How to use the Special Species tools: a flow chart and case study

Background

The first Tasmanian Special Species Management Plan (the Plan) was released by the Tasmanian Government on 18 October 2017. The Plan was prepared in accordance with the requirements of the *Forestry (Rebuilding the Forest Industry) Act 2014*, and is designed to provide a management framework for the long-term and sustainable harvesting of Tasmanian special species timbers.

The objectives of the Plan include the following;

- to facilitate a cross-tenure management approach to the management of, and access to, special species timbers, and
- provide relevant information to assist land owners in assessing, and applicants in developing, special species timber harvesting applications.

Two special species planning tools have been developed to address these objectives; a silvicultural guideline and a series of special species spatial layers.

The special species tools

The **Rainforest silviculture guidelines** ("the guidelines") update and supersede the *Technical Bulletin No. 9: Rainforest Silviculture* (Forestry Tasmania, 1998), to provide direction on the selection and application of appropriate silvicultural practices in rainforest vegetation communities. The guidelines provide information about on rainforest vegetation communities, classification and ecology, as well as guidance for selecting the appropriate silvicultural method for different types of rainforest.

A set of five **Special species timber spatial layers** have also been developed to identify areas where a special species have the potential to be found in Tasmania. These layers are based on existing broadscale vegetation mapping (TASVEG 3.0). There is one layer each for myrtle, sassafras, celery-top pine, blackwood and silver wattle.

The layers are based on broadscale spatial information that was primarily interpreted from aerial imagery, and so can only be considered as a guide, and do not guarantee that special species timbers are present. All areas highlighted by the spatial layers will require ground-truthing to confirm the presence of specialty timbers. It is essential that landowner approval is gained before accessing an area for this purpose, or for subsequent harvesting. Landowner approval processes are outlined in Appendix 2 of the *Tasmanian Special Species Management Plan 2017*.

The special species timber spatial layers are available to authorised users on the LIST, where users can also access tenure, road networks and other useful spatial layers. If you wish to have access to the spatial layers, please email forests@stategrowth.tas.gov.au.

The **Special species timber spatial layers** and **Rainforest silviculture guidelines** therefore have different, but related purposes. The case study below is intended to provide context on the use of these planning tools in situations requiring specialty timbers.

Further considerations

The spatial layers provide information for the whole of Tasmania, regardless of whether special species harvesting is suitable in an area or not. It is the responsibility of those planning special species harvesting to ensure they have the necessary landowner and/or land manager permissions to operate in an area, and in the case of reserved land, to ensure that timber harvesting is consistent with the management objectives of the land tenure classification, as stated in the relevant legislation (e.g. *National Parks and Reserves Management Act 2002*, *Nature Conservation Act 2002*, etc). Reserve categories where timber harvesting may be permitted under certain circumstances are outlined in the Tasmanian Special Species Management Plan.

Some of the areas covered by the spatial layers may contain forest not suited to timber harvesting (e.g. high altitude/montane sites or rainforest on poor soil quality, etc), or forest that does not actually contain special species timbers. The spatial layers are based on broadscale vegetation mapping (from TASVEG 3.0), which provides an *indication only* of the likely presence of special species. The TASVEG layers included for each special species layer are detailed in Appendix 1. The Rainforest Silviculture Guidelines recommend ground-based vegetation mapping for any silvicultural planning, and provide information to ascertain if a particular rainforest type is suitable for harvesting.

Although Huon pine is listed under the *Forestry (Rebuilding the Forest Industry) Act 2014* as a special species timber, spatial layers have not been provided for this species. This is because Huon pine is an extremely slow growing species - the extraction of Huon pine is recommended to be on a case-by-case, salvage harvest basis only.

Case study: Bob the furniture maker

Bob is a bespoke furniture maker. He has received a request for a custom made, specialty furniture piece; a large myrtle boardroom table. He doesn't have the appropriate timber in his stores, and so approaches a Tasmanian specialty timber supplier.

The specialty timber supplier has plenty of timber, but none of their timber boards and slabs are quite the right dimensions for Bob's project, so they want to source some new myrtle. The timber supplier then contacts a forestry company with their request. The forestry company needs to work out where it can legally and responsibly source the required myrtle, and follow the correct processes to be able to harvest and sell it to the supplier.

The forestry company may consult the **Special species timber spatial layer for myrtle** on the LISTmap website. The layers shows areas that may contain forest with a myrtle component based on existing vegetation mapping. The forestry company decide to focus on an area in north-western Tasmania where the layer indicates the likely presence of a myrtle-dominated vegetation community. The company ensure that they have permission to visit and operate on the tenure of the area they plan to investigate.

The company sends a forest practices planner to ground-truth the area mapped as myrtle-dominated in the spatial layer. The forest practices planner visits the area in person, noting that the area has no *Eucalyptus* trees, but mostly contains myrtle and sassafras trees, with manferns and some ground ferns present. The planner uses forest practices planning tools to confirm that the forest is categorised as 'callidendrous and thamnic rainforest on fertile sites', also known as 'M+ rainforest'. The planner then consults the **Rainforest silviculture guidelines** to determine whether the forest type is suitable for harvesting and regeneration, and what the appropriate silvicultural system is.

The **Rainforest silviculture guidelines** suggest that a selective harvesting silvicultural system is suitable for harvesting this forest type. Selective harvesting will allow the harvesting contractors to remove suitable individual trees to fulfil Bobs requirements, and achieve adequate regeneration of the forest.

The forest practices planner then plans the harvesting of an area, or 'coupe' of this myrtle rainforest. The coupe is not exempt from requiring a forest practices plan under the Forest practices Regulations. Following the requirements of the Tasmanian Forest Practices System, the planner prepares a forest practices plan incorporating prescriptions for a selective harvesting regime, as outlined in the **Rainforest silviculture guidelines**, along with consideration for all other forest values. Once the FPP has been certified by the Forest Practices Authority and provided back to the landowner who gives their permission, the timber can be legally harvested and sold to the specialty timber supplier, who can then supply it to Bob.

This process is summarised in the amended flow chart below. The original flow chart appears in the Tasmanian Special Species Management Plan and has been modified to include the additional special species planning tools steps.

Identify potential area to target special species timber using **spatial layer**.

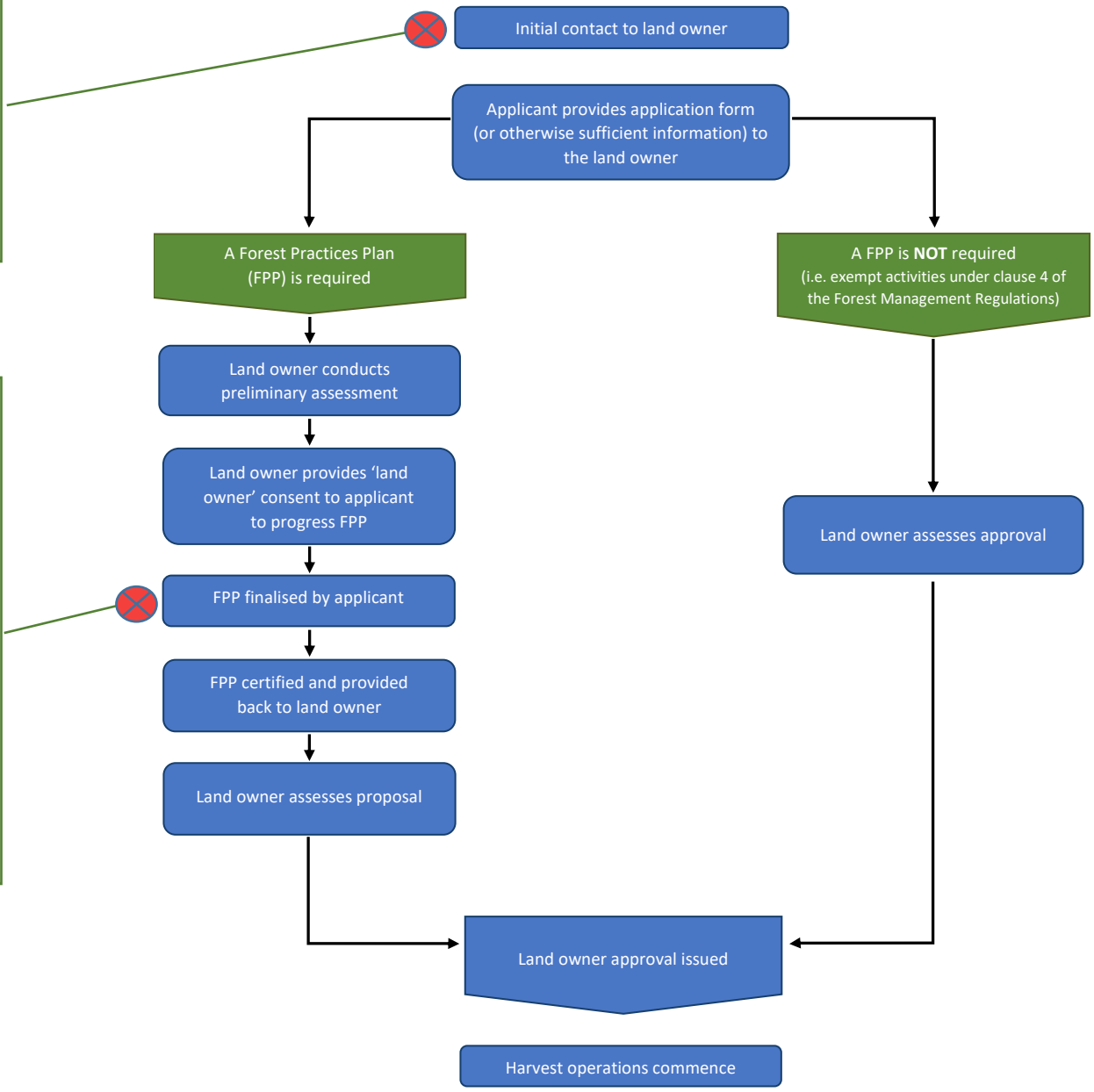
Check tenure layer to ensure harvesting is appropriate for the tenure

Appropriate tenures are listed in the Tasmanian Special Species Management Plan

The FPP planner will check the accuracy of the **spatial layer** by ground-truthing the vegetation communities present at the site. On-ground vegetation mapping should be carried out according to the **Rainforest silviculture guidelines**.

The planner will then consult the **Rainforest silviculture guidelines** to find the appropriate silvicultural system for that site and vegetation community.

Silvicultural prescriptions from the **Rainforest silviculture guidelines** will be transferred into the FPP document.



Appendix 1: Relevant TASVEG communities

Special species layer	TASVEG communities where species is dominant	TASVEG communities where species is a likely component
Silver wattle ***Acacia dealbata***	NAD – Acacia dealbata forest	WDB – Eucalyptus delegatensis forest with broadleaf shrubs WDL – Eucalyptus delegatensis forest over Leptospermum WDU – Eucalyptus delegatensis wet forest undifferentiated WGL – Eucalyptus globulus wet forest WOB – Eucalyptus obliqua forest with broad-leaf shrubs WOU – Eucalyptus obliqua wet forest undifferentiated WRE – Eucalyptus regnans forest WVI – Eucalyptus viminalis wet forest *
Myrtle ***Nothofagus cunninghamii***	RMT – Nothofagus - Atherosperma rainforest RML – Nothofagus - Leptospermum short rainforest RMS – Nothofagus - Phyllocladus short rainforest RMU – Nothofagus rainforest undifferentiated	RKP – Athrotaxis selaginoides rainforest* RPP – Athrotaxis cupressoides rainforest * WDR – Eucalyptus delegatensis forest over rainforest WNR – Eucalyptus nitida forest over rainforest WOR – Eucalyptus obliqua forest over rainforest WOU – Eucalyptus obliqua wet forest undifferentiated WRE – Eucalyptus regnans forest WSU – Eucalyptus subcrenulata forest and woodland
Sassafras ***Atherosperma moschatum***	RCO – Coastal rainforest RMT – Nothofagus - Atherosperma rainforest	RML – Nothofagus - Leptospermum short rainforest RMU – Nothofagus rainforest undifferentiated WDR – Eucalyptus delegatensis forest over rainforest WNR – Eucalyptus nitida forest over rainforest WNU – Eucalyptus nitida wet forest undifferentiated WOR – Eucalyptus obliqua forest over rainforest WOU – Eucalyptus obliqua wet forest undifferentiated WRE – Eucalyptus regnans forest WSU – Eucalyptus subcrenulata forest and woodland
Celery top pine ***Phyllocladus aspleniifolius***	RMS – Nothofagus - Phyllocladus short rainforest (low height)	RML – Nothofagus - Leptospermum short rainforest RMU – Nothofagus rainforest undifferentiated RPP – Athrotaxis cupressoides rainforest * WDR – Eucalyptus delegatensis forest over rainforest WNR – Eucalyptus nitida forest over rainforest WNU – Eucalyptus nitida wet forest undifferentiated WOR – Eucalyptus obliqua forest over rainforest WOU – Eucalyptus obliqua wet forest undifferentiated WSU – Eucalyptus subcrenulata forest and woodland

Blackwood ***Acacia melanoxylon***	NAF – Acacia melanoxylon swamp forest NAR – Acacia melanoxylon forest on rises	RML – Nothofagus - Leptospermum short rainforest RMS – Nothofagus - Phyllocladus short rainforest RMU – Nothofagus rainforest undifferentiated WBR – Eucalyptus brookeriana wet forest* WDB – Eucalyptus delegatensis forest with broadleaf shrubs WDL – Eucalyptus delegatensis forest over Leptospermum WDU – Eucalyptus delegatensis wet forest undifferentiated WGL – Eucalyptus globulus wet forest WOB – Eucalyptus obliqua forest with broad-leaf shrubs WOR – Eucalyptus obliqua forest over rainforest WOU – Eucalyptus obliqua wet forest undifferentiated WRE – Eucalyptus regnans forest WVI – Eucalyptus viminalis wet forest*