

**Report under the NV Act 2003 in relation to a Minor Variation
(clause 27 of the Native Vegetation Regulation 2005)**

This report has been prepared by a Level 3 Accredited Expert for the purposes of clause 27(4) of the Native Vegetation Regulation 2005.

Accreditation number: 30630

PVP reference number: 10961

Summary

I am 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.

The proposed minor variation improves or maintains environmental outcomes by creating a mosaic of vegetation states across the landscape in accordance with the intention of the Assessment Methodology (EOAM). The minor variation is required to allow management of a species that regenerates densely following disturbance, changes the structure of a vegetation community and is within its natural range in an area where the species is behaving invasively.

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

Description of the proposed clearing:

The proposed clearing involves the management of Invasive Native Scrub Species on a property in the Cobar Penepplain IBRA region in the Lachlan CMA. The property straddles the Western CMA and the Lachlan CMA. Bimble Box is invasive in the region, and the species is acting invasively in the area (see table below for details). Bimble Box is listed in the Western CMA for the Cobar Penepplain IBRA region. It is also listed for the Central West CMA. The property where Bimble Box will be managed is located in the Cobar Penepplain IBRA region and contains a similar landform and vegetation types as areas in the Cobar Penepplain IBRA region where Bimble Box is listed as an invasive native species.

The clearing types proposed are the following clearing types available under the Assessment Methodology

- 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;

The proposed minor variation does not relate to 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.

Details of the proposed minor variation:

The Environmental Outcomes Assessment Methodology (EAOM) defines invasive native species as follows:

Invasive native species for the purposes of this Chapter means a plant species that satisfies the following criteria:

- 1) The species is listed in Table 7.1 in respect of the Catchment Management Authority Area or the Catchment Management Authority Area and IBRA region to which the clearing proposal relates; **and**
- 2) In the opinion of the relevant Catchment Management Authority (or an officer of that Authority who is responsible for making this assessment), the species satisfies the following criteria for acting invasively:
 - (a) the species is invading plant communities where it has not been known to occur previously, **or**
 - the species is regenerating densely following natural or artificial disturbance, **and**
 - (b) the invasion and/ or dense regeneration of the species is resulting in change of structure and/ or composition of a vegetation community, **and**
 - (c) the species is within its natural geographic range.

Species are listed in Table 7.1 according to the following criteria:

- (a) the species invades plant communities where it has not been known to occur previously, **or** the species regenerates densely following natural or artificial disturbance, **and**
- (b) the invasion and/ or dense regeneration of the species results in change of structure and/ or composition of a vegetation community, **and**
- (c) the species is within its natural geographic range.

The minor variation for this PVP is the variation for Bimble Box in the particular case to be considered and managed as an invasive native species, as it is consistent with the criteria for listing invasive native species in Table 7.1.

Reasons for recommending the proposed minor variation: *(include evidence that the minor variation will improve or maintain environmental outcomes)*

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 in the area is more than 310 stems per hectare. Managing the Bimble Box in this case provides beneficial environmental outcomes by creating a mosaic of vegetation types across the landscape and restoring vegetation structure and composition.

Bimble Box is currently listed as an invasive native species in the Cobar Peneplain IBRA regions of the Western CMA and in the Central West CMA area. The vegetation at the site where Bimble Box will be managed is of a vegetation type and species composition and density common on the Cobar Peneplain.

The table 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 why Bimble Box is acting invasively at the site where it is to be managed (consistent with the criteria for acting invasively in the EOAM).

<p>Species</p> <p>The species invades plant communities where it has not been known to occur previously <u>OR</u> the species regenerates densely following natural or artificial disturbance</p>	<p><i>Eucalyptus populnea</i> (Bimble Box) for Cobar Peneplain</p> <ul style="list-style-type: none"> • <i>“Bimble Box establishes periodically, sometimes in rather dense stands of saplings, following favourable climatic conditons, but generally these regenerations cover a somewhat restricted area.”</i> (Cunningham et al.,1981). These <i>“restricted areas”</i> are usually areas which receive run-on water. As a result, Bimble Box spreads over areas where it was not known to occur previously. • 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) • Bimble Box is listed as INS for IBRA regions in the Western Catchment and listed in the Central West Catchment.
<p>the invasion and/or dense regeneration of the species results in change of structure and/or composition of a vegetation community</p>	<ul style="list-style-type: none"> • Field observations show 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 have been recorded. Large Bimble Box with dbh greater than 31cm account for 50 stems/ha. This dense regeneration changes the structure of the vegetation community. • Bimble Box has been recorded as <i>“troublesome in grazing lands where it may occur in densities of 1,000 per hectare inhibiting the growth of native grasses.”</i> (Soil Conservation Service, 1988) • Bimble Box is included as one of the numerous INS species which contribute to shrub/tree increase. (Soil Conservation Service, 1988)
<p>the species is within its natural range or distribution</p>	<ul style="list-style-type: none"> • Bimble Box occurs throughout the Western CMA except for the extreme western parts. It also occurs in the western parts of the Central West CMA and throughout the Lachlan CMA. (Cunningham et al., 1981)

Species	<i>Eucalyptus populnea</i> (Bimble Box) for Cobar Penepplain
	<ul style="list-style-type: none"> Bimble Box is one of the dominate trees of the Cobar Penepplain. Bimble Box dominates or co-dominates with other tree species such as Mulga (<i>Acacia aneura</i>), White Cypress Pine (<i>Callitris glaucophylla</i>) or Red Box (<i>Eucalyptus intertexta</i>). (Department of Environment, Climate Change and Water)

The table below outlines satisfies the criteria for acting invasively under the EOAM.

Species	<i>Eucalyptus populnea</i> (Bimble Box) for Cobar Penepplain
The species invades plant communities where it has not been known to occur previously <u>OR</u> the species regenerates densely following natural or artificial disturbance	<ul style="list-style-type: none"> The area proposed to be cleared has regenerated densely with typically over 240 stems per hectare of Bimble Box under 20 cm dbh with other invasive species at similar densities. The area was originally 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. The Bimble Box in the area is in a dense stand of uniform age. The area is within the Peshurst and Yackerboon Land Systems, which describes the area as having scattered to dense Bimble Box, with the flats having dense Bimble Box. (Soil Conservation Service, 1991)
the invasion and/ or dense regeneration of the species results in change of structure and/ or composition of a vegetation community	<ul style="list-style-type: none"> 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. The dense stand of Bimble Box at the site has resulted in substantial changes in structure (loss of structural diversity) and composition (loss of groundcover) of the vegetation community. Data collected from the area shows there is an average of 240 plants per hectare under 20cm dbh and 70 stems per hectare over 20cm dbh. The data collected indicated the regeneration of Bimble Box is much more dense than what was there previously.
the species is within its	<ul style="list-style-type: none"> Bimble Box occurs throughout the Western

Species	<i>Eucalyptus populnea</i> (Bimble Box) for Cobar Penneplain
natural range or distribution	<p>CMA except for the extreme western parts. It also occurs throughout the Lachlan CMA, which is where the property in question is located. (Cunningham et al., 1981)</p> <ul style="list-style-type: none"> • Bimble Box is one of the dominate trees of the Cobar Penneplain. Bimble Box dominates or co-dominates with other tree species such as Mulga (<i>Acacia aneura</i>), White Cypress Pine (<i>Callitris glaucophylla</i>) or Red Box (<i>Eucalyptus intertexta</i>). (Department of Environment, Climate Change and Water)

Minor variation

The minor variation for PVP reference no. 10961 (the particular case) is the variation of Table 7.1 for Bimble Box (*Eucalyptus populnea*) to be an invasive native species in the Cobar Penneplain IBRA region in the Lachlan CMA as it is in the Cobar Penneplain IBRA region in the Western CMA and in the Central West CMA.

References

Cunningham, G.M., W.E.Mulham, P.E.Milthorpe and J.H.Leigh 1981. *Plants of Western New South Wales*, Soil Conservation Service of New South Wales.

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Soil Conservation Service, 1988. *A Review of Information Relevant to the Bimble Box-Pine and Associated Rangelands of Western New South Wales, Technical Report No. 6, A*. Iwaszkiewicz and W.S. Semple.