



1. Application details

1.1. Permit application details

Permit application No.: 1952/1
 Permit type: Area Permit

1.2. Proponent details

Proponent's name: Shire of Chapman Valley

1.3. Property details

Property: ROAD RESERVE (EAST YUNA 6532)
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Local Government Area: Shire Of Chapman Valley
 Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4		Mechanical Removal	Road construction or maintenance

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 35: Shrublands; jam scrub with scattered York gum. Beard vegetation association 352: Medium woodland; York gum. Beard vegetation association 353: Shrublands; mallee & acacia scrub with scattered York gum. (Hopkins et al, 2001; Shepherd et al, 2001)	The road reserve has no significant vegetation other than the samphire near the culvert and the deep drain, and the saltbush vegetation near the north western corner. A few individual trees of Acacia and mallee exist within the road reserve. The road verge contains weeds. (Site Visit Report, 2007)	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 conducted on 9 August 2007 (Site Visit Report, 2007).

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 at variance to this Principle**
 The proposed clearing is mainly with the road reserve of Yuna-Tenindawa Road, with the exception of a ~1.3ha area at intersection of McGauran and Yuna-Tenidawa Road. The purpose of the proposed clearing is for road widening and the realignment of the above mentioned intersection.

The vegetation under application that is approximately 2 straight line kilometres (SLK) south of McGauran road consists mainly of degraded patches of samphire near an existing culvert for a minor perennial watercourse that intersects the road at this point. The area under application at the intersection of McGauran and Yuna-Tenidawa Road consists mainly of saltbush vegetation and a few live and dead trees of York gum on a flat area that appears to be seasonally inundated. A few individual trees of Acacia and mallee exist within the road reserve. The vegetation under application has been affected by disturbance factors such as weeds via the adjoining land that is used for agriculture and a via the current land use being a transport corridor. Therefore, the vegetation under application is largely in a degraded (Keighery 1994) condition (site visit 2007).

The area under application is not considered to comprise a high level of biodiversity due to the low number of species present, the small size of the proposed clearing,

Therefore, this proposal is not at variance to this Principle.

Methodology Keighery (1994)
Site Visit Report (2007)
GIS Databases:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00

(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, Priority or other significant fauna within the proposal area. There is one occurrence of a Declared Threatened Fauna and one occurrence of a Priority 4 Fauna in Bindoo Hill Nature Reserve and five occurrences of a Priority 4 Fauna within the East Yuna Nature Reserve within an approximate radius of 10 km. There is also one occurrence of a Priority 3 Fauna in a private property. The closest of them appear to occur at a distance of approximately 3.4 km from the proposal area.

The vegetation under application that is approximately 2 straight line kilometres (SLK) south of McGauran road consists mainly of degraded patches of samphire near an existing culvert for a minor perennial watercourse that intersects the road at this point. The area under application at the intersection of McGauran and Yuna-Tenidawa Road consists mainly of saltbush vegetation and a few live and dead trees of York gum on a flat area that appears to be seasonally inundated. A few individual trees of Acacia and mallee exist within the road reserve. The vegetation under application has been affected by disturbance factors such as weeds via the adjoining land that is used for agriculture and a via the current land use being a transport corridor. Therefore, the vegetation under application is largely in a degraded (Keighery 1994) condition (site visit 2007).

Given the degraded condition of the vegetation patches, edge effects from surrounding agricultural and transport land uses and the small size of the proposed clearing, the vegetation under application is not likely to provide significant habitat for fauna indigenous to Western Australia.

Methodology GIS Databases:
- SAC Bio datasets - 151107
Keighery (1994)
Site Visit Report (2007)

(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 two records of Declared Rare Flora (DRF), two records of a Priority 2 Flora, two records of a Priority 3 Flora and one record of a Priority 4 Flora within a radius of approximately 10 km. Both of the DRF populations and three of the Priority Flora populations occur on a soil type similar to one of the soil types found within the area under application. The closest of the Priority Flora occurs approximately 1.6 km south and the DRF occur approximately 2.3 km east of the area under application. The area under application is largely in a degraded (Keighery 1994) condition (site visit 2007).

Considering that the area of proposed clearing is small and confined mainly to three small remnant vegetation patches on the road reserve, and given the level of disturbance from the surrounding agricultural and transport landuses, the vegetation in the area under application is not likely to be necessary for the existence of Rare or Priority Flora.

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

Methodology GIS Databases:
- SAC Biodatasets 151107
- Clearing Regulations - Environmentally Sensitive Areas - DoE 30/05/05
Keighery (1994)
Site Visit Report (2007)

(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 records of Threatened Ecological Communities (TECs) within a radius of 10 km. Therefore it is unlikely that the proposed clearing is at variance with this Principle.

Methodology GIS Databases:
- SAC Biodatasets 151107

(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 area (ha)	Current extent (ha)	Remaining %*
IBRA Bioregion Geraldton Sandplains***	3 136 277	1 324 440	42
Shire - Chapman Valley	396 565	32 312	10.4
Beard Vegetation Association 35	184 513	19 453	10.5
352	724 296	119 957	16.6
353	97 376	4 360	4.5

* (Shepherd et al, 2001; Shepherd, 2006)

*** Area within Intensive Landuse Zone

The area under application falls within EPA Position Statement No. 2. However, the proposed clearing is not intended for agricultural purposes and therefore EPA Position Statement No. 2 does not apply.

The area under application consists mainly of three patches of native vegetation and they appear to have been impacted by water logging and salinity. Consequently, samphire and saltbush are the dominant types of vegetation in these patches which are not components of the Beard Vegetation Associations 35, 352 or 353. York gum is the only component of these Beard Vegetation Associations and it is represented by only a few live and dead trees in the northern end of the area under application. (Site Visit Report, 2007)

Given that the Beard Vegetation Associations are not fully represented in the three small patches of remnant vegetation, this proposal is not likely to be at variance with this Principle.

Methodology EPA (2000)
Shepherd (2006)
Shepherd et al (2001)
Site Visit Report (2007)
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

(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 vegetation under application that is approximately 2 straight line kilometres (SLK) south of McGauran road consists mainly of degraded patches of samphire near an existing culvert for a minor perennial watercourse that intersects the road at this point. A drain runs parallel to the road at this point.

The road reserve is approximately 22 m wide at these locations and there will be no need for extending the road widening or clearing the samphire vegetation to interfere with the bed and banks of the drain. The proponent has indicated that they will not be interfering with any watercourses as a result of the proposed clearing (DOC41126). Therefore, this proposal is not likely to be at variance to this principle.

Methodology GIS Databases:
- Hydrography, linear - DoE 01/02/04
- Hydrographic Catchments - Catchments - DoE 23/03/05
Site Visit Report (2007)

(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 located within the 400 mm mean annual rainfall region. Chief soils are neutral red

earths with some alkaline red earths. On average, the area shows a medium risk of salinity along the non-perennial watercourses. The area under application consists mainly of three patches of native vegetation and a few scattered individual trees of Acacia and mallee. The three main vegetation patches appear to have been impacted by water logging and salinity. (Site Visit Report, 2007)

Due to the small area of vegetation under application it is unlikely to cause appreciable land degradation

Methodology GIS Databases:
- Rainfall, Mean Annual - BOM 30/09/01
- Salinity Risk LM 25m - DOLA 00
- Soils, Statewide - DA 11/99
Site Visit Report (2007)

(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 four Nature Reserves situated within a radius of approximately 10 km. The area under application adjoins the McGauran Nature Reserve 3.9 SLK from McGauran Road. An un-named Nature Reserve is situated 1.3 km northeast of the proposal area. East Yuna Nature Reserve is situated approximately 1.5 km north-east and Bindoo Hill Nature Reserve is situated approximately 5.4 km south-east of the area under application. The road reserve is fenced off where it adjoins the south-western tip of the McGauran Nature Reserve; the road reserve at this location has no native vegetation (Site Visit Report, 2007).

The removal of linear strips of vegetation mainly from three small vegetated areas is not likely to have a significant impact on these Conservation Areas. In addition, areas immediately surrounding the proposal area are fragmented by agricultural landuses and road networks. (Site Visit Report, 2007) It appears that the human activity in and around the proposal area does not seem to create an opportunity to link the area under application with the existing Conservation Areas. Therefore, this proposal is not likely to be at variance with this Principle.

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
Site Visit Report (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 vegetation under application that is approximately 2 straight line kilometres (SLK) south of McGauran road consists mainly of degraded patches of samphire near an existing culvert for a minor perennial watercourse that intersects the road at this point. A drain runs parallel to the road at this point and the vegetation at this locations is samphire, which indicates that the quality of the water in this watercourse is saline. (Site Visit Report, 2007) The area under application is located within the 400 mm mean annual rainfall region and within the Greenough River hydrographic catchment. There is no Public Drinking Water Source Areas (PDWSA's) in the proposal area. Groundwater depth could not be established from available data. Approximately one half of the proposal area falls within a region where the Total Dissolved Salts (TDS) in the underground water is 500-1000 mg/L and the other half falls within a region where the TDS in the underground water is 3000-7000 mg/L.

Due to the small area, the proposed clearing is not likely to deteriorate the quality of the surface or underground water any more than the existing saline conditions. Removal of small strips of vegetation in a region with a low average rainfall (400 mm) is unlikely to cause a substantial watertable rise in the local area.

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

Methodology GIS Databases:
- Current WIN data sets
- Groundwater Salinity, Statewide - 22/02/00
- Public Drinking Water Source Areas (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
Site Visit Report (2007)

(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 consists mainly of three patches of native vegetation (Site Visit Report, 2007). Chief soils are neutral red earths with some alkaline red earths. During the proposed road construction, narrow linear strips of vegetation are expected to be removed from the three mainly vegetated areas. The mean annual rainfall in the region is 400 mm. Data are not available to estimate the depth to groundwater.

Due to the relatively low average annual rainfall in the region (400 mm) and the small narrow area under application it is unlikely to exacerbate flooding.

Methodology GIS Databases:

- Rainfall, Mean Annual - BOM 30/09/01
 - Soils, Statewide - DA 11/99
 - Current WIN data sets
- Site Visit Report (2007)

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

Comments

Shire of Chapman Valley (2007) advised that 'no planning approvals or other requirements will be effected by this clearing application'.

DOW (2007) advised that 'a permit is required to interfere with bed and banks'.

Shire of Chapman Valley (2007a) advised that 'the work carried out on the East-Nabawa and Yuna-Tenindewa Road intersection has not interfered with the watercourse into the culvert crossing under the Yuna-Tenindewa Road. Culverts under the East-Nabawa Road are of similar size to that which was installed on the old road realignment. Council has not altered the height or depth of the culvert under the Yuna-Tenindewa Road apart from widening such by 2.4 meters. No alterations have been made to any watercourse in this area'.

There is no further requirement for Works Approval or EP Act Licence for the area under application.

Approximately two thirds of the area under application falls within an Aboriginal Site of Significance. The proponent will be advised of this on the covering letter.

There are three Native Title claims over the area under application, however the clearing proposal falls within a road reserve which is being managed by the Shire of Chapman Valley. 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.

Methodology GIS Databases:

- Aboriginal Sites of Significance - DIA 28/02/03
 - Environmental Impact Assessments - DOE 24/10/05
 - Native Title Claims - DLI 7/11/05
- DOW Advice (2007)
EPA (1998)
Shire of Chapman Valley (2007)
Shire of Chapman Valley (2007a)

4. Assessor's comments

Comment

Assessable criteria have been addressed and the proposal is not at variance to Principle (a) and not likely to be at variance to the remaining Principles.

5. References

AGPS (2001) The national objective and targets for biodiversity conservation 2001-2005. Commonwealth of Australia, Canberra.

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.

DOW Advice (2007). DEC TRIM Ref DOC39485.

EPA (1998) Geraldton Region Plan Bulletin 891, Environmental Protection Authority, Perth, Western Australia.

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.
 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.
 Shire of Chapman Valley (2007). DEC TRIM Ref DOC31460.
 Shire of Chapman Valley (2007a). DEC TRIM Ref DOC41126.
 Site Visit Report (2007) Department of Environment and Conservation (DEC), Western Australia. DEC TRIM Ref DOC38390.

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)