Department of Environment
Government of Western Australia

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 805/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: G G & R & SA & SE Meek

1.3. Property details

Property: LOT 3 ON DIAGRAM 35920 (Lot No. 3 BULLER WAROONA 6215)
Local Government Area: Shire Of Waroona
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
38		Mechanical Removal	Extractive Industry

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
Beard Vegetation association 1000: Mosaic: Medium forest; Jarrah - Marri / low Woodland; Banksia / Low Forest; tea tree (Melaleuca spp.) Heddle Vegetation Complex: - Serpentine River Complex - Closed scrub of Melaleuca species and fringing woodland of E.rudis - M.rhaphiophylla along streams - Southern River Complex - Open woodland of E. calophylla - E. marginata - Banksia species with fringing woodland of E. rudis - M. rhaphiophylla along creek beds.	The proposal includes clearing of 38ha of native vegetation for extractive industry purposes. The vegetation under application is open woodland of E.calophylla and E.marginata with Allocasuarina spp. interspersed. Banksia spp., Hibbertia spp., Xanthorrhoea preissii, and Kunzea spp dominate the understorey. A small area of vegetation under application comprises Kunzea spp. and Banskia spp. woodland. The majority of the vegetation under application is regrowth from clearing for proposed sand extraction activities 30 years ago. The area was also fenced to exclude stock.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The vegetation description was obtained during a site visit on Monday 27th February 2006.

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

Lot 3 Buller Road has been identified as potentially containing Declared Rare Flora and habitat for Significant Fauna. The condition of vegetation within the area under application is Excellent to degraded, with the degraded areas and weed invasion limited to small areas of physical disturbance. It is considered that the above attributes are more important as the remnant is located within a highly fragmented landscape, and it is likely that this remnant may be significant in an area that has been extensively cleared.

In addition a Notice of Intent to clear was lodged with the Department of Agriculture in 2000 to clear 25 hectares

within Lot 3 Buller Road. This application was subsequently referred to the EPA, after which a site visit was conducted by the EPA Service Unit to investigate the flora and fauna values of the proposed clearing area. On the basis of this investigation and advice from the EPA Service Unit and the Department of Agriculture, the EPA found that the proposal did not meet their objectives for conservation of biodiversity and set the level of assessment as 'Proposal Unlikely to be Environmentally Acceptable'.

Methodology CALM (2006)
DEP (2001)

(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**

CALM (2006) has advised that the Western Brush Wallaby (Macropus irma, Priority 4) have been recorded 790 metres from the area under application in the Buller Road Nature Reserve. The Numbat (Myrmecobius fasciatus, Vulnerable under the EPBC Act) has also been recorded in the local area (10km radius) and is found in a variety of habitats including woodland and shrublands where it shelters in hollow logs, tree hollows and burows CALM (2006).

The CALM (2002) nature conservation covenant program also identified Quenda (Isoodon obesulus fusciventer, priority 4) as being present on the property under application, particularly around the wetland areas. CALM (2006) identified that it is possible that this species would utilise habitat present within the area under application.

CALM advise that the results of a opportunistic survey undertaken by DEP (2001) highlight that the site has a regionally rich and significant avifauna population. This survey highlighted 8 non-passerine and 15 passerine species present with the area identified as likely to support considerable more species if the surveys were increased to cover other seasons.

Methodology CALM (2006)
DEP (2001)

(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**

Within the local area (10km of application) there are five recorded species of Declared Rare Flora (DRF) and 19 species of Priority Flora (CALM, 2006). Within the area under application, there may be suitable habitat for the DRF species Diuris prudiei, Centrolepis caespitosa and Drakea elastica given the presence of dunal depressions within the area under application that were noted during the inspection. Additionally the priority species Caladenia speciosa and Boronia capitata subsp. gracilis and are found on the same soil association (State of Western Australia 2005) as that found within the area under application. CALM (2005) advise that the observation of three un-identified Caladenia spp. during a limited survey by employees of the former Department of Environmental Protection suggests the conditions may be suitable for this species within the area under application.

When considering CALM advice, site inspections and the distribution of DRF and Priority species within the local area it is considered likely that these DRF and/or Priority Flora may occur within the area under application. Further investigation by way of an appropriately timed spring flora survey would be required to confirm this. The proposal may be at variance to this principle.

Methodology GIS Databases:
Declared Rare and Priority Flora List - CALM 01/07/05
State of Western Australia (2005)
Site Inspection: 27 February 2006

(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**

CALM (2006) advise that there are four Threatened Ecological Communities (TEC's) within the local area (10km Radius). These TEC's include Eucalyptus calophylla - Eucalyptus marginata woodland on sandy clay soils of the southern coastal plain, Herb rich shrublands in clay pans, shrublands on dry clay flats and Eucalyptus calophylla - Kingia australis woodlands on heavy soils. The closest recorded TECs is approximately 5.5 kilometres from the area under application. CALM (2006) advise that given the distance, this proposal is unlikely to impact upon these TECs. CALM (2006) also stated that there is no evidence to indicate there are any TECs within the area under application.

Methodology CALM (2006)

(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

Heddle et al (1980) defines the vegetation under application as Southern River Complex. This has a representation of 19.8% and is classified as Open woodland of E. calophylla - E. marginata - Banksia species with fringing woodland of E. rudis - M. rhaphiophylla along creek beds.

Vegetation under application is also classified as vegetation association 1000 (Hopkins et al. 2001). This association has a representation of 24.6% of the pre- European extent and is described as Mosaic: Medium forest; Jarrah - Marri / low Woodland; Banksia / Low Forest; tea tree (Melaleuca spp.) (Shepherd et al. 2001).

The State Government is committed to the National Objectives Targets for Biodiversity Conservation which includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-1750 (Department of Natural Resources and Environment, 2002; EPA, 2000).

The remaining ecological communities for both the Heddle et al 1980 and Shepherd et al. 2001 are considered vulnerable and well below the minimum 30% vegetation present pre-1750 target within the National Objectives for Biodiversity Conservation.

Species extinction believed to occur at an exponential rate when vegetation communities are cleared past 30% of vegetation present pre-1750. Further clearing is likely to have irreversible consequences for the conservation of biodiversity and is therefore not supported.

Methodology

Department of Natural Resources and Environment, 2002
EPA 2000
Heddle et al. (1980)
Hopkins et al. (2001)
Shepherd et al (2001)

(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

Within the local area (10km radius of the application) there are a number of wetlands. The two closest wetlands are located within Lot 3 Buller Road include a resource enhancement category wetland located approximately 30m to the north and a Conservation Category Wetland located approximately 150m to the west of the area under application. There is also an Environmental Protection (Swan Coastal Plain Lakes) Policy 1992, located approximately 800m to the north-northwest.

There are a number of watercourses within the local area including the Waroona Drain, which is located 1km to the northeast, and the Harvey Main Drain, which is located approximately 5km to the southwest.

Although the Department's Graphical Information System does not identify any wetlands or watercourses within the area under application. Previous site inspections conducted by the EPA service unit (DEP 2001) and subsequent site visit on the 27 February 2006 by officers from the Kwinana Peel Region identified wetland dependant vegetation including Kunzea glabrescens and Melaleuca preissiana which would also indicated the presents of seasonal wet areas.

Given the presents of wetland vegetation observed within the area under application and the close proximity to other wetlands further investigation would be required to adequately demonstrate that proposal would not result in clearing of vegetation associated with wetlands or remove the buffer areas of mapped wetlands.

Methodology

Site Inspection 27 February 2006
DEP (2001)
GIS Databases:
EPP, Lakes - DEP 1/12/92
EPP, Wetlands 2004 (DRAFT) - DOE 21/7/04
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DOE 15/9/04
Hydrography, linear (hierarchy) - DOE 13/4/05

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

Comments

Proposal may be at variance to this Principle

The area under application contains pale deep sands, and comprises extremely low to very low relief dunes, undulating sand plain and discrete rises (Department of Agriculture 2005).

Approximately 5% of the area under application also has a very high risk of phosphorus loss, however nutrient

levels should not be artificially elevated as the area is not being used for agriculture, therefore the risk of eutrophication is minimised (Department of Agriculture 2005).

The area under application has a low risk of shallow acid sulphate soils, however the Department of Agriculture (2005) has reported that the area has a very high risk of wind erosion due to the soil type and that strong winds occur through the area under application. The removal of vegetation as proposed will expose soils to these elements and may cause appreciable land degradation in the form of wind erosion.

The risk of wind erosion can be adequately managed and minimised by excavating then rehabilitating small, staggered areas, and by maintaining a vegetated buffer zone around the site to reduce wind velocity (Department of Agriculture 2005). In addition land degradation issues can be managed through the local government extractive industry licence.

Methodology Department of Agriculture (2005)
GIS Databases:
Acid Sulfate Soil Risk Map, SCP - DOE 04/11/04
Salinity Risk LM 25m - DOLA 00
Soils, Statewide - DA 11/99

(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 at variance to this Principle

The area under application forms part of a large area of vegetation that is likely to provide ecological linkage from areas of bushland in the north to the Buller Nature Reserve, which is located approximately 300m to the southwest.

There are also approximately 87 EPP 2004 wetlands within the local area, including the Conservation Category Wetland less than 150m from the western boundary of the applied area. There are also several Crown reserves that are vested in local government, the closest is located 3.5km to the west and is identified as a System 6 conservation reserve.

The Southern River Complex currently has 1.5% vegetation (Heddle et al 1980) in secure tenure with JANIS (1997) recommending that 15% of the pre-1750 distribution of each vegetation ecosystem should be protected in a comprehensive, adequate and representative reserve system.

Given the ecological linkages and buffer that this remanent provides to adjacent wetlands and conservation areas and the low percentage of the Southern River Complex in secure tenure it is considered likely to be at variance to this principle.

Methodology JANIS (1997)
GIS Database:
System 6 Conservation Reserves - DEP 06/95
EPP, Wetlands 2004 (DRAFT) - DOE 21/7/04
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DOE 15/9/04

(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 clearing of the vegetation within the area under application is considered unlikely to increase offsite eutrophication due to the proposed use of the land being an extractive industry or result in the silting of surface waters because of the sandy nature of the soil (Department of Agriculture 1998). The Department of Agriculture (1998) also advised that it is likely that the clearing would be considered a high risk of increasing salinity in the local area.

Given these factors it is considered unlikely that the proposed clearing will adversely impact on the quality of the surface or groundwater resources within the area.

Methodology Department of Agriculture (1998)
GIS Databases:
Salinity Risk LM 25m - DOLA 00

(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

Due to the high infiltration rates associated with this soil type and the slight relief at Lot 3 Buller Road, the proposed clearing of vegetation under application is not likely to cause or exacerbate the incidence of flooding.

Methodology Site visit 27/2/06
GIS Databases:
Soils, Statewide - DA 11/99
Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

1. In 1998 a NOI was lodged with the Department of Soil and Land Conservation to progressively clear vegetation in 6x1ha blocks within Lot 3 Buller Road. The Inter Agency Working Group found issues with DRF and Priority Flora, low representation of species in the area, and the need for rehabilitation and wetland buffers. The NOI was referred to the EPA for further assessment, after which the application was withdrawn.

In 2000 a NOI was lodged to clear 25ha within the same lot. The NOI was again referred to the EPA, after which a site visit was conducted by the EPA Service Unit to investigate the flora and fauna values of the proposed clearing area. On the basis of this investigation and advice from the Department of Agriculture, the EPA found that the proposal did not meet their objectives for conservation of biodiversity and set the level of assessment as 'Proposal Unlikely to be Environmentally Acceptable'. The EPA then consulted with the proponent to discuss the development of an environmental management plan and a conservation covenant, and decided to allow an interim arrangement to clear 2.7 ha of the original 25ha proposal.

In December 2002 the EPA informed the proponents that prior to consideration of future clearing proposals for an additional 3.2 hectares on the property, they would 'need to be satisfied that some appropriate mechanism is in place to protect the areas of greatest conservation significance'.

The EPA advised the proponents that they would either need to enter into a conservation covenant for the remainder of Lot 3 Buller Road, or transfer the ownership of the remainder Lot 3 Buller Road to CALM, and also develop a rehabilitation and conservation plan for the entire property. The EPA also advised the proponent that future proposals would need to take into account the success of rehabilitation. The site inspection on 27 February 2006 could not identified areas were that were being actively or effectively revegetated with regrowth being observed as limited to sparse Acacia puchella, Kunzea glabrescens and some sedge species.

Based on the EPA decision and advice, the Department therefore can not approve any clearing application greater than the 3.2 hectare of vegetation (identified by the EPA) unless the proposal is re-submitted to the EPA for assessment, as this would constitute a substantial change. If the proponent was willing to reduce the area under application to 3.2 hectares the proponents would either need to enter into a conservation covenant on the remainder Lot 3 Buller Road or transfer ownership of the remainder of Lot 3 Buller Road to CALM. This would then satisfy the previous requirements outlined by the EPA. In addition an appropriately timed flora and fauna survey would be required to ensure that the proposal to clear 3.2 hectares would not impact on any Declared Rare Fauna and Flora.

2. An Excavation and Rehabilitation Management Plan was prepared for the sand quarry at Lot 3 Buller Rd by GHEMS Holdings Pty Ltd in 2004.

3. In July 2005 the Shire of Waroona advised that they would consent to the issue of an Extractive Industry Licence for the area under application, with the conditions that the Excavation and Rehabilitation Management Plan be updated and submitted, and that a comprehensive flora survey be undertaken with in conjunction with the clearing permit assessment.

4. In a direct interest submission the Conservation Council of WA (CCWA) (2005) expressed their objection to the clearing proposal based on the following:
a) the lot is located within an area covered by the Environmental Protection (Peel Inlet-Harvey Estuary) Policy 1992, which makes a moratorium on land clearing legally binding;
b) previous proposals have been deemed unacceptable by the EPA;
c) <2% of the vegetation complex remains in managed reserves;
d) the vegetation under application is of excellent quality and provides linkages to other bushland areas, including the Buller Nature Reserve.

The CCWA advises that the area under application should be managed for conservation as an extension to the Buller Nature Reserve, and that there are potential alternative sites for extractive industry nearby. The Council recommends that the proposal be formally assessed to place legally binding conditions on the proponent.

5. The area under application is within the gazetted Peel Harvey Catchment. On 4 January 1989 the Minister for Environment approved a management strategy for the Peel Inlet and Harvey Estuary.

This was followed in October of 1991 by conditions that were placed on the Minister for Agriculture, Minister for Transport (Read Minister for Planning and Infrastructure) and the Minister for Waterways (read current Minister for Environment). Condition 5 of this ministerial statement imposed a moratorium on land clearing in the gazetted Peel Harvey Catchment until such time as or if the Minister for Environment determined that land clearing within the catchment was environmentally acceptable.

Strong consideration of the impact of the proposed clearing on biodiversity, flora and fauna, vegetation representation and land degradation should be made in relation to the intentions of the condition set at a ministerial level to impose a moratorium on land clearing in the catchment. The retention of deep rooted perennials within the Peel Harvey Catchment, and minimising activities likely to lead to nutrient loss within the catchment, must be considered at this level to ensure consistency with conservation objectives currently being finalised under the " proposed 'EPA Water Quality Improvement Plan' for the Peel Harvey Coastal Catchment.

6. The lot under application is part of a Native Title Claim however, since it is privately owned the Native Title has been extinguished under the Native Title Act. Therefore the clearing as proposed should not fall under the future acts process of the Native Title Act 1993.

Methodology

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Extractive Industry	Mechanical Removal	38	**Refuse**	The assessable criteria have been addressed, and the proposal has been found to be at variance with Principles (e) and (h). It was also found that the proposal may be at variance to Principles (a), (b), (c), (f) and (g) In particular: - The vegetation on-site is in excellent to degraded condition, as it is representative of an under-represented vegetation complex in a local area that is largely cleared. - The vegetation on-site is in good to excellent condition, as it is representative of a vegetation complex that is not adequately protected in a comprehensive, adequate and representative reserve system. - The vegetation provides an ecological linkage to surrounding conservation areas. - May result in land degradation issues such as wind erosion. This can be actively managed through the local government extractive industry licence and conducting any extraction in stages. - Additional vegetation survey would be required to determine if the proposal was at variance with principles (a), (b), (c) and (f) which the applicant has advised will not be conducted. In addition the EPA, in December 2002, informed the proponents that prior to the consideration of any future clearing proposals (ie. an additional 3.2 hectares on the property) they would 'need to be satisfied that some appropriate mechanism is in place to protect the areas of greatest conservation significance'. The Department therefore not can approve any clearing application greater than the 3.2 hectare of vegetation (identified by the EPA) unless the proposal was re-submitted to the EPA for assessment, as this would constitute a substantial change to the previous assessed proposal. If the proponent was willing to reduce the area under application to 3.2 hectares the proponents would either need to enter into a conservation covenant on the remainder Lot 3 Buller Road or transfer ownership of the remainder of Lot 3 Buller Road to CALM. Given the above and the current stance taken by the applicant, the assessing officer recommends this application in its current format be refused.

5. References

CALM Land clearing proposal advice. Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. DoE TRIM ref CRN218245.

DAFWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DoE TRIM ref IN24702.

DEP (2002) Remnant vegetation of the Swan Coastal Plain Bioregion within the System 6 and System 1. Department of Environmental Protection, Perth.

Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.

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.

Heddle, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.

Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.

JANIS Forests Criteria (1997) Nationally agreed criteria for the establishment of a comprehensive, Adequate and Representative reserve System for Forests in Australia. A report by the Joint ANZECC/MCFFA National Forest

Policy Statement Implementation Sub-committee. Regional Forests Agreement process. Commonwealth of Australia, Canberra.
Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
State of Western Australia (2005) Agmaps Land Manager CD Rom.

6. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management
DAWA	Department of Agriculture
DEP	Department of Environmental Protection (now DoE)
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 DoE)