



2013 COMMUNITY EXCELLENCE AWARDS  
Category Worksheet

LEADERSHIP & INNOVATION

Climate Action

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**Name of Local Government:**  
City of Castlegar, in partnership with Elkford, Kimberley, Roseland

**Project/Program Title: Climate Model Subdivision and Servicing Bylaw**

**Project Summary Paragraph**

The City of Castlegar, City of Kimberley, City of Roseland, and the District of Elkford partnered with the Columbia Basin Trust to develop a Model Subdivision and Servicing Bylaw to reduce their community's sensitivity to climate change and enhance their capacity to respond and adapt to a changing environment. The resulting bylaw is a 'model' bylaw that draws upon Best Management Practices from Canada and around the world and that can be tailored to the needs of individual communities.

**Project Analysis**

1. CLIMATE

Please describe how the program/project contributes to the achievement of one or more of your [Climate Action Charter](#) goals:

- i. Corporate carbon neutrality:
- ii. Using your community energy and emissions inventory:
- iii. Creating complete, compact, energy efficient rural and urban communities:

Throughout its development, all aspects of the Model Subdivision and Development Bylaw were viewed through a sustainability lens.

The resulting bylaw incorporates existing best practices for the economic, environmental, and social sustainability of new subdivisions and existing developments. To achieve this, it details guidelines and recommendations to:

- design subdivisions with the objective of creating compact and sustainable communities;
- ensure infrastructure and landscaping enhances resilience to potential climate change impacts;
- ensure investments in infrastructure are sustainable over the entire life/service cycle of Infrastructure;
- reduce energy consumption (for example, using tree retention to improve energy efficiency created by tree shading);

- reduce water consumption (for example, requiring new subdivisions to have an adequate layer of topsoil); and
- protect natural water courses.

## 2. PROCESS

Please provide a brief outline of the steps involved in the program/project and the status of each step.

In July, 2012, the Columbia Basin trust worked with the partnering local governments to develop a Request for Proposal (RFP) for the development of a Model Subdivision and Servicing Bylaw. The bylaw was to incorporate best practices from around the world to enhance resiliency to the impacts of climate change.

Following completion of the model bylaw, the successful applicant was to then work with each participating local government to tailor the bylaw to their individual needs.

In October, 2012, ESSA Technologies LTD. was engaged to work with the partnering organizations to develop the model bylaw.

The project commenced with a teleconference where staff from the participating local governments identified key issues that the bylaw should address. Throughout its subsequent development, ESSA Technologies frequently communicated with the partner organizations via teleconference to discuss their progress and obtain feedback.

The partnering organizations were presented with a draft bylaw for review in March, 2013, with the final version being delivered in May.

Staff from each participating local government are now working with ESSA Technologies to finalize their Subdivision and Servicing bylaw by incorporating community specific content.

## 3. RESULTS

Tell us how your submission addresses climate change issues in terms of reduced GHG emissions and /or supports your community to prepare for the impacts of climate change.

All components of the Model Subdivision and Servicing Bylaw were evaluated with respect to addressing and mitigating the impacts of climate change, including:

- changing freeze/thaw cycles;
- increased rain on snow events;
- increased frequency and amount of extreme precipitation events and associated flood risk;
- increased wildfire risk;
- slope failure; and
- impacts to terrestrial plant species.

To address these issues, the bylaw includes performance-based guidelines and recommendations for, but not limited to:

- water supply and distribution;
- wastewater management;
- stormwater management;
- roads and pathways;
- underground and overhead utilities; and
- street lighting.

#### 4. LEADERSHIP

How does the project reflect leadership and excellence in the advancement of climate action?

During the initial stages of contemplating the project, all participating organizations enthusiastically embraced the opportunity to take a leadership approach and produce a model bylaw that could be passed on to other local governments.

The research included searching out many of the most progressive subdivision and servicing bylaws from Canada and around the world and compiling design guidelines that reflect the climate change issues confronting mountain communities in the Columbia Basin.

#### 5. ECONOMICS

a. How was the project a good use of budget and resources?

Each of the partnering local governments has a population of less than 10,000 residents and the cost of such an in-depth analysis of best practices and local applications would not have been practical without collaboration.

Financial contributions from each partnering local government were pooled with the substantial financial assistance offered by the Columbia Basin Trust. The resulting economies of scale made it feasible to produce a leading-edge subdivision and servicing bylaw that is tailored for each community.

b. How does the project encourage economic sustainability? (*e.g. life cycle analysis, internalizing costs and alternative financing, economic instruments*)

By encouraging a balanced approach to the installation of new infrastructure, the bylaw ensures that an undue concentration on the initial cost does not have an adverse effect on the overall life cycle costs.

New infrastructure is to be designed to ensure its resiliency to the impacts of climate change and, thus, minimize the cost of future maintenance. For example, to ensure the longevity of new water pipes, the bylaw requires that, prior to installation, a consulting professional provide a corrosive soils analysis and a report detailing the life expectancy of the materials.

#### 6. ENGAGEMENT

How does the project encourage engagement? (e.g. stakeholder engagement, public participation, equity and diversity, knowledge sharing, capacity building, community identity and marketing)

Throughout the project, there were many teleconference calls between the consultants and partner organizations. These discussions not only provided the consultant with information specific to the region, but also provided an avenue for local governments to share knowledge. This approach fleshed out many concerns and issues that, most likely, would not have emerged without this collaborative approach.

In addition, the teleconference calls often included representatives from local governments in the region that were not immediate 'partners' in the project, such as Golden. Communities such as this will benefit from this project by receiving the finished bylaw and they contributed to the process by sharing their knowledge and experience.

## 7. INNOVATION

What makes your program/project innovative?

The Model Subdivision and Servicing Bylaw draws upon some of the most progressive subdivision and servicing guidelines from around Canada and the world. The fact that it can be tailored by all communities in the region represents a truly innovative approach to ensuring that future development and infrastructure in small communities is completed to a world-class standard.

## 8. TRANSFERABILITY

How is this program/project transferable to other local governments?

The resulting model bylaw will now be distributed to other communities that are experiencing similar challenges. Using it as a template, they will be able to tailor the bylaw to reflect their own specific needs.

Throughout the model bylaw there are numerous text boxes that provide details and source information on the most leading-edge practices and policy. This is an invaluable resource for local governments as they can evaluate this information and tailor it to the specific needs of their own community.

## 9. KNOWLEDGE SHARING

What helpful advice would you share with other communities looking to embark on a similar project?

Prior to commencing this project, all involved organizations had done a significant amount of work to better understand the climate change projections in their area and the potential impacts. This was essential to developing a subdivision and servicing bylaw to address the issues that had been identified.

## 10 Tell Us More

This project illustrates how small local governments can work together to address climate change in a forward looking manner. By pooling funds and staff resources, the four local governments were able to access cutting edge research and apply that research to projected climate changes on their development standards. By creating the model, other local governments (large and small) can adapt the model in a review of their development standards.

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