



1. Application details

1.1. Permit application details

Permit application No.: 2281/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Water Corporation

1.3. Property details

Property: CROWN RESERVE 20720 (PORT DENISON 6525)
 LOT 928 ON PLAN 192634 (House No. 48 BLENHEIM PORT DENISON 6525)
 LOT 203 ON PLAN 45869 (SPRINGFIELD 6525)
 Local Government Area: Shire Of Irwin
 Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2.6		Mechanical Removal	Building or Structure

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 17: Shrublands; Acacia rostellifera thicket (Hopkins et al, 2001; Shepherd et al, 2001).	The northern and western segments of the area under application have little or no vegetation. Native vegetation is confined mainly to the eastern side of the proposal area. The eastern part of the area under application consists mainly of Acacia rostellifera with no mid or understoreys. The condition of the vegetation in the eastern part of the proposal area appears to range from being degraded to good with some good vegetation being found near the existing wastewater treatment plant. The weed African boxthorn appears frequently in the eastern area while weedy grasses cover most of the ground. Overall, the vegetation under application appears to be in a 'degraded' condition (Keighery, 1994).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The description and condition of the vegetation under application were obtained through a site inspection carried out on 7 March 2008 (DEC Site Visit, 2008).

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 northern and western segments of the area under application comprise approximately 35 % of the proposal area. These areas have little or no vegetation. Native vegetation is confined mainly to an area of approximately 1.7 ha within the eastern side of the area under application. The eastern part of the area under application consists mainly of Acacia rostellifera with no mid or understoreys. The weed African boxthorn appears frequently in the eastern area while weedy grasses cover most of the ground. (DEC Site Visit, 2008)

The condition of the vegetation in the eastern part of the proposal area appears to range from being degraded to good with some good vegetation being found near the existing wastewater treatment plant. Overall, the vegetation under application appears to be in a 'degraded' condition (Keighery, 1994).

Due to the small area of clearing as proposed, the degraded condition of the vegetation and low species and ecosystem diversity, the vegetation under application is not likely to represent an area of outstanding biodiversity.

Therefore this proposal is not likely to be at variance to this Principle.

Methodology GIS Databases:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
DEC Site Visit (2008)
Keighery (1994)

(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**
There are no known records of Declared Threatened Fauna, Priority Fauna or other specially protected fauna within a radius of approximately 10 km from the proposal area.

The eastern area of the proposed clearing may provide habitat for local fauna. However, given that it is a relatively small area that is situated adjacent to a well vegetated landscape to the east, faunal populations would find similar habitat nearby. Thus the proposal is not likely to significantly impact upon the local Fauna.

Methodology GIS Databases:
- SAC Bio Datasets (220108)
DEC Site Visit (2008)

(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 is one known record of a Declared Rare Flora (*Stawellia dimorphantha*) that is occurring at a distance of approximately 8.6 km south of the proposal area.

There is one record of a Priority 2 Flora (*Tricoryne* sp. Eneabba) and one record of a P4 Flora (*Eucalyptus zopherophloia*) within a radius of about 10 km, with the closest occurrence being approximately 5.6 km from the area under application.

The soil type where Priority Flora occur differs from the soil type in the area under application. The DRF and the area under application share the same soil type. However, the DRF occur in secure tenure in the Beekeepers Nature Reserve.

Given the small amount of clearing compared to the large expanse of the Beekeepers Nature Reserve where the DRF occur, and considering the disturbance from surrounding landuses, it is unlikely that the proposal area is necessary for the continued existence of Rare Flora.

Therefore this proposal is not likely to be at variance to this Principle.

Methodology GIS Databases:
- Declared Rare and Priority Flora list - CALM 01/07/05
- Clearing Regulations - Environmentally Sensitive Areas - DoE 30/05/05
- SAC Bio Datasets (60308)
DEC Site Visit (2008)
Keighery (1994)

(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 is no known Threatened Ecological Communities (TEC's) within a radius of approximately 10 km from the proposal area. Therefore, this proposal is not likely to be at variance to this Principle.

Methodology GIS Databases:
- Threatened Ecological Communities - CALM 12/04/05
- SAC Bio Datasets (060308)

(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

Pre-European	Current area (ha)	Remaining Reserves/CALM- extent (ha)	%*	managed land, %
IBRA Bioregion - **				
Geraldton Sandplains	3,136,277	1,324,440	42.2	35.6
Shire - Irwin **	238,186	114,164	47.9	Not available
Beard veg type - 17	76,633	67,552	88.2	8.4

* (Shepherd et al. 2001, Shepherd 2006)

** Area within the Intensive Land use Zone

The vegetation under application is a component of Beard Vegetation Association 17 (Hopkins et al. 2001) of which there is 88.2 % of the pre-European extent remaining (Shepherd, 2006). The vegetation under application falls within the Geraldton Sandplains Bioregion and the Shire of Irwin of which there is 42.2 % and 47.9 % of pre-European extent remaining, respectively (Shepherd, 2006). The area under application consists of native vegetation that is confined mainly to an area of approximately 1.7 ha within the eastern side.

On the basis that the pre-European extent of the Beard Vegetation Association 17, Geraldton Sandplains Bioregion and the Shire of Irwin meet the National Objectives Targets for Biodiversity Conservation 2001-2005, being 30 % of that present pre-1750 (AGPS, 2001), this proposal is not likely to be at variance to this Principle.

The area under application falls within the Intensive Landuse Zone as described under the EPA Position Statement No. 2, however as the expansion of the wastewater treatment facility and maintenance of the service corridor are necessary and given that a small amount of vegetation is proposed to be removed (approximately 1.7 ha), the proposed clearing is unlikely to have a significant impact on the extent of the vegetation.

Methodology

GIS Databases:

- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
 - Pre-European Vegetation - DA 01/01
 - Local Government Authorities - DLI 08/07/04
 - EPA Position Paper No 2 Agriculture Region - DEP 12/00
- Shepherd et al (2001)
Shepherd (2006)

(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 at variance to this Principle

There are no watercourses or wetlands within the area under application (DEC Site Visit, 2008). Therefore, this application is not at variance to this Principle.

Methodology

GIS Databases:

- Hydrography, linear - DoE 01/02/04
 - Hydrographic Catchments - Catchments - DoE 23/03/05
- DEC Site Visit (2008)

(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 area under application is situated in a region with a rainfall of 500 mm per annum and composed mainly of calcareous sandy soils. There is no risk of salinity on the proposal area or on the surrounding land. The northern and western segments of the area under application have little or no vegetation and comprise approximately 35 % of the proposal area (DEC Site Visit, 2008). Native vegetation is confined mainly to an area of approximately 1.7 ha within the eastern side of the area under application. The proposed clearing is linear and narrow.

Given the small linear and narrow shape of the proposed clearing it is not likely to expose substantial areas of land at any given location. Removal of a narrow strip of vegetation is not likely to cause wind or water erosion. Similarly the area of clearing appears to be small and the regional rainfall is low for water logging, salinity or flooding to occur.

Therefore this proposal is not likely to be at variance to this Principle.

Methodology

GIS Databases:

- Rainfall, Mean Annual - BOM 30/09/01
- Salinity Risk LM 25m - DOLA 00

(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

The Dongara Nature Reserve is situated approximately 3.8 km north, and the Beekeepers Nature Reserve is situated approximately 3.7 km south of the area under application.

Due to the small size of clearing under application and the distances to nature reserves, the proposed clearing is not likely to have any impact on conservation areas.

Methodology GIS Databases:

- CALM Regional Parks - CALM 12/04/02
- CALM Managed Lands & Waters - CALM 01/07/05
- Proposed National Parks FMP-CALM 19/03/03
- Register of National Estate - EA 28/01/03

(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 under application is situated within the Coastal Hydrographic Catchment. The area under application is not situated within Public Drinking Water Source Areas (PDWSA's). There are no watercourses or surface expressions of groundwater in the area under application (DEC Site Visit, 2008). The depth to groundwater could not be determined from available data. The area subject to this proposal has an average annual rainfall of 500 mm. There is no risk of salinity on surrounding lands. The groundwater shows salinity levels of 3000 - 7000 TDS mg/L. There are groundwater dependent ecosystems (GDE's) in the local area.

Due to the low rainfall, small amount of vegetation under application and the narrow width of proposed clearing, it is not likely the proposed clearing will impact on the quality of groundwater.

Therefore this proposal is unlikely to be at variance with this principle.

Methodology GIS Databases:

- Public Drinking Water Sources (PDWSAs) - DOE 09/08/05
 - Hydrographic Catchments - Catchments - DOE 23/03/05
 - Hydrography, linear - DoE 01/02/04
 - Rainfall, Mean Annual - BOM 30/09/01
 - Salinity Risk LM 25m - DOLA 00
 - Groundwater Salinity, Statewide - 22/02/00
 - Potential Groundwater Dependant Ecosystems - DOE 2004
- DEC Site Visit (2008)

(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 area under application is situated in a region with a rainfall of 500 mm per annum. The proposed clearing runs through flat and gently sloping landscapes. The soil type consists mainly of calcareous sands.

Due to the low average annual rainfall and the narrow linear shape and the area under application, it is unlikely that the proposed clearing will contribute to water logging or flooding.

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

Methodology GIS Databases:

- Rainfall, Mean Annual - BOM 30/09/01
 - Soils, Statewide - DA 11/99
 - Topographic Contours, Statewide - DOLA 12/09/02
- DEC Site Visit (2008)

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

Comments

The Shire of Irwin has not indicated if there are any planning requirements or approvals that would affect the clearing.

DEC advised that Works Approval is likely to be issued for the proposed works.

There is no requirement for a RIWI Act Licence.

There are three Native Title claims over the area under application. The advertisement of the application in the West Australian newspaper by the Department of Environment and Conservation 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.

There is an Aboriginal Site of Significance over the area under application. The proponent will be advised of their obligations on the covering letter.

There are four Environmental Impact Assessments (EIA's) over the area under application however these EIA's do not affect the proposed clearing.

Methodology

GIS databases:

- Native Title Claims - DLI 7/11/05
- Aboriginal Sites of Significance - DIA 26/04/07
- Environmental Impact Assessments
- EPA Position Paper No 2 Agriculture Region - DEP 12/00

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Building or Structure	Mechanical Removal	2.6	The assessable criteria have been addressed and no objections were raised.

5. References

- AGPS (2001) The national objective and targets for biodiversity conservation 2001-2005. Commonwealth of Australia, Canberra.
- DEC Site Visit (2008). Department of Environment and Conservation (DEC), Western Australia. DEC TRIM ref DOC48688.
- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMSscience 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. (2006). Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.
- 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
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)

