# REPORT UNDER THE NATIVE VEGETATION ACT 2003 IN RELATION TO ACCREDITED EXPERT'S ASSESSMENT IN ACCORDANCE WITH CLAUSE 27 OF THE NATIVE VEGETATION REGULATION 2005 FOR PVP REFERENCE NUMBER 14997

Report prepared by: Accredited Expert 30630

PVP reference number: 14997

## *SUMMARY*

This Accredited Expert report relates to the assessment of the clearing proposed by PVP request number 14997.

Under s. 29(2) of the *Native Vegetation Act 2003* a PVP cannot be approved unless the clearing concerned will improve or maintain environmental outcomes.

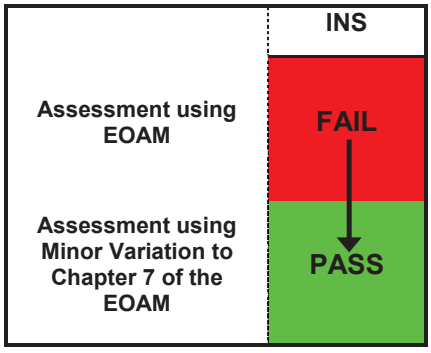
Clause 26 of the *Native Vegetation Regulation 2005* prescribes the circumstances in which approval of a PVP that proposes broadscale clearing can be granted. In most cases an assessment and determination of whether the clearing will improve or maintain environmental outcomes is conducted in accordance with the environmental outcomes assessment methodology (EOAM).

In some circumstances, the EOAM does not adequately allow for the specific and unique circumstances associated with the proposal. In these circumstances the assessment can use Special Provisions for Minor Variation (Clause 27 of *Native Vegetation Regulation 2005*).

In this assessment, Special Provisions for Minor Variation have been used to allow for a variation in Table 7.1 of the EOAM to include Bimble Box (*Eucalyptus populnea* subsp. *bimbil)* as an Invasive Native Species (INS) for the Cobar Peneplain IBRA[1] Region of the Lachlan catchment.

Strict adherence to the Assessment Methodology in this particular case is unreasonable and unnecessary because: (i) Bimble Box (*Eucalyptus populnea* subsp. *bimbil)* meets the criteria of being invasive in the area to be managed; (ii) dense regeneration of Bimble Box (*Eucalyptus populnea* subsp. *bimbil)* has resulted in high density of the species in the area to be managed; (iii) the landform in the area to be managed is similar to the landforms in other areas where Bimble Box (*Eucalyptus populnea* subsp. *bimbil*) occurs as an Invasive Native Species.

**Figure 1: A conceptual outline of the assessment process for PVP 14997**




This reports details the accredited expert's opinions formed in relation to cl. 27 of the *Native Vegetation Regulation 2005* when assessing the PVP.

[1] Interim Biogeographic Regionalisation of Australia

# 1. INTRODUCTION

## Legislative background

The property vegetation plan (PVP), proposes broadscale clearing within the definition of the *Native Vegetation Act 2003*.

Under s. 29(2) of the *Native Vegetation Act 2003*, the Minister is not to approve a PVP that proposes broadscale clearing unless the clearing concerned will improve or maintain environmental outcomes.

Clause 26 of the *Native Vegetation Regulation 2005* prescribes the circumstances in which approval of a PVP that proposes broadscale clearing can be granted. Normally such a PVP can only be granted where there has been an assessment and determination in accordance with the environmental outcomes assessment methodology (EOAM) that the proposed clearing will improve or maintain environmental outcomes. However, a PVP can also be granted where an accredited expert has assessed and certified in accordance with clause 27 of the *Native Vegetation Regulation 2005* that the accredited expert is of the opinion that the proposed clearing will improve or maintain environmental outcomes.

This reports details the accredited expert's opinions formed in relation to cl. 27 of the *Native Vegetation Regulation 2005* when assessing PVP 14997.

## Initial assessment of broadscale clearing proposed by the PVP

When the broadscale clearing proposed by PVP 14997 was initially assessed in accordance with the EOAM, it did not result in a determination that clearing improved or maintained environmental outcomes.

The following section of this document provides detail of the accredited expert's assessment and certification in accordance with clause 27 of the *Native Vegetation Regulation 2005* and contains the information required in order to comply with clause 29 of the *Native Vegetation Regulation 2005*.

## Final assessment of broadscale clearing proposed by the PVP with a minor variation

The broadscale clearing proposed by this PVP was then assessed and certified by an accredited expert that, in the accredited expert's opinion, the proposed clearing will improve or maintain environmental outcomes. PVPs that are approved on the basis that an accredited expert has, in accordance with clause 27 of the *Native Vegetation Regulation 2005* assessed and certified that in the accredited expert's opinion the proposed clearing will improve or maintain environmental outcomes, must comply with clause 29 of the *Native Vegetation Regulation 2005*.

Section 2 of this document provides detail of the accredited expert's assessment and certification in accordance with clause 27 of the *Native Vegetation Regulation 2005* and contains the information required in order to comply with clause 29 of the *Native Vegetation Regulation 2005*.

## 2. *MINOR VARIATION*

### 2.1 Legal provision for minor variation

The legal provision for this minor variation is in Clause 27(1) 'Special provisions for minor variation' of the *Native Vegetation Regulation 2005* which states:

> *27 Special provisions for minor variation*
>
> *(1) An accredited expert may make an assessment that proposed clearing will improve or maintain environmental outcomes only if there has been an assessment in accordance with the Assessment Methodology of whether the proposed clearing will improve or maintain environmental outcomes (not resulting in a determination that the proposed clearing will improve or maintain environmental outcomes) and the accredited expert is of the opinion that:*
>
> *(a) a minor variation to the Assessment Methodology would result in a determination that the proposed clearing will improve or maintain environmental outcomes (other than a variation that is not allowable under this clause), and*
>
> *(b) strict adherence to the Assessment Methodology is in the particular case unreasonable and unnecessary.*
>
> *(2) A variation to the Assessment Methodology is not allowable under this clause if it is a variation of any of the following aspects of the Assessment Methodology:*
>
> *(a) riparian buffer distances or associated offset requirements,*
>
> *(b) classification of vegetation as likely habitat for threatened species,*
>
> *(c) classification of a plant species as a threatened species or a component of an endangered ecological community,*
>
> *(d) classification of the condition of vegetation,*
>
> *(e) classification of the vegetation type or landscape type as over-cleared,*
>
> *(f) the assessment of the regional value of vegetation.*

### 2.2 How the EOAM was varied

The EOAM was varied by adding Bimble Box (*Eucalyptus populnea* subsp. *bimbil*) as an Invasive Native Species in the Cobar Peneplain (CP) IBRA region of the Lachlan CMA area to Table 7.1 – Invasive Native Scrub Species Database, with the conditions shown in the Table 1 below. No other aspect of the Environmental Outcomes Assessment Methodology has been varied.

**Table 1: Variation to Table 7.1 – Invasive Native Scrub Species Database**

| Catchment Management Authority – IBRA region | Invasive Native Species | Retention requirements | | | INS type of clearing permitted |
|---|---|---|---|---|---|
| | | Number of plants per hectare to be retained | Retention required by the criterion 18A (clearing types d-r only) | Maximum dbh allowed to be cleared | |
| Lachlan – CP | *Eucalyptus populnea* subsp. *bimbil* (Bimble Box) | 20 (Total under 20cm dbh) | Yes | 20 cm | All |

## 2.3 Description of the proposed clearing

The total area of land in Map Units 14a, 14g, 14h and 14j where Bimble Box (*Eucalyptus populnea* subsp. *bimbil*) is behaving invasively is 1457.19 hectares. The INS in Map Units 14a, 14g, 14h and 14j will be by the following clearing types:

All areas = 1457.19 ha

a) burning;

b) clearing of individual plants with no disturbance to groundcover;

c) clearing of individual plants with minimal disturbance to groundcover;

d) clearing of plants at paddock scale with nil to minimal disturbance to soil and groundcover;

e) clearing of plants at paddock scale with temporary disturbance to soil and groundcover.

f) clearing of plants at paddock scale with longer term disturbance to soil and groundcover.

Bimble Box (*Eucalyptus populnea* subsp. *bimbil*) up to 20cm dbh will be cleared as Invasive Native Species. At least 20 stems per hectare under 20cm dbh (or patches of 10% per 100 hectare area) and all stems above 20cm dbh will be retained in the managed areas as required by the Assessment Methodology.

## 2.4 Reasons for recommending the proposed minor variation

Flora and fauna require a range of densities to provide a diversity of habitats. Homogenous, dense areas of invasive native scrub lack habitat diversity and do not provide a range of habitats for native flora and fauna (Hassall & Associates et al., 2006) The Bimble Box in this case is causing a change in vegetation structure and resulting in a homogenous habitat that does not provide the range of habitats required for native biodiversity. The density of Bimble Box throughout each area varies considerably: Map Units 14a/14h (230-530 stems/ha); 14g (2800 stems/ha); and 14j (200 stems/ha). Bimble Box is currently listed as an invasive native species in the adjoining Cobar Peneplain IBRA regions of the Western CMA and Central West CMA areas. Allowing Bimble Box to be managed as INS in this case provides beneficial environmental outcomes by creating a mosaic of vegetation types across the landscape and restoring vegetation structure and composition.

Table 2 below outlines the reasons why Bimble Box is invasive in the region (consistent with the criteria for listing an invasive native scrub species in Table 7.1 in the EOAM) and Table 3 outlines why the accredited expert is of the opinion that Bimble Box is acting invasively at the site where it is to be managed based on the criteria for listing an invasive native scrub species in Table 7.1 in the EOAM.

**Table 2: Criteria for listing INS species in Table 7.1 of the EOAM.**

| SPECIES | *Eucalyptus populnea* subsp. *bimbil* (Bimble Box) for Cobar Peneplain |
|---|---|
| **The species invades plant communities where it has not been known to occur previously OR**<br>**the species regenerates densely following natural or artificial disturbance** | • *"Bimble Box establishes periodically, sometimes in rather dense stands of saplings, following favourable climatic conditions, but generally these regenerations cover a somewhat restricted area."* (Cunningham et al.,1981). These *"restricted areas"* are usually areas which receive run-on water. As a result, Bimble Box spreads over areas where it was not known to occur previously.<br>• Various Subregions of the Cobar Peneplain Bioregion state that Bimble Box is dense on the ridges, slopes, lower slopes, depressions and creek lines. (Department of Environment, Climate Change and Water, 2012)<br>• Bimble Box is listed as INS for IBRA regions in the Western and Central West catchments. |
| **The invasion and/or dense regeneration of the species results in change of structure and/or composition of a vegetation community** | • Field observations in the Cobar Peneplain (Western CMA survey, 2012) have recorded dense regeneration of Bimble Box in large drainage lines up to 4,075 stems/ha with a dbh of less than 5cm and 525 stems/ha with a dbh of 6cm – 20 cm, while large Bimble Box with dbh greater than 31cm account for 50 stems/ha. This dense regeneration changes the structure of the vegetation community.<br>• Bimble Box has been recorded as "troublesome in grazing lands where it may occur in densities of 1,000 per hectare inhibiting the growth of native grasses." (Soil Conservation Service, 1988)<br>• Bimble Box is included as one of the numerous INS species which contribute to shrub/tree increase. (Soil Conservation Service, 1988) |
| **The species is within its natural range or distribution** | • Bimble Box occurs throughout the Western CMA area except for the extreme western parts. It also occurs in the western parts of the Central West CMA area and throughout the Lachlan CMA area (Cunningham et al., 1981).<br>• Bimble Box is one of the dominate trees of the Cobar Peneplain. Bimble Box dominates or co-dominates with other tree species such as Mulga (*Acacia aneura*), White Cypress Pine (*Callitris glaucophylla*) or Red Box (*Eucalyptus intertexta*). (Department of Environment, Climate Change and Water, 2012) |

**Table 3: Reasons why Bimble Box is acting invasively for PVP 14997.**

| SPECIES | *Eucalyptus populnea* subsp. *bimbil* (Bimble Box) for Cobar Peneplain |
|---|---|
| **The species invades plant communities where it has not been known to occur previously OR**<br>**The species regenerates densely following natural or artificial disturbance** | • The area proposed to be cleared has regenerated densely with stems of Bimble Box <20 cm dbh ranging from 200-2800 per hectare. The area was originally open woodland with sparse Bimble Box and White Cypress Pine trees. The Bimble Box is now very dense and most plants have not matured due to the density of stems.<br>• The Bimble Box, while not persistent across the entire area, is in dense stands of uniform age.<br>• The area is within the Penshurst, Kopyje and Warrowie Land Systems, which describes the area as having characteristically moderate to open Bimble Box woodland (Soil Conservation Service, 1984). |
| **The invasion and/or dense regeneration of the species results in change of structure and/or composition of a vegetation community** | • The area proposed for management was once open woodland and is now a thick shrubland with a high density of small stems of White Cypress Pine and Bimble Box along with many other INS species.<br>• The dense stand of Bimble Box at the site has resulted in substantial changes in structure (loss of structural diversity) and composition |

| SPECIES | *Eucalyptus populnea* subsp. *bimbil* (Bimble Box) for Cobar Peneplain |
|---|---|
| | (loss of groundcover) of the vegetation community.<br>• Data collected from the area shows there is an average of 2800 stems per hectare (Map Unit 14g), and 320 plants per hectare (Map Units 14a, 14h & 14j) under 20cm dbh and 55 stems per hectare over 20cm dbh. The data collected indicates the regeneration of Bimble Box is denser than what was there previously. |
| **The species is within its natural range or distribution** | • Bimble Box occurs throughout the Western CMA area except for the extreme western parts. It also occurs throughout the Lachlan CMA area, which is where the property in question is located (Cunningham et al., 1981).<br>• Bimble Box is one of the dominate trees of the Cobar Peneplain. Bimble Box dominates or co-dominates with other tree species such as Mulga (*Acacia aneura*), White Cypress Pine (*Callitris glaucophylla*) or Red Box (*Eucalyptus intertexta*). (Department of Environment, Climate Change and Water, 2012) |

## *3. Certification by the accredited expert*

As an accredited expert, I am of the opinion that minor variation to the EOAM (Assessment Methodology) will result in a determination that the proposed clearing of Bimble Box (*Eucalyptus populnea* subsp. *bimbil*) will improve or maintain environmental outcomes and strict adherence to the Assessment Methodology is in this particular case unreasonable and unnecessary because:

An open woodland of mixed species will be created in the 1457.19 hectares to be managed for INS, with an average of at least 55 stems per hectare (>20cm dbh) and 20 stems per hectare (<20cm dbh) of Bimble Box remaining post clearing (refer to Table 1). The creation of open woodland will result in heterogeneity of structure in the vegetation community across all areas of PVP 14997.

The clearing types permitted in all areas are:

a) burning;

b) clearing of individual plants with no disturbance to groundcover;

c) clearing of individual plants with minimal disturbance to groundcover;

d) clearing of plants at paddock scale with nil to minimal disturbance to soil and groundcover;

e) clearing of plants at paddock scale with temporary disturbance to soil and groundcover.

f) clearing of plants at paddock scale with longer term disturbance to soil and groundcover.

All other conditions listed under the EOAM apply. The biodiversity and other environmental gains far outweigh the losses and as a result the clearing improves or maintains environmental outcomes.

## *References*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