

New wood availability forecasts out in 2006

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Introduction

A new set of NEFD (National Exotic Forest Description) wood availability forecasts will be developed next year and are expected to be published by the end of the 2006. New forecasts have been produced every five years or so. The last NEFD wood supply forecasts were published in 2000.

Concern has been expressed by some industry commentators that the 2000 forecasts overstate the volume of wood available for harvest in certain regions. This led to harvest intention surveys being undertaken in Hawkes Bay (Asset Forestry), Northland (Jaakko Poyry), East Coast (Jaakko Poyry), Nelson/Marlborough (MAF), Otago/Southland (Chris Perley & Associates & MAF) and the Central North Island (MAF). In Otago/Southland the 2000 NEFD forecast log volumes were much higher (by 400,000 m³) than indicated through aggregated forest owners' harvest intentions. In the other regions the NEFD base cut forecasts were closer to company harvest intentions, although consistently higher.

Since the last set of forecasts was published, work has been undertaken to improve the quality of the NEFD data. Fifteen regional surveys of small-scale forest growers were completed earlier this year. The results from these surveys have been incorporated into the 2004 NEFD database replacing small forest grower data last updated in 1995. A complete revision of the NEFD Yield Tables is also underway. Requests for forest company yield tables were sent out to resource foresters in the major forest companies and consultancies in March 2005. About half of the companies have now supplied yield tables to MAF. Once the remaining data has been received company yield tables will be area weighted to produce one regional yield table for each NEFD crop type. These new yield tables are expected to be completed at the end of 2005 and will then be published.

Proposed approach

Previous NEFD wood supply forecasts have adopted the assumption that the total volume of radiata pine harvested in each region will have a non-declining yield (NDY). The rigid adherence to non-declining yield in the next set of forecasts has been questioned. MAF commissioned a review of the NEFD modelling methodology with the purpose of considering alternative methods to using non-declining yield as a driving constraint. This review was carried out by Bruce Manley (School of Forestry).

The main findings of the review were:

- A non-declining yield constraint for the whole planning horizon is too restrictive given the area by age-class distribution of the estate.
- "Split NDY"¹ constraints better match the age-class distribution of the estate – in particular for the large area of new land planted in the 1990s. Under this approach

the harvest of the current resource is required to be non-declining, but harvest levels for the next rotation can be reduced initially to establish a new level of non-declining yield.

- Company harvest intentions should be used to constrain the wood supply from the corporate estate² in at least the first 5 to 10 years of NEFD base models.
- Foresters want to see unconstrained models included in order to better show the potential availability of wood (particularly from the private estate³ but also from the total estate).
- A narrower range of target rotation ages than in previous forecasts should be applied. Target rotation ages for radiata pine should be varied by 2 years about the base. The target rotation age should be set for each region (and possibly between croptypes within a region) based on what is considered to be an average harvest age for that region.
- The focus of the forecasts should be on the current area planted with less emphasis on the impacts of future new planting.
- Deforestation should be included in models to the extent that it is publicly announced.
- The forecasts should be called wood availability forecasts rather than wood supply forecasts to better reflect what these forecasts show.
- The forecasts are used by a wide range of people, from technically focussed resource foresters to infrastructure planners and policy makers. To improve understanding of the forecasts and what they mean more regional context and descriptive information (e.g. wood processing capacity, forest ownership structure etc) should be presented along with the forecasts.

The review report is available on <http://www.maf.govt.nz/statistics/primaryindustries/forestry/forest-resources/nefd-ws-method-2005.pdf>.

In addition to the changes in methods some of the larger wood supply regions will be further subdivided:

- The Southern North Island will be subdivided into the Southern North Island West Coast and Wairarapa;
- Nelson/Tasman will be separated from Marlborough; and
- Otago will be separated from Southland.

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¹ Split NDY" refers to NDY constraints that are split by time period with a separate subset of NDY constraints applied to each rotation. This regulates the harvest but allows a reduction in harvest levels between the current rotation and the subsequent rotation.

² "Corporate estate" refers to company and other professionally managed plantations.

³ "Private estate" refers to none "corporate" plantations.

A man who thought outside the square

Ross Macarthur
1923-2005

Ross Macarthur, a former Chief Soil Conservator of the Marlborough Catchment Board and past member of the New Zealand Institute of Forestry has died aged 82 after a career spent mainly in Marlborough where he was involved in the design, planning and execution of erosion control and conservation projects.

Born in Wellington, he was educated at Scots College, Victoria University and Lincoln College and post World War Two at Oxford University where he graduated with honours in 1948. During the war years he served as a pilot and navigator with the New Zealand Air Force and remained as a general reserve until 1953.

Between 1948 and 1953 he worked for the NZ Forest Service in Canterbury and at the Forest Research Institute until joining the Southland Catchment Board as a soil conservator and land classifier, a position he held until 1957. Then began his long association lasting 48 years with conservation and forestry in Marlborough, where he was of Chief Soil Conservator of the Marlborough Catchment Board and Chief Executive Officer of the Marlborough Forestry Corporation until his retirement in 1985.

During this time he initiated the first high country run plan at Rainbow Station and also commenced whole catchment approaches to land management, which included the Wairau Valley flood protection and the restoration of the severely eroded Wither Hills. Other key initiatives of the time were the introduction of fire processes to reduce burning on the Northbank hills of the Wairau and Northbank catchment control scheme. This led to a change of land use in the area to forestry.

As a consequence the NZ Forest Service, private landowners and some regional bodies acquired land to develop into forest. Former mayor Sid Harding and Ross were the driving forces behind the formation of Marlborough Forestry Corporation that was formed with various local authorities. This is now the Marlborough Regional Forest jointly owned by Marlborough and Kaikoura District Councils with an annual budgeted profit of about four million dollars and providing many benefits to the community.

He investigated the possibility of skyline logging to remove mature trees from steep hills, travelling extensively to America, Canada and Europe to learn advanced extraction methods. In 1971 he became a founding member of the



Marlborough Forest Owners Association and remained on the committee until 1992, becoming an honorary member in 1995. For 12 years he was a member of the Nelson Lakes National Park Board and involved in the building of the Rotoiti lodge for school use.

In recognition of his outstanding service in the Marlborough district, he was awarded the Paul Harris award by the Blenheim Rotary Club. Contemporaries remember him as a visionary, a man who thought outside the square, was always open to new ideas and techniques and encouraged others to be the same. His

many other interests from time to time included Social Credit philosophy, colour therapy, UFOs and growing organics, discussions of which enlivened many field trips.

He is survived by his wife Sylvia and sons Ian and Peter.

Adapted from the Marlborough Express 17/6/05 by Maurice Williamson

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This will increase the number of regions from 10 to 13.

Next steps

The proposed wood availability methodology will be trialed in a region (possibly Nelson or Marlborough) when the new yield tables have been completed. Users of the forecasts will be asked to review the results with respect to credibility and usefulness. Once this has been done and any further refinements have been made, regional forecasts will be undertaken across the country.

In conjunction with the wood availability forecasts a national harvesting intentions survey of major forest owners is planned. This will seek harvesting intentions for each of the 13 regions. These will be used as starting points in the wood availability models.

Input from resource foresters in the major companies and consultancies will be sought to ensure realistic forecasts are produced. This will occur through both the NEFD Steering Committee and through discussions at a regional level.

If you have any questions or comments please contact Paul Lane (email paul.lane@maf.govt.nz).