



NELSON

Wildfire by-laws to regulate new home construction and community landscaping

By Sophie Guilbault

Source: City of Nelson

THE SCIENCE

One way local governments can play a significant role and provide leadership in reducing wildfire risk for communities is through by-laws. Indeed, several municipalities have been relying on tools, such as development permits and municipal by-laws, to control new developments in the wildland urban interface. Several local governments across Canada now include specific requirements to access development permits, which can include FireSmart recommendations related to fire resilient building materials and the type of landscaping allowed around property. This type of local regulation can be used to combine management of zoning, site planning and minor variants into a single process.

THE TRIGGER

The City of Nelson has approximately 10,000 residents and is located in the Southern Interior of British Columbia in the Selkirk Mountains. Located in the wildland urban interface, the city tends to experience hot, dry summers and is situated in a region that regularly experiences wildfires. When asked what prompted the municipality to take action to reduce wildfire risk in the area, Len MacCharles, Nelson's Fire Chief, mentioned that both the local government and residents of Nelson have been aware of the fire risk faced by their community for quite some time. "There has been a real step forward at the provincial level in recent years with the Province of British Columbia supporting municipalities in their efforts to develop wildfire risk reduction strategies," said Chief MacCharles. With the support of the province, Nelson undertook development of its first Community Wildfire Protection Plan in 2009 and then again in 2016 to better understand various risk factors and key vulnerabilities. The 2016 plan allowed the City to identify a number of priorities and develop action plans, including working closely with the Regional District of Central Kootenay and British Columbia Parks.

THE APPROACH

The 2016 plan identified a number of things the community could take action on. One of the many initiatives that came out of the Community Wildfire Protection Plan was the need to update the city's by-laws that control development in the wildland urban interface and regulate landscaping in other parts of the city. More specifically, the portion of the by-law focused on new buildings and structures located in the interface mandates the use of specific construction features, building materials and landscaping practices to reduce the likelihood of ignition from a wildfire. As set out in the FireSmart Homeowner's Manual, the by-law established by Nelson requires no combustible material within 10 metres of new homes, reduced combustible materials within 10 to 30 metres with trees spaced at least three to six metres apart and specific requirements for reduced combustibles 30 to 100 metres from each new home. In terms of building materials, the City mandates the use of fire-resilient roofs with screened soffits and specific materials for siding such as masonry, stucco, fibre-cement board or pre-finished metal sheeting. The City also expanded its requirements for windows, chimneys and decks in favour of materials known to provide better wildfire protection.



**CITY OF NELSON BYLAW
PROHIBITS PLANTING OF CONIFEROUS PLANTS**

Excerpt from the City of Nelson *Off-Street Parking and Landscape Bylaw No. 3274*

**General Landscaping Requirements
(Amended by BL3450, 3459)**

(1) The following general landscaping regulation shall apply to all properties within the City,

effective August 12, 2019:

- a. No new or additional coniferous evergreen trees/plants, such as junipers and cedars, are to be planted within 1.5 metres of a dwelling unit, principal or accessory building as well as other structures such as decks.

**Features of
FIRE-RESISTANT plants:**

- Moist, supple leaves
- Minimal dry wood and tendency not to accumulate dry materials
- Water-like sap with little to no odour
- Low amount of sap or resin material



**Features of
HIGHLY FLAMMABLE plants:**

- Contain fine, dry, material within the plant
- Plant stem, branches or leaves contain volatile waxes, terpenes or oils
- Leaves are aromatic
- Gummy, resinous sap with strong odor
- Loose papery bark



See nelson.ca for more information

Figure 20: An informational brochure on the by-law developed by the City was prepared for residents. (Source: City of Nelson)

While the most vulnerable areas of the City of Nelson are located in the wildland urban interface, it became clear to fire officials and planners in Nelson that all areas of the city were at risk of loss due to wildfire. Given that most wildfires spread via flying embers, there is potential for fire to reach all areas of the community. As such, it was determined that specific landscaping requirements would be implemented throughout the city to reduce the risk of easily combustible vegetation, such as coniferous plants that could ignite from a hot ember being planted right next to structures that would transfer fire from the plants to the building.

Enforcing the landscaping portion of the by-law around existing properties can be challenging at times but Nelson’s Fire Department developed several strategies to increase awareness of the by-law among residents of the city. For instance, fire officials reached out to nurseries and retailers that sell trees to homeowners across the

city and asked that they hand out cards to their customers that provide information about the by-law and instructions on appropriate planting locations for the item being purchased. In addition, Nelson's fire department continues to promote education around FireSmart strategies that can be easily implemented around homes to increase fire-resilience around the city.

THE OUTCOME

The collaboration that took place between Nelson's Fire and Planning departments led to the development and implementation of a by-law that has the potential to reduce wildfire risk faced by new properties in the years to come. Since the adoption of the by-law for new construction, six new homes have been approved with the new building and landscaping requirements. According to Natalie Andrijancic, Senior Planner for the City of Nelson, the new approval process has been running smoothly so far with no major concerns expressed by property owners and building professionals.

The development by-law mentioned above only represents one element of the overall strategy in place to reduce wildfire risk in Nelson. The City's Fire department has also been participating in community events to educate residents about wildfire risks and is continuing to develop partnerships with wildfire experts, neighbouring property owners, the Regional District and B.C. Parks to develop further risk mitigation strategies and opportunities.

A WORD FROM NELSON

When asked what advice he would give to other communities interested in adjusting their development by-laws to reduce wildfire risk, Chief MacCharles mentioned that what made this initiative a success in Nelson is the strong collaboration that took place between the fire and planning departments. "Having open lines of communication between our two departments and taking the time to educate ourselves on best practices with the support of wildfire experts allowed us to develop a meaningful by-law for our community," said Chief MacCharles. Beyond the strong collaboration that took place between the two municipal departments, the financial contributions offered by the provincial government to support wildfire risk reduction initiatives has made a big difference for the community.