



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 6379/1

File Number: DER2014/002965-1

Duration of Permit: From 25 April 2015 to 25 April 2017

PERMIT HOLDER

Martindale Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE

Lot 622 on Deposited Plan 63643, Yarawindah

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 2.86 hectares of native vegetation within the area shaded yellow on attached Plan 6379/1.

A handwritten signature in black ink, appearing to read "M Warnock", written over a horizontal line.

M Warnock
SENIOR MANAGER
CLEARING REGULATION

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

26 March 2015

Plan 6379/1

31.055904°S

31.055904°S

116.190609°E

116.324124°E



116.190609°E

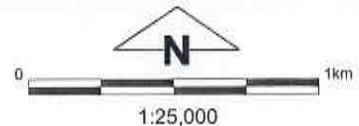
116.324124°E

31.1249°S

31.1249°S

Legend

-  Localities
-  Coastline
-  Roads - Main Road - Bridges
-  Roads - Freeway and National Highway - Bridges
-  Imagery
-  Clearing Instruments Activities
-  Local Government Authority
-  Roads - Freeway and National Highway



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

M Warnock Date 26/3/15
M Warnock

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

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the



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Clearing Permit Decision Report

Government of Western Australia
Department of Environment Regulation

1. Application details

1.1. Permit application details

Permit application No.: 6379/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Martindale Pty Ltd

1.3. Property details

Property: LOT 622 ON DEPOSITED PLAN 63643 (Yarawindah)
Local Government Area: Shire of Victoria Plains
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2.86		Mechanical Removal	Drainage

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 26 March 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 4 is described as medium woodland; marri & wandoo (Shepherd et al, 2001).	Clearing 2.86 hectares of native vegetation within Lot 622 on Deposited Plan 63643, Yarawindah, Shire of Victoria Plains for the purpose of drainage.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The vegetation under application is in a degraded (Keighery, 1994) condition and has been subject to past and current agricultural activities. The condition of the vegetation under application was obtained via aerial photography.

3. Assessment of application against Clearing Principles

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

Comments **Proposal is not likely to be at variance to this Principle**

The application is to clear up to 2.86 hectares of native vegetation within Lot 622 on Deposited Plan 63643, Yarawindah for the purpose of drainage. The proposed clearing will be undertaken over a linear length of approximately 3.2 kilometres and at a width of approximately nine metres.

The vegetation under application is in a degraded (Keighery, 1994) condition and has been subject to past disturbances from agricultural activities.

Numerous priority flora species have been recorded within the local area (10 kilometre radius). Several of the priority flora species have been mapped within similar soil and vegetation types. The identified priority 3 and 4 species have a broad distribution with many being recorded within conservation estates (Parks and Wildlife, 2015). A large number of these species have been recorded on hills, slopes, ridges, granite outcrops and tops of breakaways and a small number associated with drainage lines and gullies, however it is unlikely that the impact of the clearing would be significant on the conservation status of the recorded priority flora (Parks and Wildlife, 2015).

Carnaby's cockatoo (*Calyptorhynchus latirostris*) are known to exist in the local area (10 kilometre radius). The area under application is mapped as a confirmed breeding and roosting site for Carnaby's cockatoo however, the applicant has advised that the trees proposed to be cleared have a diameter between 50 and 300 millimetres. Breeding trees suitable for Carnaby's cockatoo generally have a diameter at breast height of 500 millimetres.

Considering the linear nature of the proposed clearing and that the vegetation under application is in a degraded (Keighery, 1994) condition, it is unlikely the vegetation under application contains a high level of biological diversity.

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

Methodology References
Keighery (1994)
Parks and Wildlife (2015)

GIS Datasets:
- Carnaby Cockatoo breeding sites
- SAC Biodatasets - accessed January 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 **Proposal is not likely to be at variance to this Principle**

Two fauna species of conservation significance have been recorded within a 10 kilometre radius of the application area with the species being Carnaby's cockatoo (*Calyptorhynchus latirostris*) and Shield-backed trapdoor spider (*Idiosoma nigrum*) (DPaW, 2007-).

The local area (10 kilometre radius) has approximately 35 per cent of its native vegetation remaining.

The area under application has been mapped as a confirmed breeding and roosting site for Carnaby's cockatoo. The Environment Protection and Biodiversity Conservation Act 1999 referral guidelines define breeding habitat for black cockatoos as trees of species known to support breeding within the range of the species which either have a suitable nest hollow or are of suitable diameter at breast height (DBH) to develop a nest hollow. For most trees, suitable DBH is 500 millimetres (SEWPaC, 2012).

The applicant has advised that the trees proposed to be cleared have a diameter between 50 and 300 millimetres, therefore are unlikely to be suitable for breeding or roosting purposes for black cockatoos.

The Shield-backed trapdoor spider is found in small bare patches in the leaf litter. The application area has been subject to agricultural activities and there is a large number of tree mortality within the clearing area caused from a build up of salinity that occurs on the property. The large number of tree deaths has resulted in very little leaf litter present in the application area. Considering the above the area under application is unlikely to support habitat suitable for the Shield-backed trapdoor spider.

The application is not likely to be at variance to this principle.

Methodology References
DPaW (2007-)
Northcote et al (1968-)
SEWPaC (2012)

GIS Datasets:
- Carnaby Cockatoo breeding sites

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

Comments **Proposal is not likely to be at variance to this Principle**

There have been two rare flora species recorded within 10 kilometres of the area under application.

Species 1 is a small shrub that grows between one and one and a half metres tall. It grows on gravelly slopes adjacent to lateritic breakaways, typically in mallee over crown melaleuca heath or melaleuca thicket (Brown et al, 1998).

Species 2 is an erect shrub that grows to approximately 60 centimetres tall. It grows in open wandoo woodland on the slopes of hills, in gravelly brown clayey sand (Brown et al, 1998).

The proposed clearing lies within a depression line and is low lying within the landscape and not on the slopes of hills or lateritic breakaways. Additionally the proposed clearing has been subject to past disturbance from agricultural activities. Considering this it is unlikely the proposed clearing will impact on rare flora.

The application is not likely to be at variance to this principle.

Methodology References
Brown et al (1998)

GIS Databases:
 - SAC Biodatasets - accessed January 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 **Proposal is not likely to be at variance to this Principle**
 There have been no threatened ecological communities mapped within 10 kilometres of the proposed clearing area.

Considering this, the area under application is not likely to be at variance to this principle.

Methodology GIS Databases:
 - SAC Biodatasets - accessed January 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 **Proposal is not likely to be at variance to this Principle**
 The local area surrounding the application (10 kilometre radius) retains approximately 35 per cent pre-European vegetation.

The area under application is represented by Beard Vegetation Association 4 which has 28 per cent of its pre-European vegetation remaining in the Jarrah Forrest IBRA Bioregion (Government of Western Australia, 2013).

The Shire of Victoria Plains retains approximately 16 per cent pre-European vegetation.

Given the amount of vegetation remaining within the Shire of Victoria Plains, the proposed clearing is within an area that has been extensively cleared. However, it is unlikely the vegetation under application is a significant remnant as it is in a degraded (Keighery, 1994) condition through the impacts of salinity and is unlikely to contain a high level of biodiversity.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DPaW Lands (%)
IBRA Bioregion				
Jarrah Forrest	4,506,660	2,457,731	54.5	68
Shire				
Shire of Victoria Plains	255,060	40,596	16	3
Beard Vegetation Association in Bioregion				
4	1,022,712	292,975	28	22

Methodology References
 Government of Western Australia (2013)
 Keighery (1994)

(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 **Proposal is at variance to this Principle**
 The proposed clearing for drainage is located adjacent to a minor perennial watercourse (Creek). Sections of the proposed drainage will be piped under the creek and minimal vegetation will need to be cleared to allow for the construction of the pipe at two crossover sections of the creek (Commissioner of Soil and Land Conservation, 2015). The remainder of the clearing will occur outside of the natural drainage line of the creek.

The proposed clearing is at variance to this principle however only minimal vegetation associated to the creek will be removed with impacts to the creek unlikely to be significant.

Methodology References
 Commissioner of Soil and Land Conservation (2015)

GIS Datasets:

- Hydrography linear

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

Comments Proposal is not likely to be at variance to this Principle

Soils within the application area comprises valleys that are frequently narrow and have short, fairly steep pediments, along with breakaways, mesas, and occasional granite tors. Chief soils are hard acidic yellow mottled soils along with sandy acidic yellow mottled soils, all of which contain moderate to large amounts of ironstone gravels in their surface horizons. Ironstone gravels occur on the ridge crests and on the fine gravel deposits of the gently undulating parts of the unit, along with leached sands (Northcote et al 1960 - 1968).

The groundwater salinity within the area under application has been recorded between 3000 to 14000 milligrams of total dissolved solids per litre. It is unlikely the removal of 2.86 hectares of native vegetation over a linear distance of approximately 3.2 kilometres will result in a rise in groundwater levels, therefore land degradation in the form of salinity is not likely to be significant. The clearing is required to reduce the build up of salinity on the property which has caused multiple tree mortality.

Given the linear nature of the proposed clearing, it is not likely to cause land degradation in the form of increased groundwater salinity, wind or water erosion. The applicant has received a Notice of Intent to Drain from the Commissioner of Soil and Land Conservation. The Commissioner has advised that the proposed drainage works is unlikely to result in land degradation.

The application is not likely to be at variance to this principle.

Methodology

References

- Northcote et al (1960-1968)

GIS Datasets:

- Hydrography linear
- Groundwater Salinity, Statewide
- Topographic contours

(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 Proposal is not likely to be at variance to this Principle

The closest conservation area to the proposed clearing area is the Moganmoganing Nature Reserve. The reserve is located approximately one kilometre from the proposed clearing.

The vegetation within the application areas and nature reserve are not linked and given the linear nature of the proposed clearing and the area surrounding the application area is currently used for agricultural purposes, it is unlikely the proposed clearing will impact on the conservation status of the Moganmoganing Nature Reserve.

The application is not likely to be at variance to this principle.

Methodology

GIS Datasets:

- DPaW 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 Proposal is not likely to be at variance to this Principle

The area under application is located adjacent to a minor perennial watercourse (creek). The proposed clearing for drainage will impact on two sections of the creek to establish a pipeline that will run under the creek to allow for drainage and avoid impacting the natural flow of the creek. The proposed clearing may cause some short term localised surface water sedimentation that may impact upon the watercourses, however these effects are likely to be short term.

Groundwater salinity within the area under application is mapped at 3000-14000 milligrams of total dissolved solids per litre which is considered to be brackish to highly saline. It is unlikely the clearing over a linear distance of approximately 3.2 kilometres will increase groundwater salinity levels in the local area. The clearing is required to reduce the build up of salinity on the property which has caused a number of trees to die.

The application is not likely to be at variance to this principle.

Methodology

GIS Datasets:

- Hydrography linear
- Groundwater Salinity, Statewide
- Topographic contours

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

Comments Proposal is not likely to be at variance to this Principle

The area under application is located adjacent to a minor perennial watercourse. The clearing is required in order to create a drain that will improve water flow through the site and alleviate the effects of a rising water table.

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

Methodology GIS Datasets:
- Hydrography linear
- Topographic contours

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

The applicant has received a Notice of Intent to Drain from the Commissioner of Soil and Land Conservation. Drains will be constructed on the valley floor. The intention of the drains is to address the growing salinity problem that is killing remnant vegetation in the creek. The drains are expected to have some beneficial effect on the land, remnant vegetation and the creek.

The applicant does not require planning approval for drainage works on farming properties (Shire of Victoria Plains, 2014). The Shire of Victoria Plains (2014) advises that consultation with the affected neighbours is required.

Methodology References
- Shire of Victoria Plains (2014)

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.
- Commissioner of Soil and Land Conservation (2015). Advice received in relation to Clearing Permit Application CPS 6379/1 – Martindale Pty Ltd (DER Ref:A871158)
- DPaW (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed January 2015
- Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, 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: Melbourne.
- Parks and Wildlife (2015) Flora advice received in relation to clearing permit application CPS 6379/1 – Martindale Pty Ltd (DER Ref:A870792).
- SEWPaC (2012) Referral guidelines for three threatened black cockatoo species: Carnaby's cockatoo, Baudin's cockatoo and Forest red-tailed black cockatoo. Department of Sustainability, Environment, Water, Population and Communities.
- 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.
- Shire of Victoria Plains (2014) Advice received in relation to clearing permit application CPS 6379/1, Martindale Pty Ltd (DER Ref:A848204).