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PEST REPORT

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SUMMARY OF FOREST PEST CONDITIONS IN THE KAMLOOPS FOREST REGION, 1994

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This report summarizes the major forest pests active in the Kamloops Forest Region, excluding mountain pine beetle in the Merritt and Penticton forest districts. A more detailed report on these and other significant pests and forecasts will be provided in the regional report, available later in the year.

Mountain pine beetle infestations decreased in the Vernon Forest District to 400 ha, down from approximately 800 ha in 1993. Aerial surveys, however, were not completed in the Upper Kettle River area where smoke caused poor flying conditions. Increases of pockets of five to twenty infested lodgepole and white pine occurred between Blue River and Avola, east Barriere Lake and River and along George Creek in the Kamloops TSA, and Gallagher Lakes, Upper Hat Creek, Murray Creek, Pasulko Lake and Izman Creek in the Lillooet TSA.

Lodgepole pine needle infections of **pine needle cast** on previous years' growth caused mostly light discoloration over 148 355 ha, up from 5600 ha mapped in 1993. These are probably under-estimates of both the severity and area since much of the discoloration may have been overshadowed by the current growth, or the intensity was such that the infected needles were shed. Ninety percent of the discoloration occurred on young and semimature lodgepole pine stands throughout the Merritt, Penticton and Vernon forest districts. In the Kamloops District 8600 ha of discoloration was mapped from Tunkwa Lake, north to Bonaparte Lake.

Western pine beetle populations decreased to 40 ha, from 290 ha reported in 1993. Infestations occurred as single trees or pockets of three to five ponderosa pine, often in association with red turpentine beetle in the Ponderosa pine or Bunchgrass zone between Okanagan Falls and Oliver.

Mostly light to moderate defoliation of Douglas-fir by **western spruce budworm** decreased for the third consecutive year to 14 230 ha from 39 000 ha in 1993. Decreases occurred in the South Okanagan, along the Fraser River and tributaries, the Thompson, near Lytton, Stump Lake and Cache Creek, from Spences

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Bridge to Merritt and the most notable in the Vernon Forest District, where only 90 ha were mapped. Slight increases in area of infestation occurred near Kamloops and Pritchard in the Kamloops Forest District, north of Nicola Lake in the Merritt Forest District and between Peachland and Glenrosa in the Penticton Forest District.

Control activities using both pheromone and trap trees has led to a reduction of **Douglas-fir beetle** infestations to 775 pockets totaling 590 ha, from 1175 ha in 1993. These occurred in the Interior Douglas-fir zone in Lillooet, Kamloops, Salmon Arm, Clearwater and Vernon forest districts. The largest increases occurred in Lillooet Forest District along Twaal and Murray creeks near Spences Bridge, the west side of the Fraser River from Lillooet south to Kwoiek Creek, Fountain Valley, Cayoosh Creek and Tyaughton Creek. Substantial increases, however, occurred in Salmon Arm District near Sicamous and Mara Lake and near Humamilt Lakes.

The area of mature spruce killed by **spruce beetle** increased to 2500 ha from 2040 ha recorded in 1993. In the Merritt Forest District previously infested stands between Thynne Mountain and Granite Mountain increased to 1560 ha from 500 ha, with a new infestation recorded on the west side of the Coquihalla in Coldwater Creek. While harvesting and host depletion led to a substantial decrease in infested area in the Noel, McGillivray and Connel creek drainages in the Lillooet Forest District, increases were recorded at Whitecap Creek, Carl Creek and Goldbridge. New infestations occurred along Torrent and Smythe creeks in the Vernon Forest District (240 ha) and near Blue Earth Lake in the Kamloops Forest District (100 ha). Smaller spot infestations were recorded throughout the Region: along the Stein River, Duffey Lake-Casper Creek, Van Horlick Creek, and North Kwoiek creek in the Lillooet Forest District, and Martin Mountain, Hustalen Creek, Murtle River and Clearwater Peak in the Kamloops Forest District.

Feeding by mature larvae of **two-year cycle spruce budworm** caused predominantly light defoliation to alpine fir and spruce over 18 600 ha, mostly in the Clearwater Forest District: in Wells Gray Provincial Park, TFL 18, near Maury, Italia and Corsica Lakes, Sock Lake and the Upper North Thompson. This is down from 160 000 ha recorded in 1992. In the Vernon District, where defoliation has been ongoing annually since 1987, populations collapsed and caused only light defoliation to 380 ha near Holmes-Keefer lakes.

A new outbreak of **western blackheaded budworm** defoliated 1400 ha of mature and overmature western hemlock stands in the interior wet belt portion of the Okanagan TSA. The majority occurred in stands near Eagle River Valley, Craigellachie, Crazy and Wap creeks and Victor Lake in the Salmon Arm Forest District. The remainder occurred near Mabel Lake in the Vernon Forest District, where moderate defoliation occurred at Hound Creek and light defoliation was observed at Noisy Creek.

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While no defoliation was recorded, tree mortality caused by successive years of feeding on old growth western hemlock and red cedar by **western hemlock looper** was mapped over 15 530 ha, with pockets ranging from 10-60% dead. These occurred between Albreda and Blue River, Upper Adams River and in Wells Gray Provincial Park along Hobson Lake.

Populations of **balsam bark beetle** decreased to 2870 ha in previously recorded areas throughout the Region, down from 5180 ha mapped in 1993.

Larch casebearer caused moderate-severe defoliation of mature western larch totaling 280 ha, along King Edward Main east of Vernon. Light feeding was observed earlier in the season along Shuttleworth Creek but was not visible from the air.

Satin moth populations decreased to 75 ha causing light-moderate defoliation of trembling aspen near Bridesville, Yankee Flats and Shorts Creek. Foliage discoloration caused by **birch leafminer** was observed aerially on 500 ha near Adams Lake and was also noted earlier in the season in Creighton Valley and Nawshito Creek in the Vernon Forest District.

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