

Australian Forestry Management Pty Limited (AFM)

2005 Softwood Project



2015-2016 Annual Report

Legal Context

This annual report has been prepared in accordance with Schedule 1 Part 3(h) of the Forestry Management Contract between Australian Forestry Management Pty Limited and the Forestry Commission of New South Wales (now known as the Forestry Corporation of NSW (FCNSW)) for the 2005 Softwood Project.

Background

The 2005 Softwood Project comprises seven 2006 age class plantation blocks. Most of the plantation blocks are located within the Tumut Management Area (TMA) of FCNSW Snowy Region (formerly Hume Region) near Tumut or Tumbarumba. The exceptions include Vans, which is located in north east Victoria and Mingary Vale, which is located within Bathurst Management Area (BMA) of FCNSW Northern Softwoods Region (formally Macquarie Region) near Oberon.

Plantation Area Review

A review of the net stocked area of plantation within the 2005 Softwood Project was undertaken in mid-2015 using new aerial photo coverage. This is the first review that has been undertaken since the completion of post plant survival assessments. It captures mortality and natural attrition that has occurred over the last 8 years.

Table 1 – Updated Net Stocked Area

Plantation	Net Stocked Area in 2015 (ha)
Maragle Park	193.8
Paddy's River	186.0
Parker	196.1
Ruby Creek	127.9
The Valley (2006 age class)	199.6
The Valley (2008 age class)	1.2
Mingary Vale	169.6
Vans	76.2
Total	1150.4

The updated net stocked area which includes Forestry Right Land and Adjoining Land constitutes a change of minus 2.2%.

2015-16 Growing Season

Rainfall in the *Tumut Management Area* (TMA) was average during the reporting period (Figure 1) with a drier spell occurring in spring, periodic rainfall in summer and above average rainfall in June. Total rainfall at Tumbarumba for 2015-16 was 979 mm compared to the long term average of 977 mm. (refer Annexure A).

Overall the plantations are performing well and are in good condition. Exceptions to this exist within sections of Parkers and Ruby Creek.

The *Bathurst Management Area* (BMA) was subject to quite a different growing season from that experienced in F15. There were no episodes of heavy snow, as there were during the winter of 2015. Rainfall was about average (Figure 1) but not evenly distributed throughout the season. January rainfall was the highest in over a decade, with February being the warmest

and driest in nearly twenty years. Mean temperatures (Figure 2) and average maximum temperatures (Figure 3) were above average for all 2005 project plantation stands.

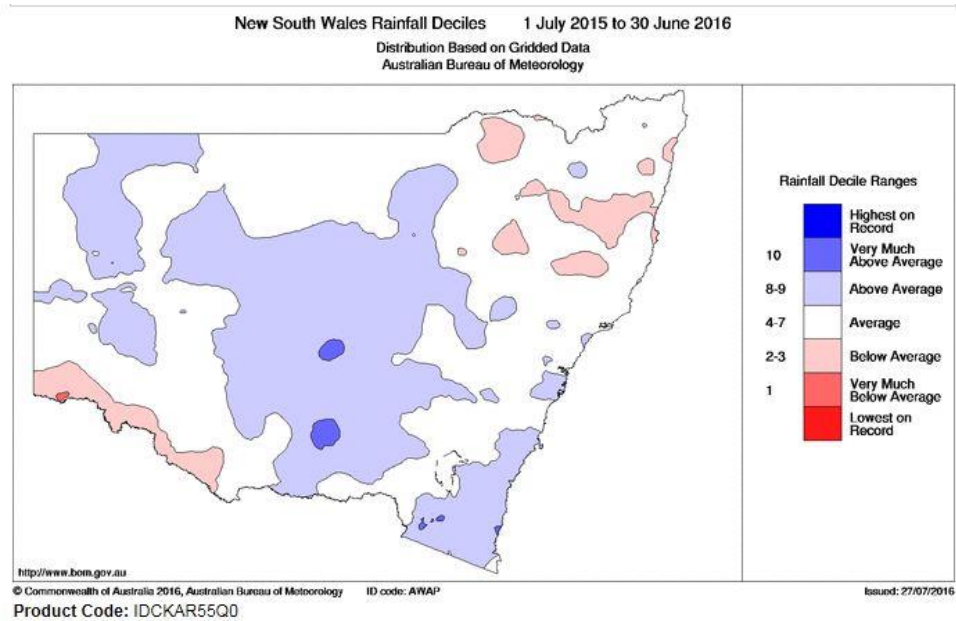


Figure 1 – New South Wales Rainfall Deciles – 2015-2016

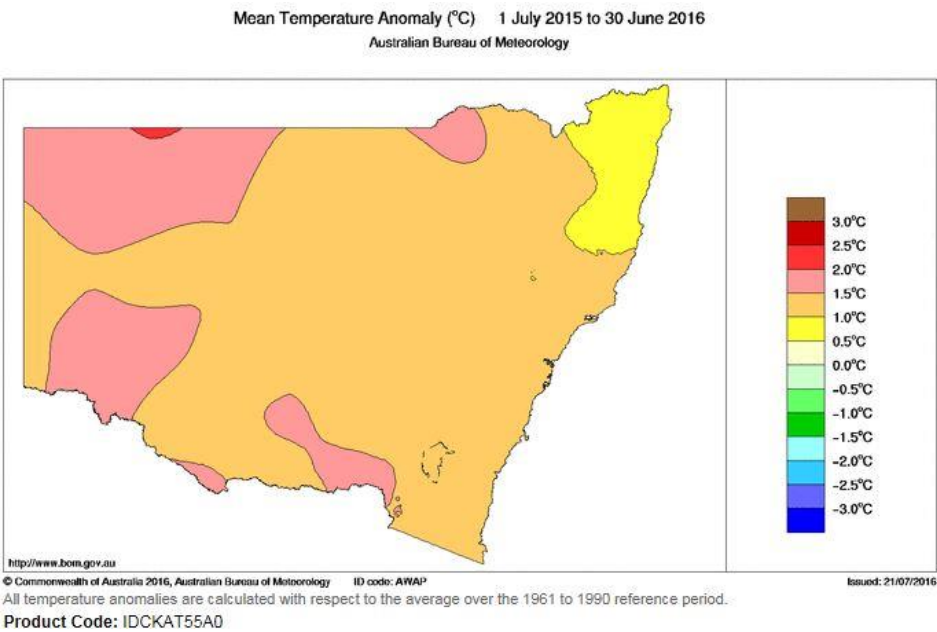


Figure 2 – New South Wales Temperature Deciles – 2015-2016

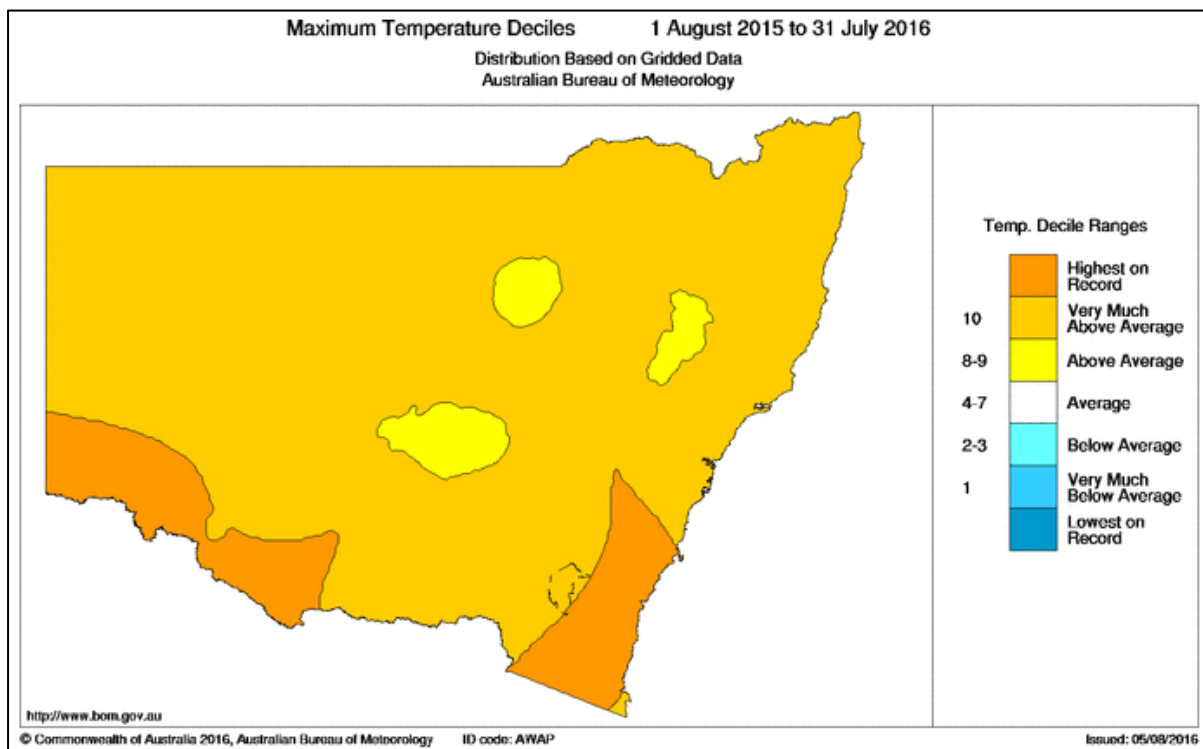


Figure 3 – New South Wales Maximum Temperature Deciles – 2015-2016

Stand Condition

Mingary Vale (Transgrid)

The condition of the stand continues to be very good. It is well stocked, healthy, vigorous and with reasonable form. When the stand was inspected in August 2016 the crop did not appear to have been subjected to any conditions that had impacted on survival, health or form (see Figures 4, 5 and 6 below).



Figure 4: Mingary Vale. Ten year old trees – a healthy, uniform and vigorous crop (August 2016)



Figure 5: Mingary Vale. Soil moisture levels are high leading into the start of Spring growth (August 2016)



Figure 6: Mingary Vale. Access around the block remains very good (August 2016)

Maragle Park

This plantation continues to exhibit very good condition and growth. No significant issues have been observed during the reporting period.



Figure 7: Maragle Park. Very good growth and plantation condition (July 2016)

Paddys River

This plantation also continues to exhibit very good condition and growth. No significant issues have been observed during the reporting period.



Figure 8: Paddy's River - July 2016

Parkers

The Parkers plantation has continued to grow and improve during the reporting period. The areas with higher stocking generally have acceptable tree height and reasonable tree form (Figure 9). Areas where initial tree stocking was low generally have poorer tree form usually associated with lower tree stocking. These areas are often sites with poorer drainage or rocky outcrops.



Figure 9: Parkers 2006 AC August 2016 – Good tree growth and form in a well stocked area

Ruby Creek

This plantation continued to improve in growth and condition considering the issues that have affected the plantation from initial establishment, through to recent years. While the majority of the plantation area is now growing normally, it is noted that initial height growth was slow for most areas and it still remains affected by poor stocking and a damaging hail event which occurred in late 2011, as previously reported.



Figure 10: Ruby Creek – Sirex biological control inoculation plot – July 2016



Figure 11: Tree in area affected by hail damage with healthy growth and poorer tree form due to lower stocking in this area

The Valley

The Valley plantation continues to exhibit acceptable tree growth and vigour. Localised areas that are unstocked, or have low stocking have been detailed in previous reports.

No other significant issues have been observed in this plantation



Figure 12: The Valley 2006 AC- plantation – July 2016

Vans

The Vans plantation continues to grow well, with tree form continuing to improve with tree age and growth. Dothistroma needle blight is present at low infection levels during the year and did not impact on tree growth during the reporting period.

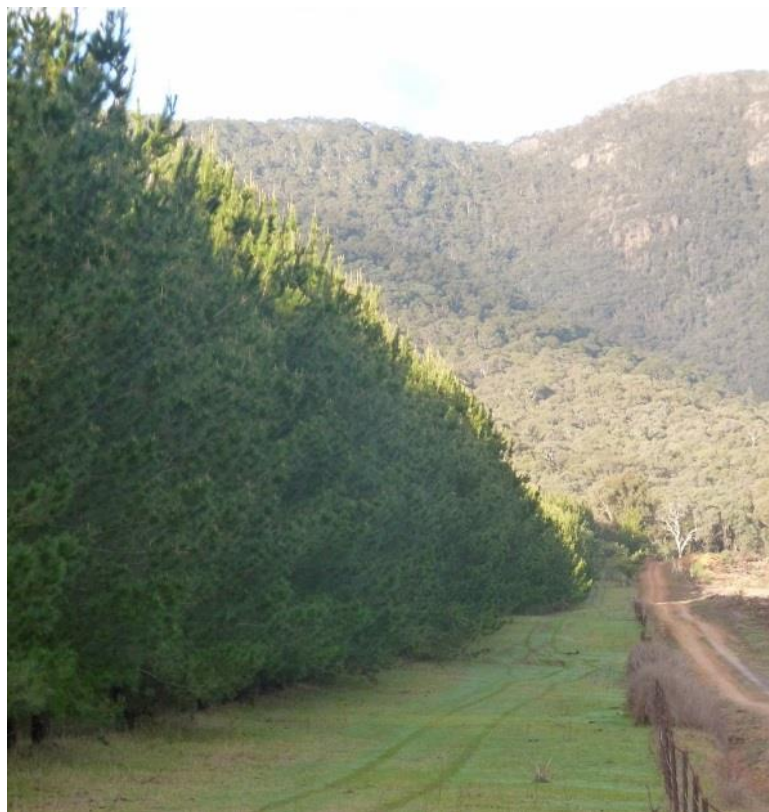


Figure 13: Vans plantation – good health and growth July 2016

Biosecurity & Forest Health

Aerial forest health surveillance was undertaken in early August 2016, Tumut Management Area, and July 2016, Bathurst Management Area. See figure 15 showing flight path of aerial surveillance for TMA, note flight path information was unavailable at time of report writing for BMA. It will be supplied to AgriWealth when it becomes available. Aerial forest health surveillance was followed up with ground inspections. Preliminary reporting indicates no significant forest health issues are presenting in the 2005 Softwood Project properties. Final reports are yet to be released.

Dothistroma needle blight is present, at low levels, in lower lying areas of the plantation in the Tumut Management Area, similar to other plantation areas in the region. Infection levels are generally low, following seasonally dry conditions during late summer and early autumn. Treatment of Dothistroma is not recommended for the low level of infection currently observed.

Recent management inspections undertaken on Agriwealth stands in the Bathurst Management Area did not detect any forest health or nutritional issues.

Sirex wood wasp is present though out plantations in Southern Australia. Ruby Creek and Maragle Park properties are included in FCNSW's routine control program to release and monitor biological control agents along with Mingary vale in BMA. During F16 Mingary Vale received an inoculation of nematodes to prevent the emergence of Sirex wood boring wasps (see Figure 14 below).



Figure 14: Mingary Vale. Trees that have been inoculated with the Sirex preventing nematode (August 2016)

Historical concerns about kangaroo and wallaby grazing at Mingary Vale are no longer an issue due to tree size.

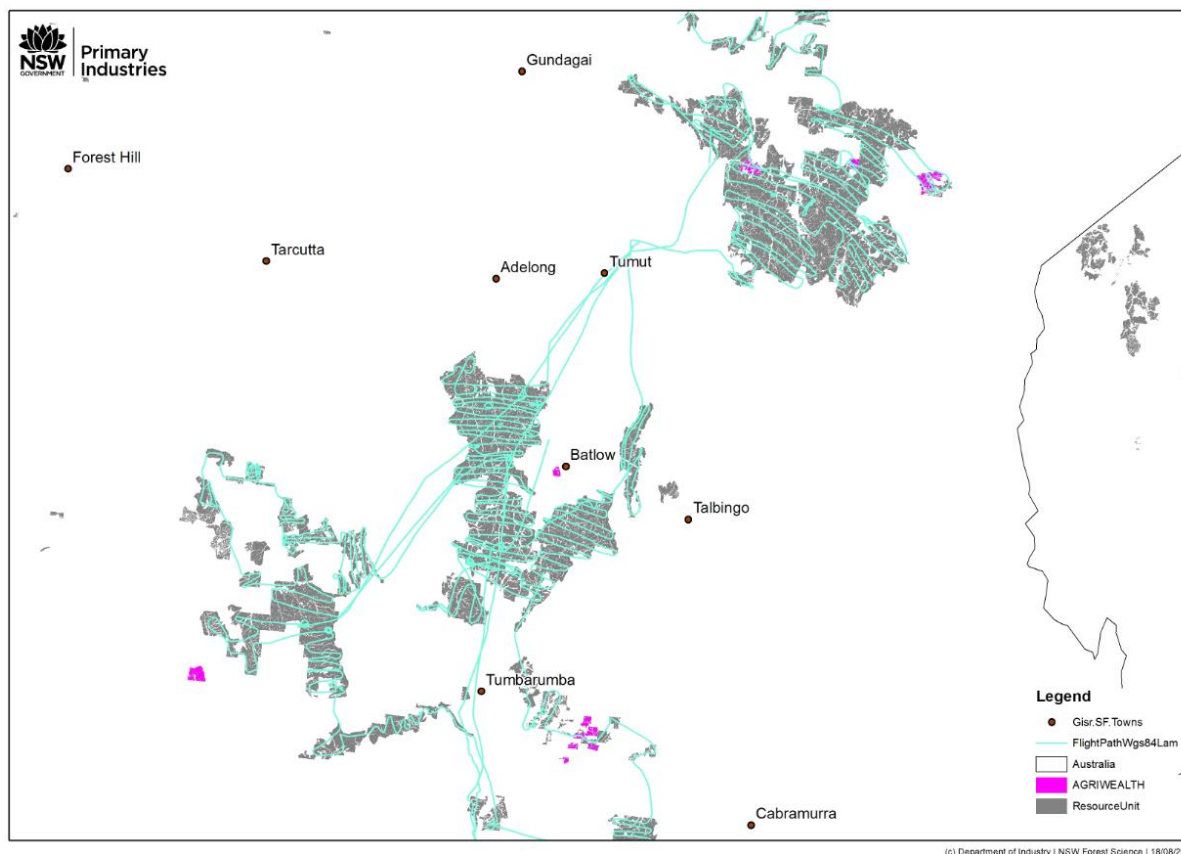


Figure 15: Tumut management area forest health aerial surveillance flight path – August 2015.

Fire Management

There were no fire incidents within or in close proximity to the plantations. Fire risk reduction works and surveillance was undertaken during the reporting period. Roadside tree pruning continues to be on the schedule of fire maintenance activities in the BMA to improve access, however access around the Mingary block is still good.

Other Management Issues

In August 2016 FCNSW commenced implementation of a new inventory technique across their own and the Agriwealth estate that is expected to largely replace conventional ground based inventory for young and intermediate aged plantations. The approach uses laser pulses (LiDAR) emitted from a sensor on a plane to very accurately measure tree height and forest canopy structure. This data is subsequently matched with a series of ground based plots to derive stand level estimates of stocking, tree height and volume and has the advantage of providing these estimates for the entire forest landscape. It is anticipated that results from this work will be available towards the end of 2016.

Summary of Activities Planned for 2016/2017

- Aerial forest health surveillance and monitoring
- Maintenance of roads and tracks
- Fire risk reduction works and surveillance
- Grazing where fencing is available
- Finalise identification and signage of plantation fire roads to comply with Plantations and Afforestation Code amendments

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Monthly Rainfall Statistics

