GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS
Area Permit Number: 3256 / 1
File Number: DEC12454
Duration of Permit: From 23 October 2009 to 23 October 2011

PERMIT HOLDER
Shire of Manjimup

LAND ON WHICH CLEARING IS TO BE DONE

Graphite Road Reserve (MANJIMUP 6258)
Graphite Road Reserve (RINGBARK 6258)
Graphite Road Reserve (DEANMILL 6258)
Graphite Road Reserve (DIXVALE 6258)
Graphite Road Reserve (GLENORAN 6258)

AUTHORISED ACTIVITY
Clearing of up to 0.21 hectares of native vegetation within the area hatched yellow on attached Plan 3256/1a, 3256/1b, 3256/1c, 3256/1d, 3256/1e and 3256/1f.

CONDITIONS
1. Dieback and weed control

(a) 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:

(i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
(ii) shall not move soils in wet conditions;
(iii) ensure that no dieback or weed-affected soil, mulch, fill or other material is brought into the area to be cleared; and
(iv) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

(b) At least once in each 12 month period for the term of this Permit, the Permit Holder must remove or kill any weeds growing within areas cleared under this Permit.

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

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;

term means the duration of this Permit, including as amended or renewed;

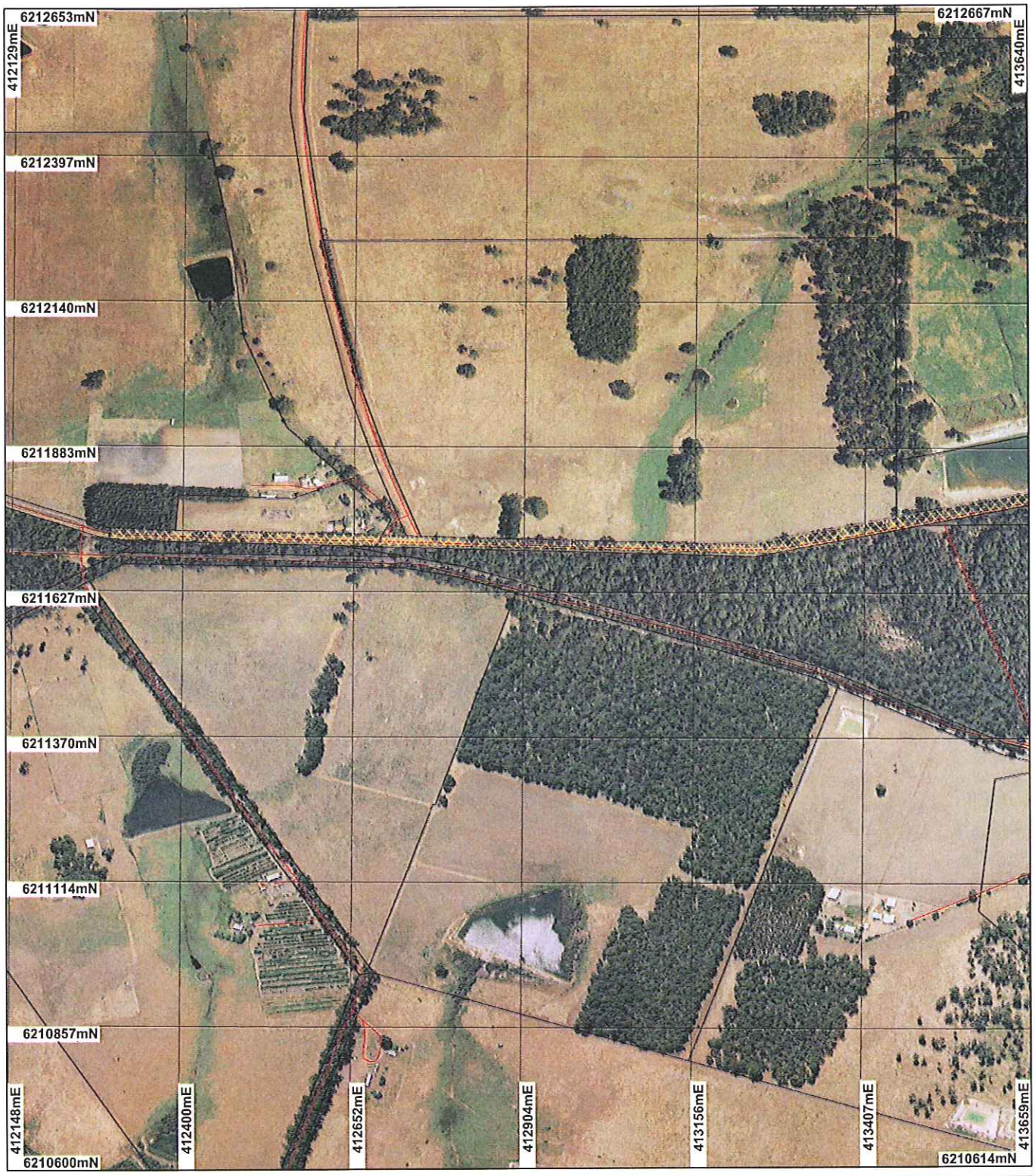
weed/s means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.

Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

Officer delegated under Section 20
of the Environmental Protection Act 1986

24 September 2009

Plan 3256/1a



LEGEND

- Road Centrelines
- Cadastre
- Clearing Instruments
- Areas Approved to Clear

Manjimup 50cm Orthomosaic - Landgate 2004

N

0 ~250 m

Scale 1:9000
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

K Faulkner Date 24/9/07

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

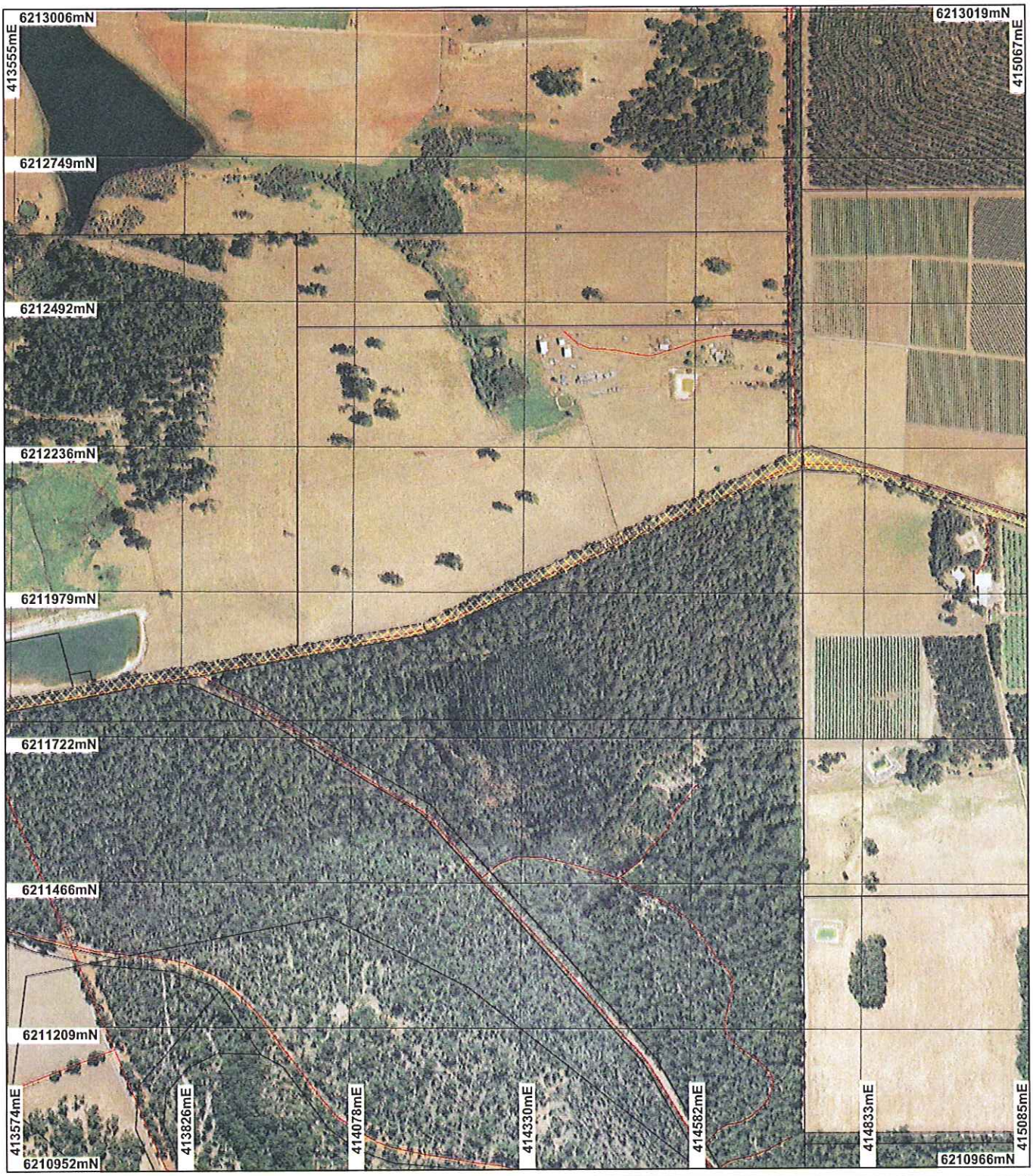
Information derived from this map should be confirmed with the data custodian acknowleged by the agency acronym in the legend.

Department of Environment and Conservation

Our environment, our future

** Project Data is denoted by asterisk. This data has not been quality assured. Please contact map author for details.*

Plan 3256/1b



LEGEND

- Road Centrelines
- Cadastre
- Clearing Instruments
- Areas Approved to Clear

Manjimup 50cm Orthomosaic * Landgate 2004

N

0 ~250 m

Scale 1:9000
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion of measurement inaccuracies.

Date 24/9/09

K Faulkner

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

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Department of Environment and Conservation

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Plan 3256/1c

LEGEND

- Road Centrelines
- Cadastre
  Clearing Instruments
- Areas Approved to Clear

Manjimup 50cm Orthomosaic *
Landgate 2004

N

0 ~250 m

Scale 1:9000
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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K Faulkner Date 24/9/09

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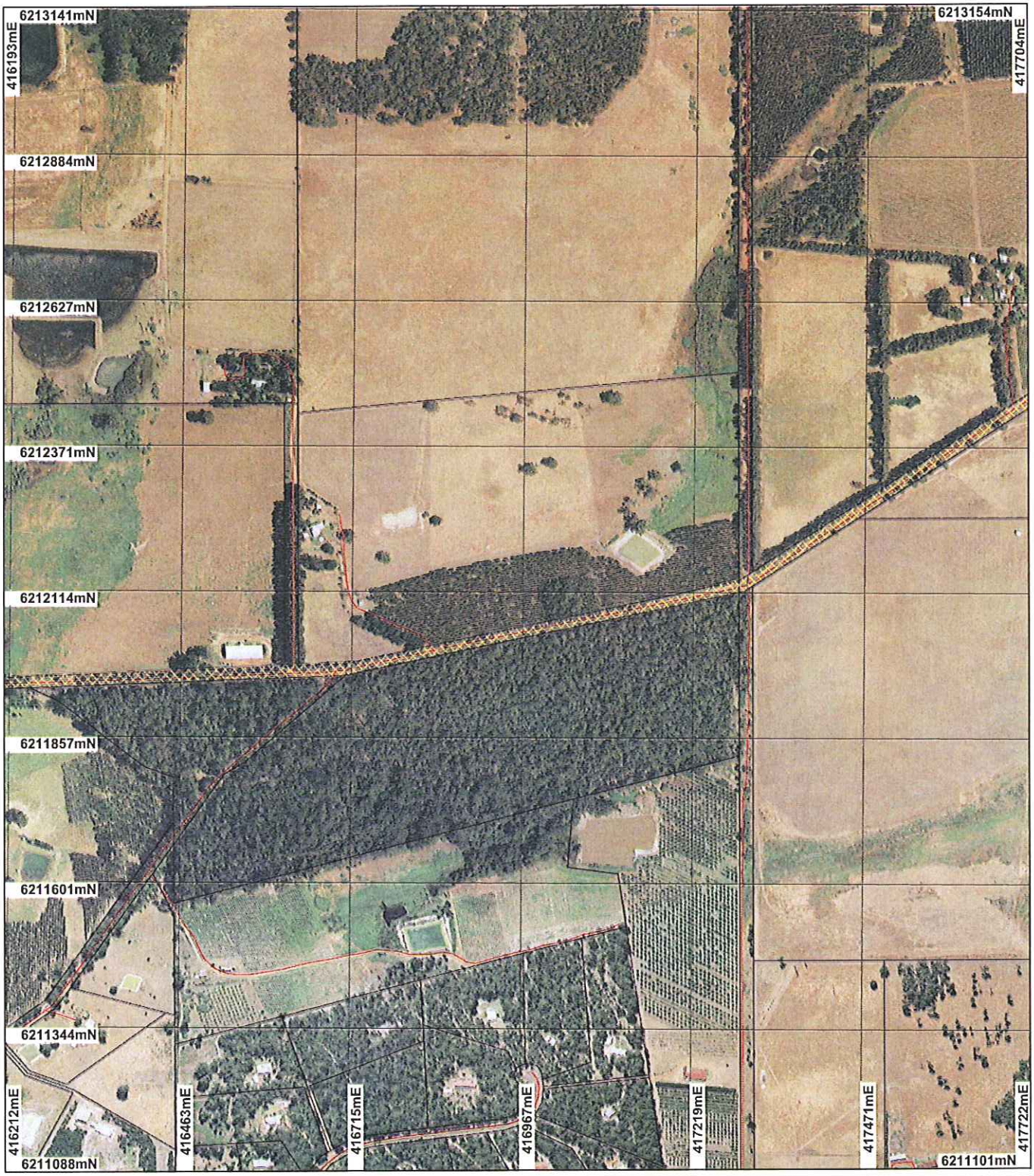
Plan 3256/1d



LEGEND

- Road Centrelines
- Cadastre
- Clearing Instruments
- Areas Approved to Clear

Manjimup 50cm Orthomosaic * Landgate 2004

N

0 ~250 m

Scale 1:9000
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

K Faulkner ..... Date 24/9/04

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

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Department of Environment and Conservation

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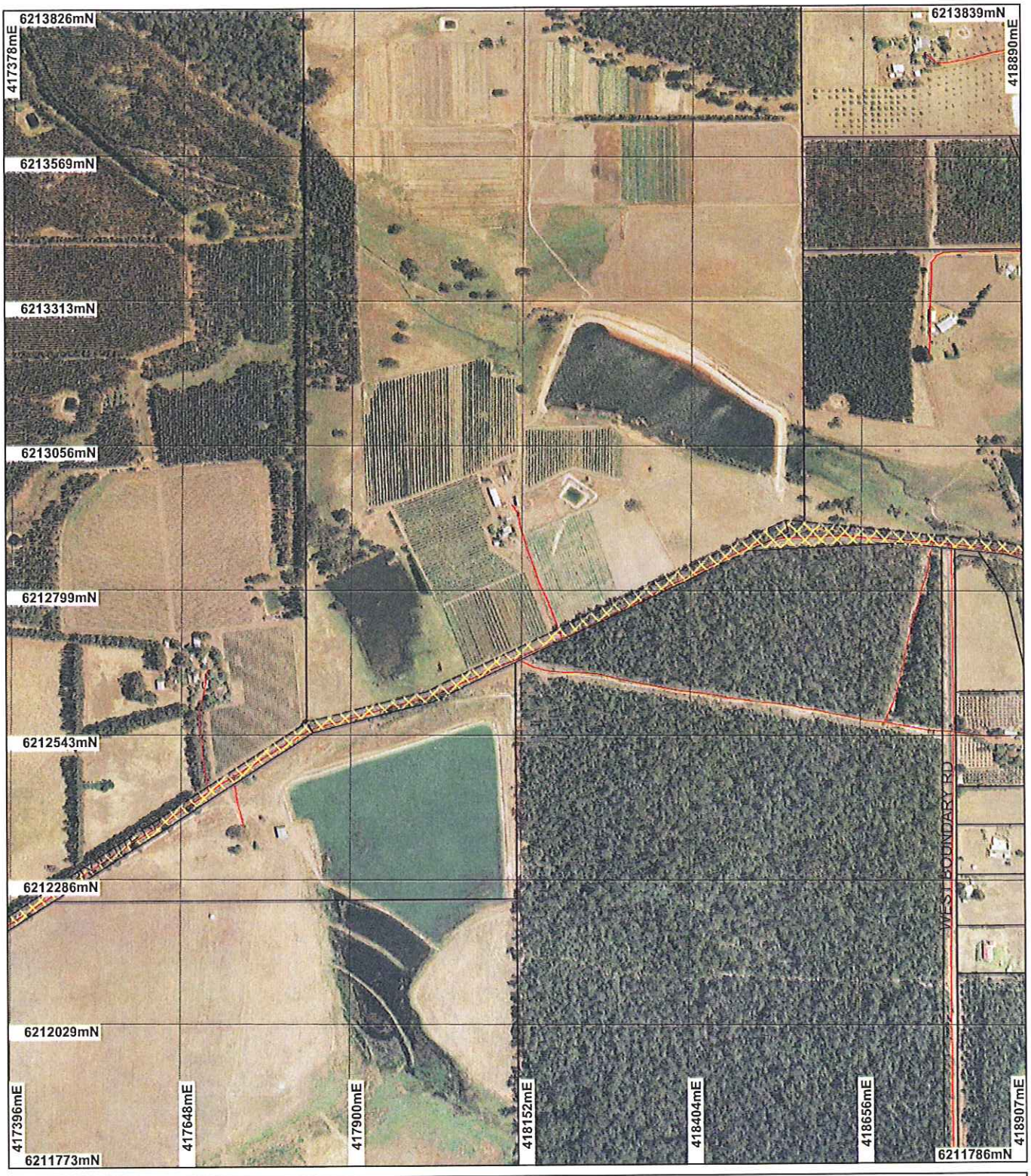
Plan 3256/1e



LEGEND

- Road Centrelines
- Cadastre
  Clearing Instruments
- Areas Approved to Clear

Manjimup 50cm Orthomosaic - Landgate 2004

N

0 ~250 m

Scale 1:9000
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

K Faulkner Date 24/9/09

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

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Department of Environment and Conservation

Our environment, our future

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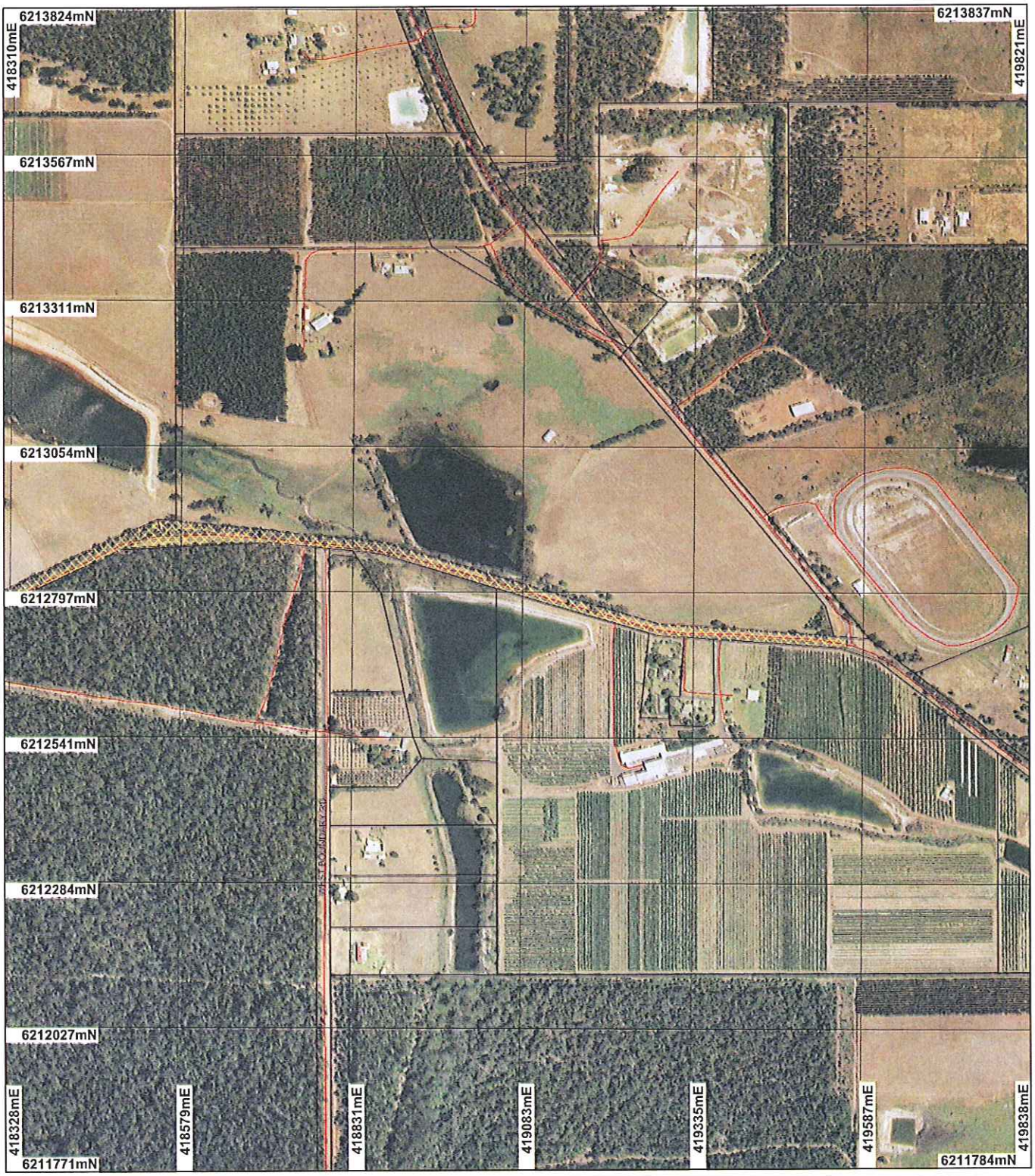
Plan 3256/1f



LEGEND

- Road Centrelines
- Cadastre
- Clearing Instruments
- Areas Approved to Clear

Manjimup 50cm Orthomosaic - Landgate 2004

N

0 ~250 m

Scale 1:9001
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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K Faulkner Date 24/9/09

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

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Department of Environment

** Project Data is denoted by asterisk. This data has not been quality assured. Please contact map author for details.*

Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3256/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Shire of Manjimup

1.3. Property details

Property:
ROAD RESERVE (MANJIMUP 6258)
ROAD RESERVE (RINGBARK 6258)
ROAD RESERVE (RINGBARK 6258)
ROAD RESERVE (DEANMILL 6258)
ROAD RESERVE (RINGBARK 6258)
ROAD RESERVE (RINGBARK 6258)
ROAD RESERVE (DEANMILL 6258)
ROAD RESERVE (DEANMILL 6258)
ROAD RESERVE (DIXVALE 6258)
ROAD RESERVE (DIXVALE 6258)
ROAD RESERVE (DIXVALE 6258)
ROAD RESERVE (GLENORAN 6258)

Local Government Area:

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.21		Mechanical Removal	Road construction or maintenance

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
The vegetation under application is mapped as Beard Vegetation Association 3. Beard Vegetation Association: 3 - Medium forest; jarrah (Eucalyptus marginata) and marri (Corymbia calophylla). The Mattiske vegetation is mapped as components of: cRy (Crowea) - Tall open forest of Corymbia calophylla with mixture of Eucalyptus marginata subsp. marginata and Eucalyptus diversicolor on uplands in hyperhumid and perhumid zones. BE1 (BEVAN 1) - Tall open forest of Corymbia calophylla (Marri) - Eucalyptus marginata subsp. marginata (Jarrah) on uplands in perhumid and humid zones. YN1 (YANMAH) - Mixture of tall open forest of Eucalyptus diversicolor (Karri) and tall open forest of Corymbia calophylla (Marri) - Eucalyptus patens	The proposed clearing is mainly to remove saplings and scrub that has regrown on the edge of the road following old clearing. There are a few larger, individual trees planned to be removed, which are situated right on the edge of the road, dead or dying or have large limbs encroaching towards the road. The ground cover consists mainly of introduced grass and weed species and Bracken fern (DEC 2009).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation condition was confirmed during DEC site inspection on 09/09/2009 (DEC 2009).

(Blackbutt) - Eucalyptus marginata subsp. marginata (Jarrah) over Agonis flexuosa (Peppermint) and Taxandria juniperina (Wattie) on valleys in perhumid and humid zones.

CL1 (CORBALUP 1) - Mosaic of open forest of Eucalyptus marginata subsp. marginata (Jarrah) - Banskia spp. on well drained sites, with some Eucalyptus decipiens on lower slopes in southern areas, woodland of Eucalyptus rudis (Flooded Gum) - Melaleuca preissiana (Moonah) - Banksia littoralis (Swamp Banksia) on depressions in perhumid and humid zones.

(Mattiske & Havel 1998; Shepherd et al. 2007).

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 proposed clearing is to remove vegetation that has regrown on the edge of the road following previous clearing. There are a few larger, individual trees planned to be removed, which are located on the edge of the road and are dead or dying or have large limbs encroaching the road. The ground cover consists mainly of introduced grass and weed species and Bracken fern (DEC 2009).

There are some conservation areas including those registered on the Register of National Estate within the local area (10 km radius). However, the clearing does not encroach into any of these conservation areas.

There are two Priority Flora species that have been recorded within the local area (10 km radius), namely Deyeuxia inaequalis (P1) and Drosera occidentalis subsp. occidentalis (P4). They are situated more than approximately 5 km away within a different vegetation complex. They occur in a similar soil type existing in the area under application. However, the vegetation in the area under application is on the edge of the road and the understorey consists mostly of non-native weed and grass species. Therefore, the area under application is not likely to support the presence of Priority Flora species.

One priority ecological community (P3) has been recorded within the local area (10 km radius) - Epiphytic Cryptogams (Cryptogams associated with Trymalium floribundum and Chorilaena quercifolia in the Karri forests of south west WA). However, it is located within a different vegetation type and a different soil type and not likely to be found in the 'degraded' (Keighery 1994) vegetation in the area under application.

Due to the roadside location, 'degraded' (Keighery 1994) condition, historic disturbance and the dominance of introduced weed and grass species within the understorey, the vegetation under application is not considered to contain high levels of biological diversity.

Methodology

DEC (2009)
Keighery (1994)
GIS Databases:
- CALM Managed Lands and Waters - CALM 01/07/05
- Manjimup 50cm Orthomosaic - Landgate 2004
- NLWRA, Current Extent of Native Vegetation 20/01/01
- SAC Biodatasets - accessed 25/08/09

(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

Seven species of threatened fauna and three species of priority fauna are known to occur within the local area (10 km radius) with the closest records being Phascogale tapoatafa (Brush-tailed Phascogale) Pseudocheirus occidentalis (Western Ringtail Possum) Dasyurus geoffroii (Chuditch) Calyptorhynchus banksii naso (Forest Red-tailed Black-Cockatoo) occurring within approximately 50 m from the area under application.

There are a few larger, individual trees within the vegetation under application however they are situated right on the edge of the road and are dead or dying (DEC 2009). The area under application is surrounded by six conservation areas and the proposed clearing is to remove 0.21 ha of 'degraded' (Keighery 1994) vegetation containing mainly of regrowth vegetation on the edge of the road (DEC 2009).

Due to the limited amount of clearing, 'degraded' (Keighery 1994) vegetation condition and the roadside location, the vegetation under application is not likely to provide significant habitat for fauna in the local area.

Methodology DEC (2009)
Keighery (1994)
GIS Databases:
- CALM Managed Lands and Waters - CALM 01/07/05
- Manjimup 50cm Orthomosaic - Landgate 2004
- SAC Biodatasets - Accessed 25/08/2009

(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**
One Rare Flora species, Caladenia harringtoniae, is known to occur within the local area (10 km radius), within a different Mattiske vegetation complex from the area under application.

The Rare Flora species is known to occur within similar soil types to the area under application however the vegetation in the area under application is on the edge of the road and the understorey consists mostly of non-native weed and grass species (DEC 2009). Therefore, the area under application is not likely to support the presence of Rare Flora species.

Methodology DEC (2009)
GIS Databases:
- Manjimup 50cm Orthomosaic - Landgate 2004
- SAC Biodatasets - Accessed 25/08/2009
- Soils, Statewide - DA

(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 are no known records of threatened ecological communities (TECs) within the local area (10 km radius) of the area under application. There are no onsite occurrences of TECs within the area under application (DEC 2009).

Given it is mostly regrowth vegetation and the degraded condition (DEC 2009), the vegetation under application is not likely to comprise a whole or a part of, or is necessary for the maintenance of, a TEC.

Methodology DEC (2009)
GIS Databases:
- Manjimup 50cm Orthomosaic - Landgate 2004
- SAC Biodatasets - Accessed 25/08/2009

(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 vegetation under application has components of the Beard and Mattiske vegetation types mapped for the area (DEC 2009). The proposed clearing is to remove 0.21 ha of 'degraded' (Keighery 1994) vegetation containing mainly of regrowth vegetation. (DEC 2009).

The threshold of native vegetation to be retained, as recognised by the EPA, is above 30 % of its pre-clearing extent (EPA 2000).

Given the limited vegetation to be removed, thin linear nature of the area under application and representation above recommended threshold levels, located on the roadside and 'degraded' (Keighery 1994), it is not considered to be significant as a remnant.

	Pre-European (%)	Current extent (ha)	Remaining (ha)	In secure tenure (%)
IBRA Bioregion*				
Warren	835,925	675,836	80.8	82.4
Jarrah Forest	4,506,655	2,440,940	54.2	69.3
Shire				
Shire of Manjimup	697,359	595,561	85.4	92.2

Beard vegetation type*				
3	2,661,405	1,863,719	70	80
1144	159,668	131,169	82.2	91.1
Mattiske				
Cry - Crowea	33,765	25,112	74.4	67.4
BE1 - Bevan 1	76,781	64,556	84.1	78.3
YN1 - Yanmah	19,512	15,993	82	75.5
CL1 - Corbalup	15,179	11,017	73	67.5

*3 - Medium forest; jarrah-marri. 1144 - Tall forest; karri-marri

* (Shepherd, 2007)
** (Mattiske & Havel, 1998)

Methodology

DEC (2009)
EPA (2000)
Keighery (1994)
Mattiske & Havel (1998)
Shepherd (2007)
GIS Databases:
- Interim Biogeographic Regionalisation of Australia - EA
- Local Government Authorities - DOLA
- Mattiske Vegetation - CALM
- SAC Biodatasets - Accessed 25/08/2009

(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 not likely to be at variance to this Principle

There are two minor perennial watercourses which are tributaries of Donnelly River, running across the Road Reserve vegetation under application.

The proposal area is situated within the Donnelly River Hydrographic Catchment. The proposed works along the area under application are outside the proclaimed boundary of the Country Areas Water Supply Act 1947 Warren River Water Reserve (DoW 2009).

Bridges have been previously constructed across the watercourses and vegetation removal will not have to take place on the banks of the watercourses (Applicant, personal communication). The vegetation to be removed is not growing in or in association with any watercourses within the local area.

Methodology

DoW 2009
GIS Databases:
- ANCA wetlands - Environment Australia 26/3/99
- EPP Lakes Policy Area - DEP 14/05/97
- Manjimup 50cm Orthomosaic - Landgate 2004
- Hydrography, linear - DoW
- Hydrography, linear (hierarchy) - DoW
- Ramsar wetlands - DEC 03

(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

Chief soils of the dissected hilly areas are hard acidic yellow mottled soils all containing ironstone gravels and brown earths with some hard acidic red mottled soils (Northcote et al. 1960-68). Salinity risk is mapped as medium on watercourses and low in other areas with a groundwater salinity ranging between 500-1000 mg/L total dissolved solids. The mean annual rainfall changes from 1100 mm on the west to 1000 mm/year towards east. The topography over the proposal area is of a medium relief.

Given the medium relief, clearing of the vegetation is likely to increase the surface water run-off along the roadsides however it will be managed through construction of table drains as a minimum. Therefore clearing is not likely to cause appreciable land degradation in the form of water erosion.

Methodology

Northcote et al. (1960-68)
GIS Databases:
- Average Annual Rainfall Isohyets - WRC 29/09/98

- Groundwater Salinity, Statewide - DoW
- Salinity Risk LM 25m - DOLA
- Soils, Statewide - DA
- Topographic Contours, Statewide - DOLA

(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 may be at variance to this Principle

Many CALM-Managed lands and areas registered on the Register of National Estate are situated within the local area (10 km radius). Parts of the proposal area are encroaching towards Faunadale Nature Reserve on the east and Conservation Commission Timber Reserves (un-named) on the west. Some conservation areas are situated within 500 m from the area under application.

Due to the close proximity of the conservation areas to the area under application, the proposed clearing may be at variance to this Principle. A hygiene condition will be placed on the permit to reduce the introduction and spread of weeds and dieback to and from the proposal area.

Methodology

GIS Databases:
- Manjimup 50cm Orthomosaic - Landgate 2004
- Register of National Estate - EA
- CALM Managed Lands and Waters - DEC
- Systems 1-5 and 7-12 Areas - DEC

(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 situated in the local area (10 km radius) of tributaries of Donnelly River with two of them running across the road.

Department of Water advised that proposed works along Graphite Road are outside the proclaimed Country Areas Water Supply Act 1947 Warren River Water Reserve (DoW 2009).

The proposed clearing is to remove 0.21 ha of regrowth vegetation on the edge of the road (DEC 2009).

Removal of roadside vegetation over a small area is not considered to affect the quality and quantity of the watercourses or their associated biological communities.

Methodology

DoW (2009)
GIS Databases:
- Gingin 50cm Orthomosaic Landgate 2006
- Groundwater Salinity, Statewide - DoW
- Hydrographic Catchments - Catchments - DoW
- Hydrography, linear - DoW
- Public Drinking Water Source Areas (PDWSAs) - 07/02/06
- RiWI, Areas - DoW
- Salinity Risk LM 25m - DOLA
- Topographic Contours, Statewide - DOLA

(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 runs across two tributaries of Donnelly River.

The topography of the proposal area is of a medium relief. The mean annual rainfall changes from 1100 mm/year over the western side to 1000 mm/year over the east of the proposal area.

Given the vegetation to be removed is limited and located on the edge of the road (DEC 2009), the clearing as proposed is not likely to cause excessive run off or flooding.

Methodology

DEC (2009)
GIS Databases:
- Hydrographic Catchments - Catchments - DoW
- Hydrography, linear - DoW
- Topographic Contours, Statewide - DOLA
- Average Annual Rainfall Isohyets - WRC 29/09/98

Planning instrument, Native Title, Previous EPA decision or other matter.

Comments

Cadastral information for the proposal area is 'Road Reserve' designated for public roads.

Methodology

DoW (2009)

GIS database:

- Cadastre - Landgate Dec 07
- Native Title Claims - LA 2/5/07
- Town Planning Scheme Zones - MFP 31/08/98
- Country Area Water Supply Act (Part IIA) Clearing Control Catchments 29/06/2006
- Aboriginal Sites of Significance 26 April 2007

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing is not likely to be at variance to Principles (a), (b), (c), (d), (e), (f) (g), (i) and (j) and may be at variance to Principle (h).

5. References

DEC (2009) Site Inspection Report for Clearing Permit Application CPS 3256/1, Graphite and Perup Road Reserves, Manjimup. Site inspection undertaken 09/09/2009. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC 97771).

DoW (2009) Direct Interest Submission for Clearing Permit Application CPS 3256/1, Graphite and Perup Road Reserves, Manjimup. Department of Water, Western Australia (TRIM Ref. DOC 98053).

EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority, 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.

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.

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.

Shepherd, D.P. (2007). Adapted from: 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

6. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)