



1. Application details

1.1. Permit application details

Permit application No.: 474/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Lake Grace

1.3. Property details

Property:
Local Government Area: Shire Of Lake Grace
Colloquial name: Shire of Lake Grace

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
5.6		Mechanical Removal	Extractive Industry
1.5		Mechanical Removal	Extractive Industry
7.84		Mechanical Removal	Extractive Industry
2		Mechanical Removal	Road construction or maintenance
2.6		Mechanical Removal	Extractive Industry
4.5		Mechanical Removal	Extractive Industry
2		Mechanical Removal	Road construction or maintenance
0.9		Mechanical Removal	Road construction or maintenance
1.5		Mechanical Removal	Extractive Industry
2.2		Mechanical Removal	Extractive Industry
0.45		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
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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 proposal is for 11 sites to be cleared within the Shire of Lake Grace. Eight of the sites are for the extension of existing gravel pits and three are for road intersection upgrades.

The Shire of Lake Grace has been extensively cleared with less than 22% of its native vegetation remaining. The vegetation within the Shire of Lake Grace is also habitat for many threatened flora and fauna (BCS advice, 2006). Aerial photography indicates minimal vegetation remains within the road intersections to be cleared. However, the gravel pits are located within road reserves which contain linear tracts of substantially intact native vegetation.

To mitigate any loss of biodiversity within the areas to be cleared a condition has been imposed for revegetation of the gravel pits proposed to be cleared and an offset condition for the revegetation of the previously cleared areas of the gravel pits.

Methodology BCS advice (2006)
GIS:
Hyden 1.2 Orthomosaic - DOLA 98
Newdegate 1.2m Orthomosaic- DLI01/98

(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

The Biodiversity Conservation Section DEC has advised that the clearing of native vegetation for the extension of the gravel pits 1,2,4,6,7,8,10, 11 and 12 and intersection 5 is likely to reduce the value of the vegetation corridor provided by the road reserves. In particular, mobile fauna species such as the Chudich and the Western Brush Wallaby may be impacted and the road reserves also serve as important avian fauna habitat.

To reduce the loss of fauna habitat a condition has been imposed for revegetation of the gravel pits proposed to be cleared and an offset condition for the revegetation of the previously cleared areas of the gravel pits.

Methodology BCS advice (2006)

(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

A site visit was carried out by the DEC Katanning office (IN20145) which indicates that several sites initially proposed for clearing contain Declared Rare and priority flora. These areas have been withdrawn from the proposal.

However, in relation to Area 1 Gravel Pit, (22.5km east of Lake King cross roads on the Norsemen Road north side of the road), *Grevillea aneura* (P4) is possibly growing in the existing pit. *Thysanotus glaucus* (P4) is also known to occur in close proximity to this gravel pit.

A conditions have been imposed to:

to survey and avoid these species

offset the values of the area to be cleared through the revegetation of the gravel extraction sites proposed to be cleared and revegetation of the previously cleared areas of the gravel pits.

Methodology BCS advice (2006)
DEC Katanning office (IN20145)

(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

The Biodiversity Conservation Section DEC has advised that there is no evidence to suggest that any Environment Protection and Biodiversity Conservation Act listed Threatened Ecological Communities (TECs) or State listed TECs are present or likely to be present on the proposed clearing sites. This proposal is not likely to be at variance to this Principle.

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 may be at variance to this Principle

The proposed clearing is located across the Shire of Lake Grace and within the Mallee Bioregion. The extent of native vegetation within these areas is 21.9% and 19.6% respectively.

To mitigate any potential impacts of the clearing on remnant vegetation, while acknowledging the need to maintain and upgrade roads, the proposed clearing will be carried out in accordance with a condition imposed on the permit requiring that clearing of vegetation be avoided, and where this is not possible, minimised. In addition, to address the loss of vegetation within a highly cleared landscape, a condition has been imposed to offset the values of the area to be cleared through the revegetation of the existing gravel pits and the proposed gravel pits.

	Pre-European area (ha)	Current extent (ha)	Remaining %*	Conservation status**
IBRA Bioregion- Mallee	4,130,281***	806,971	19.5	Vulnerable
Shire- Lake Grace	1,031,972	225,891	21.9	Vulnerable
Beard veg type-2048	383,125	176,608	46.1	Depleted
Beard veg type-511	409,458	219,324	53.6	Least concern
Beard veg type-516	1,541,361	666,416	43.2	Depleted
Beard veg type-519	2,221,704	1,346,958	60.6	Vulnerable
Beard veg type-934	78,095	65,971	84.5	Least concern
Beard veg type-936	1,016,210	906,826	89.2	Least concern
Beard veg type-945	9,704	9,704	100	Least concern

[†] (Shepherd et al. 2001)

^{**} (Department of Natural Resources and Environment 2002)

^{***} Area 11 intensive land use zone

Methodology Shepherd et al (2001),
Department of Natural Resources and Environment (2002)

(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**
The areas proposed to be cleared are not associated with any wetlands or watercourses.

Methodology GIS database:
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 is not likely to be at variance to this Principle**
The proposed clearing on road intersections and for gravel extraction may cause some short term land degradation issues in terms of localised flooding and soil erosion during works.

However, these issues should be minimised as works on the existing intersections have in place roadside infrastructure to prevent land degradation associated with roads. Additionally conditions placed on the permit to undertake revegetation on completion of gravel extraction will minimise long term land degradation associated with gravel extraction.

Methodology

(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 Biodiversity Conservation Section DEC has advised that the clearing of native vegetation under this proposal is not likely to directly impact on any of the DEC conservation reserves. However, they have advised that all the sites are within road reserves of remnant vegetation that form important ecological linkages across an area that is otherwise extensively cleared. The proposed clearing will reduce the value of the vegetation corridor particularly for wildlife moving through the landscape between conservation areas.

To mitigate any potential impacts of the clearing on the environmental values of any adjacent or nearby conservation areas the proposed clearing will be carried out in accordance with a condition imposed on the permit requiring that clearing of vegetation be avoided, where this is not possible, minimised and the revegetation of the existing gravel pits and the proposed gravel pits.

Methodology BSC advice (2006)

(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 areas under application lie within three catchment areas being the Swan Avon-Lockhart, Magenta Interanal and Culham Inlet-Phillips-West-Steere.

Static groundwater level within the shire range from 10.4 m to 30.5 m below ground level, with a mapped groundwater salinity of 7000 to greater than 35 000 mg/L.

The proposed clearing on road intersections and for gravel extraction may cause some short term water quality issues in terms of localised surface water sedimentation during works. However these issues should be minimised as the existing intersections have in place roadside infrastructure to prevent water quality issues associated with the road works.

Methodology GIS Database:
- Groundwater salinity, Statewide - 22/02/00
- Hydrographic Catchments - Catchments - DOE 23/3/05
- WIN Groundwater Sites, Other - non DEWCP (current)

(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 scale and the nature of the proposed clearing it is unlikely to exacerbate flooding in the local area.

Methodology GIS Databases:
- Topographic Contours, Statewide - DOI A 12/09/02

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

Comments There is no RIWI Act Licence or Works approval required for the proposed works.

There does not appear to be a Native Title claim over the areas applied to be cleared. However, the Department of Environment and Conservation's advertising of the application in the West Australian newspaper constitutes legal notification of the native title representative body for the purpose of the future act procedures under the Native Title Act 1993. No response was received from the representative body.

Methodology

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Extractive Industry	Mechanical Removal	5.6	Grant	Site 2 120.0003, -33.0785 (NW) 120.0037, -33.0804 (SE)
Extractive Industry	Mechanical Removal	1.5	Grant	Site 1 119.9261, -33.0807 (NW) 119.9311, -33.0821 (SE)
Extractive Industry	Mechanical Removal	7.84	Grant	Site 3 119.9736, -33.1723 (NW) 119.9793, -33.1772 (SE)
Extractive Industry	Mechanical Removal	4.5	Grant	Site 6 119.8384, -33.1599 (NW) 119.8436, -33.1613 (SE)
Extractive Industry	Mechanical Removal	2.6	Grant	Site 6 119.8956, -33.1390 (NW) 119.8991, -33.1386 (E)
Extractive Industry	Mechanical Removal	2.2	Grant	Site 8 119.7809, -32.9686 (W) 119.7842, -32.9686 (E)
Extractive Industry	Mechanical Removal			The assessable criteria have been addressed and no objections were raised. The assessment identified the proposal may be at variance to some of the clearing principles. The potential impacts of the clearing will be mitigated through permit conditions. The assessing officer therefore recommends that the permit be granted.
Extractive Industry	Mechanical Removal	0.45	Grant	Site 9 119.7285, -32.9590 (NW) 119.7364, -32.9617 (SE)
Extractive Industry	Mechanical Removal	1.5	Grant	Site 7 119.7893, -32.9623 (NW) 119.7934, -32.9607 (SE)
Road construction or maintenance	Mechanical Removal	2	Grant	Site 4 119.9771, -33.2184 (NW) 119.9789, -33.2195 (SE)
Road construction or maintenance	Mechanical Removal	2	Grant	Site 10 119.1364, -33.2179 (NW) 119.1386, -33.2205 (SE) 119.1366, -33.2190 (E)
Road construction or maintenance	Mechanical Removal	0.9	Grant	Site 11 118.6599, -32.7838 (NW) 118.6606, -32.7852 (SE)

5. References

Clearing Assessment Unit's biodiversity advice for land clearing application. Advice to Director General, Department of Environment and Conservation (DEC), Western Australia. TRIM ref xxxx
DEC Katanning office (IN20145)
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.
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.

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)

