



BOTWOOD

Wildfire community hazard and risk assessment

By Sophie Guilbault

Source: Town of Botwood Facebook Page

THE SCIENCE

Before implementing comprehensive wildfire risk reduction strategies in municipalities, it is important to understand the hazard and the areas of vulnerability inside and around the community. Conducting a Community Hazard and Risk Assessment helps identify specific actions required to improve preparedness and reduce wildfire risks faced by the community. An Assessment allows communities to determine the hazard level in a specific area by examining the wildland fuel complexes that could support combustion. The vulnerability of these wildland fuel complexes is determined through the type of vegetation, its arrangement, volume, condition and location. Once this portion of the analysis is completed, the overall wildfire risk, which represents the likelihood of a wildfire igniting through natural or human causes, can be estimated, and would include areas in the community that are particularly vulnerable and could benefit from risk mitigation actions.

THE TRIGGER

Botwood is a town of almost 3,000 people in north-central Newfoundland. It is located on a natural deep water harbour. Beginning in 1908, the community provided a critical transportation link for the pulp and paper mill located at Grand Falls. Botwood is surrounded by water to the North, East, and South, and by a large forested area at its western boundary. A number of major wildfires were experienced in the region near the community over the past forty years, with most occurring during spring and fall, when there is increased activity in close proximity to forested areas. In 2018, the Botwood Fire Department invited representatives from FireSmart Canada to deliver a public presentation on wildfire assessment, which led to the implementation of risk reduction measures.

THE APPROACH

Following the FireSmart presentation, the Town conducted its own self-assessment based on the information that was communicated. The Town decided to launch work toward FireSmart recognition for the community and invited the organization to conduct a thorough Community Hazard and Risk Assessment to identify which areas were more vulnerable and required attention. The assessment was completed and came to the conclusion that while the community had many low-risk areas, there were several opportunities to conduct mitigation measures in higher risk portions of the municipality. The highway located along the community's western boundary serves as a fire break by interrupting fuel stands. It also facilitates the work of firefighters by providing an access point from which they can engage in fire suppression. The water bodies surrounding the rest of Botwood may serve as an abundant water source that may be used to suppress potential wildfires.

Following the Hazard and Risk Assessment, the community, with the support of FireSmart Canada, then proceeded to develop a roadmap to complete the



Figure 8: The Town of Botwood invested a lot of time raising community awareness around FireSmart strategies that can be used to reduce wildfire risk in the community. (Source: Town of Botwood Facebook Page)

recommended mitigation measures. The major mitigation actions resulting from the assessment and roadmap included a combination of vegetation management activities, improved operational capacities and public awareness events.

THE OUTCOME

Upon completion of the assessment, the analysis as well as a roadmap to complete the recommended mitigation measures and raise awareness about wildfire risk within the local population was presented to the Town. Several mitigation measures have been completed by the community and more are underway. For instance, roadside debris has been and continues to be removed and trees were cut back away from the community in areas of high risk. The Town is also working in collaboration with the province to reduce wildfire risk along provincial roads in more vulnerable areas.

In addition to the debris removal and tree cutting, the Town is working on its operational preparedness should a wildfire occur. For instance, the municipality has gone through the process of evaluating the performance of its fire hydrants and is currently working toward replacing them with new ones that can carry higher volumes of water to assist with future firefighting. The Town has also established a

new street numbering system to ensure streets are numbered in a clear manner to facilitate the response process if emergency personnel are brought in from out of town.

A lot of time was invested to raise community awareness around wildfire risk and FireSmart strategies that can be used to reduce fire risk around properties. For instance, Botwood has started hosting an annual Wildfire Community Preparedness Day in partnership with the RCMP, first responders, forest and land civil servants and FireSmart Canada representatives, where information about wildfire risk is communicated to the public. The municipality also hosted information sessions at the public library to engage homeowners in voluntary wildfire mitigation activities by teaching them how to conduct self-assessment of their homes.

In their effort to become a FireSmart community, the town was named a local FireSmart champion and a voluntary board of like-minded citizens was created to continue the deployment of wildfire mitigation and public education activities. Investments in public education, mitigation measures and operational preparedness will continue to be made with the objective of becoming the first recognized FireSmart community in Newfoundland.

A WORD FROM BOTWOOD

When asked what advice he would give to other communities interested in working toward the FireSmart community recognition, Murray Roberts, Chair of Botwood's Public Protection Committee and local FireSmart Champion, highlighted the need to first understand which areas of the community are most vulnerable. "The Wildfire Community Hazard and Risk Assessment conducted in Botwood divided the community in four quadrants and each section was identified as low, medium, and high risk. This was very helpful to identify priorities and develop a roadmap moving forward," said Mr. Roberts. He also mentioned the importance of strong public education campaigns to provide community members with tools to reduce their vulnerability to wildfire. "There are many ways to get the information out—posters, seminars, public events, social media – you have to use a variety of tools and continue to promote the same message," said Mr. Roberts. The tools provided by FireSmart help residents and homeowners understand their own level of risk and suggest practical steps that can be taken to significantly reduce it.