

# THE LANDSCAPE CONTEXT PLANNING SYSTEM

## OPERATIONAL PLANNING

### INTRODUCTION

The Landscape Context Planning (LCP) system is a conservation planning system developed by Forestry Tasmania. The LCP system describes and quantifies forests within and surrounding proposed harvest areas (coupes). This helps achieve Forestry Tasmania's landscape objectives. Two current landscape objectives are:

- i) **Long term retention:** to maintain mature forest at a local and landscape scale.
- ii) **Harvest dispersal:** to disperse harvesting in space and time.

These objectives are applied to native forest clearfell and aggregated retention coupes and applies to public native forest within a 1 km radius of the centre of harvest operations:

- i) the long term retention objective requires a minimum area of forest (at least 20%) is retained in long term retention (notionally at least 100 years), favouring mature forest and,
- ii) the harvest dispersal objective sets a limit on the area of forest (up to 50%) that can be less than five years of age.

There will be some instances when past land management decisions make it impossible or very difficult to achieve these objectives. For example, in forest surrounded by farmland. However, Forestry Tasmania's approach is to achieve these objectives in no less than 90% of relevant harvest operations annually. Forestry Tasmania reports against these objectives in its Annual Report.

### HOW LANDSCAPE OBJECTIVES CONTRIBUTE TO BIODIVERSITY

These objectives combine to create a heterogeneous mosaic of forest ages across the landscape that provides diverse sources of habitat for native fauna and flora species.

The long term retention objective maintains mature forest in the landscape surrounding each operational area. Mature forest provides forest structural features and habitat for a wide range of species. Retaining mature forests in close proximity to harvested areas allows many species to persist in production forest landscapes and recolonise harvested areas. A recent Tasmanian study indicates a large proportion of harvested areas will be recolonised and utilised as habitat by a range of species when at least 15% of the landscape is mature (Wardlaw et al. 2012, submitted).

Dispersing harvest operations over space and time through the harvest dispersal objective reduces the likelihood of impacts on water quality and quantity in catchments, reduces the likelihood of negative visual impacts associated with large cleared areas and provides regrowth forest areas that vary in age and structure.

Applying these objectives to harvest areas means these objectives are also met at larger spatial scales.

### HOW IS THIS AN IMPROVEMENT ON PREVIOUS MANAGEMENT?

Previous operational planning approaches focused primarily on managing forest within proposed harvest boundaries. Operational planning with the LCP system routinely includes consideration of forest in a 1 km radius surrounding planned operations. The LCP system can also be applied to larger areas if required. This provides a more strategic and efficient approach to managing biodiversity by creating flexibility to best locate harvest operations and set-asides for biodiversity.

Furthermore, the LCP system allows reserves placed strategically in the landscape for biodiversity to be appropriately considered and amended during operational planning processes. Optimal areas for additional retention are often located beyond operational areas.

## HOW THE LCP SYSTEM WORKS?

Forestry Tasmania's planners use the LCP system to quantify and describe forests within and surrounding harvest operations and to produce maps and reports (Figure 1) to support planning decisions. Importantly the LCP system determines the amount of public forest within a 1 km radius of the centre of proposed harvest operations that is:

- i) in long term retention.
- ii) less than five years of age.

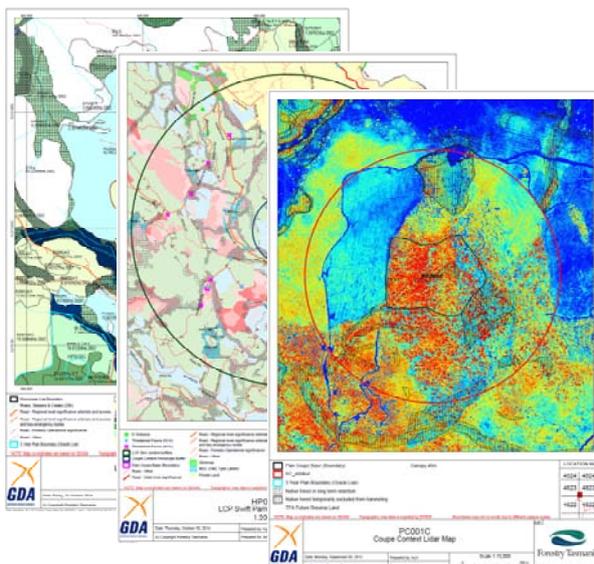


Figure 1. Examples of LCP system maps used by planners to help identify areas for long term retention

Forests retained for the long term include reserves. Reserves are established to protect streams, erodible soils, important geology such as karsts, habitat for threatened species, wildlife habitat corridors, and to protect cultural and

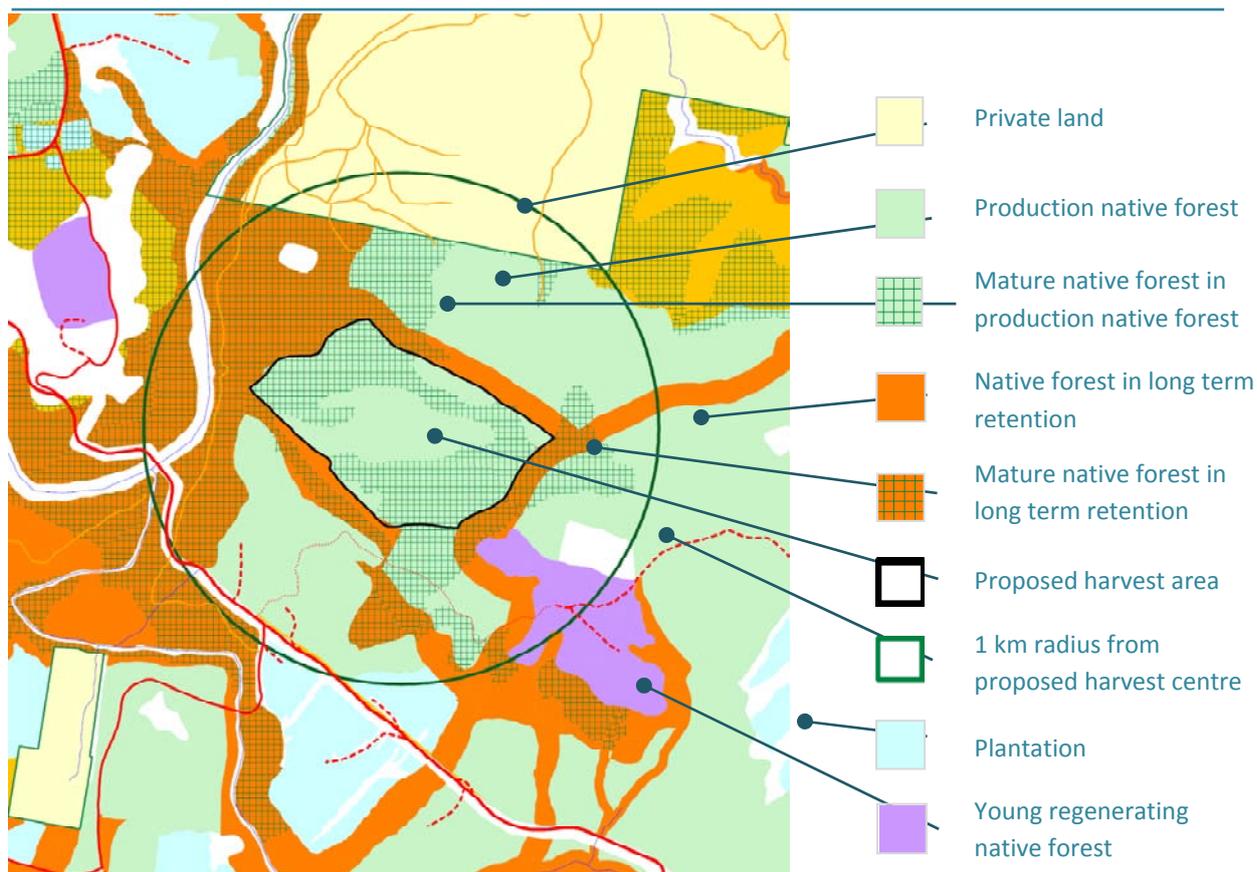
historic sites. On average about 20% of proposed harvested areas are routinely set aside to protect these values.

If the combination of set-asides in the proposed harvest area and in the surrounding 1km radius meet the long term retention objective, no additional reservation is required (Figure 2). If the long term retention objective is not satisfied, planners use LCP system maps and reports (Figure 1) which describe forest attributes important to biodiversity and wood supply. This information is used to identify the best additional areas to add to long term retention for biodiversity while minimising effects on wood supply. Guidelines help planners identify forests that make the greatest contribution to biodiversity when selecting additional forests to be added to long term retention, particularly mature forest.

In the example provided by Figure 2:

- 52% of the forest in a 1 km radius around harvest operation centre is mature native forest on public land;
- 32% of the forest in a 1 km radius of the harvest operation centre is native forest in long term retention, 81% of which is mature native forest; and,
- 6% of the forest in a 1 km radius of the harvest operation is young regenerating native forest (less than 5 years old). If the whole coupe area was harvested, this would increase to 25%.

Consequently the landscape objectives are achieved for this planned harvest which can proceed without having to wait for neighbouring forests to age or to identify additional areas for long term retention. Natural and cultural values identified in the planned harvest area will be protected through being added to long term retention, which will add to the level of retention in the landscape.



**Figure 2** Example of a LCP system Map, showing the proposed harvest area, or coupe, and its surrounding landscape.

## REFERENCES

Wardlaw, T.J., S.J. Grove, A. Hingston, J. Balmer, L. Forster, R. Musk, S.M. Read. Associations of birds, beetles and plants with the intensity of landscape-level disturbance in a tall, wet eucalypt forest ecosystem. *Ecological Applications* (submitted).

Wardlaw, T.; Grove, S.; Balmer, J.; Hingston, A.; Forster, L.; Schmuki C. and Read, S. (2012)

Persistence of mature-forest biodiversity elements in a production-forest landscape managed under a

## FURTHER INFORMATION

More information on the LCP system can be found on FTs web-site:

[www.forestrytas.com.au](http://www.forestrytas.com.au)