The Mountain Pine Beetle Outbreak: Forestry Challenge

IEA Bioenergy Program
Biofuels and Bioenergy: Challenges and Opportunities

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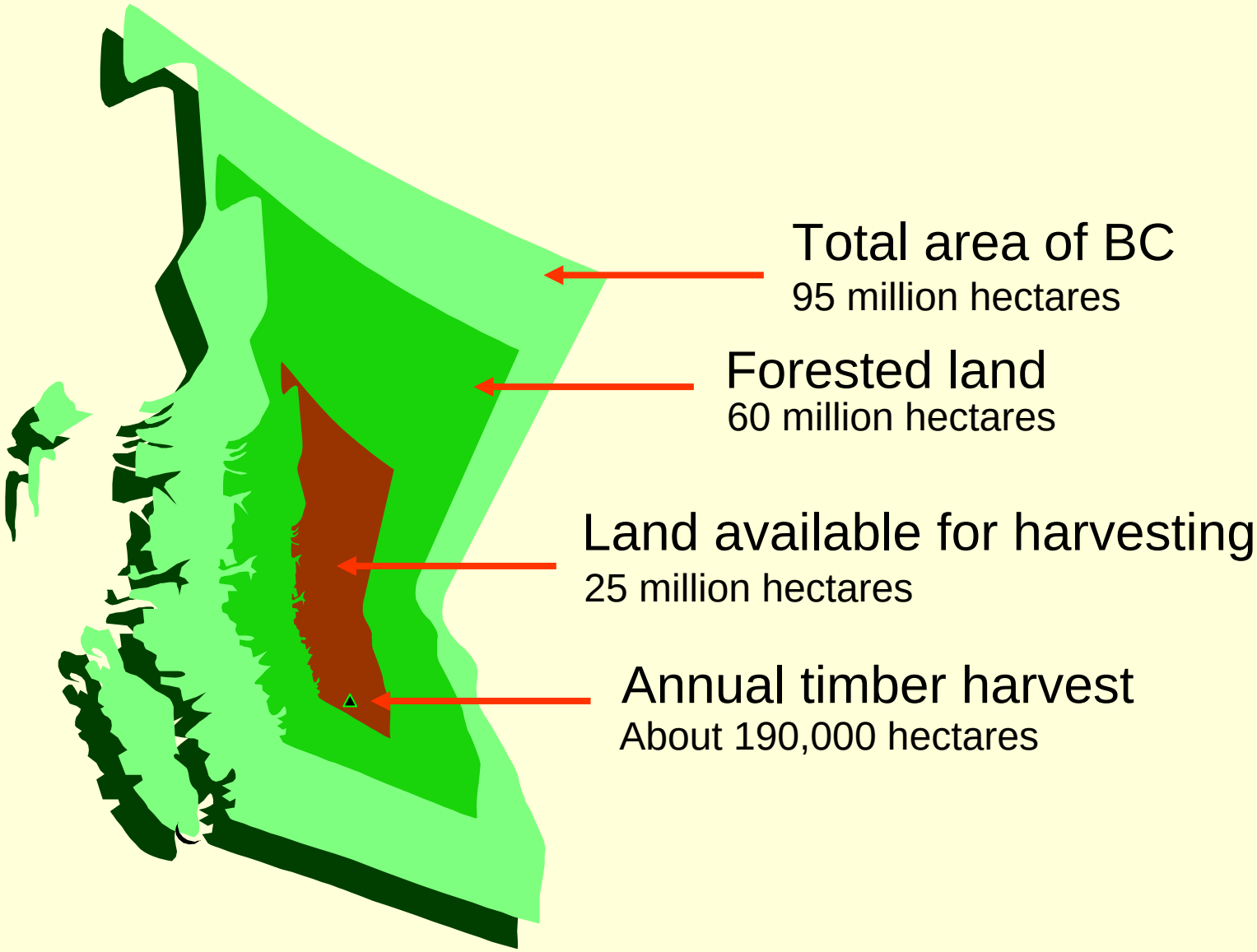
Chief Forester
British Columbia Forest Service
August 28, 2006

Introduction

- Overview of forest management in BC
- Harvest regulation/tenure system
- Mountain pine beetle epidemic
- Opportunities/challenges for bioenergy

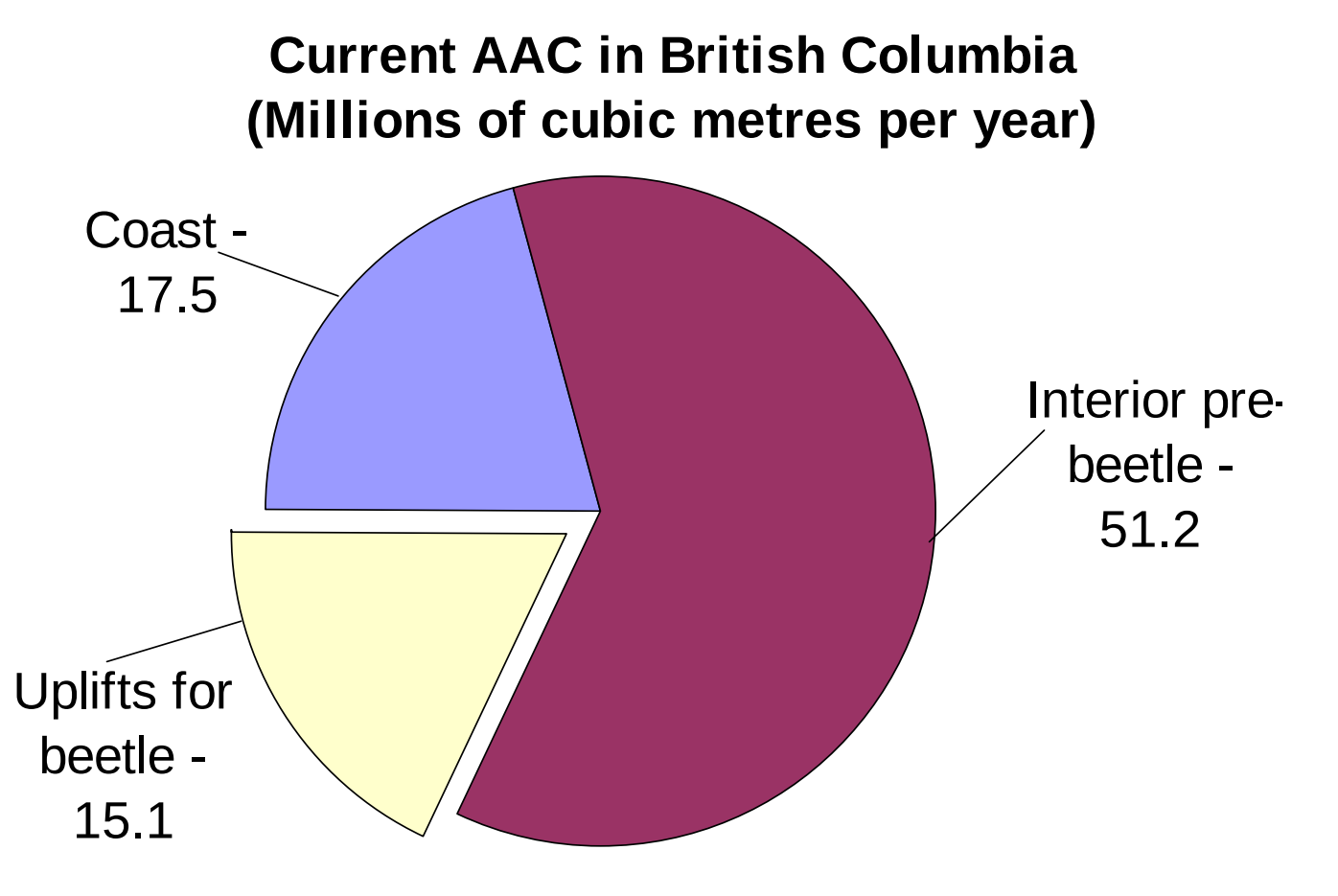
British Columbia's Forest Land Base



Managing British Columbia's Forests

- 95% of land base publicly owned
- Involve public through land use planning
- Managed for natural diversity, all interests
  - 13.8% of land base fully protected
  - 14% designated for special management

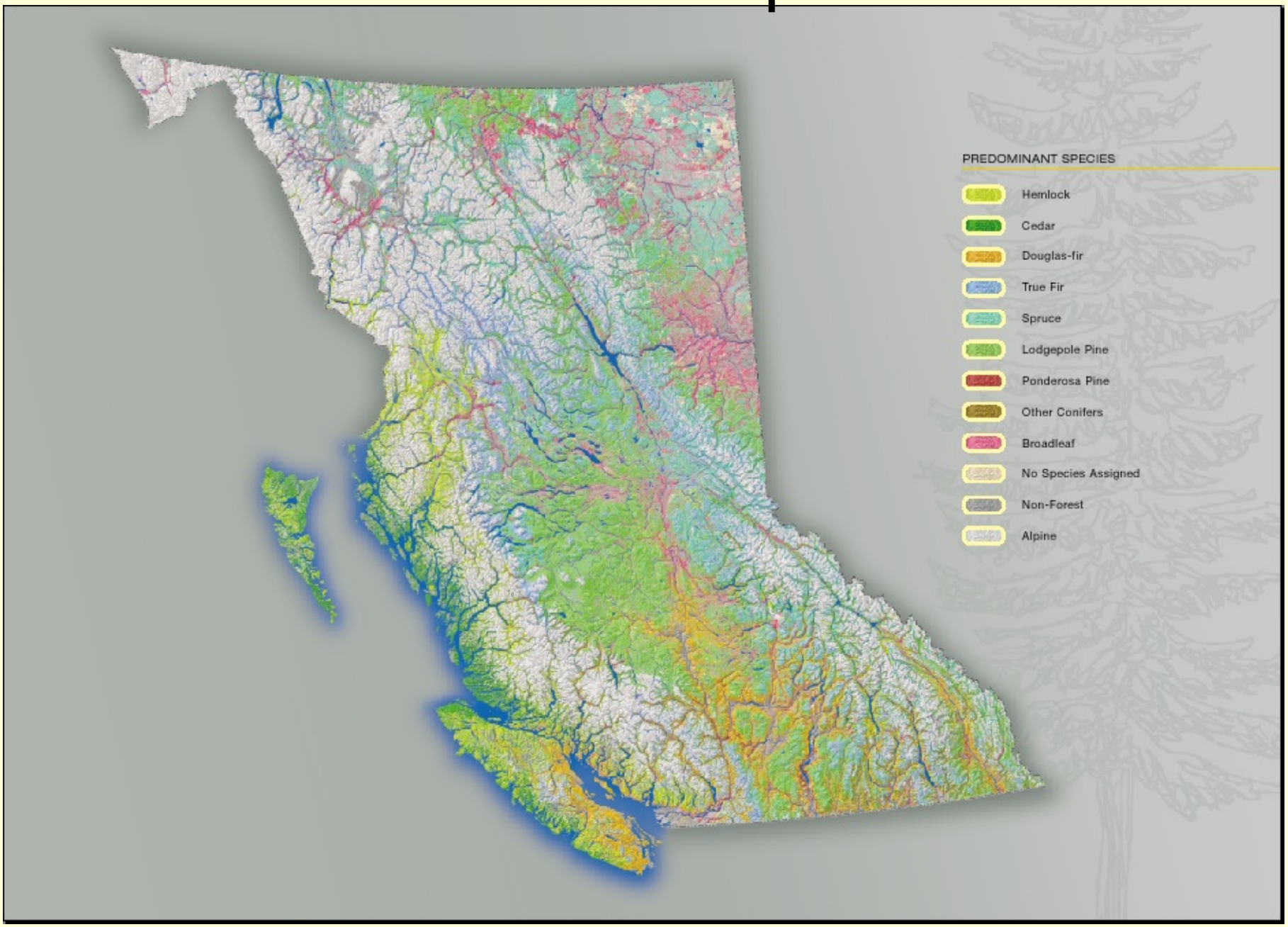
Current AAC in British Columbia



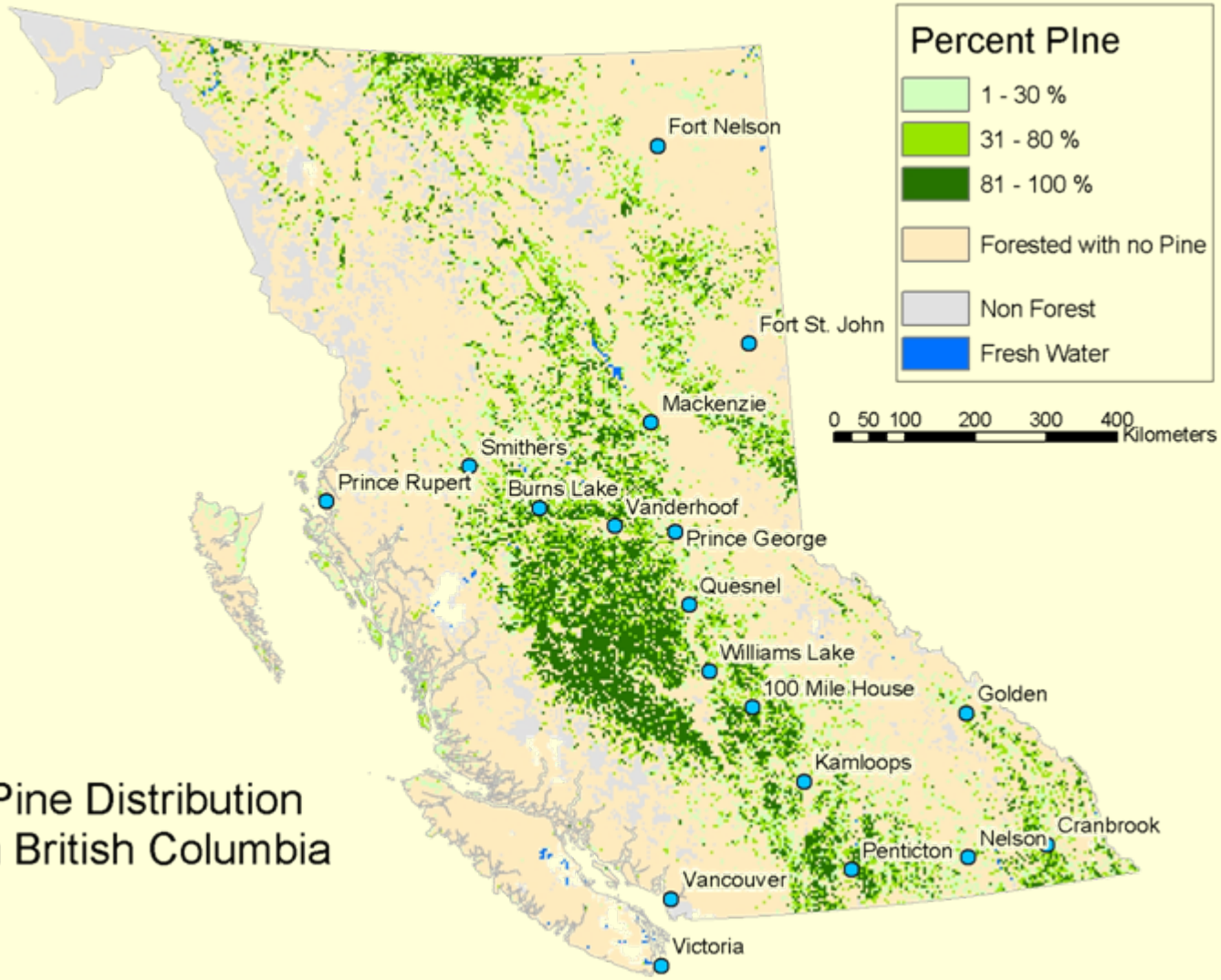
Timber Tenures in British Columbia

- Tenure system transfers specific rights for the use of public forests to companies, communities, individuals
- Different forms of tenure for different uses
- Large tenures often replaceable, providing long-term supply

Predominant Species



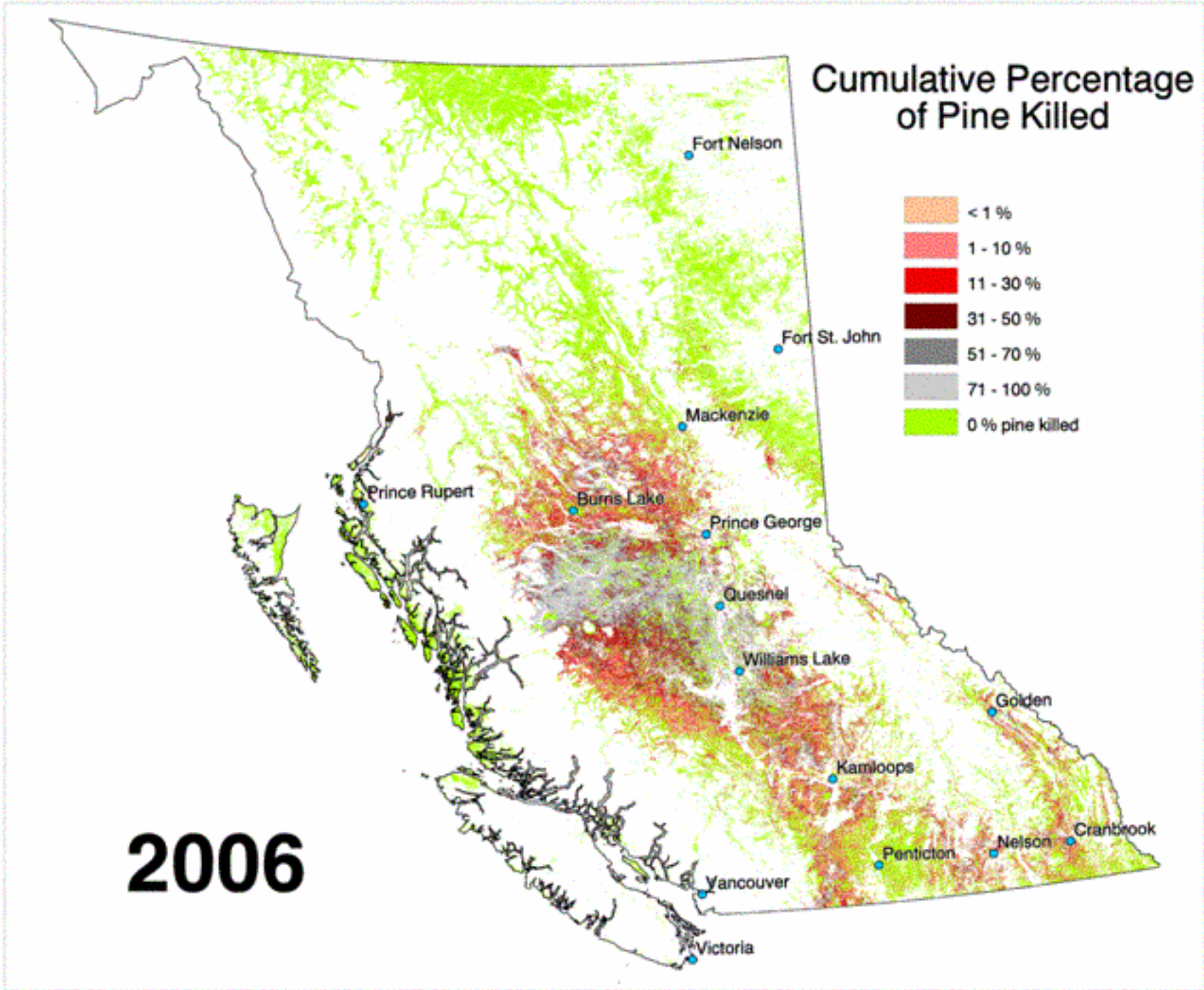
Pine Distribution in British Columbia



Pine Distribution
in British Columbia

Mountain Pine Beetle Infestation

- Current infestation unprecedented
- Main reasons include
  - Climate change/warm winters
  - More mature lodgepole pine
- Will likely end only when mature pine is depleted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11 - 30 %
31 - 50 %
51 - 70 %
71 - 100 %
0 % pine killed
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Mackenzie
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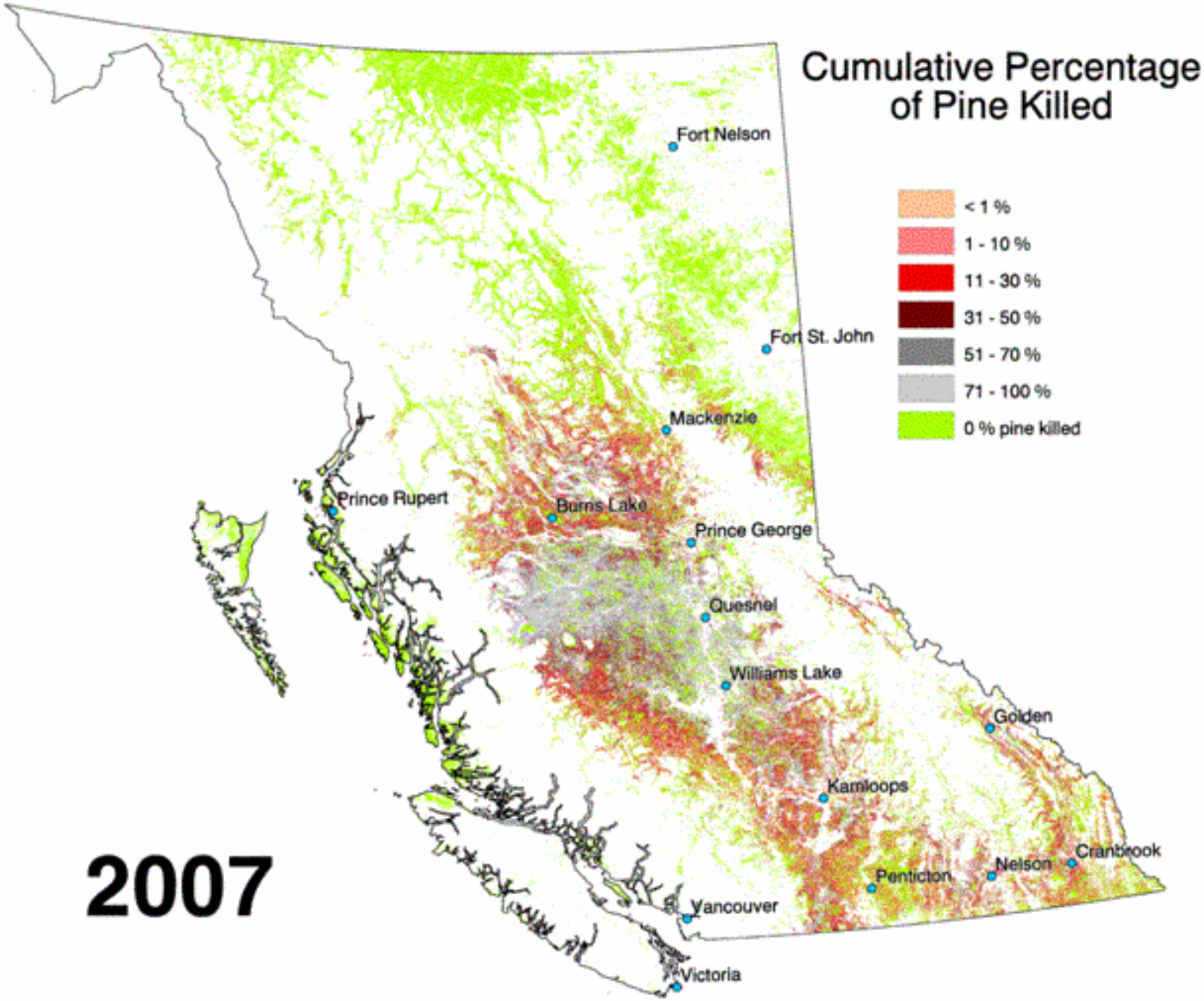
Vancouver
Victoria
2006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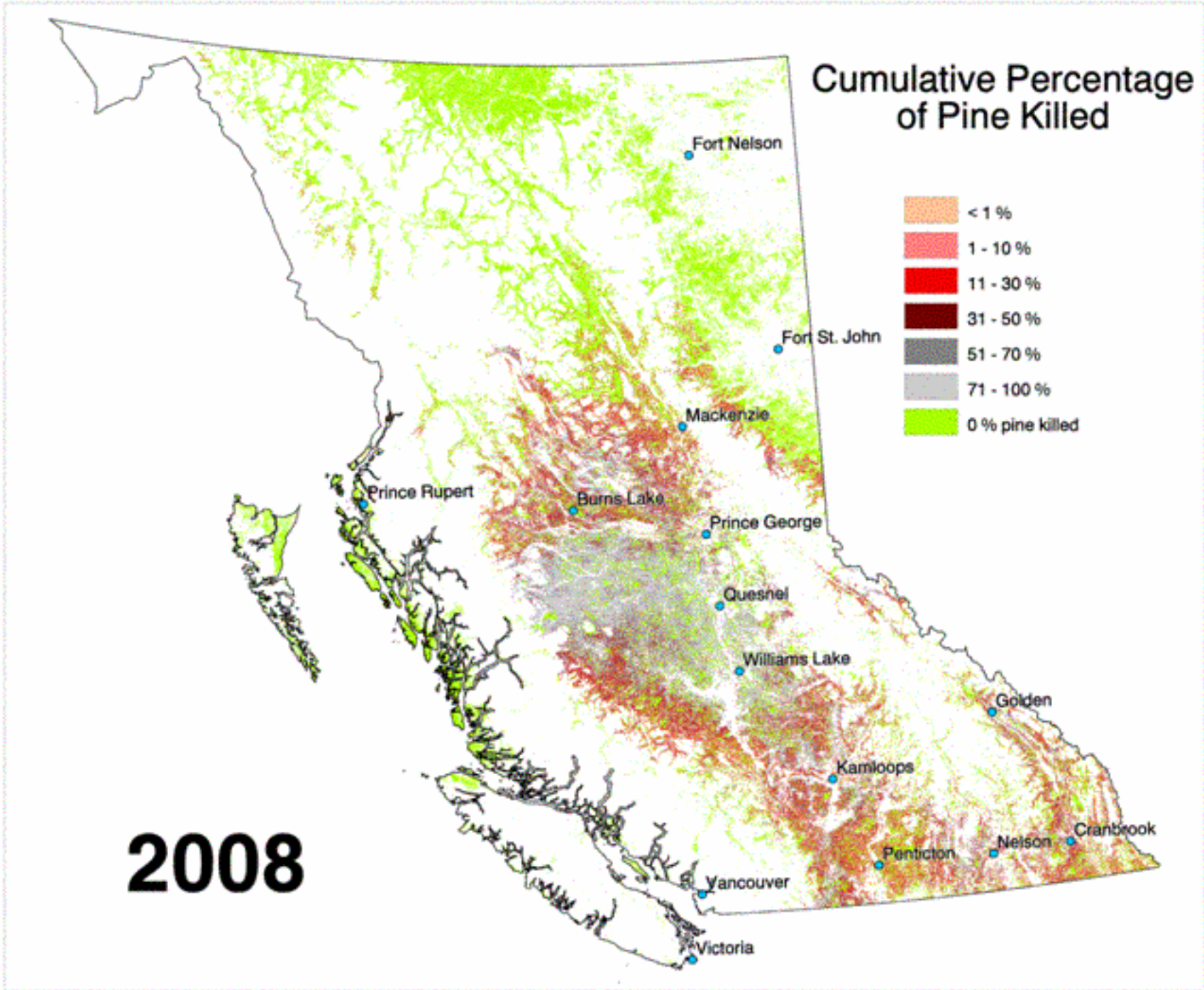
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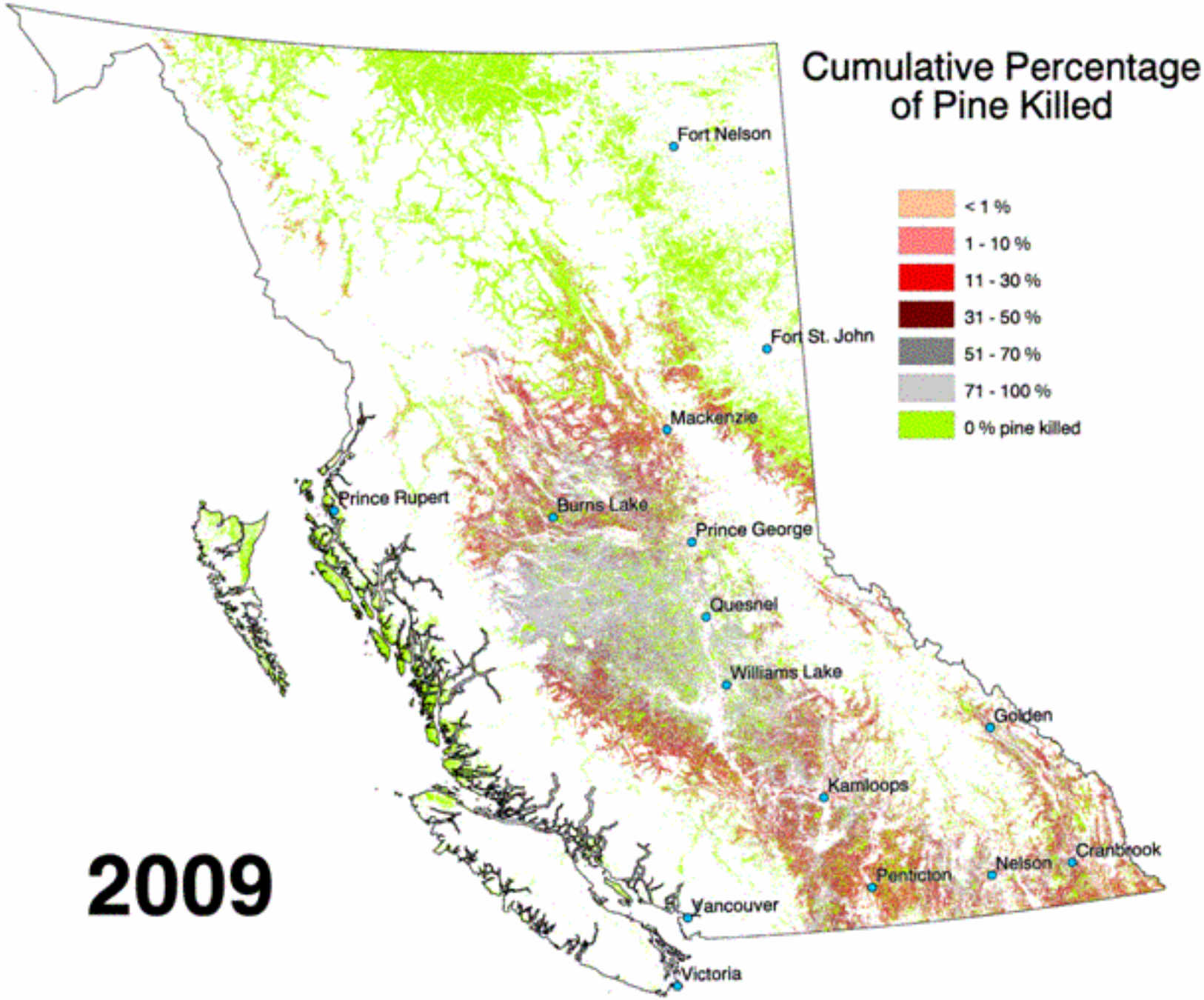
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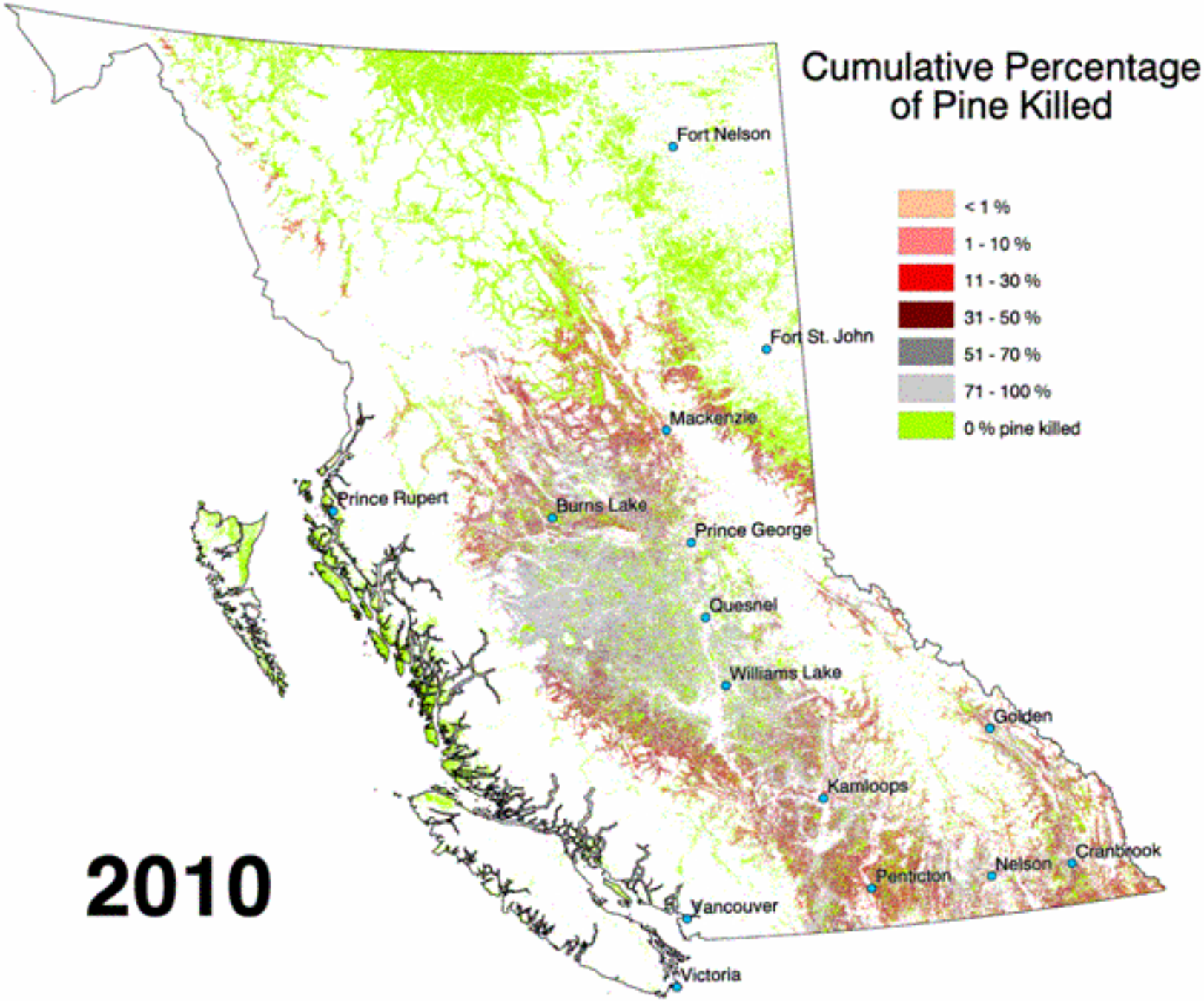
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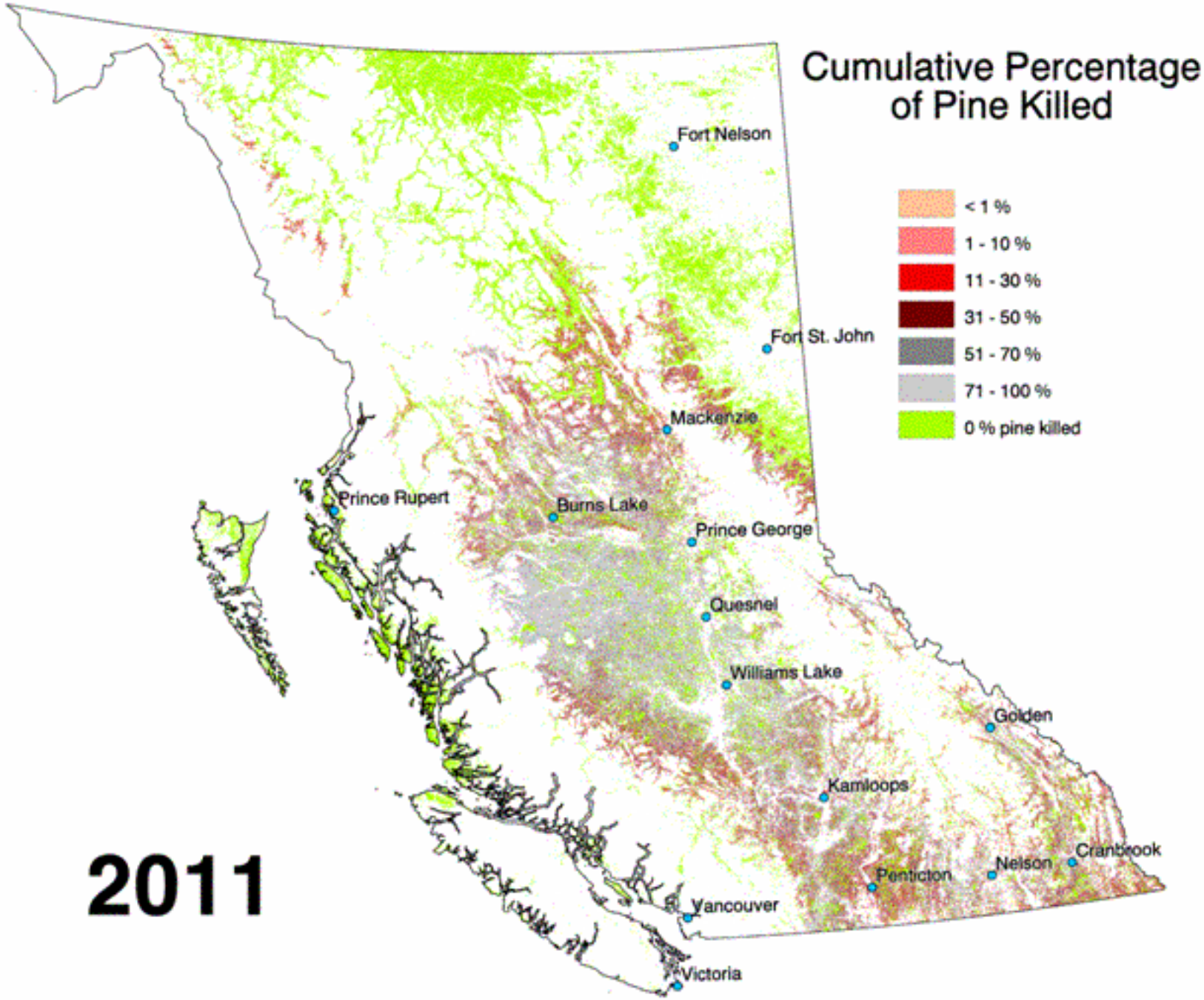
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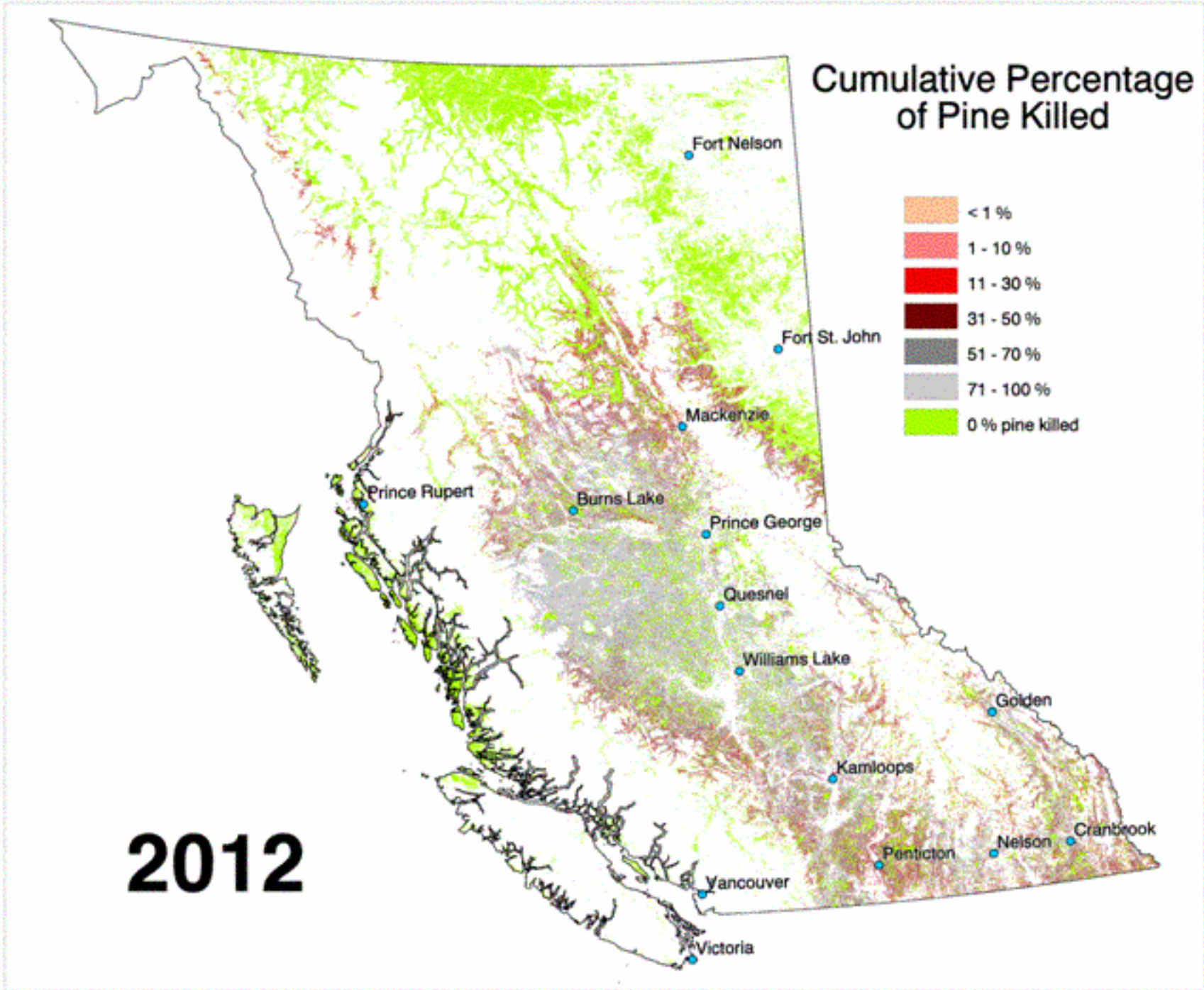
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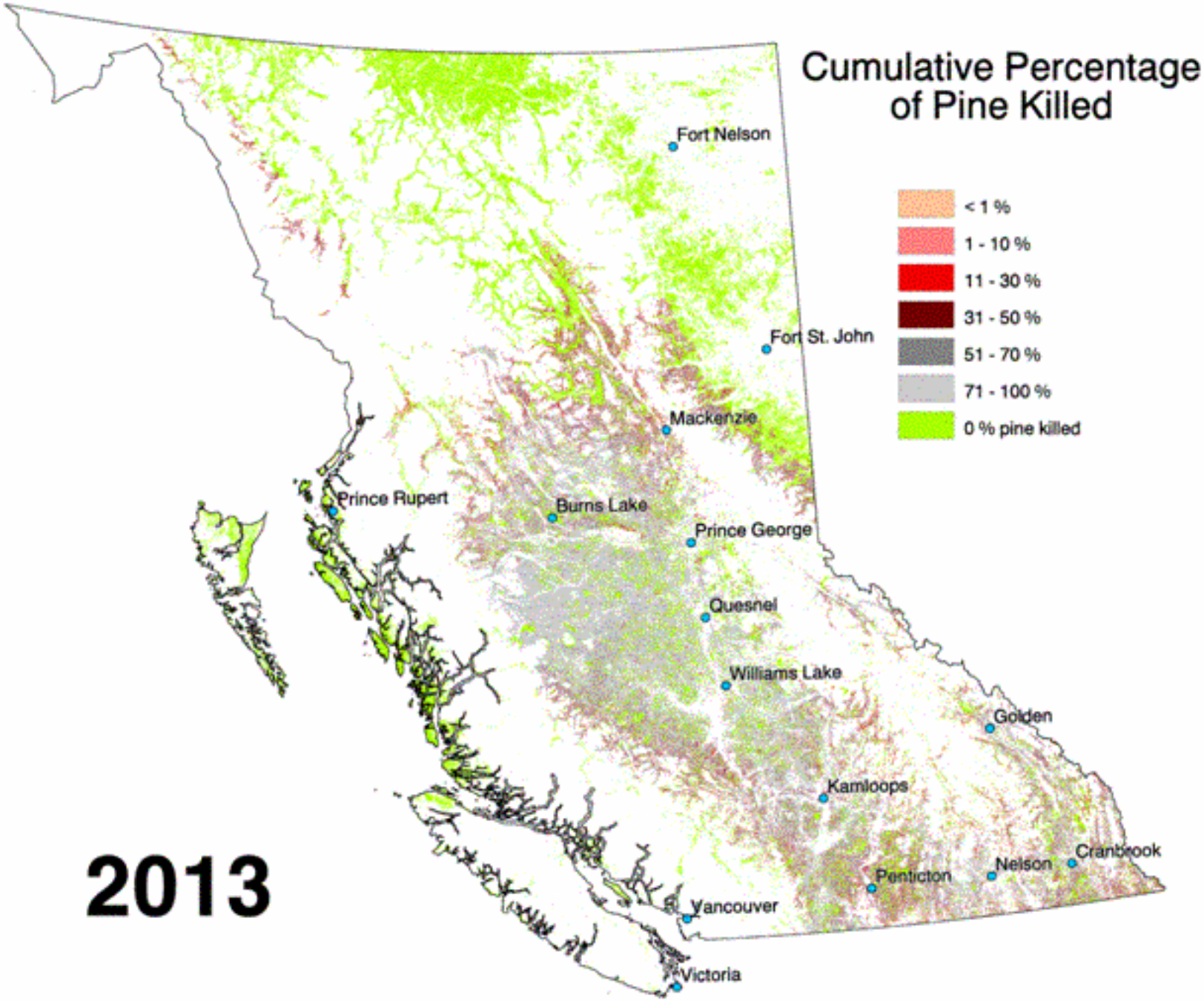
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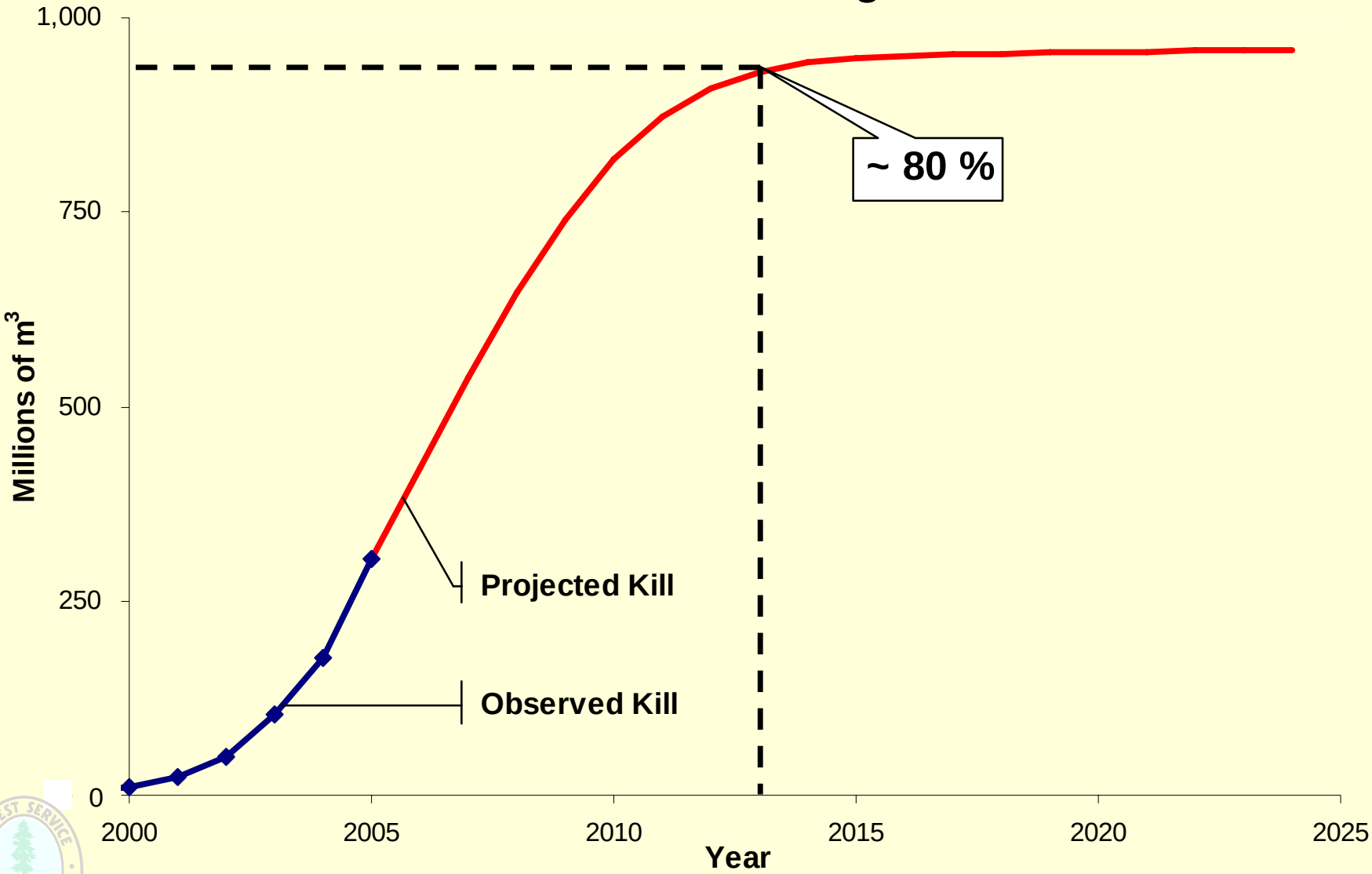
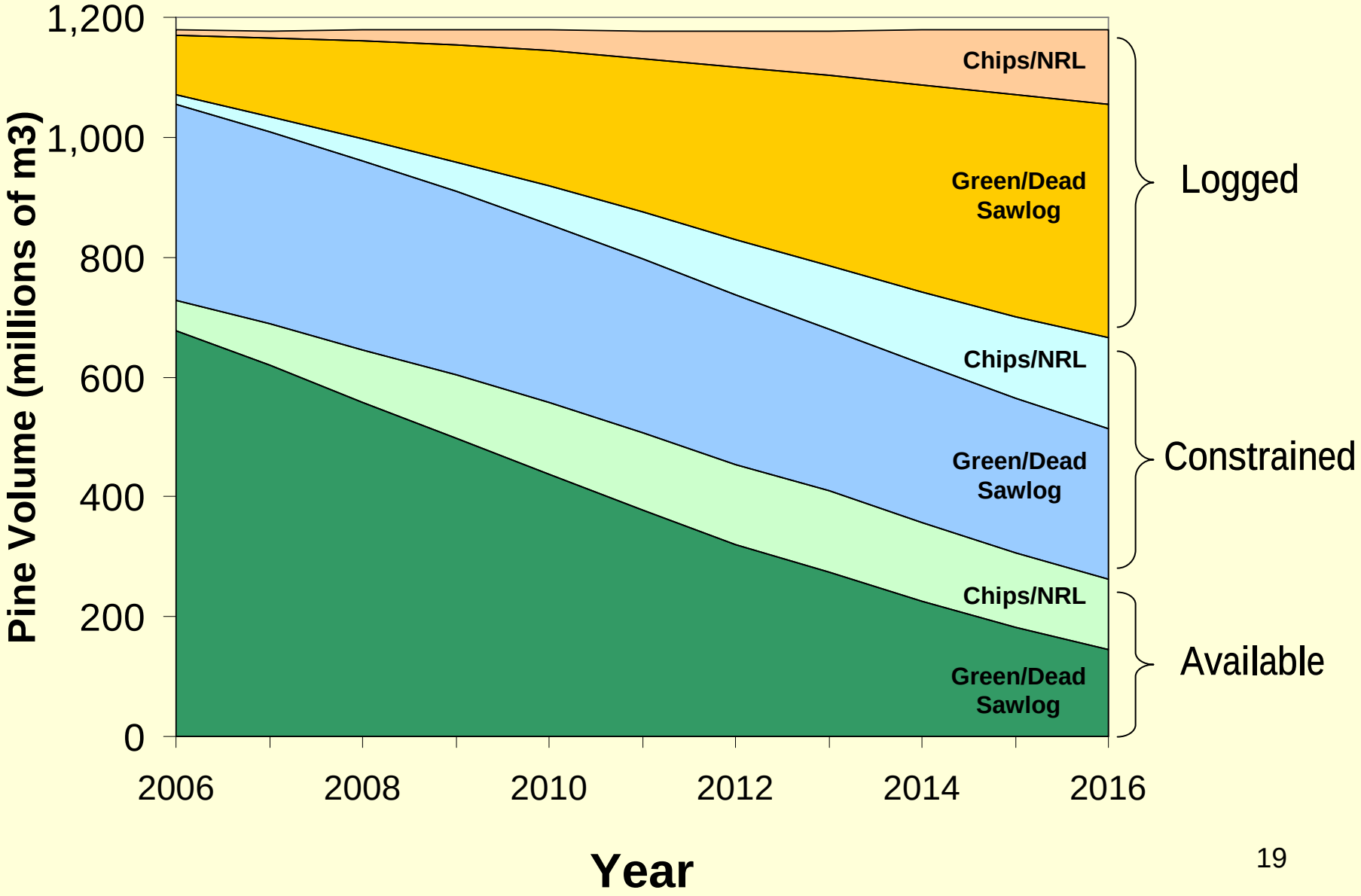
Cumulative Volume Killed on the Timber Harvesting Land Base



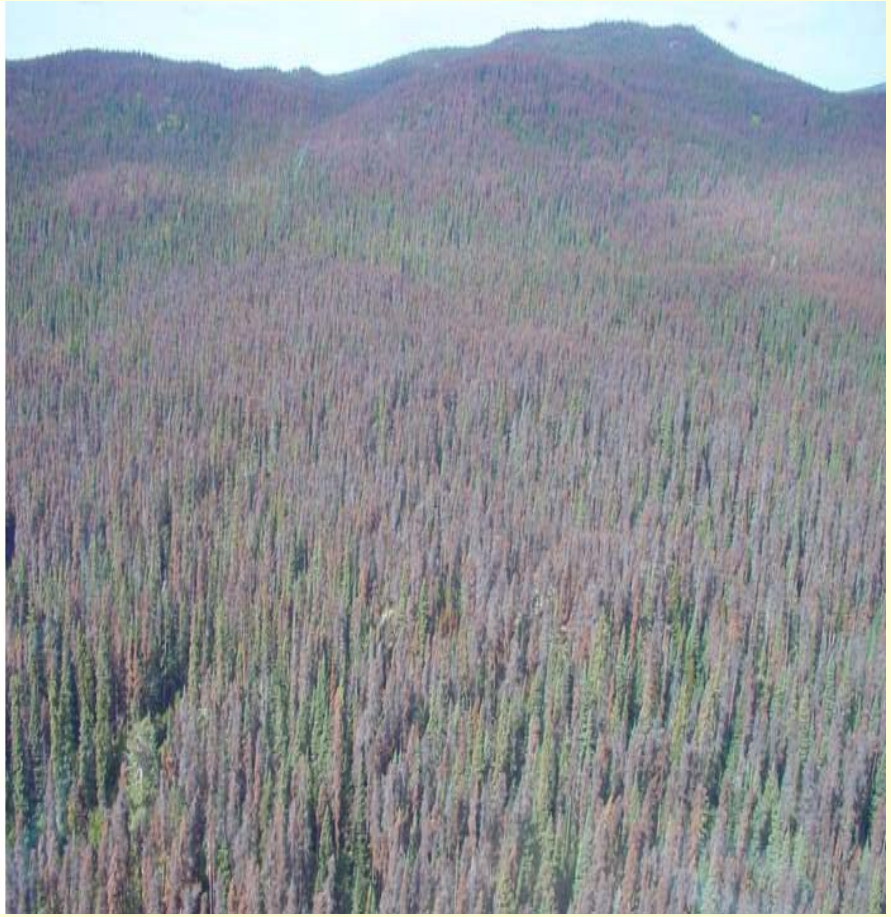
Shelf Life Projection



Current Biofuel Production and New Projects

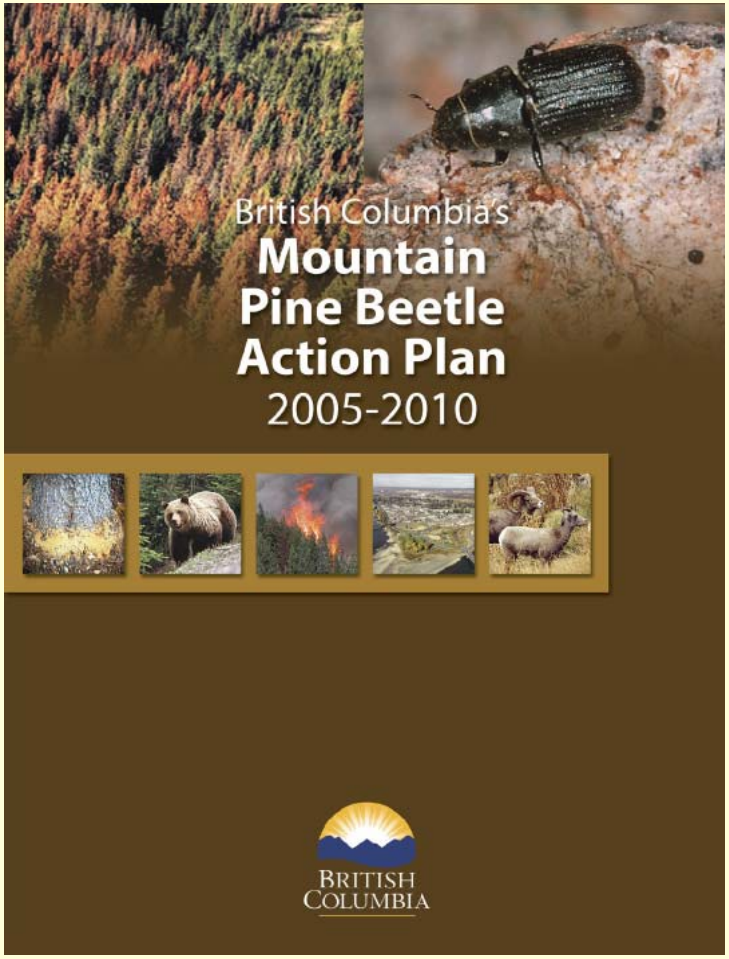
- Current annual production
  - 9 million GJ wood pellets, most exported
  - 4,000 GW hours of electricity from wood residue combustion, most used by forest operations
- New developments include
  - Tolko-Nexterra gasification project
  - Mackenzie Green Energy Centre cogeneration

Biofuel Opportunities



- Infestation will result in more salvage wood residues (mill & landings)
- Bioenergy potential in wood residues and extending conventional shelf life

Economic Diversification



- Action plan calls for economic diversity
- Looking to
  - Tourism
  - Agriculture
  - Mining
  - Energy

Conclusion

- BC developing strategic options for bioenergy
- There are challenges to overcome BUT
- Opportunities exist for bioenergy and biorefining

- **IEA Bioenergy Workshop ideas welcomed!**