

20 March 2013

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Native Vegetation Conservation Branch
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To Whom It May Concern,

RE – Clearing Permit (Area) Application for Stage 2, Lot 30 Tom Cullity Drive, Wilyabrup

Please find enclosed an application for an amendment to a clearing permit pursuant to the *Environmental Protection Act 1986* for Stage 2 of Lot 30 Tom Cullity Drive, Wilyabrup (the 'subject site'). The proponent, Vasse Felix Pty Ltd, proposes to clear 1.57 hectares (ha) of native vegetation within the subject site (1.88 ha) for the extension of existing vineyards.

The area under the current application and adjacent areas (up to 14 ha in total) of vegetation within Lot 30 has previously been approved for clearing pursuant to CPS354/1, which expired 2 July 2007. Clearing of the 14 ha in accordance with CPS354/1 was not undertaken within the nominated timeframe. Subsequently, an additional application for a clearing permit (CPS2372/1) was submitted to the Department of Environment and Conservation (DEC) in 2009. In accordance with the '*Clearing Permit Decision Report*' (DEC 2009), the DEC rejected the application given that the proposed clearing was deemed to be at variance to Clearing Principles (a) and (e), and may be at variance to Principles (b) and (h).

Stage 1 (1.42 ha) was approved to clear under clearing permit (area permit) CPS 5063/1 on 20 September 2012. The proponent has since commissioned baseline surveys (Level 2 Flora and Vegetation Survey and Level 1 Fauna Survey and Habitat Assessment) within Stages 2-6.

To supplement this amendment application, an assessment against the 10 Clearing Principles was conducted based on the Flora and Fauna Assessments adapted for Stage 2 (Appendix A). It revealed that the proposal may be at variance to Principles (a) and (b) but is not at variance to the remaining Principles.

APPENDIX A ASSESSMENT OF APPLICATION AGAINST CLEARING PRINCIPLES

Note: This assessment is based on the following baseline surveys of the subject site (Stages 2-6, adapted for Stage 2):

- 'Level 2 Flora and Vegetation Survey Lot 30 Tom Cullity Drive, Wilyabrup' prepared by **ngh**environmental and Ekologica (2013), unpublished report to Vasse Felix, herein referred to as the 'flora report'.
- 'Level 1 Fauna and Habitat Assessment Lot 30 Tom Cullity Drive, Wilyabrup' prepared by **ngh**environmental (2013), unpublished report to Vasse Felix, herein referred to as the 'fauna report'.

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

The proposal involves clearing 1.57 ha of remnant vegetation (herein referred to as the application area) within the total 1.88 ha of Stage 2. Existing clearings (0.31 ha) are not included in the clearing figure. The area under application had been recently burnt, north of the track in early 2012 and south of the track later in Spring 2012, prior to the flora and fauna surveys (refer to Figure 1, Appendix B). The application area has also been historically logged and grazed.

The flora report states that at least 574 taxa have been recorded within 10 km of the Stage 2. The flora report, which included Stages 2 to 6, identified 152 species of vascular flora from 43 genera, of which 22 taxa from nine genera were naturalized taxa. Of the 152 species within Stage 2 to 6, 130 were native which represents a relatively high species-diversity compared to other areas of remnant vegetation in the Jarrah-Marri forest of south-western Australia (R. Smith, unpublished). Species diversity within the uncleared areas of Stage 2 however, given the recent disturbances, is likely to be considerably less than this.

The level of biological diversity within Stage 2 can also be considered in terms of vegetation condition; this being less than the condition in adjacent areas due to the recent burns in the Stage 2 area. Vegetation condition within Stage 2 is as follows (adapted to Stage 2 from **ngh**environmental and Ekologica, 2013, in Figure 2, Appendix B):

- Very good 0.37 ha (20%)
- Good 0.27 ha (14%)
- Degraded 0.41 ha (22%)
- Cleared 0.31 ha (16%)
- Not assessed (due to recent burn) 0.52 ha (28%)

Biodiversity is unlikely to be high over the entire Stage 2. Other larger Stages (4 and 5) that consist of all Very Good and Good condition vegetation are likely to have the highest levels of biodiversity, as referred to in the flora report. Twenty-eight percent of the Stage 2 has not been assessed.

The fauna report identified that at least 79 animal species have been recorded within 10 km of the Lot 30. Lot 30 broadly consists of well connected forested areas interspersed by vineyards. Ecotones between the woodland and vineyards are likely to provide foraging opportunities for owls, raptors and some bats. Stage 2 contributes to broader corridor width of up to 200m, which is may to offer habitat for a range of fauna, including larger species (mammals in particular).

The proposal may be at variance to this Principle.

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

The fauna report identified 17 vertebrate fauna species and four invertebrate species of conservation significance that have been recorded locally. Most of these species do not occur in the habitat types synonymous with the Stage 2.

The remnant vegetation within the application area has been subjected to a history of logging and grazing, resulting in Stage 2 being more degraded than most of the other remaining remnant vegetation on Lot 30. Despite this, the remnant vegetation within the subject site does form part of a larger vegetated corridor, linking surrounding habitat patches. The clearing of the subject site will reduce the width of the corridor but will not substantially affect the overall linkage or

impact on adjacent remnant vegetation, given that a corridor of 50 m would be retained and that Stage 1 has already been cleared. Impacts to Chuditch (*Dasyurus geoffroii*) (T¹), Quenda (*Isoodon obesulus subsp. fusciventer*) (P5) and Western Brush Wallaby (*Macropus irma*) (P4) and Quokka (*Setonix brachyurus*) (T) are considered unlikely. Although Chuditch and Western Brush Wallaby may utilise the subject site as part of a broader corridor, they are highly mobile species and would not specifically rely on the subject site for important resources or habitat elements (feed species, breeding habitat).

No drainage lines traverse the application area and therefore the proposal will not impact watercourses or associated habitat. Impacts to the Water rat (*Hydromys chrysogaster*) (P4) and the Dunsborough Burrowing Crayfish (*Engaewa reducta*) (T) would not result from the clearing of Stage 2. Quenda is also unlikely to occur, as it is too dry, soils are too rocky and refuge and ground cover is generally absent.

Stage 2 is unlikely to provide habitat for Western Ringtail Possum (*Pseudocheirus occidentalis*) (T) even though they were observed in other areas of Lot 30 (between Stages 5 and 6 and in lower abundances in Stages 3 to 5) where Peppermints (*Agonis flexuosa*) occur. Other species such as Peregrine Falcon (*Falco peregrinus*) (Specially Protected) and Western False Pipistrelle (*Falsistrellus mackenziei*) (P4) may also occur over Lot 30. Stage 2 does not provide any particularly important habitat for these species.

Given the presence of Marri (*Corymbia calophylla*), the subject site contains foraging habitat for the threatened Black Cockatoos (Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii subsp. naso*) (T), Baudin's Cockatoo (*Calyptorhynchus baudinii*) (T) and Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) (T)). Forest Red-tailed Black Cockatoo feed signs were observed widely over the whole of Lot 30 and Baudin's Black Cockatoo was sighted locally. Marri is extensive locally and a tree common species within Lot 30. The clearing will not fragment the remnant habitat patch and it is considered unlikely that the removal of 1.57 ha of foraging habitat will affect the persistence of Black Cockatoos in the local area. Higher quality foraging habitat is likely to be present in adjacent intact woodland.

There is potential for Black Cockatoo breeding habitat to occur within the subject site, with nine trees containing 12 hollows medium sized (greater than 10cm diameter), and two of those large (greater than 20cm). It is not known if they are actually suitable for breeding². Fourteen trees within the subject site are greater than 50cm diameter at breast height (DBH) and do not contain hollows (Figure 3, Appendix B). The fauna report identified 93 hollow bearing trees (containing 109 hollows) within Stages 2 to 6. Hollow bearing trees are therefore fairly abundant within Lot 30, with less than 10% of the hollow bearing trees (and about 11% of hollows) being located within the subject site. In the context of large trees likely to develop hollows, only 14 (or 5%) occur within the subject site against the 277 trees with a DBH greater than 50 cm over the whole of Stages 2 to 6.

The proposed clearing may be at variance to this Principle.

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

¹ Conservation status:

T: Rare or likely to become extinct

This status criterion has been set by the *Wildlife Conservation Act 1950*.

Priority Fauna

P 1: Taxa with few, poorly known populations on threatened lands.

P 2: Taxa with few, poorly known populations on conservation lands.

P 3: Taxa with several, poorly known populations, some on conservation lands.

P 4: Taxa in need of monitoring.

P 5: Taxa in need of monitoring.

These status criteria have been set by the WA Department of Environment and Conservation.

² Some hollows may be 'blind' and therefore not provide fauna habitat. Some apparently suitable hollows may also contain fissures or cracks that allow water in, thus rendering them unsuitable as nesting habitat.

The database search identified 30 priority flora taxa and a single threatened species *Caladenia excelsa* (Declared Rare Flora) (DRF) that have been recorded within 10 km of the subject site (Naturemap 2012, in the flora report). The closest significant flora records are over 3 km away, though this may be associated with a lack of local surveys.

The flora survey did not identify any plant taxa within the subject site gazetted as Declared Rare Flora pursuant to Subsection (2) of Section 23F of the *Wildlife Conservation Act 1950* or listed as by DEC as Priority species (DEC, 2012).

The proposal is not at variance to this Principle.

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community (TECs).

Flora report desktop search (Naturemap, 2012) did not identify any threatened or priority ecological communities within the 5 km of the site. Field surveys confirmed that vegetation within the study area does not resemble a Threatened or Priority Ecological Community.

The proposal is not at variance to this Principle.

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

The flora report identifies that there has not been a regional vegetation survey for the Margaret River Plateau, on which the study area is situated, as there has been for the southern Swan Coastal Plain (Gibson *et al.*, 1994), Busselton Plain (Webb *et al.*, 2009) or Whicher Scarp (Keighery *et al.*, 2008) so contextual information for determining the regional rarity of particular floristic community types is lacking. Consequently, even though floristic data has been collected for two quadrats in the study area, there is a paucity of other floristic quadrat data from the Margaret River Plateau to compare it to.

In broad terms, the vegetation of the study area is part of the Chapman system mapped as Beard vegetation association 3; Medium forest; Jarrah and Marri. The subject site also occurs within two Mattiske and Havel (1998) vegetation complexes, Cowaramup C2: Open forest of *Eucalyptus marginata* subsp. *marginata*-*Corymbia calophylla*-*Banksia grandis* on lateritic uplands in perhumid and humid zones, and a small area of Wilyabrup W2: Open forest of *Corymbia calophylla*-*Allocasuarina decussata*-*Agonis flexuosa* on deeply incised valleys in perhumid and humid zones, corresponding with the changes in soils type, over the northern half of Stage 2 (Figure 2, Appendix B).

The EPA supports a threshold level of 30% of the pre-clearing extent of the vegetation type as recommended in the National Objectives Targets for Biodiversity Conservation; below which species loss appears to accelerate exponentially at an ecosystem level. Below 10% of the original extent then the vegetation type would be considered to be endangered, and clearing which would put the threat level into the class should be avoided (EPA, 2000). The EPA, (2006) also set a target of 15% of pre-European extent for each ecological community to be protected in a comprehensive, adequate and representative reserve system.

The significance of clearing a particular vegetation association or complex can be determined by comparing current with pre-European extents (Government of Western Australia, 2011, and Shepherd, 2007), as shown in the tables below.

Table 1 Post European vegetation Beard vegetation association 3; extent remaining and reserved at different scales (Government of Western Australia, 2011)

Scale	Pre-European Extent (ha)	Current Extent (ha)	% Remaining	Current Extent Protected for Conservation (ha)	% Current Extent Protected for Conservation
State	2,661,405.07	1,844,285.31	69.30	1,477,881.03	80.13
IBRA	250,262.60	198,873.43	79.47	169,814.89	85.39
City of Busselton	53,189.11	34,648.77	65.14	27,803.24	80.24

Beard vegetation association 3, is well above both the 15% reserved and 30% pre-European thresholds.

Table 2 Post European vegetation extent remaining and reserved for vegetation within the Warren IBRA Bioregion and the Southwest Forest Region portion of the Jarrah Forest and Warren IBRA Bioregions (Shepherd 2007)

RFA code	RFA name	PreEuropean Vegetation (ha)	Current Vegetation (ha)	% Vegetation Remaining	Current Vegetation in DEC Tenure (ha)	% Remaining of Current Vegetation in DEC Tenure
C2	Cowaramup	12,878.86	4,731.03	36.73%	831.50	6.46
W2	Wilyabrup	3,526.59	1,200.53	34.04%	0	0

Cowaramup (C2) and Wilyabrup (W2) both contain more than 30% of their Pre European extents however they are well below the 15% reserve target with 6.46% and 0.00% respectively reserved in DEC tenure.

The proposal is not at variance to this principle.

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

No wetlands or watercourses are situated within the application area, therefore vegetation associated with these will not be impacted by the proposal.

The proposal is not at variance to this Principle.

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

In consideration of the lateritic soil types within the subject site and pursuant to the SLIP database (SLIP 2008), the risk of waterlogging, salinity, water erosion and wind erosion within the subject site is low. The removal of vegetation under application is unlikely to cause appreciable land degradation, especially given that the cleared area will be re-planted with vines and subject to ongoing management.

The proposal is not at variance to this Principle.

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

The Leeuwin-Naturaliste National Park, Yelverton National Park and Walburra Nature Reserve are all located within a 10 km radius of the subject site but would not be impacted. The clearing of Stage 2 is unlikely to affect habitat connectivity at a landscape scale, therefore indirect impacts to the Reserves are considered unlikely.

The proposal is not at variance to this Principle.

(i) Native vegetation should not be cleared in the clearing of native vegetation is likely to cause deterioration in the quality of surface or underground water.

No dewatering or drainage modifications are required and therefore the proposal will not impact groundwater level or quality. No creeklines are located within or near to Stage 2, therefore no riparian vegetation would be impacted. On this basis, no impacts to surface water quality are likely.

The proposal is not at variance to this Principle.

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

As previously discussed, there are no watercourses or wetlands located within the application area that would contribute to waterlogging as a result of shallow groundwater expression.

The proposal is not at variance to this Principle.

References

Beard, J.S. 1981: *Vegetation survey of Western Australia*.

Commonwealth of Australia. 2001. Biodiversity Conservation Research: Australia's Priorities.

Department of Environment and Conservation (DEC). 2012: NatureMap. <http://naturemap.dec.wa.gov.au/default.aspx>

Keighery BJ 1994, Bushland Plant Survey. *A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc.), Nedlands.

Mattiske Consulting and Havel. J.J. 2002. *Review of management options for poorly represented vegetation complexes*. Report to the Conservation Commission of Western Australia.

Natural Resource Management, Western Australia. 2008. Shared Land Information Platform (SLIP) – Soil Landscape Capability at http://spatial.agric.wa.gov.au/slip/products_view.asp

Note: Refer to the source documents, **ngh**environmental and Ekologica (2013) and **ngh**environmental (2013), for additional references.

APPENDIX B FIGURES

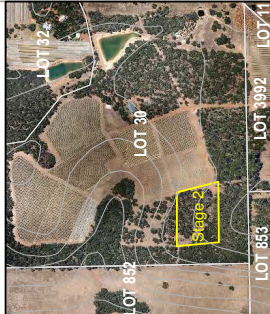
Figure 1: Stage 2 proposed clearing



Stage 2, Lot 30,
Tom Cullity Drive, Willyabrup

- Contour (5m interval)
- Stage 2
- Cadastre

Notes:
- Aerial photo from Microsoft Virtual Earth, accessed 2012
- Supporting layers from SLIP Enabler (WMS server)



0 5 10 20 Metres

A3 @ 1:1000
Ref: 4896 Stage 2
Author: SP

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Figure 2: Stage 2 Vegetation complex and condition



Stage 2, Lot 30,
Tom Cullity Drive, Wilyabrup

- Contour (5m interval)
- Stage 2
- Cadastre
- Vegetation condition ²
- ▨ Very Good
- ▨ Good
- ▨ Degraded
- ▨ Not Assessed
- ▨ Vegetation complex ¹
- ▨ Covaramup
- ▨ Wilyabrup

Notes:
¹ Matiske and Havel (1998)
² Vegetation condition (Keighery 1994)
 based on Ecological fieldwork (2012)
 Aerial photo from Microsoft Virtual Earth,
 accessed 2012

0 5 10 20 Metres

A3 @ 1:1000
 Ref: 4896, Stage 2
 Author: SP

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