REPORT UNDER THE NATIVE VEGETATION ACT 2003 IN RELATION TO:

1. USE OF MORE APPROPRIATE LOCAL DATA UNDER SECTION 2.4.3 OF THE ENVIRONMENTAL OUTCOMES ASSESSMENT METHODOLOGY; AND

2. ACCREDITED EXPERT'S ASSESSMENT IN ACCORDANCE WITH CLAUSE 27 OF THE NATIVE VEGETATION REGULATION 2005 FOR PVP REFERENCE NUMBER 17162

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PVP reference number: 17162

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EXECUTIVE SUMMARY

This Accredited Expert report relates to the assessment of the clearing proposed by PVP number 17162.

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.

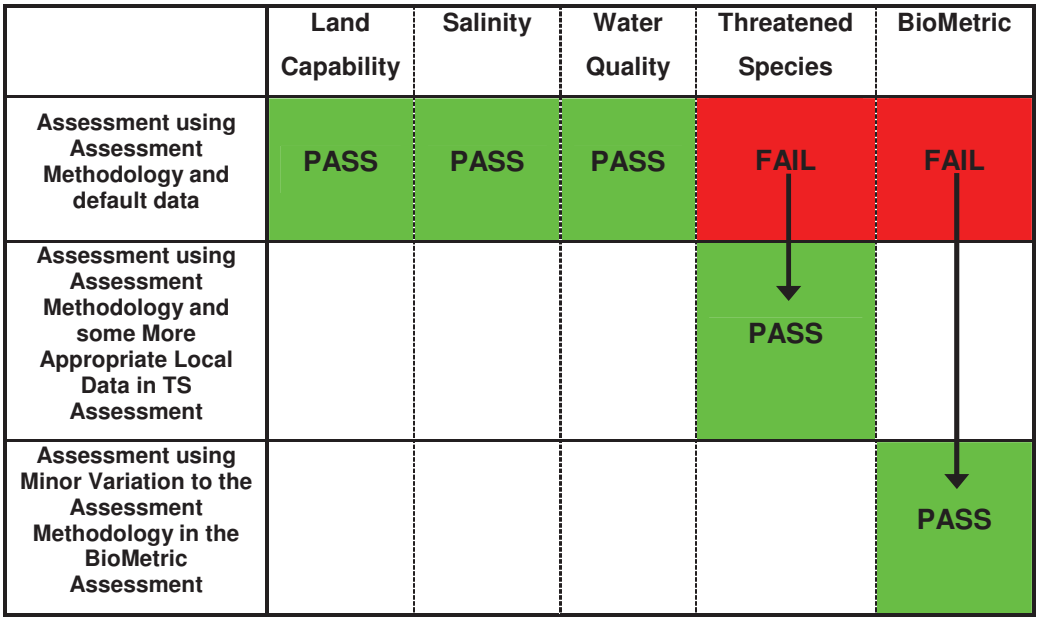
Clause 26 of the Native Vegetation Regulation 2005 prescribes the circumstances in which approval of a PVP that proposes broadscale clearing can be granted. In most cases an assessment and determination of whether the clearing will improve or maintain environmental outcomes is conducted in accordance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

In some circumstances the Assessment Methodology does not adequately allow for the specific and unique circumstances associated with the proposal. In these circumstances the assessment can use More Appropriate Local Data (Section 2.4.3 of the Assessment Methodology) and/or Special Provisions for Minor Variation (Clause 27 of Native Vegetation Regulation 2005).

In this assessment More Appropriate Local Data has been used to change the management responses that will be achieved in the offset area for the Diamond Firetail and Coolibah - Black Box endangered ecological community:

Special provisions for minor variation have been used to allow for the reduced long term viability of some of the vegetation to be cleared where the proposed clearing with the minor variation will improve or maintain environmental outcomes and strict adherence to the Assessment Methodology is unreasonable and unnecessary.

Figure 1: A conceptual outline of the assessment process for PVP 17162



This report details the accredited expert's opinions formed in relation to section 2.4.3 of the Assessment Methodology and cl. 27 of the Native Vegetation Regulation 2005 when assessing PVP reference number 17162.

Summary of Chapter 2 – Use of more appropriate local data

Local data that more accurately reflects local conditions is available for both the Diamond Firetail and Coolibah - Black Box Woodland with respect to their response to the management actions undertaken in the offset area.

The accredited expert therefore certifies that data is available that more accurately reflects local environmental conditions (compared to the data in the approved database).

Summary of Chapter 3 – Minor variation to the Assessment Methodology

The minor variation is a variation to the definition of "vegetation in low condition" in section 5.2.2 of the Assessment Methodology. In varying the definition of the condition of the vegetation the accredited expert is required to comply with any relevant assessment protocols approved by the Minister. In this case the relevant assessment protocol is entitled *"Assessment protocol for where a minor variation is made to the EOAM to reclassify the condition of native vegetation"* (Relevant Assessment Protocol).

The accredited expert is of the opinion that minor variation to the Assessment Methodology will result in a determination that the proposed clearing will improve or maintain environmental outcomes and strict adherence to the Assessment Methodology is in this particular case unreasonable and unnecessary because:

i. The proposal will have additional conservation benefits at landscape scale. These are additional management actions at landscape scale which will;
    - Improve connectivity, and
    - Improve the condition of riparian areas, and
    - improve the soil health and groundcover across 6657 (6630 + 27) ha of existing cropping land by the adoption of control traffic and conservation farming practices

ii. The vegetation to be cleared is of low viability or not viable;

iii. Assessment in accordance with the Assessment Methodology (as varied and through the use of more appropriate local data) shows that the offsets proposed balance the loss of biodiversity from clearing; and

iv. The vegetation to be cleared makes a negligible contribution to regional biodiversity values.

Thus the biodiversity and other environmental gains from the proposal outweigh the losses and as a result the clearing improves or maintains environmental outcomes.

1. INTRODUCTION

Legislative background

Property vegetation plan (PVP), reference number 17162 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 (Assessment Methodology) 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.

The Assessment Methodology assesses proposed broadscale clearing using data in approved databases. Section 2.4.3 of the Assessment Methodology allows for the utilisation of more appropriate data (instead of data in the approved databases) in certain circumstances in the assessment of proposed broadscale clearing if an accredited expert certifies that the data more accurately reflects local environmental conditions.

This reports details the accredited expert's opinions formed in relation to section 2.4.3 of the Assessment Methodology and cl. 27 of the Native Vegetation Regulation 2005 when assessing PVP reference number 17162.

Initial assessment of broadscale clearing proposed by PVP 17162

When the broadscale clearing proposed by this PVP was initially assessed in accordance with the Assessment Methodology using the data in the approved databases, it did not result in a determination that clearing improved or maintained environmental outcomes.

Subsequent assessment of broadscale clearing proposed by PVP 17162 using more appropriate local data

After the initial assessment, the broadscale clearing was subsequently assessed in accordance with the Assessment Methodology, using more appropriate local data under section 2.4.3 of the Assessment Methodology. If a PVP is approved on the basis of the use of more appropriate local data in the assessment, then clause 29 of the Native Vegetation Regulation 2005 must be complied with.

Chapter 2 of this document provides information on the use of more appropriate local data under section 2.4.3 of the Assessment Methodology in assessing broadscale clearing proposed by this PVP in accordance with clause 29 of the Native Vegetation Regulation 2005.

However, when the broadscale clearing proposed by this PVP was subsequently assessed using more appropriate local data, it still did not pass all components of the improve or maintain environmental outcomes test and therefore did not result in a determination that clearing improved or maintained environmental outcomes.

The PVP was then reassessed using the provisions of clause 27 of the Native Vegetation Regulation 2005.

Final assessment of broadscale clearing proposed by PVP 17162 by an accredited expert

The broadscale clearing proposed by PVP 17162 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 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.

Chapter 3 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. USE OF MORE APPROPRIATE LOCAL DATA

2.1 Legal provision for the use of more appropriate local data

The legal provision for using more appropriate local data is Assessment Methodology section **2.4.3 Using more appropriate local data.** It states:

> *"Where an assessment of proposed broadscale clearing using the approved database(s) indicates that the proposal does not improve or maintain environmental outcomes, it may be possible to utilise more appropriate local data.*
>
> *If an* **accredited expert** *certifies that data is available that more accurately reflects local environmental conditions (compared to the data in the approved databases) in relation to:*
>
> - *vegetation benchmarks;*
> - *overcleared landscapes;*
> - *overcleared vegetation types;*
> - *coastal thinning genera; and*
> - *threatened species profile data, including (but not limited to) whether threatened animal species are likely to occur on the land in that vegetation type or key habitat feature in the subregion and the estimated percentage increase in population that can be expected in response to a proposed management action, as measured by either an increase in the number of individuals, or area of habitat component or key habitat feature;*
>
> *the Catchment Management Authority Board or General Manager (exercising power delegated by the Minister) may authorise the replacement of the approved data with data that the accredited expert advises is more appropriate."*
>
> *After the data is varied the proposal may be reassessed in accordance with clause 26(1)(a) of the Native Vegetation Regulation 2005.*
>
> *In certifying that data is available that more accurately reflects local environmental conditions (compared to the data in the approved databases), the accredited expert must:*
>
> - *Provide reasons for this opinion; and*
> - *Comply with any assessment protocols approved by the Minister for Climate Change and the Environment (in relation to aspects of assessment concerned with salinity, soil, water quality, biodiversity and threatened species) and the Minister for Primary Industries (in relation to aspects of assessment concerned with fish and marine vegetation).*

2.2 Description of clearing

The clearing proposed on this property involves the clearing of 1134 isolated paddock trees that are completely surrounded by cultivation (across 6630 ha) and 42 isolated small clumps totalling 27 ha (average size of 0.64ha) that are also completely surrounded by cultivation. The vegetation type in the small clumps is Black Box Woodland. Black Box Woodlands form a part of the Coolibah – Black Box Woodland community which is listed as an endangered ecological community under the *Threatened Species Conservation Act 1995*.

2.3 Assessment with default data did not improve or maintain environmental outcomes

The assessment of this broadscale clearing in accordance with the Assessment Methodology using data in the approved databases (default data) did not result in a determination that the clearing improved or maintained environmental outcomes.

The management actions in the Threatened Species Profile Database (TSPD and their associated management response estimates did not adequately account for the

improvements to habitat that will be achieved in the offset area for some threatened species. The threatened species and endangered ecological community showing inaccurate responses to the proposed management actions in the offset area using the default data are:

- Diamond Firetail
- Coolibah - Black Box Woodland

In both situations more appropriate local data is available that more accurately reflects local environmental conditions compared with the default data in the approved databases.

2.4 Description of the use of more appropriate local data

More appropriate local data is available that shows the default percent responses to the proposed management actions have under estimated the benefit of the management actions in the offset area for both the Diamond Firetail and Coolibah - Black Box Woodland. Details on the use of more appropriate local data are given below.

Threatened species response to management actions

This use of the default management response percentages did not result in a determination that the clearing improved or maintained environmental outcomes. The current default threatened species percent response to management actions data underestimates the beneficial effect certain management actions can have on threatened species habitat in the offset area. The threatened species and threatened ecological community showing insufficient responses to the proposed management actions in the offset area using the default data are:

- Diamond firetail
- Coolibah - Black Box Woodland

Management responses are one component of the calculation of the size of offset required to satisfy improve or maintain environmental outcomes. When the management response percentage is low the offset area required for that species will be larger (and vice versa). Management response percentages are a reflection of the beneficial gain to a species or its habitat by applying specific management actions to an offset site.

Local data that more accurately reflects local environmental conditions compared with data in the approved databases (default data) is available in relation to percentage increases in populations of threatened species from management actions on the offset area.

In 2009, threatened species experts from the Department of Environment, Climate Change and Water reviewed the default management responses and updated the percentages to better reflect the positive impacts of management actions. This updated data will be loaded into the approved databases during the next scheduled upgrade. Where the default management response underestimated the beneficial gain, management response percentages from this new dataset have been used in this proposal as more appropriate local data (see Table 1).

Table 1: Threatened species response to proposed management actions undertaken in the offset area. The default percent responses to management actions and the management responses used to determine whether the proposal maintain or improved environmental outcomes for these threatened species are also shown.

Species	Proposed Management Actions	Management Responses From Default Data	Revised management responses (2009 review)	Management Responses Used
Diamond Firetail	Domestic stock grazing exclusion	5%	22	12%
	Retain dead timber (standing & fallen)	1%	2	2%
	Total management response	**6%**	**24**	**14%**
Coolibah - Black Box Woodland	Domestic stock grazing exclusion	5%	23	10%
	Retain dead timber (standing & fallen)	1%	3	3%
	Total management response	**6%**	**26**	**13%**

The offset area appears to be greater than that required to account for the threatened species habitat loss. However, this 'surplus offset' was a necessary contribution to the required additional management actions at landscape scale.

2.5 Reason for the use of more appropriate local data

The local data used more accurately reflects the positive impacts of management actions on both the Diamond Firetail and Coolibah – Black Box Woodland.

Prior to this use of more appropriate local data, the determination was the proposed clearing did not improve or maintain environmental outcomes. This result was because the default data underestimated the positive impacts of the management actions in the offset area on the Diamond Firetail and Coolibah - Black Box Woodland inappropriately indicating the offsets were insufficient to account for the losses in the clearing area.

2.6 Certification by the accredited expert

As accredited expert I certify that data is available that more accurately reflects local environmental conditions compared to the data in the approved Threatened Species Profile Database.

2.7 Assessment of proposed clearing using more appropriate local data

The use of more appropriate local data resulted in a determination that the proposed clearing now improves or maintains environmental outcomes in accordance with the threatened species assessment tool, because the offset offered is now sufficient to balance the impact of the clearing due to the use of more appropriate threatened species management responses.

However, the assessment still did not pass all components of the improve or maintain environmental outcomes test and therefore did not result in a determination that clearing improves or maintains environmental outcomes.

3. MINOR VARIATION: CLASSIFICATION OF CONDITION OF VEGETATION

3.1 Legal provision for minor variation

The legal provisions for these minor variations are in Clause 27(1) and Clause 27(2A) 'Special provisions for minor variation' of the Native Vegetation Regulation 2005.

The specific provision for this variation is made under Clause 27(2A)(a) of the Native Vegetation Regulation 2005 which states:

> *"..... a variation to the assessment methodology in relation to the following aspects of the Assessment Methodology is allowable if an accredited expert is also of the opinion that the proposed clearing will have additional conservation benefits on a landscape scale:*
>
> *a) classification of the condition of vegetation,*
> *b) classification of the vegetation type or landscape type as overcleared,*
> *c) the assessment of the regional value of vegetation."*

The minor variation made in this part of the assessment is only to:

> *"a) classification of the condition of vegetation "*

3.2 How the Assessment Methodology was varied

Chapter 5, Section 5.2.2 of the Assessment Methodology defines woody vegetation in low condition as:

> *"Vegetation in low condition is defined as follows:*
>
> ***• Native woody vegetation***
>
> *1. with an over-storey percent foliage cover that is less than 25% of the lower value of the over-storey percent foliage cover benchmark for that vegetation type; and where*
>
> *2. a) less than 50% of the groundcover vegetation is indigenous species; or*
> *b) more than 90% of the area is ploughed; or*
> *c) more than 90% of the area is fallow; or*
> *d) 90% or more of the groundcover vegetation is regrowth but not protected regrowth.*

For this assessment the definition of low condition for woody vegetation in the Assessment Methodology is now as follows:

> *"Vegetation in low condition is defined as follows:*
>
> ***• Native woody vegetation***
>
> *1. with an over-storey percent foliage cover that is less than 25% of the lower value of the over-storey percent foliage cover benchmark for that vegetation type; and where*
>
> *2. a) less than 50% of the groundcover vegetation is indigenous species; or*
> *b) more than 90% of the area is ploughed; or*
> *c) more than 90% of the area is fallow; or*
> *d) 90% or more of the groundcover vegetation is regrowth but not protected regrowth.*
>
> *OR*
>
> ***• Native woody vegetation:***
>
> *Whose viability is assessed as low or not viable."*

The minor variation to the assessment methodology results in a reclassification of the condition of native vegetation from "not in low condition" to "low condition" for the purposes of 5.2.2 of the Assessment Methodology. The reclassification of condition of vegetation in this assessment from "not in low condition" to "low condition" complies with the assessment protocol under clause 27(3)(b) and clause 27(3A)(b) of the Native Vegetation Regulation

2005. In this case the classification of the condition of vegetation was varied because of the low viability of the small patches of vegetation surrounded by cropping.

The relevant assessment protocol in this case is *"Assessment protocol for where a minor variation is made to the EOAM to reclassify the condition of native vegetation"* (Relevant Assessment Protocol). This assessment protocol was approved by the Minister for Climate Change and the Environment on 16 March 2008. The assessment has complied with this protocol and determined that the proposed clearing will:

1. improve or maintain environmental outcomes (clause 27(3)(b) of the Native Vegetation Regulation 2005); and

2. have additional conservation benefits on a landscape scale (clause 27(3A) of the Native Vegetation Regulation 2005).

Strict adherence to the Assessment Methodology (unvaried) is considered unreasonable and unnecessary because in this case:

(i) the vegetation to be cleared is of low viability because it comprises small often linear patches surrounded by intense land use (cropping),

(ii) both the required offsets and the additional conservation benefits on a landscape scale will substantially improve vegetation condition and provide major benefits for biodiversity, including threatened species, and

(iii) the vegetation is less than 50% cleared in the region (200,000 ha).

3.3 Certification by the accredited expert

As an accredited expert I am of the opinion that:

a) The minor variation to the Assessment Methodology would result in a determination that the proposed clearing will improve or maintain environmental outcomes, and

b) Strict adherence to the Assessment Methodology is in this case unreasonable and unnecessary.

3.4 Description of the proposed clearing

This variation relates to the clearing of 42 isolated small clumps of Coolibah - Black Box Woodland totalling 27 ha (average size of 0.64ha) that are completely surrounded by cultivation. The clumps are either very small in area or, if larger, are typically long narrow strips with significant edge effects impacting on their viability in the long term (See figure 2).

3.5 Description of the proposed offsets

A total of 513 ha will be managed as offsets. The offset management actions include;

- regenerating Coolibah - Black Box Woodland
- expansion and restoration of riparian corridors (figure 3)
- replanting of native grasses where cropping land is being converted to offsets
- retention of all dead timber, and
- retention of regrowth.

Figure 2: Small clumps of remnant Coolibah - Black Box woodland that are completely surrounded by cultivation and cropping and have very high perimeter to area ratio

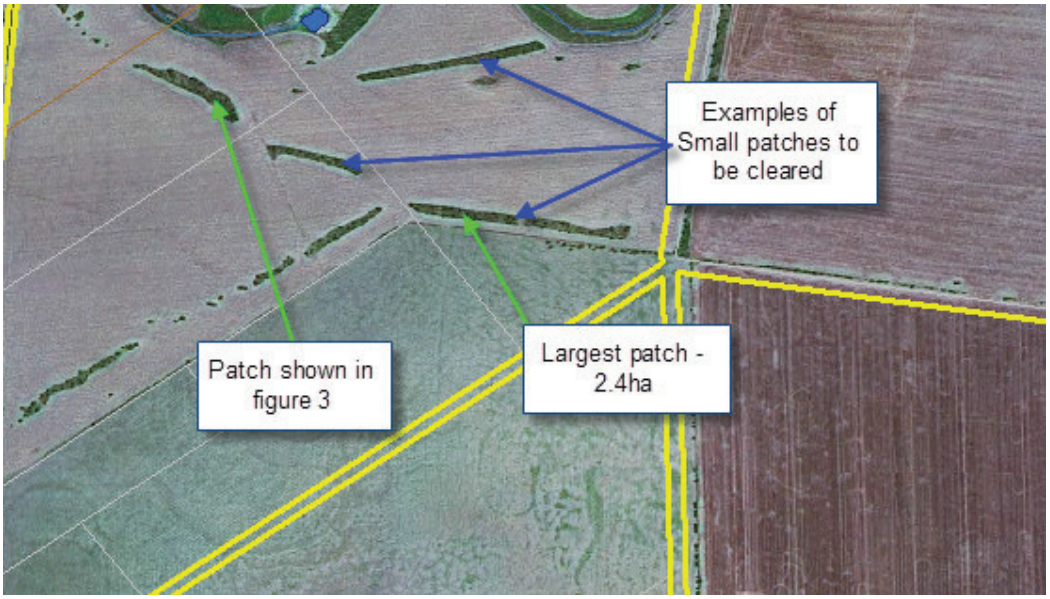


Figure 3: An example of a riparian corridor that will be expanded and restored as part of the offset actions.

3.6 Description of the proposed additional management actions

In addition to the offset requirements, the landholder will undertake activities that will have additional conservation benefits on a landscape scale. These activities include;

1. improving connectivity between remnants on a landscape scale,
2. improving the water quality and riparian habitat by increasing riparian buffers,
3. Improving the soil health and groundcover across 6657 (6630 + 27) ha of existing cropping land by the adoption of control traffic and conservation farming practices; and
4. Restoration of approximately 100 ha of former cropping land back to a Mitchell Grass dominated grassland..

3.7 Minister's assessment protocol

In determining that the proposed clearing improves or maintains environmental outcomes the assessment protocol referred to in Clause 27(3) of the Native Vegetation Regulation 2005 must be complied with. The specific requirements of the protocol are addressed below.

The proposed clearing will have additional conservation benefits on a landscape scale

The additional management actions outlined under 3.6 above will greatly improve connectivity of remnant vegetation on the property and in the surrounding area and improve overall biodiversity generally.

The actions which have conservation benefits on a landscape scale:

1) are over and above the offset requirements under the Assessment Methodology;
2) are secured by the PVP for at least the duration of the impact (in perpetuity in this case);
3) will improve groundcover and habitat for threatened and protected species on a landscape scale through supplementary seeding with native local provenance grass seed and/or grazing management;
4) contribute to meeting the conservation priorities and the targets in the Central West Catchment Management Authority (CMA) Catchment Action Plan. The specific CAP priority actions covered by the additional management actions are:
    a. Revegetation and regeneration to improve structural and floristic diversity,
    b. Habitat rehabilitation and improvement,
    c. Improve shape size and connectivity of remnant vegetation patches,
    d. Increased adoption of improved cropping management,
    e. Bed and bank stabilisation, and
    f. Revegetation/regeneration of riparian, floodplain and groundwater dependant ecosystems.
5) will be monitored as a part of the monitoring and evaluation program of the Central West CMA.

Circumstances which must be satisfied in order to determine that the proposed clearing will improve or maintain environmental outcomes

Viability of the vegetation is assessed as low or not viable:

The vegetation to be cleared comprises 42 small patches of Coolibah - Black Box Woodland endangered ecological community surrounded by cultivation and cropping (Figures 2 and 4). The total area of the patches is 27 ha with the largest patch 2.4 ha. These patches of native vegetation are of low viability due to their small patch size and the edge effects on the patch boundary with the adjacent areas of intense land use, namely cultivation and cropping. Many of the patches are long and narrow resulting in a high perimeter to area ratio thus exposing the remnant to the negative effects of the surrounding land use.

Figure 4: Small clump of remnant Coolibah - Black Box Woodland that is completely surrounded by cultivation and cropping

Assessment Methodology is complied with:

This assessment complies with the Assessment Methodology as varied by this document.

Additional circumstances considered when determining that the proposed clearing improved or maintained environmental outcomes

a) The percent cleared in the region of the vegetation type or threatened ecological community to be cleared.

Analysis of vegetation mapping and satellite imagery (Spot 5) shows the vegetation type to be cleared (Blackbox woodland on the floodplains mainly of the Darling Riverine Plains Bioregion (Benson 37)) is less than 50% cleared within the region of the proposal (100,000 ha).

b) The condition of the vegetation type or threatened ecological community or native vegetation in the region.

Analysis of aerial photographs, satellite imagery (Spot 5) and ground truthing shows the condition of the remaining vegetation of the vegetation type to be cleared (Blackbox woodland on the floodplains mainly of the Darling Riverine Plains Bioregion (Benson 37)) is mostly moderate to good within the region of the proposal (100,000 ha).

c) The percent cleared of all native vegetation cover in the region.

Analysis of vegetation mapping and satellite imagery (Spot 5) shows the percent cleared of all native vegetation within the region of the proposal (100,000 ha) is approximately 50%.

3.8 Summary of reasons for recommending the proposed minor variation

Prior to this minor variation the determination was that the proposed clearing did not improve or maintain environmental outcomes because the 42 patches (totalling 27 ha) of Coolibah - Black Box Woodland surrounded by cultivation and cropping, is an Endangered Ecological Community and does not meet the Assessment Methodology definition of vegetation in low condition. This is despite being of low viability due to the small size of the patches and the edge effects on the boundary with the adjacent areas of intense land use, namely cultivation and cropping.

As accredited expert I am of the opinion that minor variation to the Assessment Methodology will result in a determination that the proposed clearing will improve or maintain environmental outcomes and strict adherence to the Assessment Methodology is in this particular case unreasonable and unnecessary because:

(i) The vegetation to be cleared is either of low viability or not viable;

(ii) The offsets proposed balance the loss of biodiversity from clearing;

(iii) The proposal will have additional conservation benefits at landscape scale, which are management actions (additional to the offsets) which will improve connectivity, water quality, riparian habitat and soil health; and

(iv) At least 50% of native vegetation cover and 50% of the vegetation type remains in moderate to good condition in the region.

Thus the biodiversity and other environmental gains from the proposal outweigh the loss and as a result the clearing improves or maintains environmental outcomes.