

**FLORA TAKING (SANDALWOOD) LICENCE**

**WILD STANDS APPLICATION KIT**

**2025/26 SEASON**

**Applications must be RECEIVED by Department of Biodiversity, Conservation and Attractions (dbca) BY 1600Hrs on 31 March 2025**

**(APPLICATION CUT-OFF TIME)**

This application kit is designed for use by applicants applying to take sandalwood in the **2025/2026 season** (or for Crown land 3-year applications, where 2025/2026 is the first season of take[[1]](#footnote-2)).

# Who can apply?

# The following persons can apply for a flora taking (sandalwood) licence:

* For **private property**, the applicant must be the individual property owner or where the property is owned by a company, the applicant must be an office holder for the company.
* For **Crown land where native title has been determined**, the applicant must be the relevant prescribed body corporate or must have an Indigenous Land Use Agreement with the appropriate consents sufficient for DBCA’s purposes. DBCA will provide further advice as required.
* For **Crown land where native title has not been determined and the area is under native title claim**, the applicant must be a registered native title claimant and have approval from all registered claimants. Licences may be issued to native title holders where the applicant’s sandalwood establishment and sustainability plan is assessed as meeting the sustainability criteria. If a person or other entity other than a native title holder (either exclusive possession or non-exclusive possession) applies for a Licence over land where native title has been determined to exist, an Indigenous Land Use Agreement is required.
* For **lands vested in the Aboriginal Lands Trust (ALT)**, the applicant must be a leaseholder or their representative and have approval from the ALT.

# Application contents

An application **must** contain completed and signed Documents 1 and 2 and in the case of applications on Crown land, Document 3. Please attach any other documentation or comments relevant to your application.

|  |
| --- |
|[ ]  **Document 1: Application Form** |
| **Where applicable:** |
|  |[ ]  Threatened and priority flora database search results |
|  |[ ]  Threatened and priority fauna database search results |
|  |[ ]  Threatened and priority ecological communities database search results |
|  |[ ]  Registered Aboriginal Cultural Heritage sites search results |
|  |[ ]  Other heritage search results |
|  |[ ]  Copy of relevant covenant documentation |
|[ ]  **Document 2: Sandalwood sustainability and establishment plan**  |
| **Where applicable:** |
|  |[ ]  Copy of private property title deed |
|  |[ ]  Copy of Native Tite Determination judgement |
|  |[ ]  Copy of Area Agreement or written advice from the relevant Recognised Aboriginal Representative Body |
|  |[ ]  Site map/s |
|  |[ ]  Operational maps |
|  |[ ]  Global Positioning System (GPS) data from inventory (including track-based and plots) |
|  |[ ]  Evidence that seed used for seeding operations will be of the same provenance as the proposed licence area |
|  |[ ]  Proposed seeding area map |
|[ ]  **Document 3: Access to Crown land for taking sandalwood (provide multiple copies if necessary)** |

# Submitting an application

|  |  |
| --- | --- |
| By email (recommended) | wildlifelicensing@dbca.wa.gov.au |
| By mail | DBCA Wildlife Licensing SectionLocked Bag 30Bentley Delivery Centre WA 6983Please note that any correspondence sent by mail may result in some delay. |
| In person | Wildlife Licensing Section (DBCA Head Office)17 Dick Perry AvenueTechnology Park, Western Precinct, KensingtonAny [DBCA regional or district office](https://www.dbca.wa.gov.au/contact-us/office-locations) |

# Introduction

This application kit is subject to Western Australian biodiversity legislation and the sandalwood sustainability and licensing documents listed in Figure 1 (below). The *Santalum spicatum* (Sandalwood) Biodiversity Management Programme can be found [here](https://www.dbca.wa.gov.au/management/plans/sandalwood) and the *CEO Guideline to support the Biodiversity Conservation Regulations: Sandalwood Licensing* (Sandalwood CEO Guideline) [here](https://www.dbca.wa.gov.au/licences-and-permits/flora/sandalwood-licences).



Figure 1. Sandalwood licensing framework

# Sandalwood contact information

|  |  |
| --- | --- |
| Wild sandalwood harvesting and licensing administration | Wildlife Licensing Section(08) 9219 9000wildlifelicensing@dbca.wa.gov.au |
| Issues regarding illegal activities or non-compliance with sandalwood licences | Wildlife Protection Branch(08) 9219 9840wildlife.protection@dbca.wa.gov.au  |
| Sandalwood conservation and ecologically sustainable use | Sandalwood Project Team(08) 9219 9000sandalwood@dbca.wa.gov.au |
|  |

# Regional protocols for the take of sandalwood

Regional protocols for sandalwood take, will apply for different subregions of the Interim Biogeographic Regionalisation of Australia (IBRA) (Figure 2). This is based on environmental factors including climate, soils, population viability, and pressures such as previous harvesting history, stock and feral animals, which vary regionally. Table 1 outlines the regional protocols.



**Figure 2. Shows the IBRA subregions in which wild sandalwood occurs. These have been grouped into three regions for the purpose of defining regional protocols for the take of sandalwood.**

**Table 1. Regional groupings for the take of sandalwood**

|  |  |  |
| --- | --- | --- |
| **Regional grouping** | **IBRA subregions** | **Explanation and protocols** |
| Semi-arid rangelands | Eastern Goldfields, Mardabilla and Southern Cross | The sandalwood populations in the semi-arid rangelands, are generally more broadly distributed across the landscape, occur at higher densities and have better regenerative potential, than the populations in either the Arid rangelands or Wheatbelt.Licences may be issued to take living (green) sandalwood where the CEO has confidence in the applicant’s proposed sustainability measures. |
| Arid rangelands | Augustus, Ashburton, Cape Range, Carlisle, Carnegie, Central, Chichester, Dune Field, Fortescue, Hamersley, Lateritic Plain, Mann-Musgrave Block, Nullarbor Plain, Shield, Trainor, Wooramel, Tallering, Edel, Eastern Murchison and Western Murchison | The sandalwood populations in the arid rangelands are generally more scattered and may be restricted to creek systems and other mesic habitats), at lower densities and lower regenerative potential, than those in the semi-arid rangelands. In some IBRA subregions the impacts of goats have significantly impacted sandalwood populations, particularly inhibiting natural regeneration. Harvesting in these areas should be restricted to water gaining areas such as creek lines with upper catchment areas being protected as a seed source.It is highly recommended that in applications for a licence to take living (green) sandalwood the applicant should demonstrate that the establishment program will be practicably implementable and have a high likelihood of success.Licences to take living (green) sandalwood will only be granted in circumstances where the CEO has confidence that the proposed sustainability actions will maintain or enhance the viability of the relevant population. |
| Wheatbelt | Eastern Mallee, Fitzgerald, Geraldton Hills, Katanning, Merredin, Recherche, Western Mallee | Most of the remnant native vegetation has been fragmented and disturbed to a degree that most natural ecological processes such as pollination and seed dispersal have been significantly impacted. Most of the remaining sandalwood populations have previously been extensively harvested. Weeds, livestock and fires also impact significantly on the viability of the remaining populations.Due to the above, licences to take living (green) sandalwood will only be issued in exceptional circumstances by the CEO and where the application demonstrates an improvement to the relevant population. The application also needs to demonstrate that the site proposed for take contains a viable population of sandalwood with an appropriate level of regeneration.All living (green) sandalwood trees in these IBRA subregions must be recorded with suitable GPS software and the data supplied with the sandalwood sustainability and establishment plan.  |

**Protocols applicable to all regions**

It is recommended that all living (green) and dead sandalwood trees that are taken are marked by a GPS at the time of harvest, and the data supplied to DBCA.

The sandalwood sustainability and establishment plan/s must include the relevant inventory data, analysis and interpretation. Following the DBCA guidelines for conducting inventory is highly recommended and these guidelines are available within Document 2.

**Seeding**

Sandalwood seeding is a condition of all flora taking (sandalwood) licences (living (green) and dead sandalwood). With reference to Figure 2:

* + licences issued for the Wheatbelt sandalwood region (see Figure 2) require two (2) kilograms of sandalwood seeds to be planted for each tonne (both living (green) and dead) taken. This is because germination rates in these areas are generally higher than for the other regions.
	+ licences for all other IBRA subregions require five (5) kilograms of sandalwood seeds to be planted for each tonne (both living (green) and dead) taken. This is because germination rates in these regions are generally lower in comparison to the Wheatbelt.

Sandalwood seed should preferably be sourced from the IBRA subregion, or, if unavailable, from plantations of the same genetic provenance, as the region in which the licence is being applied for, either the northern region or the southern region. DBCA requires evidence of seed provenance with harvest returns. Demonstration may include receipts for seed purchased or georeferenced photographic evidence of where seed has been collected.

For Crown land, a Regulation 60 ‘Flora Take (commercial purposes) Crown land licence’ or a Regulation 61 ‘Flora Taking (other purposes) Crown land licence’ is required to collect seed for the purposes of seeding.

The sandalwood sustainability and establishment plan should explain how the seed is to be planted. As a guide, fresh seeds should be planted to a depth of 10-40mm on the south facing leaf drip line of suitable host species such as Acacia species (wattle), Casuarina species, Senna species, or Eremophila species.”

Actions for sandalwood sustainability must include seeding programs.

Inspections

For applications that satisfy the mandatory (Stage 1) criteria of sections 15 of the Sandalwood CEO Guideline, a DBCA authorised officer will contact the applicant to arrange an inspection of the proposed harvest and seeding areas. Please note the following:

* Inspections will ideally be scheduled for a time between April and May 2025.
* An inspection fee will apply to each property inspected. Inspection fees should be discussed with the inspecting officer prior to inspection. The fee will be invoiced following an inspection.
* The inspection fees are:
	+ not more than 1 hour - $65
	+ more than 1 hour but not more than 3 hours - $130
	+ more than 3 hours but not more than 5 hours - $260
	+ more than 5 hours - $520
* The applicant must be familiar with and be able to guide DBCA Officers in the field to the proposed sandalwood harvest locations as specified in the sustainability and establishment plan. It is highly recommended that application inventory information is accompanied by GPS data and follows the recommended DBCA inventory guidelines as provided in Document 2. An inspection may cease if it becomes evident that the applicant cannot verify proposed locations and quantities in the field.
* Following the inspection, a sandalwood inspection report will be prepared by the authorised officer to inform the criteria assessment process (Stage 2 criteria) set out in section 17 of the Sandalwood CEO Guideline. This includes confirming the location and quantity of sandalwood, and suitability of sites for establishment.

 Licences

Licences may be issued for approved applications, subject to available quotas. Available quotas (excluding any quotas already committed under existing licences) are as follows:

|  |  |  |
| --- | --- | --- |
|  | Living (green) Tonnes | Dead Tonnes |
| 2025/26 sandalwood quantity available | 150 | 170 |
| 2026/27 sandalwood quantity available | Subject to a new Sandalwood Order | Subject to a new Sandalwood Order |
| 2027/28 sandalwood quantity available | Subject to a new Sandalwood Order | Subject to a new Sandalwood Order |



**DOCUMENT 1**

**APPLICATION FOR FLORA TAKING (SANDALWOOD) LICENCE**

**WILD STANDS**

Pursuant to Regulation 67 of the Biodiversity Conservation Regulations 2018

|  |
| --- |
| **IMPORTANT*** All details must be completed, including signing section *8. Declaration by applicant* and selecting the payment method.
* It is recommended that applicants familiarise themselves with the Sandalwood CEO Guideline.
* Please ensure you have read the information above before commencing this application.
 |

|  |
| --- |
| **1. Applicant details** |
| Mr / Mrs / Ms / Dr | First name |  |
|  | Other names (middle) |  |
|  | Surname |  |
| Residential address |  |
| Suburb |  | Postcode |  | State |  |
| Postal address |  |
| Suburb |  | Postcode |  | State |  |
| Phone contact number |  | Date of Birth | \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_\_\_\_\_ |
| Email: |  |
| **2. Prior Convictions** |
| Have you been convicted of any wildlife related offence in the past 5 years?  | [ ]  | Yes | [ ]  | No |
| If yes, please provide details (offence, date) |
|  |
| **3. Location Details***- A separate* ***‘Document 2’*** *must be completed for each location.**- Each location must be given an alphabetical reference, starting at (‘A’ ‘B’, ‘C’ et cetera).* |
| **What locations are you proposing to harvest sandalwood from for this application?***- To be stated as per land title details (for example, ‘Location 1234 on Plan 765, Land District’).* |
| A.B. C. |

|  |
| --- |
| **4. Land subject to commercial sheep or goat enterprises** |
| Is the application to take living (green) sandalwood from locations subject to commercial sheep or goat enterprises? |[ ]  Yes |[ ]  No |
| If ‘Yes’ is selected above, please confirm that the following will be met:1. permanent exclusion of commercial grazing from remnant vegetation areas that contain living (green) sandalwood as demonstrated by covenants on the title of the land, for example, by use of livestock exclusion fencing; and
2. control of feral herbivores in grazing exclusion areas for the first five years of establishing regeneration.
 | [ ]  | Yes |
|  |[ ]  Yes |
| **5. Threatened and priority flora and fauna; and threatened and priority ecological communities** |
| Are the threatened and priority flora database search results1 for the application areas attached (required)?  |[ ]  Yes |
| Are the threatened and priority fauna database search results1 for the application areas attached (required)?  |[ ]  Yes |
| Are the threatened and priority ecological communities database search results1 for the application areas attached (required)?  |[ ]  Yes |

1 Information on how to request a database search can be found [here](https://www.dbca.wa.gov.au/management/threatened-species-and-communities/resources/threatened-species-and-communities-database-searches).

|  |
| --- |
| **6. Protecting heritage and culture** |
| It may be necessary for applicants to seek permissions or authorisations to lawfully and appropriately carry out their activity. It is the applicant’s responsibility to ensure that all other relevant permissions are obtained before seeking a licence. Confirm that the operations will comply with the *Aboriginal Heritage Act 1972*. |[ ]  Yes |
| Does the application area have culturally sensitive areas or locations? Provide details if culturally appropriate to do so. |  |
| How will these locations be protected from sandalwood operations? |  |
| If there is any other heritage relevant to this application, please detail how this will be protected. Provide copy of search results. |  |

|  |
| --- |
| **7. Third party interests** |
| Are any of the locations subject to any third-party interests (for example, pastoral lease, mining lease, Aboriginal Lands Trust lease)? If yes, provide documentation | [ ]  | Yes |[ ]  No |
| Type |  | [ ]  | Document 3 attached |
| Type |  | [ ]  | Document 3 attached |
| Type |  | [ ]  | Document 3 attached |
| **8. Covenants** |
| Are any of the locations subject to any covenants or similar? If yes, provide documentation |[ ]  Yes |[ ]  No |
| **9. Storage Locations***- List all locations where you will store sandalwood (taken under this licence) for the purpose of supply.**- To be stated as per land title details (for example, ‘Location 1234 on Plan 765, Land District’).**- The locations that take is occurring will be listed as Storage Locations automatically (there is no need to list these in this section)* |
|  |
| **10. Duration of licence and fees** *Payment details at bottom of this form.* |
|[ ]  1-year application | Application fee = $415 ($130 refund if licence not issued) |
|[ ]  3-year application (Crown land only) | Application fee = $675 ($390 refund if licence not issued) |
| **11. Collection, use and disclosure of personal information** |
| The Department of Biodiversity, Conservation and Attractions (DBCA) is committed to protecting information provided by you in accordance with state privacy laws. Information that you provide will be used for licence monitoring and compliance purposes, to inform you of any licence or legislative requirements or changes and may be used to seek your feedback on wildlife related licensing and legislation. A licence may not be issued if the required information is not provided.The information provided may also be made available to any authorised law enforcement agency if required. |
| **12. Declaration by applicant** |
|[ ]  Yes | I understand that there are penalties for making a false declaration or providing false information and that any licence issued as a result of false information will be cancelled or revoked, and it may affect my ability to hold biodiversity conservation licences in the future. All details provided by me to DBCA in relation to this application are true and correct, and I consent to the use and disclosure of information for the purposes described in the ‘Collection, use and disclosure of personal information section above. |
| **Signed:**  |  | **Date:** | **\_\_\_\_/\_\_\_\_/\_\_\_\_\_\_\_\_** |

**PAYMENT METHODS**

|  |  |
| --- | --- |
|[ ]  CASH (enclosed) |  |
|[ ]  CHEQUE / MONEY ORDER (enclosed) | Payable toDepartment of Biodiversity, Conservation and Attractions (“DBCA”) to be attached to completed application form. |
|[ ]  EFT TRANSFER | Acct Name: DBCABSB: 066-040Account No.: 11300006  | Ref: “67, *Surname, Initial*” (max 18 characters) |
|[ ]  CREDIT CARD (details below) |  |

**\*Any details below will be detached and destroyed once payment is processed. Please print clearly.**

**VISA / MASTERCARD (Please circle)**

Name of Cardholder: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_ Amount: $ \_\_\_\_\_\_\_\_\_

Card No: \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_Expiry Date: \_\_/\_\_\_\_\_\_\_\_

**Document 2**

**Sandalwood sustainability AND ESTABLISHMENT plan**

|  |
| --- |
| **IMPORTANT*** This document serves as a template with associated guidelines for applicants to prepare Sandalwood sustainability and establishment plans. Applicant may choose to prepare their own Sandalwood sustainability and establishment plan without using this template, provided the information requested in this document is provided in adequate detail to make an assessment against Stage 2 criteria of the Sandalwood CEO Guideline.
* Commitments included in this document may be included as conditions of any ensuing licence should all criteria contained within the Sandalwood CEO Guideline be met.
* It is recommended that a sustainability and establishment plan should include a description of the steps in the following process:

* Information provided in this document may be used by DBCA to inform broader sandalwoodconservation management.
* The plan and maps do not need to be produced with a computer but must be clear and legible. Additional lines and space may be inserted into the text and map boxes and additional supporting information may be attached.
* Comments highlighted in yellow have been included throughout this template to provide guidance in completing the requirements. These should be deleted once the document is completed.
 |

**COVER PAGE**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. **Plan preparation**
 | Name | Signature | Date |
| Prepared by: |  |  |  |
| Prepared for: |  |  |  |
| **2. Location** |
| Location of the proposed licence area from Document 1*(for example, ‘A’, ‘B’, ‘C’ et cetera)* |  |
| Location Address *To be stated as per land title details (for example, ‘Location 1234 on Plan 765, Land District’)* |  |
| Sandalwood region (refer to Figure 2) |  |

|  |
| --- |
| **3. Land category** *(tick which is relevant)* |
|[ ]  Private property owned by the applicant (provide a copy of the title). |
|[ ]  Private property owned by a company to which the applicant is an officeholder (provide a copy of the title). | Name of company |  |
|  |  | Applicant’s office in the company (evidence required) |  |
|[ ]  Aboriginal Lands Trust (ALT) vested land (provide reserve name and number)1 | ALT details |  |
|[ ]  Crown land where native title has beendetermined (provide copy of determination summary)2. | Native title name |  |
|  |  | Registered body corporate name |  |
|  |  | Representative’s name |  |
|  |  | Is the native title consistent with commercial sandalwood harvest? |  |
|[ ]  Crown land where native title has not been determined but there is a registered native title claim | Claim details (claim name, National Native Title Tribunal number and Federal Court number)3 |  |

1Reserve numbers can be found [here](https://www.wa.gov.au/government/document-collections/aboriginal-lands-trust)

2Copies of determinations can be found [here](https://www.nntt.gov.au/searchRegApps/NativeTitleClaims/Pages/default.aspx)

3Details of registered native title claims can be found [here](https://www.wa.gov.au/organisation/department-of-the-premier-and-cabinet/native-title-claims-western-australia)

**Insert or attach maps**

**Site map**

Provide a map that should include the following:

* The location of the property in relation to public roads and relevant access tracks.
* The areas where sandalwood habitat occurs on the property.

**Operational map/s**

Provide a map/s with the following locations and information:

* areas where harvesting is proposed (GPS way points)
* areas where sandalwood has previously been established
* areas of past harvesting
* proposed seeding locations
* existing fencing
* fencing to be constructed
* stock exclusion areas
* areas where control of invasive animals is proposed (if applicable)
* sandalwood protected (permanent no harvest) areas
* sensitive areas (where culturally appropriate).
1. **INVENTORY AND PLANNING**

**3.1 Mapping of sandalwood habitat**

The method used to identify and map the distribution of sandalwood on the proposed licence areas should be discussed here.

Sandalwood occurrence is usually patchy and scattered and will probably not occur uniformly throughout a proposed licence area. It does not generally occur in spinifex or sand plain vegetation, where fires occur too frequently for its establishment and persistence. These areas should therefore be excluded from the potential resource estimations. In the arid rangelands and deserts, sandalwood is more likely to be found along creeks. It is therefore important only to estimate the area covered (hectares) by the better sandalwood populations. This will allow the applicants to estimate as accurately as possible, the total area of sandalwood habitat considered for the proposed licence, so that an appropriate harvest level may be applied for, based on the condition of the existing population, and the requirements for a seeding program. The method for mapping can be part desk-top and part field survey. Local knowledge and maps, including aerial imagery, Department of Primary Industries and Regional Development (DPIRD) land systems (Tille, 2006), Beard’s vegetation associations (Beard et al. 2013), topographical maps, fire history maps, grazing and harvesting history, and field observations, are all useful for mapping. The populations can be mapped as separate harvest zones, as appropriate. Zones can be based on geographical boundaries and/or similar habitat (vegetation associations or land systems).

Please provide a map showing the optimal sandalwood habitat on the proposed licence area and complete the table below.

**Table 1. Proposed licence areas**

|  |
| --- |
| **Licence application area/s**note this information is to match the information under ‘Location’ in Document 1 |
| Total area of land unit2 (hectares) |  |
| Area of optimal sandalwood habitat (hectares) per area/zone: |
| * Area/Zone 1 (or name)
 |  |
| * Area/Zone 2 (or name)
 |  |
| * Area/Zone 3 (or name)
 |  |
| * Insert additional areas/zones as required
 |  |
| **Total area of optimal habitat (hectares)** |  |

2For example, private property, Aboriginal Lands Trust reserve, Native Title Determination area

**3.2 Field survey**

Briefly discuss how the field survey/s was undertaken, for example, rapid track-based surveys (also called resource level inventories) and standard monitoring through plot establishment. Note that DBCA is currently developing a guideline for sandalwood surveys, which will be made available [here](https://www.dbca.wa.gov.au/licences-and-permits/sandalwood-licences).

It is recommended that a track-based survey method is used for large areas. For smaller areas it may not be necessary, particularly if the inventory plots constitute a representative sample of the total proposed licence area. A track-based survey will provide a relatively rapid, landscape-scale assessment of the condition of the sandalwood population/s on the licence application area. It should be noted however, that track-based surveys will generally underestimate the amount of sandalwood regeneration because of the inability to observe many seedlings and saplings from a moving vehicle. To better understand current population status, model harvesting implications and monitor future trends, it is necessary to establish an appropriate number of inventory plots which are surveyed on foot and in which all sandalwood plants are measured and recorded, and which provide a greater level of accuracy and precision.

**3.2.1 Rapid track-based survey**

The rapid track-based survey should include the following:

* Driving a selection of roads and tracks that suitably cover a representative area of the proposed licence area, and cross through all the land systems/vegetation associations/habitats which have been identified as having the highest probability of sandalwood occurrence during the mapping process.
* Cover at least 1% of the surface area of the pre-stratified sandalwood habitat.
* The over bark diameter at 150 mm above the ground of each living (green) sandalwood within a 20 metre strip either side of the one track driven, is estimated and recorded (see Table 2) in the following size classes:
* 0-24 mm
* 25-74 mm
* 75-125 mm
* 126-174 mm
* >175 mm
* Dead sandalwood (as defined in the Sandalwood CEO Guideline, where there is no indication of human caused pre-mortem injury) that has died through natural causes, should be recorded (no diameters measured) as follows:
* dead trees - standing stems greater than 25 mm and 300 mm in height; and
* pieces - generally fallen and exceeding 25 mm diameter and 300 mm in length.

Other categories can be added as desired.

All routes travelled must be recorded using a GPS device and a map produced to illustrate the extent of the rapid track-based survey. The total distance of the survey and the sample size as percentage of the licence application area, must be provided. Please complete the table below.

**Table 2. Resource level data collected during rapid tracked-based survey**

|  |  |  |  |
| --- | --- | --- | --- |
| Area/Zone(number or name) | Hectares1  | Total stems2 and stems/hectare3 in size classes measured at 150 mm above ground level | Deadwood |
| StemsStems/hectare | 0-24mm | 25-74mm | 75-125mm | 126-174mm | >175mm | Standing | Pieces |
| 1 |  | Stems |  |  |  |  |  |  |  |
| Stems/hectare |  |  |  |  |  |  |  |
| 2 |  | Stems |  |  |  |  |  |  |  |
| Stems/hectare |  |  |  |  |  |  |  |
| 3 |  | Stems |  |  |  |  |  |  |  |
| Stems/hectare |  |  |  |  |  |  |  |
| Insert additional rows as required |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **Totals** |  | Stems/hectare |  |  |  |  |  |  |

1As per Table 1.

2Calculate total stems for the entire zone area.

3Divide total stems by number of hectares of the zone to calculate stems/hectare.

**3.2.2 Inventory plots**

Inventory plots are necessary to validate the results from the track-based survey and provide a better understanding of the condition of the sandalwood population in the proposed harvesting area/s (particularly regarding the level of recruitment). It is essential to understand population demographics prior to any harvest operations, as this needs to be considered when developing a seeding strategy and possibly other licence conditions. In addition, the inventory provides baseline data on the existing recruitment levels which is required to be able to measure success of seeding operations. The plots can be used subsequently for future monitoring, including to measure the level of success of the sustainability and establishment plan.

In this section discuss how many inventory plots were established and where they were laid out. The GPS data must be provided.

The survey effort and plot design (for example, stream plots) should be based on the size and variability of the pre-stratified sandalwood habitat in which harvesting is proposed and the following sampling intensities in the table below are recommended. This can be adjusted as appropriate, for example, for a more variable environment, more plots may be suitable.

The number of plots recommended is shown in the table below.

|  |  |
| --- | --- |
| **Licence area** | **Recommended minimum number of 4-hectare plots** |
| ≤ 20 hectares | Up to 1 plot |
| 21-200 hectares | 1-2 plots  |
| 201-1000 hectares | 2 plots per 200 hectares, with a minimum of 2 plots |
| > 1000 hectares | The total area of inventory plots should cover 10% (within areas of optimal sandalwood habitat) of the track-based survey route. For example, if 300 km within optimal sandalwood habitat were surveyed along the tracks travelled, 30 plots of 4 hectares each, should be established. The inventory plots should be representative of the variability within the optimal sandalwood habitat. For example, if there are six different land systems or vegetation associations that are considered as optimal sandalwood habitat, then it is recommended that 5 plots should be established in each (where 30 plots for 300km are required to make up 10% sample).  |

Inventory plots may have different configurations, for example, horseshoe, stream, and track-based). Each plot should cover four hectares and be one kilometre long and 40 metres wide (20 m either side of the centre line of the plot. Diameter classes can be recorded using a diameter tape or Vernier callipers (precise measurements can be recorded as an option). However, it can be more time efficient to use other methods to record diameter classes for the groups shown in Table 3.

It is recommended that the data from the plots recorded on the field data record sheets, are provided in the format shown in Table 3.

**Table 3. Size class distribution for the sandalwood population in the proposed licence area**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Area1 |  | 0-24mm | 25-74mm | 75-125mm | 126-175mm | >175mm | **Dead** |
|  |  |  |  |  | Standing | Pieces |
| 1 | **Stems2** |  |  |  |  |  |  |  |
| **Stems/hectare3** |  |  |  |  |  |  |  |
| 2 | **Stems** |  |  |  |  |  |  |  |
| **Stems/hectare** |  |  |  |  |  |  |  |
| 3 | **Stems** |  |  |  |  |  |  |  |
| **Stems/hectare** |  |  |  |  |  |  |  |
| Insert additional rows as necessary |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

1The average values (stems and stems/hectare for each size class) for the plots for each area, are used to populate the table.

2Calculate total stems for the total area for each zone/area in Table 1.

3Divide total stems by number of hectares of the zone to calculate stems/hectare.

1. **Population CONDITION Assessment**

The data from Table 2 and 3 should then be analysed to provide an assessment of the population for each licence application area. The data should be illustrated in a graph like the example below (Figure 3). The viability of the sandalwood population/s should be discussed focusing on the level of existing recruitment, as well as threats such as introduced animals and fire. A seeding strategy should focus on ensuring a higher proportion of younger age classes.



**Figure 3. Example of a size class distribution for a sandalwood population.**

**Proposed take**

In this section the applicant should record whether sandalwood has previously been harvested from the proposed licence areas, and then based on this, and the inventory and population viability information, identify what quantity of take is proposed. Any other information relating to the history of land management relevant to sandalwood can also be mentioned in this section as appropriate.

**Table 4. Previous levels of harvest in licence application area**

|  |  |  |  |
| --- | --- | --- | --- |
| Has sandalwood been harvested from this location in the past? If yes, please provide GPS data of past harvest locations |[ ]  Yes (complete below) |[ ]  No  |[ ]  Unsure |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Year | Location | Harvester’s details(Name and licence number) | Living tonnes | Dead tonnes |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

The data from Tables 2 and 3 should then be used with the standard weights for each size class below to estimate the potential tonnes that could be harvested per year over the proposed licence area in Table 4.

**Approximate weight of harvestable size classes**

|  |  |
| --- | --- |
| Stem diameter range (measured 150 mm above ground level) | Approximate weight of sandalwood per living (green) tree |
| 127-150 mm | 18 to 22kg |
| 151-175 mm | 29 to 34kg |
| 176-200 mm | 43 to 51kg |
| 201-225 mm | 62 to 73kg |
| **Dead** | **15kg/stem** |

These quantities must be used as a guide only as quantities are highly variable depending on the number of stems, tree shape, growing conditions and the region in which the tree is located. The quantity of specifically controlled sandalwood per tree does not include twigs. Total estimated quantities can be recorded in Table 5.

**Table 5. Potential sandalwood resource**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Year | Area | Area | Total hectares | Harvestable1 stems/hectare | Harvestable kg/hectare | Total harvestable tonnes |
| 1 | 1 | Living |  |  |  |  |
| Dead |  |  |  |  |
| 2 | Living |  |  |  |  |
| Dead |  |  |  |  |
| 3 | Living |  |  |  |  |
| Dead |  |  |  |  |
| Insert additional rows as required |  |  |  |  |  |
|  |  |  |  |  |
| Totals |  |  |  |  |  |

1Harvestable refers to living trees greater than 126 mm measured at 150 mm above the ground, and deadwood.

1. **IMPLEMENTATION**

In this section the applicant should provide information on proposed sandalwood conservation measures, including harvest exclusion areas, retention of seed-bearing trees in proposed harvesting areas, seeding and other silviculture, that will support this application. The information can be provided in the tables below.

* 1. **Retention of seed-bearing trees**

Discuss how sufficient seed producing trees will be retained at appropriate densities and patterns of distribution in the landscape, including no-harvest zones.

Describe what other measures are proposed to protect and conserve sandalwood at the location, including fire management, minimising compaction and erosion caused by harvest machinery, and avoidance of erosion prone soils/topography.

* 1. **Seeding**

**5.2.1** **Past seeding operations**

|  |  |  |  |
| --- | --- | --- | --- |
| Has sandalwood been intentionally established (planted) on this location in the past, for regeneration purposes under a condition of a licence or authority (where it cannot be taken for supply)? If yes, it is recommended that GPS data for these areas is provided. |[ ]  Yes (complete below) |[ ]  No |[ ]  Unsure |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Year | Location | Quantity of seed sown | Area covered (Hectares) | Recruitment success (where this information is available) |
| % success | Stems/hectare |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**5.2.2** **Proposed seeding strategy**

|  |  |
| --- | --- |
| Where will the seed be collected/sourced from? Seed should preferably be of the same genetic provenance as the sandalwood in the licence area. If the seed will be sourced from plantations, please provide evidence that the appropriate provenance will be provided, from either the northern (arid) region or southern (semi-arid) region. |  |
| How many kilograms of sandalwood seed (per tonne living (green) and harvested), will be sown each year? (refer to regional protocols) |  |
| Where will the seed be sown? This should be illustrated on a map. |  |

**5.2.3** **Seeding methods**

Discuss how the seed will be planted, including, timing of planting, selection of suitable host species, depth of planting, and equipment.

**5.2.4** **Other measures to support sandalwood seeding areas**

Discuss what measures will be taken to support sandalwood establishment, including fencing, livestock management (particularly goats and sheep), and feral animal control.

**5.2.5** **Monitoring of seeding success**

Discuss what monitoring will be undertaken and what actions will be taken if germination has not been successful. DBCA intends to in future provide a guideline template for monitoring of seeding success (currently in development).

**Document 3 (Crown land only)**

**ACCESS TO LAND FOR FLORA TAKING (SANDALWOOD)**

Pursuant to Regulation 101 of the Biodiversity Conservation Regulations 2018

A person who is authorised to carry out a designated activity under a licence must not, for the purposes of the designated activity, enter land that is not in the possession or under the control of the holder of the licence without written authorisation of an owner or occupier of the land to enter the land and to carry out the designated activity.

**Written approval from the land owner or occupier must be attached to the licence during licensed activities.**

|  |  |
| --- | --- |
| 1. **Designated Activity**
 | Taking flora in accordance with a Biodiversity Conservation Regulations 2018 (BC) Regulation 67 Flora taking (sandalwood) licence. |
| 1. **Land Owner/Occupier Information**
 |
|[ ]  Land Owner/Land Owner representative |[ ]  Land Occupier (including Native Title holders, Native Title claimant/s, pastoral lessees, mining lessees or other third parties) |
| Organisation name |  |
| Name of the organisation’s authorised representative |  |
| Position of the representative within the organisation |  |
| Phone contact number |  |
| Location details |  |
| 1. **Person authorised to take flora (sandalwood)**
 |
| First name |  |
| Surname |  |
| Residential address |  |
| Phone contact number |  |
| 1. **Approval**
 |
| Approval is valid  |[ ]  Until Regulation 67 licence expiry of listed person |
|  |  | From |  | to |  |
|[ ]  **I give approval for the person listed on this authorisation to take flora (sandalwood) according to their BC Regulation 67 licence, on the above-mentioned property.** |
| Signature  |  | Date signed | \_\_\_\_\_\_/\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 1. **Additional Information** (information relevant to access to the specified land for this designated purpose)
 |
|  |

*NOTE*

*This is not a prescribed form. Written authorisation to access land for this designated activity may be provided by a land owner/occupier in any format providing it details location (including lot or location number, street/road, suburb and local government authority where relevant), land owner or occupier name and contact phone number, the time period that the authorisation is valid for, and is signed and dated.*

 *A land owner/occupier may revoke an access to land permission if the person licensed to undertake the designated activity is not acting in accordance with any information as indicated for access to the specified land.*

1. Note that although a three-year licence can be granted to commence from 2025/2026 season, an allocation of quota from 2027 onwards will not be determined until after a decision on a new Sandalwood Order under the *Biodiversity Conservation Act 2016* is made. For more information refer to: <https://www.dbca.wa.gov.au/management/sandalwood> [↑](#footnote-ref-2)