Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2437/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: MR John Forrest & Marilyn Dale Dunne

1.3. Property details

Property:
LOT 3252 ON PLAN 204476 (TAMPU 6472)
LOT 3252 ON PLAN 204476 (TAMPU 6472)
LOT 3254 ON PLAN 204476 (TAMPU 6472)
LOT 3254 ON PLAN 204476 (TAMPU 6472)
LOT 3253 ON PLAN 204476 (TAMPU 6472)
LOT 3253 ON PLAN 204476 (TAMPU 6472)
LOT 3264 ON PLAN 204476 (TAMPU 6472)
LOT 3264 ON PLAN 204476 (TAMPU 6472)
PART LOT 4287 ON PLAN 238595 (REMLAP 6472)
PART LOT 4287 ON PLAN 238595 (REMLAP 6472)
LOT 3255 ON PLAN 204438 (TAMPU 6472)
LOT 3255 ON PLAN 204438 (TAMPU 6472)
ROAD RESERVE (TAMPU 6472)

Local Government Area: Shire Of Mount Marshall

Colloquial name:

1.4. Application

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

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 present within the area under application is mapped as three Beard (1980) vegetation associations: - 125: bare areas, salt lakes; approximately 44.2% of pre-European extent remaining within the Avon Wheatbelt IBRA region (20.0% within DEC-managed estate); - 142: medium woodland, Eucalyptus loxophleba (York Gum) and Eucalyptus salmonophloia (Salmon Gum); approximately 10.6% of pre-European extent remaining within the Avon Wheatbelt IBRA region (0.5% within DEC-managed estate); and - 325: succulent steppe, saltbush and samphire; approximately 94.4% of	The mapped Beard (1980) vegetation associations are distributed within the area under application as follows: - 125: extends across approximately 27.8% (along 5.3km) of the area under application, predominantly the chain of lakes and discharge point along the north-western portion of the area under application lower in the landscape; - 142: extends across approximately 46.1% (along 8.7km) of the area under application, located along the southern and eastern portions of the area under application higher in the landscape; and - 325: extends across approximately 26.1% (along 4.9km) of the area	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Supporting information (including photographs) provided by the applicant indicated that the vegetation under application is compromised due to salinity. A site inspection undertaken by DEC staff on 30/07/08 determined that the average condition (Keighery 1994) of the vegetation under application is considered to be 'good' or better for Beard association 125, 'degraded' to 'completely degraded' for Beard association 142, and 'good' or better for Beard association 325.

pre-European extent remaining within the Avon Wheatbelt IBRA region (0.0% within DEC-managed estate).	under application, intermittently spaced between lakes and at the discharge point of the area under application lower in the landscape.

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 may be at variance to this Principle

The area under application is located approximately 32 kilometres northwest of the town of Beacon, 5.8 kilometres east of Lake Moore and 21 kilometres southwest of Karroun Nature Reserve. The proposed clearing involves the removal of up to 13.63 hectares of native vegetation along a linear corridor of approximately 20 kilometres length and 11 metres in width to facilitate the construction of a single deep drainage channel (with a spoil heap on one side) to improve the movement of surface and ground water through the valley floor. Several areas of remnant vegetation will be impacted by this proposal, occurring on five land parcels and two road reserves:
- Lot 3252 on Plan 204476;
- Lot 3253 on Plan 204476;
- Lot 3254 on Plan 204476;
- Lot 3264 on Plan 204476;
- Part Lot 4287 on Plan 238595 (leasehold);
- Road Reserve (40 metres wide) - two crossings of undeveloped portion of Lancaster Road between Remlap Road and Mouroubra Road; and
- Road Reserve (40 metres wide) - three crossings of undeveloped portion of Bunce Road between Remlap Road and Mouroubra Road.

There are 3 Beard (1980) vegetation associations represented within the area under application. A site inspection undertaken by DEC officers on 30/07/08 determined that the vegetation within the area to be cleared was predominantly consistent with the mapped Beard associations. With respect to the length of proposed drain occurring within these associations, approximately:
- 27.8% (5.3 kilometres) is within association 125, estimated to impact on approximately 5.7 hectares (over 5.2 kilometres) of actual vegetation consistent with that association;
- 46.1% (8.7 kilometres) is within association 142, estimated to impact on approximately 1.8 hectares (over 1.6 kilometres) of actual vegetation consistent with that association; and
- 26.1% (4.9 kilometres) is within association 325, estimated to impact on approximately 5.4 hectares (over this length) of actual vegetation consistent with that association.
(Shepherd, 2007)

With specific reference to Beard association 142, this association has less than 15% of its pre-clearing extent remaining in the Avon Wheatbelt IBRA region. EPA Position Statement No.9 identifies vegetation complexes with less than 30% pre-clearing extent remaining in the bioregion as 'critical environmental assets' that should be avoided where possible, or if approved for development then offset. On undertaking a site inspection on 30/07/08 DEC officers determined that while the vegetation comprised dead trees and/or shrubs thought to be consistent with the Beard association, it now comprised an altered living association of species tolerant of the saline situation and was not wholly consistent with the expected diversity of the mapped association.

Aerial photography indicates extensively cleared landscape inside the agricultural clearing line, and extensive native vegetation coverage beyond clearing line.

The area under application occurs predominantly within the agricultural area described within EPA Position Statement Number 2. This Position Statement contains a general presumption against further clearing for agricultural purposes within the extensively cleared agricultural area. In summary, there has already been a significant loss of biodiversity values within the agricultural area and agricultural practices have not been able to mimic the ecological functions performed by native plant communities (EPA 2000), thus within the agricultural area biodiversity values should be managed in situ to ensure their future retention (EPA 1988).

Four woodland types are considered by WWF-Australia to be amongst the most threatened Eucalypt woodland communities of the Avon wheatbelt region, and these were selected for study through the Woodland Watch project (WWF, 2007). The mapped Beard associations within the area under application indicate the presence of two of these woodlands (DEC, 2008a).

There are approximately 75 records of priority flora within a 30 kilometre radius of the area under application. The closest of these are Spartothamnella sp. Helena and Aurora Range (priority 3) is located approximately 7.6 kilometres northwest of the area under application, Acacia cylindrica (priority 3) approximately 7.3 kilometres east, and Calytrix plumulosa (priority 3) approximately 10.6 kilometres east. The area under application is predominantly mapped as land unit Oc35, described as gently undulating to rolling terrain with occasional ridges and with the variable presence of laterite and granite outcrops, and predominantly hard alkaline red soils with variable associated soils (Northcote et al., 1960). These species are associated with sandy and loamy

soils in similar landscape positions as the area under application, thus it is possible that these species may also occur within the area under application.

Given that part of the area under application comprises an extensively cleared Beard association (although in 'degraded' (Keighery, 1994) or 'completely degraded' (Keighery, 1994) condition) (DEC, 2008a), that a large portion of the vegetation under application is in 'good' (Keighery, 1994) or better condition (DEC, 2008a), that one of the mapped vegetation associations is representative of a threatened woodland, and that there is a possibility of priority flora species being present, it is surmised that the vegetation comprises a high level of biological diversity.

Methodology

DEC (2008a)
EPA (2006)
EPA (2000)
EPA (1988)
Keighery (1994)
Northcote et al. (1960)
Schoknecht (2002)
Shpeherd (2007)
WA Herbarium (1998)
WWF (2007)
GIS datasets
- Beacon 1.4m Orthomosaic - DLI 2001
- Pre-European Vegetation - DA 2002
- EPA Position Paper No 2 Agriculture Region
- Soils, Statewide - DA 1999
- SAC biodatasets accessed June 2008
- DEFL - February 2008
- WAHerb (Midwest) - May 2007

(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 may be at variance to this Principle

Four woodland types are considered by WWF-Australia to be amongst the most threatened Eucalypt woodland communities of the Avon wheatbelt region, and these were selected for study through the Woodland Watch project. These woodlands are Eucalyptus loxophleba (York Gum), Eucalyptus salubris (Brown Gimlet), Eucalyptus salmonophloia (Salmon Gum), and Eucalyptus longicornis (Red Morrel) woodlands (WWF 2007). The mapped Beard (1980) vegetation associations within the area under application indicate the presence of woodlands of Eucalyptus loxophleba (York Gum) and Eucalyptus salmonophloia (Salmon Gum), representing two of the significant habitats studied by WWF-Australia.

There are approximately 15 records of threatened fauna and 5 records of priority fauna within a 30 kilometre radius of the area under application. The closest of these is Malleefowl (Leipoa ocellata, threatened) located approximately 15.5 kilometres east of the area under application, and Crested Bellbird (Oreoica gutturalis subsp. gutturalis, priority 4) approximately 16.4 kilometres southeast. In addition, a recent record of Western Spiny-tailed Skink (Egernia stokesii badia, threatened) is located approximately 2.3 kilometres from the area under application. Other threatened and priority fauna taxa recorded within a 30 kilometre radius include Shield-backed Trapdoor Spider (Idiosoma nigrum, threatened), Major Mitchells Cockatoo (Cacatua leadbeateri, priority 4), and a species of Brine Shrimp (Parartemia contracta, priority 1). Many of these species depend on woodland habitats for survival. The records appear to be primarily associated with large areas of remnant vegetation well-connected with other large remnants (as indicated on aerial photography).

The proposed clearing of a corridor of 11 metres in width is likely to have an impact on the ecological linkage between areas of remnant vegetation by causing fragmentation of habitats. Many woodland birds prefer canopy cover and may not venture into open areas such as that created by the clearing proposed. Further, it should be noted that while mammals, reptiles and other indigenous terrestrial fauna may successfully traverse the width of proposed clearing, it is unlikely that these fauna will be capable of traversing or escaping from a 2-3 metre deep channel with steep sides.

A site inspection undertaken by DEC officers on 30/07/08 determined that approximately 1.8 hectares of the vegetation under application comprised dead trees and/or shrubs thought to be consistent with woodlands of Eucalyptus loxophleba (York Gum) and Eucalyptus salmonophloia (Salmon Gum) (this vegetation type was identified eslewhere within the property in 'good' (Keighery, 1994) or better condition). The vegetation within the area under application was determined to be in 'degraded' to 'completely degraded' (Keighery, 1994) condition due to the impacts of secondary salinity, and comprised an altered living association of species tolerant of the saline situation.

Given the extensive vegetation coverage north of the area under application (as indicated on aerial photography), the proposed clearing is not expected to have a significant impact on fauna habitat in the wider landscape. However at a local scale the proposed clearing is likely to result in fragmentation and create a

trench that many fauna (such as reptiles) will not be able to traverse.

Methodology WWF (2007)
GIS datasets
- Pre-European Vegetation - DA 2002
- Beacon 1.4m Orthomosaic - DLI 2001
- SAC biodatasets accessed June 2008
- Fauna - October 2007

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

Comments

Proposal may be at variance to this Principle

There are approximately 24 records of rare flora (comprising six taxa) within a 30 kilometre radius of the area under application. The closest of these is Frankenia conferta (Silky Frankenia), located approximately 9.8 kilometres from the area under application. This species is listed under the Environment Protection and Biodiversity Conservation Act 1999 as 'Threatened'. Other rare flora recorded within a 30 kilometre radius include populations of Acacia denticulosa (Sandpaper Wattle), Boronia adamsiana (Barbalin Boronia), Caladenia drakeoides, Cyphanthera odgersii subsp. occidentalis and Eremophila resinosa (Resinous Eremophila).

There are approximately 75 records of priority flora within a 30 kilometre radius of the area under application. The closest of these are Spartothamnella sp. Helena and Aurora Range (priority 3), which is located approximately 7.6 kilometres northwest of the area under application, Acacia cylindrica (priority 3) located approximately 7.3 kilometres east, and Calytrix plumulosa (priority 3) located approximately 10.6 kilometres east.

The lack of close-proximity records does not necessarily indicate a lack of occurrence, it may indicate that flora have not yet been surveyed or reported in the vicinity of the area under application.

The area under application is predominantly mapped as land unit Oc35, described as gently undulating to rolling terrain with occasional ridges and with the variable presence of laterite and granite outcrops, and predominantly hard alkaline red soils with variable associated soils (Schoknecht, 2002). These rare and priority taxa are associated with sandy and loamy soils in similar landscape positions as the area under application, thus it is possible that these species may also occur within the area under application.

DEC (2008b) advised that the rare flora Frankenia conferta (Silky Frankenia) is known to inhabit the applied area within the clay soils near the high water line of salt lakes and seasonally inundated areas associated with salt lakes, and that populations in the Shire of Koorda are associated with Beard (1980) vegetation association 325. Given that approximately 5.4 hectares of the area under application comprises vegetation consistent with Beard association 325, it is possible that this species occurs within the area under application.

Methodology DEC (2008b)
Schoknecht (2002)
WA Herbarium (1998)

GIS datasets
- Soils, Statewide - DA 1999
- SAC biodatasets accessed June 2008
- DEFL - February 2008
- WAHerb (Midwest) - May 2007

(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 occurrences of threatened or priority ecological communities (TEC or PEC) within a 50km radius of the areas under application.

Given the above the vegetation under application is not likely to be part or, or necessary for the maintenance of a TEC and therefore the proposal is not likely to be at variance to this principle.

Methodology SAC biodatasets
- TEC and PEC database - June 2008

(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 at variance to this Principle

There are 3 Beard (1980) vegetation associations represented within the area under application. One of these has

less than 15% of its pre-European extent remaining within the IBRA region and subregion, and two have less than 1% conserved within the IBRA region and subregion.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	Pre-European % in reserves/DEC managed lands
IBRA region: Avon Wheatbelt*	9 517 106	1 470 160	15.4	2.3
LGA: Shire of Mount Marshall*	1 018 648	619 075	60.8	29.6
Beard association: 125 *				
- statewide	3 483 739	3 246 540	93.19	7.19
- in Avon Wheatbelt	167 448	35 896	21.44	7.79
Beard association: 142 *				
- statewide	711 262	192, 236	27.03	3.98
- in Avon Wheatbelt	561 021	63,729	11.36	2.92
Beard association: 325 *				
- statewide	64 629	60 010	92.85	20.03
- in Avon Wheatbelt	8 124	7 541	92.82	0.0

* (Shepherd, 2007)

Aerial photography indicates extensively cleared landscape inside the agricultural clearing line, and extensive native vegetation coverage beyond clearing line. The local government has about 10% of its original vegetation cover remaining within the agricultural zone.

The area under application falls within EPA Position Statement No.2 agricultural area, which has a general presumption against clearing within the agricultural area for agricultural purposes. Two of the vegetation associations has a current extent within the bioregion that is lower than the desirable 30% threshold level target identified by the EPA (2000).

With specific reference to the current extent of Beard association 142 and 125, EPA Position Statement No.9 identifies vegetation complexes with less than 30% pre-clearing extent remaining in the bioregion as 'critical environmental assets' that should be avoided where possible, or if approved for development then these must offset. A site inspection undertaken by DEC officers on 30/07/08 determined that approximately 1.8 hectares of the vegetation under application comprised dead trees and/or shrubs thought to be consistent with these Beard associations, and was considered to be in 'degraded' to 'completely degraded' (Keighery, 1994) condition since it comprised an altered living association of species tolerant of the saline situation.

Methodology

DEC (2008a)
EPA (2006)
EPA (2000)
Keighery (1994)
Shepherd (2007)
GIS datasets
- Beacon 1.4m Orthomosaic - DOLA 2001
- Interim Biogeographic Regionalisation of Australia (subregions) - EA 2000
- EPA Position Paper No 2 Agriculture Region

(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 area under application occurs within a broad valley floor on the edge of a primary saline salt lake system, approximately 310-320 metres above sea level. The directional flow of the water is approximately west and north-west through a chain of lakes into Boomerang Lake, part of the Lake Moore system.

Two of the mapped Beard (1980) vegetation associations occurring within the area under application are characterised by bare areas associated with salt lakes and succulent steppe associated with saltbush and samphire, indicative of a primary saline valley floor containing vegetation associated with natural watercourses and lakes.

A site inspection undertaken by DEC officers on 30/07/08 confirmed that the proposed clearing is to occur within natural drainage channels and impacts on samphires and other vegetation associated with saline valley floors.

Methodology

DEC (2008a)
Shepherd (2007)
GIS datasets
- Pre-European Vegetation - DA 2002
- Topographic Contours, Statewide - DOLA 2002
- Hydrography, Lakes (medium scale, 250k GA)
- Hydrography, Linear - DOW 2006

(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

The area under application occurs within a broad valley floor on the edge of a primary saline salt lake system, approximately 310-320 metres above sea level.

Salinity mapping and salinity risk indicate that the area under application is predominantly located within a saline system in the valley floor. It is not expected that the proposed clearing of 13.63 hectares of vegetation along several kilometres will exacerbate the spread of salinity, although the removal of deep-rooted vegetation may have an effect on the depth of the local water table.

The land unit within the area under application is predominantly mapped as land unit Oc35, described as gently undulating to rolling terrain with occasional ridges and with the variable presence of laterite and granite outcrops, and predominantly hard alkaline red soils with variable associated soils. These soils have a low to moderate potential for wind erosion and a variable potential for acidification (Schoknecht 2002).

Advice received from the Commissioner of Soil and Land Conservation (Department of Agriculture and Food WA, 2008) states 'If the aim of the clearing is to install a network of deep drains it would appear unlikely to increase the land degradation risk to the already degraded valley floor. There is a strong possibility that it may improve the insitu valley floor.' The Commissioner also states 'The proposed clearing of 13.63 hectares of land within the above Lots is unlikely to cause appreciable land degradation. Therefore, this clearing is unlikely to be at variance with principle (g).'

Methodology

DAFWA (2008)
Schoknecht (2002)
GIS datasets
- Topographic Contours, Statewide - DOLA 2002
- Salinity Mapping LM 25m -DOLA 2000
- Salinity Risk LM 25m - DOLA 2000
- Soils, Statewide - DA 1999
- Pre-European Vegetation - DA 2002

(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

The area under application is located approximately 350 metres south of an environmentally sensitive area being the Lake Moore Area which is listed on the Register of the National Estate. The Lake Moore Area is noted for its diverse vegetation and degree of endemism, presence of birds rare to the region and variety of mammals, and is representative of extensively cleared Murchison and northern wheatbelt areas (DEWHA 2008). It is also mapped as a System 10 area.

The area under application is located approximately 14 kilometres northwest of Hernedemuning Nature Reserve, 15 kilometres northwest of Mungarri Nature Reserve, 17 kilometres southeast of Calyarn Nature Reserve, and 21 kilometres southwest of Karroun Nature Reserve.

The proposed clearing of native vegetation is likely to have an impact on the ecological linkage between these conservation areas. Given the extensive vegetation coverage north of the area under application (as indicated on aerial photography), the proposed clearing is not expected to have a significant impact in the wider landscape. However at a local scale the proposed clearing traverses undeveloped road reserves that act as significant corridors for fauna movement between conservation areas through an extensively cleared agricultural landscape.

Methodology

DEWHA (2008)
GIS datasets
- System 1 to 5 and 7 to 12 Areas - DEC 2006
- Clearing Regulations - Environmentally Sensitive Areas - DOE 2005

- Register of the National Estate - EA 2003
- CALM Managed Lands and Waters - CALM 2005
- Beacon 1.4m Orthomosaic - DLI 2001
- Agreement to Reserve - DAWA 2005
SAC biodatasets accessed June 2008

(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 within a broad valley floor on the edge of a primary saline salt lake system and within the Lake Moore catchment of the Ninghan Basin.

Advice received from the Commissioner of Soil and Land Conservation (Department of Agriculture and Food WA) states 'Groundwater is estimated at 1.5m at salinities of sea water and above, extensive saline effected land nearby.'

The proposed clearing may result in increased surface water runoff and water flow speed and therefore potentially an increase in turbidity and sedimentation downstream at least in the short term. In the long term, it is not expected that the proposed clearing will impact on the quality of surface or ground water.

Methodology

DAFWA (2008)
GIS datasets
- Topographic Contours, Statewide - DOLA 2002
- Hydrographic Catchments - DOW 2007
- Hydrography, Lakes (medium scale, 250k GA)
- Hydrography, Linear - DOW 2006

(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 predominantly within a 300mm per annum rainfall and 400mm per annum evapotranspiration zone, within a broad valley floor on the edge of a primary saline salt lake system, approximately 310-320 metres above sea level.

Advice received from the Commissioner of Soil and Land Conservation (Department of Agriculture and Food WA, 2008) states 'The current area is currently subject to waterlogging and flooding, clearing of 13.63 ha overall appears unlikely to contribute to the problem onsite.'

The proposed clearing may result in increased surface water runoff and water flow speed and therefore potentially affect the incidence and intensity of flooding downstream at least in the short term. In the long term it is not expected that the proposed clearing will impact on the incidence or intensity of flooding.

Methodology

DAFWA (2008)
GIS datasets
- Topographic Contours, Statewide - DOLA 2002
- Hydrography, Lakes (medium scale, 250k GA)
- Hydrography, Linear - DOW 2006
- Rainfall, Mean Annual - BOM 2001
- Evapotranspiration, Areal Actual - BOM 2001

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

Comments

The area under application occurs predominantly within the agricultural area described within EPA Position Statement Number 2. This Position Statement contains a general presumption against further clearing for agricultural purposes within the extensively cleared agricultural area. In summary, there has already been a significant loss of biodiversity values within the agricultural area and agricultural practices have not been able to mimic the ecological functions performed by native plant communities (EPA 2000), thus within the agricultural area biodiversity values should be managed in situ to ensure their future retention (EPA 1988).

The proponent advised that a notice of intent to drain (NOID) will be submitted to the Soil and Land Commissioner (at DAFWA) in the event that a clearing permit is granted in principle.

The proponent advised that a pastoral diversification permit will be applied for at the Pastoral Lands Board (at Department of Planning and Infrastructure) in the event that a clearing permit is granted.

The local government authority does not object to the proposed clearing of native vegetation to construct a drain to reclaim salt-affected land and terminating in a salt lake. The proponent advised that approval for

clearing to occur within two undeveloped road reserves has been sought from the local government authority.

There are no sites of Aboriginal significance occurring within the area under application.

There are no native title claims affecting the area under application. Since a portion of the proposal affects Crown land and is for a purpose not consistent with the vesting of that Crown land, the clearing may constitute a future act. Future act notification was sent to the native title representative body on 25/07/08 inviting a submission within 28 days. No submission was received within the comment period.

Methodology

EPA (2000)
EPA (1988)
GIS datasets
- EPA Position Paper No 2 Agriculture Region
- Native Title Claim Boundaries of Western Australia - Landgate 2007
- Aboriginal Sites Register System - DIA 2007
- Aboriginal Lands Trust Estate - DIA 2002

4. Assessor's comments

Comment

The assessment of this proposal against the ten clearing principles in Schedule 5 of the Environmental Protection Act 1986 has determined that the clearing:
- is at variance with principle (e) and (f);
- may be at variance with principles (a), (b), (c) and (h); and
- is not likely to be at variance with principles (d), (g), (i) and (j).

5. References

DAFWA (2008) Land degradation report (11 August 2008). Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. TRIM ref DOC60158.

DEC (2008a) Site Inspection Report for site inspection of CPS 2437/1 undertaken on 30 July 2008. Native Vegetation Conservation Branch, Department of Environment and Conservation. TRIM ref DOC59202.

DEC (2008b) Yilgarn District Office advice dated 23 July 2008, Department of Environment and Conservation. TRIM ref DOC58524.

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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.

EPA (2006) Environmental Offsets. Position Statement No. 9, January 2006. Environmental Protection Authority.

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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.

Schoknecht N. (2002) Soil Groups of Western Australia. A simple guide to the main soils of Western Australia. Resource Management Technical Report 246. Edition 3

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.

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.

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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)