



1. Application details

1.1. Permit application details

Permit application No.: 1477/1

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Senior Environmental Scientist Water Corporation (Watercorp)

1.3. Property details

Property: STATE FOREST 28 (BARRABUP 6275)

LOT 832 ON PLAN 255895 (CAPEL RIVER 6271)

Local Government Area: Shire Of Busselton & Shire Of Capel & Shire Of Dardanup & Shire Of Donnybrook-Balingup & Shire Of Harvey

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.25		Cutting	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
The northern area prior to Goodwood Road, Capel:	The proposed clearing consists of 5m x 10m square areas for geotechnical exploration and where necessary include access tracks. These sites will be situated adjacent to rivers.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation condition determined through aerial mapping and in some areas through Site Visit Photos taken whilst undertaking other clearing assessments in the area.
Goodwood Rd, Caple and State Forrest:	The proposed clearing consists of 5m x 10m square areas for geotechnical exploration and where necessary include access tracks. These sites will be situated adjacent to rivers.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	Vegetation condition determined through aerial mapping.

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 proposed clearing consists of 0.25ha of vegetation for the purpose of geotechnical investigation within the riparian zone of major rivers. Clearing may impact on the biological diversity of some areas under application. It is noted that the area to be cleared is very small, and Water Corporation is required to avoid clearing and minimise its clearing to the greatest extent.

To mitigate any loss of biodiversity within the areas under application and surrounding areas, conditions have been imposed on the permit related to flora, weeds, dieback management and revegetation.

Methodology GIS Databases:
 - Bunbury 1m Orthomosaic - DLI 03
 - Busselton 50cm Orthomosaic - DLI 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 areas under application range from degraded to excellent condition. However due to the small area under

application across the length of the project it is unlikely the proposed clearing will have significant impact on fauna habitat.

Methodology GIS Databases:
- Bunbury 1m Orthomosaic - DLI 03
- Busselton 50cm Orthomosaic - DLI 03

(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**
Mapping of the areas under application indicates that there are many Declared Rare Flora (DRF) and Priority Flora on or near the areas under application therefore the proposed clearing maybe at variance to this principle.

To ensure all DRF and priority species are identified and impacts on these species managed a condition has been imposed to ensure surveys are undertaken by a flora specialist to identify the presence of any DRF or priority species within the areas proposed for clearing. Where DRF species are identified the permit holder will be required to submit the records to the Department of Environment and Conservation ensuring no species are removed unless approved by the CEO.

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

(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**
Mapping indicates that there are three areas under application in close proximity to mapped Threatened Ecological Communities (TECs). The closest is 0.5km from the proposed pipeline and the furthest over 2.6km. These three TECs are not associated with major watercourses or riparian vegetation. It is therefore unlikely the proposed clearing will contain or impact on TECs within the local area.

Methodology GIS Databases:
- Threatened Ecological Communities - CALM 12/4/05
- Bunbury 1m Orthomosaic - DLI 03
- Busselton 50cm Orthomosaic - DLI 03
- Hydrography, linear - DOE 1/2/04

(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 areas under application lie within five shires being:
- Harvey (60.1% pre-European vegetation remaining);
- Dardanup (52.2% pre-European vegetation remaining);
- Capel (35.9% pre-European vegetation remaining);
- Donnybrook Balingup (72% pre-European vegetation remaining); and
- Busselton (44.5% pre-European vegetation remaining).

The areas are within the Swan Coastal Plain and Jarrah Forest bioregions with 41.8 and 58.3 pre-European vegetation remaining within the intensive land use zone respectively.

Hedge vegetation mapping indicates that there are three vegetation complexes with less than 10% of their pre-European extent remaining. Guildford (5% remaining) and Dardanup (7.9% remaining) have major rivers within them and are likely to be within areas to be cleared.

To mitigate any potential impacts of the clearing on riparian vegetation, while acknowledging the need to undertake geotechnical investigations, the proposed clearing will be carried out in accordance with conditions imposed on the permit requiring that clearing of vegetation be avoided, and where this is not possible minimised, and where clearing does occur revegetation is required.

Methodology Heddle et al. (1980)
Shepherd et al. (2001)
EPA (2003)
GIS Databases:
- Hydrography, linear - DOE 1/2/04
- Local Government Authorities - DLI 8/07/04
- Heddle Vegetation Complexes - DEP 21/06/95
- 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 at variance to this Principle

The proposed clearing will be undertaken within the riparian zones of major water courses including Brunswick River, Collie River, Ferguson River, Preston River and Capel River. The clearing may also affect some major tributaries of these rivers. The clearing under application is therefore considered to be at variance to this principle.

To mitigate any potential impacts of the clearing on riparian vegetation, while acknowledging the need to undertake geotechnical investigations, the proposed clearing will be carried out in accordance with conditions imposed on the permit requiring that clearing of vegetation be avoided, and where this is not possible minimised, and dieback and weed hygiene.

Methodology GIS Databases:
- Hydrography, linear - DOE 1/2/04

(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 is unlikely to cause land degradation due to the size of clearing at each site (50m²). Additionally conditions will be imposed to ensure areas cleared are revegetated post clearing.

Methodology GIS Databases:
- Bunbury 1m Orthomosaic - DLI 03
- Busselton 50cm Orthomosaic - DLI 03

(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

From Goodwood Road in the Shire of Capel the proposed clearing is located within State Forest No. 28 (Jarrahwood State Forest). Clearing proposed consists of 10m by 5m plots within riparian vegetation associated with watercourses. The area within Jarrahwood State Forest passes only 1st and 2nd order minor perennial watercourses, and it is therefore unlikely clearing will occur in these areas.

Additionally conditions have been imposed on the permit requiring revegetation, and flora, weeds and dieback management.

Due to the size of clearing and conditions imposed it is unlikely the proposed clearing will impact on conservation areas.

Methodology GIS Databases:
- CALM Managed Lands and Waters - CALM 1/07/05
- Hydrography, linear - DOE 1/2/04

(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 may be at variance to this Principle

Proposed clearing is within association with riparian vegetation and may cause some short term sedimentation while works are undertaken. To prevent any long term water quality impacts a condition has been imposed to ensure areas cleared are revegetated.

Methodology GIS Databases:
- Hydrography, linear - DOE 1/2/04

(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 proposed clearing is unlikely to exacerbate flooding due to the size.

Methodology GIS Databases:
- Bunbury 1m Orthomosaic - DLI 03
- Busselton 50cm Orthomosaic - DLI 03

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

Comments

The proposed clearing is part of the Yarragadee State Water Supply Project, currently under assessment by the EPA. The EPA has provided advice that it considers that the work carried out under the clearing permit application is minor or preliminary work under the provisions of section 41A(3) of the Environmental Protection Act, provided that clearing is avoided as much as possible, and the impacts managed through the clearing provisions of the Act.

The proposed clearing may impact on Aboriginal Sites of Significance, as such the applicant will be advised of their obligations under the Aboriginal Heritage Act 1972.

There are three Native Title Claims over the area under application. 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.

Department of Water (DoW) have advised the applicant in writing that a permit under the RIWI Act is not required for the geotechnical investigation works associated with this application to clear.

Methodology

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Miscellaneous	Cutting	0.25	Grant	Vegetation will be severed at trunk base, then mulched. Trunk will be retained. Clearing is for the purpose of geotechnical surveys. It is recommended that the proposed clearing be approved with conditions relating to Flora, Dieback, Weed Mangement and Revegetation .

5. References

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