Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 1775/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: **Tox Free Solutions Ltd**

1.3. Property details

Property: LOT 126 ON PLAN 183297 (Lot No. 126 NORTH WEST COASTAL COOYA POOYA 6714)
Local Government Area: Shire Of Roebourne
Colloquial name:

1.4. Application

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

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 589: Mosaic: Short bunch grassland - savannah / grass plain (Pilbara) / Hummock grasslands, grass steppe; soft spinifex.	The vegetation to be cleared consists mainly of short bunch grasland. There is a small area with spinifex however the site is dominated in parts by Cenchrus ciliaris (buffel grass).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The area has been cleared in the past and used as a rail siding stock yard and as such, remains in a highly disturbed state.

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 to be cleared is part of Beard association 589 (Hopkins et al. 2001) which is highly represented elsewhere in the state with approximately 100% of the pre-European extent of this association remaining (Shepherd et al. 2002). The vegetation to be cleared is of a highly degraded state and is not likely to be of higher biodiversity than surrounding areas of the same association.

The area proposed to clear has been previously disturbed via clearing for use as a rail sidings storage yard. Vegetation on the site remains in very poor condition with weed species such as Cenchrus ciliaris (buffel grass) dominating (Tox Free 2007).

Although the area may contain habitat for fauna (threatened or otherwise), the habitat type that supports these species is not limited to the site proposed for clearing and is extensively represented in the local and wider area.

There is no record of Threatened Ecological communities or Priority or Declared Rare Flora within a 20km radius from the application area and the degraded nature of the vegetation renders it unlikely to be suitable to support high biodiversity.

Given the above, clearing of 10 hectares of vegetation from the proposed area is not likely to significantly impact on the biodiversity of the Bioregion. Therefore, this proposal is not likely to be at variance to this principle.

Methodology

Hopkins et al., 2001
SAC BIO Datasets 110507
Shepherd et al (2001);
Department of Natural Resources and Environment (2002);
GIS Database:

~ Pre-European Vegetation - DA 01/01;
~ Interim Biogeographic Regionalisation of Australia - EA 18/10/00;
~ Interim Biogeographic Regionalisation of Australia (subregions) - EA 18/10/00.
~ Declared Rare and Priority Flora List - CALM 01/07/05
~Threatened Ecological Communities - CALM 15/7/03.

(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

The area proposed to clear has been previously disturbed via clearing for use as a rail sidings storage yard. Vegetation on the site remains in very poor condition (Tox Free 2007).

Although the area proposed to be cleared may contain habitat for some threatened fauna, the habitat type that supports these species is not limited to the site proposed for clearing and is extensively represented in the local and wider area. Vegetation association 589 is represented within the application area, however the vegetation is of a highly degraded state and is not likely to be of higher quality than surrounding areas of the same association.

Clearing of the vegetation under application will not eliminate natural corridors or ecological linkages necessary for the maintenance of fauna.

The clearing of 10 hectares of vegetation from the proposed area is not likely to significantly impact on the fauna species of the area, priority or otherwise, due to the small area to be cleared.

Therefore, this proposal is not likely to be at variance to this principle.

Methodology

GIS Database:
~Threatened Ecological Communities - CALM 15/7/03
~ Hydrology, linear - DOE 1/02/04;
~ Lakes 250K - GA;
~ Rivers 250K - GA;~ Pre-European Vegetation - DA 01/01;
~ Interim ~Biogeographic Regionalisation of Australia - EA 18/10/00;
~ Interim Biogeographic Regionalisation of Australia (subregions) - EA 18/10/00.

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

Comments

Proposal is not likely to be at variance to this Principle

There are no recorded Declared Rare Flora within a 30 km radius of the application area (GIS Database, SAC Biodatasets). The area to be cleared is degraded with weed species present such as buffel grass (Tox Free 2007), and as such it is not likely to be a suitable habitat for the continuation of endangered flora species. Therefore the proposal is unlikely to be at variance to this principle.

Methodology

Tox Free (2007)
GIS Database;
~Declared Rare and Priority Flora List - CALM 01/07/05
Sac Data Biosets 140507

(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 Threatened Ecological Communities (TEC's) within a 30km radius of the area applied to clear (GIS Database, SAC Biodatasets). The area under application is unlikely to support a TEC as the area has been previously disturbed and the remaining vegetation is of very poor condition. Therefore this proposal is unlikely to be at variance to this principle.

Methodology

Sac Biodataset 110507
GIS Database
-Threatened Ecological Communities - CALM 15/7/03

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

Comments

Proposal is not likely to be at variance to this Principle

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

The vegetation of the area applied to clear consists of Beard Vegetation Association 589 (Hopkins et al., 2001) which is described as follows; Mosaic: Short bunch grassland - savanna / grass plain (Pilbara) / Hummock grasslands, grass steppe; soft spinifex (T. pungens)

Beard vegetation association 589 has approximately 100% of its pre-European extent remaining (Shepherd et al., 2002), with approximately 1.6% of the association represented within IUCN Class I-IV Reserves (Shepherd et al., 2002).

Given the extensive range of vegetation association 589, and that the area to be cleared is small (10ha) and highly degraded, this proposal is not likely to be at variance to this principle.

Methodology Department of Natural Resources and Environment, 2002
Hopkins et al., 2001
Shepherd et al., 2002
GIS Database;
~ Pre-European Vegetation - DA 01/01
~ Interim Biogeographic Regionalisation of Australia - EA 18/10/00

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments **Proposal is not likely to be at variance to this Principle**
There are no permanent watercourses or wetlands within the area applied to clear (GIS Database). There is no wetland-dependent vegetation within the area under application.
Given that there are no defined watercourses or wetland-dependent vegetation within the area under application, this proposal is unlikely to be at variance to this principle.

Methodology GIS Database;
~ Hydrology, linear - DOE 1/02/04;
~ Lakes 250K - GA;
~ Rivers 250K - GA;
~ EPP Areas - DEP 06/95;
~ EPP Lakes - DEP 28/07/03;
~ ANCA Wetlands - CALM 08/01;
~ Ramsar Wetlands - CALM 21/10/02;
~ Hydrographic Catchments - Catchments DoE 3/4/03

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

Comments **Proposal is not likely to be at variance to this Principle**
Department of Agriculture and Food Western Australia (DAFWA) have inspected the site of the proposed clearing finding that no soil and land conservation issues were identified (DAFWA 2007). Clearing of the proposed vegetation should not contribute to salinity, eutrophication, wind erosion or increased flooding but there may be issues with soil erosion where top soil and silts may be eroded due to water run off from the road surface at the junction of the road and property boundary (DAFWA 2007). In concurrence with advice from DAFWA, it is concluded that the proposed clearing is unlikely to be at variance to this principle.

Methodology DAFWA 2007, TRIM Ref:DOC23210
GIS Dataset:
~ Acid Sulfate Soil Risk Map - Pilbara Coastline (DEC)
~Topographic Contours, Statewide - DOLA 12/09/02

(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**
There are no conservation areas within a 20km radius of the application area. The nearest DEC managed lands are the Millstream-Chichester National Park, approximately 43.5km southeast of the application area; and islands within the Dampier Archipelago approximately 23.2km northwest of the application area (GIS Database). This proposal is unlikely to have an impact on any conservation area, based on the large distance to the nearest conservation reserve. Therefore, the proposed clearing is not likely to be at variance to this principle.

Methodology Gis database
~ Calm Managed Lands and Waters -CALM 1/07/05 (Category)
- Ramsar wetlands (CALM February 2003)

- System 1-5 and 7-12 Areas (DOE June 1995)
- CALM Managed Lands and Waters (CALM July 2005)
- Clearing Regulations - Environmentally Sensitive Areas (DOE May 2005)
- Covenant sites (DEC 2007)
- Land for Wildlife sites (DEC 2007)

(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 to be cleared is small and given that the vegetation is in predominantly poor condition (Tox Free 2007), comprising shrubs and grasses (rather than deep-rooted trees), it is unlikely that the removal of this vegetation will cause deterioration in the quality of surface or underground water The application area is not within a Public Drinking Water Source Area, catchment or wetland and clearing will not cause sedimentation, erosion or turbidity impacts to local watercourses. Given the above, this proposal is not likely to be at variance to this principle.

Methodology

Tox Free (2007)
GIS Database;
~ Hydrology, linear - DOE 1/02/04;
~ Lakes 250K - GA;
~ Rivers 250K - GA;
~ EPP Areas - DEP 06/95;
~ EPP Lakes - DEP 28/07/03;
~ ANCA Wetlands - CALM 08/01;
~ Ramsar Wetlands - CALM 21/10/02;
~ Hydrographic Catchments - Catchments DoE 3/4/03

~ Lakes 250K - GA;
~ Rivers 250K - GA;

(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 landform of the area under application is essentially flat and the vegetation is predominantly shallow rooted grasses and shrubs. The low rainfall (approximately 300mm/annum) coupled with a high potential evaporation rate of 3200mm/annum (GIS database) is unlikely to cause large amounts of run-off . The area under application rises in excess of 30 meters above mean sea level (GIS Database) and as such is unlikely to be at risk of flooding . Clearing the vegetation in this area will not affect the possibility or intensity of flooding.
Given the above, it is unlikely that clearing within this proposal will cause or increase the incidence or intensity of flooding, therefore this proposal is not likely to be at variance to this principle.

Methodology

GIS Database;
~Evapotranspiration, Point Potential - BOM 30/09/01
~Rainfall, Mean Annual - BOM 30/09/01
~Topographic Contours, Statewide - DOLA 12/09/02_1

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

Comments

The clearing is to make way for a toxic waste site with associated pollution issues and as such will require licensing under Part V of the EP Act by way of a Works Approval.

Planning Approval was granted by the Shire of Roebourne on 12th July 2007 for bulk earthworks associated with a proposed future industry.

DAFWA have raised concerns that if the land were to be used to store industrial waste, the suitability of the land will require further investigation into the effects of both water runoff from the site and leeching into the groundwater, before a decision can be made. the possibility of water contaminants draining toward the Karratha township/Light Industrial Area may have an effect on the results of its suitability.

No objections have been raised by the Shire of Roebourne, Department of Environment and Conservation, or by the Department of Water to the proposed clearing. DEC Environmental Regulations Group support the need for a new waste facility in the region, provided it is environmentally sound.

There is one Native Title claim for the area. The Ngaluma / Injibadi claim was determined on 02/05/2005.

No sites listed on the Register of Heritage Places are located within or in the vicinity of the area under

application.

Methodology GIS Themes:
~ Register of Heritage Places - DPI 14/7/03;
~ Register of National Estate - EA 28/01/03;
~ Aboriginal Sites of Significance - DIA 28/02/03;
~ Town Planning Scheme Zones - MFP 8/98
~ Cadastre - DLI (Render_Label)
~ Native Title Claims - DLI 7/11/05

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Miscellaneous	Mechanical Removal	10	The proposal to clear up to 10ha of native vegetation is not likely to be at variance to all of the Clearing Principles.

5. References

DAFWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DoE TRIM ref DOC23210.

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.

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.

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.

Tox Free 2007, site photographs DEC TRIM Reference DOC17765

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)