The Forest Harvest

Roading Workshop 2005

NEW ZEALAND
FOREST OWNERS' ASSOCIATION INC.

Local Government New Zealand
te pūtahi matakōkiri

Objectives

- Increase understanding of location and volume of harvesting trends over the next ten years on a district by district basis.
- Examine the impact on district roads by forestry land use compared to other land uses.
- Explore the options for the funding of district roads for logging truck traffic.
- Discuss the standard required for pavement strength and safe geometry for logging truck traffic (i.e. "fitness for purpose").

Dr Robin Dunlop

Secretary for Transport

Opening Comments

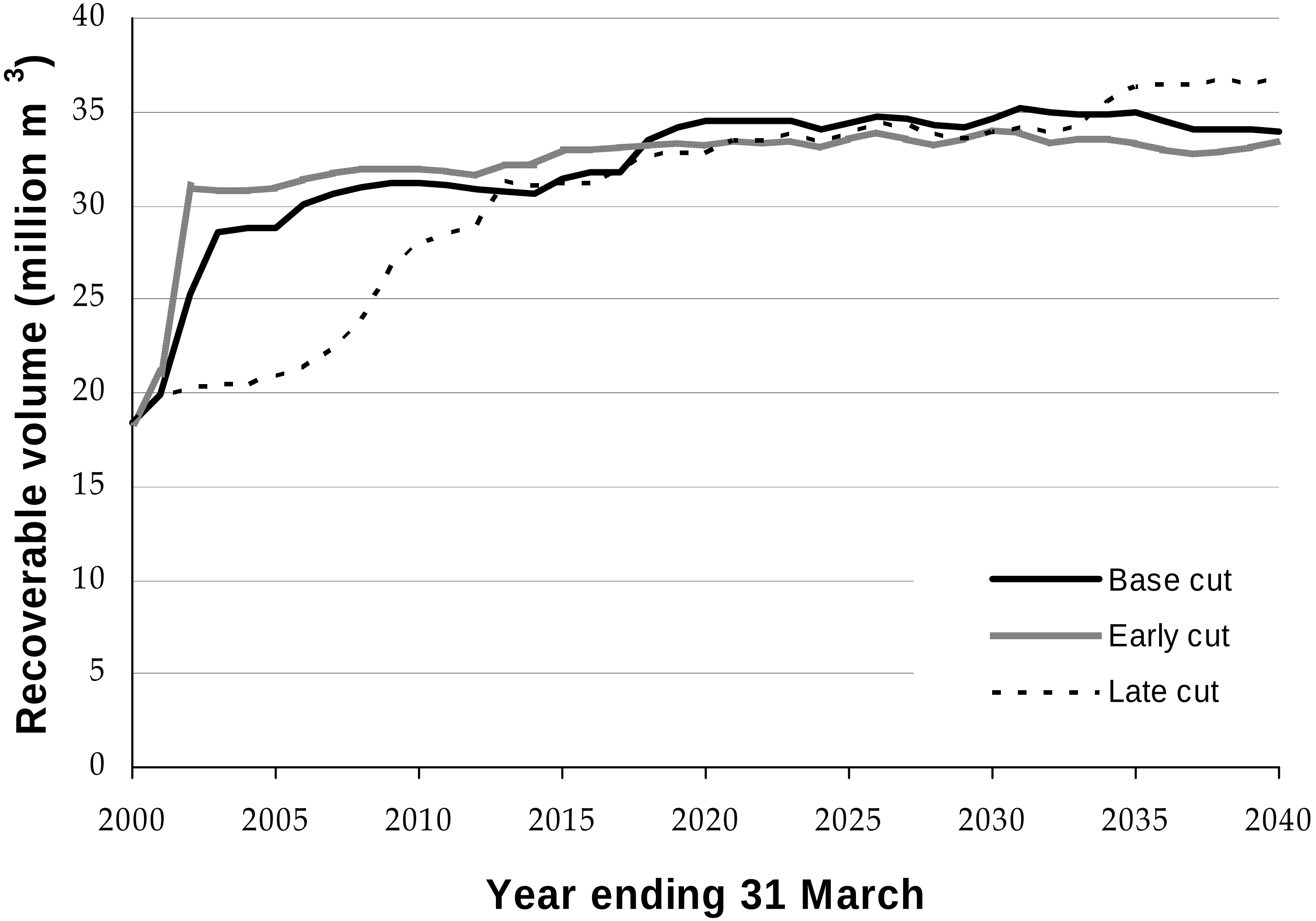
Paul Lane
Ministry of Agriculture & Forestry

Forest Harvest Trends
&
Forest Resource Information

Outline

- Purpose of wood availability forecasts
- Past harvesting trends
- Future harvesting trends
- Sources of information
- Case study

What are wood availability forecasts?



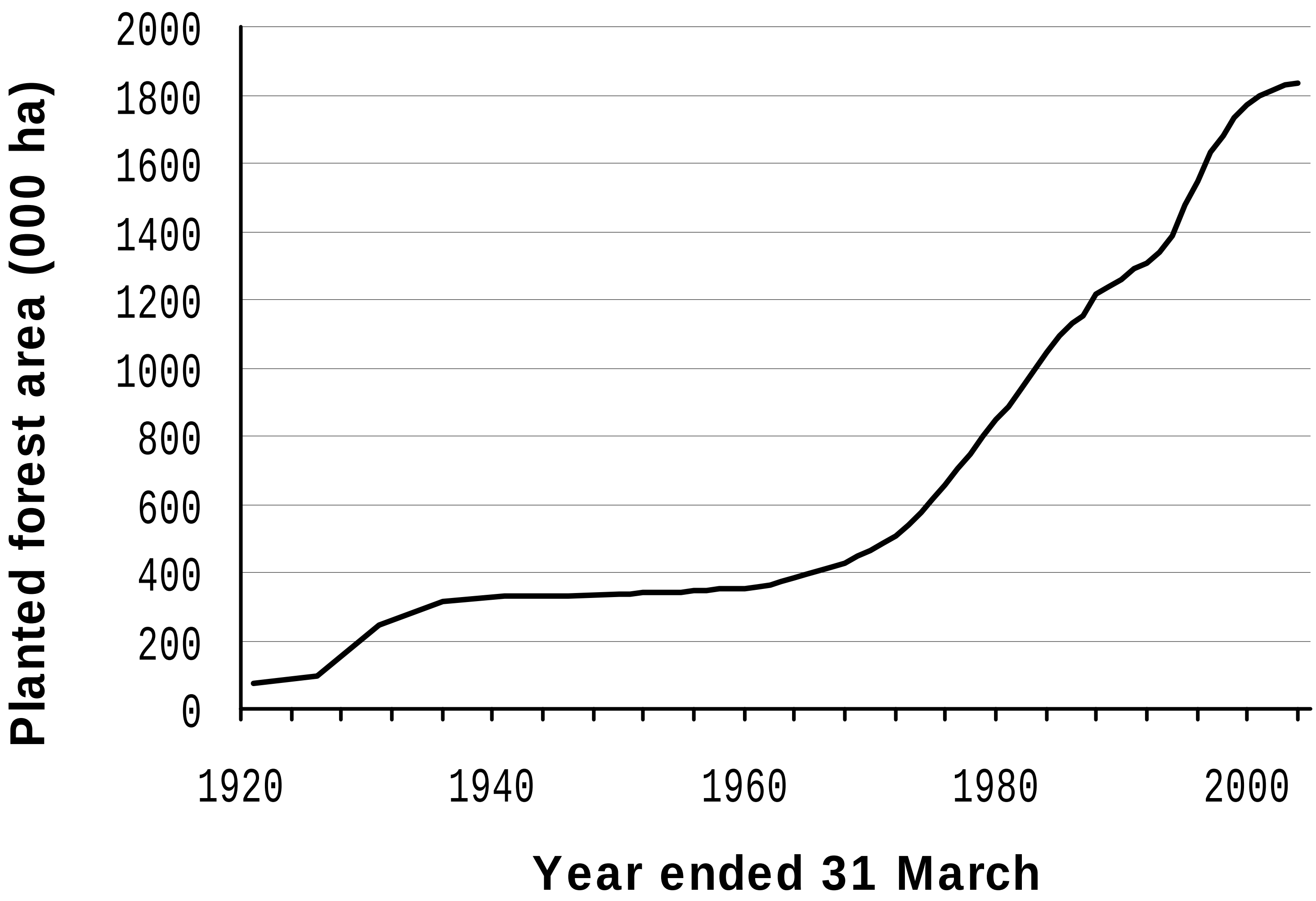
Purpose of wood availability forecasting

- To show potential availability of wood under different scenarios
- NOT to predict what will actually happen
- BUT to indicate a range which the future harvest is expected to fall

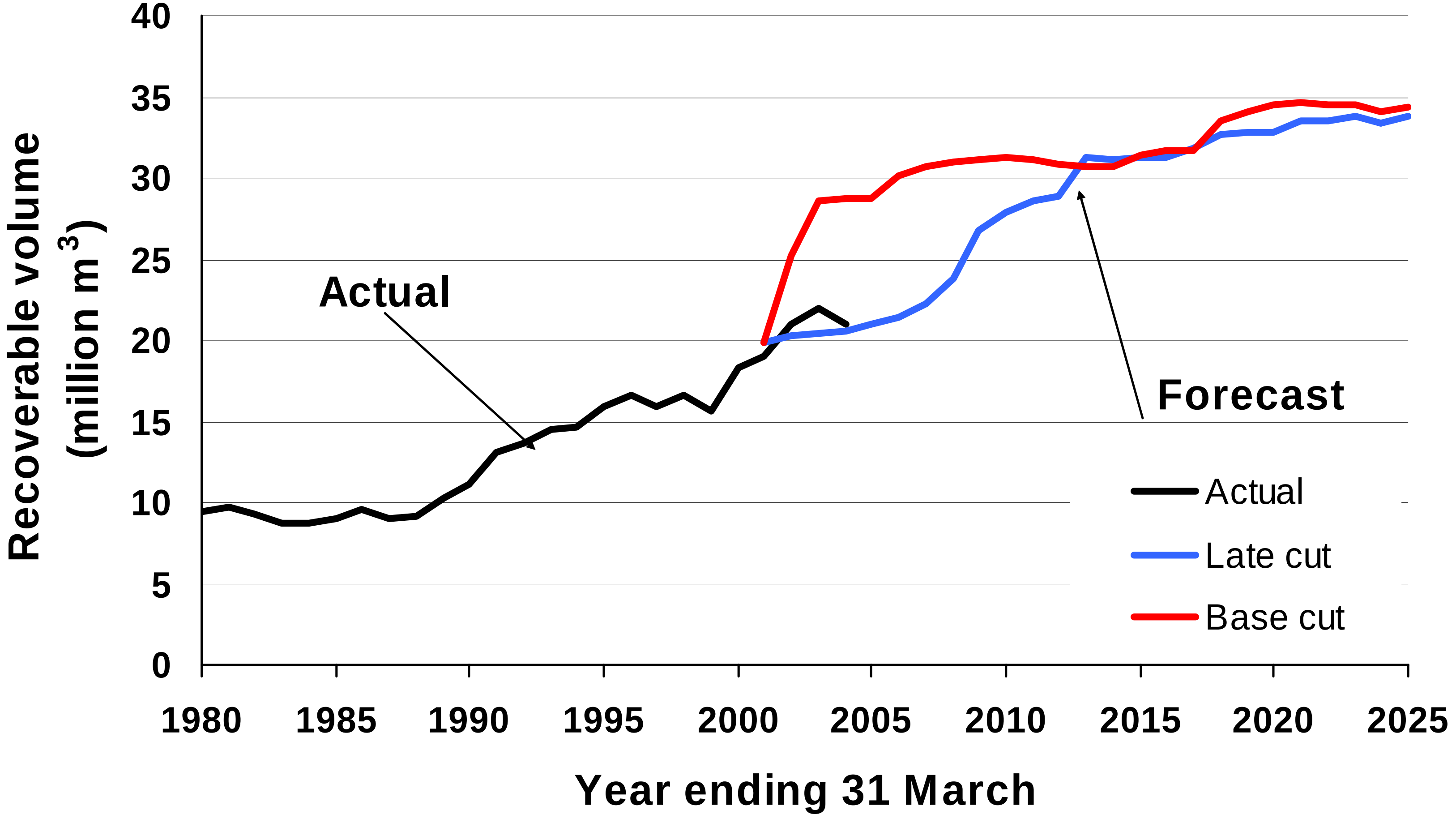
Uses of forecasts

- Companies scoping wood processing investments
- Planning infrastructure development
  - Ports
  - Railways & Roads
  - Energy
  - Labour etc

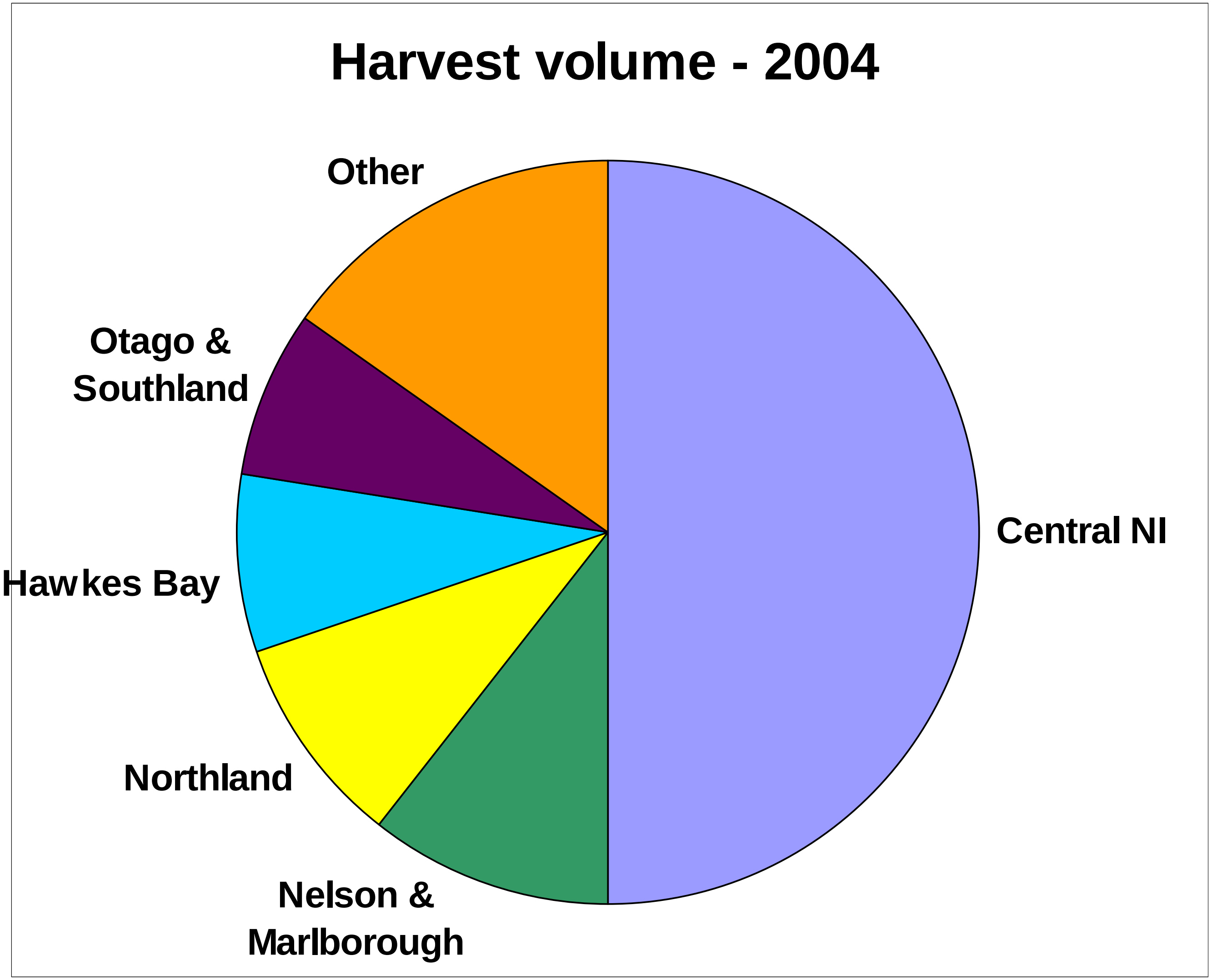
Why the interest in wood supply?



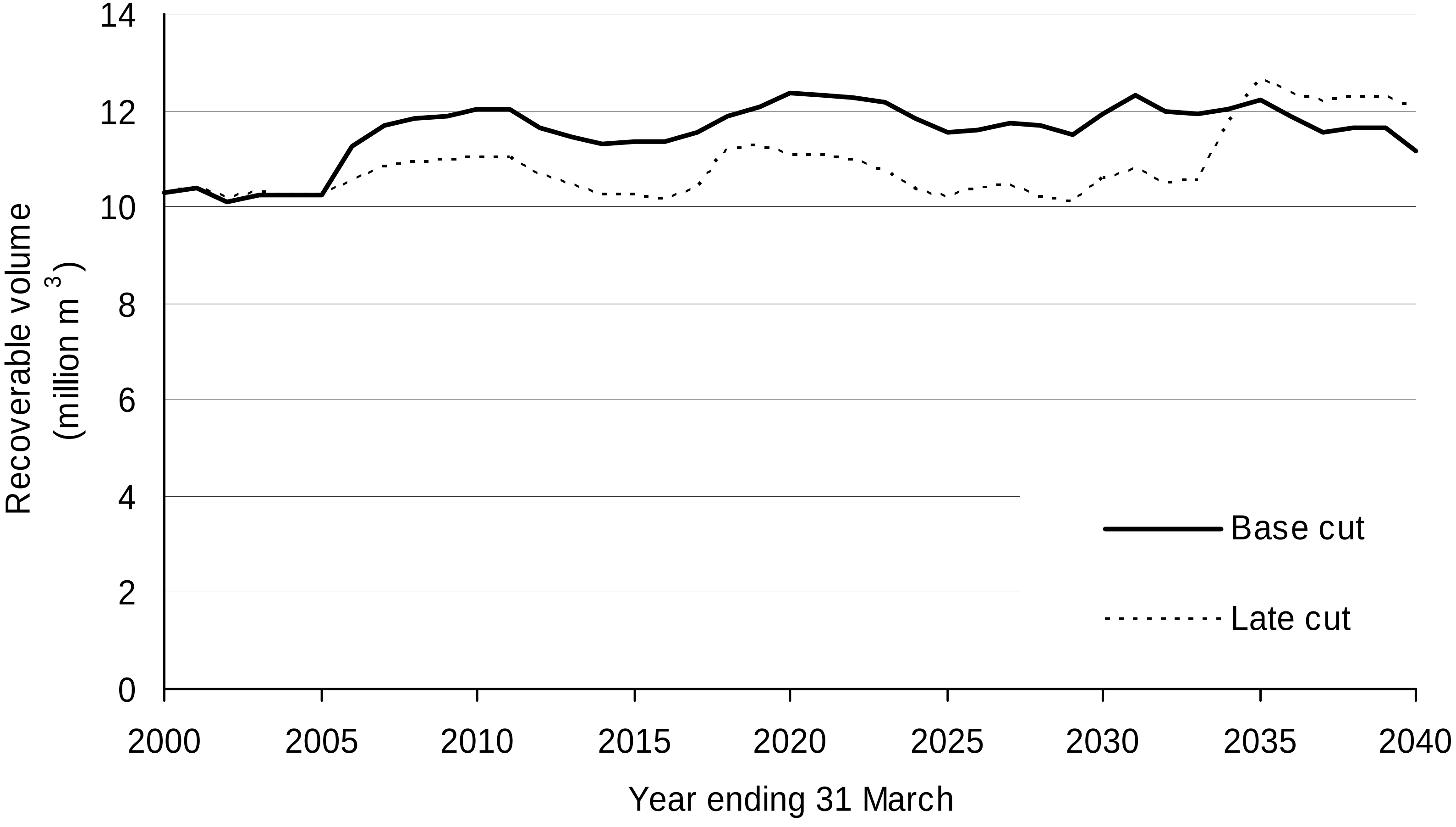
NZ Past harvest and future availability



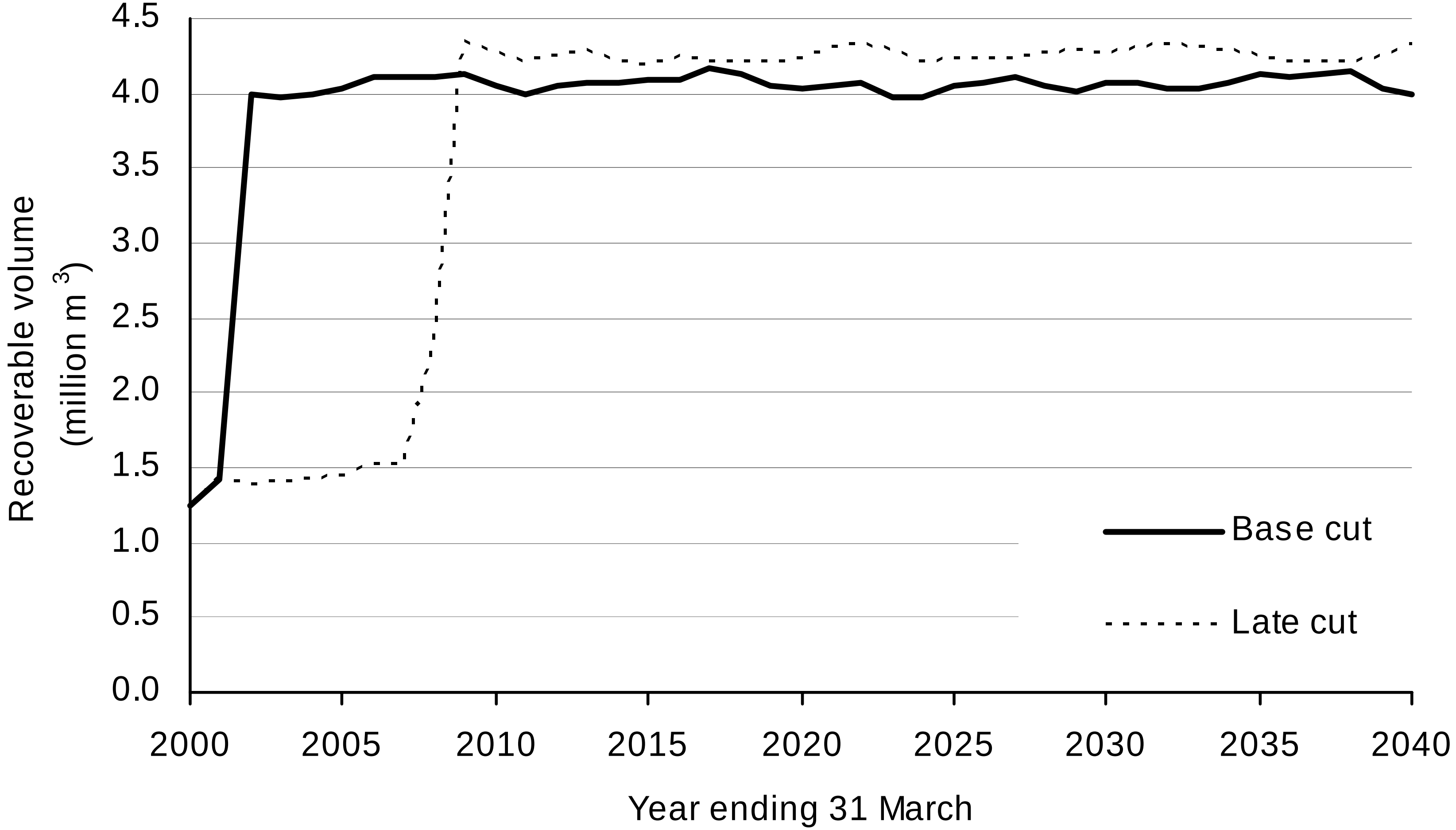
Regional Trends



Central North Island



Northland



4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Recoverable volume
(million m3)
2000
2005
2010
2015
2020
2025
2030
2035
2040
Year ending 31 March
Base cut
Late cut

Current trends

- Current log market conditions are poor
  (High exchange rate, shipping costs, tighter international market conditions)
- Resulting in a general slow down in harvesting, particularly log exports
- Major changes in forest ownership
  - FCL forests sold
  - CHH are selling 40% of their forests
- Owners harvesting strategies are changing – trend is increasing forest age

Current trends continued

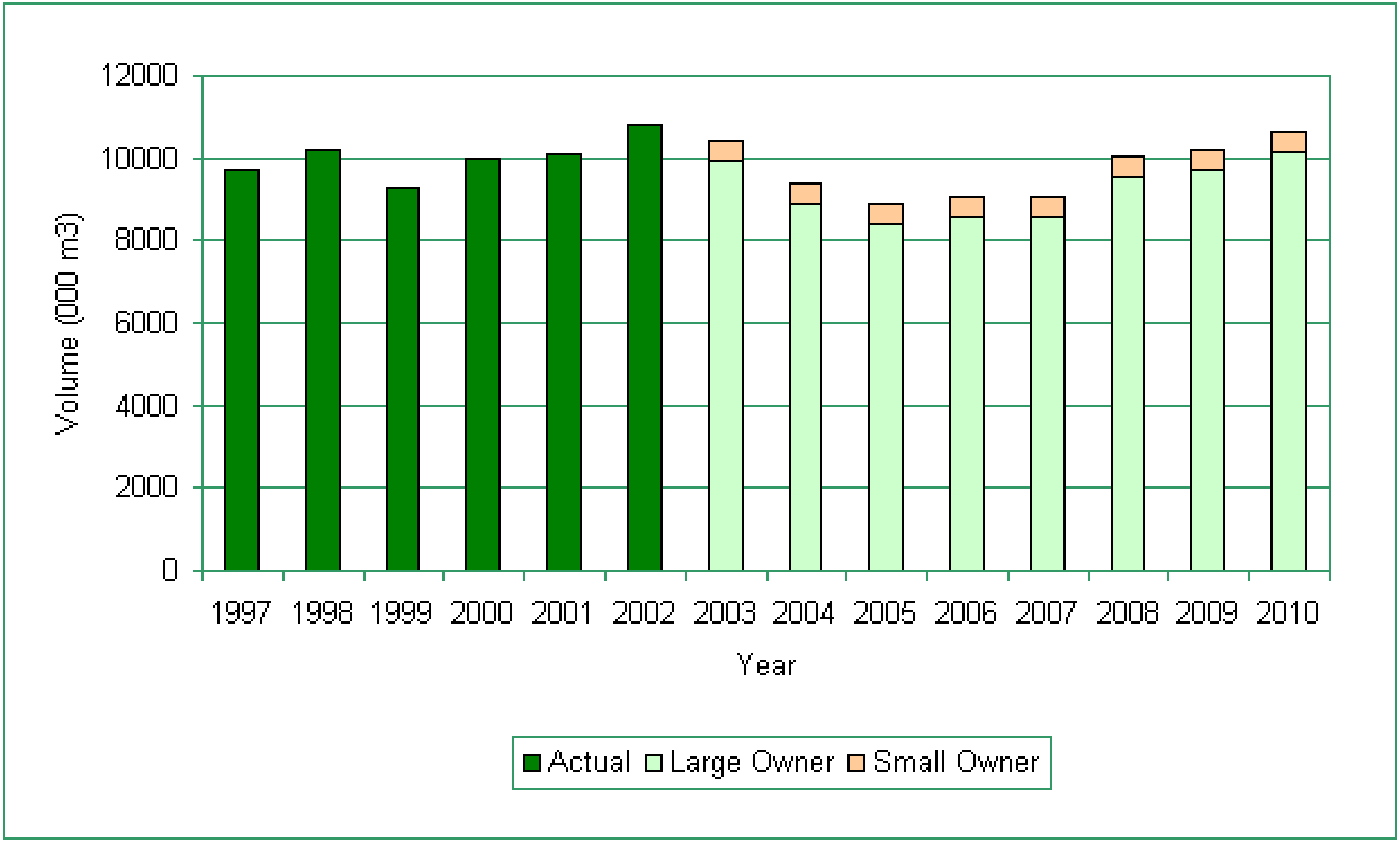
- Decline in harvesting – a short term phenomenon?
- Reduced harvest = increasing timber volumes growing in forests
- Message
  - current slow down will result in larger timber volumes in future
  - No time for complacency
  - NZ under-invested infrastructure
  - Investment in infrastructure needs to proceed

Harvesting intentions

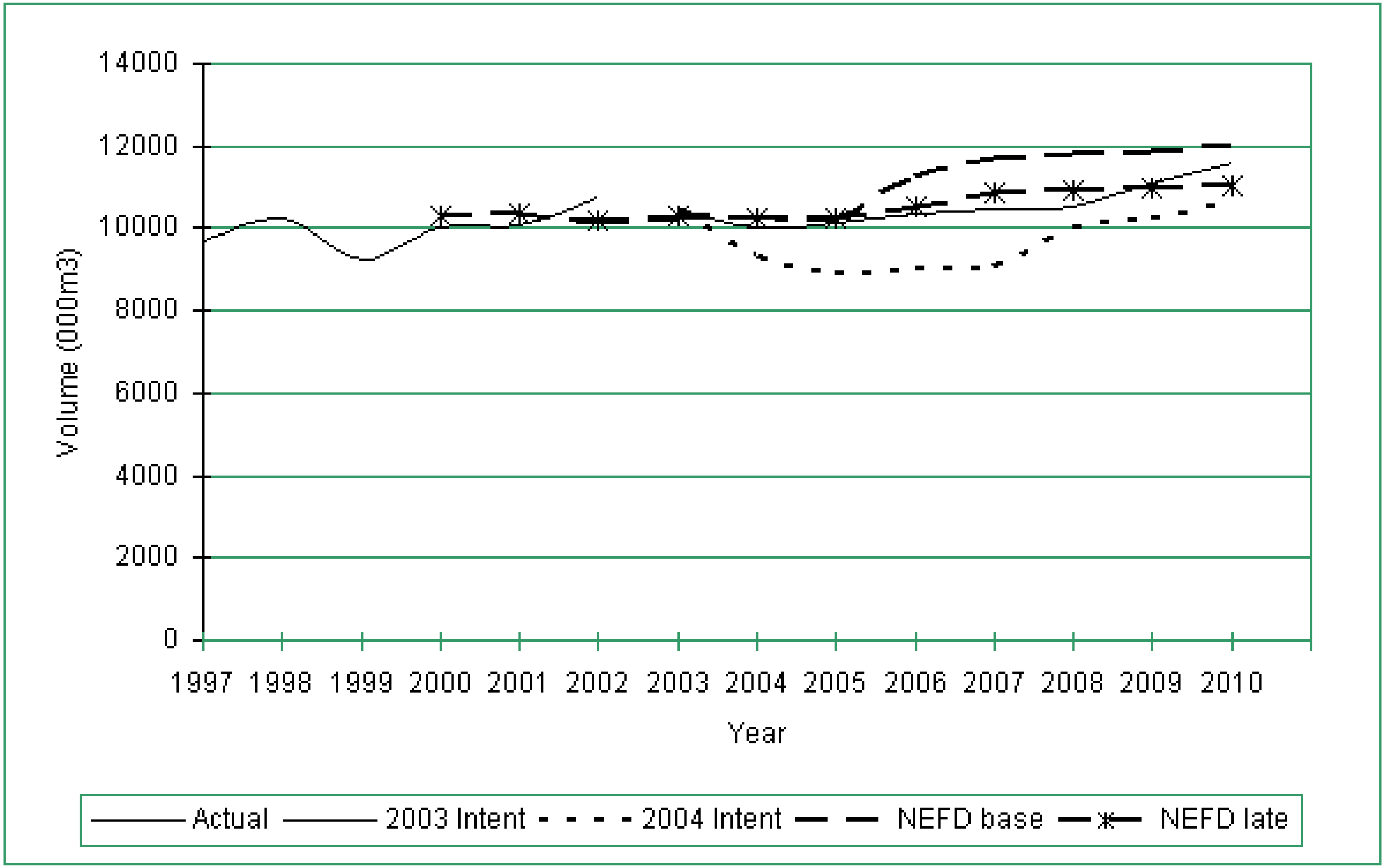
- With the more dynamic situation a number of harvesting intention survey's have been undertaken by MAF:
  - Central North Island
  - Nelson and Marlborough
  - Otago and Southland
  - Southern North Island

  www.maf.govt.nz/statistics/primaryindustries/forestry/forest-resources
- Similar studies by consultants in:
  - Northland
  - East Coast
  - Hawkes Bay

CNI - Harvesting intentions 2004



Intentions compared to NEFD forecasts



Most forests owned by large owners

- Most harvesting done by a few large forest owners
- 70% of area (1.3 million ha) owned by large owners
- BUT varies by region:
  - Central North Island – large owners forests: **90%** of area
  - Southern North Island – large owners forests: **40%** of area

Sources of information

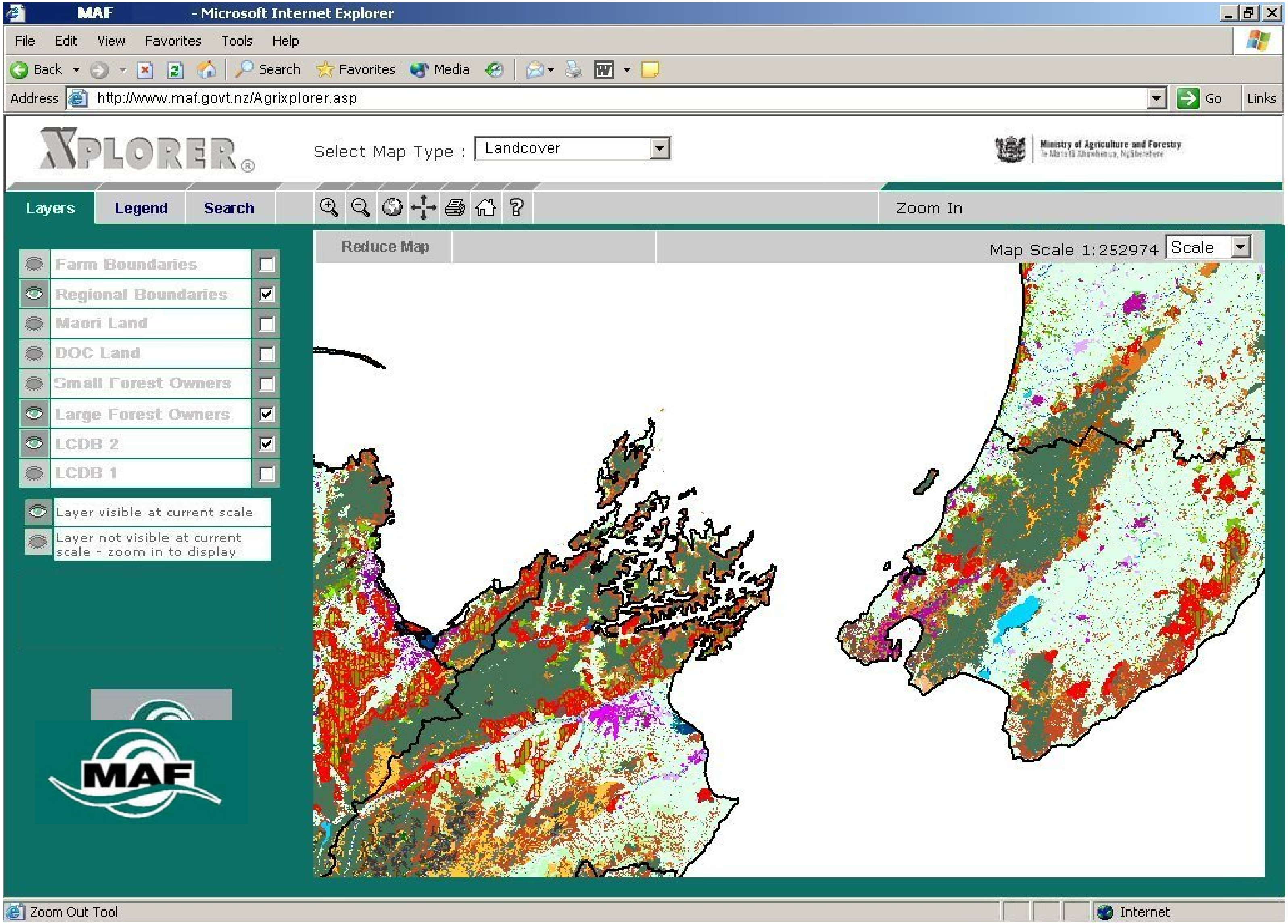
Forest Areas – Available now

- A NEFD as at 1 April 200x – MAF Web Site
- Land Cover Database version 2 – Terralink
- Large Forest Ownership Maps – MAF web site

Forest Areas – Available in future

- Enhanced forest ownership maps (broad age classes + more owners) - internet GIS via MAF web site

MAF Web Maps


MAF - Microsoft Internet Explorer
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Back Search Favorites Media
Address http://www.maf.govt.nz/Agrixplorer.asp
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Select Map Type : Landcover
Ministry of Agriculture and Forestry
Layers Legend Search
Zoom In
Reduce Map
Map Scale 1:252974 Scale
Farm Boundaries
Regional Boundaries
Maori Land
DOC Land
Small Forest Owners
Large Forest Owners
LCDB 2
LCDB 1
Layer visible at current scale
Layer not visible at current scale - zoom in to display
MAF
Zoom Out Tool
Internet

Sources of information

Forecasts – Available now

- 2000 NEFD National and Regional Wood Supply Forecasts – MAF Web Site
- Harvesting intentions surveys – MAF Web Site
- 2005 review of NEFD Wood Supply Methodology – MAF Web site

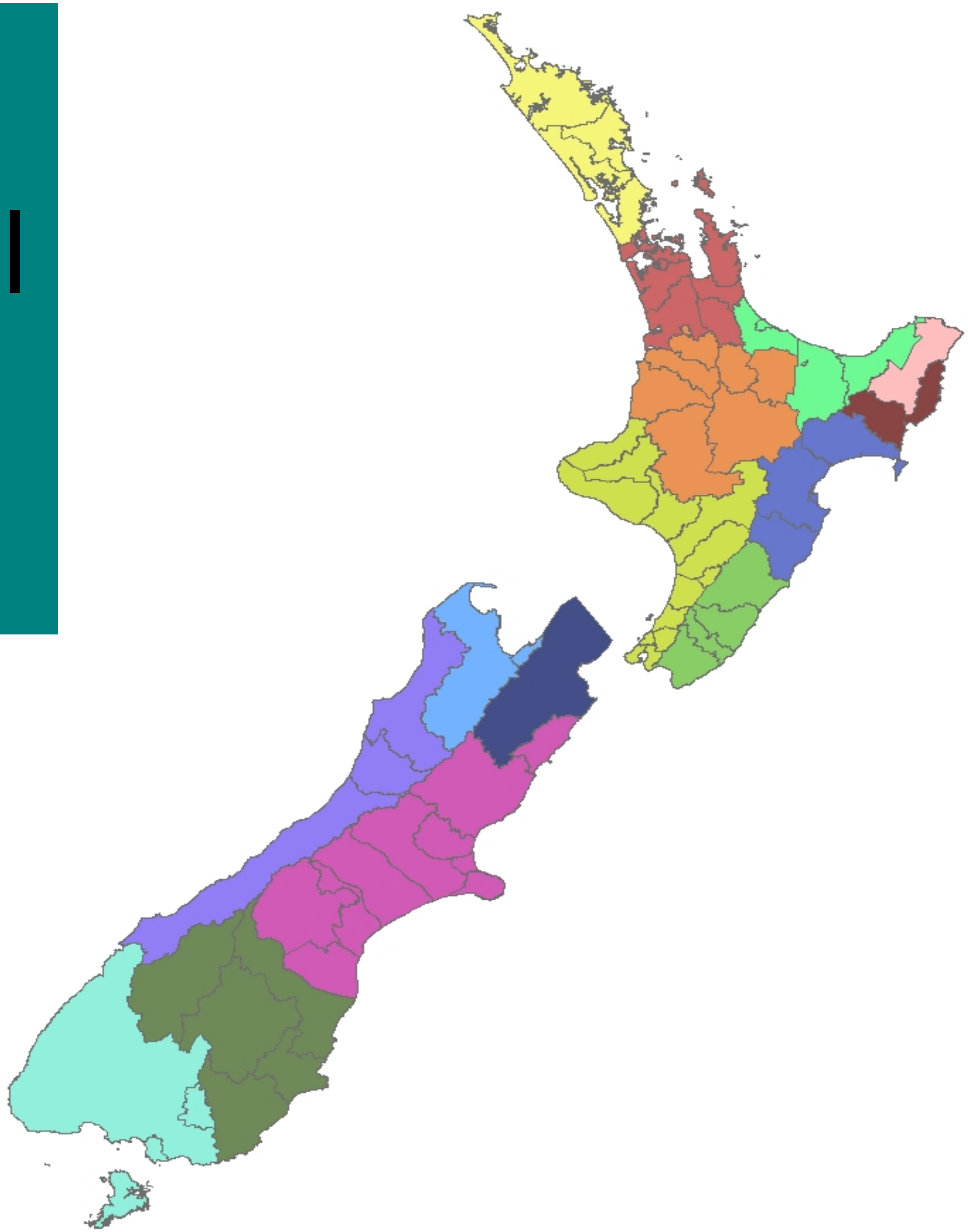
Forecasts – Available in future

- 2006 NEFD Wood Availability Forecasts
- National harvesting intentions survey

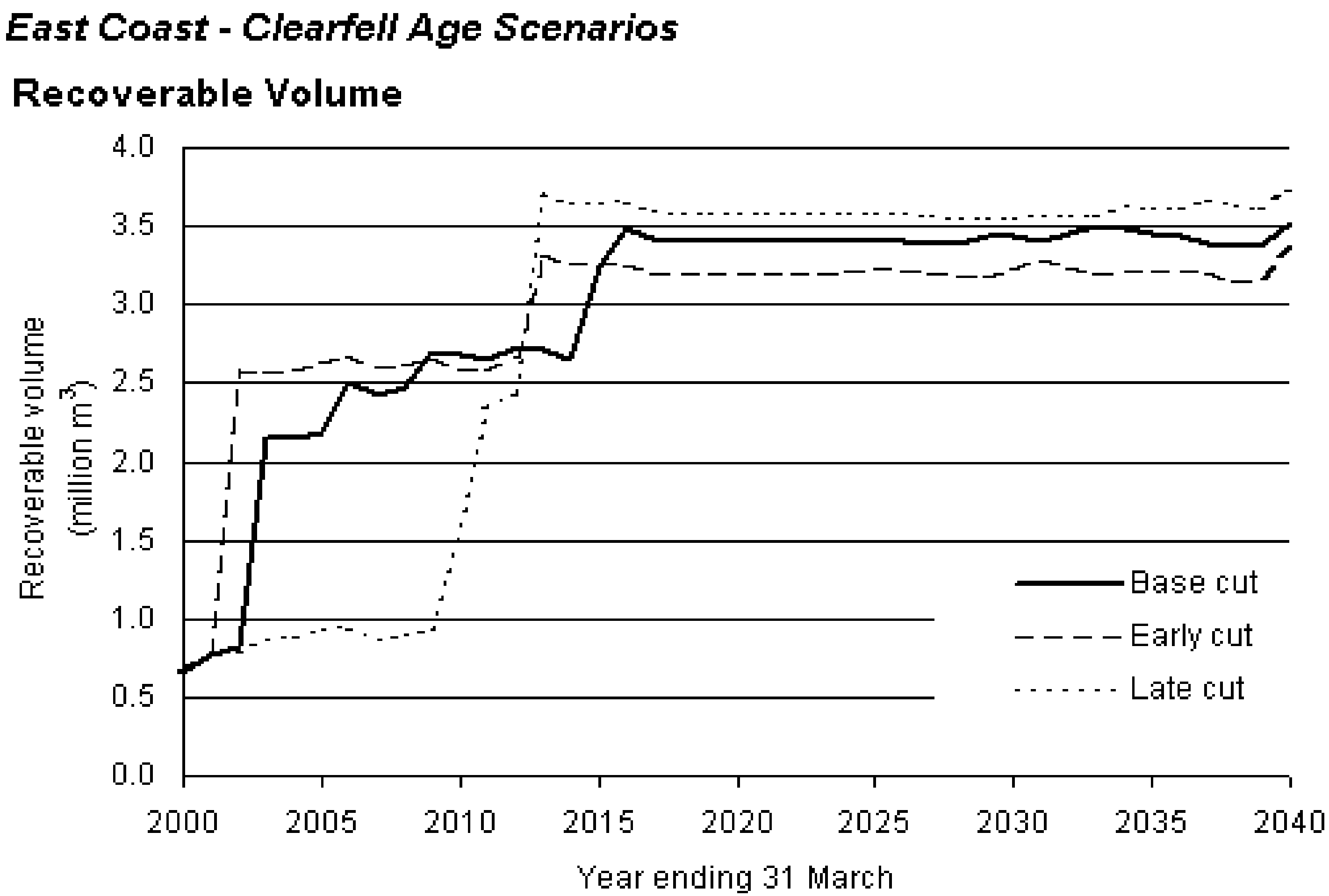
2006 NEFD Forecasts

- New forecasts by end of 2006
  - More context (ownership, processing capacity etc)
  - More regions
  - Owners intentions taken in account
  - New yield tables and forest area data
  - Will have unconstrained scenario – “pure” supply
  - They will be called “availability” forecasts
  - Should be seen as a starting point for analysis
  - Realise they are “forecasts”

2006 NEFD forecasts will have more regions



Case Study


East Coast - Clearfell Age Scenarios
Recoverable Volume
Recoverable volume (million m3)
4.0
3.5
3.0
2.5
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2000
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Year ending 31 March
Base cut
Early cut
Late cut

Gisborne – Major owners

Forest Owner	Area (ha)
Ernslaw One	39 500
Hikurangi Forest Farms	27 000
Forest Enterprises	11 000
Ngati Porou Whanui/Hansol	10 000
Evergreen Forests	9 000
Roger Dickie	9 000
Juken Nissho	5 000
Crown Forestry	2 000
Other – PF Olsens	44 500
Total	**157 000**

Forest Areas

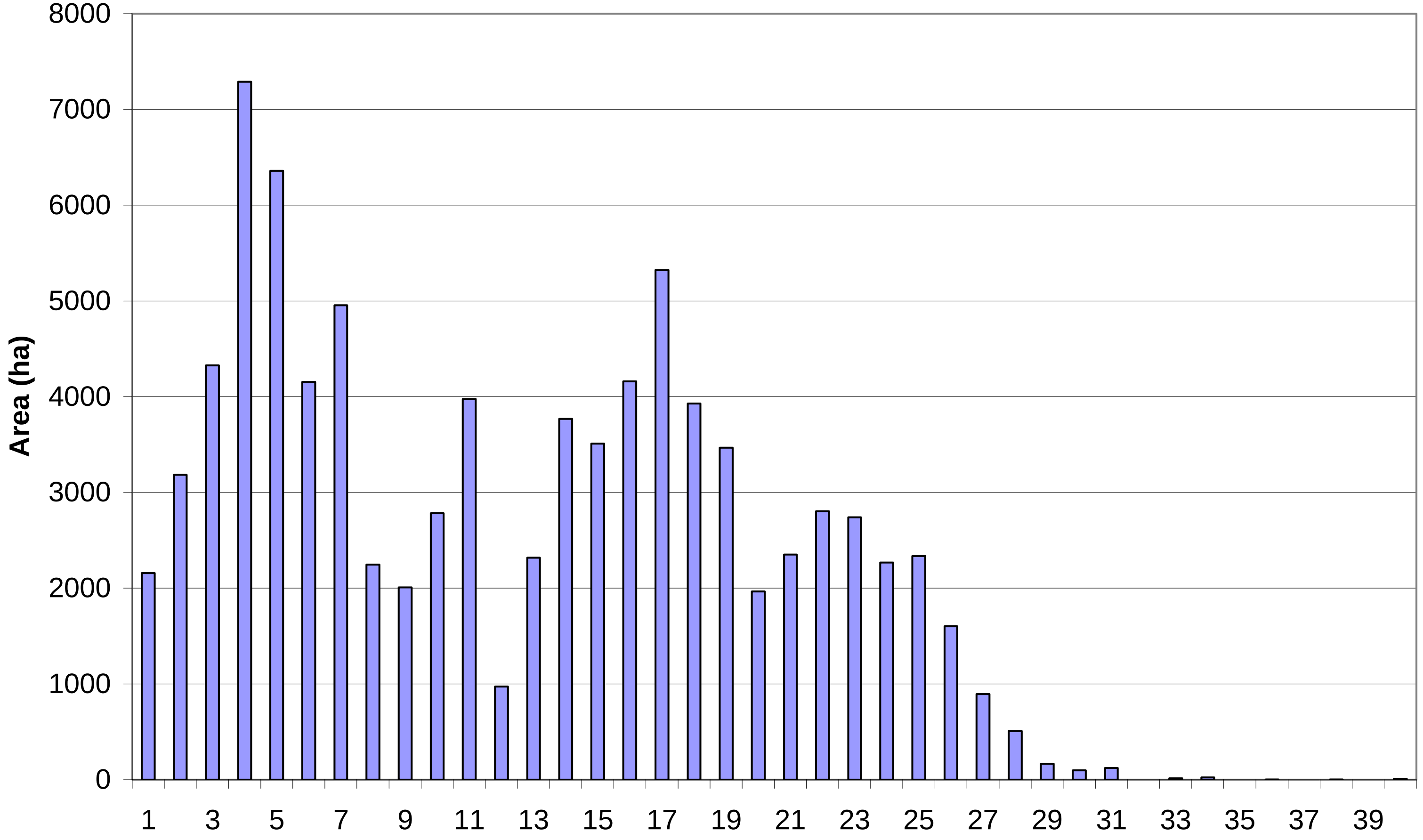
	1-5	6-10	11-15	16-20	21-25	26-30	31-35	35+	Total
Gisborne	30,432	55,055	25,756	20,891	15,678	6,680	1,211	313	157,104

Source: NEFD as at 1 April 2003

- Total area 157,000 ha (all species)
- Radiata pine 152,000 ha
  - Corporate ~100,000 ha
  - Small-scale private estate ~50,000 ha

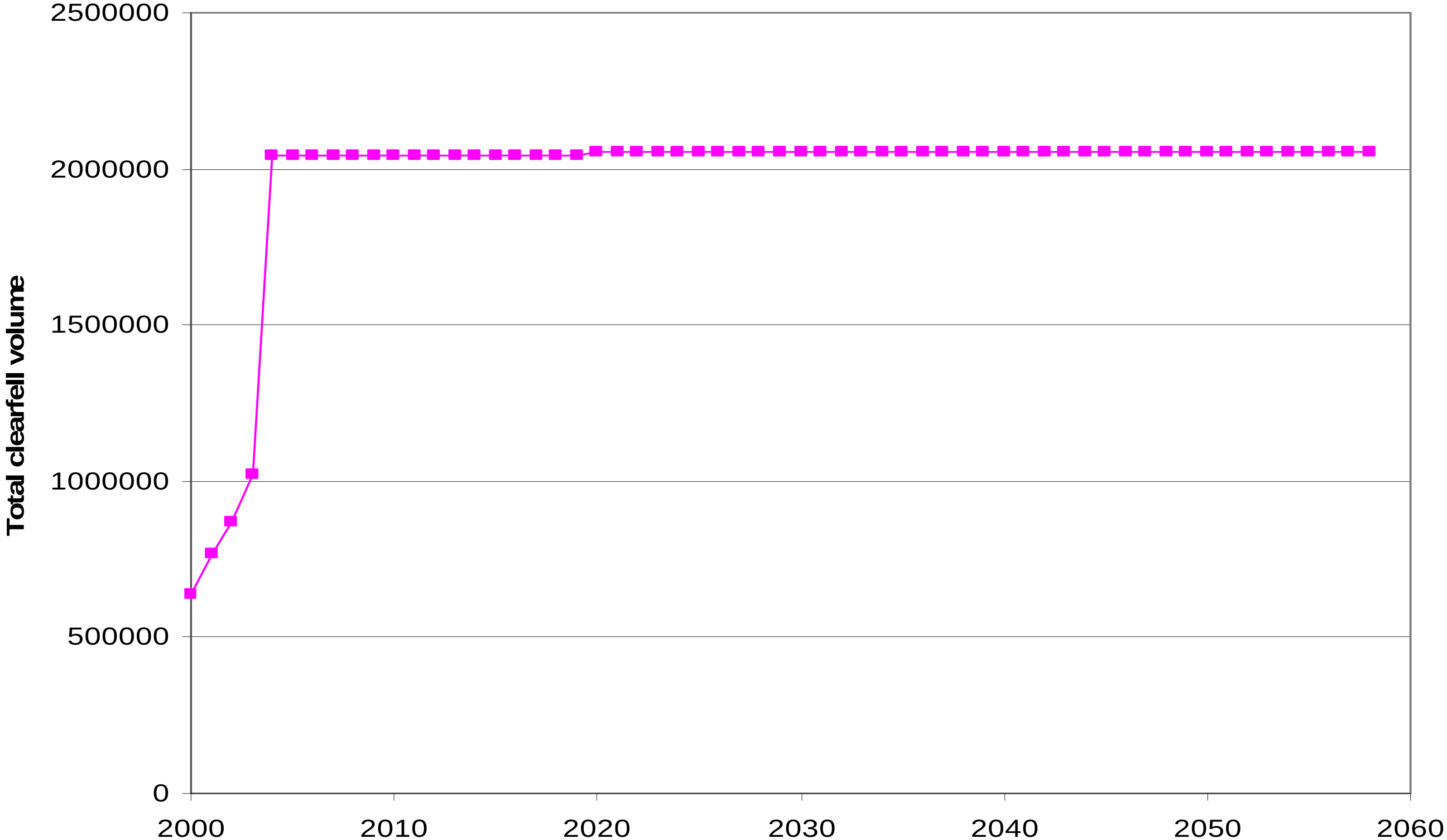
East Coast

Area by age for corporate estate



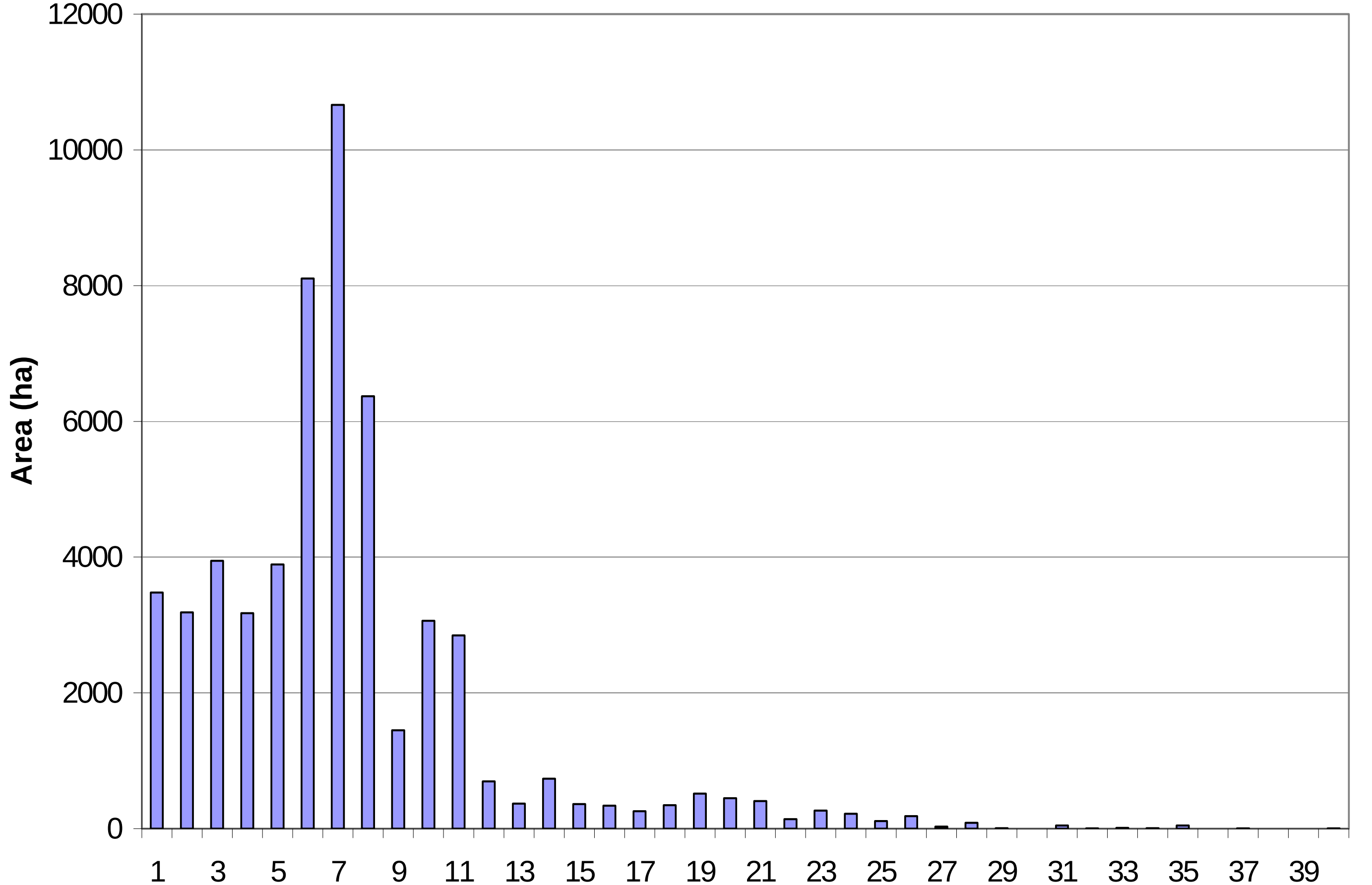
East Coast Corporate Estate

NDY – target rotation 28 years



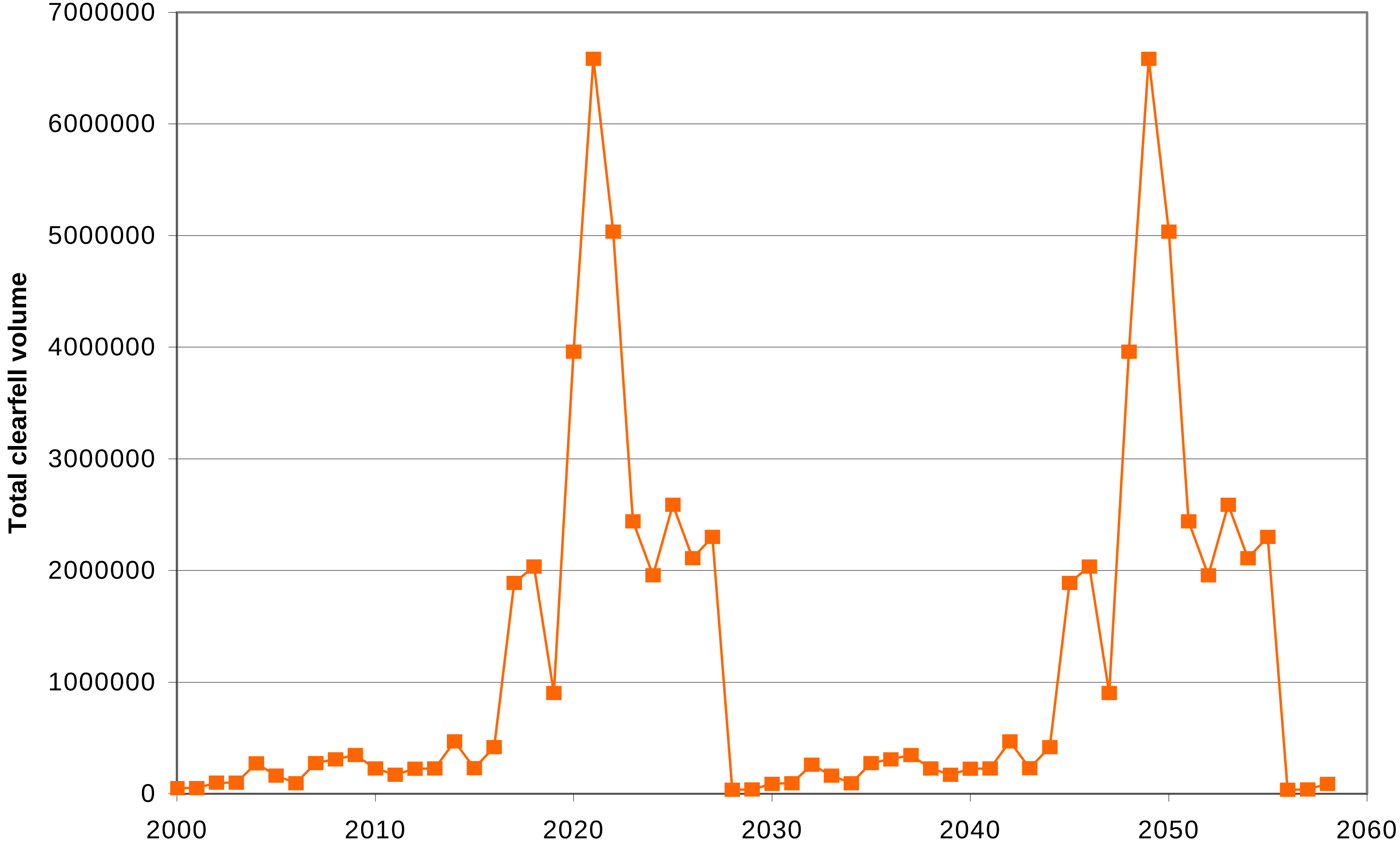
East Coast

Area by age for private estate

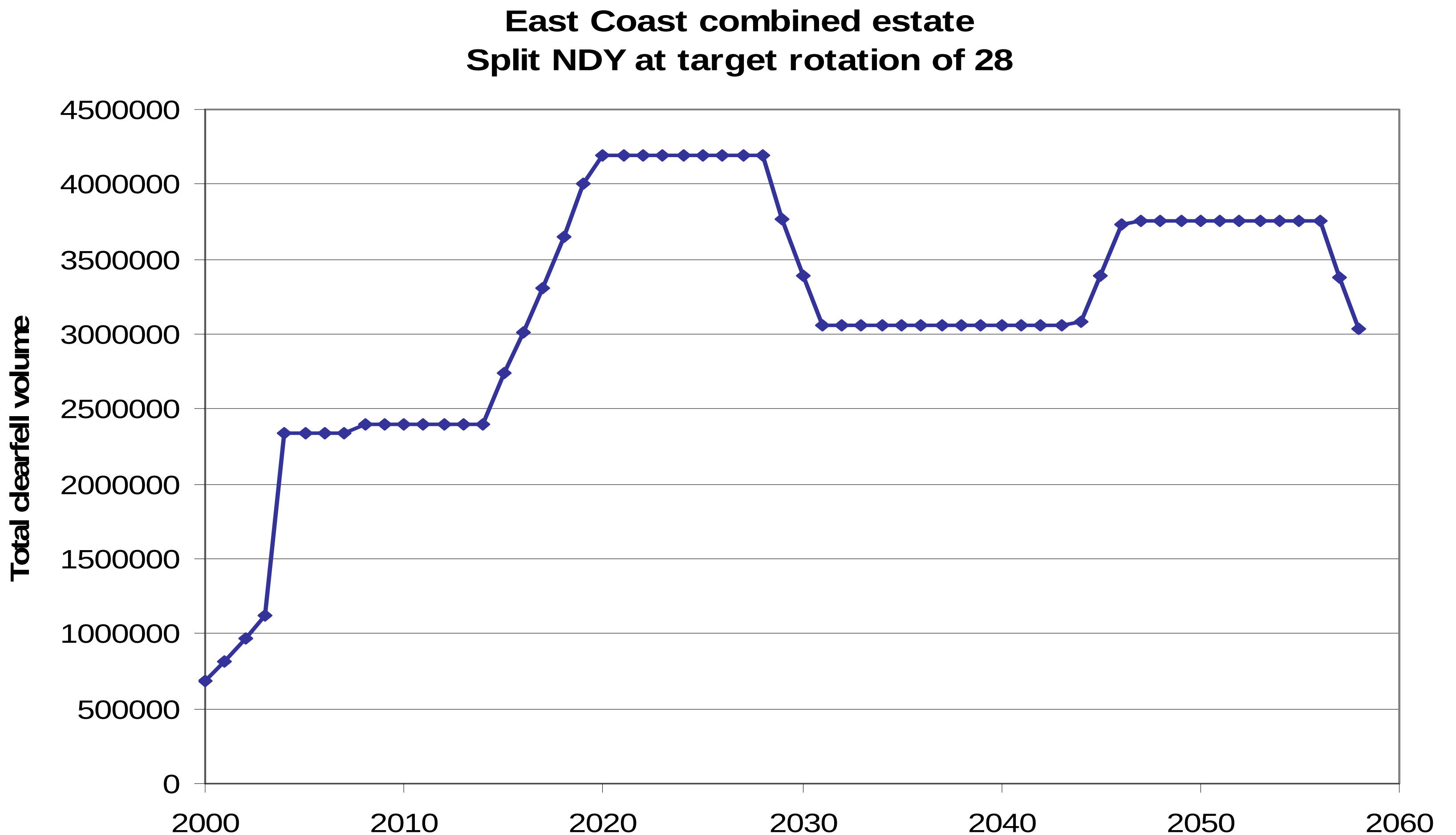


East Coast private estate

(unconstrained harvest at age 28)

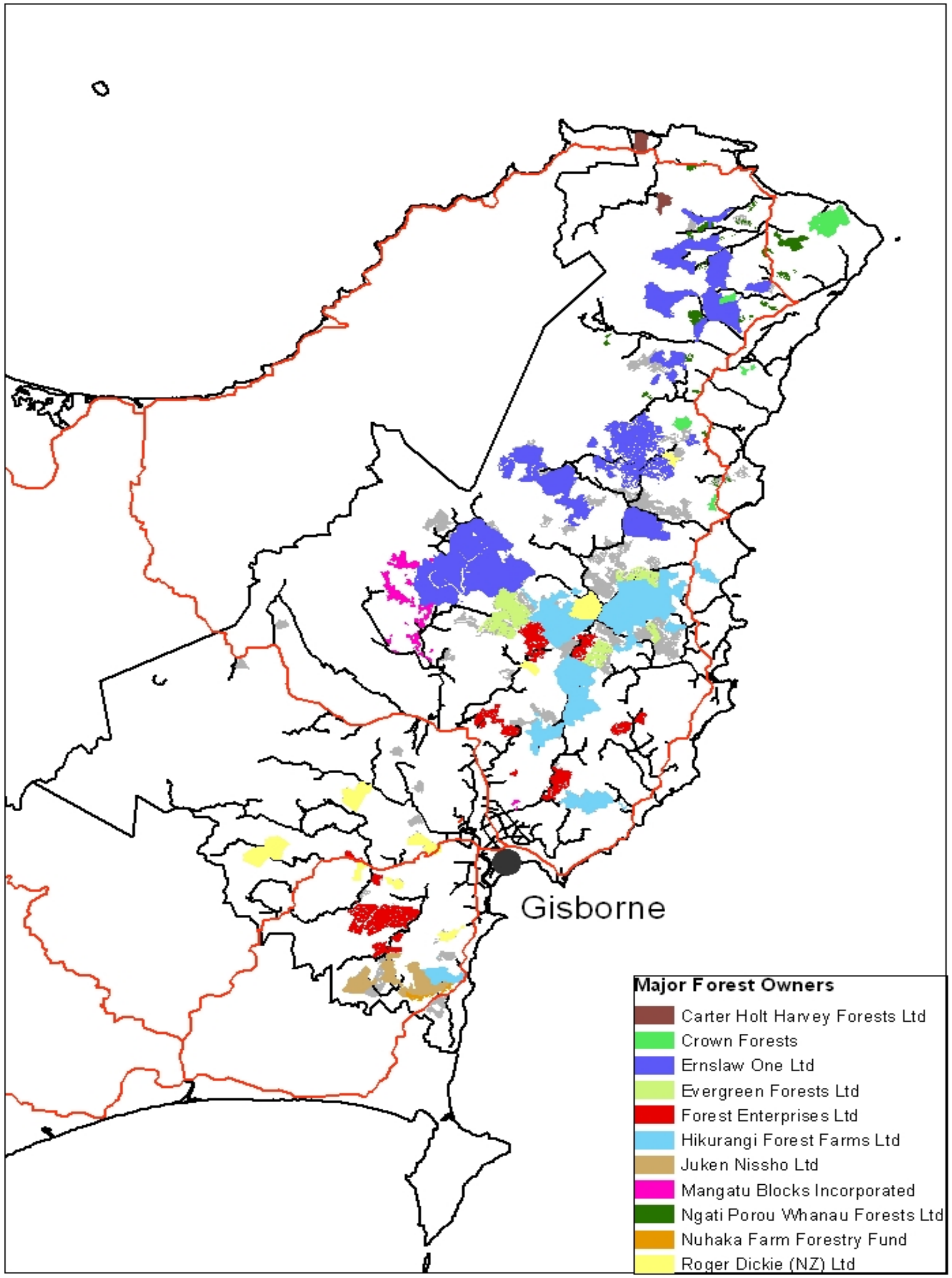


Base model for public reporting
(target rotation of 28 years)



Spatial Analysis

- LCDB-2
- Forest Ownership
- Roading network
- Processing plants



When trying to understand future harvesting

- Engage an experienced forestry planner who can:
  - Bring information together
  - Seek forest owners intentions (and critically review)
  - Offer a professional assessment of situation
- Do not accept third party forecasts at face value
- There is no shortage of information
- The forest industry is relatively small and is well understood by forestry consultants

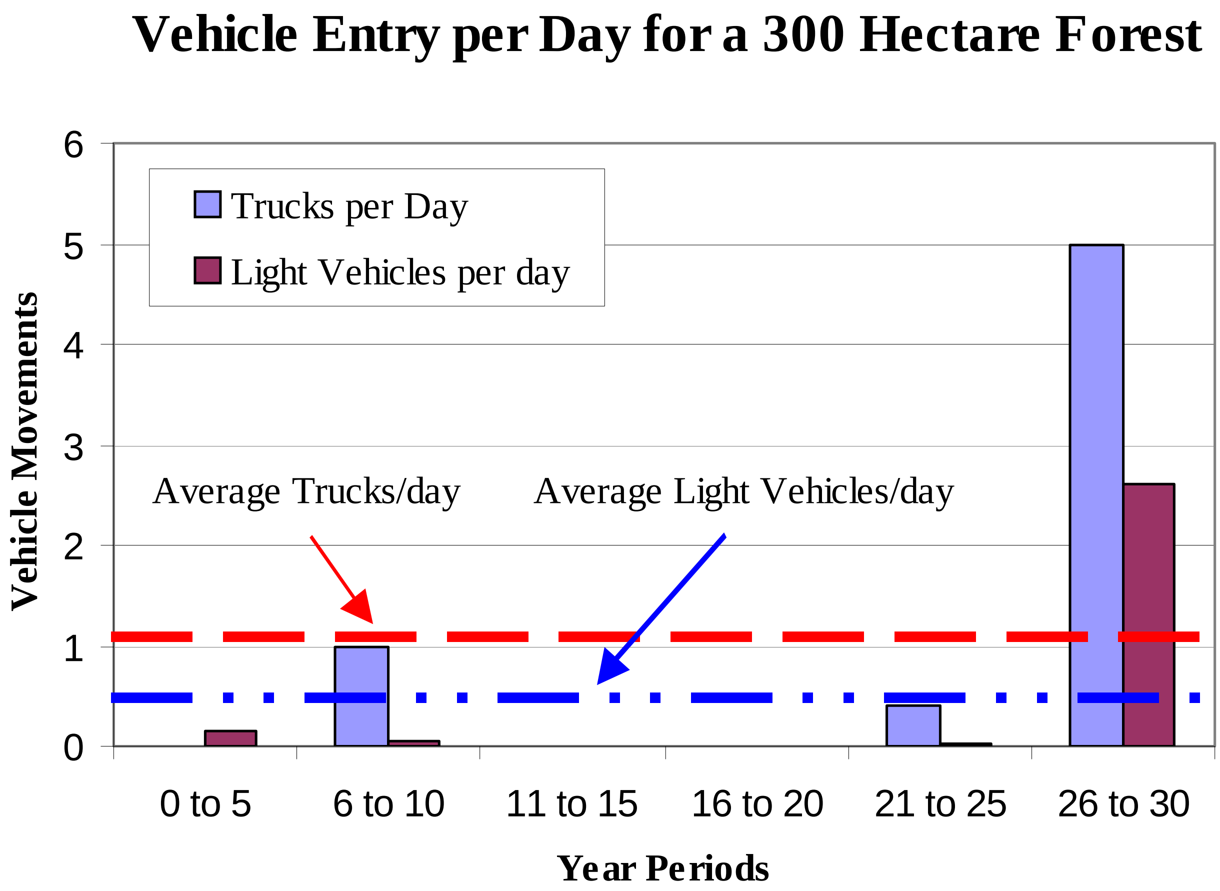
QUESTIONS

Peter D Clark

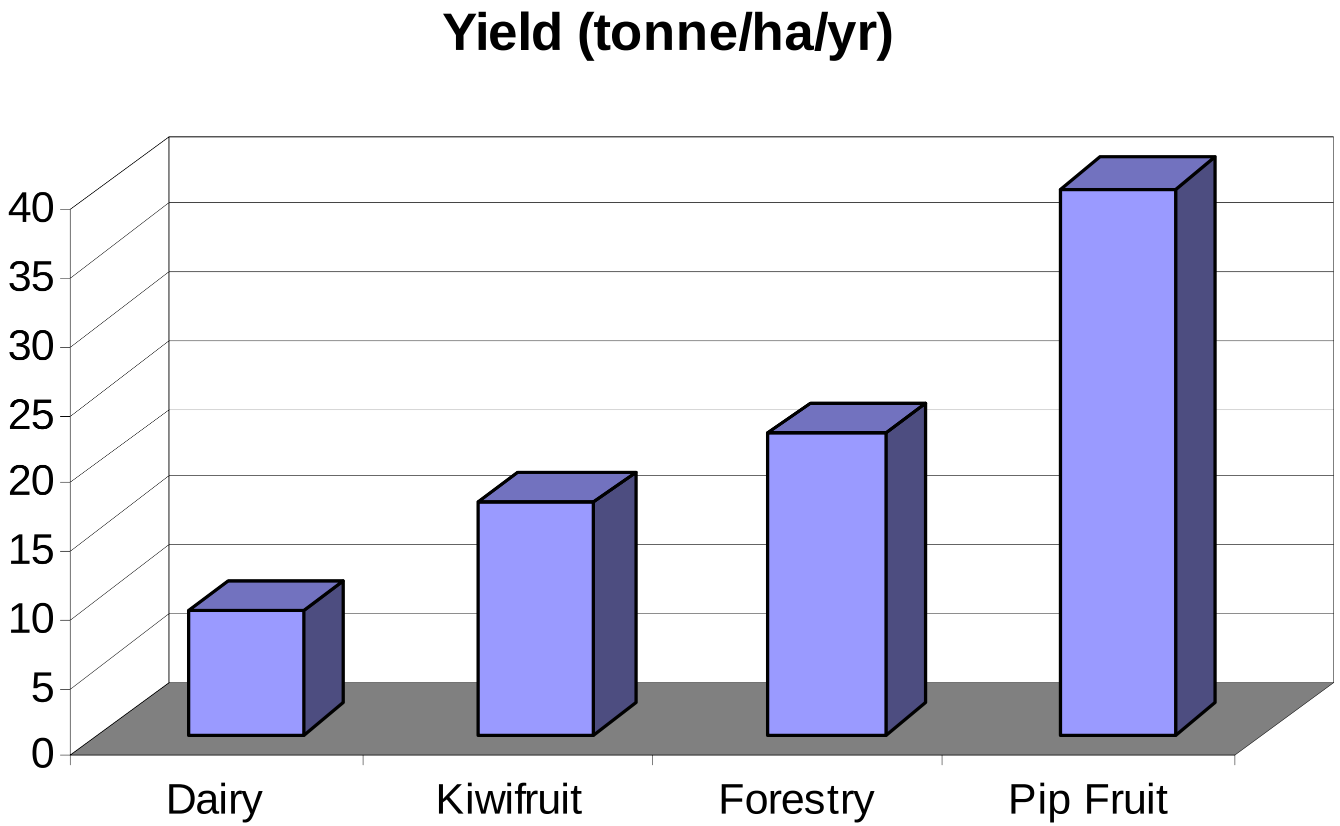
P F Olsen & Company Limited

Road Usage in the Forestry Cycle
&
Communicating Harvest Intentions

Road Traffic under Forestry Land Use

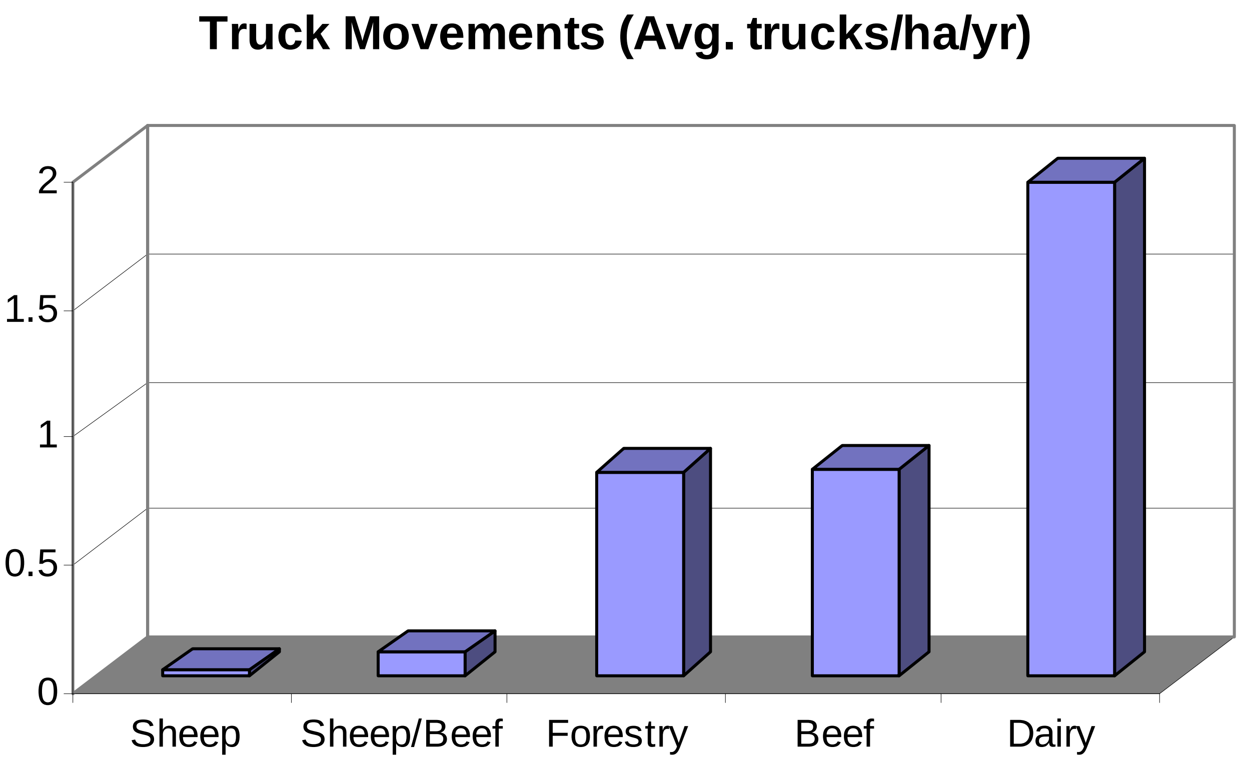


Relative to other Land uses



MAF data, 1991

Truck movements



Note: Dairy movements are a result of farm collection system. Trucks are not at full loaded weight for each movement.

Source: Waikato District Council study, 2002

Key points

1. Forestry does not place any higher demand on roads than other rural production land uses over the full rotation cycle.
2. The 25 to 30-year production cycle means that forestry loads are insignificant for the first 25 years, but intensive over short timeframes during harvest.
3. Funds collected from forest land rates have often been applied by TLAs to District Road improvements in locations other than where it is eventually needed for forest harvesting.

Communicating Harvest Intentions

- Telephone survey of LA roading managers in areas of increasing harvest levels that have poor rural roading networks.
- E-mail survey of forest owners.

LAs Contacted

- Whangarei
- Kaipara
- Opotiki
- Ruapehu
- Wanganui (not direct)
- Gisborne
- Masterton
- Marlborough

Methods of Gathering Information

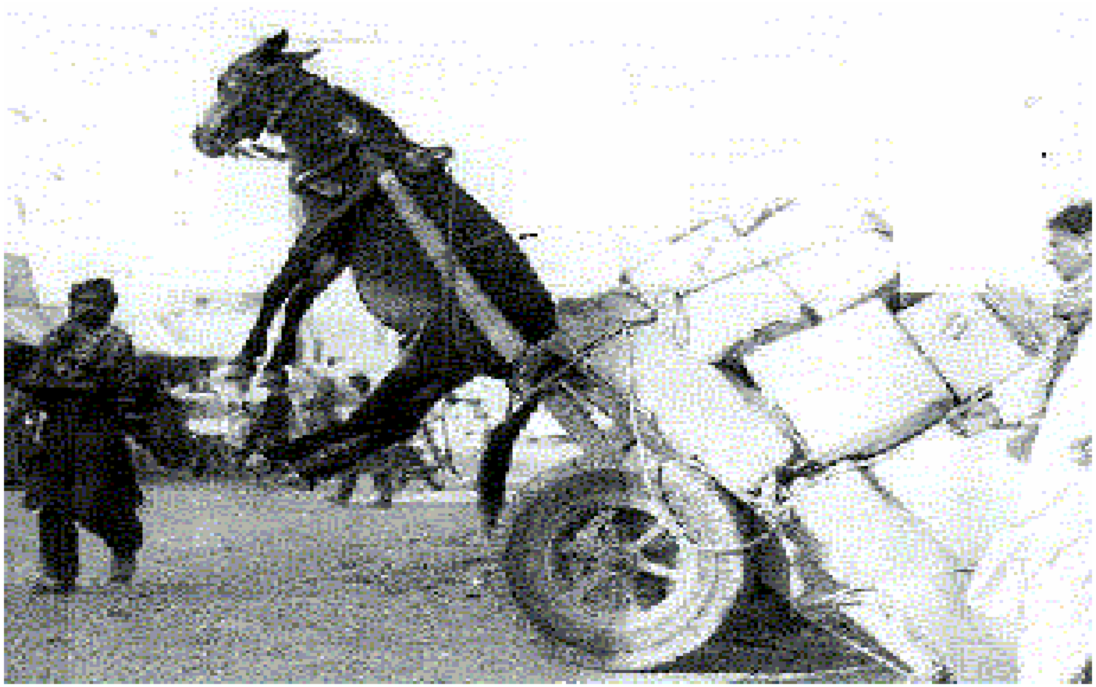
- Highly variable:
  - Satellite imagery
  - Landowner questionnaires / visits
  - Survey of known forest owner intentions (LA initiated)
  - Info supplied voluntarily – forest owner initiated (Wenita, Pan Pac)
  - Formalised process following comprehensive studies– Northland, Tairawhiti

Outcomes

- Most LA's appear satisfied with the "big picture" understanding of where the wood is, approximate age and harvest intentions.
- Most forestry companies expressed that LAs are responsive to needs.
- Formal process of discussing needs and setting priorities between companies and meetings with LAs to allocate Regional Dev. Funds in Northland and Tairawhiti received strong endorsement by both LAs and forest industry.
- Clear differences in attitudes to forestry is evident. Wanganui supportive.

Forest Industry

Bureaucratic delays and costs



Problems / Improvements

- Only vague understanding of where the next pressure point will come. Roads cutting up as a result. Looking for funding for a more comprehensive survey of forest assets and owner intentions (Ruapehu, Masterton).
- Understand "big picture" but poor communications from some on detailed block start-ups. This has flow-on impacts:
  - Repairs to soft or weak pavements before traffic starts (reprioritise maintenance).
  - Neighbour and public communications (help desk must know what is happening).

Problems / Improvements

- Bridge certification and tardy processing (7 to 8 days) of overweight permits for machine movements has held up start of operations despite funding being allocated for this (Gisborne).
- Damage can be extensive even from relative low numbers of trucks (woodlot logging) on low-strength pavements. The information must come not just from major owners, but woodlot loggers as well.

Problems / Improvements

- Local share to fund upgrades or even minor safety works is the real issue for sparsely populated LAs (e.g. Ruapehu, Masterton).
- Re-active rather than pro-active rules apply to LTNZ funding decisions (need to have a death or two, or high truck movements before projects are funded – even when such usage is highly predictable in advance.
- Civil engineering capacity is at full utilisation (even if funding made available – can't get contractors on site).

Action Points

- Survey of likely woodflows:
  - Ruapehu (funding?)
  - Wairarapa (primarily woodlots)
  - Other regions where information base is weak?
- Regional Transport Strategies:
  - Eastern BOP – SH 35 vs. subsidised barging. Study done. Needs decision (EBOP? LTNZ?)
  - Wairarapa (LTNZ funding applied for by Masterton DC. Need to engage with Tararua, Carterton, South Wairarapa & forest industry).

Action Points

- Forest owners to provide TLAs with 5-year rolling woodflow forecasts annually (as Wenita do already to Clutha District and DCC).
- How to capture woodlot loggers?
- Strong support for Regional Development $20million/annum fund to be made available to other regions as soon as possible.

Weights and Dimensions The rules appear more relaxed overseas!


HAYES
HAYES

All Manual Construction!

Morning Tea Break

10.30am – 10.50am