



Nov 2003

# Mountain pine beetle epidemic in BC

*From a Timber Supply Perspective*



# Outline

- the expanding MPB outbreak and 2 key influencing factors
- timber supply impacts in 12 severely infested units and in the Quesnel TSA
- challenges ahead ...



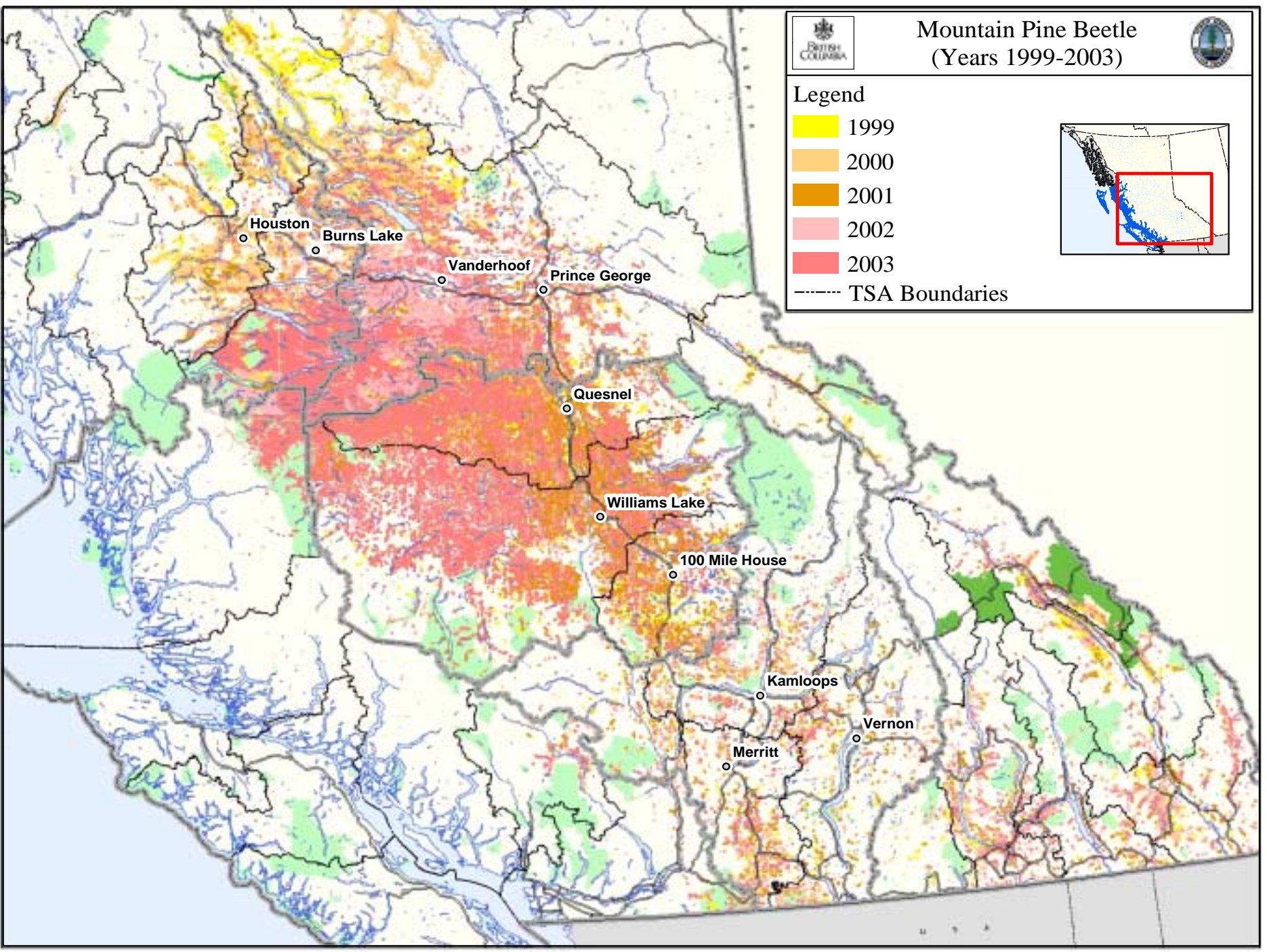
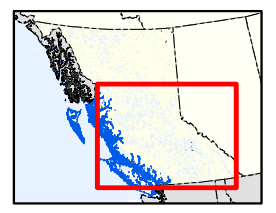


# Mountain Pine Beetle (Years 1999-2003)



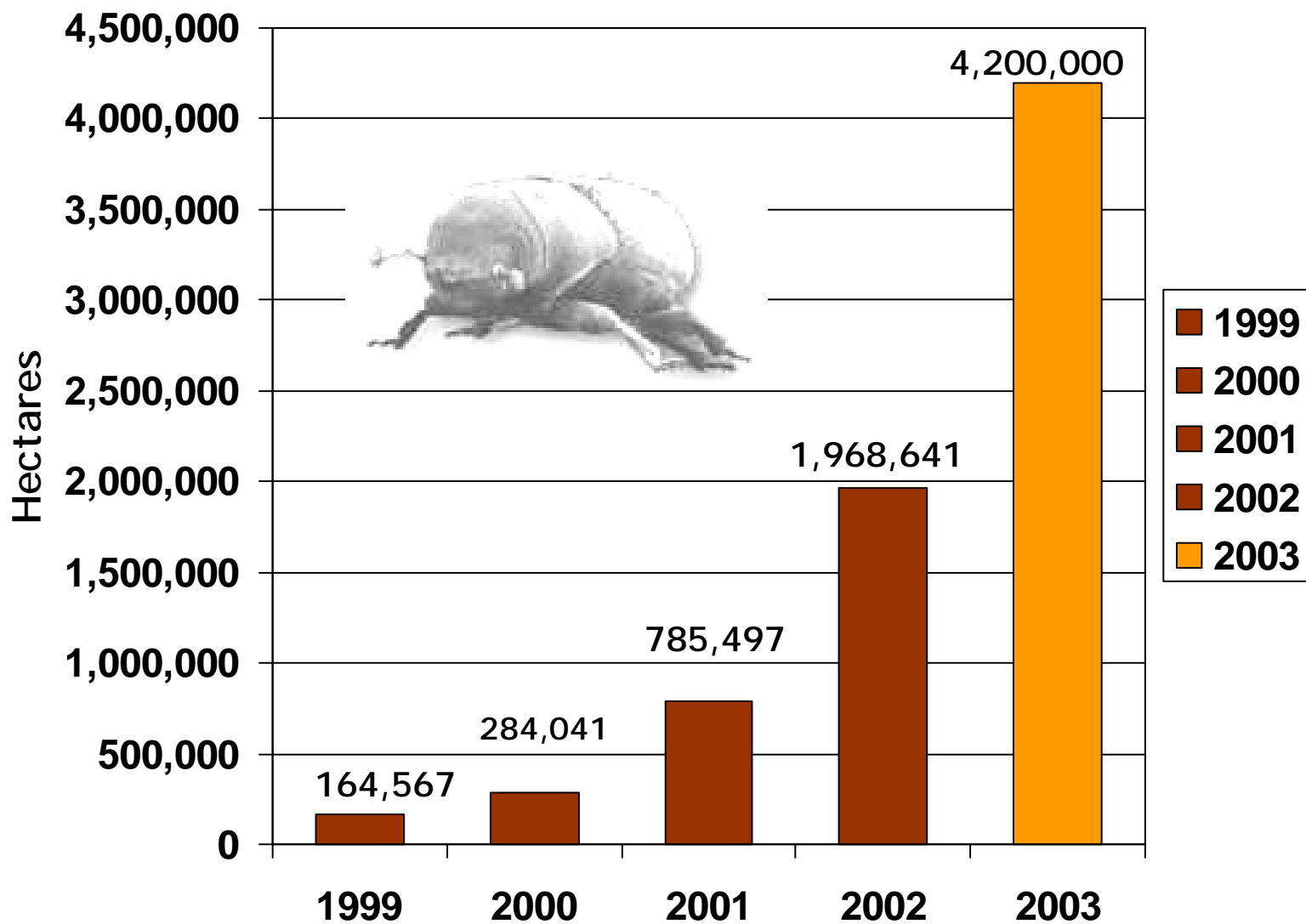
## Legend

- 1999
- 2000
- 2001
- 2002
- 2003
- TSA Boundaries



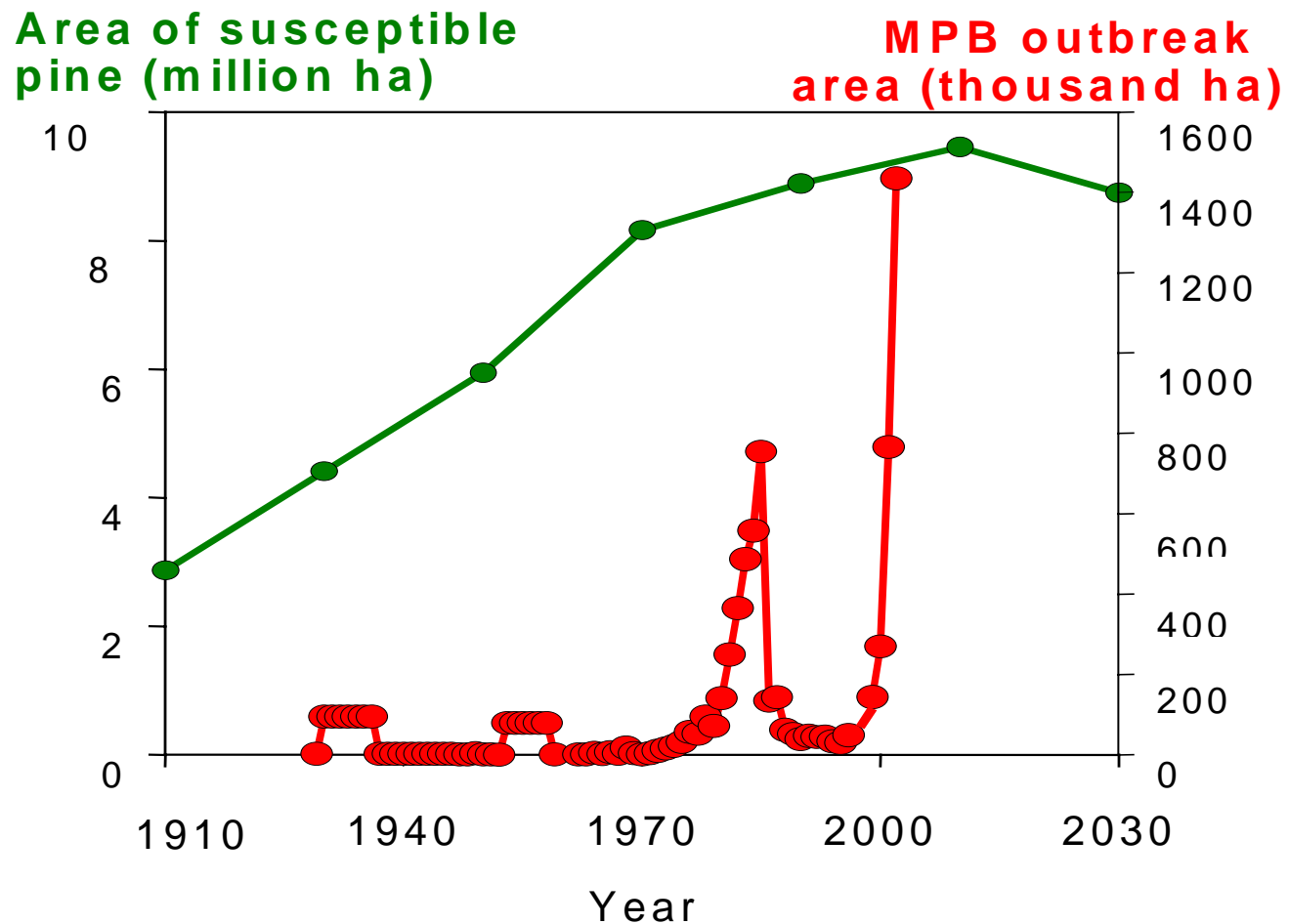


# Annual red-attack



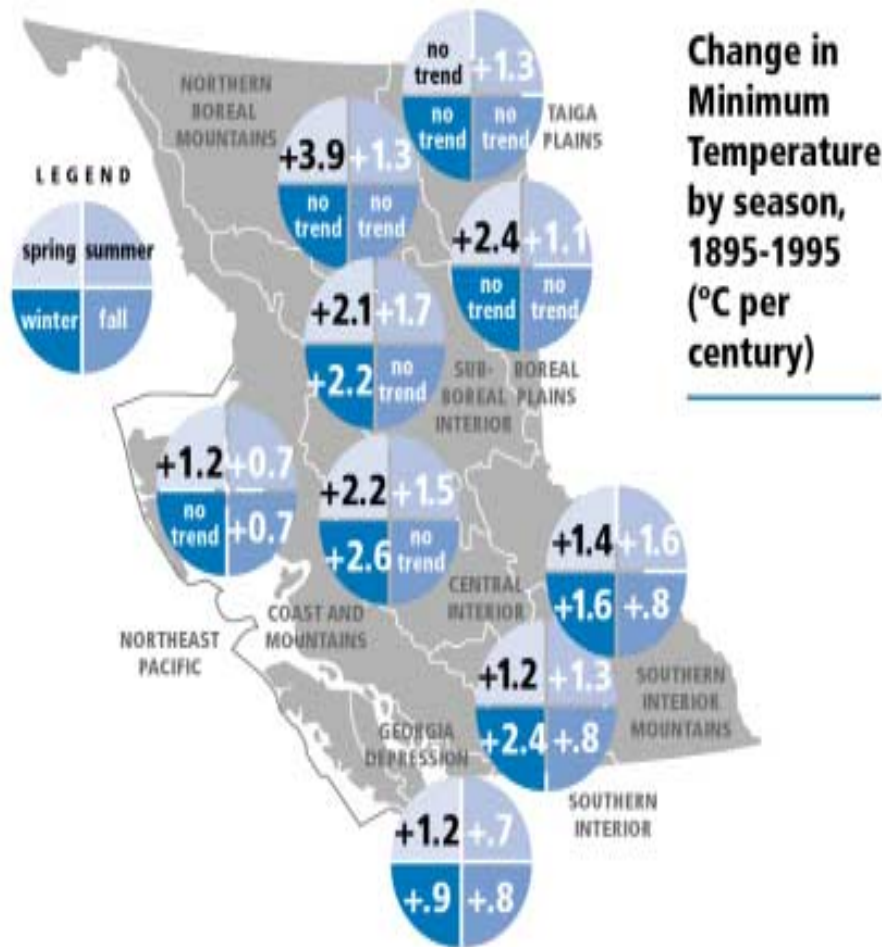


# Area of pine & beetle outbreaks





# Climate



**Warmer climate conditions have expanded the beetle range into previously unsuitable areas such as northern areas and higher elevations**



# Mountain Pine Beetle Analysis Area

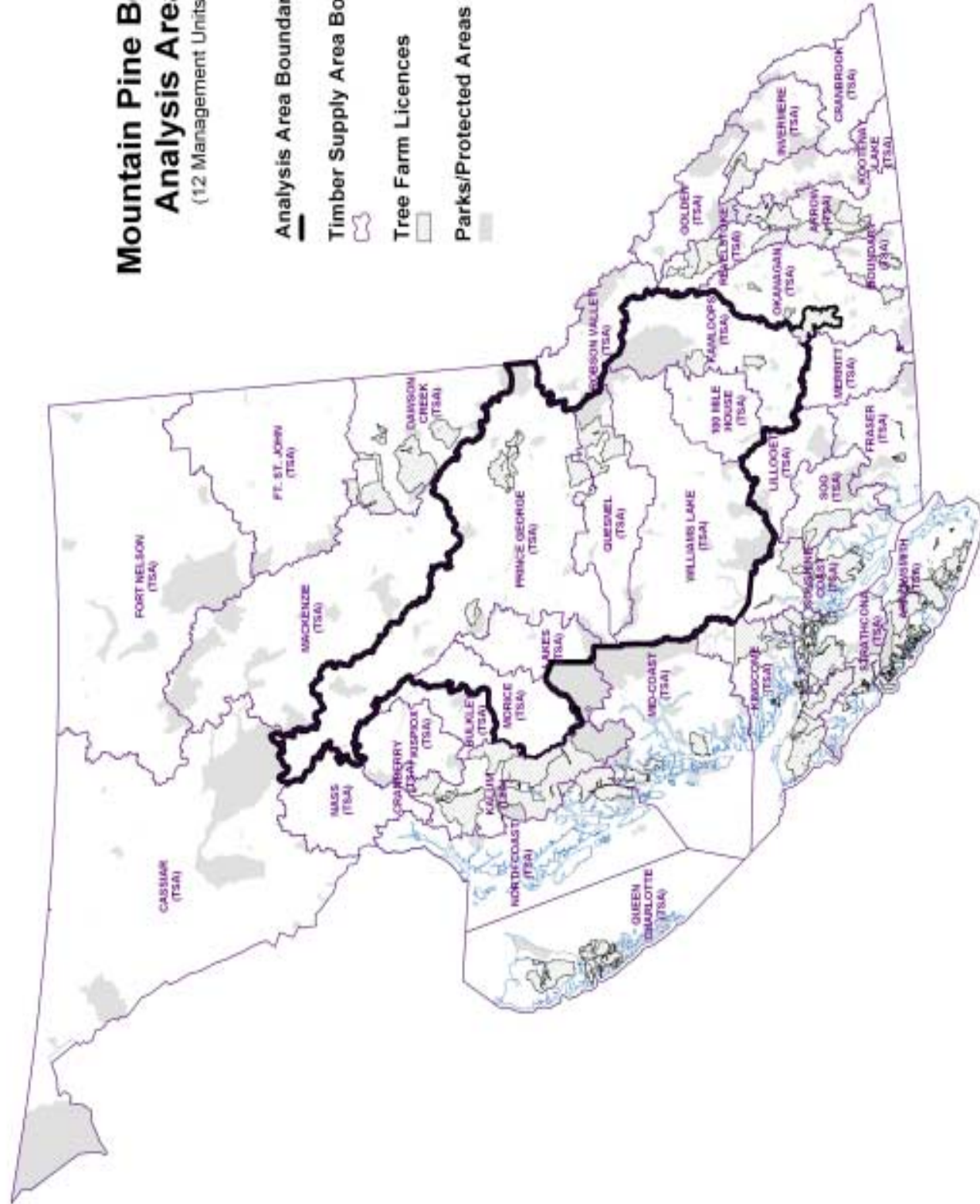
(12 Management Units)

Analysis Area Boundary

Timber Supply Area Boundaries

Tree Farm Licences

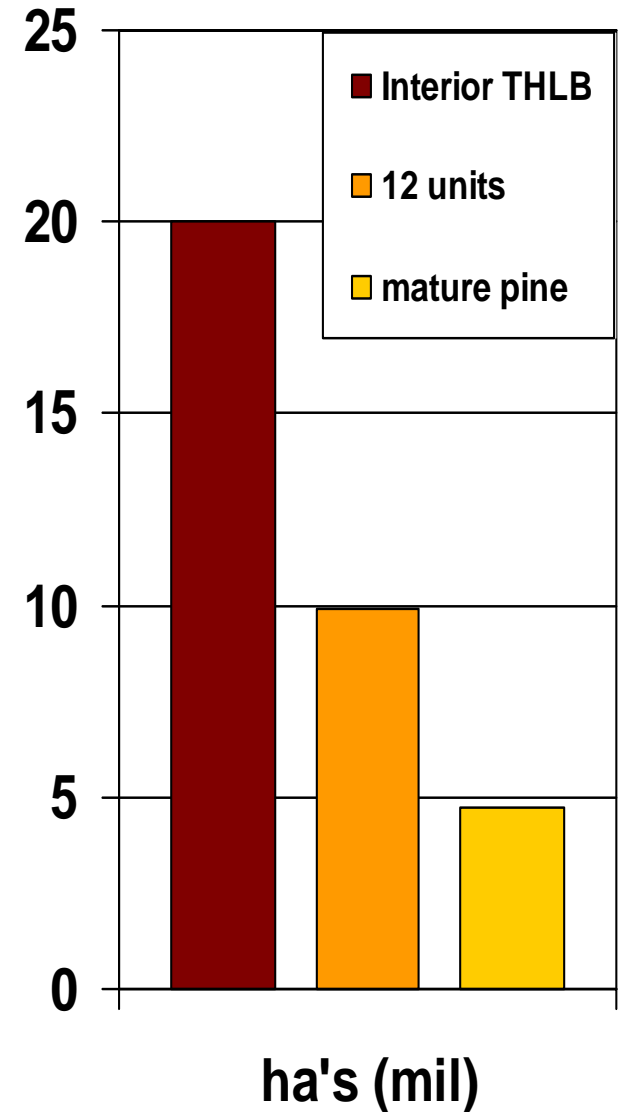
Parks/Protected Areas





# BC's interior timber harvesting land base

- BC's interior = 20 mil. ha
- 12 units = 9.9 mil. ha
- Of this, mature (susceptible) pine covers about 4.7 mil. ha







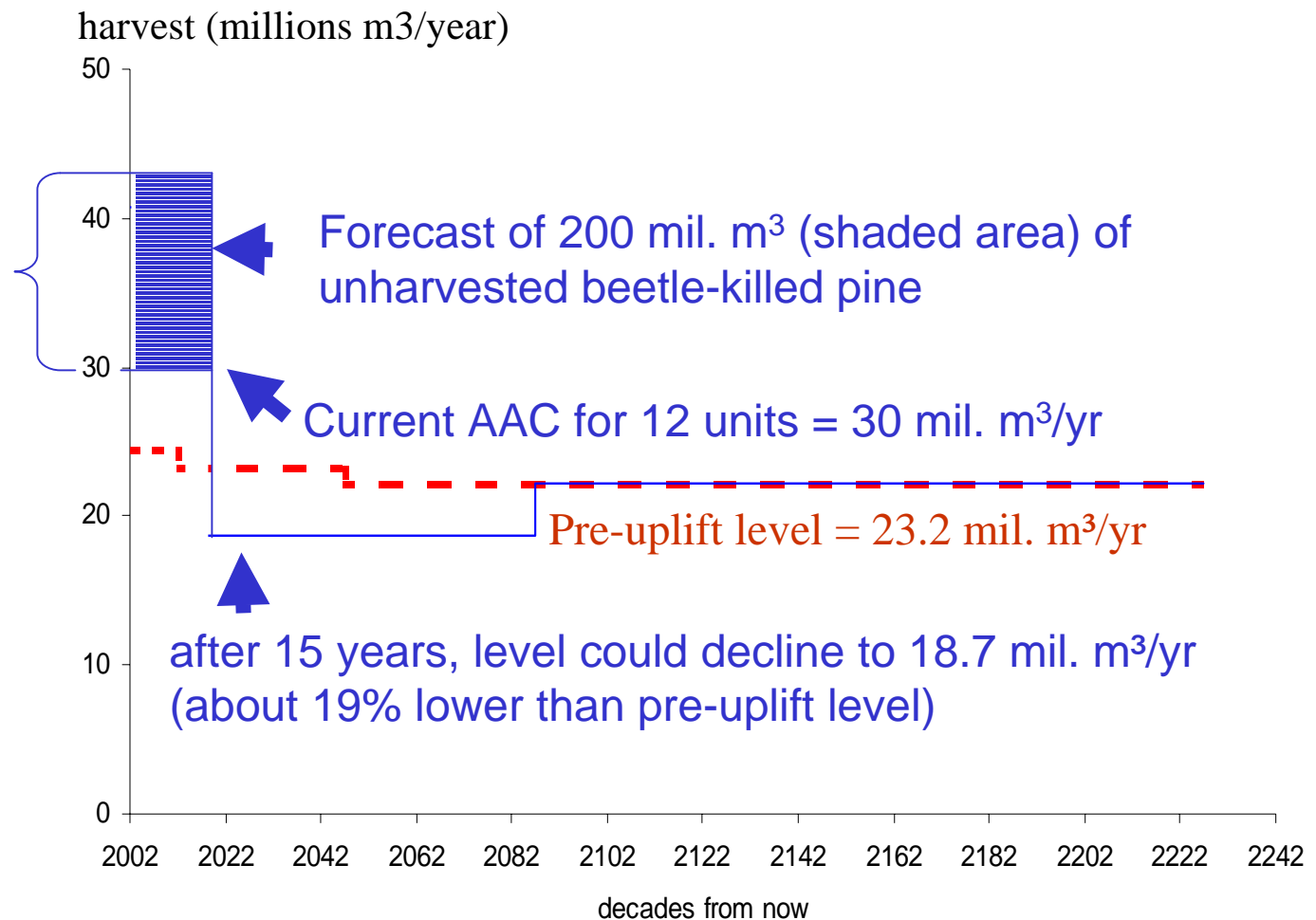
# Key assumptions for analysis of 12 units

- Initial harvest rate was set at 30 mil m<sup>3</sup>/yr, (includes 6.8 mil m<sup>3</sup>/yr increase for MPBs)
- Half of high-risk pine (>80 yrs & >50% PI) = 1.6 mil ha was assumed to be fully attacked
- Depletion of pine after the shelf life (15 yrs)
- Over the first 15 years, harvesting consists of 60% pine and 40% other species



# Projected impacts

12 Units





# Quesnel TSA analysis

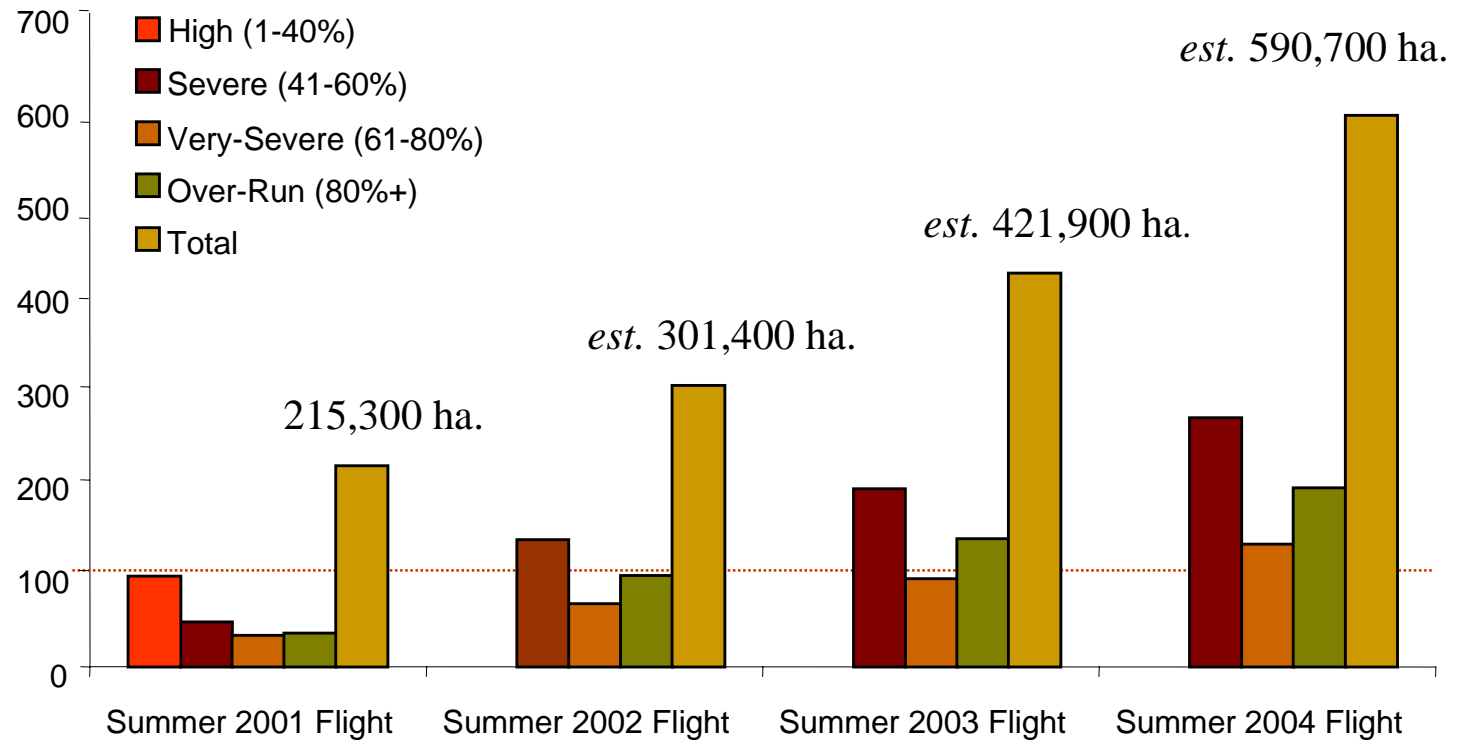
- an example of a severely infested TSA
- more detailed data available
- a true worst case scenario?



# 40% expansion rate

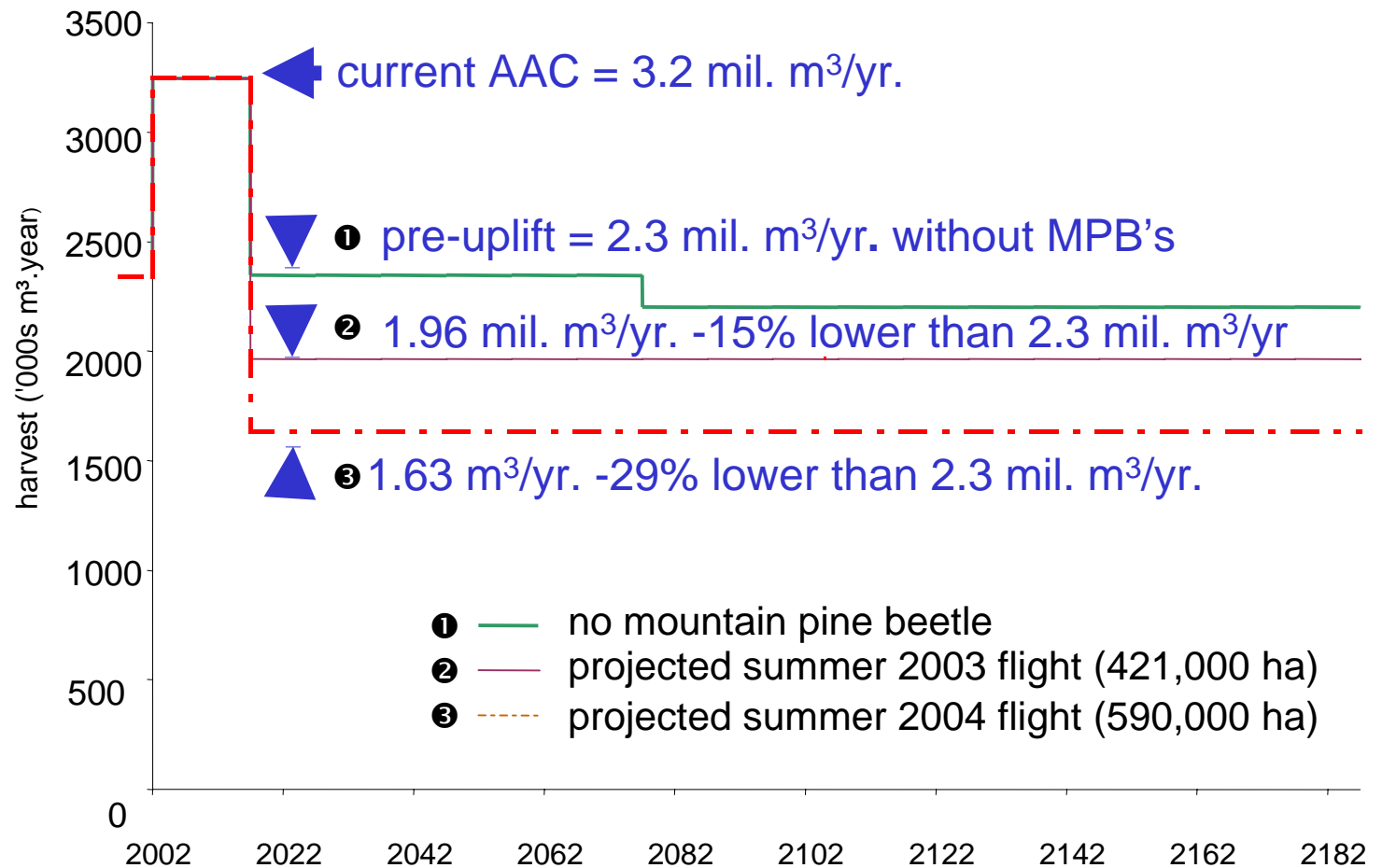
*Attack level (per cent of attacked trees)*

Infested Area  
('000s hectares)



# Quesnel TSA

## Projected Impacts





# Analysis results

*What did we  
learn?*

- **2003 data & analysis show the seriousness of the problem**
- **harvesting will likely not keep up**
- **timber supply impacts could be reduced if:**
  - **direct more harvesting to pine,**
  - **regenerate areas more quickly,**
  - **shelf life could be extended, maybe by alternative uses of beetle-killed timber**





# Challenges Ahead

- **Continue to take aggressive action**
- **Collaborate on the completion of a responsive provincial beetle strategy**
- **Determine appropriate AAC strategies**
- **Consider alternative product potential:**
  - **the short and long term, and**
  - **understanding relationships between existing forest industry and possible new industrial users of beetle-killed timber.**





For more copies of the report, *Timber Supply & the MPB infestation in BC*, see MoF website:

<http://www.for.gov.bc.ca/hts>

**Thank you**

