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 9142**

Report prepared by: Accredited Expert 30608

PVP reference number: 9142

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EXECUTIVE SUMMARY

This Accredited Expert report relates to the assessment of the clearing proposed by PVP number 9142.

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

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

In some circumstances the EOAM does not adequately allow for the specific and unique circumstances associated with the proposal. In these circumstances the assessment can use More Appropriate Local Data (Section 2.4.3 of the EOAM) 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 adequately account for the substantial and positive habitat increase that will be achieved by implementing management actions specially tailored to the landscape and the threatened species impacted by the proposal.

Special Provisions for Minor Variation have been used to allow for the degraded nature of much 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 9142

	Land Capability	Salinity	Water Quality	Threatened Species (TS)	BioMetric
Assessment using EOAM and default data	PASS	PASS	PASS	FAIL	FAIL
Assessment using EOAM and some More Appropriate Local Data in TS Assessment				PASS	
Assessment using Minor Variation to the EOAM in the BioMetric Assessment					PASS

This reports details the accredited expert's opinions formed in relation to section 2.4.3 of the EOAM and cl. 27 of the Native Vegetation Regulation 2005 when assessing PVP reference number 9142.

Summary of Chapter 1 – Use of more appropriate local data

Local data that more accurately reflects local conditions is available in relation to the threatened species management actions on the offset areas. Two of the standard management actions have been enhanced and as a result of the enhancement and their use in combination with each other and with additional management actions they will very substantially improve the habitat for threatened species. This substantial improvement in

habitat has been reflected in the assessment by including the increased percentage management responses as more appropriate local data.

Supplementary planting and strategic grazing are the management actions that have been enhanced. These have been enhanced by:

- 'Supplementary planting' includes restoration of native grassy groundcover by planting native Curly Mitchell Grass seed across a substantial part of the offset area (2561 ha)

- In a smaller offset area (364 ha), 'supplementary planting' and native grassy groundcover restoration are further enhanced by thinning thick Coolibah/Blackbox Woodland back to benchmark, and

- 'Strategic grazing' includes a requirement for the landholder to maintain a minimum of 40% groundcover in all seasons to maintain the grassy groundcover established by supplementary planting.

Increased percentage management responses are used in the assessments for the Five-clawed Worm-skink, Masked Owl, Striped-faced Dunnart, Superb Parrot, Yellow-bellied Sheathtail Bat, Red-tailed Black Cockatoo, and Coolibah/Blackbox Woodland 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 2 – Minor variation to the EOAM

The minor variation is a variation to the definition of "vegetation in low condition" in section 5.2.2 of the EOAM. 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 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 proposal will have additional conservation benefits at landscape scale. These are additional management actions at landscape scale which will;

- Enhance and maintain native grasslands in all seasons, and

- Control feral predators;

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

iii. Assessment in accordance with the EOAM (as varied and using 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 minor contribution to regional biodiversity values.

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

INTRODUCTION

Legislative background

Property vegetation plan (PVP), reference number 9142 proposes broadscale clearing within the definition of the *Native Vegetation Act 2003*.

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

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

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 EOAM and cl. 27 of the Native Vegetation Regulation 2005 when assessing PVP reference number 9142.

Initial assessment of broadscale clearing proposed by PVP 9142

When the broadscale clearing proposed by this PVP was initially assessed in accordance with the EOAM 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 9142 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 29 of the Native Vegetation Regulation 2005 must be complied with.

Chapter 1 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 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 9142 by an accredited expert

The broadscale clearing proposed by PVP 9142 was then assessed and certified by an accredited expert that, in the accredited expert's opinion, the proposed clearing will improve or maintain environmental outcomes. PVPs that are approved on the basis that an accredited expert has, in accordance with clause 27 of the Native Vegetation Regulation 2005 assessed and certified that in the accredited expert's opinion the proposed clearing will improve or maintain environmental outcomes must comply with clause 29 of the Native Vegetation Regulation 2005.

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

1.0 USE OF MORE APPROPRIATE LOCAL DATA

1.1 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:

> *"Where an assessment of proposed broadscale clearing using the approved databases 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;*
> >
> > *• whether threatened animal species are likely to occur on the land in that vegetation type or habitat feature in the sub region; or*
> >
> > *• 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 habitat amount 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*.

1.2 Description of clearing

The clearing proposed on this property involves two areas. These are:

- Clearing area 1: - 641 ha of highly degraded Coolibah/Blackbox Woodland (Figure 2), and

- Clearing area 2: - One small isolated patch of Coolibah/Blackbox Woodland in a cultivation paddock with an area of 1.2 ha (Figure 3).

1.3 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 management actions in the Threatened Species Profile Database (TSPD) and their associated management response estimates did not adequately account for the substantial improvements to habitat that can be achieved in the offset areas for some of the threatened species.

1.4 Description of the use of more appropriate local data

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 enhanced management actions on the offset areas

substantially increasing habitat areas for threatened species. Two of the standard management actions have been enhanced and as a result of the enhancement and their use in combination with each other and with additional management actions they will very substantially improve the habitat for threatened species. This substantial improvement in habitat has been reflected in the assessment by using the increased percentage management responses as more appropriate local data. Supplementary planting and strategic grazing are the management actions that have been enhanced. These have been enhanced by:

- 'Supplementary planting' includes restoration of native grassy groundcover by planting native Curly Mitchell Grass seed across a substantial part of the offset area (2561 ha);

- In a smaller offset area (364 ha), 'Supplementary planting' includes restoration of native grassy groundcover by planting native Curly Mitchell Grass seed and thinning thick Coolibah/Blackbox Woodland back to benchmark; and

- 'Strategic grazing' includes a requirement for the landholder to maintain a minimum of 40% groundcover in all seasons to maintain the grassy groundcover established by supplementary planting.

More appropriate local data for percentage increases in response to management actions are used in the assessment for the Five-clawed Worm-skink, Masked Owl, Striped-faced Dunnart, Superb Parrot, Yellow-bellied Sheathtail Bat, Red-tailed Black Cookatoo, and Coolibah/Blackbox Woodland in the offset area (see Table 1).

Using the enhanced 'Supplementary planting' management action combined with the enhanced 'Strategic grazing' management action will substantially and quickly improve the condition of Coolibah/Blackbox Woodlands by bringing the groundcover benchmark variables back into benchmark range. This is illustrated in Figure 4 (groundcover before) and Figure 5 (groundcover after). These improvements to the native groundcover will result in an improvement to breeding, foraging and/or roosting habitat for the threatened fauna. The percentage increases in threatened species populations from the improved habitat resulting from the enhanced management actions are shown in Table 1.

Some of the offset area (364 ha) on this property consists of thick Coolibah/Black Box stems (Figure 6) well above benchmark levels. These areas have native groundcover levels well below benchmark levels because of competition from the thick Coolibah/Blackbox stems. Thinning the Coolibah/Blackbox stems to benchmark levels combined with strategic grazing will bring 5 of the 10 condition variables back into benchmark range. The condition variables that will be improved are number of native plant species, native mid-storey cover, native groundcover grasses, native groundcover shrubs and native groundcover other. Improved condition of thick patches of Coolibah/Black Box Woodlands from thinning stems to benchmark levels increases Coolibah/Black Box habitat very substantially (Table 1). The substantial improvement to the amount and diversity of native groundcover from this management will improve breeding, foraging and/or roosting habitat for the threatened fauna (Table 1).

Figure 2: Clearing Area 1: Degraded Coolibah/Blackbox Woodland to be cleared. Canopy and Midstory absent, groundcover dominated by Black Roly Poly.

Figure 3:   Clearing Area 2:   Satellite image (Spot 5) showing a 2.3 ha remnant woodland patch of low viability bisected by a property boundary (grey line) and surrounded by cropping. This proposal is to clear the area edged white (1.2 ha). Note that the part of patch above the grey/white lines (which is on the adjoining property) is being removed (See report for PVP 9121).

Figure 4: An example of degraded open Coolibah/BlackBox woodland that will be restored to benchmark open woodland as a part of the offset.

Figure 5 : An example of what will be achieved in terms of groundcover restoration in the proposed offset areas.

Figure 6 : An example of thick Coolibah and Blackbox stems that will be thinned back to benchmark levels as a part of the offset

1.5 Reason for the use of more appropriate local data

The more appropriate local data more accurately reflects local environmental conditions in relation to the estimated increase in population (threatened species habitat amount) that can be expected in response to the proposed management actions (compared to the data in the approved databases). This is because the default management actions and their associated management responses in the default database (Threatened Species Profile Database) do not reflect the magnitude of the positive changes to threatened species habitat from restoration of native grassy groundcover, strategic grazing and thinning thick Coolibah/Blackbox stems back to benchmark (where required) (for details see Table 1).

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 percentage increases in populations of the threatened species (see Table 1 for relevant species) in the Threatened Species Profile Database did not account for the substantially increased percent responses in their populations with the enhanced management actions and the resulting substantially increased habitat on the offset areas. That is, restoration of native grassy groundcover and thinning thick Coolibah/Blackbox stems as an activity within Supplementary Planting and maintaining minimum groundcover percentages in all seasons within strategic grazing.

1.6 Certification by the accredited expert

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

1.7 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 improved or maintained environmental outcomes in terms of the threatened species assessment. The reason the proposed clearing now improved or maintained environmental

outcomes for threatened species was because there was now sufficient available offset on the property to balance the impact of the clearing. These results are shown in table 2.

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 improved or maintained environmental outcomes.

Table 1: Reasons for increasing the estimated percentage response to Management Action(s). DECC Threatened Species Profiles refers to Department of Environment and Climate Change. (undated) Threatened species profiles.
http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/profile.aspx **The Threatened Species Profile Database (TSPD) is the database in the Threatened Species PVP Assessment Tool.**

Five-clawed Worm-skink	**Management Actions for recovery:** *"Practice sustainable grazing to maintain tussock grass groundcover in areas of known or potential habitat."* (DECC Threatened Species Profile) **Data in Threatened Species Profile Database:** The Threatened Species Profile Database gives an estimate of 1% management response for supplementary planting and 0% for strategic grazing. **More Appropriate Local Data Used:** • 10% combined management response for strategic grazing and native grassy groundcover restoration. • 50% combined management response for native grassy groundcover restoration combined with strategic grazing and thinning coolibah stems to benchmark. **Rationale for more appropriate local data:** • The restoration of the Mitchell Grass grassland (tussock grass groundcover) will create and restore ideal habitat (very greatly improve both extent and condition of habitat) for the Five-clawed Worm-skink, • Implementation of a strategic grazing regime will substantially improve the current grassland and will maintain the restored Mitchell Grass grassland, • Thinning to benchmark stem density will enable the Mitchell Grass grassland to be restored, and • The default estimate for supplementary planting in the TSPD is only for planting of trees or shrubs and does not include the restoration of groundcover.
Masked Owl	**Management Actions for recovery:** *"A combination of grazing and regular burning is a threat, through the effects on the quality of ground cover for mammal prey, particularly in open grassy forests."* (DECC Threatened Species Profile). **Data in Threatened Species Profile Database:** The Threatened Species Profile Database gives an estimate of 1% management response for supplementary planting and 5% for strategic grazing. **More Appropriate Local Data Used:** • The default estimate for strategic grazing (5%) was used and supplementary planting increased to 10% when combining strategic grazing with native grassy groundcover restoration. • The default estimate for strategic grazing (5%) was used and supplementary planting increased to 50% where native grassy groundcover restoration is combined with strategic grazing and thinning to benchmark. **Rationale for more appropriate local data:** • The restoration of the Mitchell Grass grassland substantially improves the quality of ground cover for mammal prey of Masked Owl over large areas. • Implementation of a strategic grazing regime that will substantially improve the current grassland and will maintain the restored Mitchell Grass grassland, • Thinning to benchmark stem density will enable the Mitchell Grass grassland to be restored, and • The default estimate for supplementary planting in the TSPD is only for planting of trees or shrubs and does not include the restoration of groundcover.

Stripe-faced Dunnart	**Management Actions for recovery:** *"Reduce heavy grazing by livestock in areas of potential habitat and Conserve and protect areas of dry shrubland and grassland, especially tussock grasslands which are favoured".* (DECC Threatened Species Profile). **Data in Threatened Species Profile Database:** The Threatened Species Profile Database gives an estimate of 1% management response for supplementary planting and 3% for strategic grazing. **More Appropriate Local Data Used:** • Strategic grazing was increased to 5% and supplementary planting increased to 10% when combining strategic grazing and native grassy groundcover restoration. • Strategic grazing was increased to 10% and supplementary planting increased to 50% where native grassy groundcover restoration is combined with strategic grazing and thinning to benchmark. **Rationale for more appropriate local data:** • The restoration of the Mitchell Grass grassland (tussock grassland) will very greatly improve habitat for this species. • Implementation of a strategic grazing regime that will greatly improve the current grassland and will maintain the restored Mitchell Grass grassland, • Thinning stems to benchmark density will enable the Mitchell Grass grassland to be restored, and • The default estimate for supplementary planting in the TSPD is only for planting of trees or shrubs and does not include the restoration of groundcover.
Superb Parrot	**Management Actions for recovery:** *Superb Parrot is not known to breed in the Namoi Catchment. Feeds in canopy, midstorey and often on the ground in bare areas or among groundcover especially native grasses.* - (DECC Threatened Species Profile). - Higgins, P. J. (ed) Handbook of Australian, New Zealand and Antarctic Birds. Vol 4. Parrots to Dollarbird. Oxford University Press, Melbourne Data in Threatened Species Profile Database: The Threatened Species Profile Database gives estimate of 5% management response for supplementary planting and 5% for strategic grazing. **More Appropriate Local Data Used:** • The default estimates for strategic grazing and supplementary planting estimates were not changed when combining strategic grazing and native grassy groundcover restoration. • Strategic grazing was increased to 10% and supplementary planting increased to 50% where native grassy groundcover restoration is combined with strategic grazing and thinning to benchmark. **Rationale for more appropriate local data:** • The restoration of the Mitchell Grass grassland which will considerably increase extent and quality of feeding habitat for this species. • Implementation of a strategic grazing regime that will substantially improve the current grassland and maintain the restored Mitchell Grass grassland, • Thinning stems to benchmark density will enable the Mitchell Grass grassland to be restored, and • The default estimate for supplementary planting in the TSPD is only for planting of trees or shrubs and does not include the restoration of groundcover.
Yellow-bellied Sheathtail Bat	**Management Actions for recovery:** *"Encourage regeneration and replanting of local flora species to maintain bat*

	foraging habitat".. (DECC Threatened Species Profile).
	Data in Threatened Species Profile Database:
	The Threatened Species Profile Database gives an estimate of 2% management response for supplementary planting and 2% for strategic grazing.
	More Appropriate Local Data Used:
	• Strategic grazing was increased to 5% and supplementary planting was unchanged at 2% when combining strategic grazing and native grassy groundcover restoration.
	• Strategic grazing was increased to 5% and supplementary planting increased to 10% where native grassy groundcover restoration is combined with strategic grazing and thinning to benchmark.
	Rationale for more appropriate local data:
	• The restoration of the Mitchell Grass grassland will increase extent and quality of foraging habitat for this species,
	• Implementation of a strategic grazing regime that will substantially improve the current grassland and maintain the restored Mitchell Grass grassland,
	• Thinning to benchmark stem density will enable the Mitchell Grass grassland to be restored, and
	• The default estimate for supplementary planting in the TSPD is only for planting of trees or shrubs and does not include the restoration of groundcover.
Red-tailed Black-Cockatoo	**Management Actions for recovery:** *Prevent overgrazing in areas of habitat which prevents regeneration of food resources for cockatoos. While in inland mostly feeds on the ground.* - *(DECC Threatened Species Profile).* - Higgins, P. J. (ed) Handbook of Australian, New Zealand and Antarctic Birds. Vol 4. Parrots to Dollarbird. Oxford University Press, Melbourne
	Data in Threatened Species Profile Database:
	The Threatened Species Profile Database gives estimate of 2% management response for supplementary planting and 2% for strategic grazing.
	More Appropriate Local Data Used:
	• Strategic grazing was increased to 10% and supplementary planting increased to 50% where native grassy groundcover restoration is combined with strategic grazing and thinning to benchmark.
	Rationale for more appropriate local data:
	• The restoration of the Mitchell Grass grassland will substantially improve food resources for this species,
	• Implementation of a strategic grazing regime that will substantially improve the current grassland and maintain the restored Mitchell Grass grassland,
	• Thinning to benchmark stem density will enable the Mitchell Grass grassland to be restored, and
	• The default estimate for supplementary planting in the TSPD is only for planting of trees or shrubs and does not include the restoration of groundcover.
Coolibah Black Box Woodland	**Management Actions for recovery:** *"Reduce stock intensity of, or exclude grazing in, grasslands and wetlands to allow regeneration of vegetation for fauna habitat, such as food sources or nest sites."* - (DECC Threatened Species Profile).
	- Benchmark Data. Benchmarks are quantitative measures of condition attributes (stem density) of vegetation type/ecological communities in their relatively natural

	state.
	Data in Threatened Species Profile Database: The Threatened Species Profile Database gives estimate of 1% management response for supplementary planting and 5% for strategic grazing. **More Appropriate Local Data Used:** • Strategic grazing was unchanged at 5% and supplementary planting increased to 10% when combining strategic grazing and native grassy groundcover restoration. • Strategic grazing was unchanged at 5% and supplementary planting increased to 50% where native grassy groundcover restoration is combined with strategic grazing and thinning to benchmark. **Rationale for more appropriate local data:** • The restoration of the Mitchell Grass grassland will restore a key structural, functional and compositional element of this ecological community, • The implementation of a strategic grazing regime will improve the current grassland in the ecological community and maintain the restored Mitchell Grass grassland, • Thinning to benchmark stem density will enable the Mitchell Grass grassland to be restored, and • The default estimate for supplementary planting in the TSPD is only for planting of trees or shrubs and does not include the restoration of groundcover.

Table 2: Summary Threatened Species Assessment for Clearing Area 1.

Species Common Name	Total Habitat Loss (ha)	Offset Area Zone 1 (ha)	Offset Area Zone 2 (ha)	Assessment using default data						Assessment using more appropriate local data					
				Total Management response for all actions		Total Gain				Total Management response for all actions		Total Gain			
				Offset Area Zone 1 (%)	Offset Area Zone 2 (%)	Offset Area Zone 1 (ha)	Offset Area Zone 2 (ha)	Combined Offset Area (ha)	Nett Gain (ha)	Offset Area Zone 1 (%)	Offset Area Zone 2 (%)	Offset Area Zone 1 (ha)	Offset Area Zone 2 (ha)	Offset Area (ha)	Nett Gain (ha)
Five-clawed Worm-skink	642	2561	364	8	8	205	29.1	234	-408	17	57	435	208	643	1
Pink Cockatoo	642	2561	364	23	23	589	83.8	673	30.8	23	23	589	83.8	673	30.8
Red-tailed Black-Cockatoo	642	2561	364	20	20	512	72.9	585	-57	20	76	512	277	789	147
Little Pied Bat	250	2561	364	18	18	461	65.6	527	277	18	18	461	65.6	527	277
Coolibah-Black Box woodland	642	2561	364	8	8	205	29.1	234	-408	17	57	435	208	643	1
Black-breasted Buzzard	642	2561	364	28	28	717	102	819	177	28	28	717	102	819	177
Pale-headed Snake	250	2561	364	13	13	333	47.4	380	130	13	13	333	47.4	380	130
Square-tailed Kite	250	2561	364	33	33	845	120	965	715	33	33	845	120	965	715
Hooded Robin	200	2561	364	16	16	410	58.3	468	268	16	16	410	58.3	468	268

Species Common Name	Assessment using default data									Assessment using more appropriate local data					
	Total Habitat Loss (ha)	Offset Area Zone 1 (ha)	Offset Area Zone 2 (ha)	Total Management response for all actions		Total Gain			Nett Gain (ha)	Total Management response for all actions		Total Gain			Nett Gain (ha)
				Offset Area Zone 1 (%)	Offset Area Zone 2 (%)	Offset Area Zone 1 (ha)	Offset Area Zone 2 (ha)	Combined Offset Area (ha)		Offset Area Zone 1 (%)	Offset Area Zone 2 (%)	Offset Area Zone 1 (ha)	Offset Area Zone 2 (ha)	Offset Area (ha)	
(S.East form)															
Barking Owl	140	2561	364	15	15	384	54.6	439	299	15	15	384	54.6	439	299
Koala	250	2561	364	11	11	282	40.1	322	71.8	11	11	282	40.1	322	71.8
Superb Parrot	642	2561	364	16	16	410	58.3	468	-174	16	66	410	241	650	8.2
Grey-crowned Babbler (east subsp.)	200	2561	364	25	25	640	91.1	731	531	25	25	640	91	731	531
Yellow-bellied Sheathtail-bat	642	2561	364	20	20	512	72.9	585	-57	23	31	589	113	702	59.9
Stripe-faced Dunnart	642	2561	364	7	7	179	25.5	205	-437	18	63	461	230	691	48.5
Masked Owl	642	2561	364	9	9	231	32.8	263	-379	18	58	461	211	672	30.2

2.0 MINOR VARIATION: CLASSIFICATION OF CONDITION OF VEGETATION.

2.1   Legal provision for minor variation

The legal provision for this minor variation is 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 "*

2.2   How the EOAM was varied

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

> *"Vegetation in low condition is defined as follows:*
>
> *• Native woody vegetation with an:*
>
> > *1. over-storey per cent foliage cover <25% of the lower value of the over-storey percent foliage cover benchmark for that vegetation type; and*
> > *2. <50% of vegetation in the ground layer is indigenous species; or*
> > *3. >90% is ploughed or fallow."*

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

> *"Vegetation in low condition is defined as follows:*
>
> *• Native woody vegetation with an:*
>
> > *1. over-storey per cent foliage cover <25% of the lower value of the over-storey per cent foliage cover benchmark for that vegetation type; and*
> > *2. <50% of vegetation in the ground layer is indigenous species; or*
> > *3. >90% is ploughed or fallow;*
> > *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 EOAM. 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 one

small patch of vegetation surrounded by cropping and the condition of the areas of Coolibah/Blackbox Woodland to be cleared are substantially degraded resulting in loss of or reduced viability .

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 EOAM (unvaried) is considered unreasonable and unnecessary because in this case:

(i) the vegetation to be cleared is of low viability because it is either highly degraded or it is a small area 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.

2.3   Certification by the accredited expert

As an accredited expert I am of the opinion that:

a) The minor variation to the Environmental Outcomes Assessment Methodology (EOAM) 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.

2.4   Description of the proposed clearing

The proposed clearing for which this variation applies includes;

1. 641 ha of highly degraded Coolibah/Blackbox Woodland (Figure 2), and
2. 1.2 ha patch of Coolibah/Blackbox Woodland surrounded by cropping (Figure 3).

2.5   Description of the proposed offsets

A total of 2925 ha will be managed as offsets. The offset management actions include;

- strategic stock grazing specifically designed to improve native groundcover and encourage regeneration of trees in open areas,
- restoring grassy native groundcover (Supplementary planting),
- thinning thick Coolibah and Blackbox stems back to benchmark density,
- feral herbivore control,
- control feral pigs,
- retention of all dead timber, and

- exclusion of fire.

Figure 5 shows an example of how groundcover is restored back to benchmark levels using management actions as prescribed in the offsets. Before the treatment (undertaken four years prior to the photo) this area had similar characteristics to that in Figure 6. The treatment undertaken included sowing of local provenance Curly Mitchell Grass seed (by lightly harrowing it into the soil). The result (as shown in Figure 5) is a groundcover where native species diversity and other native groundcover components (grass, shrubs and other) are now within benchmark levels. Strategic grazing management keeps the groundcover and diversity at benchmark levels.

2.6   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. a strategic, rigorous fox and feral cat control program over 1000 ha, and

2. establishment and maintenance of native groundcover above 50% through supplementary seeding with native local provenance grass seed and/or grazing management on 1000 ha of land.

The clearing proposal is part of a larger co-ordinated plan involving adjoining properties.

2.7   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.

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

The additional management actions outlined under 2.6 above will greatly improve breeding, foraging and shelter habitat for threatened species, significantly reduce the impact of predation on threatened species, and will improve overall biodiversity generally. Threatened species predicted to occur in the area that will benefit are shown in Appendix 1.

The fox and feral cat control program will be monitored and co-ordinated with the neighbouring properties that have the same additional management actions. This will enhance the effectiveness of the control program.

The actions which have conservation benefits on a landscape scale:

1)   are over and above the offset requirements under the EOAM;

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)   will reduce feral predator pressure on threatened and protected fauna species at a landscape scale;

5)   contribute to meeting the conservation priorities and the targets in the Namoi Catchment Management Authority (CMA) Catchment Action Plan. The specific

target met is MTB2 – 'Support the recovery of priority fauna populations, and Threatened Species, Populations and Communities'; and

6)   will be monitored as a part of the monitoring and evaluation program of the Namoi CMA.

2.7.2. 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 641 ha of Coolibah/Blackbox Woodland (Figure 2) proposed to be cleared is substantially degraded and is assessed to be of low viability. This is largely due to degradation over a long period of time (since European settlement) as a result of historic clearing, overgrazing and more recently seasonal weed infestation by Turnip Weed (*Rapistrum rugosum*). This vegetation is substantially outside the benchmark in the majority of the ten vegetation condition variables in the EOAM.

The vegetation condition variables which are well outside benchmark in the degraded Coolibah/Blackbox Woodland are; native overstorey cover, native mid storey cover, native ground cover grasses, native groundcover shrubs, native groundcover other, number of trees with hollows, overstorey regeneration and length of fallen logs. The area is also seasonally dominated by the introduced weed, Turnip Weed (*Rapistrum rugosum*) Figure 7.

Also proposed to be cleared is a small patch (1.2 ha) of of Coolibah/Blackbox Woodland surrounded by cultivation and cropping (Figure 3). This patch of native vegetation is of low viability due to the small size of the patch and the edge effects on the boundary with the adjacent areas of intense land use, namely cultivation and cropping.

Figure 7 : Groundcover dominated by Turnip Weed in Spring in the area proposed to be cleared.

EOAM is complied with:

This assessment complies with the EOAM as varied by this document.

2.7.3 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 is less than 50% cleared within the region of the proposal (200,000 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 other vegetation of the vegetation type to be cleared is mostly in moderate to good condition within the region of the proposal (200,000 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 (200,000 ha) is approximately 50%.

2.8   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:

1. The native vegetation proposed to be cleared (Coolibah/Blackbox Woodland) is an Endangered Ecological Community and does not meet the EOAM definition of vegetation in low condition despite being very degraded, and

2. The patch of Coolibah/Blackbox Woodland is an area of 1.2 ha surrounded by cultivation and cropping, is an Endangered Ecological Community and does not meet the EOAM 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 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 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 restore native grasslands and control feral predators over an additional area of 1000 ha; and

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

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

APPENDIX 1: THREATENED SPECIES TO BENEFIT FROM THE ADDITIONAL MANAGEMENT ACTIONS ON A LANDSCAPE SCALE.

Species	Benefit From Improved Groundcover	Benefit From Fox and Feral Cat Control
Coolibah-Black Box Woodland EEC	Yes	No
Australian Bustard	Yes (Improved forage)	Yes (Reduced predator pressure)
Barking Owl	Yes (Improved prey habitat)	Yes (Reduced competition for prey)
Black-breasted Buzzard	Yes (Improved prey habitat)	Yes (Reduced competition for prey)
Bush Stone-curlew	Yes (Improved forage and habitat	Yes (Reduced predator pressure)
Diamond Firetail	Yes (Improved forage)	No
Five-clawed Worm-skink	Yes (Improved habitat)	Yes
Grey-crowned Babbler (eastern subspecies)	Yes (Improved forage)	No
Hooded Robin (south-eastern form)	Yes (Improved forage)	No
Little Pied Bat	No	Yes (Reduced predator pressure)
Magpie Goose	No	Yes
Masked Owl	Yes (Improved prey habitat)	Yes (Reduced competition for prey)
Pink Cockatoo	Yes (Improved forage)	No
Red-tailed Black-Cockatoo	Yes (Improved forage)	No
Spotted-tailed Quoll	Yes (Improved forage)	Yes (Reduced competition for prey)
Stripe-faced Dunnart	Yes (Improved habitat)	Yes (Reduced predator pressure)
Superb Parrot	Yes (Improved forage)	No