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PEST REPORT

Pacific Forestry Centre • 506 West Burnside Rd. • Victoria, B.C. • V8Z 1M5

December 1987

Western Spruce Budworm Infestations
Kamloops and Neskainlith Indian Reserves, 1987

R.D. Erickson
Forest Insect and Disease Survey

Kamloops I.R. #1

Mature and immature Douglas-fir over 3 200 ha in Kamloops I.R. #1 were lightly* (1 050 ha) and moderately* (2 150 ha) defoliated in 1987 (Maps 1-4), some for the fourth consecutive year. Where defoliation has been severe* for up to three years near Louis Lake, immature trees have been killed and leader and branch dieback is common. Further severe defoliation in this area could result in additional tree mortality and dieback.

The major part of the budworm infestation, however, is on Mt. Paul and in the Dome Hills. Defoliation in those areas has been light or moderate for up to four years and damage has been limited to some leader and branch dieback. With further defoliation some understory regeneration may be killed and leader and branch dieback may occur on older trees.

Egg mass collections from above the microwave station and northwest of Schneidam Lake forecast severe defoliation in 1988. This is similar to predictions for the surrounding stands, however, generally moderate to severe defoliation is forecast over the area infested this year.

Neskainlith I.R. #1 and #4

In Neskainlith IR #1, light defoliation of Douglas-fir by budworm increased to 400 ha from 250 ha last year (Map 5, 6). In Neskainlith IR #4 (Map 6), defoliation intensified and increased to 200 ha light and 440 ha moderate from 270 ha light in 1986, the first year of defoliation.

On average, defoliated trees on both reserves still retain about 60% of their usual foliage and are expected to survive additional severe defoliation. However, the damage to Douglas-fir varies with the intensity of the defoliation and the number of successive years the stands are defoliated. Understory regeneration is most severely affected and often killed. Growth reduction and top and branch dieback also occur.

Egg samples indicate defoliation area and intensity will increase in both reserves. Additionally, samples from nearby Little Shuswap Lake and Adams River predict severe and moderate defoliation respectively in 1988.

*Light : 0-25% defoliated
Moderate: 26-65% "
Severe : 66% "

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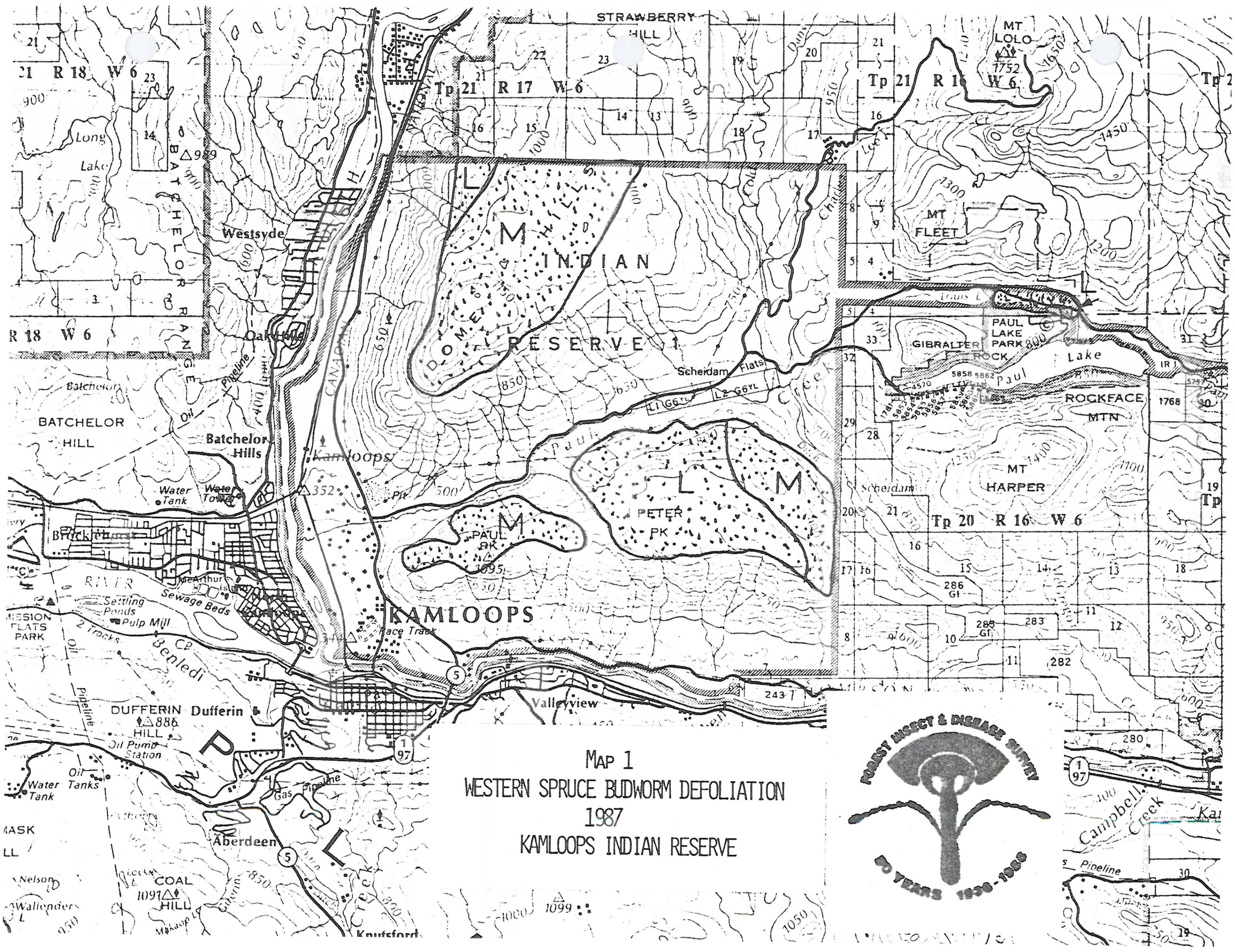
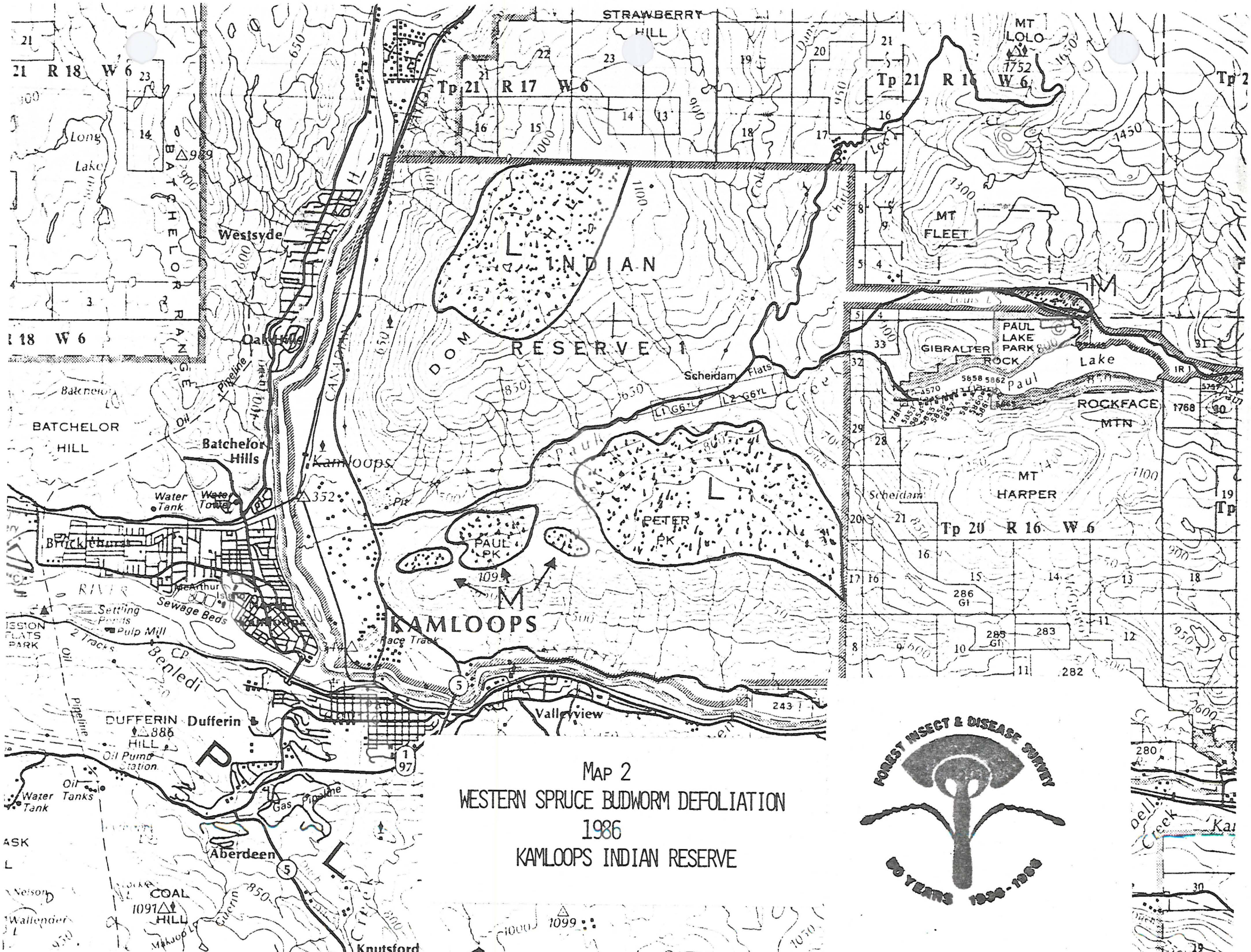
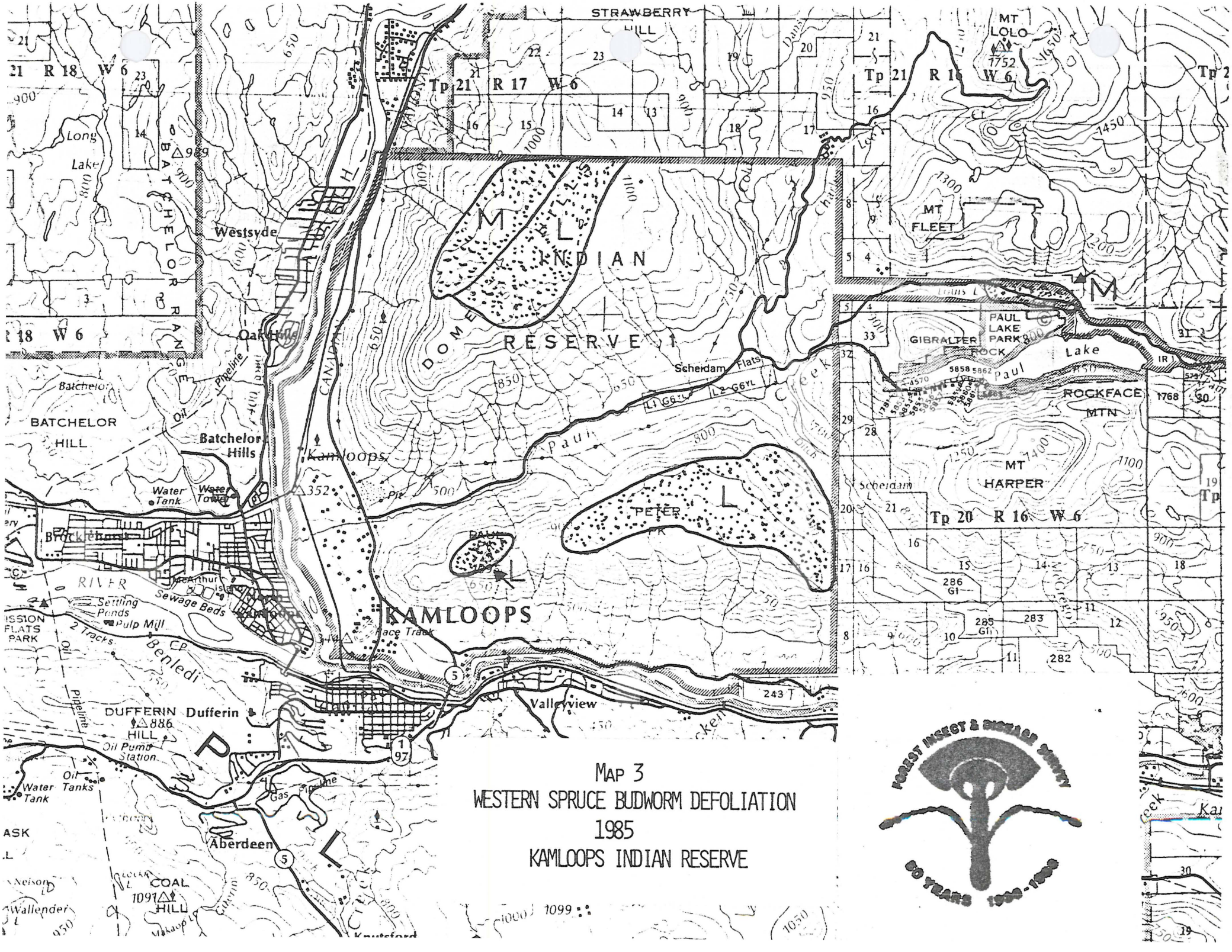


Map 1
WESTERN SPRUCE BUDWORM DEFOLIATION
1987
KAMLOOPS INDIAN RESERVE

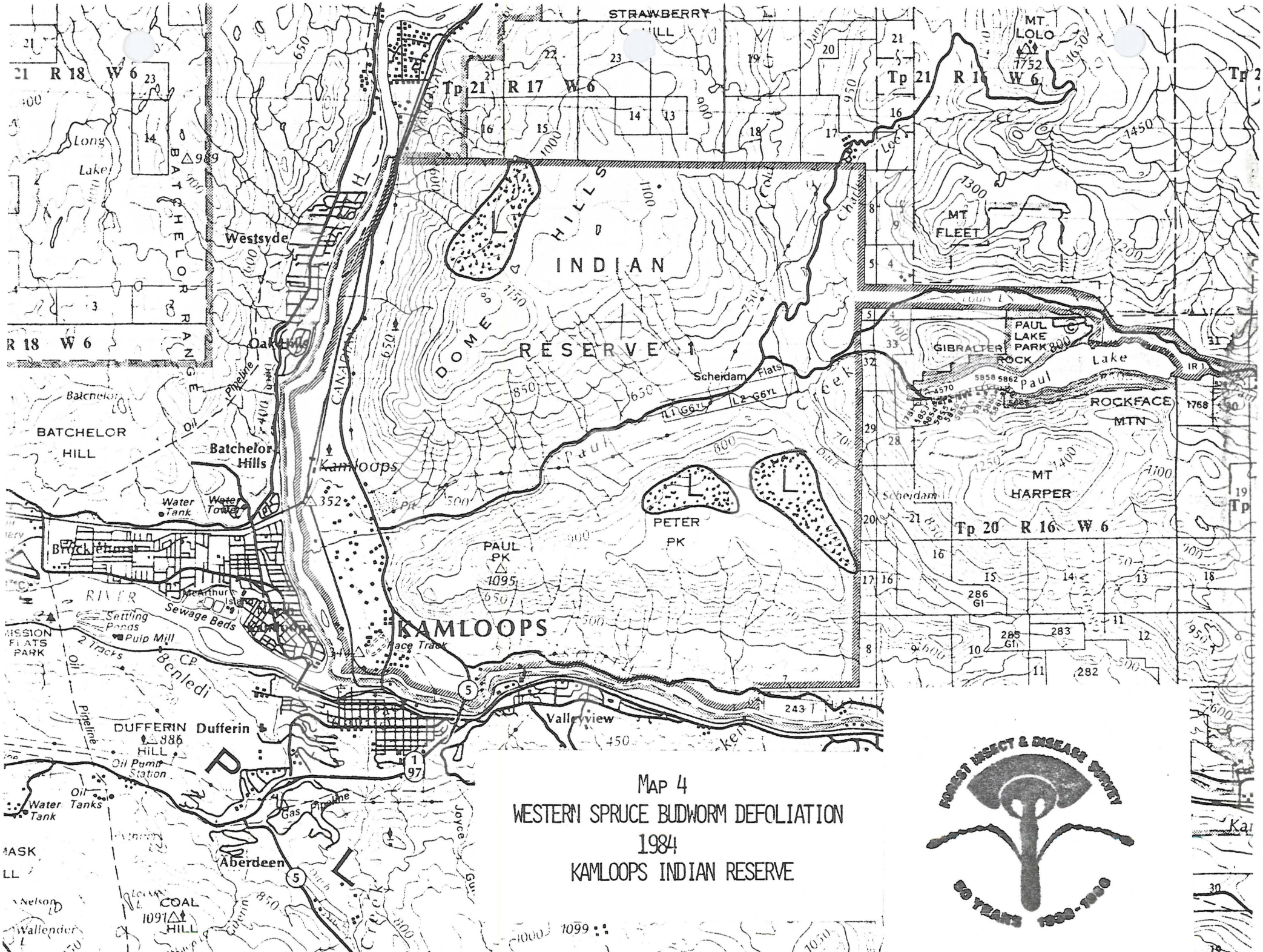


MAP 2
WESTERN SPRUCE BUDWORM DEFOLIATION
1986
KAMLOOPS INDIAN RESERVE



MAP 3
WESTERN SPRUCE BUDWORM DEFOLIATION
1985
KAMLOOPS INDIAN RESERVE

FOREST INSECT & DISEASE SURVEY
50 YEARS 1938-1988



MAP 4

WESTERN SPRUCE BUDWORM DEFOLIATION

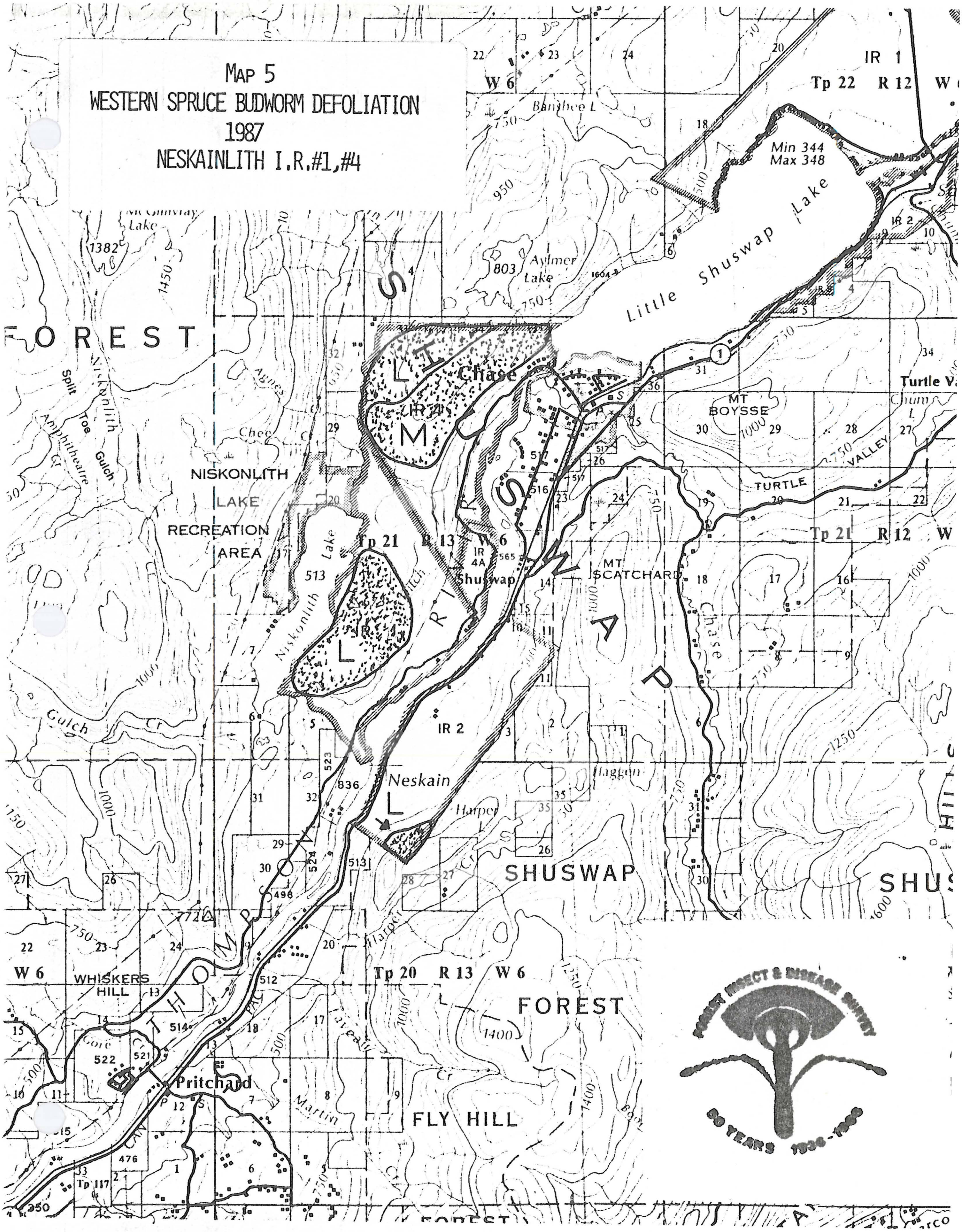
1984

KAMLOOPS INDIAN RESERVE

FOREST INSECT & DISEASE SURVEY

50 YEARS 1936-1986

MAP 5
WESTERN SPRUCE BUDWORM DEFOLIATION
1987
NESKAINLITH I.R.#1,#4


Little Shuswap Lake
Min 344
Max 348
Tp 22 R 12 W 6
IR 1
IR 2
Aylmer Lake
Banshee L.
FOREST
NISKONLITH LAKE RECREATION AREA
Niskonlith Lake
Split Toe Gulch
Amphitheatre Gulch
Chase
Shuswap
IR 4A
Tp 21 R 13 W 6
Tp 21 R 12 W 6
MT BOYSSE
TURTLE VALLEY
Turtle Valley
MT. SCATCHARD
SHUSWAP
Neskain
IR 2
Harper Cr
THOMPSON
WHISKERS HILL
Pritchard
Tp 20 R 13 W 6
FOREST
FLY HILL
Martin Cr
Gore Cr
L
M
L
L

MAP 6
WESTERN SPRUCE BUDWORM DEFOLIATION
1986
NESKAINLITH I.R.#1,#4