REPORT UNDER THE NATIVE VEGETATION ACT 2003 IN RELATION TO USE OF MORE APPROPRIATE LOCAL DATA UNDER SECTION 2.4.3 OF THE ENVIRONMENTAL OUTCOMES ASSESSMENT METHODOLOGY FOR PVP REFERENCE NUMBER 8952

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PVP reference number: 8952

1. SUMMARY

This accredited experts' report relates to the assessment of the clearing proposed by PVP number 8952.

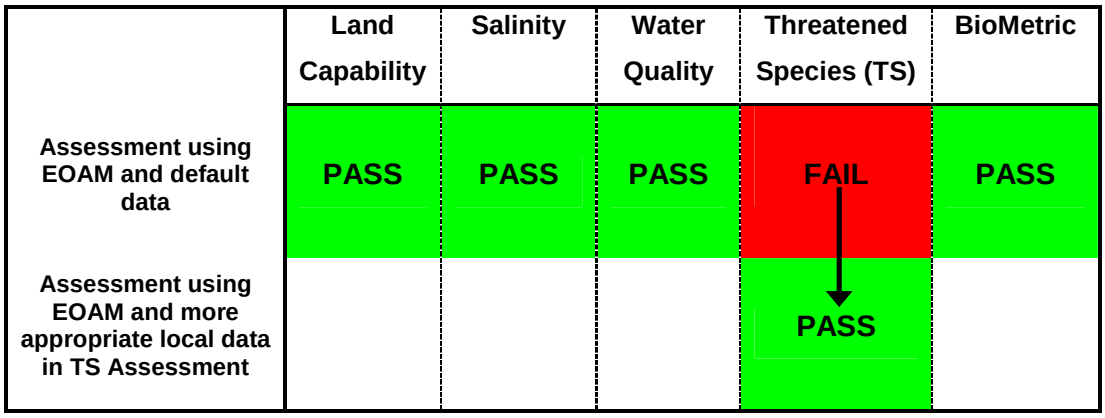
Under s. 29(2) of the *Native Vegetation Act 2003* a PVP cannot be approved unless the clearing concerned will improve or maintain environmental outcomes.

Clause 26 of the *Native Vegetation Regulation 2005* prescribes the circumstances in which approval of a PVP that proposes broad scale 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).

Where an assessment of proposed broadscale clearing using the approved database(s) indicates that a proposal does not improve or maintain environmental outcomes, it may be possible to utilise more appropriate local data (Section 2.4.3 of the EOAM).

More appropriate local data has been used in this assessment to allow a temporary reduction in the potential habitat of three threatened species and a change to the management responses of eleven threatened species, according to Section 2.4.3 of the EOAM. The reassessed proposal improves or maintains environmental outcomes.

Figure 1: A conceptual outline of the assessment process for PVP 8952



This reports details the accredited expert's opinions formed in relation to section 2.4.3 of the EOAM when assessing PVP reference number 8952.

Local data that more accurately reflects local conditions is available for the Eastern Bentwing-bat; Eastern Freetail-bat; Eastern False Pipistrelle; Greater Broad-nosed Bat; Rosenberg's Goanna; Squirrel Glider; Swift Parrot and Yellow-bellied Glider.

2. *INTRODUCTION*

Legislative background

Property vegetation plan (PVP), reference number 8952 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 29 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 experts' opinions formed in relation to section 2.4.3 of the EOAM when assessing PVP reference number 8952.

Initial assessment of broadscale clearing proposed by PVP 8952

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 8952 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.

The next section 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.

3. USE OF MORE APPROPRIATE LOCAL DATA

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

3.2 Description of clearing

The proposal includes clearing of 3.6 hectares of Red Bloodwood - Sydney Peppermint - Blue leaved Stringybark heathy forest of the southern Blue Mountains, Sydney Basin. The CMA subregion is Burragorang Part A. The vegetation is in moderate to good condition, has a patch size >100ha. The property is adjacent to a very large contiguous area of Crown lands and reserve systems.

The area proposed for offset is 24.1 hectares of the same vegetation type and habitat features. The offset area surrounds the proposed clearing site and is adjacent to the conservation reserve system.

3.3 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:

1. The Eastern False Pipistrelle, Greater Broad-nosed Bat, and Rosenberg's Goanna cannot sustain any loss of breeding habitat, and
2. The management actions in the Threatened Species Profile Database (TSPD and their associated management response estimates did not adequately account for the improvements to habitat that will be achieved in the offset area for some threatened Species. The threatened species showing inaccurate responses to the proposed management actions in the offset area using the default data are:
    - Masked Owl
    - Brush-tailed Rock Wallaby
    - Eastern Bentwing-bat
    - Eastern Freetail-bat
    - Gang Gang Cockatoo
    - Koala
    - Powerful Owl
    - Spotted-tailed Quoll
    - Squirrel Glider,
    - Swift Parrot, and
    - Yellow-bellied Glider.

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

3.4 Description of the use of more appropriate local data

More appropriate local data is available that shows:

1. The three threatened species can withstand the temporary loss of habitat and
2. The default percent responses to the proposed management actions have underestimated the benefit of the management actions in the offset area for eleven threatened species listed in 3.3 above.

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

3.4.1 Ability to sustain a temporary reduction in the population / habitat

Greater Broad-nosed Bat

Breeding habitat for the Greater Broad-nosed Bat includes tree hollows. The proposal involves clearing potential breeding habitat of the Greater Broad-nosed Bat due to the presence of a suitable tree hollows.

The default data allows up to 10% loss of foraging habitat and no loss of breeding or roosting habitat.

This species is listed as vulnerable under the *Threatened Species Conservation Act (1995)*.

This species is commonly found in this area. The Threatened Species Profile Database (TSPD) indicates that this species is known in this vegetation type and CMA subregion. In

addition, there are 188 recorded sightings of the Greater Broad-nosed Bat on the National Parks and Wildlife Service Wildlife Atlas in the Hawkesbury – Nepean Catchment.

The Greater Broad-nosed Bat utilises a range of vegetation types but is most commonly found in tall moist forests and forages directly along creek and river corridors. The clearing site does not contain the preferred tall moist forests or creek or river corridors although it is adjacent to them. Some of this preferred breeding and foraging habitat is also present in the offset area. The area adjacent to the clearing and offset area comprises a large contiguous reserve system (comprising of National Parks, State Recreational Areas) and State Forests. This area contains undisturbed riparian areas with preferred tall moist forest habitat.

The clearing equates to an area of <0.4% of the 1000 ha nominal home range of the Greater Broad-nosed Bat (see note in 5.8 of EOAM).

Conclusion:

In this case it is considered the Greater Broad-nosed Bat can withstand a temporary loss of potential breeding habitat. The reasons for this decision are:

- the area of breeding habitat to be cleared is very small relative to the species home range, and
- suitable offset is available, and
- a very large area (>500,000 ha) of adjoining vegetation contains suitable habitat for this species.

Eastern False Pipistrelle

Breeding habitat for the Eastern False Pipistrelle includes tree hollows and loose bark on trees. The proposal involves clearing potential breeding habitat of the Eastern False Pipistrelle due to the presence of suitably sized tree hollows and loose barked trees.

The default data allows up to 10% loss of foraging habitat and no loss of breeding or roosting habitat.

This species is listed as vulnerable under the *Threatened Species Conservation Act (1995)*.

This species is commonly found in this area. The Threatened Species Profile Database indicates that this species is known in this vegetation type and CMA subregion. In addition, there are 157 recorded sightings of the Eastern False Pipistrelle on the National Parks and Wildlife Service Wildlife Atlas in the Hawkesbury – Nepean Catchment.

The Eastern False Pipistrelle utilises a range of vegetation types but prefers moist habitats with trees taller than 20m. The clearing site does not contain the preferred moist habitat and trees > 20m although it is adjacent to them. Some of this preferred habitat is present in the offset area. The area adjacent to the clearing and offset area comprises a large contiguous reserve system (comprising National Parks, State Recreational Areas) and State Forests. This area contains a very large area of suitable breeding and foraging habitat.

The clearing equates to an area of < 0.4% of the 1000 ha nominal home range of the Eastern False Pipistrelle (see note in 5.8 of EOAM).

Conclusion:

In this case it is considered the Eastern False Pipistrelle can withstand a temporary loss of potential breeding habitat. The reasons for this decision are:

- the area of breeding habitat to be cleared is very small relative to the species home range, and
- suitable offset is available, and
- a very large area (>500,000 ha) of adjoining vegetation contains suitable habitat for this species.

Rosenberg's Goanna

Breeding habitat for Rosenberg's Goanna includes "Large termite mounds and vegetation up to 250 metres radius around the termite mounds". The proposal does not involve the clearing of any termite mounds but does clear vegetation within 100 metres of two termite mounds situated within the adjacent offset area.

The default data allows up to 10% loss of foraging habitat and no loss of breeding habitat.

The Rosenberg's Goanna is listed as vulnerable under the *Threatened Species Conservation Act (1995)*.

It is typically a cryptic, non territorial species and individuals require a large area of habitat. There are 85 recorded sightings on the National Parks and Wildlife Atlas for the Hawkesbury – Nepean Catchment. The Threatened Species Profile Database indicates the vegetation type in the offset area and area to be cleared contains suitable breeding habitat for Rosenberg's Goanna. Additionally, the area adjacent to the clearing and offset area comprises a large contiguous reserve system (comprising National Parks, State Recreational Areas) and State Forests. This area contains a very large area of suitable breeding and foraging habitat.

The clearing equates to an area of <0.4% of the 1000 ha nominal home range of the Rosenberg's Goanna (see note in 5.8 of EOAM).

Conclusion:

In this case it is considered that Rosenberg's Goanna can withstand a temporary loss of potential habitat. The reasons for this decision are:

- the area of breeding habitat to be cleared is very small relative to the species home range, and
- suitable offset is available, and
- a very large area (> 500,000 ha) of adjoining vegetation contains suitable habitat for this species, and

3.4.2 Threatened species response to management actions

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

- Masked Owl
- Brush-tailed Rock Wallaby
- Eastern Bentwing-bat
- Eastern Freetail-bat
- Gang Gang Cockatoo
- Koala
- Powerful Owl
- Spotted-tailed Quoll
- Squirrel Glider,
- Swift Parrot, and
- Yellow-bellied Glider.

Insufficient Management Response

More appropriate local data - management responses

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

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

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

More appropriate local data was also used in relation to increasing the management response for ecological fire management.

The property is located in a bushfire prone area and subject to a moderate intensity hazard reduction burn in August at least every fifteen years in accordance with the current Bushfire Risk Management Plan. During the hazard reduction burns the proposed offset area and large patches of surrounding Crown land are currently periodically burnt under the supervision of the Rural Fire Service (RFS).

During a joint site inspection with the landholder and the RFS it was clear that hazard reduction burns are required in the offset area to prevent very high fuel loads building up inevitably resulting in a wildfire causing the complete destruction of threatened species habitat. The hazard reduction burns need to account for the needs of threatened species.

In return for creating a buffer between the offset area and the farm infrastructure which allow for a generous inner and outer asset protection zone, and making an allowance for an access track through the offset area, the RFS and landholder have agreed to alter the existing pattern of hazard reduction burning. The hazard reduction burns in the offset area now aim to:

1. Protect threatened flora present in the offset area,
2. Protect threatened fauna key habitat features,
3. Prevent destruction of threatened species habitat and farm infrastructure from wildfire; and
4. Protect the landholders and farm infrastructure,

To achieve the aims, future hazard reduction burns will be undertaken as a mosaic, be of low intensity, and maximise the length of time between burns. These measures will maintain the abundance and diversity of groundcover, shrubs and other understorey. They will also protect hollow bearing trees, fallen logs, feed trees, tree canopy and forage habitat for various threatened species. The species for which the ecological fire management responses have been increased as a result of these measures is shown in Table 1 below.

Table 1: Threatened species response to proposed management actions undertaken in the offset area. The default percent responses to management actions and the management responses used to determine whether the proposal maintain or improved environmental outcomes for these threatened species are also shown. Numbered brackets indicate where and why More Appropriate Local Data was used to change the default percentage response.

(1) = Threatened species expert review of management responses.
(2) = Response due to ecological fire management.

Species	Proposed Management Actions	Management Responses From Default Data	Management Responses Used
Masked Owl	Domestic stock grazing exclusion	0%	6% (1)
	Retain dead timber (standing & fallen)	10%	6% (1)
	Retain rocks	1%	0% (1)
	Ecological fire management	0%	4% (1)
	Total management response	**11%**	**16%**
Brush-tailed Rock Wallaby	Domestic stock grazing exclusion	10%	10%
	Retain dead timber (standing & fallen)	0%	0%
	Retain rocks	0%	0%
	Ecological fire management	0%	5% (2)
	Total management response	**10%**	**15%**
Eastern Bentwing-bat	Domestic stock grazing exclusion	3%	3%
	Retain dead timber (standing & fallen)	3%	3%
	Retain rocks	1%	1%
	Ecological fire management	0%	8% (2)
	Total management response	**7%**	**15%**
Eastern Freetail-bat	Domestic stock grazing exclusion	3%	3%
	Retain dead timber (standing & fallen)	10%	10%
	Retain rocks	0%	0%
	Ecological fire management	0%	2% (2)
	Total management response	**13%**	**15%**
Gang Gang Cockatoo	Domestic stock grazing exclusion	6%	6%
	Retain dead timber (standing & fallen)	3%	3%
	Retain rocks	0%	0%
	Ecological fire management	0%	6% (2)
	Total management response	**9%**	**15%**
Koala	Domestic stock grazing exclusion	10%	10%
	Retain dead timber (standing & fallen)	0%	0%

Species	Proposed Management Actions	Management Responses From Default Data	Management Responses Used
	Retain rocks	0%	0%
	Ecological fire management	0%	5% (2)
	Total management response	**10%**	**15%**
Powerful Owl	Domestic stock grazing exclusion	7%	7%
	Retain dead timber (standing & fallen)	5%	5%
	Retain rocks	0%	0%
	Ecological fire management	0%	3% (2)
	Total management response	**12**%	**15**%
Spotted-tailed Quoll	Domestic stock grazing exclusion	5%	5%
	Retain dead timber (standing & fallen)	5%	5%
	Retain rocks	0%	0%
	Ecological fire management	0%	5% (2)
	Total management response	**10%**	**15**%
Squirrel Glider	Domestic stock grazing exclusion	5%	5%
	Retain dead timber (standing & fallen)	0%	10% (1)
	Retain rocks	0%	0%
	Ecological fire management	0%	0%
	Total management response	**10%**	**15%**
Swift Parrot	Domestic stock grazing exclusion	2%	24% (1)
	Retain dead timber (standing & fallen)	5%	0% (1)
	Retain rocks	0%	0%
	Ecological fire management	0%	0%
	Total management response	**7%**	**24%**
Yellow-bellied Glider	Domestic stock grazing exclusion	0%	5% (1)
	Retain dead timber (standing & fallen)	0%	5% (1)
	Retain rocks	0%	0%
	Ecological fire management	0%	5% (2)
	Total management response	**0%**	**15%**

3.5 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).

3.6 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.

4. REFERENCES:

NSW National Parks Wildlife Atlas

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

DECC (2007). Terrestrial Vertebrate Fauna of the Greater Southern Sydney Region – Fauna Conservation Concern and Priority Pest Species.

http://www.environment.nsw.gov.au/resources/threatenedspecies/07471tpagssvol2pt3reptiles.pdf