



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 6622/1

File Number: DER2015/001440-1

Duration of Permit: 23 January 2016 to 23 January 2018

PERMIT HOLDER

CP Land Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE

Lot 101 on Deposited Plan 37823, Lakelands

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 23.58 hectares of native vegetation within the areas cross hatched yellow on attached Plan 6622/1.

CONDITIONS

Nil.

A handwritten signature in blue ink, appearing to read "J Widenbar", written over a horizontal line.

James Widenbar
A/SENIOR MANAGER
CLEARING REGULATION

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

24 December 2015

Plan 6622/1



Legend

-  Roads
-  Imagery
-  Clearing Instruments Activities
-  Local Government Authority



1:11,431

(Approximate when reproduced at A4)
GDA 94 (Lat/Long)
Geocentric Datum of Australia 1994

J. Widenbar Date *24/12/2015*
J Widenbar

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



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WESTERN AUSTRALIA
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1. Application details

1.1. Permit application details

Permit application No.: 6622/1
Permit type: Area Permit

1.2. Applicant details

Applicant's name: CP Land Pty Ltd

1.3. Property details

Property: LOT 101 ON PLAN 37823, LAKELANDS
Colloquial name:
Local Government Authority: MANDURAH, CITY OF

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
23.58		Mechanical Removal	Stockpile/bulk earthworks

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 24 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
<p>Beard Vegetation Associations (Shepherd et al. 2001):</p> <ul style="list-style-type: none"> • 997: Shrublands; melaleuca heath • 998: Medium woodland; tuart • 1001: Medium very sparse woodland; jarrah, with low woodland; banksia & casuarina <p>Mapped Heddl vegetation complexes(Heddl et al. 1980):</p> <ul style="list-style-type: none"> • Cottesloe Complex-Central And/South: Mosaic of woodland of Eucalyptus gomphocephala (tuart) and open forest of Eucalyptus gomphocephala (tuart) - Eucalyptus marginata (jarrah) - Corymbia calophylla (marri); closed heath on the Limestone outcrops. • Yoongarillup Complex: Woodland to tall woodland of Eucalyptus gomphocephala (tuart) with Agonis flexuosa in the second storey. Less consistently an open forest of Eucalyptus gomphocephala (tuart) - Eucalyptus marginata (jarrah) - Corymbia calophylla (marri) 	<p>The clearing of 23.58 hectares of native vegetation within Lot 101 on Deposited Plan 37823, Lakelands, for the purpose of bulk earthworks.</p>	<p>Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)</p> <p>To</p> <p>Good; Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994).</p>	<p>The condition of the vegetation under application was based on a Spring Flora and Vegetation report by Emerge Associates (2014).</p>

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 is not likely to be at variance to this Principle

The application is to clear 23.58 hectares of native vegetation within Lot 101 on Deposited Plan 37823, Lakelands, for the purpose of enabling bulk earthworks in preparation for residential development.

The majority of the application area has been historically cleared for purposes associated with sand and limestone quarries (Emerge Associates 2014). Approximately 21 hectares contain vegetation considered to be in a completely degraded or degraded (Keighery 1994) condition. Approximately two hectares were reported to be in good (Keighery 1994) condition.

Several priority flora species have been recorded within the local area (five kilometre radius), four of which are located within the same vegetation association and soil type as the application area. The closest of these is a Priority 3 species, located approximately two kilometres from the application area. A spring flora and vegetation survey (Emerge Associates 2014), encompassing the whole of Lot 101, identified one Priority 4 flora species within the survey area, approximately 500 metres from the application area. Priority 4 species are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances (Jones, 2015).. Considering this and that the species is not within the application area, the proposed clearing will not impact on the conservation status of this species. No threatened flora species were recorded within the survey area.

Four priority ecological communities (PEC) are mapped within the local area (five kilometre radius), three of which are mapped within the same vegetation association and soil type as the application area. The closest of these is a Priority 3 PEC described as 'northern Spearwood shrublands and woodlands'. The north eastern corner of the application area contains a small part of a plant community, considered similar to this PEC. However, as it is in a degraded (Keighery 1994) condition (Emerge Associates 2014) it is not likely to be representative of this PEC

The vegetation within the application area is not representative of a threatened ecological community (Emerge Associates 2014).

The proposed clearing is not likely to impact on significant habitat for indigenous fauna given the condition of the vegetation and the proximity of nearby reserves which contain vegetation in better condition.

Given the above, the application area is not likely to comprise a high level of biological diversity, therefore the clearing as proposed is not likely to be at variance to this principle.

Methodology

References:

Emerge Associates (2014)
Keighery (1994)
Jones (2015)

GIS Database:

- SAC Bio datasets - accessed December 2015

(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 is not likely to be at variance to this Principle

Fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 have been recorded within the local area (five kilometre radius) and include: forest red-tailed black-cockatoo (*Calyptorhynchus banksii* subsp. *naso*), Carnaby's cockatoo (*Calyptorhynchus latirostris*), chuditch (*Dasyurus geoffroii*), western quoll (*Dasyurus geoffroii*) and brush-tailed phascogale (*Phascogale tapoatafa* subsp. *tapoatafa*) (Parks and Wildlife 2007-).

Given the predominantly completely degraded to degraded (Keighery 1994) condition of the vegetation (Emerge Associates 2014) and the proximity of nearby reserves containing vegetation in better condition, the proposed clearing is not likely to contain, or impact upon, significant habitat for indigenous ground dwelling fauna.

According to a Level 1 Fauna assessment (Harewood 2014) the application area was not considered to contain significant foraging habitat for black cockatoos. Whilst no roosting trees were identified, 49 trees were noted to have a diameter at breast height of greater than 50 centimetres, 15 of which contained hollows. Two of the hollows identified were considered possibly large enough for black cockatoos, however there was no evidence of their use.

The application area is approximately 350 metres west of the axis lines of an ecological linkage identified in the South West Regional Ecological Linkage Technical Report (Molloy et al. 2009). These linkages are recognised for their significance in facilitating indigenous fauna movement across the landscape (Molloy et al. 2009). The application area is separated from this link by a train line. Any contribution of the vegetation within the application area to this linkage is impeded by this separation (Harewood 2014). The degradation or disruption

of the linkage resulting from the proposed clearing is therefore not likely to be significant.

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

Methodology References:
Emerge Associates (2014)
Harewood (2014)
Keighery (1994)
Molloy et al. (2009)
Parks and Wildlife (2007-)

GIS Database:
- SAC Bio datasets - accessed December 2015

(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**
One rare flora species has been recorded within the local area (five kilometre radius). This species has been recorded in the same mapped vegetation association and soil type as the application area.

No rare flora species were found within Lot 101 during a spring flora and vegetation survey (Emerge Associates 2014).

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

Methodology References:
Emerge Associates (2014)

GIS Database:
- SAC Bio datasets - accessed December 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**
Two threatened ecological communities (TEC) are mapped within the local area (five kilometre radius) and within the same vegetation association and soil type as the application area. The closest of these is described as: 'woodlands over sedgeland in Holocene dune swales of the southern Swan Coastal Plain', approximately four kilometres north of the application area.

The vegetation within the application area is not representative of either TEC (Emerge Associates 2014), therefore, the clearing as proposed is not likely to be at variance to this principle.

Methodology References:
Emerge Associates (2014)

GIS Database:
- SAC Bio datasets - accessed December 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 Swan Coastal Plain Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 39 per cent of its pre-European vegetation extent remaining (Government of Western Australia 2014). The City of Mandurah has approximately 49 per cent native vegetation remaining.

The National Objectives and Targets for Biodiversity Conservation includes a target that prevents the clearance of ecological communities with an extent below 30 per cent of that present pre-European settlement (Commonwealth of Australia 2001).

Aerial imagery indicates that the local area (five kilometre radius) surrounding the area under application retains approximately 40 per cent native vegetation cover.

Given the extent of native vegetation remaining, together with the predominantly completely degraded to degraded (Keighery 1994) condition (Emerge Associates 2014) and the scattered distribution of the vegetation proposed to be cleared, the application area is not considered to be a significant remnant in a highly cleared landscape.

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 (%)
IBRA Bioregion*				
Swan Coastal Plain	1,501,221	586,975	39	36
Shire*				
City of Mandurah	16,797	8,246	49	44
Beard Vegetation Association in Bioregion*				
997	3,444	2,363	69	63
998	50,867	19,373	38	41
1001	57,410	14,152	25	6
Hedde Vegetation Complex**				
Cottesloe Complex-Central And/South	45,300	15,026	33	13
Yoongarillup Complex	24,773	9,766	39	20

Methodology References:
Commonwealth of Australia (2001)
Emerge Associates (2014)
*Government of Western Australia (2014)
Keighery (1994)
**Parks and Wildlife (2015)

GIS Database:
- Swan Remnant 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**
No wetlands or watercourses are mapped within the application area. The nearest wetland is Paganoni Swamp, located approximately 125 metres west of the application area. This wetland is separated from the application area by a rail line.

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

Methodology GIS Databases:
- Swan Minor/Major Hydrography
- Geomorphic Wetlands - Swan Coastal Plain

(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 application area consists of 23.58 hectares and contains soils that are described as 'siliceous sands' (Northcote et al. 1960-1968). Sandy soils are susceptible to wind erosion. Given that approximately 21 hectares of the application area contain vegetation in a completely degraded to degraded (Keighery 1994) condition (Emerge Associates 2014) and the scattered distribution of the remaining vegetation, the proposed clearing is not likely to significantly increase the exposure of the soils which could otherwise result in appreciable land degradation. The soils of the application area are also underlain by limestone which is expected to limit the effects of wind erosion (Emerge Associates 2014).

No watercourses are mapped within the application area. Given the permeable, sandy soils, the proposed clearing is not likely to cause significant water erosion.

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

Methodology References:
Emerge Associates (2014)
Keighery (1994)
Northcote et al. (1960-68)

GIS Databases:
- Soils of WA
- Swan Minor/Major Hydrography
- Geomorphic Wetlands - Swan Coastal Plain

(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 is not likely to be at variance to this Principle**
The closest conservation area is Rockingham Lakes, a regional park, located approximately 630 metres north of the application area. Given this distance, the proposed clearing is not likely to impact upon the environmental values of conservation areas.

Therefore the clearing as proposed is not likely to be at variance to this principle.

Methodology GIS Database:
- Geomorphic Wetlands - Swan Coastal Plain
- Parks and Wildlife Tenure
- Regional Parks

(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**
No wetlands or watercourses are mapped within the application area. The proposed clearing is not likely to cause the deterioration of water quality at Paganoni Swamp given the distance of separation between the two (approximately 125 metres), their separation by a rail line and the condition of the vegetation under application.

Groundwater, which is mapped at 500-3000 total dissolved solids (milligrams per litre), is not likely to be further degraded as a result of the proposed clearing due to the predominantly completely degraded to degraded (Keighery 1994) condition of the vegetation (Emerge Associates 2014) and the scattered distribution of the vegetation.

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

Methodology References:
Emerge Associates (2014)
Keighery (1994)

GIS Databases:
- Swan Minor/Major Hydrography
- Geomorphic Wetlands - Swan Coastal Plain

(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**
No wetlands or watercourses are mapped within the application area.

The general area associated with the proposed clearing is gently undulating. Soils within the application area are chiefly siliceous sands (Northcote et al. 1960-1968) underlain by limestone (Emerge Associates 2014). The application area is therefore expected to be well-drained and the proposed clearing is not likely to alter the risk of waterlogging on the property, nor increase surface runoff. The proposed clearing is therefore not likely to cause or exacerbate the incidence or intensity of flooding.

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

Methodology References:
Emerge Associates (2014)
Northcote et al. (1960-68)

GIS Databases:
- Swan Minor/Major Hydrography
- Geomorphic Wetlands - Swan Coastal Plain

Planning instruments and other relevant matters.

Comments The application area is situated in the southern portion of Lot 101 Mandurah Road, Lakelands, the subject of a proposed subdivision (Emerge Associates 2014). The applicant has applied for a clearing permit in order to allow for bulk earthworks, prior to subdivision approval.

According to the local Town Planning Scheme, the eastern and southern portions of the application areas are zoned Rural, the remainder being zoned Urban Development. On 3 December 2015, the applicant received planning approval from the City of Mandurah for the purpose of earthworks within Lot 101, Mandurah Road Lakelands.

The application area is within the South West Coastal Groundwater Area, Mandurah subarea. The applicant has submitted the required applications under sections 5C and 26D of the Rights in Water and Irrigation Act 1914 to both drill a bore and take groundwater on Lot 101 (DoW 2015).

No public submissions have been received.

Methodology References:
DoW (2015)
Emerge Associates (2014)

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DoW (2015) Advice received in relation to clearing permit application CPS 6622/1, received 23 July 2015 (DER Ref: A938856).
- Emerge Associates (2014) Spring Flora and Vegetation Assessment: Lot 101 Mandurah Road, Lakelands, received 19 June 2015 (DER Ref: A922960).
- 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.
- Harewood (2014) Fauna Assessment of Lot 101 Mandurah Road, Lakelands, received 19 June 2015 (DER Ref: A922960).
- 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.
- Jones, A. (2015) Threatened and Priority Flora List, 11 November 2015. Department of Parks and Wildlife: Kensington, WA.
- 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.
- 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: Melbourne.
- Parks and Wildlife (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>. Accessed August 2015
- 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.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.