



Protection Branch
Ministry of Forests

Fire Review Summary for Vaseux Fire

Fire Number K50661 Fire Name: Vaseux
 Date of detection: August 22, 2003 Final size: 3,300
 Total cost: \$11.4 million (estimate) Total damage: TBD

Background

The Vaseux Lake fire (K50661) started under the power lines adjacent to Highway 97 and Vaseux Lake. The fire ignited on Friday, August 22, 2003 at approximately 14:00 hours and was located on the Aquilla Power right of way on dry, open grassland with Ponderosa Pine and Douglas fir trees nearby. The fire was just outside the Okanagan Falls Fire Protection Area and was bordered on: the immediate west by Highway 97 and Vaseux Lake; the south by residences located at the end of Vaseux Lake (Sundial); the east by private land held in the name of Nature Trust (Emery Property) with dry grasslands and steep hillsides; and to the north of some rural residences (along Oliver Ranch/Alendale) and Okanagan Falls. The immediate fire area contained sensitive habitat for approximately 25 red- and blue-listed endangered species. Fire spread was very rapid and threatened adjacent homes. Immediate evacuations were recommended by the attending forest official and undertaken by the RCMP along the Oliver Ranch Road to the north of the fire. Evacuations were ordered by the fire commissioner through the Emergency Operations Centre (EOC), which was already established in Penticton for the Okanagan Mountain Park Fire.

Fire weather indices on August 22, 2003 were:

Station	Temp	RH	Wind Dir	Wind Sp.	Precip	Grass Cure	FFMC	DMC	DC	ISI	BUI	FWI	Dgr. Class
Penticton	26.5	24	225	14	0	90	94.7	328	1083	16.7	373	55.3	5
McCuddy	22	30	180	17	0	65	93.3	296	900	16.2	325	54.1	5

The indices, especially the drought code (DC), were considerably higher than any experienced previously by the stations. The indices indicated that fire initiation would result in rapid spread with difficult control.

The fire weather forecast for the next 10 days was for continuing warming and drying with possibility of winds and wind gusts.

Campfire bans, industrial bans and a voluntary backcountry travel restriction were in place at the time of fire. Extensive fire patrols were being carried out.



Protection Branch

Ministry of Forests

FIRE ZONE SITUATION

Forecasted fire weather matched the actual weather for August 22. The fire danger rating for the area where the fire started was extreme as were all areas below 100 metres (valley bottom).

The preparedness level for the zone was level 4, - the highest preparedness level. In all cases the resources available to meet the preparedness level were in accordance with, or exceeded the requirements for level 4 preparedness.

Fire activity in the zone at the time of K50661 included the major of Okanagan Mountain Park fire. There were a total of 51 fires burning in the zone as of August 22 including continuing mop-up and patrol of the Osoyoos fire (K50195).

FIRE START AND RESPONSE

This fire started around 14:00 on Friday, August 22, 2003. The first report was received from the Penticton Fire Department at 14:03. Okanagan Falls Fire Department and Oliver Fire Department were immediately dispatched since the fire was on the edge of their respective boundaries. The second report was received by the Provincial Forest Fire Reporting Centre at 14:10 from the general public. The fire commissioner, through the Penticton EOC, issued an evacuation order at 15:00 over the area 2 km north of Vaseux Lake to 2 km east and west, including Vaseux Lake Provincial Park. An additional evacuation order was issued at 21:40 covering the area on the north side of Vaseux Provincial Park, on the east side of Highway 97, to the east boundary on the east side on Highway 97 going 2 km east, with the southern boundary being Sundial Road. The evacuations were actioned by the RCMP.

Initial Attack crews from the Penticton Fire Zone responded to the fire. The first IA crew (5H53 with 5P51) was dispatched at 14:07 by helicopter and was air bound by 14:19. A second crew (5H56) was dispatched by ground transportation at 14:07 and was en route at 14:19, and the third crew (5H52) was dispatched at 14:07 and was en route by 14:26 also by ground transportation. Other Initial Attack resources sent to this fire on the first day included the local fire departments, 3 bulldozers, 3 water tenders, 2 fire wardens with crews, and 2 medium helicopters borrowed from the Okanagan Mountain Park Fire K50628.

Air tankers were requested for the fire at 14:07 and arrived overhead of the fire at 14:15. The size of the fire was initially estimated at 7 hectares, Rank 3 & 4 and spotting at the head (leading edge) of the fire. Air tanker back up was requested and directed to this fire. The Air Attack Officer believed the fire could possibly be caught, but this belief diminished as the fire spotted 0.5 km to the north of the main fire as well as over the bluffs to the southeast decreasing the likelihood of a successful initial attack. This rapid rate of spread is apparent in the Fire Progression Map. Concerns were raised by air tanker pilots with respect to working in the small valley on this fire, specifically with the limited airspace where the tankers and helicopters were actively working.



Protection Branch
Ministry of Forests

CHRONOLOGY FOR INITIAL ATTACK

August 22:

Initial Attack Resources deployed

14:03 Penticton Fire Dept. reporting a grass fire at Vaseaux Lake. OK Fire Dept. responding

14:07 K5 requesting air tankers

14:09 5W51K and crew plus cat ordered for 661

14:10 Electronic tanker request sent (Dispatch ATR # 2309)

14:11 Tank truck ordered

14:14 First IPR on dispatch

14:19 ASTAR YXL off Penticton with H53 and P51 to 661; OK Falls and Oliver fire dept's responding; H56 enroute by ground.

14:21 YXL on site of 661

14:22 Birddog 34 – Rank 4, spotting, 7 hectares, winds 40kph from south.

14:24 Lufsted cat ordered

14:26 H52 enroute by ground

14:35 Dutchies tank truck ordered

14:39 Birddog 34 – 25 hectares, Rank 3 and 4, spotting.

August 23 First Incident Command Team assumes control of the fire

August 28 120 military firefighters and support staff arrive

September 6 Replacement Incident Command Team takes over

September 7 Fire is declared contained and under control

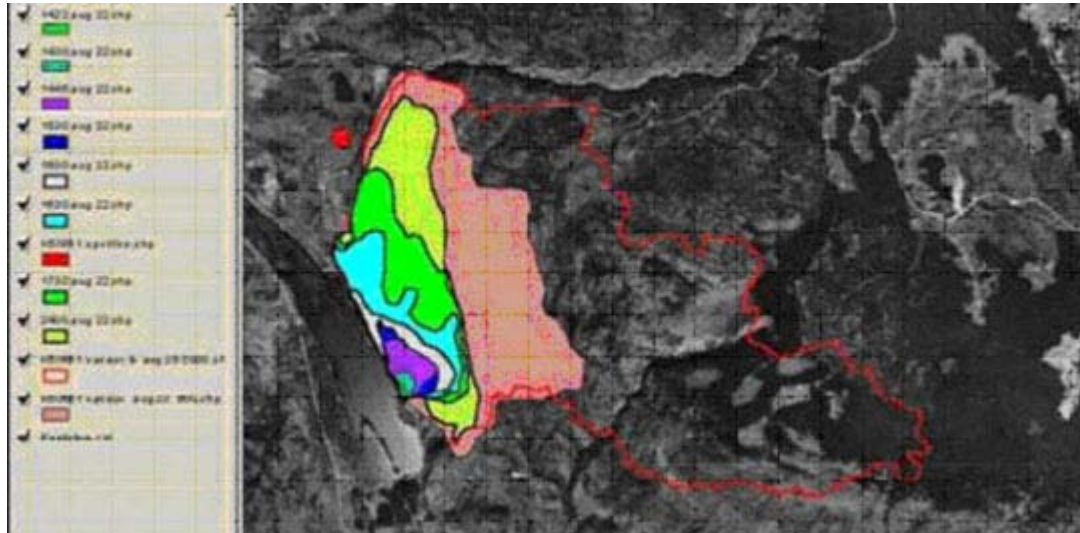
September 14 Military demobilized

September 18 Fire Zone assumes control



Protection Branch
Ministry of Forests

FIRE PROGRESSION MAP



The rate of fire growth was as follows:

August 22, date of fire ignition,	400 ha
August 23	900 ha
August 24	1 406 ha
August 25	1 960 ha
August 27	2 553 ha
August 28	2 845 ha
August 31	2 948 ha
September 01	3 012 ha
September 07	3 300 ha

EXPANDED ATTACK

There were no B.C. fire management teams available throughout the province, as they had all been deployed to other fires. The request for the Fire Management Team then went to the Provincial Fire Control Officer for an out-of-province team. The timeline for receiving a team would have been a minimum of 72 hours to accommodate travel, orientation and briefing. It was at this time that the South East Fire Centre offered an ad hoc team led by a District Manager from the area. The team arrived on site within 12 hrs and their expeditious arrival provided immediate benefits to the Penticton Fire Zone.

The Fire Management Team faced an immediate challenge in that they were a makeup team with minimal call out notice and received little information prior to arrival at the fire. They



Protection Branch

Ministry of Forests

responded to the challenge with expertise, determination and the willingness to succeed. This attitude was the basis for success against battling the Vaseux wildfire.

The immediate challenge for the team was to fill the main positions of Finance Chief and Plans Chief.

Because the team arrived so quickly, they met with the Penticton Zone Forest Protection Officer in the morning of August 23, 2003 and did a complete verbal briefing of the fire. The Zone Officer reviewed the tactical decisions currently being taken, the resources on the fire, resources en route to the fire, and resources requested for the fire. This fire transferred rapidly and smoothly from Initial Attack to Expanded Attack.

The team's first impressions were that they had a reasonable chance to catch the fire at around 1,500 hectares. However, they were also aware that this would be a complex, high priority fire involving many stakeholders. High values such as a five thousand kilowatt power line, part of a tree farm license, private properties and structures, endangered species, protected areas and parks were at stake in this wildfire. Weyerhaeuser Canada Ltd. (Weyco) Okanagan Falls Branch assisted by opening their offices and sharing communications, personnel, equipment, mapping capabilities, and local knowledge of the area. While the company had a vested interest in the protection of timber and their mill site, the company went above and beyond in supporting the Forest Service in their initial response to the fire. There came a point where the command structure outgrew the capabilities in the Weyco offices and were therefore required to move.

Throughout the fire, the Incident Command Post changed three times. After the Weyco office became too small, the command post moved into the local Okanagan Falls Community Hall adjoining to the school. The community was very supportive of the Forest Service and the fire fighting operations going on in their community. Food services were filled by a local Ladies Auxiliary organization. Logistically, the fire organization/support outgrew this facility. Also it was inappropriate to maintain a camp in this location with students returning to school. A fire camp became available and the camp was relocated approximately 5 miles south of Okanagan Falls on day 14.

Logistics were a challenge on this fire. One of the biggest causes of frustration for the Fire Management Team was the lack of qualified resources available due to the numerous wildfires occurring elsewhere in the province. Secondly, there were challenges with the processing resource requests and resource responses. Thirdly, the lack of available equipment, including pumps, hoses, nozzles, and heli-torches was a challenge.

As mentioned previously, the lack of a plans chief or finance chief was a critical impediment on the team. There was also a major concern regarding the inability to fill key positions such as air branch, rotary wing bird dog, safety officer and dispatching services. While this was deemed not detrimental to the fire fighting efforts, it did cause an increase in frustration and stress levels among the fire management team.

Equipment availability, which was also lacking when this fire began, was addressed by renting from local companies, buying goods from local hardware stores, and hiring contractors who had the equipment. As the main objective was to protect life and property on arrival to the fire, these resources were essential to the success of containing this wildfire. However, there was concern in the increased expenditures and inefficiencies associated with this practice.



Protection Branch

Ministry of Forests

Infrared scanning and mapping was another area of concern. There was an identified need to clarify what product should be used. This clarification needs to include what tool is to be used, for what purpose and for what cost. There were a number of different maps being generated - mapping technology could have been utilized more appropriately.

Nighttime crews were utilized for monitoring, patrolling and mop up work. However, there were limitations to their use due to aggressive fire behavior, terrain, and medical safety evacuation limitations.

Turnover to a new Fire Management Team occurred at 11:00 on September 6, 2003. They completed a turnover plan in advance and made a smooth transition. This transition was made easier by the fact that the personnel currently in the positions had come to the maximum days allowed in a single rotation at different times because of the delays in arriving on the fire. This staggering of personnel allowed individuals in the main positions to shadow the overall situation for up to three days prior to them taking over the fire, and allowed time to share information, identify problems that had occurred and develop solutions.

OTHER AGENCIES

There were numerous agencies involved on this fire. In this situation, the EOC was already activated because of the Okanagan Mountain Park Fire (K50628). Most of the organizations were gathered at this location and would attend daily briefings.

SAFETY

There were up to 650 personnel involved on this fire at one time. No major injuries occurred during the course of this fire.

KEY RESOURCES

There was excellent availability and usage of rotary wing, CL 415 water bombers and the Martin Mars water bomber in addition to the air tanker fleet.

There was no shortage of heavy equipment on this fire. What was requested was received.

The British Columbia Forest Service had the pleasure of working with crews from Ontario, Northwest Territory, Alaska, Yukon Territory, the military, Weyco, equipment and operators across British Columbia. The competency of these teams were so high that there were never any major problems. Also, local First Nations were consulted with respect to mop up and their Type 3 crews were utilized during the mop up stages of this fire.

In debriefing, the Fire Management Team and the military personnel suggested possible improvements. One key recommendation was for the Forest Service to understand the need to provide security for the military personnel and camps deployed to a fire. Another suggestion was for military personnel to take the minimum ICS-100 to assist in integration of the two organizations. This also could be addressed by Forest Service personnel being briefed on the structure of the military. It was also identified as essential to the success of integration between Forest Service and military that personnel be appointed to act as liaison officer to the military. This would expedite communication between the two agencies.



Protection Branch

Ministry of Forests

Rehabilitation

At this time, rehabilitation has been completed on Crown land, but is still being carried out on private land.

Challenges

Although a number of major challenges were encountered on this fire, they did not affect on-the-ground fire fighting tactics or contribute to the final area burned. The Vaseux wildfire was one of the last large fires of the 2003 fire season. As a result, substantially all resources had been deployed to other fires and were depleted from the resource pool. The consequences of this to the Vaseux fire ranged from an incomplete Fire Management Team, the challenge to fill key support roles, to no camp or inadequate camp facilities, as well as the challenge to supply basic fire fighting tools such as pumps, hoses and nozzles. Despite these limitations, through determination and innovation, solutions were found and the challenges were largely overcome. Recognition of individuals involved in the fire control actions is acknowledged for a job well done in the face of adversity.