



LOGAN LAKE

Protecting homes through the installation of roof sprinklers

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Source: District of Logan Lake Facebook Page

THE SCIENCE

Communities located in the wildland urban interface may face an even greater risk if there are limited firefighting resources available in the area. This problem can be exacerbated when local firefighting resources are mobilized to support fire suppression efforts in other communities during large-scale events, a concern that has been more evident in recent years. In addition, communities located in remote or isolated areas can be more difficult to reach if there is only one access road to get to the area. Outside assistance may fail to arrive in a timely manner, increasing the risk of loss and damage. The unique challenges faced by remote municipalities call for innovative wildfire mitigation tools and programs. For example, the District of Logan Lake pioneered the approach of a community risk assessment, installation of rooftop sprinklers controlled by local fire professionals, and residential assessments maintained in a database that informs local fire response.

THE TRIGGER

The District of Logan Lake is nestled into a forested area in the mountains of south-central British Columbia and is a leader in developing and implementing programs to reduce wildfire risks. In 2003, the Okanagan Mountain Park Fire forced the evacuation of approximately 27,000 residents across the City of Kelowna. The District of Logan Lake sent firefighting resources to help out but found themselves affected by a few fires while they were operating with reduced resources. The fires were controlled by local firefighters, nevertheless this event triggered a reaction from the District's council, who started looking into local wildfire protection options. In 2003 the District developed the first community wildfire protection plan in British Columbia.

THE APPROACH

The initial phase of the plan was implemented in 2004, before the creation of FireSmart Canada. The Community Forest Corporation was created to control the community forest in a way that would mitigate wildfire risk. More recently, the District started looking at measures that could be implemented to protect individual households. Logan Lake implemented the rooftop sprinkler program, an initiative partially funded by the municipal government which allows homeowners to purchase a rooftop sprinkler at the cost of \$47 and have it installed by the fire department at no cost. Rooftop sprinklers are devices installed on the roof to wet down the building and its immediate surroundings in the event of a wildfire. The building is less likely to ignite as a result of flying embers or a nearby fire. While the sprinklers are installed on homeowners' property roofs, they can only be operated by the fire department. To ensure that the sprinklers are not used by untrained professionals, the fire department stores the hoses associated with each sprinkler and connects them should a fire risk arise. In addition, if the sprinklers have to be used, the fire department first accesses the property and closes vents and chimneys to reduce the risk of water damage.



Figure 23: Rooftop sprinkler used in Logan Lake. (Source: District of Logan Lake)

When installing rooftop sprinklers, the fire Department conducts a FireSmart assessment of the property they are working on. Following the assessment, they share the results of their observations with homeowners along with recommendations on how to reduce fire risk for their property. Homeowners have the opportunity to implement the recommendations and get reassessed by the fire department if they wish to do so. The information gathered during the FireSmart assessment is entered into a GIS database by the fire department. Having access to levels of risk at the property level allows local firefighters to have a greater understanding of which properties might be more vulnerable if a wildfire was to occur in the community.

THE OUTCOME

In 2013 Logan Lake became the first FireSmart community in Canada to be recognized. Since the launch of the rooftop sprinkler program, 250 rooftop sprinklers have been installed in the community, which represents approximately one third of all homes. The fire department also offered a community FireSmart employment program for youth for wildfire mitigation on forest land, where participants learn

about mitigation strategies such as tree trimming and debris removal. Once the Community Forest Corporation was operating at full capacity, it began to support the program along with the Canada Jobs Program. The District of Logan Lake has a strict backyard burning policy where residents interested in backyard burning must first apply for a permit, which is allocated based on risks and weather conditions.

Logan Lake recently launched a public emergency smartphone app which provides updates to local residents about emergencies such as wildfires, flooding, storms, road closures and chemical spills. The intention behind the app is to send out evacuation notices in real time. When asked to comment about the app developed by the municipality, Dan Leighton, Fire Chief of the District of Logan Lake, responded that “During an emergency, it is difficult for residents to get quick information. The app developed by Logan Lake sends out notifications in real time, sharing information on road closures and alternative routes. In certain situations, these updates could be sent every 15 minutes. We are hoping that this resource will become the main source of information for residents during emergencies.”

A WORD FROM LOGAN LAKE

When asked what advice he would provide to other communities interested in implementing local wildfire mitigation measures, Chief Leighton noted that “Any community facing a wildfire threat should be looking at all available initiatives. The rooftop sprinkler program is a small part of the big picture, but it represents a great option for rural areas, especially in cases where people don’t have insurance or other ways to protect buildings.” Chief Leighton emphasized the need to develop a comprehensive approach to reducing wildfire risk that is not limited to rooftop sprinklers, but that also includes FireSmart assessments and new technologies that may be developed to help communities in the future. “Sometimes it’s the simplest things that can help protect people and their homes. This is why it’s important to be looking at all the ideas,” said Chief Leighton.