



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

<b>Purpose Permit number:</b>	CPS 5985/1
<b>Permit Holder:</b>	B & J Catalano Pty Ltd
<b>Duration of Permit:</b>	16 January 2016 – 31 March 2030

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

### PART I – CLEARING AUTHORISED

**1. Purpose for which clearing may be done**

Clearing for the purpose of gravel extraction.

**2. Land on which clearing is to be done**

Lot 202 on Deposited Plan 63120, Mornington.

**3. Area of Clearing**

The Permit Holder must not clear more than 8.4 hectares of native vegetation within the area cross-hatched yellow on attached Plan 5985/1a.

**4. Clearing not authorised**

The Permit Holder shall not clear any native vegetation after 31 March 2020.

**5. Application**

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

### PART II – MANAGEMENT CONDITIONS

**6. Dieback and weed control**

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:

- clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

**7. Avoid, minimise etc.**

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

**8. Revegetation and rehabilitation**

Within the area cross-hatched red on attached plan 5985/1b, the Permit Holder must implement and adhere to the revegetation plan titled 'Revegetation Plan Lot 202 Martin Road Shire of Harvey' approved by the Department of Environment Regulation on 3 June 2015.

**PART III - RECORD KEEPING AND REPORTING**

**9. Records to be kept**

The Permit Holder must maintain a description of the activities undertaken in relation to the revegetation of areas pursuant to condition 8 of this permit.

**10. Reporting**

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
  - (i) of records required under condition 9 of this Permit; and
  - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding financial year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June of each year.
- (c) Prior to 31 December 2029, the Permit Holder must provide to the CEO a written report of records required under condition 9 of this Permit where these records have not already been provided under condition 10(a) of this Permit.

**DEFINITIONS**

The following meanings are given to terms used in this Permit:

**dieback** means the effect of *Phytophthora* species on native vegetation;

**fill** means material used to increase the ground level, or fill a hollow;

**mulch** means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation; and

**weed/s** means any plant:

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in a Department of Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.



Jane Clarkson  
A/ SENIOR MANAGER  
CLEARING REGULATION

*Officer delegated under Section 20  
of the Environmental Protection Act 1986*

17 December 2015



# Plan 5985/1a



## Legend

-  Areas approved to clear
-  Roads
-  local\_gov\_authority
- Virtual Mosaic



1:4,500

MGA 94  
Geocentric Datum of Australia 1994

 Date 17/12/15  
Jane Clarkson

Officer with delegated authority under Section 20  
of the Environmental Protection Act 1986








# Plan 5985/1b



## Legend

-  Clearing Instruments Conditions
-  Roads
-  local\_gov\_authority
- Virtual Mosaic



1:3,500

MGA 94  
Geocentric Datum of Australia 1994

 Date 17/12/15  
Jane Clarkson

Officer with delegated authority under Section 20  
of the Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA





## 1. Application details

### 1.1. Permit application details

Permit application No.: 5985/1  
Permit type: Purpose Permit

### 1.2. Applicant details

Applicant's name: B & J Catalano Pty Ltd

### 1.3. Property details

Property: Lot 202 on Deposited Plan 63120, Mornington  
Local Government Authority: Shire of Harvey  
DER Region: South West  
DPaW District: Wellington  
LCDC: N/A  
Localities: Brunswick

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
8.4		Mechanical Removal	Extractive industry

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 17 December 2015

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Mapped Beard vegetation association 3 is described as medium forest; jarrah-marri (Shepherd et al., 2001).	The clearing of 8.4 hectares of native vegetation within Lot 202 on Deposited Plan 63120, Mornington, is for the purpose of gravel extraction.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994)	The condition and description of the vegetation under application was determined by a site inspection undertaken by the Department of Environment Regulation (DER, 2014).
Mapped Mattiske vegetation association D1 is described as open forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> - <i>Corymbia calophylla</i> on lateritic uplands in mainly humid and subhumid zones (Mattiske and Havel, 1998).		To	The area under application is very open, consisting predominantly of mature mixed Eucalypt species including <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> . There is little to no middle or understorey present throughout the application area (DER, 2014).
Mapped Hedde vegetation association Yarragil Complex (maximum development swamps) in medium to high rainfall Yg1 is described as open forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> - <i>Corymbia calophylla</i> on slopes with mixtures of <i>Eucalyptus patens</i> and <i>Eucalyptus megacarpa</i> on the valley floors in humid and subhumid zones (Hedde et al., 1980).		Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994)	The understorey consists predominately of weeds with some bracken fern in some areas (DER, 2014).

## 3. Assessment of application against clearing principles

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

Comments **Proposed clearing may be at variance to this Principle**  
The clearing of 8.4 hectares of native vegetation within Lot 202 on Deposited Plan 63120, Mornington, is for the purpose of gravel extraction.

The area under application is very open and consists predominantly of mature mixed eucalypts, including *Eucalyptus marginata* and *Corymbia calophylla*. There is little to no midstorey or understorey present throughout the application area. The understorey consists predominately of weedy grasses with some bracken fern present (DER, 2014).

There are no Priority Ecological Communities (PEC), Threatened Ecological Communities (TEC's) or rare flora mapped within the local area (10 kilometre radius). A number of priority flora species have been recorded within the local area (10 kilometre radius), the closest being a priority 4 flora species recorded approximately 1.2 kilometres north of the application area. Suitable habitat for this species is not located within the area under application. Given the degraded understorey of the area under application, the vegetation proposed to be cleared is not likely to be significant habitat for priority flora species.

A number of fauna species listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950* have been recorded within the local area (10 kilometre radius) including; the woylie (*Bettongia penicillata* subsp. *ogilbyi*), forest red-tailed black-cockatoo (*Calyptorhynchus banksii* subsp. *naso*), Baudin's cockatoo (*Calyptorhynchus baudinii*), Carnaby's cockatoo (*Calyptorhynchus latirostris*), chuditch (*Dasyurus geoffroi*), numbat (*Mymecobius fasciatus*), brush-tailed phascogale (*Phascogale tapoatafa* subsp. *tapoatafa*), western ringtail possum (*Pseudocheirus occidentalis*) and quokka (*Setonix brachyurus*) (Parks and Wildlife, 2007-). The vegetation under application contains foraging habitat for the black cockatoo species listed above, however vegetation located adjacent to the application area and within the local area (10 kilometre radius) in better condition also provides suitable foraging habitat for these species. Given the lack of understorey present, the vegetation proposed to be cleared is not likely to provide significant habitat for ground-dwelling fauna.

The application area is in close proximity to a major ecological linkage identified in the South West Regional Ecological Linkage Technical Report (Molloy et al., 2009). The application area is located approximately 680 metres north-west of this ecological linkage. The application area is classed as 1a under the scheme, which represents native vegetation touching, or less than 100 metres from an ecological linkage. These linkages are recognised for their significance in facilitating indigenous fauna movement across the landscape (Molloy et al., 2009). The clearing proposed may contribute to the degradation or disruption of this linkage and subsequently reduce fauna dispersal capabilities in the local area.

The proposed clearing will increase the risk of weeds and dieback spreading into adjacent vegetated areas. Weed and dieback management practices will assist in mitigating this risk.

There is approximately 50 per cent native vegetation remaining within the local area (10 kilometre radius).

The proposed clearing may cause degradation or disruption to an ecological linkage and may impact upon significant habitat for conservation significant fauna.

Given the above, the proposed clearing may be at variance to this principle.

The requirement to revegetate an area equivalent to the application area and representative of the mapped vegetation association to a very good (Keighery 1994) condition once extraction activities cease will help mitigate impacts to black cockatoo species and the ecological linkage.

**Methodology**    References:  
DER (2014)  
Keighery (1994)  
Molloy et al. (2009)  
Parks and Wildlife (2007-)

GIS Databases:  
-SAC Biodatasets - accessed November 2015  
-SWREL-AL

**(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.**

**Comments**    **Proposed clearing may be at variance to this Principle**

A number of fauna species listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950* have been recorded within the local area (10 kilometre radius) including; the woylie, forest red-tailed black-cockatoo, Baudin's cockatoo, Carnaby's cockatoo, chuditch, numbat, brush-tailed phascogale, western ringtail possum and quokka (Parks and Wildlife, 2007-).

The vegetation under application consists predominantly of mature mixed eucalypts, *Eucalyptus marginata* and *Corymbia calophylla* (DER, 2014).

A black cockatoo habitat survey (Lundstrom Environmental Consultants Pty Ltd., 2014) undertaken within Lot 202 identified 213 trees with a diameter of 50 centimetres or greater at breast height, eight of which were identified as having potential for suitable hollows. No hollows suitable for nesting by the three black cockatoo species were identified. Of the trees identified, 189 were *Corymbia calophylla* (marri) and 24 were *Eucalyptus marginata* (jarrah) (Lundstrom Environmental Consultants Pty Ltd., 2014). Given the lack of hollows present

within the area under application, the clearing as proposed is not likely to contain significant nesting habitat for these species.

Carnaby's cockatoo is listed as Endangered and Baudin's cockatoo and the forest red-tailed black cockatoo are listed as Vulnerable under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Black cockatoo species forage on the seeds, nuts and flowers of a large variety of plants including proteaceous species (banksia, hakea, grevillea), as well as *allocasuarina* and eucalyptus species, *Corymbia calophylla* and a range of introduced species (Valentine and Stock, 2008). The vegetation under application consists of eucalyptus species and *Corymbia calophylla* which are likely to provide foraging habitat for black cockatoo species. However, vegetation located adjacent to the application area and within the local area (10 kilometre radius) in better condition also provides suitable foraging habitat for these species.

The understorey consists predominately of grassy weeds and scattered bracken fern (DER, 2014). Therefore, it is unlikely that the vegetation proposed to be cleared is significant habitat for ground dwelling fauna.

The application area is in close proximity to a major ecological linkage identified in the South West Regional Ecological Linkage Technical Report (Molloy et al., 2009). The application area is located approximately 680 metres north west of the axis line of this ecological linkage. The application area is classed as 1a under the scheme, which is representative of native vegetation touching or less than 100 metres from an ecological linkage. These linkages are recognised for their significance in facilitating indigenous fauna movement across the landscape (Molloy et al, 2009). The proposed clearing may contribute to the degradation or disruption of this linkage and subsequently reduce fauna movement across the landscape.

Given the above, the proposed clearing may be at variance to this principle. The requirement to revegetate an area equivalent to the application area and representative of the mapped vegetation association to a very good (Keighery 1994) condition once extraction activities cease will help mitigate impacts to black cockatoo species and the ecological linkage.

**Methodology**    References:  
Parks and Wildlife (2007-)  
DER (2014)  
Keighery (1994)  
Molloy et al (2009)  
Valentine and Stock (2008)  
Lundstrom Environmental Consultants Pty Ltd. (2014)

GIS Databases:  
-SAC Biodatasets - accessed November 2015  
-SWREL-AL

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

**Comments**    **Proposed clearing is not likely to be at variance to this Principle**  
There are no rare flora species recorded within the local area (10 kilometre radius). The closest record of rare flora is from approximately 13 kilometres east of the area under application. This species is found on low-lying depressions in peaty and sandy clay swamps that contain water into summer (Brown et al., 1998). Suitable habitat for this species is not located within the area under application.

Given the above, the proposed clearing is not likely to be at variance to this principle.

**Methodology**    References:  
Brown et al. (1998)

GIS Databases:  
-SAC Biodatasets - accessed November 2015

**(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.**

**Comments**    **Proposed clearing is not likely to be at variance to this Principle**  
The closest recorded threatened ecological community (TEC) 'Muchea Limestone' is approximately 12 kilometres west of the area under application. Given the distance to the closest TEC, the vegetation proposed to be cleared is not likely to be necessary for the maintenance of this TEC.

Give the above, the proposed clearing is not likely to be at variance to this principle.

**Methodology**    GIS Databases:  
-SAC Biodatasets - accessed November 2015



**(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.**

**Comments Proposed clearing is not likely to be at variance to this Principle**

The area under application is located within the Jarrah Forest Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 54 per cent of its Pre European vegetation extent remaining (Government of Western Australia, 2014).

The vegetation under application is mapped as Beard Vegetation Associations 3, Matiske Vegetation Association D1 and Heddle Vegetation Complex 'Yarragil in medium to high rainfall' which have approximately 68, 87 and 85 per cent of their Pre-European extent remaining in the Jarrah Forrest bioregion respectively (Government of Western Australia, 2014; Parks and Wildlife, 2015).

The National Objectives and Targets for Biodiversity Conservation include a target that prevents the clearance of ecological communities with an extent below 30 per cent of that present pre-European settlement, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

Aerial imagery indicates that the local area (10 kilometre radius) surrounding the area under application retains approximately 50 per cent native vegetation cover.

The vegetation under application supports part of an ecological linkage and provides suitable habitat for conservation significant fauna, however given the vegetation representations outlined above, it is not likely to be a significant remnant in an extensively cleared area.

Given the above, the proposed clearing is not likely to be at variance to this principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife Managed Lands (%)
<b>IBRA Bioregion - Jarrah Forest</b>	4,506,660	2,425,551	54	69
<b>Shire - Shire of Harvey</b>	170,788	88,380	52	75
<b>Beard Vegetation Association in Bioregion*</b>				
3	2,390,591	1,613,658	68	81
<b>Matiske Vegetation Association**</b>				
D1	208,515	181,200	87	82
<b>Heddle Vegetation Association**</b>				
Yarragil Complex	92,244	78,069	85	79

**Methodology**

References:

- Commonwealth of Australia (2001)
- \*Government of Western Australia (2014)
- Keighery (1994)
- \*\*Parks and Wildlife (2015)

GIS Databases:

- NLWRA, Current Extent of Native Vegetation

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

**Comments Proposed clearing is not likely to be at variance to this Principle**

A number of watercourses and wetlands are located within the local area (10 kilometre radius). The closest minor perennial watercourse is located approximately 260 metres from the application area. A conservation category wetland is located approximately 410 metres north of the application area.

Given the above, the proposed clearing is not likely to be at variance to this principle.

**Methodology**

GIS Databases:

- Hydrology, heirachy
- Hydrology, linear



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

**Comments Proposed clearing is not likely to be at variance to this Principle**

The soils within the application area have been mapped by Northcote et al. (1960-68) as JZ1, which is described as dissected plateau having a strongly undulating relief and with some moderately incised valleys. It is characterised by lateritic gravels and block laterite. The chief soils are ironstone gravels with sandy and earthy matrices and soils blanket the slopes and ridges extending down into the upper ends of the minor valleys. These gravelly soils are not prone to wind erosion or waterlogging.

Given the above, the proposed clearing is not likely to be at variance to this principle.

**Methodology** References:  
Northcote et al. (1960-1968)

GIS Databases:  
-Soils, Statewide  
-Hydrology, heirachy  
-Hydrology, linear

**(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.**

**Comments Proposed clearing may be at variance to this Principle**

A number of conservation areas are located within the local area (10 kilometre radius), the closest being Harris River State Forest, located approximately 1.4 kilometres east of the application area.

The application area is in close proximity to a major ecological linkage identified in the South West Regional Ecological Linkage Technical Report (Molloy et al., 2009). The application area is located approximately 680 metres north west of the axis line of this ecological linkage. The canopy cover contributes to the function and value of this linkage for arboreal and avian fauna. The clearing proposed may contribute to further degradation or disruption of this ecological linkage and therefore may impact upon the dispersal capabilities of avian fauna moving between nature reserves.

Therefore the clearing as proposed may be at variance to this principle. The requirement to revegetate an area equivalent to the application area and representative of the mapped vegetation association back to a very good (Keighery, 1994) condition once extraction activities cease will assist in mitigating impacts to the ecological linkage.

**Methodology** References:  
Keighery (1994)  
Molloy et al. (2009)

GIS Databases:  
- Parks and Wildlife Tenure

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

**Comments Proposed clearing is not likely to be at variance to this Principle**

A number of watercourses and wetlands are located within the local area (10 kilometre radius). The closest minor perennial watercourse is located approximately 260 metres from the application area. A conservation category wetland is located approximately 410 metres north of the application area.

Given the distance to the closest watercourse or wetland, the clearing as proposed is not likely to have an impact on the quality of surface water.

Groundwater salinity ranges from 500 -1000 milligrams per litre of Total Dissolved Solids (TDS), which is considered to be marginal. The clearing as proposed is not likely to cause deterioration in the quality of groundwater.

Given the above, proposed clearing is not likely to be at variance to this principle.

**Methodology** GIS Databases:  
-Hydrology, heirachy  
-Hydrology, linear  
-Groundwater Salinity, Statewide

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

**Comments**      **Proposed clearing is not likely to be at variance to this Principle**  
Flooding is unlikely to be an issue given the soil type, topography on site and distance to the closest watercourse or wetland.

The proposed clearing is not likely to be at variance to this principle.

**Methodology**    GIS Databases:  
-Hydrology, heirachy  
-Hydrology, linear  
-Topographic Contours, Statewide

**Planning instruments and other relevant matters.**

**Comments**      The Shire of Harvey granted planning consent on 7 April 2015 for the purpose of extractive industry within Lot 202 Martin Road, Mornington. An extractive industry licence was granted on 17 November 2015, and expires on 31 March 2020.

There are no Aboriginal Sites of Significance located within the application area.

The application area is zoned rural under the local town planning scheme.

**Methodology**    GIS Databases:  
-Aboriginal Sites of Significance  
-Town Planning Scheme Zones

**4. References**

- Brown A., Thomson-Dans C. and Marchant N. (1998) Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DER (2014) Site Inspection Report for Clearing Permit Application CPS 5985/1. Site inspection undertaken 24/02/2014. Department of Environment Regulation, Western Australia (DER Ref A734115).
- Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2014. WA Department of Parks and Wildlife, Perth.
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Lundstrom Environmental Consultants Pty Ltd. (2014) Black Cockatoo Habitat Survey. Unpublished report prepared by Lundstrom Environmental Consultants Pty Ltd. for B&J Catalano Pty Ltd. DER Ref:A724186.
- Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.
- Molloy, S., Wood, J., Hall, S., Wallrodt, S. and Whisson, G. (2009) South West Regional Ecological Linkages Technical Report. DEC, WALGA and Planning South West.
- Parks and Wildlife (2007 - ) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>. Accessed February 2014
- Parks and Wildlife (2015) 2015 South West Forest and Swan Coastal Plain Vegetation Complex Statistics: a report prepared for the Department of Environment Regulation. Current as of March 2015. Department of Parks and Wildlife, Perth, Western Australia.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press.
- Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
- Valentine and Stock (2008) Food Resources of Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) in the Gnangara Sustainability Strategy Study Area. ECU and DEC. Western Australia.