

**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: 30617

PVP reference number: 8073

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) Wilga (*Geijera parviflora*) meets the criteria of being invasive in the area to be managed; (ii) dense regeneration of Wilga 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 Wilga 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 Brigalow Belt South IBRA region in Western CMA. Wilga is invasive in the region, and the species is acting invasively at the site (see table below for details). Wilga is listed in the Western CMA for the Mulga Lands and Cobar Penneplain IBRA regions. It is also listed for the Central West CMA. The property where Wilga will be managed is located in the Brigalow Belt South IBRA region and contains a similar landform and vegetation types as areas in the Cobar Penneplain IBRA region where Wilga 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; and
- f) clearing of plants at paddock scale with longer-term disturbance to soil and groundcover.. All Wilga over 20cm dbh will be retained.

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 Wilga 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 Wilga 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 Wilga at the

site is more than 440 stems per hectare Wilga. Managing the the Wilga in this case provides beneficial environmental outcomes by creating a mosaic of vegetation types across the landscape and restoring vegetation structure and composition.

Wilga is currently listed as an invasive native species in the Mulga Lands and the Cobar Peneplain IBRA regions of the Western CMA and in the Central West CMA area. The vegetation at the site where Wilga 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 Wilga 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 Wilga 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>Geijera parviflora</i> (Wilga) for Brigalow Belt South</p> <ul style="list-style-type: none"> • Wilga is usually found as a well-spaced tree in mixed woodland communities, however, it is now commonly found growing under a major portion of trees and/or shrubs where birds have perched and distributed the seeds in their droppings (Cunningham et al.,1981). As a result, Wilga spreads over large areas where it was not known to occur previously • Sometimes occurs in dense local stands (Cunningham et al.,1981) of uniform age in previously open areas. • Wilga 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"> • Wilga is usually found as well-spaced trees in mixed woodland communities, however, it is now commonly found growing under a major portion of trees and/or shrubs where birds have perched and distributed the seeds in their droppings (Cunningham et al., 1981). This results in a dense understorey of Wilga under the major portion of trees/shrubs, changing the structure of the vegetation community.
<p>the species is within its natural range or distribution</p>	<ul style="list-style-type: none"> • Wilga occurs throughout the region, except for the far northwest; very infrequent in the south of the Western Division (Cunningham et al., 1981). Brigalow Belt South Bioregion within the Western Catchment is in the north of the catchment running along a small north to south area east of Walgett. It is not in the far north west of the Western Division or the South.

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

Species	<i>Geijera parviflora</i> (Wilga) for Brigalow Belt South
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 over 440 stems per hectare of Wilga with other invasive species at similar densities. The area was originally woodland with sparse Wilga trees. The Wilga is now very dense and has most plants have not matured due to the density of stems. • The Wilga at the site is in a dense stand of uniform age.
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 Wilga and Bimble Box. • The dense stand of Wilga 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 site shows there is an average of 427 plants per hectare under 20cm dbh and 13 stems per hectare over 20cm dbh. The data collected indicated the regeneration of Wilga is much more dense than what was there previously.
the species is within its natural range or distribution	<ul style="list-style-type: none"> • Wilga occurs throughout the region, except for the far northwest; very infrequent in the south (Cunningham et al., 1981). The area of the PVP is in the north of the region and not the far northwest.

Minor variation

The minor variation for PVP reference no. 8073 (the particular case) is the variation of Table 7.1 for Wilga (*Geijera parviflora*) to be an invasive native species in the Brigalow Belt South IBRA region as it is in other IBRA regions 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.

Hassall & Associates, Briggs, S. and Norman, P., 2006. *Documenting the Science Behind the Invasive Native Scrub Tool*. A report prepared for the Central West Catchment Management Authority, Dubbo.

