no climate action plans in place, the City is now on its way to becoming a leader on integrated climate action planning.

Port Moody's decision to focus on LCR from the beginning of the climate action planning process ensured that key corporate and community actors were brought along in an integrated manner, learning about both climate risk and vulnerability assessment and key

opportunities for emissions reductions ("mitigation"). Coordinating adaptation and mitigation optimizes outcomes for both.

The Port Moody team has now finalized the first draft of the integrated climate action plan and will present to Council for final approval and adoption in Spring 2020. In anticipation of this step, the team has begun work on a detailed implementation plan in order to operationalize the plan in departments across the organization.

## Key Port Moody partners and participants involved in co-creation of an LCR climate action plan

### Partners

- *SFU's ICABCCI Team*: worked with the champion to collaboratively co-create an integrated LCR approach, onboard consultants and build the process capacity by providing strategic insights, coaching, and research on an as needed basis.
- *Consultants*: technical adaptation and mitigation specialists, collaborating together with the champion and ICABCCI team to co-create an LCR process, to identify key LCR strategies, and to operationalize them into practice.

### Participants

- *Staff Interdepartmental Working Group*: consisted of one staff expert from each of the City's departments.
- *Climate Action Committee*: representatives from Council, various committees, and members from the community.
- *Public participants*: participated through pop-up events, speaker forums, open houses, and online surveys.

## Key Outcomes

The Port Moody team found that taking an LCR approach to climate action planning:

- Catalyzed a more streamlined planning process
- Fostered integrated thinking and climate action planning
- Collapsed systemic siloes from across the organization
- Increased buy-in for climate actions across departments, sectors, and community stakeholders
- Facilitated widespread buy-in through reference to LCR co-benefits
- Broadened access to a range of funding opportunities

## Process Steps

- Acquire senior leadership buy-in for LCR planning approach and develop the Climate Action Committee
- Identify technical skills requirements and acquire through an RFP consulting process
- Create an internal interdepartmental working group to meet monthly and provide input on plan development
- Engage the community and build local LCR awareness and understanding
- Perform cross-departmental action planning and workshops
- Undertake a risk and vulnerability assessment
- Complete GHG inventorying and modelling
- Co-evaluate actions for how they reduce vulnerability and emissions, and build co-benefits, alongside criteria for feasibility and cost prior to final plan development

- Draft and finalize climate change action plan
- Begin developing an implementation plan

## LCR Highlights


**Development of an RFP for LCR planning:** the champion and ICABCCI co-designed an RFP requesting qualified adaptation and mitigation consultants to collaborate in the development of the integrated climate action plan. The RFP built in LCR evaluation criteria and required that consultants work collaboratively with the ICABCCI project and be flexible in the 'co-development' process.

**Coordinating LCR communications:** the champion worked with the City's communications team to ensure the LCR message was consistent in internal and public engagement events. They learned early on that there is a need to get communications right and aligned to prevent significant changes throughout the process. They also learned that raising awareness and understanding of the LCR concept and co-benefits takes time via open houses, workshops, pop-up events, and online messaging. The extra time is worth getting the public to buy in to the overall process and thus outcomes.

“ Working together as a team to bring staff from different levels together to break down silos, build an integrative mentality and find connections helped to amplify work already being done and develop more integrated objectives and actions. ”





Economic Co-Benefits		
 Supports green job creation	 Diversifies local economy	 Increases savings
 Fosters innovation and green, clean industries	 Supports clean energy transition	 Promotes a circular economy
 Reduces waste/optimizes resources	 Reduces risks to property values	 Avoids community damages and costs over time
Environmental Co-Benefits		
 Enhances biodiversity	 Supports habitat creation	 Improved water retention and absorption
 Enhances pollutant capture	 Improves air quality	 Reduces extreme temperatures
 Improves water quality	 Increases carbon sequestration/storage	 Promotes regional connectivity
Social Co-Benefits		
 Enhances human health and well-being	 Supports local food security	 Limits tax increases
 Improves climate awareness and access to data and information	 Improves community livability and vitality	 Enhances local autonomy
 Advances equity and social inclusion	 Reduces congestion	 Improves public safety, disaster preparedness and response

**Figure 3.** An initial list of co-benefits can be considered and/or realized from applying an LCR framework.

The ICABCCI co-benefits table is a useful tool to help bring people along in understanding the importance and the opportunity inherent in LCR and to see how their work and role relates to overall outcomes.

Co-evaluating adaptation and mitigation options does not always lead to integrated, LCR strategies. The goal of LCR planning is to identify synergies where they exist, avoid the risks of contradiction, identify high-impact solutions, and make trade-offs transparent.

**Establishing an ‘integrative mentality’:** Consistent LCR framing, use of LCR examples, and identification of co-benefits contributed to more integrated thinking throughout the City’s four planning workshops (see Figure 4), generating quality feedback in the development of the integrated climate action plan. The champion notes that, in the future, it may be important to frame emissions reduction potential quantitatively, and to remind people that co-evaluating adaptation and mitigation is as much about identifying trade-offs as finding synergies. For instance, participants became concerned about the emissions potential of a back-up diesel generator; however, this is a temporary solution and could provide crucial access to power in an emergency. This is a reminder, that while LCR is an important lens for co-evaluation of options, it is important that high-impact solutions are prioritized, and trade-offs considered.

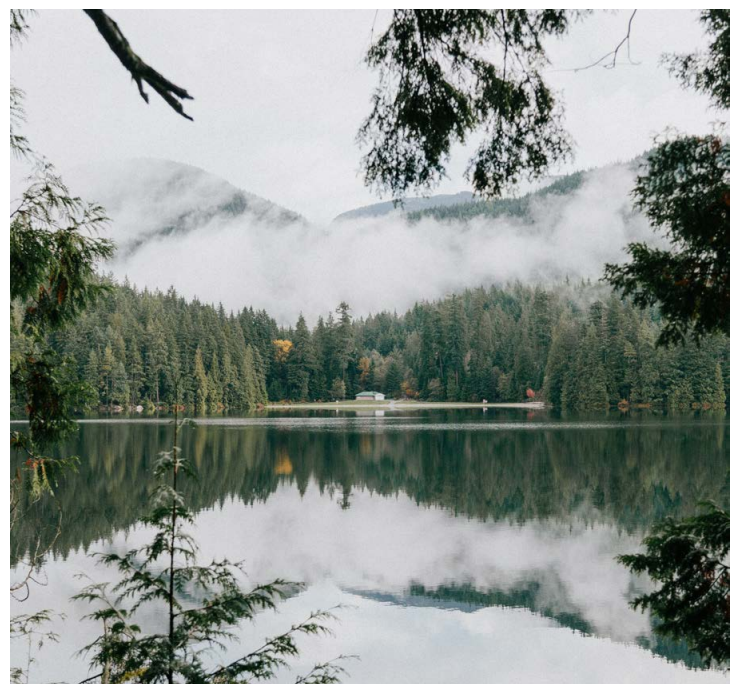
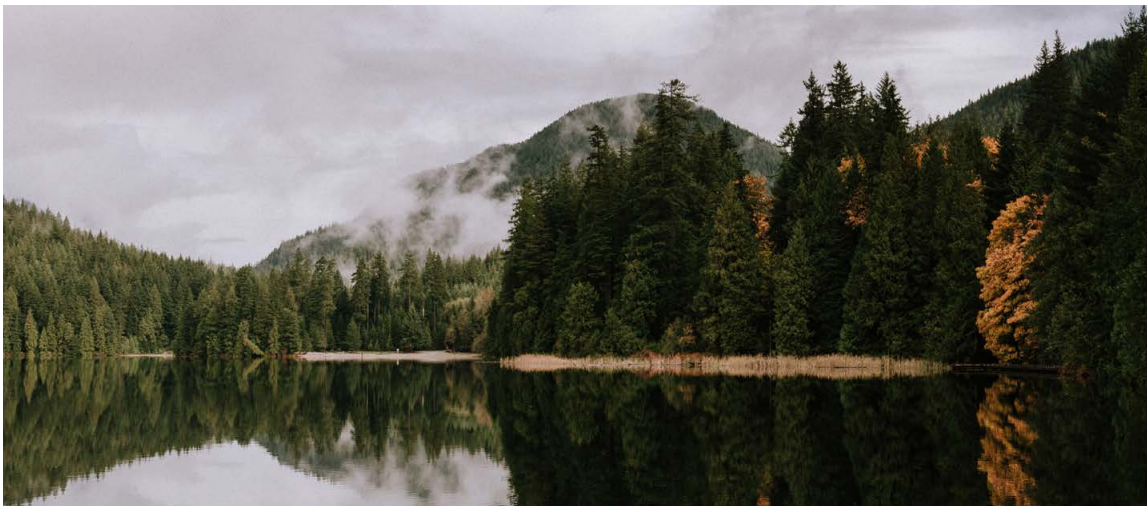


Figure 4. Port Moody's LCR Workshops Plan.



### ICABCCI'S ROLE: THE CHAMPION'S PERSPECTIVE

- Partnership with the ICABCCI team was leveraged to facilitate senior leadership buy-in
- Relationship with SFU and the ICABCCI research network contributes credibility to internal LCR efforts
- The ICABCCI project was used to communicate LCR concepts and identify appropriate technical resources
- ICABCCI team members provided ongoing advisory input and guidance for development of the climate change action plan



## 2.1.2 District of Summerland

### LCR Champion: Tami Rothery

The District of Summerland has a history of climate action work, but its emphasis has been on mitigation projects without any coordinated adaptation effort. The District faces a number of capacity and planning challenges unique to its Okanagan location and demographics (e.g., an older than average population, many on fixed incomes). These and other unique factors, including ownership of an electrical utility, provide the District team with a number of challenges and opportunities to advance LCR.

The champion's goal is to build on work that is currently underway, identifying key opportunities to coordinate and embed an LCR lens and criteria into strategic areas such as asset management and project prioritization planning, procurement policy development, a staff competency framework, and expansion of the District's climate action planning to integrate mitigation and adaptation.

## Key Summerland partners and participants involved in embedding LCR criteria into a business prioritization matrix

### Partners

- *The ICABCCI team:* worked collaboratively with the champion and the District's asset management consultants to build out their process and framework to include LCR by providing strategic insights, coaching, and research on an as needed basis.
- *Asset management consultants:* technical asset management advisors helped embed and operationalize LCR into the development of Summerland's project prioritization matrix.

### Participants

- *Procurement Director:* worked collaboratively with the team to embed LCR criteria in several key areas of corporate procurement.

## Key Outcomes

The Summerland champion found that taking an LCR approach to climate action resulted in:

- A streamlined approach to embedding LCR in multiple areas of municipal decision processes, building toward a comprehensive corporate LCR strategy
- Opportunities to bring climate action planning to different areas of the organization by using examples of co-benefits to communicate the value of LCR for different areas, including procurement, asset management, climate planning, and corporate strategy
- Embedding LCR in corporate work that is already underway, and presenting it as a framing exercise to current and future work, helped facilitate and expedite LCR uptake in many areas of municipal practice
- Work with ICABCCI and the peer-learning network helped build legitimacy through leveraging the ongoing research into LCR and associated best practices

## LCR Highlights

**LCR in asset management planning:** The champion focused on integrating LCR into the asset management planning process, integrating LCR language and criteria and embedding emissions and vulnerability reductions and co-benefits into the project prioritization decision matrix and business case process for all municipal projects over \$10,000.

**LCR in procurement policy:** The champion enlisted procurement staff to embed LCR concepts and language into various aspects of a renewed procurement policy, directly embedding LCR into internal procurement processes, and indirectly building LCR capacity within the community's partner networks and supply chains.

**LCR in staff competency frameworks:** The champion embedded terminology into these frameworks communicating the need for staff competency on climate action.

**Linking adaptation to the updated mitigation plan:** The champion requested that the District's mitigation consultants work with the ICABCCI team to incorporate high-level adaptation linkages with all mitigation actions outlined in the draft Community Energy and Emissions Reduction Plan (CEERP). This was an important step toward identifying LCR synergies, building the interest and capacity of mitigation specialists to identify adaptation synergies, and positioning the District to utilize funding in the near-term for a climate risk and vulnerability assessment.



Asset management focuses on identifying the stock and quality of existing public infrastructure to manage long-term, sustained service levels for community members. Incorporating LCR concepts provides a value-add to asset management planning by considering climate change impacts that influence infrastructure planning and management decisions.

Public procurement is an important government function that influences both internal organizational processes and the behaviour of community members and businesses. This provides an opportunity for municipalities to further embed LCR in procurement practices and align efforts across the organization to facilitate greater impact and the realization of co-benefits.

## ICABCCI'S ROLE: THE CHAMPION'S PERSPECTIVE

- Research support on LCR approaches for various projects
- Flexible advisory support and timely feedback for various projects
- Partnership with SFU instilled a sense of pride among internal staff and Council
- ICABCCI's provincial network provided credibility to the project and facilitated widespread staff buy-in for LCR integration

Working on LCR requires municipalities to adopt processes that reflect the need to integrate climate change actions; however, achieving comprehensive and enduring outcomes also requires a cultural shift. It is important that staff from conventionally siloed departments and areas of expertise understand their spheres of LCR influence in order for shared accountability to occur. Staff competency frameworks, training, and other human resource onboarding plans are useful opportunities to facilitate such cultural transformations.



ICABCCI first wave communities like Port Moody and Summerland are building LCR capacity within the consulting industry by directing consultants to work in an integrated way, build cross-disciplinary relationships, and promote the LCR concept. This highlights the power of public procurement, as well as the effectiveness of intrapreneurial leadership and its ability to promote changes in the professional consulting sphere.

### 2.1.3 City of Colwood

#### LCR Champion: Iain Bourhill

Colwood declared a Climate Emergency and introduced a Climate Emergency Plan in 2019, creating urgency for practical and expedited ways to account for climate action in the small, coastal community. The champion identified an opportunity to design and implement terms of reference (TOR) for an LCR climate implication section that could be applied to all planning and staff reports. This TOR will assess the potential impacts that major decisions have on GHG emissions and community resilience. The goal is to create alignment, expedite a comprehensive climate action planning approach, and seize opportunities to embed LCR into existing work and practice.



## Key Colwood partners and participants involved in embedding terms of reference for LCR into all planning and all staff reports to Council

### Partners

- *The ICABCCI team:* worked with the champion to provide strategic insights, coaching, and research on an as-needed basis.

### Participants

- *Council:* the champion got approval to generate LCR terms of reference to be applied to all reports going before Council.

## Key Outcomes

The Colwood team found that taking an LCR approach has:

- Streamlined limited organizational resources
- Identified a variety of co-benefits to frame the success of LCR initiatives
- Helped align frontline municipal staff with provincial government initiatives such as Clean BC

## LCR Highlights

### Integrate LCR into internal operations:

Emphasis is being placed on developing a new reporting practice in which an LCR implications section is a requirement for all departmental reports that go to Council, promoting more

informed climate-readiness decisions on an ongoing basis.

**Embed LCR criteria to enable access to key funds:** Embedding LCR planning into the City's new Climate Action Reserve Fund helps to direct finances to projects designed to reduce both climate vulnerability and emissions. This has led to a beach restoration project being re-examined using an LCR lens to better understand the estimates of emissions from trucking in sand over time versus other restoration options.

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Municipalities can embed vulnerability and emissions terms of reference and criteria within existing reporting processes in order to operationalize LCR and ensure it is applied consistently across planning and projects.

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Finance is an important lever that dictates municipal priorities and influences long-term viability and sustainability of initiatives. The LCR lens can be included in all planning requiring finance and funding decisions to ensure municipalities are considering adaptation and mitigation implications of their decisions over the short and long-term.

## ICABCCI'S ROLE: THE CHAMPION'S PERSPECTIVE

- The SFU relationship provided legitimacy to the LCR concept and credibility
- Flexible and ongoing advisory support



### 2.1.4 City of Nelson

#### LCR Champion: Kate Letizia

The City of Nelson has a long history of activity on the climate file; however, strategic policy and grassroots work in the community has focused mainly on mitigation and emergency management. Funded to develop an adaptation plan, the LCR champion is looking to build the LCR opportunity as a way to advance more integrated and comprehensive climate action opportunities for the City. The champion is using a participatory systems approach and has identified several areas to engage both city staff and the community in the co-creation of an integrated climate change action plan.



## Key Nelson partners and participants involved in co-creating an LCR climate change action plan

### Partners

- *The ICABCCI team:* worked with the champion to co-develop an LCR planning process, building upon funded adaptation plan development to include LCR workshop sequencing and provide strategic insights, coaching, and research on an as-needed basis.
- *Mitigation and adaptation consultants:* worked with Nelson to develop an emissions inventory and a risk and vulnerability assessment toward an LCR integrated planning process.

### Participants

- *Climate Action Working Group:* consists of the city manager and cross-departmental staff, and includes cross-sectoral partners such as Nelson Hydro and Interior Health.
- *Community Climate Action Lab:* comprised of a group of 16 people who applied/were chosen to represent a cross-section of the different sectors and interests that make up Nelson's community.
- *Climate action 'ecosystem' stakeholders:* key alignments with regional government and local non-profits, as well as First Nations and local businesses.
- *Public participants:* engaged through numerous public events, open houses, and online methods (e.g., surveys, ThoughtExchange).



## Key Outcomes

The Nelson champion found that taking an LCR approach to climate action planning has:

- Provided an opportunity to get vital input and expertise from departments and experts that have conventionally not been included in climate action planning (e.g., health sector, social services, youth leaders, tech sector, etc.).
- Demonstrated the need for a top-down and bottom-up approach to contribute value, contributing to a relevant “Made in Nelson” approach and plan with shared responsibility.
- Increased internal and external buy-in for climate action planning by using terminology and showcasing best practices that highlight co-benefits.
- Positioned LCR as a way to build upon past direct and indirect climate action work, reinforcing the ‘building-on’ effect by treating integration as an addition to existing plans and past work rather than as a replacement for them.

## LCR Highlights

### Comprehensive Climate Action Planning:

Through an extensive ‘Taking Stock’ exercise that involved interviews, research, systems mapping and engagement, the champion has identified hundreds of self-reported actions already occurring in Nelson to address climate change, including strategic plans, bylaws, infrastructure, research and outreach. The City and the community have been active on climate change, but they now need a more coordinated and bolder vision from which to integrate, fill gaps, and develop in a comprehensive manner.

### Establishment of a Community Climate Change

**Action Lab:** Public engagement has been a central component to the work being done, leading to initiatives like Nelson’s Climate Change Action Lab, a co-creation initiative designed to achieve widespread buy-in to the City’s LCR planning process and support the community to take increased action on climate change. The Lab has been an effective tool in reaching members of the community that do not traditionally self-select for climate events and has generated actions from a diverse set of stakeholders and residents, working collaboratively to increase impact.

The formalization of a working group provides effective direction and governance for integrated climate change action work. It is important to include a diverse set of staff and stakeholders in the working group in order to get sufficient input from multiple organizational points of view. This diversity also serves to improve outcomes and shared responsibility for the implementation of the integrated climate change action plan.

## ICABCCI'S ROLE: THE CHAMPION'S PERSPECTIVE

- Ongoing advisory and research support
- The SFU research relationship provided credibility to the LCR concept and integrated climate change action plan work
- ICABCCI’s peer network provided opportunities to leverage best practices employed by other BC communities

Community engagement is a crucial element in developing an integrated climate change action plan. It is important to allocate sufficient time to plan how to engage and communicate with community members throughout the project and scope levels of involvement and input required (see International Association of Public Participation framework). Once this is done, expectations should be set for how these inputs will be used in the broader planning process.

### 2.1.5 Villages of Silverton and Slocan LCR Champions: Hillary Elliott (Silverton) and Michelle Gordon (Slocan)

The Villages of Silverton and Slocan participate as one ICABCCI case community due to their proximity and small size. They, and three other local governments, are working with an external consulting team on asset management planning. The champions and consultants have identified the opportunity to integrate natural asset valuation and planning tools as a key LCR strategy in their asset management planning process. The two champions share an interest in creating LCR alignments in all future investment decisions, particularly as they relate to costly grey infrastructure, to optimize limited resources and capacity in their small communities.



## Key Silverton and Slocan partners and participants involved in embedding natural assets as an LCR strategy into the asset management planning process

### Partners

- *The ICABCCI team:* worked with the consultants to provide strategic insights, coaching, and research on an as-needed basis.
- *Asset management consultants:* technical asset management advisors helped to integrate concepts of LCR and the inclusion of natural assets in their asset inventory process. They are still working to embed natural asset valuation tools into the asset management plan and have introduced GIS software to better inform infrastructure-related decisions.

### Participants

- *Neighbouring communities:* the Villages are introducing LCR and natural asset evaluation and planning in the asset management planning work jointly acquired with three neighbouring communities.

## Key Outcomes

The Silvertown and Slocan team found that taking an LCR approach to climate action:

- Seized a collaborative opportunity with regional communities to capitalize on capacity-building benefits
- Streamlined key aspects of LCR and natural assets into their asset management planning, requiring fewer overall resources
- Allowed for climate action to be incorporated into other corporate activities, improving investment decisions and ensuring that climate action is a priority

## LCR Highlights

**Natural asset inventory in improved asset management planning:** Silvertown and Slocan looked at ways of incorporating LCR into their asset management planning approach. They used Geographic Information Systems (GIS) software to provide environmental and infrastructure

data. The champions and consultants also identified key natural assets as a useful strategy to embed LCR within their asset management planning. Valuation techniques are being considered to support investment planning.

**Importance of regional approaches to integrated climate change planning:** The champions are involved in a collaboration with three other communities from across the region. This has contributed to the joint procurement of the services of asset management professionals, and will, ideally, generate regional alignment for LCR planning work through natural asset protection and expansion. Communities can only control policy decisions within their jurisdictional boundaries, but are highly impacted by events, policies, and factors that reside outside these boundaries. Natural assets, for instance, including rivers, forests, streams, foreshores, aquifers, etc., must be protected and managed at the regional, or watershed, scale. Regional planning can contribute to a number of efficiencies, including sharing resources, reducing cost/time, and improving the quality of processes and outcomes.

Augmenting internal processes with LCR criteria embeds concepts of climate readiness into municipal strategy and operations. This includes areas such as updates and training for personnel (e.g., roles, responsibilities, behaviours, etc.), applying helpful technology (e.g., GIS), and other areas of the municipal decision-making process that help inform climate-ready investment planning and decisions.

### ICABCCI'S ROLE: THE CHAMPION'S PERSPECTIVE

- Provided ongoing advisory and research support and feedback
- Viewed as a 'friendly enforcer' to influence a collective of five municipalities, and their consultants, to include climate change and natural assets in asset management planning and implementation
- Helped consultants assess the impact of climate change on fixed assets, and areas to be included throughout their risk assessment process

A number of benefits arise from facilitating a regional approach to LCR planning, including many related to natural asset protection and expansion, which can help manage risk of current and future climate changes (e.g., working with communities along a shared flood path or coastline, watershed and aquifer planning, forest fire preparedness planning, etc.), while also sequestering carbon, avoiding construction and operational emissions from grey infrastructure, and saving costs into the future.

## 2.2 COMMUNICATING & INTEGRATING LCR – KEY LESSONS FROM PARTNERS

A workshop on LCR communications followed the presentations from partner communities.

Below are some of the key lessons learned from ICABCCI champions in first wave partner communities about communicating LCR within local government contexts. Working in small groups, participants discussed the effectiveness of

ICABCCI communications thus far and solutions for mobilizing LCR in practice.

The majority of participants agreed that the two most effective LCR communications tools provided by ICABCCI are:

1. The quadrant diagram (Figure 1), which showcases the opportunity to prevent contradiction and identify strategies that reduce vulnerability and emissions, promoting climate readiness and sustainability into the future.
2. The co-benefits table (Figure 3), which illustrates the additional benefits associated with integrated climate action and provides 'back-end' reasons for why and how it aligns with different priorities across the municipal organization.

ICABCCI's reports and other publications were also viewed as helpful and practical resources for providing best practice, real world LCR examples and research insights.



### 2.2.1 Overcome the perception of competing priorities

**Challenge:** A few of the first wave champions encountered internal perceptions that LCR work may conflict with existing processes and priorities and compete for limited resources. This challenge is largely rooted in lack of understanding of the LCR approach and the siloed nature of funding within communities.

**Solution:** Spending the time to explain the concept and the benefits, including the co-benefits, to key actors was viewed as crucial. For instance, gaining buy-in from the City Manager, senior leadership, and departmental colleagues by having individual discussions was deemed important.

The following strategies resulted in greater stakeholder buy-in to LCR work, allowing staff to more successfully embed LCR across the organization:

- Use familiar terminology referencing emissions and vulnerability reduction, and/or the minimization of risk to the community and/or capital projects.
- Emphasize the potential to streamline goals and benefits and the ability to piggyback on existing efforts.
- Showcase how LCR relates to departmental work and how it could be embedded across different municipal functions.
- Reframe LCR in the context of existing initiatives, highlighting existing or ongoing climate-related work, and showcase how the use of emissions, vulnerability, and co-benefit criteria could be streamlined.
- Use current wildfire and flood events to create awareness among staff about the urgency and benefit of applying an LCR lens that builds community resilience over time, while also attending to municipal emissions targets and goals.



### 2.2.2 Don't get 'hung up' on technical terminology or jargon

**Challenge:** The technical nature of the LCR concept is not always easily understood and can lead to confusion/intimidation on the part of staff, senior officials, Council and/or external agencies.

**Solution:** Many first wave champions found that the most successful way to introduce the LCR concept into the organization was to use the term 'LCR' as a framing device but to complement it with simplified language related to emissions reduction and community resilience-building, tailoring the rationale for why both are important to each department and role within the organization.

- Use language and communication that aligns with existing language/culture.
- Determine key messages for different audiences (e.g., Council, public, staff) and target communications to each using clear and consistent language.
- Focus on ways to characterize LCR outcomes in terms of existing work, rather than on use of specific terminology.
- Use the co-benefits table to help explain how climate action fits within the roles and responsibilities of departmental and municipal priorities.
- Use tangible, relevant LCR examples frequently and often; ACT's LCR Interventions report and ICABCCI's Natural Asset Valuation report provide examples.

### 2.2.3 Build legitimacy through best practice and partnership

**Challenge:** A number of champions from partner communities stated that partnering with ACT and the ICABCCI network helped to build the legitimacy needed when introducing a new concept like LCR.

**Solution:** ICABCCI champions found that partnering with an academic institution helped build the legitimacy for LCR integration and planning. For many partner communities, there was a sense of pride from being involved in leading-edge research and practice. The following served to improve widespread buy-in among staff and relevant intermediary organizations, such as health authorities:

- In many cases it was important to demonstrate that integrated climate action is a leading-edge approach, identified as a priority in research.
- Emphasize that the community is part of a province-wide peer-learning network, with other communities who are building LCR capacity, contributing to best practice development, and leveraging learnings through the network.
- Use the ACT/ICABCCI brand in internal LCR communications to demonstrate that the work is evidence-based and leading-edge.

## 2.2.4 Navigate the community's unique LCR pathway

**Challenge:** The contextual nature of the LCR approach means there are diverse LCR entry points. Each community must seize its own opportunities and, becoming an LCR champion, navigate its own LCR pathway based on strategy within the conditions, personalities, and resourcing particularities of each municipal organization.

There is no linear pathway to integrate LCR into practice; timing and opportunity are the key ingredients. Entry points ranged from piggybacking on asset management, procurement, and other internal corporate planning processes.

The most obvious opportunity seized by two first wave case communities was to integrate LCR into their climate action planning processes. Funding for an LCR process was an obvious limitation. An LCR planning process requires periods of sustained engagement, support from multiple departments, and input from technical experts, all of which take time and resources over an extended period.

**Solution:** Where the development/update of an adaptation and/or mitigation plan was underway, these communities reached out to funders, including the Federation of Canadian Municipalities, to request extensions to deadlines in order to develop more comprehensive, integrated climate action plans. Aligning adaptation and mitigation planning into one process helps save resources, capacity, and time; these communities did “more with less” on limited budgets and resourcing, and under other unique political and/or organizational challenges. While each community's LCR pathway is unique, there are a number of stand-out lessons that partners agreed are applicable to all communities:

- Use integrative and collaborative language when identifying a consulting team.
- The City of Port Moody found success in developing an RFP that emphasized LCR planning and a requirement to work with the City and ICABCCI on “co-development” of an integrated plan, which encouraged a triad partnership, resulting in innovative planning and sequencing.
- Build LCR criteria into ongoing planning activities such as corporate strategy, staff reports, and asset management in order to embed the approach within the organization.
- The District of Summerland now has LCR criteria embedded into its business prioritization framework for all projects over \$10,000, requiring accounting for emissions and vulnerability reduction and key co-benefit opportunities.
- Focus on ways of communicating the value LCR brings to current initiatives; identify key co-benefits and relate them to key mandates and priorities.
- Frame LCR as a lens that can be applied to all decisions, accounting for emissions and vulnerability reduction and co-benefit opportunities, but acknowledge that in the co-evaluation of best available options not every decision or action will necessarily be an integrated, LCR solution. The key priority is to ensure that decision options and solutions have been co-evaluated using LCR criteria, in order for potential synergies and trade-offs to be made transparent, strengthening decision-making and investment processes.
- Find ways to create LCR ‘wins’, big or small, and enrol others to develop ongoing momentum and success.

## 2.2.5 Wide, inclusive engagement of internal and external stakeholders is key in the development of LCR plans

**Challenge:** LCR climate action planning requires comprehensive collaboration to generate awareness and develop buy-in across the municipal organization and among community residents. Early, effective communications and ongoing engagement among internal and external stakeholders is critical.

**Solution:** The two first wave champions focused on LCR climate action planning succeeded in attracting and retaining staff engagement across the organization as well among key community stakeholders by building excitement around the development of a comprehensive and collaborative approach that promises to do things differently, including the following partner examples:

- Ensure the support of the City Manager and other senior leadership.
- Engage internal staff as early on as possible.
- Develop cross-departmental working groups with relevant staff and sectoral partners, such as health authorities, utilities, etc., to generate support and widespread input into the co-development and the shared implementation of the integrated climate action plan.
- Develop a public engagement plan with key players and relevant actors in the community, for example through a Climate Action Working Group.
- Develop approaches that allow for exchange and activities, especially in the LCR framing process; it is important to build understanding of the LCR concept in order to establish an 'integrative mentality' throughout the process.
- Ensure that participants understand timelines, goals and responsibilities throughout the process to encourage and maintain momentum.
- Remember that meaningful and effective stakeholder engagement takes time.
- Engage with departments and staff that are not conventionally engaged in climate change work, such as finance, economic development, and other departments. The unique insights that come from collaborating with non-traditional departments and staff can be surprisingly helpful.
- Learn to communicate LCR in targeted ways, highlighting its relevance to each unique function within the organization.
- Using the ICABCCI co-benefits table [see page 9] helps to communicate LCR and demonstrate its value across departments.





## 2.2.6 Use benchmarking and appropriate metrics to guide and evaluate LCR outcomes

**Challenge:** A business case needs to be made to demonstrate to senior officials that LCR investments made today will contribute significantly to local government services, operations, and investment planning over time. Approaches that evaluate and quantify LCR-related costs, benefits, and co-benefit outcomes are not yet well developed, and metrics relating to LCR currently rely on adaptation and mitigation metrics of success/effectiveness; furthermore, the nature of much climate change work requires time to observe results from past work as climate change unfolds, relying on understandings of benefits in savings and/or avoided costs over time. It will therefore take years of monitoring and evaluation to determine some aspects of the effectiveness of investments made today in LCR; however, credible economic research, from the 2006 Stern Report to the 2019 report of the World Resources Institute, state that investments made now to curb the effects of climate change will lead to significant cost savings over time (shifting to low carbon technologies) and cost avoidance over time (minimizing the future impacts and damages of climate change). ICABCCI's approach to identifying additional LCR co-benefits may have immediate resonance in the interim, but more detailed monitoring and evaluation will be required.

**Solution:** A number of community champions indicated that this challenge is not unique to LCR, and that isolating and identifying metrics for almost all initiatives is complex. A short-term solution is to emphasize co-benefits. Staff, officials, and Council all understand the various dimensions of solutions that address multiple priorities and the importance for building a resilient community. Showcasing how

integrated climate action can help address these priorities is key. Partner examples include:

- Focus on communicating direct benefits of LCR, as well as community co-benefits.
- Demonstrate that integrated climate change saves money and time, and, if done well, provides a wide array of benefits to the community that cannot be solely evaluated using traditional environmental metrics.
- Better understand the diversity of metrics used to evaluate success across the organization in the short and long-term, and which apply to co-benefits, to begin the process of benchmarking and evaluating LCR success over time.
- Avoid using too many metrics, as this can overcomplicate and dilute results.
- Choose indicators that are sensitive enough to show changes over shorter time scales, but not so sensitive that they over-fluctuate over the longer term.



## 2.2.7 Demonstrate what LCR integration looks like for your community

**Challenge:** The conventionally siloed nature of climate funding and planning means that some communities have tended to over-represent the need for either mitigation or adaptation. Showcasing the ways that mitigation planning and actions could be hindered or even contradicted without adequate attention to the projected risks and impacts of climate over the same timeframe can effectively communicate the importance of integrated planning. City progress has been slowed due to the need to perform a risk and vulnerability assessment prior to co-evaluating adaptation and mitigation planning options. However, taking a slow and steady approach will help to deliver the best possible strategies for allocating investments and more effectively meeting the City's greenhouse gas emission reduction targets over time.

**Solution:** Partner community champions noted the importance of using specific community examples and lived experiences of disaster events (e.g., wildfires, floods, slope slippage, etc.) to communicate impacts that are projected to increase in frequency and magnitude over time. Doing so illustrates that the need to transition toward low carbon futures is not only about reducing global emissions (of which a city/community is only a drop in the bucket) but is also motivated by overall community resilience into the future, in the form of safe, healthy, energy-secure communities.

A few successful strategies include:

- Through workshops or open houses, have stakeholders take time to consider the linkages between a number of past and current climate change initiatives and the problematic and/or reinforcing effects for integrating adaptation and mitigation work.
- Champions identified areas in which the benefits of integration are rarely considered, e.g., emissions associated with stormwater management; wildfire contributions to emissions; development permit area (DPA) zoning and position of assets in high risk flood/wildfire zones (e.g., LEED buildings, transportation corridors, EV charging networks, etc.); the benefits of electric vehicles for reducing low level ozone during heat events.
- Frame adaptation efforts as upgrading community systems to withstand changes that are already underway, and at the same time identifying ways to build in practical low carbon technologies, tools, and approaches that move communities toward their emissions reductions targets.
- Introduce LCR planning to encourage stakeholders to 'think in terms of carbon' and better understand the adaptation implications of their work.
- Use past and current climate change events in the community to improve understanding as to why risk and vulnerability comprehension is important.

### 3. ICABCCI'S SECOND WAVE CASE COMMUNITIES

At the end of the workshop, ICABCCI's second wave case communities were selected from the remaining eight partner communities based on emerging opportunities to introduce or embed LCR. The communities are:

- **City of Surrey:** update and embed adaptation and mitigation plan actions across departments and align with the Master Transportation planning process.
- **City of Prince George:** integrate and synthesize recently updated adaptation and mitigation plans into one LCR plan, emphasizing big, cross-departmental, cross-sector wins.
- **City of Revelstoke:** develop an LCR plan during an ongoing mitigation planning update, and align with Official Community Planning update process.
- **Tsleil-Waututh Nation:** integrate LCR into ongoing Comprehensive Community Planning and other strategic initiatives.

The ICABCCI team will work to support these second wave case communities while continuing to work alongside the first wave communities, co-creating and documenting their diverse LCR planning-to-implementation pathways. Third wave communities will be onboarded in the fall of 2020.

The overall goal is to synthesize community partners' learning into a LCR framework of action that communities of all sizes and at all scales of climate action will be able to tailor to their own contexts. ICABCCI is performing the research and practice necessary to mobilize and accelerate effective, evidence-based climate action at the local scale.

### 4. NEXT STEPS FOR ICABCCI

- Work with first and second wave communities on their LCR projects in order to build out key lessons and resources and mobilize the results through reports, webinars, workshops, peer-learning exchanges, publications, and conferences.
- Foster the Canada-wide peer-learning network by keeping interested communities, funders, consultants, and regulators connected, and providing ongoing newsletters, findings of interest, funding opportunities, announcements, and other information.
- Facilitate two ICABCCI online events in Summer and Fall 2020, including local government learnings gained during the COVID-19 pandemic and key considerations for equity and resilience planning moving forward.
- Develop and finalize tools and resources that will help support the work of case communities in embedding LCR across their organizations, including an LCR climate action planning guidance document, and LCR communications resources for Mayors and Councils, with more to come.

## **ACT** Adaptation to Climate Change Team

ACT (the Adaptation to Climate Change Team) in the Faculty of Environment at SFU brings leading experts from around the world together with industry, community, and government decision-makers to explore the risks posed by top-of-mind climate change issues and to identify opportunities for sustainable adaptation.

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