

Management Plan

to accompany

Application for a new permit to clear native vegetation (area permit)

(form NV-F01v12.0)

from

Department of Water and Environmental Regulation

for

Marcus and Patricia Synnot

Background

Marc and Patricia Synnot own a bush property at Tonebridge, on the south side of the Boyup Brook Cranbrook Road in the Shire of Boyup Brook, approximately 65 kilometres east of the town of Manjimup in the south-west of Western Australia.

The total area of the property - all on one location - is approximately 127 hectares, all of which is native jarrah (*Eucalyptus marginata*)/marri (*Corymbia calophylla*) forest, with some minor occurrence of wandoo (*Eucalyptus wandoo*), apart from some small areas which have been cleared for past infrastructure.

The Synnots are seeking to conduct some ***sustainable timber harvesting*** on approximately 100 hectares of their property in order to earn an income, some of which will then be used to improve the property's fences, fire access tracks, firebreaks and water supply.

Current status of the native forest subject to this application

The forest on the Synnot's property is typical "Eastern jarrah" forest. This forest type occurs eastwards of the 900mm rainfall isohyet and is characterised by more widely spaced trees with a lower height than jarrah/marri forest occurring in higher rainfall areas, as well as featuring a low and relatively sparse understorey.

The forest has been subjected to some harvesting of jarrah for sawlog in the 1950s and 60's, and a harvest of some marri for paper chips occurred approximately 25 years ago.

The forest is healthy with no current signs of dieback due to *Phytophthora cinnamomi*.

The forest now lends itself to some considered silviculture to release growing stock and to establish new regeneration in areas that are understocked.

Soils on the property are predominantly gravels with some lateritic exposure.

Attachment 1 consists of a series of photographs of the forest, with current basal areas, taken on a transect through the middle of the property from south to north.

Outline of silvicultural and harvesting prescription

- The silvicultural prescription to be adopted follows the principles contained within the “Silvicultural Guidelines for Jarrah Forest”, published as “FEM Guide No 1” by the Department of Parks and Wildlife (now DBCA) in 2014.
- In summary, the prescription will comprise a combination of:
 - promotion of growth on selected retained trees by thinning to a basal area of between 10 and 15m² per hectare;
 - release of regeneration by creation of small gaps; and
 - establishment of regeneration by retaining overstorey seed trees.
- In all cases, at least five habitat trees per hectare, on average, will be retained. Selection of habitat trees will target all and any sound, older trees with hollows or potential hollows, for fauna.
- Harvesting machinery will be cleaned of any soil and plant matter before entering the property to minimise any risk of introducing jarrah dieback disease or undesirable weeds.
- Harvesting will be carried out by an experienced and qualified local harvesting contractor using machinery suitable for the harvesting of native forest. This will comprise a tree harvester to fell trees and cut boles into appropriate lengths. Extraction of logs will be carried out using a rubber-tyred skidder or forwarder. Logs will be loaded onto trucks using the forwarder. Biomass will be generated from low grade log and branch material extracted to bush landings by a mobile chipping machine.
- Extraction tracks will, where necessary, be created by the tree harvester and will use natural gaps between trees.
- Harvesting slash will be removed from around the bases of retained trees during harvesting.
- All harvesting activity will be conducted in accordance with the WA timber industry Codes of Practice, as published from time to time by the Forest Industries Federation (WA) Inc.
- Following harvesting, the thinned areas will be “tops burnt”, that is harvesting debris will be burnt under cool conditions in autumn, winter or spring such that only recently dried harvesting slash and any rolled understory vegetation will burn.
- Log landings (ie areas where logs are stacked and then loaded onto trucks) will be located along the existing road/track which enters the property at its north west corner from the Boyup Brook Cranbrook Road and then follows the property’s southern boundary.

Black cockatoo habitat trees

Because of the importance of conservation of habitat trees for Western Australia's three species of black cockatoo (Carnaby's cockatoo, Baudin's cockatoo and Forest red-tailed cockatoo), any tree with hollows of a size potentially suitable for nesting by any of these three species will be retained as habitat trees. These trees tend to be over-mature or dead trees, particularly marri trees.

Because of this commitment, a cockatoo habitat tree survey prior to harvesting is not considered necessary.

Estimated quantities of forest products to be harvested

The estimated quantities of forest products, by species and grade, that could be produced from the proposed operation are:

- Jarrah sawlog: 0 - 300 tonnes
- Jarrah firewood: 500 - 1000 tonnes
- Biomass (predominantly jarrah): 2,500 - 3,500 tonnes
- **Total:** approx. 3,000 - 4,800 tonnes

Note: these are estimates only. The actual quantities produced will depend on markets at the time of harvesting and viability of the harvesting operation.

Future management

After the proposed thinning and post-thinning burn, the managed forest will need little attention for at least five years. At that time, a cycle of regular mild prescribed burning should be adopted to reduce the risk of damage from bushfires.

A further thinning operation should be feasible approximately 30 years hence.

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**Photos and basal area counts at Marc and Patricia Synnot's bush property at Tonebridge.
John Clarke, 22 April 2022**

Photo 1: Basal area (breast height over bark) of all live trees above 100mm = 30m²/ha



Photo 2: BA = 32m²/ha



Photo 3: BA = 21 m2/ha



Photo 4: BA = 25 m2/ha



Photo 5: BA 32 m²/ha



Photo 6: Image showing stumps from past jarrah cutting



Photo 7: Fallen dead jarrah



Photo 8: Image showing wandoo occurrence



Photo 9: Image showing fallen dead jarrah



Photo 10: image showing fallen dead jarrah and gravelly soil



Photo 11: Image showing standing dead jarrah, 51cm dbh, no hollows

