Department of Environment
Government of Western Australia

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 1039/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Shire of Murray**
Postal address: Po Box 21 Pinjarra WA 6208
Contacts: Phone: 9531 7765
Fax: 9531 1981
Email: donnab@murray.wa.gov.au

1.3. Property details

Property:
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
6.75		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
Crown Reserve 34466, Pinjarra Swan Complex: Fringing woodland of *E. rudis - M. rhaphiophylla* with localised occurrences of low open forest of *Casuarina obesa* and *M. cuticularis*.	Area under application proposed for the installation / upgrade of a drain outlet, with the clearing of vegetation considered unlikely to be necessary. The area under application contains approximately one *Eucalyptus calophylla* and one *Eucalyptus rudis*, located on the banks of the Murray River. Vegetation within this area is considered to be in a completely degraded condition, lacking species diversity and structure.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	Vegetation clearing descriptions based on information obtained from site inspections undertaken on 1 September 2006, and information provided by the Shire of Murray.
Unnamed Road Reserve, Inglehope Mattiske Vegetation Association: Yg1: Open forest of *Eucalyptus marginata* subsp. *marginata* - *Corymbia calophylla* on slopes with mixtures of *Eucalyptus patens* and *Eucalyptus megacarpa* on the valley floors in humid and subhumid zones.	Vegetation clearing proposed for the replacement / upgrade of an existing timber bridge (Chadora Bridge). Proposed clearing is limited to vegetation immediately surrounding the existing bridge. Aerial photography of this area shows vegetation to be consistent with the surrounding vegetation, which is known to comprise of *Eucalyptus marginata* - *Eucalyptus calophylla* open forest.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation clearing descriptions based on information provided by the Shire of Murray.
Railway Avenue, North Dandalup Forrestfield Complex: Vegetation ranges from open forest of *E. calophylla - E. wandoo - E. marginata* to open forest of *E. marginata - E. calophylla - C. fraseriana - Banksia* species. Fringing woodland of *E. rudis* in the gullies that dissect this landform.	Vegetation proposed for removal consists of 15 *Eucalyptus calophylla*, predominantly located on the western edge of Railway Avenue, between the existing roadway and a drainage ditch. No native understorey vegetation is present within the road reserve, with adjacent areas dominated by *Watsonia* species. Vegetation within this area is considered to be in a completely degraded condition.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	Vegetation clearing descriptions based on information obtained from site inspections undertaken on 1 September 2006, and information provided by the Shire of Murray.
Paterson Road, Pinjarra Guildford Complex: A mixture of open forest to tall open forest *of E. calophylla - E. wandoo - E. marginata* and woodland of *E. wandoo* (with rare occurrences of *E. lane-poolei*). Minor components include *E. rudis - M. rhaphiophylla*.	Vegetation removal proposed for the realignment of an existing bridge. Vegetation within the area under application comprises *Eucalyptus calophylla*, *Eucalyptus rudis*, and *Melaleuca* sp. Vegetation located to the south of the bridge predominately comprises of introduced eastern states *Eucalyptus* trees. No native understorey vegetation is present, and thus is considered to be in a completely degraded condition.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	Vegetation clearing descriptions based on information obtained from site inspections undertaken on 1 September 2006, and information provided by the Shire of Murray.
Hampton Road, Pinjarra Swan Complex: Fringing woodland	Vegetation within the Hampton Road Reserve is predominately located on the western side of the reserve. This vegetation comprises *Eucalyptus*	Completely Degraded: No longer intact;	Vegetation clearing descriptions based on information obtained

of *E. rudis - M. rhaphiophylla* with localised occurrences of low open forest of *Casuarina obesa* and *M. cuticularis*. Bassendean Complex - Central and South: Vegetation ranges from woodland of *E. marginata - C. fraseriana - Banksia* spp. to low woodland of *Melaleuca* species, and sedgelands on the moister sites. This area includes the transition of *E. marginata* to *E. todtiana* in the vicinity of Perth.	*calophylla, Melaleuca rhaphiophylla*, and *Kunzea glabrescens*, although this vegetation is relatively sparse. Watsonia species is present in areas which are not actively slashed through road maintenance. Vegetation within this road reserve is considered to be in a completely degraded condition.	completely/almost completely without native species (Keighery 1994)	from site inspections undertaken on 1 September 2006, and information provided by the Shire of Murray.
Thompson Road, West Pinjarra Cannington Complex: Mosaic of vegetation from adjacent vegetation complexes of Bassendean, Karrakatta, Southern River and Vasse.	Vegetation within the Thompson Road Reserve consists primarily of individual trees scattered along the length of the reserve. Species include *Nuytsia floribunda, Eucalyptus calophylla*, and *Xanthorrhoea preissii* towards the northern end of the reserve. The southern portion of the reserve contains *Melaleuca rhaphiophylla, Melaleuca preissiana, Xanthorrhoea preissii*, and *Eucalyptus calophylla*. Vegetation is considered to be in a completely degraded condition, with native vegetation being quite sparse and understorey structure being absent.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	Vegetation clearing descriptions based on information obtained from site inspections undertaken on 1 September 2006, and information provided by the Shire of Murray.
Mills Road, West Pinjarra Cannington Complex: Mosaic of vegetation from adjacent vegetation complexes of Bassendean, Karrakatta, Southern River and Vasse. Southern River Complex: Open woodland of *E. calophylla - E. marginata - Banksia* species with fringing woodland of *E. rudis - M. rhaphiophylla* along creek beds. Guildford Complex: A mixture of open forest to tall open forest of *E. calophylla - E. wandoo - E. marginata* and woodland of *E. wandoo* (with rare occurrences of *E. lane-poolei*). Minor components include *E. rudis - M. rhaphiophylla*.	Vegetation clearing proposed for the upgrade of Mills Road and associated roadside drainage systems. Vegetation with the Road Reserve varies along its length, but is identified as being primarily in a completely degraded condition. Vegetation located west of the Mills Road EPP Lake consists of scattered *Melaleuca rhaphiophylla, Banksia attenuata, Eucalyptus calophylla, Eucalyptus rudis*, and *Xanthorrhoea preissii*. Vegetation structure is absent, with weeds and pasture grasses located along the majority of the road reserve. Vegetation located on the southern side of the road reserve, adjacent to the Mills Road EPP Lake, consists of *Eucalyptus calophylla, Melaleuca rhaphiophylla, Kunzea glabrescens, Banksia attenuata*, and a *Juncus* species within the existing roadside drain. Vegetation removal is proposed for the straightening of Mills Road, reducing the angle on this potentially dangerous corner. This area has been preferentially selected to minimise impacts that may occur to the wetland to the north of the road reserve. Vegetation within this section is considered to be in a degraded condition. Vegetation located east of the Mills Road EPP Lake varies depending on the position within the landscape. The lowland area located immediately east of the Mills Road EPP Lake contains *Eucalyptus calophylla, Allocasuarina fraseriana, Banksia attenuata, Banksia menziesii, Banksia illicifolia*, and *Hibbertia hypericoides*. Vegetation within this portion ranges in width from 1 to 2 metres, and is considered to be in a degraded condition. Vegetation associated with upland areas within the eastern portion of the Mill Road reserve consists of *Banksia attenuata, Banksia illicifolia, Hibbertia hypericoides, Allocasuarina fraseriana, Acacia pulchella, Xanthorrhoea preissii, Eucalyptus calophylla*, and *Kingia australis*. The northern side of the road reserve is considered to be within a degraded condition, with small areas in good condition. The southern side of the road reserve only contains scattered vegetation, lacks vegetation structure, and thus is considered to be in a completely degraded condition.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation clearing descriptions based on information obtained from site inspections undertaken on 1 September 2006, and information provided by the Shire of Murray.
Fawcett Street, Coolup Guildford Complex: A mixture of open forest to tall open forest of *E. calophylla - E. wandoo - E. marginata* and woodland of *E. wandoo* (with rare occurrences of *E.*	Vegetation within the northern portion of the Fawcett Road Reserve is considered to be in a degraded condition, dominated by an understorey of *Watsonia* species, with overstorey species consisting of an unknown *Melaleuca* species and the occasional *Eucalyptus rudis*.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	Vegetation clearing descriptions based on information obtained from site inspections undertaken on 1 September 2006, and information provided

lane-poolei). Minor components include *E. rudis - M. rhaphiophylla.*			by the Shire of Murray.
Burnside Road, Meelon Forrestfield Complex: Vegetation ranges from open forest of *E. calophylla - E. wandoo - E. marginata* to open forest of *E. marginata - E. calophylla - C. fraseriana - Banksia* species. Fringing woodland of *E. rudis* in the gullies that dissect this landform.	Clearing within the Burnside Road Reserve is proposed for the upgrade of an existing bridge / culvert. This clearing will be limited to vegetation immediately surround the existing bridge and for the purpose of 'blending' the bridge into the current road alignment for the maintenance of safety. This clearing is likely to include two *Melaleuca rhaphiophylla* and a maximum of four *Eucalyptus calophylla.* No understorey or other native vegetation is present within the applied area, and thus is considered to be in a degraded condition.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	Vegetation clearing descriptions based on information obtained from site inspections undertaken on 1 September 2006, and information provided by the Shire of Murray.

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 vegetation under application within the road reserves in the Shire of Murray is degraded to completely degraded with the exception of Mills Road, which does contain small portions considered to be within good condition. Vegetation that ranges from completely degraded to degraded condition lacks community structure and diversity, and therefore does not represent areas of high biodiversity. Portions of the Mills Road reserve, east of the Mills Road EPP Lake, are considered to be in good condition. These areas are located on the northern side of the reserve, adjacent to relatively large stands of remnant vegetation. This vegetation is within long thin linear strips and faces extensive pressures from edge effects such as weed invasion. Additionally this area would be unlikely to contain a higher level of biodiversity than that found in the adjacent reserve that is managed for conservation purposes.

Methodology Site inspection (01/09/06)

Officer Andrew Richardson

(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

Site inspection of the areas under application identified that the vegetation is primarily within a Completely Degraded condition. Where understorey vegetation is present, it is limited in extent, and considered unlikely to provide significant habitat. Large trees located within the Road Reserves did not appear to contain hollows or habitat not represented within nearby areas of surrounding vegetation. As such, the proposed clearing of vegetation is considered unlikely to be at variance to this Principle.

Methodology Site inspection (01/09/06)
GIS Database:
Swan Coastal Plain South 40cm Orthomosaic - DLI 05

Officer Andrew Richardson

(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

Declared Rare Flora (DRF) mapping identified the following species located in relatively close proximity to areas of vegetation under application:

Railway Avenue, North Dandalup - *Anthocercis gracilis*, 3.8km east.
Paterson Road, Pinjarra - *Synaphea stenoloba*, 2.5km south-east.
Hampton Road, Pinjarra - *Diuris drummondii* & *Diuris purdiei*, 800m north-west
Crown Reserve 33446 - *Synaphea stenoloba*, 600m south-east
Thompson Road, West Pinjarra - *Diuris purdiei*, 2.6km south-west
Mills Road, West Pinjarra - *Drakaea micrantha*, 1.4km south

Site inspections undertaken on 1 September 2006 identified the vegetation condition within road reserves as predominantly completely degraded, having been extensively altered through historical management practices and past clearing activities. In most instances, native understorey vegetation is completely absent from site, now dominated by various exotic species. As such, the likelihood of DRF species present within the road reserves under application is considered unlikely. It is therefore considered that the clearing as proposed is unlikely to be at variance to this Principle.

Methodology Site inspection (01/09/2006)

GIS Database:
Declared Rare and Priority Flora List - CALM 01/07/05

Officer Andrew Richardson

(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

Threatened Ecological Communities (TEC) associated with the eastern side of the Swan Coastal Plain, and thus the Shire of Murray, are identified within Bush Forever (Government of Western Australia, 2000) as:

2 - Southern wet shrublands.
3a - *Eucalyptus calophylla - Kingia australis* woodlands on heavy soils.
3b - *Eucalyptus calophylla - Eucalyptus marginata* woodlands on sandy clay soils.
3c - *Eucalyptus calophylla - Xanthorrhoea preissii* woodlands and shrublands.
7 - Herb rich saline shrublands in clay pans
8 - Herb rich shrublands in clay pans
9 - Dense shrublands on clay flats
10a - Shrublands on dry clay flats
15 - Forests and woodlands of deep seasonal wetlands
18 - Shrublands on calcareous silts
20a - Banksia attenuata woodlands over species rich dense shrublands
20b - Eastern *Banksia attenuata* and/or *Eucalyptus marginata* woodlands
20c - Eastern shrublands and woodlands

Of the areas under application, Hampton Road and Burnside Road are located within relatively close proximity to known TEC, being approximately 2km and 700m respectively. These areas under application have been significantly modified from there original structure, retaining only limited vegetation and under pressure from weed invasion.

Observations from the site inspections undertaken on 1 September 2006, and comparisons made with Gibson (1994) confirm that none of the areas under application is likely to be representative of the TEC, based on the vegetation condition, severely limited diversity of species, and the significant alteration of vegetation structure. The proposed clearing is therefore considered unlikely to be at variance to this Principle.

Methodology Gibson (1994)
Government of Western Australia (2000)
Site inspection (01/09/06)

Officer Andrew Richardson

(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

Vegetation complexes within the Shire of Murray are predominantly identified as being a component of the Foothills and Pinjarra Plain landform. Bush Forever (Government of Western Australia, 2000) recognises vegetation of the eastern side of the Swan Coastal Plain as highly cleared, due to relatively fertile soils and extensive clearing for agriculture. As such almost all road reserves and areas under application are located within vegetation complexes identified as having low vegetation representations.

The State Government is committed to the National Objective Targets for Biodiversity Conservation, which includes targets that prevent the clearing of ecological communities with an extent below 30% of that present pre-1750 (Department of Natural Resources and Environment 2002; EPA 2000). Beyond this value, species extinction is believed to occur at an exponential rate and any further clearing may have irreversible consequences for the conservation of biodiversity.

Site inspections undertaken on the majority of the areas under application identified the vegetation condition to range from Completely Degraded to Degraded. In almost all instances, understorey vegetation and structure was absent from site, with weed species having encroached due to surrounding land uses. Vegetation identified as being in completely degraded to degraded condition is considered unlikely to be representative of its defined vegetation complex.

Based on the severely impacted condition of vegetation within the road reserves under application, it is considered unlikely that the removal of the proposed vegetation would impact appreciably on the representation of vegetation complexes within the Shire of Murray.

	Pre-European area (ha)	Current extent (ha)	Remaining %	Conservation status***	% in reserves/DEC-managed land
IBRA Bioregion	1,529,235	657,450	43%*	Depleted	
Shire of Murray	181,526	98,552	54.3%*	Least concern	
Heddle vegetation complexes					

Bassendean Complex - Central and South	87,477	23,624	27.0%**	Vulnerable	0.7%
Cannington Complex	16,661	1,659	10.0%**	Vulnerable	5.3%
Forrestfield Complex	20,052	3,518	17.5%**	Vulnerable	0.3%
Guildford Complex	92,497	4,662	5.0%**	Endangered	0.2%
Southern River Complex	57,979	11,501	19.8%**	Vulnerable	1.5%
Swan Complex	15,783	2,454	15.6%**	Vulnerable	0.0%
Mattiske vegetation complex Yg1	800,603	703,654	87.9%	Least concern	

* (Shepherd et al. 2001)
**(EPA, 2003)
***(Department of Natural Resources and Environment 2002)

Methodology Department of Natural Resources and Environment (2002)
EPA (2000)
EPA (2003)
Government of Western Australia (2000)
Heddle (1980)
Mattiske (1998)
Shepherd et al. (2001)

Officer Andrew Richardson

(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 may be at variance to this Principle

The Swan Coastal Plain portion of the Shire of Murray is predominately identified as Multiple Use Wetland, recognised as wetlands with few important ecological attributes and functions remaining (Water and Rivers Commission, 2001). Within the majority of areas under application, clearing as proposed is considered unlikely to be at variance to this Principle, based on the current completely degraded to degraded condition, and the limited amount and selective removal of vegetation. Areas of vegetation under application which have been identified as requiring clearing in association with a watercourse, or a wetland of quality higher than Multiple Use are outlined below.

Mills Road, West Pinjarra

Vegetation clearing is proposed for the upgrade of Mills Road and associated drainage systems. One particular portion of vegetation under application is located directly adjacent to a Conservation Category Wetland (CCW), which has also been recognised as an EPP Lake. Vegetation clearing is proposed for the southern side of the road reserve, avoiding clearing within the actual wetland which is located to the north, although still within an area partially categorised as CCW. This vegetation has been identified as being within a degraded condition, subject to weed invasion by *Watsonia* species and pasture grasses, and thus unlikely to be representative of a CCW and its environmental values.

The Mills Road EPP Lake located within the northern portion of the road reserve is considered to be in excellent condition, with some areas ranging down in condition to completely degraded. The Shire of Murray has agreed to offset the vegetation cleared from within the southern section of the Mills Road Reserve, through the establishment of similar vegetation in an area adjacent to the eastern side of the EPP Lake.

Crown Reserve 33446, Pinjarra

Clearing within this Reserve is proposed for the installation / upgrade of a drainage disposal system, located in an area identified as Conservation Category Wetland. Water and Rivers Commission (2001) classifies these wetlands as the highest priority, and recommends there protection from any activity which may lead to further loss or degradation. Vegetation clearing is considered unlikely to be necessary, with one Eucalyptus calophylla and one Eucalyptus rudis present within the area under application. The vegetation is identified as being within a completely degraded condition, supporting no other native species within the area. Continuation of the status quo is considered likely to contribute to the continued degradation of the riverbank, with the area now experiencing quite serious erosion and riverbank collapse.

Burnside Road, Meelon

Vegetation clearing within Burnside Road Reserve is proposed for the installation / upgrade of an existing bridge. The clearing of approximately two Melaleuca rhaphiophylla located directly adjacent to the existing bridge, within the minor perennial watercourse, may be required. Observations made during the site inspection on 1 September 2006 identified the watercourse to be within a degraded condition, having limited species diversity and some weed invasion.

Unnamed Road Reserve, Inglehope

Clearing within this area is proposed for the reconstruction and upgrade of an existing bridge, over a minor perennial watercourse. Native vegetation which has regrown since the installation of the bridge may be

required to be removed.

The vegetation under application is degraded, and given this, and the very limited area of clearing required, it is not considered that the clearing will significantly impact on the environmental values of any watercourses or wetlands. Therefore, the clearing is not considered to be likely to be at variance to this Principle.

Methodology Site inspection (01/09/06)
Water and Rivers Commission (2001)
GIS Databases:
EPP, Lakes - DEP 1/12/92
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC
Hydrography, linear - DOE 1/2/04

Officer Andrew Richardson

(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

A search of the Department of Food and Agricultures AgMaps land manager (State of Western Australia, 2005) mapping identified water erosion risk associated with the soils for the Paterson Road, Burnside Road, Crown Reserve 33446, Fawcett Road, and part of the Mills Road proposal. Hampton Road and a small portion of Mills Road are also identified as having a low risk of wind erosion. Proposed vegetation removal within the reserves is primarily limited to scattered trees and shrubs in completely degraded condition, limited in extent and distribution. Removal of this vegetation is considered unlikely to appreciably increase the incident of wind or water erosion.

Road reserves within the Shire of Murray range across two classes of Acid Sulphate Soil (ASS) risk. Class 2 risk is identified as having 'moderate to low risk of shallow ASS or potential ASS, generally at greater than 3 metres depth'. Areas under application which fall within this category are:

Thompson Road, West Pinjarra
Mills Road, West Pinjarra
Hampton Road, Pinjarra
Fawcett Street, Coolup
Paterson Road, Pinjarra
Burnside Road, Meelon
Crown Reserve 33446, Pinjarra

Class 3 risk is identified as having 'low to nil risk of shallow ASS or potential ASS; generally at greater than 3 metres depth', with Railway Avenue, North Dandalup falling within this category. All clearing activities proposed by the Shire of Murray are considered unlikely to interfere with potential ASS, as the scale of clearing should not result in the disturbance of the soil profile to the depths identified above.

Clearing as proposed is therefore considered unlikely to be at variance to this Principle.

Methodology Site inspection (01/09/06)
State of Western Australia (2005). AgMaps Land Manager
GIS Databases:
Acid Sulphate Soils Risk Map, SCP DoE - 01/02/04

Officer Andrew Richardson

(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

Of the areas of vegetation under application, three of the applied areas are located in relatively close proximity to DEC Managed Lands. The Hampton Road Reserve is located adjacent to an un-named reserve vested for the purpose of Aboriginal Heritage, the unnamed road reserve in Inglehope is surrounded by State Forest 14, and Burnside Road Reserve is located approximately 350 metres south of an un-named Class C Reserve. Despite this, the areas under application are thin and linear in nature, predominantly within a completely degraded to degraded condition. As such the vegetation is considered unlikely to contribute to the ecological values, or provide buffering to, these reserves.

Taking into account the extent of vegetation within the road reserves and the distribution of conservation reserves within the local area, the vegetation under application is considered unlikely to contribute to ecological linkages, provide buffers to, or provide habitat not well represented within conservation reserves within the Shire of Murray. The clearing as proposed is therefore considered unlikely to be at variance to this Principle.

Methodology Site inspection (01/09/06)
GIS Databases:

	CALM Managed Lands and Water - CALM 01/08/04
Officer	Andrew Richardson

(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

There is a low to nil salinity risk over the majority of the applied area, with the exception of some sections of road reserves that are associated with watercourses. Railway Avenue, North Dandalup is located within a proposed Priority 3 (P3) Public Drinking Water Source Areas. P3 areas are defined to limit the risk of pollution to the water source. They are declared over land where water supply sources need to co-exist with other land uses such as residential, commercial and light industrial developments. These areas are protected through management guidelines rather than restrictions on land use.

As the majority of the applied vegetation is within existing road reserves, additional clearing is not likely to significantly alter surface water flow regimes or influence groundwater quality.

Methodology	GIS Databases: Public Drinking Water Source Areas (PDWSAs) - DOE 07/02/06 Salinity Risk LM 25m - DOLA 00
Officer	Andrew Richardson

(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

Flooding impacts are not likely to occur as a result of the proposed clearing due to the limited distribution of vegetation throughout the applied reserves. Areas under application primarily consist of scattered trees, or in the case of Mills Road, thin linear strips of vegetation in degraded condition. Given the extent and distribution of native vegetation through the length of the road reserves, it is considered unlikely that the proposed clearing would exacerbate the incidence of flooding in the local area, or impact on peak flood height or duration.

Methodology	DEC site visit 31/8/06 GIS Databases: Hydrography, linear (hierarchy) - DOW Topographic Contours, Statewide - DOLA 12/09/02
Officer	Andrew Richardson

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

Comments

No submissions from the public have been received.

The Shire of Murray have advised that funding has been allocated for the next financial year for the purpose of rehabilitation. While it is not always possible for vegetation to be reinstated into or adjacent to the areas requiring clearing, the Shire of Murray has advised that vegetation can be planted to offset that under application.

The areas under application are located with a Native Title Claim area. The majority of the applied area is contained within existing road reserves that are vested in the Shire of Murray, and the Shire will use their powers as delegated under the Local Government Act 1995 to access land for further construction of the roads. Therefore the clearing as proposed should not fall under the futures acts process under the Native Titles Act 1993.

Methodology	
Officer	Andrew Richardson

4. Assessor's recommendations

Purpose	Method	Applied Area (ha)/ trees	Decision	Comment / recommendation
Road construction or maintenance	Mechanical Removal	6.75	**Grant**	The assessable criteria have been addressed and the proposed clearing is at variance to Principle (f). Principle (f): Although it has been identified that some of the vegetation proposed for clearing is growing in association with minor perennial watercourses, these areas are primarily in completely degraded condition, with the proposed clearing limited to that required for safety and construction purposes.

Clearing within the Mills Road Reserve is partially within an area identified as Conservation Category Wetland. A site inspection conducted on 1 September 2006 identified the vegetation condition as degraded, and not representative of a wetland in conservation category condition. The southern side of the road reserve has been preferentially selected to minimise impacts that may occur to the excellent condition wetland located to the north of the road reserve, while still addressing safety concerns associated with present road alignment. The Shire of Murray has also committed to complete revegetation of an area of land adjacent to the eastern side of the EPP Lake in order to offset the vegetation removed from the southern side of the road reserve.

The assessing officer therefore recommends this application be approved subject to conditions relating to the avoidance / minimisation of clearing, revegetation, and weed control. The following advice should also be included.

Advice:

The Shire of Murray should note that a Permit to Modify Bed & Banks from the Department of Water may be required prior to undertaking works proposed within the areas proposed for Paterson Road, Burnside Road, and Crown Reserve 33446. It is also advised that consultation with the Department of Water should be untaken prior to the drainage being directed into the Murray River. Further information relating to this may be obtained from the local Department of Water office on 9550 4222.

5. References

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EPA (2003) Guidance for the Assessment of Environmental Factors -level of assessment of proposals affecting natural areas within the System 6 region and Swan Coastal Plain portion of the System 1 Region. Report by the EPA under the Environmental Protection Act 1986. No 10 WA.

Gibson et al. (1994). A Floristic Survey of the Southern Swan Coastal Plain. Western Australian Department of Conservation and Land Management

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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 Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.

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State of Western Australia (2005). AgMaps Land Manager. Department of Agriculture.

Water and Rivers Commission (2001). Position Statement: Wetlands.