



1. Application details

1.1. Permit application details

Permit application No.: 1193/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Water Corporation

1.3. Property details

Property: LOT 469 ON PLAN 36088

Local Government Area: City Of Kalgoorlie/Boulder

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
34.75		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 9: medium woodland; coral gum (<i>Eucalyptus torquata</i>) and Goldfields blackbutt (<i>E. lesouefii</i>) (Shepherd et al 2001, Hopkins et al 2001).	The area under application is located near a light industrial area, however the actual property is predominantly covered with native vegetation. Trees had been previously cleared for the construction of a powerline (Mattiske Consulting 2003). The vegetation within the area under application has been described as a woodland of <i>Eucalyptus salmonophloia</i> over a mosaic of <i>Acacia hemiteles</i> and <i>Eremophila interstans</i> subsp <i>interstans</i> (ms) over mixed <i>Chenopods</i> (Mattiske Consulting 2003). The vegetation description does not appear to conform to that of Beard vegetation association 9. The area under application has been disturbed to some extent as there is a small amount of rubbish within the site and the weeds present are concentrated to the few tracks within the area (Mattiske Consulting 2003). However 10 plants of the Declared weed species <i>Carthamus lanatus</i> were recorded in the north-eastern section of the property (Mattiske Consulting 2003).	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The condition of the vegetation has been described as very good as there has been some disturbance within the area under application including the presence of some rubbish with weeds mainly confined to tracks (Mattiske Consulting 2003).

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 within the area under application is common and widespread and not considered to be

regionally significant (Mattiske Consulting 2003). There are a number of bird, large mammal, amphibian and reptile species that could potentially occur within the area under application (Mattiske Consulting 2003). The area proposed to be cleared has been impacted by human activity to some degree and there is substantially evidence of rabbits (Mattiske Consulting 2003). It is considered that the area under application would not be of higher biodiversity than the large Kurrawong Nature Reserve which is located approximately 5 km east of the proposed clearing.

Methodology Mattiske Consulting (2003) (DoE Trim Ref IN26030-02)
GIS Databases:
- CALM Managed Lands and Waters - CALM 01/08/04

(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

A number of Specially Protected and Priority fauna species have the potential to occur within the area under application, including:

Malleefowl (*Leipoa ocellata*);
Peregrine Falcon (*Falco peregrinus*);
Princess Parrot (*Polytelis alexandrae*);
Hooded Plover (*Charadrius rubricollis*);
Shy Heathwren (*Hylacola cauta whitlocki*);
Crested Bell Bird (*Oreocica gutturalis gutturalis*); and
White-browed Babbler (*Pomatostomus superciliosus ashbyi*)
(Mattiske Consulting 2003).

During a site inspection, 28 bird species, seven mammals (including three introduced predator species) and four reptile and amphibian species were recorded (Mattiske Consulting 2003). Most species are wide ranging and cover large areas in search of food and nesting sites (Mattiske Consulting 2003). The Kurrawong Nature Reserve is located 5km to the east and it is considered that this large nature reserve (over 400ha) would provide habitat in equal or better condition than that contained within the area under application.

Methodology Mattiske Consulting (2003) (DoE Trim Ref IN26030-02)
GIS Databases:
- CALM Managed Lands and Waters - CALM 01/08/04

(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

Two Declared Rare Flora (DRF) and 31 Priority species are known to occur in the Kalgoorlie area (Mattiske Consulting 2003). No DRF or Priority species were identified within the area under application (Mattiske Consulting 2003). A hybrid species of *Eremophila ?oblonga (ms) xionantha* was recorded from the flora survey (Mattiske Consulting 2003). However, the area surveyed was 50% larger than the area under application and this hybrid species is located 100m from the eastern boundary of the proposed clearing. It is considered that the clearing as proposed is not likely to be at variance to this Principle.

Methodology Mattiske Consulting (2003) (DoE Trim Ref IN26030-02)
Information provided by the proponent (DoE Trim Ref EI5831)
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

No Threatened Ecological Communities were identified within the area under application (Mattiske Consulting 2003). The vegetation community that was identified within the area under application is wide ranging and therefore is not considered to be regionally or locally significant (Mattiske Consulting 2003).

Methodology Mattiske Consulting (2003) (DoE Trim Ref IN26030-02)
GIS Databases:
- Threatened Ecological Communities - CALM 12/04/05

(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 at variance to this Principle

The vegetation under application consists of Beard vegetation association 9, which has approximately 250,183ha or 99% of the pre-European extent remaining (Shepherd et al 2001, Hopkins et al 2001). Although only 3% of this

vegetation association is currently protected in reserves (Shepherd et al 2001, Hopkins et al 2001), this vegetation association has a conservation status of "least concern" (Department of Natural Resources and Environment 2001).

Methodology Department of Natural Resources and Environment (2001)
Shepherd et al (2001)
Hopkins 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 is not at variance to this Principle

There are no wetlands or watercourses within 4km of the area under application. It is considered that the vegetation under application is not watercourse-dependent vegetation, or associated with a wetland or watercourse. Therefore the clearing as proposed is not at variance to this Principle.

Methodology GIS Databases:
- Hydrography, Linear - DOE 01/02/04
- Geodata, Lakes - GA 28/06/02

(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

Advice from DAWA (2006) indicates that the soils within the area under application consist of loams over clay/loams with relatively high infiltration rates. Previous clearing in the local area suggests the clearing as proposed would not result in land management issues (DAWA 2006). Therefore, it is considered that the clearing as proposed is unlikely to be at variance with this Principle.

Methodology DAWA (2006) (DoE Trim Ref EI5615)

(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 Kurrawang Nature Reserve is located to the south west approximately 5km from the area under application. In addition, the Kalgoorlie Arboretum is located approximately 5km to the north of the area under application. It is unlikely that the proposed clearing would have a significant impact on these conservation reserves given the distance to these areas. The clearing as proposed is unlikely to have a significant impact on the linkages between these conservation reserves as the surrounding areas are well vegetated.

Methodology GIS Databases:
- CALM Managed Lands and Waters - CALM 01/08/04
- Kalgoorlie 1.4 Orthomosaic - DLI 02

(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

There are a number of salt lakes within 4km of the area under application. However due to the low annual rainfall (300mm per annum), any run-off from the proposed clearing is likely to be minimal and is unlikely to effect the quality of the surface salt lakes. The groundwater within the area is also saline (14,000-35,000 mg/L) therefore the quality of the groundwater is unlikely to be effected. Given that the intended landuse of the area is for a water reservoir, run-off from the proposed clearing is unlikely to be an issue.

Methodology GIS Databases:
- Hydrography, Linear - DOE 01/02/04
- Geodata, Lakes - GA 28/06/02
- Groundwater Salinity, Statewide - 22/02/00
- Rainfall, Mean Annual - BOM 30/09/01

(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

There are no surface waterbodies within 4km of the area under application. Given the low annual rainfall (300mm per annum) and the intended landuse as a water reservoir, it is unlikely that the clearing as proposed would increase the incidence or intensity of flooding.

Methodology GIS Databases:
 - Hydrography, linear - DOE 01/02/04
 - Rainfall, Mean Annual - BOM 30/09/01

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

Comments

The assessing officer contacted the City of Kalgoorlie-Boulder to inquire as to whether any Local Government development approvals would be required for the intended land use of a water reservoir. The assessing officer was told that no approvals would be required as the works would be covered by the Public Works Act 1902.

Methodology Personal Communication (1 May 2006), Planning Officer, City of Kalgoorlie-Boulder

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Miscellaneous	Mechanical Removal	34.75	Grant	The proposal has been assessed and the clearing as proposed is not at variance to any of the Principles. As a number of fauna species potentially occur in the local area, the Department advises that the proposed clearing be conducted from east to west to assist fauna to move to other vegetated areas.

5. References

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.

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.

Mattiske Consulting Pty Ltd (2003) Flora, Vegetation and Vertebrate Fauna Survey of Proposed Storage Reservoir Sites and Binduli and Gateacre Kalgoorlie. Prepared for Water Corporation. DoE Trim Ref IN26030-02

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)