

Assessing duty of care – private land

Forest Practices Authority, Hobart

Preliminary report to the Board of the Forest Practices Authority

June 2013

1. Introduction

The Tasmanian *Forest Practices Code 2000* states that:

‘The sustainable management of natural and cultural values within production forests under the forest practices system will be determined in accordance with:

- *the duty of care of landowners under the provisions of this Code, which is defined as the fundamental contribution of the landowner to the conservation of natural and cultural values that are deemed to be significant under the forest practices system. The landowners duty of care includes:*
 - *all measures that are necessary to protect soil and water values as detailed in this Code;*
 - *the reservation of other significant natural and cultural values. This will be at a level of up to 5% of the existing and proposed forest on the property for areas totally excluded from operations. In circumstances where partial harvesting of the reserve area is compatible with the protection of the values, the level will be up to 10%. The conservation of values beyond the duty of care is deemed to be for the community benefit and should be achieved on a voluntary basis or through compensation mechanisms where available.’*

It is uncertain to what degree areas retained under forest practices plans (FPPs) exceed the ‘duty of care’ provisions of the Code. To date, there have been very few instances where the compensation mechanisms have been applied. Given the pressure currently experienced by the industry, it is possible that compensation will be increasingly sought if the duty of care provisions are exceeded.

The objective of this study is to estimate the degree to which these provisions are exceeded. The current report details the preliminary results of the study.

2. Methods

- *Random selection of FPPs*

The FPPs that were randomly selected for compliance auditing in 2009–10 and 2010–11 were assessed for the current study. Only FPPs for native forest silviculture on private land were examined.

- *Upload the FPP map onto GIS*

The map provided in the FPP was scanned, uploaded into the GIS program ‘ArcMap’, and ortho-rectified to ensure the scale of the uploaded map was accurate.
- *Determine the area designated for harvest and retention for each FPP*

The FPP and associated map were examined to determine how the natural and cultural values of the area were managed. The different management units on the map were traced, the area measured, and classified by their management. The following categories were used:

 - FPP area
 - harvest area
 - modified harvest (i.e. some harvesting was permitted, but targeted trees had to be retained for Code recommendations, or the area could be harvested at a later date)
 - other reserve (i.e. retention for soil and water management)
 - biodiversity reserve (i.e. retained for biodiversity OR visual OR cultural reasons alone).
 - uncertain (an area on the FPP where it is uncertain what management applies. This will frequently be unforested areas, or areas of forest that the land owner wishes to keep for unknown reasons).

Areas designated for biodiversity management that did not appear to impact the harvest area (e.g. streamside reserve (SSR) in areas in unforested areas) were not differentiated or classified as biodiversity reserves.

- *Estimate the area retained to manage special values*

The area retained under the FPP for management of special values was the sum of the areas classified as reserves (i.e. biodiversity and other). This was expressed as a percentage of the total FPP area to determine the ‘area retained under the FPP for special values’. The area classified as ‘biodiversity reserve’ was expressed as a percentage of the total FPP area to determine the ‘area retained for biodiversity, cultural or visual values’. The sum of the areas classified as ‘biodiversity reserve’ and ‘modified harvest’ was expressed as a percentage of the total FPP area to determine the ‘area retained or modified for biodiversity, cultural or visual values’.
- *Establish the reasons for retention*

For FPPs where more than 5% of the FPP area was retained, the FPPs were examined to establish the reasons for retention. Any retention for reasons other than wildlife habitat clump (WHC) was specifically noted.

2.1. Limitations

- *This process will only consider the areas retained as reported in the FPP.*

How the FPP boundary is established can vary between Forest Practices Officers (FPOs). In some cases the FPP boundary follows the property boundary. In other cases the FPP boundary follows the harvest boundary, in which case it is not possible to determine if the location of the harvest boundary was influenced by Code requirements. This means that if FPOs do not consider an area for harvest because of biodiversity issues, and determine the FPP boundary accordingly, the management of these areas will not be determined through the current process.

- Some areas are retained for multiple reasons.*
Occasionally areas are retained for multiple reasons (e.g. steep land combined with WHC). Under these circumstances it was assumed that the soil and water provisions were the primary management, and so these areas were classified as ‘other reserve’, *not* ‘biodiversity reserve’. However, attempts were made to differentiate the two where possible. For example, where SSR were widened for crayfish the standard Code requirements were estimated from the map, and the additional area required for crayfish management was mapped separately and classified as ‘biodiversity reserve’.
- The area estimates made from the maps may not be accurate*
The maps provided in the FPPs are likely to vary considerably in how accurately they reflect the on-ground management outcomes. In addition, error will also occur when using the GIS program to trace these maps and classify the management areas. Therefore, the results of this analysis should be taken as indicative only.

3. Results

A total of 45 FPPs were examined. The area covered by these FPPs ranged from six to approximately 1100 ha. Almost half of the FPPs retained a greater area than required under the duty of care requirements (Table 1). Areas were retained for a range of reasons, often relating to threatened species or vegetation communities, or management of visual landscapes (Table 2). The percentage area retained did not appear to relate to the area covered by the FPP (FPA unpublished data).

Of the FPPs examined, most related to conversion operations, selective harvesting, or clearfall burn and sow silviculture (Figure 1). Conversion operations had the greatest range in the percentage area retained, but a greater proportion of the selective harvesting operations exceeded the 5–10% retention threshold required under the duty of care provisions (Figure 1).

Table 1. Summary of the percentage of the FPP area retained to manage special values (soil and water, biodiversity, cultural and visual – not including areas retained for unknown reasons), areas retained to manage biodiversity, cultural and visual values, and areas retained or subject to modified harvest to manage biodiversity, cultural and visual values.

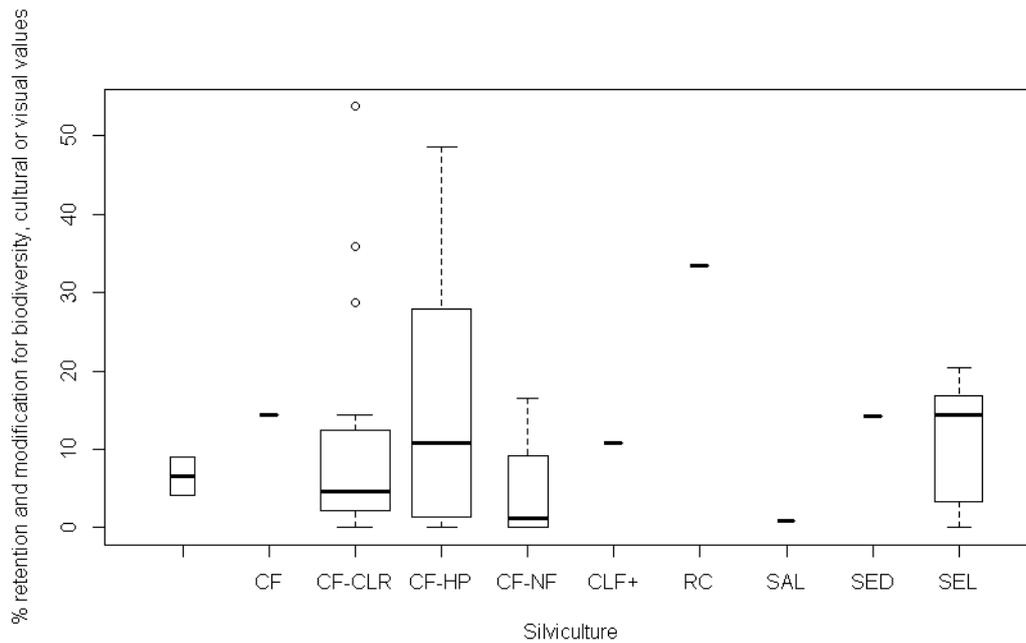
	Area retained under FPP for special values	Area retained for biodiversity, cultural or visual values	Area retained or modified for biodiversity, cultural or visual values
Maximum percentage	55.0%	53.8%	53.8%
Minimum percentage	0%	0%	0%
Median percentage	14.2%	4.7%	7.8%
Number of FPPs with >5%	34	22	26
Number of FPPs with >10%	29	14	20

Table 2. The FPPs that exceeded the duty of care requirements.

Percentage of FPP area retained or subject to modified harvest (%)	Reason
54	Strategic Ecological Reserve Network (SERN) to manage flora and fauna, no detail given. Aboriginal sites have 2 m radius reserve. Aboriginal cultural landscape has been managed by incorporating visual and cultural reserves into the SERN. 10 m reserve around historic chimney. 50 m wide reserve to buffer surrounding extensive dune.
49	Selective harvest to retain <i>E. globulus</i> .
36	Reserve to protect grassy <i>E. globulus</i> community. Steep area to be retained to protect swift parrot and Mt Mangana stag beetle. Retain area of native forest as landscape reserve.
35	Eagle reserve, extended streamside reserve (SSR) for grassland, temporary exclusion for golden galaxiid.
34	Wildlife Habitat Clump (WHC)/ Wildlife Habitat Strip (WHS)/Swift parrot.
29	Selective harvest of wet <i>E. viminalis</i> forest. SSR for giant freshwater crayfish. 30m SSR on class 3 stream for Goshawk. 15m SSR on class 4 stream for Skemps snail. Selective harvest of some areas for landscape. 50m SSR on class 2 stream. Selective logging in class 4 SSR.
28	RFA floristic community reserved. Retain potential nesting trees adjacent to reserves where feasible. Retain <i>E. globulus</i> where feasible. 10m SSR on class stream for stag beetle.
28	Rocky outcrop, which may contain priority flora and threatened vegetation community, included in WHC. 10m harvesting exclusion zone around cultural site. WHC and biodiversity spines retained within operational area, partly for landscape. A landscape zone will be retained adjacent to highway, and vary in width from 20–25m.
20	Visual landscape and grassland.
19	Visual landscape.
17	WHC
17	Habitat for owls, quolls and snails within WHC. Rocky ridge in NE corner with deeply incised gullies incorporated into WHC. Extended SSR to protect steep slopes. Unharvested area is potentially too steep?
15	FPP states class 4 streams are to have 10m SSR but these were not mapped so not included in the assessment. An area (6.5 ha) of grassy <i>E. globulus</i> associated with class 3 and 4 stream system and <i>E. amygdalina</i> on sandstone (1.5 ha). Masked owl incorporated in retained areas (WHC).
14	<i>E. ovata</i> patch, live trees retained, dead trees taken. WHC. Selective due to landscape.

14	Visual landscape, ME forest, DVG
14	Visual landscape, <i>E. ovata</i> reserve.
14	15m SSR on class 4 stream for crayfish and snails.
11	WHC, quoll and devil captured in WHC, SSR and WHS.
11	Bandicoot, masked owl and quolls catered for by SSR, steep/rocky areas and landscape reserve. Visual landscape reserve, and scenic protection area (under the municipal planning scheme) is located adjacent to the landscape reserve. Landscape management zone (LMZ) at southern end. No operations to occur within LMZ for at least one year.
10	WHC on map, but audit says not marked or retained and is only a 2ha coupe. 30m SSR on class 4 streams for giant freshwater crayfish, but there is a letter from FPA saying retention of 10m SSR is noted and OK because not high quality habitat.
9	Habitat for quolls and bandicoots retained in the WHC.
9	<i>E. rodwayi</i> reserve, WHC
8	Dry sedgy <i>E. ovata</i> and dry heathy <i>E. viminalis</i> are priority communities. On class 3 stream needs 30m SSR.
8	Threatened plant and burgundy snail in WHC. Also potentially Mt Mangana, quolls, masked owls.
7	Threatened flora reserve, <i>E. ovata</i> reserve.
5	9 ha <i>E. rodwayi</i> reserved, 30 ha of <i>E. viminalis</i> grassy forest (total of 165 ha of <i>E. viminalis</i> grassy forest at site). Require WHC but not marked on map. I think using steep areas as basis for retained habitat. Minimal WHC elsewhere because of class streams.

a)



b)

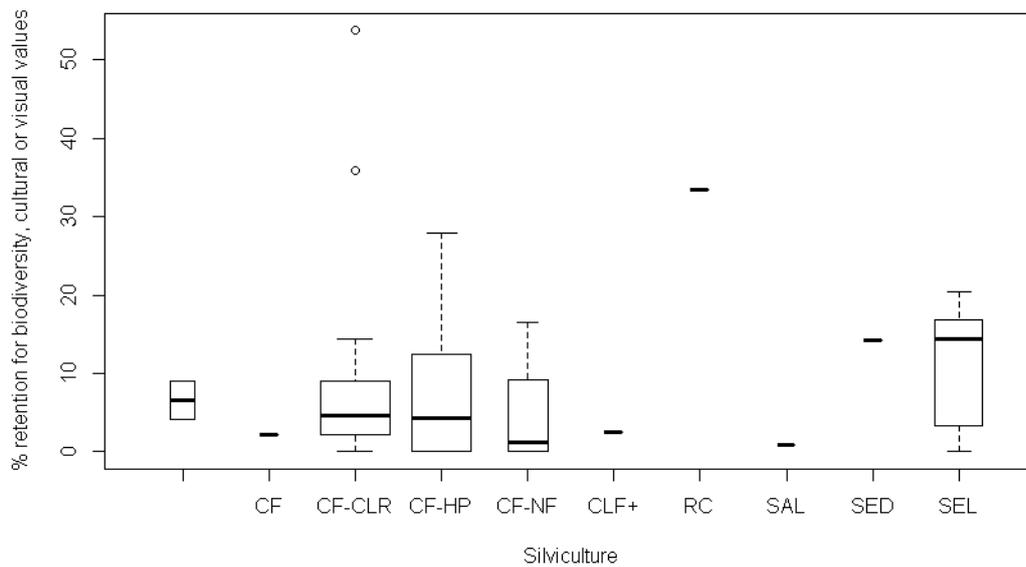


Figure 1. The percentage of the FPP area retained to manage biodiversity, visual or cultural values (a) including and (b) not including the areas where modified harvesting is allowed, in relation to the silviculture type. The dark line is the median value, the box shows the spread of the middle 50% of the data, the dashed lines indicate the spread of the rest of the data excluding any outliers (open circles). The width of the bars relates to the number of FPPs examined, so the wider the box the more data was available.

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