



## Environmental Protection Authority

Mr Peter Robertson  
The Wilderness Society WA Inc  
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**WEST PERTH WA 6005**

Your Ref:  
Our Ref: CMS16014  
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Dear Mr Robertson

### **NOTICE UNDER SECTION 39A(3) *Environmental Protection Act 1986***

**PROPOSAL:** Wild Sandalwood Harvesting on Crown lands (2016 – 2026)  
**LOCATION:** Kalgoorlie  
**PROPONENT:** Forest Products Commission of Western Australia  
**DECISION:** Referral Examined, Preliminary Investigations and Inquiries Conducted. Proposal Not to be Assessed Under Part IV of EP Act. Advice Given. (Appealable)

Thank you for your letter referring the above matter to the Environmental Protection Authority (EPA).

This proposal raises a number of environmental issues. However, the overall environmental impact of the proposal is not so significant as to require assessment by the EPA, and the subsequent setting of formal conditions by the Minister for Environment under Part IV of the *Environmental Protection Act 1986*. Accordingly, the EPA has determined not to assess this proposal.

Nevertheless, the EPA has provided the attached advice to the proponent and other relevant authorities on the environmental aspects of the proposal.

The EPA's decision to not assess the proposal is open to appeal. There is a 14-day period, closing 22 August 2016, during which, on payment of the appeal fee, an appellant may ask the Minister to consider directing the EPA to reconsider this decision or conduct a formal assessment.

Information on the outcome of the appeals process is available through the Appeals Convenor's website, [www.appealsconvenor.wa.gov.au](http://www.appealsconvenor.wa.gov.au), or by telephoning 6467 5190 after the closing date of appeals.

Yours sincerely

A handwritten signature in black ink, appearing to read 'A Sutton', with a long horizontal flourish extending to the right.

Anthony Sutton  
Director  
Assessment and Compliance Division

Delegate of the Chairman of the Environmental Protection Authority  
Under Notice of Delegation No. 33 published 17 December 2013

8 August 2016

Encl: Public Advice

**PUBLIC ADVICE UNDER SECTION 39A(7)  
ENVIRONMENTAL PROTECTION ACT 1986**

**WILD SANDALWOOD HARVESTING FROM CROWN LANDS  
FROM 2016 TO 2026**

**Summary**

The Wilderness Society of WA Inc. referred this proposal to the EPA on the basis of there being no management plan for the wild sandalwood industry, and concerns about the sustainability of the sandalwood industry.

The Forest Products Commission of Western Australia (FPC) proposes to undertake the commercial harvesting of wild sandalwood (*Santalum spicatum*) from Crown lands at a rate of up to 1125 tonnes per year of green sandalwood and 1125 tonnes per year of dead sandalwood, for a period of ten years pursuant to annual licences granted by the Department of Parks and Wildlife (Parks and Wildlife) under the *Sandalwood Act 1929*.

The proposal is consistent with the new *Sandalwood (Limitation of Removal of Sandalwood) Order (No. 2) 2015*, gazetted on 29 December 2015, which has set a reduced annual wild sandalwood harvest quota of 2500 tonnes per annum from 1 July 2016 until 31 December 2026. The maximum 'green' wood harvest will be 1250 tonnes per annum of which 90% (1125 tonnes) will be sourced from harvesting on Crown lands by the FPC.

The FPC manages the proposal through the issue of production contracts to various contractors employed by them to harvest sandalwood. Under the *Sandalwood Act 1929*, Parks and Wildlife is the agency responsible for regulating, licencing and enforcement in the sandalwood industry.

The proposal also comprises other elements including sandalwood regeneration, monitoring, management, enforcement, a strategy to transition to plantation-grown wood and engagement and research.

The duration of this proposal (to 31 December 2026) is consistent with the period after which there is a major increase in the projected availability of plantation sourced sandalwood.

The proposal was advertised for public comment and the EPA notes that 32 public comments were received. Twenty three comments recommended a PER level of assessment, 5 recommended an API (Category B), 2 recommended an API (Category A) and 2 recommended the proposal not be formally assessed.

Key issues raised by the public included the following:

- wild sandalwood is a slow growing species that has been impacted by previous harvesting for more than 150 years.
- all sandalwood should be sourced from plantations;
- illegal exploitation of wild sandalwood is a serious problem;

- there is little or no sandalwood regeneration occurring in the wild owing to fire and grazing; and
- preparation of a wild sandalwood management plan should be undertaken.

On the other hand there were a number comments that observed that the sandalwood industry is being well managed.

The EPA has examined the proponent's referral documentation, and conducted preliminary investigations and inquiries on the further information received from the proponent and Parks and Wildlife.

The EPA has considered the proposal in accordance with the requirements of the *Environmental Protection Act 1986* (EP Act) and the *Environmental Impact Assessment Administrative Procedures 2012*. In making its decision on whether to assess the proposal, the EPA considered the 10 aspects of the significance test as set out in clause 7 of the *Environmental Impact Assessment Administrative Procedures 2012*:

1. values, sensitivity and quality of the environment which is likely to be impacted;
2. extent (intensity, duration, magnitude and geographic footprint) of the likely impacts;
3. consequence of the likely impacts (or change);
4. resilience of the environment to cope with the impacts or change;
5. cumulative impacts with other projects;
6. level of confidence in the prediction of impacts and the success of proposed mitigation;
7. objects of the Act, policies, guidelines, procedures and standards against which a proposal can be assessed;
8. presence of strategic planning policy framework;
9. presence of other statutory decision-making processes which regulate the mitigation of the potential effects on the environment to meet the EPA's objectives and principles for EIA; and
10. public concern about the likely effects of the proposal, if implemented, on the environment.

In considering the potential impacts of the proposal on Flora and Vegetation, the EPA has had particular regard to:

- new information which was submitted by the FPC and the Parks and Wildlife about the predicted impacts, management of sandalwood harvesting and proposed regeneration activities. This new information was published on the EPA's website for a 7 day public comment period;
- the environmental values and sensitivities of wild sandalwood. Sandalwood is a slow growing species and is susceptible to threats and pressures from fire and grazing;
- the potential impacts to sandalwood from historical land uses in the rangelands (especially the previous and extensive pastoral industry) and management of grazing and previous harvesting activities. In addition, it is noted that levels of

natural regeneration in the rangelands have declined due to low seedling survival, persistent grazing and a reduction in seed dispersal following the depletion of native animals (for example the Woylie);

- the potential impacts from harvesting are likely to be widely dispersed across the landscape;
- extensive representation of sandalwood within existing and proposed conservation reserves from which harvesting of sandalwood is excluded;
- the regeneration measures by the FPC which aim to benefit the representation and viability of sandalwood at the species, population and community level; and
- the presence of other statutory processes that can manage the potential impacts to Flora and Vegetation, including licensing and enforcement under the *Sandalwood Act 1929* and the *Wildlife Conservation Act 1950*, the Sandalwood Order in Council 2015 which applies harvest limits, the *Forest Products Act 2000* which requires application of the principles of ecologically sustainable forest management.

In summary, although the proposal raises a number of environmental issues and has a degree of public interest about the environmental impacts, the EPA considers that its objective for Flora and Vegetation can be met. The EPA also advises (below under Other Advice) that it supports the development of a Biodiversity Management Programme for sandalwood, as it would serve to address most of the issues raised by the public comments and, most importantly, increase the transparency and visibility of the outcomes to be achieved in the sandalwood industry.

The EPA considers that the proposal is unlikely to have a significant impact on the environment and does not warrant formal assessment because the level of harvest is limited to around 8% of the standing resource of sandalwood in the designated harvest areas and furthermore that the harvest areas comprise a relatively small proportion of the overall range and distribution of the sandalwood species.

In addition, the EPA also notes the presence of other statutory decision-making processes to manage the potential impacts of this proposal, the proposed improvements and investment in management and enforcement using agencies and statutory processes other than the EP Act and the expertise and on-ground resources of these other agencies.

## **1. Environmental Factors**

The EPA has identified Flora and Vegetation as the preliminary environmental factor relevant to this proposal.

There were no factors, including the interaction between the environmental factors that were determined to have significant environmental impacts that would require formal environmental impact assessment under Part IV of the EP Act.

## **2. Relevant Policy and Guidance**

The EPA has given due consideration to the following relevant published EPA policies and guidelines, noting that other published policies and guidelines pertaining to this proposal were considered but not determined to be relevant:

Position Statement No. 2 (2000) – Environmental Protection of Native Vegetation in Western Australia.

Position Statement No. 3 (2002) – Terrestrial Biological Surveys as an Element of Biodiversity Protection.

Guidance Statement No. 51 (2004) – Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia.

Guidance Statement No. 6 (2006) – Rehabilitation of Terrestrial Ecosystems.

### **3. Advice and Recommendations regarding Environmental Issues**

#### **a. Flora and Vegetation**

*The EPA's objective for this factor is to maintain representation, diversity, viability and ecological function at the species, population and community level.*

The proposal has the potential to impact on the representation and viability of the sandalwood species (*Santalum spicatum*). It is noted that while sandalwood is protected under the *Wildlife Conservation Act 1950*, it is not listed as a threatened species and is not listed on Parks and Wildlife's Priority flora list.

The potential impacts of the proposal include that it may result in a reduction in the number of larger sandalwood trees in the designated harvest areas.

The potential impacts of the proposal are discussed below with respect to the harvesting and regeneration activities.

#### Harvesting activities

According to information provided by the FPC and Parks and Wildlife (made available on the EPA's website - FPC, 2016), wild sandalwood occurs over about 146 million hectares in Western Australia, which amounts to about 55% of the State, predominantly across the rangelands from Exmouth to the south coast. Within this region there are about 21 million hectares of reserves, where harvesting is not permitted (FPC 2016). About 16% of the natural range of sandalwood comprises the harvest area of interest to this proposal, on Crown Land in the Goldfields and Southern Rangelands. The standing resource on the harvest area comprises approximately ~139,000 tonnes of sandalwood. On average approximately 2.5 trees per hectare are harvested. Harvested trees must have a minimum diameter of 127 mm (FPC 2016).

At the proposed harvest rate of 1,125 tpa of green wood plus 1,125 tpa of dead wood, some 8% of the sandalwood resource on the harvest area would be removed over the 10 year course of the proposal. After that time, the proposal contemplates a transition to harvesting plantation-grown sandalwood (FPC 2016).

Sandalwood is a valued and valuable component of the native flora that makes up part of a number of vegetation communities across the rangelands. Nonetheless, harvesting on unreserved Crown Land of 8% of the resource over 16% of its range at an average intensity of 2.5 trees per hectare is not likely to have consequences that

would significantly compromise the representation, genetic diversity, viability or ecological function of sandalwood at the species, population or community level.

This conclusion is based on:

- representation of sandalwood across some 146 million ha (55%) of Western Australia;
- conservation of sandalwood in Crown reserves totaling about 21 million hectares, where harvesting is not permitted;
- modelling that has been verified by the Department of Parks and Wildlife to determine the standing resource after the duration of the proposal, based on field sample plots and most recent standing inventory;
- sandalwood comprising a standing resource in the harvest area of ~139,000 tonnes;
- the level of harvest being limited to 8% of the standing resource over the harvest area;
- the harvest area being limited to 16% of the range of sandalwood;
- harvesting being limited to an annual total of 1,125 tonnes for green sandalwood for a period of ten years;
- sandalwood occurring across 84% of its range that is outside the harvest area; and
- trees below 127 mm in diameter and selected mature seed trees, being retained within the harvest area, which comprises 16% of the sandalwood range.

Based on the above, the EPA considers that the array of conservation reserves, retained and regenerated sandalwood plants in the harvest area and elsewhere and the presence of sandalwood on other Crown land where harvesting would not take place would allow for the continued representation of sandalwood across a diverse range of habitats. This in turn is likely to allow sandalwood to maintain its ecological function based on a broad representation of its existing genetic diversity at the species level, across numerous populations that form part of numerous plant communities.

#### Regeneration activities

As well as harvesting, the proposal also sets out a program of regeneration of sandalwood across the southern rangelands. Information supplied by the FPC indicates that sandalwood currently has an unsustainable size class distribution because small plants are poorly represented in the wild, due to grazing pressure from introduced stock and feral animals, altered fire regimes and other causes. This means that the standing stock of trees would decline over time unless additional regeneration occurs. The FPC proposes that seed would be sown on the site of each harvested tree. The FPC also proposes to sow 12 tonnes of sandalwood seed per year (about 5 million seeds annually) across some 250,000 ha of the rangelands over 10 years (FPC 2016).

The proposed regeneration programme is based on existing experience that has demonstrated success in the field, including photographs contained in information supplied to the EPA by the FPC. Measured establishment rates of 1.25% of the seed sown have been achieved through regeneration programs to date, ranging from 0.01% where there has been insufficient rainfall, to 5.4% in more successful areas and years (FPC 2016). This in-field experience provides a level of confidence that regeneration would succeed. If 1.25% of 50 million seeds thrive, some 625,000 new plants would be established. FPC has advised that improving establishment methods should result in the establishment of 1-2 million trees. The wide distribution of sandalwood is likely

to mean that it will have a degree of resilience in the wild in the face of environmental change. A successful regeneration program is likely to benefit the representation and viability of sandalwood at the species, population and community level if it is implemented, and if it uses seed from diverse sources and seeding occurs in a range of existing plant communities.

### *Summary*

Having regard to:

- extensive representation of sandalwood within existing and proposed conservation reserves from which harvesting of sandalwood is excluded;
- exclusions from harvesting of a large proportion of the available area of its range, albeit with a low frequency of sandalwood occurrence;
- the modelling undertaken by FPC (and verified by Parks and Wildlife) on the impacts of the proposal on the projected age class distribution in the supply zones;
- silvicultural guidelines that would require contractors to retain seed bearing trees in all harvested areas in the supply zones; and
- the FPC's increased commitment in regeneration in association with harvesting, and also in conservation areas,

the EPA considers that the proposal can meet the EPA's objectives for Flora and Vegetation and that the likely environmental effects of the proposal are not so significant as to warrant formal assessment provided that the proposal is implemented in accordance with the referral documentation and the EPA's advice.

Furthermore it is noted that the FPC will continue to develop the systems of monitoring and management to be accredited to ISO 14001 standards. Key aims of these provisions are to improve the management of harvesting and regeneration and to provide additional resources to Parks and Wildlife to better enforce the prevention of illegal harvesting (FPC 2016). Better monitoring, management and enforcement are all likely to improve the outcomes for wild sandalwood and are thus consistent with the EPA's objectives for Flora and Vegetation as it relates to this species.

### **Other Advice**

The EPA has noted that some of the public comments have expressed the view that there should be a sandalwood species management plan in place for the proposal, similar to the Forest Management Plan previously prepared by the then Conservation Commission of Western Australia (now Conservation and Parks Commission) for the sustainable management of the south-west forests.

The EPA considers that a publically available plan could consolidate the recent measures proposed by FPC to minimise impacts of harvesting (eg. silvicultural guidelines on contractors) and improve the success of regeneration activities. The measures have been developed, or continue to be developed by the FPC, in conjunction with Parks and Wildlife, as part of the State Government's response to the Legislative Council's Environment and Public Affairs Committee Inquiry into the Sandalwood Industry in 2014. In addition, the plan would further build transparency and confidence in the wild sandalwood industry if public reporting of items such as annual harvest volumes, progress on regeneration activities and targets, clear processes for the monitoring and management of contractors and enforcement actions were made publically available.



The FPC have advised that it intends to support Parks and Wildlife in the development of a Biodiversity Management Programme for this proposal. It is understood that such a programme would include the elements mentioned above and take six to twelve months to complete.

The EPA supports the drafting of this Programme as it would serve to address most of the issues raised by the public comments and, most importantly, increase the transparency and visibility of the outcomes to be achieved in the sandalwood industry.

There is an expectation that plantation sandalwood will in the future have the potential to supplement or replace wild sandalwood as a result of the plantations since 1999. Similar to the above, the EPA supports the development of the 'Transition to Plantations' sandalwood strategy by FPC and that it should undergo stakeholder consultation, prior being published.

#### *Reference*

Forest Products Commission. (June 2016) *Additional Information Provided to the Environmental Protection Authority in Response to Public Submissions*. Forest Products Commission, Perth, Western Australia.

Available at:

<https://consultation.epa.wa.gov.au/seven-day-comment-on-referrals/licence-for-taking-sandalwood/>