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 19 OF THE NATIVE VEGETATION REGULATION 2013 FOR PVP REFERENCE NUMBER 20321

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PVP reference number: 20321

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2. EXECUTIVE SUMMARY

This Accredited Expert report relates to the assessment of the clearing proposed by PVP number 20321.

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.

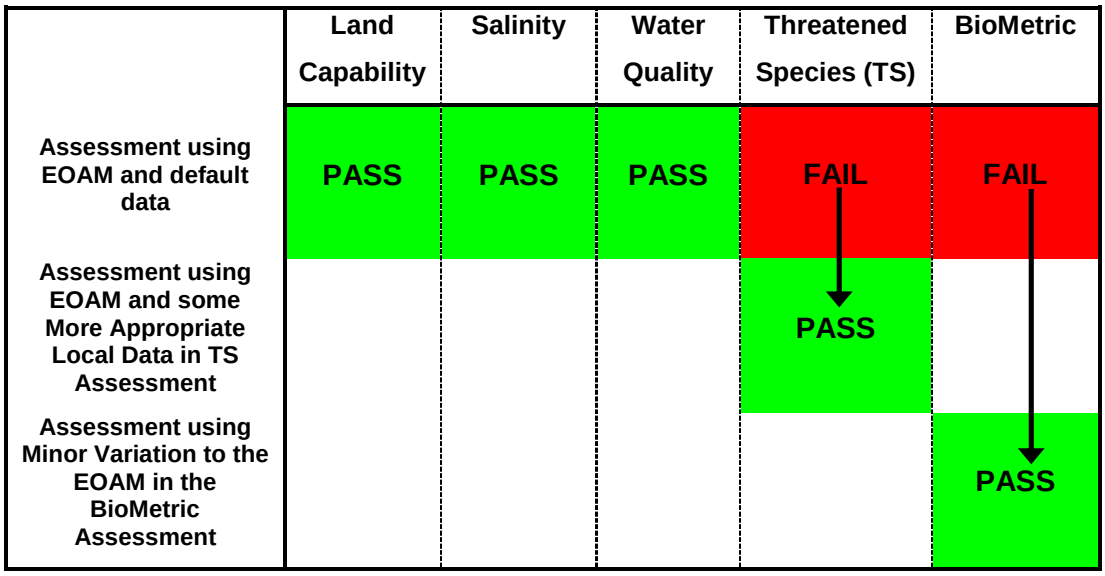
Clause 18 of the Native Vegetation Regulation 2013 prescribes the circumstances in which approval of a PVP that proposes broadscale clearing can be granted. In most cases an assessment and determination of whether the clearing will improve or maintain environmental outcomes is conducted in accordance with the environmental outcomes assessment methodology (Assessment Methodology).

In some circumstances the EOAM 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 EOAM) and/or Special Provisions for Minor Variation (Clause 19 of Native Vegetation Regulation 2013).

In this assessment More Appropriate Local Data has been used to allow for the temporary loss of forage habitat for a threatened fauna species.

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 20321



This reports details the accredited expert's opinions formed in relation to section 2.4.3 of the Assessment Methodology and cl. 19 of the Native Vegetation Regulation 2013 when assessing PVP reference number 20321.

Summary of Chapter 1 – Use of more appropriate local data

Local data that more accurately reflects local conditions is available for the Regent Honeyeater (*Anthochaera phrygia*) with respect to this species ability to sustain a temporary loss of forage habitat.

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 2 – Minor variation to the EOAM

The minor variation is a variation to Chapter 8 of the EOAM which is the *Streamlined Assessment of Certain Vegetation Categories*.

The accredited expert is of the opinion that minor variation to the EOAM (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 of low viability.

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

iii. The proposal includes additional offsets above the minimum requirement that will reconnect 2 isolated remnant patches of vegetation into a local network of connected vegetation.

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

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

3. *INTRODUCTION*

Legislative background

Property vegetation plan (PVP), reference number 20321 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 18 of the Native Vegetation Regulation 2013 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 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 19 of the Native Vegetation Regulation 2013 that the accredited expert is of the opinion that the proposed clearing will improve or maintain environmental outcomes.

The EOAM assesses proposed broadscale clearing using data in approved databases. Section 2.4.3 of the EOAM 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. 19 of the Native Vegetation Regulation 2013 when assessing PVP reference number 20321.

Initial assessment of broadscale clearing proposed by PVP 20321

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 EOAM, using more appropriate local data under section 2.4.3 of the EOAM. If a PVP is approved on the basis of the use of more appropriate local data in the assessment, then clause 18 of the Native Vegetation Regulation 2005 must be complied with.

Section 4 of this document provides information on the use of more appropriate local data under section 2.4.3 of the EOAM in assessing broadscale clearing proposed by this PVP in accordance with clause 18 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 19 of the Native Vegetation Regulation 2005 which details the special provisions for minor variation.

Final assessment of broadscale clearing proposed by PVP 20321 by an accredited expert

The broadscale clearing proposed by PVP 20321 was then assessed and certified by an accredited expert in accordance with clause 19 of the Native Vegetation Regulation 2013. In the accredited expert's opinion, the proposed clearing will improve or maintain environmental outcomes.

Section 5 of this document provides detail of the accredited expert's assessment and certification in accordance with clause 19 of the Native Vegetation Regulation 2013.

4. USE OF MORE APPROPRIATE LOCAL DATA

4.1 Legal provision for the use of more appropriate local data

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

> *1. 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.*
>
> *2. 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;*
>
> *3. The Local Land Services 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.*
>
> *4. After the data is varied the proposal may be reassessed in accordance with clause 18(1) (a) of the Native Vegetation Regulation 2013.*
>
> *5. 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).*
>
> ***Accredited expert** means a person accredited by the Minister as an expert for the purposes of this Chapter Section, being accreditation on the basis of criteria approved by the Minister (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).*

4.2 Description of clearing

The proposal includes the clearing of 2.0 hectares of Poplar Box Grassy Woodland on the Liverpool Plains in moderate to good condition. This patch of vegetation comprised 20 remnant trees in a cultivation paddock. The shrub layer and regeneration was absent, the land in between the trees had been cultivated for many years and the groundcover at the time of the assessment was Lucerne.

The area proposed for offset is:

1. Manage 7.7 ha of Poplar Box Grassy Woodland in moderate to good condition for conservation.

2. Rehabilitate 5.8 ha of paddock trees in cultivation to Poplar Box Grassy Woodland and manage for conservation.
3. Replant 2.9 ha of secondary grassland with trees species consistent with Poplar Box Grassy Woodland.
4. Replant 5.9 ha of cultivation with species consistent with a Poplar Box Grassy Woodland to create a corridor at least 20 metres wide linking two currently isolated remnants with the local vegetation network

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

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

The reason the proposal did not improve or maintain environmental outcomes is because when assessed with the default data the Regent Honeyeater could not sustain any loss of forage habitat that comprises mature Yellow Box (*Eucalyptus melliodora*) and Blakely's Red Gum (*Eucalyptus blakelyi*) in moderate to good condition vegetation. The 2 ha patch of trees to be cleared comprised 20 trees within cultivation and included 3 mature Yellow Box and 1 mature Blakely's Red Gum. The condition of this vegetation patch meets the assessment criteria moderate to good even though the groundcover and midstorey had been cleared and the land between the trees cultivated for many years.

4.4 Description of the use of more appropriate local data

More appropriate local data is available that shows the Regent Honeyeater can sustain the loss of forage habitat comprising 3 mature Yellow Box (*Eucalyptus melliodora*) and 1 Blakely's Red Gum (*Eucalyptus blakelyi*).

Details on the use of more appropriate local data, in both situations, are given below.

4.4.1 Ability to sustain a loss of habitat

The Regent Honeyeater is critically endangered in NSW and endangered nationally. In terms of habitat for the Regent Honeyeater the threatened species profile database states:

- The Regent Honeyeaters habitat is dry open forest and woodland, particularly Box-Ironbark woodland, and riparian forests of River Sheoak.
- The Regent Honeyeater is a generalist forager, which mainly feeds on the nectar from a wide range of eucalypts and mistletoes with the key eucalypt species including Mugga Ironbark, Yellow Box, Blakely's Red Gum, White Box and Swamp Mahogany.
- The known key breeding areas in NSW are the Capertee Valley and Bundarra-Barraba regions.

The Handbook of Australian New Zealand and Antarctic Birds (HANZAB) also says the Regent honeyeater can sometimes be found in vegetated patches containing the key species where they occur as remnant trees or patches in farmland.

A search of the NSW National Parks and Wildlife Service Wildlife Atlas shows the closest sighting of a Regent Honeyeater to the site of the proposed clearing was 15km in a connected remnant patch of vegetation. There were 3 other sightings approximately 35km away in Kaputar National Park and the Pilliga forest.

The clearing proposal is for the removal of 20 trees in an existing cropping paddock which include 3 mature Yellow Box and 1 mature Blakely's Red Gum. The default data does not

allow the loss of any mature Yellow Box (*Eucalyptus melliodora*) or Blakley's Red Gum (*Eucalyptus blakelyi*) because they are key nectar tree species.

The offset area for the proposed clearing of 20 trees in cultivation is 23.7 ha. The offset area will be managed in perpetuity and management includes:

- Managing 7.7 ha of remnant woodland for conservation.
- Rehabilitate 6.4 ha of former cropping land and manage for conservation. Some of the rehabilitation is adjacent to a 7 ha remnant which will increase its size to 12ha.
- Plant 4.7 ha of wildlife corridors in existing cultivation paddock to link two isolated remnant patches of vegetation into a local network of vegetation.
- Encourage regeneration of trees to achieve benchmark density on 4.9 ha of open grassy woodland and manage for conservation.

Tree species to be used as a component of the rehabilitation that are also either key nectar species or known food trees for the Regent Honeyeater include: Yellow Box, Blakley's Red Gum, Rough Barked Apple (*Angophora floribunda*), and River Red Gum (*Eucalyptus camaldulensis*).

Conclusion:

In this case it is considered the Regent Honeyeater can withstand the loss of 4 mature nectar trees. The reasons for this decision are:

- Given the isolation of the clump of trees it is unlikely the 4 trees have been used as a food source for Regent Honeyeaters.
- The loss of the food source is temporary as several hundred food trees are to be planted as part of the offsets.
- An alternate food source exists on the property allowing a feeding opportunity until the revegetation matures sufficiently to be able to be used a food source. This food source is a 3.3 ha patch of woodland dominated by mature Yellow Box.
- The inclusion of vegetated corridors linking the two isolated remnants into a local vegetated network make the area more likely to be utilised by Regent Honeyeaters into the future.

4.5 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).

4.6 Assessment of proposed clearing using more appropriate local data

The use of more appropriate local data resulted in a determination that the proposed clearing improves or maintains environmental outcomes.

- ***REFERENCES:***

NSW National Parks Wildlife Atlas

http://wildlifeatlas.nationalparks.nsw.gov.au/wildlifeatlas/watlas.jsp

Harden, G.J. (ed.) (2002) Flora of New South Wales. Volume 2, Revised Edition. UNSW, Sydney.

Threatened species profile database: - Narrow-leaved Black Peppermint - profile

http://www.environment.nsw.gov.au/threatenedspeciesapp/profile.aspx?id=10302

5. MINOR VARIATION:

5.1 Legal provision for minor variation

The legal provision for this minor variation is in Clause 19 'Special provisions for minor variation' of the Native Vegetation Regulation 2013 which states:

19 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.

5.2 How the Assessment Methodology was varied

The EOAM was varied by replacing the current Chapter 8 - Streamlined Assessment of Certain Vegetation Categories with an updated version that was scientifically reviewed, publically exhibited then revised but not gazetted because of the then imminent review of the Native Vegetation Regulation 2013. Following the recent review of biodiversity legislation and Government's decision to create a new legislative framework it is unlikely any amendments to the EOAM will be gazetted ahead of the new legislation.

The revised version of Chapter 8 used in this assessment is called 'Streamlined Assessment of Very Small Areas and Small Clumps in Cultivation'. The revised chapter and the assessment using this chapter can be found in Appendix 1. A summary of the assessment using this chapter is given below.

Assessment summary:

Definition and area limit:

The vegetation to be cleared meets the definition and area limit of small clumps in cultivation because the vegetation:

- Is approximately 300m from a remnant vegetation patch, and
- Is not within a water body or zone as defined, and
- Is of a type that is 75% cleared, and
- Is completely surrounded by groundcover that is crop, and
- The vegetation is in moderate to good condition and does not exceed 2ha in size.

Improve or maintain Test:

The proposed clearing and offsets improves or maintain environmental outcomes because:

- The vegetation to be cleared meets the definition of a small clump in cultivation, and

- The vegetation does not contain any habitat for threatened species that cannot withstand the loss of that habitat, and
- The proposed broadscale clearing improves or maintains environmental outcomes for the prevention of land degradation, and
- The proposed broadscale clearing improves or maintains environmental outcomes for riparian vegetation management, and
- The offsets as defined have been implemented.

The assessment:

- Condition class:
    - Clearing Site: Low (2 ha)
    - Offset Area Site: Low (10.8 ha)
- Loss of Threatened species:
    - Nil
- Offset area required:
    - Offset area required = Clearing area (2 ha) x Standard offset area ratio (4.0)
    - Offset area required = 8 ha
    - Offset area available = 10.8 ha
- Offset type comparability:
    - The offset site is predicted to support the same suite of threatened species.
    - The offset site is to be rehabilitated to the same vegetation type as that to be cleared.
- Riparian vegetation:
    - The clump to be cleared is not located within a water body or zone as defined.
- Prevention of Land Degradation:
    - The proposal improves or maintains environmental outcomes with respect to the prevention of land degradation.
- Assess salinity impacts:
    - Not applicable as HGL data is not available for the clearing site.
- Management Actions for the offset areas includes:
    - RAMAs use restricted.
    - Retain dead timber
    - Grazing exclusion
    - Weed control
    - Pest animal control
    - Revegetation to achieve benchmark foliage canopy cover percentage
    - Retain all remnant and regrowth native vegetation.

5.3 Description of the proposed clearing

This variation to the assessment methodology relates to the clearing one small clump in a cultivation paddock. The clump comprises 20 trees in a cultivation paddock covering an area

of 2 ha. The midstorey, shrub layer and groundlayer between the trees have been cleared and the groundcover cropped for many years. At the time of the assessment the groundcover comprised Lucerne.

5.4 Description of the proposed offsets

The offset area comprises:

- Managing 7.7 ha of remnant woodland for conservation.
- Rehabilitate 6.4 ha of former cropping land and manage for conservation. Some of the rehabilitation is adjacent to a 7 ha remnant which will increase its size to 12ha.
- Plant 4.7 ha of wildlife corridors in existing cultivation paddock to link two isolated remnant patches of vegetation into a local network of vegetation.
- Encourage regeneration of trees to achieve benchmark density on 4.9 ha of open grassy woodland and manage for conservation.

The management actions in the offset areas include:

- RAMAs use restricted.
- Retain dead timber
- Grazing exclusion
- Weed control
- Pest animal control
- Revegetation to achieve benchmark foliage canopy cover percentage
- Retain all remnant and regrowth native vegetation.

5.5 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 clump did not pass the filter criteria even though the vegetation to be cleared comprises a 2 ha patch of 20 trees in cultivation where the midstorey has been cleared and the groundcover cropped for many years. The updated Chapter 8 used in this assessment has been scientifically reviewed, placed on public exhibition then revised. The only reason it was not gazetted was the then imminent revision of the Native Vegetation Regulation 2013. The assessment using the scientifically reviewed, publically exhibited and revised chapter 8 determined the clearing and proposed offsets did improve or maintain environmental outcomes.

As accredited expert I am of the opinion that minor variation to the Assessment Methodology (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:

a) The vegetation to be cleared is of low viability.

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

c) The proposal includes additional offsets above the minimum requirement that will reconnect 2 isolated remnant patches of vegetation into a local network of connected vegetation.

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

e) The scientifically reviewed, publically exhibited and revised chapter 8 used to assess the proposed clearing is a fairer more balanced assessment.

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

5.3 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.

APPENDIX 1: UPDATED CHAPTER 8 - STREAMLINED ASSESSMENT OF VERY SMALL AREAS AND SMALL CLUMPS IN CULTIVATION

Note: *In the scientifically reviewed, publically exhibited and revised EOAM this Chapter was number 7*

The clearing of very small areas and small clumps in cultivation is considered to be relatively low risk and has predictable offset requirements. Consequently a streamlined assessment method has been developed for the clearing of very small areas and small clumps in cultivation.

a. DEFINITION OF SMALL CLUMPS IN CULTIVATION

Vegetation falls within this category if:

1. a) it is greater than 100 m from remnant vegetation >2 ha in area, and

   b) it is not within a water body as defined in Chapter 11 or within zone A defined in Table 11.2, 11.3 or 11.4, and

   c) the vegetation type is not greater than 90% cleared, and

   d) the vegetation is completely surrounded by groundcover that is either crop, ploughed, fallow or almost exclusively perennial or annual exotic pasture (90% or more of cover is exotic species).

AND

2. it is smaller than or equal to the size limits defined in table 7.1 below.

Table 0.1: Area limits for small clumps in cultivation

	Vegetation condition		
	Low condition	**Moderate or good and is not an EEC**	**Moderate or good and is an EEC**
Individual clump clearing threshold	4 ha	2 ha	0.5 ha
Cumulative threshold	unlimited	unlimited	Unlimited

Assessment Summary: *The vegetation to be cleared meets the definition and area limits clumps in cultivation.*

b. DEFINITION OF VERY SMALL AREAS

Vegetation falls within this category if:

1. it is within or connected to intact vegetation

   AND

2. it is smaller than or equal to the size limits defined in table 7.2 below.

Table 0.2: Area limits for very small areas

	Veg type < 70% cleared and not EEC			**Veg type > 70% cleared or is EEC**		
	Low condition	**Moderate or good condition**		**Low condition**	**Moderate or good condition and not an EEC**	**Moderate or good condition and is an EEC**
Individual clump or patch clearing threshold	4 ha	2 ha		2 ha	1 ha	0.5 ha
Cumulative threshold	4 ha	2 ha		2 ha	1 ha	0.5 ha

Condition category is defined according to Section 7.4.3

Very small areas of vegetation can be contiguous with other native vegetation.

A clearing proposal may have vegetation in more than one of the above categories, however the vegetation cannot exceed the limits for any individual category (combination of vegetation condition and percent cleared or EEC status) and the total area of vegetation to be cleared cannot exceed 5 ha of vegetation not in low condition and 10 ha total amount of vegetation per landholding.

Any vegetation that does not meet this definition of very small areas or small clumps in cultivation cannot be assessed using the streamlined assessment method in this Chapter.

Note: Example of determination of whether a proposal meets the definition of very small areas where there are multiple zones of different percent cleared and vegetation condition:

Scenario: A landholder proposes to clear about 7 ha as follows:

Zone 1: 1.9 ha is in low condition, the vegetation type 65% cleared in the CMA Area and the vegetation is an EEC

Zone 2: 3 ha is in low condition, the vegetation type is 45% cleared in the CMA Area and the vegetation is not an EEC

Zone 3: 2ha is not in low condition and the vegetation type is 25% cleared in the CMA Area.

Interpretation:

Zone 1 satisfies the limit for EEC in low condition (Column 4), and is therefore within the limits of very small areas.

Zone 2 satisfies the limit for veg type less than 70% cleared and in low condition (column 2) and the total area of zone 1 and 2 do not exceed 10 ha of vegetation in low condition.

Zone 3 satisfies the limit for intact vegetation that is in Moderate or Good condition. And the total area or zones 1, 2 and 3 does not exceed 10ha and the total area of vegetation not in low condition does not exceed 5 ha.

Therefore the total proposal meets the definition of very small areas.

C. IMPROVE OR MAINTAIN TEST FOR VERY SMALL AREAS AND SMALL CLUMPS IN CULTIVATION

Proposed broadscale clearing of very small areas and/or small clumps in cultivation is to be regarded as improving or maintaining environmental outcomes if:

1. The vegetation meets the definition of very small areas (as defined in Section 7.1.1 above) or small clumps in cultivation (as defined in Section 7.1.2 above)

   AND

2. the vegetation to be cleared does not contain any habitat for threatened species that cannot withstand loss of that habitat.

   AND

3. the proposed broadscale clearing improves or maintains environmental outcomes under Chapter 12 (Prevention of land degradation)

   AND

4. the proposed broadscale clearing improves or maintains environmental outcomes under Chapter 11 (Riparian vegetation management)

   AND

5. if the vegetation to be cleared is a very small area as defined in section 7.1.2 and it is in an area for which hydrogeological landscape (HGL) data is available, the proposed clearing improves or maintains environmental outcomes under chapter 13 – Prevention of Salinity

AND

6. Offsets as defined in section 7.3 are implemented

d. ASSESSMENT PROCESS FOR VERY SMALL AREAS AND SMALL CLUMPS IN CULTIVATION

A guide to the assessment process for very small areas and small clumps in cultivation is set out in Figure 7.3. Where appropriate the accredited assessor (Level 2a) may undertake the assessment in a different order.

FIGURE

Figure 0.1: Assessment process for very small areas and small clumps in cultivation

The assessment of very small areas and/or small clumps in cultivation is undertaken in accordance with the requirements summarised in Table 7.3 below.

Table 0.3: Summary of assessment requirements for very small areas and small clumps in cultivation compared with assessment requirements in Chapters 11 to 14 of this EOAM

Component of EOAM		**Assessment and offset requirement**
Riparian vegetation management (Chapter 11)		Clearing of very small areas and small clumps in cultivation requires assessment under Chapter 7 (Riparian vegetation management).
Prevention of land degradation (Chapter 12)		Assessment of land degradation in accordance with Chapter 8 is required.
Prevention of salinity (Chapter 13)		Salinity assessment is not required for proposals to clear very small areas or small clumps in cultivation if hydrogeological landscape (HGL) data is not available for the area. This is because very small areas and small clumps in cultivation will, in most circumstances, have negligible impact on dryland salinity. Where HGL data is available salinity is assessed according to Salinity Assessment Method 1 in Chapter 13.
Biodiversity (Chapter 14)	Site and Site Value Assessment	Condition class of the vegetation on both the clearing and the offset sites is assessed visually for each of the ten condition variables set out in Table 7.4. For each variable a score of 3, 2, 1, or 0 is given based on the visual assessment of that variable on site. These results are weighted and then summed to give a total score for the site.
	Landscape Value assessment	Assessment of Landscape Value (Section 14.2.6) is not required because the clearing of very small areas and small clumps in cultivation will in most cases have negligible impact on Landscape Value.

Component of EOAM		Assessment and offset requirement
	Calculation of ecosystem credits	A simplified ecosystem credit calculation as outlined in the Appendix to Chapter 6 is undertaken to determine loss on the clearing site and credits generated on the offset site.
	Threatened species assessed for species credits	Clearing sites are assessed to determine the presence of any important habitat for threatened species that cannot withstand loss of that habitat.
Offset requirements		The offset requirements for the clearing of very small areas and small clumps in cultivation are as defined for each of the assessments outlined above.

Determine the vegetation type and map vegetation zones

A vegetation zone is mapped for each different vegetation type within the area proposed to be cleared, except if this will create a vegetation zone that is less than 0.25 ha in area. Any area of a vegetation type that is less than 0.25 ha should be added into the next most similar vegetation zone. If the total area of the clearing proposal is less than 0.25 ha then just one vegetation zone should be used and the vegetation type that is most dominant in the clearing area should be assigned to the vegetation zone.

The vegetation type is determined from the Vegetation Types Database.

Check the vegetation in the zones meets the definition of very small areas or small clumps in cultivation

Very small areas are defined in Section 7.1.1 and small clumps in cultivation are defined in Section 7.1.2. Any vegetation that does not meet the definition of either very small areas or small clumps in cultivation cannot be assessed using this streamlined assessment method.

Determine the condition class of the vegetation

Condition class for each vegetation zone is determined on both the clearing and the offset sites. This can be done using plots or may be assessed visually (rather than by data collected from transects/plots) for each of the ten site attributes set out in Table 7.6 below. For each site attribute, a score of 3, 2, 1, or 0 is given based on the plot data collected or a visual assessment of that site attribute for the vegetation zone. These results are then used to calculate the Site Value score according to Equation 7.1.

Equation 0.1: Determining the current site value score for a vegetation zone at the proposed clearing and proposed offset site

$$SV_c = \frac{\left(\sum_{i=a}^{j}(a_i w_i) - 5\left|(a_a a_g) - (a_b a_f) - (a_d a_j) - (a_e a_c)\right|\right) \times 100}{c}$$

Where

SV_C is the current Site Value score of the vegetation zone

a_v is the attribute score for the vth site attribute (a–j) as defined in Table 7.4

a_k is equal to $(a_d + a_e + a_f)/3$, the average score for attributes d, e and f

w_v is the weighting for the vth site attribute (a–j) as defined in Table 7.4

c is the maximum score that can be obtained given the attributes a–j that occur in the vegetation type when in benchmark condition (the maximum score varies depending on which attributes occur in the vegetation type under assessment).

Table 0.4: Scoring and weighting of the site attributes to determine the site value score

Site attribute		**Site attribute score (see notes below)**				**Weighting for site attribute score**
		0	**1**	**2**	**3**	
a)	Native plant species richness	0 – 10%	>10 – <50% of benchmark	50 – <100% of benchmark	≥ benchmark	25
b)	Native over-storey cover	0 – 10% or >200% of benchmark	> 10 – <50% or >150 – 200% of benchmark	50 – <100% or >100 – 150% of benchmark	within benchmark	10
c)	Native mid-storey cover	0 – 10% or >200% of benchmark	>10 – <50% or >150 – 200% of benchmark	50 – <100% or >100 – 150% of benchmark	within benchmark	10
d)	Native groundcover (grasses)	0 – 10% or >200% of benchmark	>10 – <50% or >150 – 200% of benchmark	50 – <100% or >100 – 150% of benchmark	within benchmark	2.5
e)	Native groundcover (shrubs)	0 – 10% or >200% of	>10 – <50% or >150 –	50 – <100% or >100 –	within benchmark	2.5

		benchmark	200% of benchmark	150% of benchmark		
f)	Native groundcover (other)	0 – 10% or >200% of benchmark	>10 – <50% or >150 – 200% of benchmark	50 – <100% or >100 – 150% of benchmark	within benchmark	2.5
g)	Exotic plant cover (calculated as percentage of total ground and mid-storey cover)	>66%	>33 – 66%	>5 – 33%	0 – 5%	5
h)	Number of trees with hollows	0 (unless benchmark includes 0)	>0 – <50% of benchmark	50 – <100% of benchmark	≥ benchmark	20
i)	Proportion of over-storey species occurring as regeneration	0	>0 – <50%	50 – <100%	100%	12.5
j)	Total length of fallen logs	0–10% of benchmark	>10 – <50% of benchmark	50 – <100% of benchmark	≥ benchmark	10

In this table:

'within benchmark' means a measurement that is within and including the range of measurement for attributes that are assessed by percent foliage cover, or equal to/or greater than the number for attributes assessed by a number or length that is identified as the benchmark that vegetation type

'<benchmark' means a measurement that is less than the minimum measurement in the benchmark range

'> benchmark' means a measurement that is greater than the maximum measurement in the benchmark range.

Vegetation condition is classified as being in high, medium or low condition depending on the Site Value score. These categories are based on the upper and lower site value thresholds shown in Table 7.5.

Table 0.5: Upper and lower thresholds for high, medium and low vegetation condition classes

Condition class	Lower site value threshold for class	Upper site value threshold for class
High	>60	100
Medium	>34	60
Low	0	34

Assess the presence of any important habitat for threatened species that cannot withstand loss

The threatened species that are predicted to occur on the clearing site are determined from the Threatened Species Profile Database (TSPD) based on:

- vegetation type
- vegetation condition
- patch size
- fragmentation, and
- CMA subregion.

The suite of threatened species that is predicted to occur is then filtered to determine the list of species that cannot withstand loss.

Each of the vegetation zones within the very small areas and/or the small clumps in cultivation clearing proposal are visually assessed in the field to determine whether they contain the habitat component or habitat feature for any threatened species that cannot withstand loss using data from the TSPD.

Very small areas and small clumps in cultivation cannot be cleared if threatened species that cannot withstand loss are predicted to be present and the habitat component or habitat feature is also present.

Calculating the area of offset required

The offset area required depends on:

- the area of vegetation being cleared
- the condition class of the vegetation being cleared, and
- the condition class of the vegetation in the offset area.

As such,

Offset area required = clearing area x standard offset ratio

Where:

Clearing area = area of the clearing (ha). The clearing area for vegetation of the same type and condition can be summed when calculating the offset area required.

Standard offset ratio = relevant condition category of clearing and offset type from Table 7.7 below.

The standard S_{loss} and S_{gain} (See Appendix to Chapter 6) allow the calculation of the range of offset ratios that will occur for different combinations of vegetation condition being lost and gained. These ratios are shown in Table 7.6 below.

Table 0.6: Standard offset ratios for small area clearing proposals

		Clearing vegetation condition		
		Low	**Medium**	**High**
Offset vegetation condition	**Low**	4.0	6.5	8.8
	Medium or High	3.0	4.9	6.7

Determining the type of offset required

The offset vegetation type must meet the following requirements:

1. the offset sites must be predicted to support the same suite of threatened species that is predicted to occur on the clearing site

AND

2. at least 50% of the total offset area must be of a vegetation type that has an equal or greater percent cleared in the CMA area than the vegetation to be cleared, or

3. where the vegetation type proposed for clearing is less than or equal to 70% cleared in the CMA area, offsets may be in vegetation types with percent cleared values up to 10% lower than the vegetation proposed for clearing, or

4. where the vegetation type proposed for clearing is less than or equal to 30% cleared in the CMA area, offsets may be in vegetation types with percent cleared values up to 30% lower than the vegetation proposed for clearing.

Assess the proposal under Chapter 11 (Riparian vegetation management)

All proposals to clear a very small area and/or small clumps in cultivation must be assessed in accordance with Chapter 11 (Riparian vegetation management).

Assess the proposal under Chapter 12 (Prevention of land degradation)

All proposals to clear a very small area and/or small clumps in cultivation must improve or maintain environmental outcomes under Chapter 12 (Prevention of land degradation),

Assess salinity impacts if HGL data is available for the clearing site

Salinity assessment is only undertaken for proposals to clear very small areas and only if hydrogeological landscape (HGL) data is available for the area. Where HGL data is available salinity is assessed according to Salinity Assessment Method 1 in Chapter 13 (Prevention of salinity).

Define and apply management actions in a PVP

Management actions required for offsets differ from site to site and between the existing vegetation and revegetation components of the offset. Standard management actions must be applied to all offset sites, where relevant. Other management actions may be required depending on the condition of the site and the likelihood that natural regeneration will occur.

The management actions are specified in the Streamlined Assessment Management Actions Database (SAMA Database). The database may also specify circumstances when the management actions must be applied and specific requirements for applying each management action.

The offset area and management actions must be clearly defined in the PVP to ensure the environmental gains will be achieved.

Note:

The following set of standard management actions may be required on sites used to offset clearing of very small areas and small clumps in cultivation.

Clearing and Development

At least x % (default = 20%) of any trees greater than 30cm DBHOB being cleared must be relocated as log habitat to the offset area (revegetation or remnant) to provide biodiversity habitat for flora and fauna. Each hectare of the offset area must contain a similar density of logs and logs should be isolated from each other in order to reduce the potential for feral herbivore harbours.

Standard management actions

Retention of regrowth and remnant native vegetation (provision may be made in the PVP to allow thinning of regrowth or remnant vegetation in offset areas to benchmark stem densities where dense regeneration occurs in the offset area)

Minimise human disturbance

Grazing management: the default grazing management is grazing exclusion however wherever a strategic livestock grazing regime provides a better biodiversity outcome, then a strategic livestock grazing management action should be used.

Retention of all dead timber (standing and fallen)

Weed control

Erosion control

Replanting and/or supplementary planting of native over-storey species or native mid-storey species where natural regeneration will not be sufficient to achieve benchmark cover

Replanting and/or supplementary planting of native groundcover where natural regeneration will not be sufficient to achieve 70% groundcover

Retention of rocks

Management of fire for conservation (or fire exclusion); the PVP must define the appropriate fire regime for the offset area

Exclusion of all routine agricultural management actions except routine agricultural management actions for:

- the control of feral native species
- the control of noxious weeds
- the control of noxious animals
- traditional cultural activities
- maintenance of public utilities

- operation and maintenance (but not construction) of rural infrastructure, and
- imminent risk of serious injury or damage

Note to reader:

The principles highlighted above (*in italic burgundy text*) have not been properly defined at this stage. These principles are provided here as an initial indication of what we anticipate will be included. These principles will be further defined with expert input and public comment following the public consultation process.

Appendix to Chapter 7

Calculate the site value loss on the clearing site

Loss for each vegetation zone on the clearing site is calculated based on the area of the vegetation zone and the condition category of the vegetation within the zone.

A standard loss per hectare is defined for each zone based on the vegetation condition category of the vegetation being cleared as shown below in Table 7.8.

Table 0.7: Standard loss in site value for each category

Vegetation condition category	Standard loss in Site Value per hectare
High	75
Medium	55
Low	34

A standard species offset multiplier of 4 is applied to calculate the number of ecosystem credits required according to Equation 7.5.

Equation 0.2: Ecosystem credits required to offset the clearing

Ecosystem credits required = $S_{loss\ std}$ x species offset multiplier x clearing area

Where:

Ecosystem credits required = the loss on the clearing site expressed as the number of ecosystem credits required to offset the clearing

$S_{loss\ std}$ = the loss in Site Value based on vegetation condition (high, medium or low from Table 7.8 above)

Species offset multiplier = 1/Tg = 1/0.25 where a standard Tg is used. A Tg of 0.33 may be used in the circumstances outlined below

Clearing area = area of the clearing (ha)

The species offset multiplier is set at 4 (equals 1/Tg where the standard Tg value is 0.25) to make allowance for species credit species not being assessed and offset.

However, an accredited assessor (Level 2a) may determine that a Tg value of 0.33 may be used instead of 0.25 where an assessment of species credits is undertaken in accordance with Section 10.3.3 and the required species credits are offset in conjunction with or additional to the ecosystem credits required to offset the proposal.

Note:

In practice, this means that if there are no species credit species to be assessed, the Tg can be changed to 0.33 and therefore the species offset multiplier changed to 3 instead of 4.

Determine number of ecosystem credits created by the offset site

Gain at the offset site is calculated based on the area of the proposed offset and the condition category of the vegetation. Gain is defined in terms of the number of ecosystem credits generated at the offset site.

A standard gain Site Value score is defined based on the vegetation condition category of the vegetation in the proposed offset.

Table 0.8: Standard site value gains on the offset site

Vegetation condition category	Standard gain site value
High	36
Medium	45
Low	34

Equation 0.3: Ecosystem credits generated by the offset site

Credits generated at the offset site = $S_{gain\ std}$ x offset area

Where:

$S_{gain\ std}$ = the standard gain in Site Value based on vegetation condition (high, medium or low from Table 7.9 above)

Offset area = area of the offset (ha).

Standard offset ratios for clearing of very small areas and small clumps in cultivation

To improve or maintain environmental outcomes for biodiversity values the number of ecosystem credits generated at the offset site (as determined by Equation 7.6) must be equal to or greater than the number of ecosystem credits required to offset the clearing (the loss) (as determined by Equation 7.5). Combining Equation 7.5 and 7.6 allows the calculation of the size of the offset area required to offset the proposed clearing.

The acquisition and retirement of biodiversity credits from the biodiversity register established under Part 7A of the TSC Act may be used to offset the impacts of clearing assessed under the *Native Vegetation Act 2003*.

Note to reader:

The TSC Act will require amendments to permit the use of biodiversity credits created under the NSW Biodiversity Banking and Offsets Scheme to offset the impacts of clearing under the *Native Vegetation Act 2003*. However, this provision has been included here for public exhibition to invite comments and feedback from the community in relation to this provision.

Equation 0.4: Area of offset required to offset the clearing

Area of offset required = ($S_{loss\ std}$ x species offset multiplier x clearing area)/ $S_{gain\ std}$

Where:

$S_{loss\ std}$ = the loss in Site Value based on vegetation condition (high, medium or low from Table 7.8 above)

Std species offset multiplier = 1/Tg = 1/0.25 = 4 (standard Tg value of 0.25 is applied for proposals to clear very small areas and small clumps in cultivation)

Clearing area = area of the clearing (ha)

$S_{gain\ std}$ = the standard gain in Site Value based on vegetation condition (High, Medium or Low from Table 7.9 above)

Area of offset required = area of the offset (ha).