



Photo: Hans Granander, RPF

On the Ground with the BC Forest Service

W 2009 WAS A CHALLENGING YEAR FOR FOREST FIRES IN BC, WITH 50% more fires burning twice as much area than average. How did the BC wildfire management branch (WMB) respond to these fires? It's best to illustrate the process through the events of an actual fire.

The Bella Coola valley reported a temperature of 41.4°C on July 29. The Buildup Index (BUI) had climbed to 135, the Forest Fuel Moisture Code (FFMC) to 95, the Initial Spread Index (ISI) to 15.4, and the Drought Code to 519—fuels were primed, all that was needed was a spark. On the evening of July 31, a lightning storm ripped through the valley, peppering the area with over 200 strikes.

“... the Community Fire Hazard for the Bella Coola Valley indicates a range of interface fire hazard from moderate in the west, high in the central part and extreme in the eastern half of the valley.”

– Bella Coola Valley Community Wildfire Protection Plan, 2006.

A member of the public called the forest fire reporting line in Victoria to report a fire on the cliffs of Nuxalk Mountain above Bella Coola on the afternoon of August 1. The WMB Call Centre in Victoria is staffed 24/7 during the heat of the summer by operators trained to glean critical details from callers. Colour of smoke,

size, location of the viewer and other fire details were loaded into a fire report, plotted on a digital map and instantly transferred to one of the six fire centres throughout the province for response.

At the Coastal Fire Centre in Parksville on Vancouver Island, the fire chime was a familiar sound. This was the 1,261 fire report so far that summer and one of 48 fires reported that day. The fire report was acknowledged by the dispatchers and brought to the attention of the regional wildfire coordination officer (RWCO) for a decision to action. This fire would later be known as the Nuxalk fire or VA1261.

“It's hard to say what tells a RWCO that this is the fire to pay extra attention to,” says Brent Anderson, fire operations manager for the Coastal Fire Centre, and the RWCO that day. “It's mostly experience—understanding the local burning conditions, and knowing what to expect in different areas. It's about always looking ahead one to two weeks. We don't very often get surprised by fire activity the only unknown is which day and where. We have a strong team at Coastal and we lean on each other's expertise and perspectives.”

‘What if’ planning is part of the daily routine of a RWCO; by factoring in weather, fire behaviour and the logistical challenges



Viewpoints

By Donna MacPherson, Brent Anderson, David Flegel, RFT, RPBio, and Brian Simpson

of moving crews and aircraft, personnel and helicopters are pre-positioned with the best available knowledge at the time. Coastal moved quickly to launch helicopters and crews to the fire site.

The Nuxalk fire was burning in ground that was too steep for crews to work in safely. Helicopters were directed to bucket the fire to cool the activity and slow its progress, but the fire continued to grow. Coastal requested air tanker support from the Provincial Air Tanker Centre (PATC).

PATC is located in Kamloops and pre-positions its contracted fixed-wing fleet throughout the province over the summer months, just as fire centres move their resources in response to fire danger. While air activity does not extinguish wildfires, this fleet plays a vital role in slowing the progress of fires to allow ground crews time to deploy and by supporting fire tactics. The air tankers dropped retardant between the fire and the homes at the base of the slope. They returned to renew the retardant lines or lay new lines to assist fire management while avoiding watershed areas. Crews worked the accessible portions of the fire near the homes.

Meanwhile, Coastal was mobilizing resources. Issues of distance, shipping and resource availability were identified and surmounted. It became apparent that this and other fires in the area would require sustained support and a Ministry Zone Operations Centre (MZOC) was created.

The Bella Coola MZOC was the fourth within Coastal that, along with ones in Campbell River, Pemberton and Hope, were managing the fires from the summer's lightning storms that moved through those areas. MZOCs manage radio communications and local operational decisions within a particular area. This allows the fire centre to efficiently coordinate resource movement and manage fire response in areas outside of the MZOC's area of responsibility.

New lightning-caused fires continued to appear in the Bella Coola region. 'Forecountry' fires that impacted interface areas were aggressively attacked and 'backcountry' fires were monitored and cooled as needed to prevent explosive growth. A series of fires in the Stuie area on the eastern end of the Bella Coola valley threatened the local telecommunications tower and a 2,500 hectare fire on Heckman pass closed the only highway into the valley. While these fires were in the Cariboo Fire Centre's jurisdiction, resources were shared between the two fire centres to help.

Fires in the area also threatened two recently established community forests, one owned by the Nuxalk First Nations. Chief Spencer Siwallace, RPF, supported the effort with his own local fire department and provided a number of emergency firefighter trainees to support efforts on other fires.

The Nuxalk fire was now an organized crown fire at the head, jumping from tree top to tree top while smouldering at the base and moving laterally across the steep slopes above the homes, driven by prevailing winds. Crews continued working with fire departments and local personnel to protect homes and build fuel free guards at the base.

Evacuation alerts were upgraded to orders for subdivisions close to two major fires in the valley. Bella Coola enacted an Emergency Operations Centre (EOC) to help the people affected by the evacuations and the Incident Management Team worked with local agencies to get information about the fires to the people in the valley.

Fire crews and personnel continued to pour into the Bella Coola Valley as requests for additional resources flowed from the Bella

Coola MZOC to the Coastal Fire Centre. If the request could not be filled within the fire centre, Coastal asked for assistance from the Provincial Wildfire Coordination Centre in Victoria, which first looked to other fire centres, then beyond BC's borders to the Canadian Interagency Forest Fire Centre in Winnipeg for help.

Over the course of the fires, crews from BC and Saskatchewan worked in the valley, and the Incident Management Team support staff came from BC, Alberta, Ontario and the Northwest Territories.

The WMB has a high number of their regular and auxiliary staff certified for Incident Command System (ICS) positions on fires, but at times of heightened activity more help may be needed. Agreements with other branches of the Ministry of Forests and Range allow for increased resource capacity. These 'partnership' staff joined local residents, WMB personnel from around the province, staff from other provincial ministries and agencies, temporarily hired employees and contract personnel working on the fire. The ICS system allows for easy insertion of additional qualified people with minimal disruption during the ongoing emergency. Staff were also able to train local residents in the S-100 course, to allow them to safely work alongside firefighters on the fireline.

The logistics of caring for this influx of people was considerable. A heli logging camp barge was towed into the harbour to

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provided accommodation as well as a landing site and fuel for the heavy helicopter utilized in the fire effort. This left the jet fuel at the airport available for other helicopters and public airlines. Food was flown or trucked in, for while Highway 20 was still closed to the public, the WMB was able to move material through the smoky mountain pass via convoy. Each logistical challenge was met by the team with the enthusiastic assistance from the community.

"The local community rallied to assist the firefighting effort. The legion cooked 125 meals per day, volunteers did laundry for fire fighters, and local residents provided quads, equipment and GIS mapping. The grocery store reserved it bread supplies for fire fighter lunches" – David Flegel

The tide started to turn about a week later. Work on the fire reduced the fire's danger and the evacuation order was rescinded on August 8. Crews continued to mop up the fires in the valley, allowing the ones with inaccessible areas to consume the fuels within the perimeter of the fire. Rehabilitation of the fire sites got underway to mitigate the damage done by crews and heavy equipment during the firefighting efforts. Post Wildfire Hazard Mitigation Assessments were done by the WMB and a professional team to review slope stability, soil strengths and the possibility of potential movement. The outcome in the Bella Coola Valley was good. No homes were lost and there were no fatalities or major injuries. The Nuxalk fire was declared out on August 20 at 368 hectares in size.

"The BC Forest Service has been fighting fires for over 100 years. While the activity of putting fires out has not changed a great deal, the complexities of land use, identifying values at risk, and balancing fire response with land management planning challenges us to choose the best response under escalating conditions." – Brian Simpson. 🍁

Donna MacPherson is the Coastal Fire Centre's fire information officer. She has worked with the BC WMB since 1998, has worked as a type 1 information officer since 2003, and is certified as a type 2 plans chief.

Brent Anderson is the Coastal Fire Centre's fire operations manager, and has worked for the BC Forest Service since 1979. He is certified as type 1 incident commander, air attack officer, tactics officer and RWCO.

David Flegel, RFT, RPBio, works as operations manager in the MFR Bella Coola Field Office. He has lived in Bella Coola for 25 years and has worked for the FS for 14 years and DFO for 11 years in Bella Coola. David's knowledge of the local area, its people, the community and natural resources was invaluable in supporting firefighting efforts.

Brian Simpson is the director of the BC WMB in the Ministry of Forests and Range and is a forest technical graduate from BCIT. Brian has 32 years of experience with the BCFS in many different roles and areas of the province of BC. This experience includes 17 years as a senior manager and more recently 4 years as manager fire operations for the province of BC prior to the appointment of director of the wildfire management branch in 2007. Brian has an extensive background in forest management with specific emphasis in fire management including certification as a type 1 incident commander.