



1. Application details

1.1. Permit application details

Permit application No.: 1522/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Telstra Corporation Ltd

1.3. Property details

Property: LOT 9 ON PLAN 91722 (NGAANYATJARRA-GILES 0872)
 LOT 9 ON PLAN 91722 (NGAANYATJARRA-GILES 0872)
 LOT 9 ON PLAN 91722 (NGAANYATJARRA-GILES 0872)
 LOT 8 ON PLAN 91735 (WARBURTON 6431)
 Local Government Area: Shire Of Ngaanyatjarraku
 Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
302		Mechanical Removal	Infrastructure 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 18: Low woodland; mulga (Acacia aneura).	The areas under application are for the purpose of installing underground optical fibre cables to link the communities of Blackstone, Jameson, Warburton, Wanarn and Warakurna and the areas of the Warakurna Roadhouse and Giles Meteorological stations. The proposed work comprises of a corridor of an average width of 8m over approximately 377km (302ha), located within road reserves and parallel to existing roads (Information provided by the proponent 2006) (TRIM DOC2847). The areas under application are located within Lot 9, Reserve 17614 (272ha over 340km) and Lot 8, Reserve 21471 (30ha over 37km).	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The areas under application have been subject to grazing by feral animals (rabbits and camels) and wildfires (Ison Environmental Planners 2006) (TRIM Ref DOC1521). Photographs of the areas under application submitted with the application (TRIM Ref DOC2847) show an altered structure and signs of disturbance. Based on the above information a condition of very good to good for the vegetation under application is deemed appropriate.
Beard vegetation association 19: Low woodland; mulga between sand ridges.			
Beard vegetation association 39: Shrublands; mulga scrub.			
Beard vegetation association 45: Shrublands; mallee scrub (Great Victoria Desert).			
Beard vegetation association 92: Hummock grasslands, sparse tree steppe; bloodwood over hard spinifex Triodia basedowii.			
Beard vegetation association 95: Hummock grasslands, shrub steppe; acacia and grevillea over Triodia basedowii.	The vegetation proposed to be cleared is described as predominantly shrubs <3m, Mallee, Mulga (Acacia aneura) and Spinifex (Triodia species). Larger trees will be avoided (Ison Environmental Planners 2006) (TRIM Ref DOC6547), (Information provided by the proponent 2006) (TRIM Ref		
Beard vegetation association 230: Mosaic: Medium sparse woodland; desert oak between sand dunes/ Hummock			

grasslands, grass steppe; DOC2847).
hard spinifex *Triodia*
basedowii.

(Hopkins et al. 2001;
Shepherd et al. 2001).

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**

Over 90% of the areas under application (272ha over 340km) are located within the Ranges of the Western Desert (Aboriginal Reserve 17614), an area listed on the Register of the National Estate. The Ranges, which extend over 8,000,000ha, are registered for natural values and are recognised as having 'Indigenous values of National Estate significance'. Given the linearity and size of the areas under application (average 8m width over 377km, 302ha) relative to the area on the Register, it is unlikely that the clearing as proposed would have a significant impact on the natural values of the wider area.

The areas under application are parallel to existing road corridors (between 20m to 50m from the roadway) and are therefore likely to have been subject to some disturbance (Ison Environmental Planners 2006).

Given the linearity of the areas under application and their proximity to existing road and associated infrastructure, it is considered unlikely these areas comprise a higher level of biological diversity than that of other less disturbed areas in the local area.

Methodology Ison Environmental Planners (2006) (TRIM Ref DOC6547)
GIS databases:
- System 1 to 5 and 7 to 12 Areas - DEP 06/95

(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**

Of the 12 species listed as rare or threatened under State and Commonwealth legislation that have been recorded from the local area of the proposed work, nine fauna species could possibly occur on or near the area traversed by the cable route (Ison Environmental Planners 2006). During a fauna habitat field survey conducted from 23 July to 28 July 2006, no species of rare fauna were observed (Ison Environmental Planners 2006). Given, the low level and relatively small scale of disturbance (average 8m width over 377km) it is considered unlikely that the proposed work of cable installation would have detrimental impacts upon any of the nine fauna species or their critical habitats. The fauna which inhabit the lands where the proposed work is located are common and widespread species that are tolerant of disturbed environments (Ison Environmental Planners 2006).

Furthermore, over 90% of the areas under application (272ha over 340km) are located within Aboriginal Reserve 17614, an area covering approximately 8,000,000ha, with extensive, well-represented habitat that will offset habitat loss arising from the proposed clearing. The vegetation proposed to be cleared is parallel to the existing road corridors (between 20m to 50m from the roadway) and are likely to have been subject to some disturbance. The areas under application are therefore not likely to be necessary for the maintenance of significant habitat for fauna indigenous to Western Australia.

Methodology Information provided by the proponent (2006) (TRIM Ref IN25248)
Ison Environmental Planners (2006) (TRIM Ref DOC6547)
GIS databases:
- Cadastre - DLI 1/12/05

(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 no records of Declared Rare Flora (DRF) in the local area (100km radius). The nearest recorded DRF (*Acacia denticulosa*) is located over 200km, south-west from the proposed areas.

The following priority species are known to occur in the local area (100km radius):
- *Isotropis winneckeii* (Priority 1).

A field inspection of the study corridor (up to 50m on either side of proposed works) from 23 July to 28 July 2006 identified no species of rare flora or priority flora (Ison Environmental Planners 2006).

As there are no records of DRF in the local area it is unlikely that the vegetation proposed to be cleared includes or is necessary for the continued existence of rare flora.

Methodology Ison Environmental Planners (2006) (TRIM Ref DOC6547)
 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**
 There are no records of Threatened Ecological Communities (TECs) within close proximity of the areas under application with the nearest recorded TECs located over 700km from the proposed areas. It is therefore unlikely that the vegetation proposed to be cleared comprises the whole or part of or is necessary for the maintenance of a TEC.

Methodology GIS Databases:
 - Threatened Ecological Community Database - 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 State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents the clearance of ecological communities with an extent below 30% of that present Pre-European settlement (Department of Natural Resources and Environment 2002). The Vegetation Complexes in the areas under application are above the recommended minimum of 30% representation.

	Pre-European (ha)*	Current extent (ha)*	Remaining (%)*	Conservation**% In reserves/CALM status	managed land
IBRA Bioregions					
- Central Ranges	5 132 641	5 132 641	100.0	Least Concern	
Shire of Ngaanyatjarraku	No information available				
Vegetation type:					
Beard: Unit 18	24 675 970	24 659 110	99.9	Least Concern	2.0
Beard: Unit 19	4 888 643	4 885 387	99.9	Least Concern	0.0
Beard: Unit 39	5 382 170	5 380 712	100.0	Least Concern	8.2
Beard: Unit 45	358 724	358 724	100.0	Least Concern	4.7
Beard: Unit 92	169 760	169 760	100.0	Least Concern	0.0
Beard: Unit 95	1 363 428	1 363 428	100.0	Least Concern	1.5
Beard: Unit 230	1 567 508	1 567 508	100.0	Least Concern	8.8

* (Shepherd et al. 2001)

** (Department of Natural Resources and Environment 2002)

Given the proposed clearing of 302ha (average 8m width over 377km) is relatively small compared to the area of remnant vegetation remaining within the Region, the vegetation proposed to be cleared is not likely to be significant as a remnant of native vegetation in the surrounding area. In addition, there is at least 99.9% of native vegetation remaining for of each the seven Beard Vegetation Units mapped for the vegetation under application (Shepherd et al. 2001).

Methodology Department of Natural Resources and Environment (2002)
 Hopkins et al. (2001)
 Shepherd et al. (2001)
 GIS Databases:
 - Pre-European Vegetation - DA 01/01
 - 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**
 Ison Environmental Planners (2006) reported that there are minor non-perennial watercourses, within the areas under application. There are two crossings in relation to these watercourses immediately north of Warburton and three crossings immediately south of Warakurna. The riparian vegetation communities of the watercourses are much thicker than those of the surrounding area and provide habitat and connectivity for a number of flora and fauna species. Whilst the proposed work of cable installation will affect this vegetation at the crossings the disturbance will be minimal and temporary, as a section of work would only take a few days and soil and grass

would begin to return to the original condition soon after construction ceased (Ison Environmental Planners 2006).

Methodology Ison Environmental Planners (2006) (TRIM Ref DOC6547)
GIS Databases:
- Hydrography, linear - DOE 01/02/04

(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 areas to be cleared are not densely vegetated but consist of sparse vegetation of spinifex and mulga (Ison Environmental Planners 2006) associated with desert country, it is therefore unlikely that wind erosion is likely to lead to appreciable land degradation. Furthermore, given, the linearity (average 8m width) and isolated areas proposed to be cleared, it is unlikely that large areas of soil would be bare and possibly subject to erosion.

Given the above, it is unlikely the clearing of vegetation for the proposed work of cable installation will cause appreciable land degradation.

Additionally, Telstra Corporation, the Ngaanyatjarra Land Council, the Ngaanyatjarra Council and the Native Title Party have entered into a Deed of Agreement (2006) allowing Telstra to undertake the project in the Corridor and Other Cleared Areas. The Deed of Agreement (2006) outlines the requirements of Telstra to rehabilitate any areas affected by the Project. Telstra proposes to retain the cleared vegetation and then following completion of the proposed work adopt appropriate reinstatement measures including diversion banks and respreading of cleared vegetation.

Methodology Deed of Agreement (2006) (TRIM Ref DOC5322)
Ison Environmental Planners (2006) (TRIM Ref DOC6547)
DAFWA Advice (2006)

(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 areas under application are located within the Ranges of the Western Desert (Aboriginal Reserve 17614), an area listed on the Register of the National Estate. The Ranges, which extend over 8,000,000ha, are registered for natural values and are recognised as having 'Indigenous values of National Estate significance'. Heritage clearance surveys were undertaken by The Ngaanyatjarra Council for areas of the proposed installation of infrastructure within the Shire of Ngaanyatjarraku and a full clearance was given for this proposal (Deed of Agreement 2006).

Given the linearity (average 8m width over 377km) and size of the areas under application (302ha) relative to the area on the Register, it is unlikely that the clearing as proposed would have a significant impact on the natural values of the wider area.

The nearest CALM managed lands are located approximately 100km north-west (Gibson Desert Nature Reserve) and 300km south south-west (Neale Junction Nature Reserve and Yeo Lake Nature Reserve) of the proposed clearing. Given the distance between the areas under application and the CALM managed lands the proposed clearing is not likely to have an impact on the environmental values of these surrounding conservation areas.

Methodology Information provided by the proponent (2006) (TRIM Ref DOC2847)
Deed of Agreement (2006) (TRIM Ref DOC5322)
GIS databases:
- System 1 to 5 and 7 to 12 Areas - DEP 06/95
- CALM Managed Lands and Water - CALM 01/07/05

(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 at variance to this Principle

With an average annual rainfall of 200mm-250mm and an annual evaporation rate of 3,400mm-3,500mm there is likely to be little surface flow during normal seasonal rains. The Mackay Basin and Warburton Basin within the Western Plateau Division become mediums for the collection and transportation of the major flows.

With high annual evaporation rates and low annual rainfall indicate there is little groundwater recharge. Groundwater salinity on site is between 1,000 mg/l and 3,000 mg/l and is considered to be marginal to brackish.

Given the linearity and relatively small size of the proposed works and the size of the Musgrave (3,240,400ha)

and Canning (46,575,300ha) Groundwater Provinces, the proposed clearing is unlikely to have an impact on regional groundwater.

- Methodology** GIS Databases:
- Evaporation Isopleths - BOM 09/98
 - Isohyets - BOM 09/98
 - Groundwater Salinity, Statewide - 22/02/00
 - Hydrography, linear - DOE 01/02/04
 - Groundwater Provinces - WRC 98
 - Hydrographic Catchments, Catchments - DOE 23/03/05

(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 at variance to this Principle**
 With an average annual rainfall of 225mm and an annual evaporation rate of 3,500mm there is little surface flow during normal seasonal rains. Given the low annual rainfall and the linearity of the proposed clearing (average 8m width over 377km), clearing the vegetation under application is unlikely to cause or exacerbate the incidence or intensity of flooding.

- Methodology** GIS Databases:
- Evaporation Isopleths - BOM 09/98
 - Isohyets - BOM 09/98
 - Hydrography, linear - DOE 01/02/04

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

Comments

The areas under application are within the Proclaimed Groundwater Area of East Murchison. Therefore any abstraction of groundwater would require a licence. However, considering this application is only for Infrastructure, no licence will be necessary.

There is no other RIWI Act Licence, Works Approval or EPA Act Licence that affects the area under application.

No submission was received from the Shire of Ngaanyatjaraku.

There are 23 Aboriginal Sites of Significance listed within the areas under application, the applicant will be advised of their obligations under the Aboriginal Heritage Act 1972.

A Native Title Party holds native title rights and interests over the area. Telstra Corporation and the Native Title Party have entered into a Deed of Agreement whereby the Native Title Party have consented to allow Telstra to undertake the project in the Corridor and Other Cleared Areas, to sub-lease the area of the Corridor and other Cleared Areas and to access the Leases to undertake the Project (Deed of Agreement 2006).

- Methodology** Deed of Agreement (2006) (TRIM Ref DOC5322)
 GIS databases:
- Aboriginal Sites of Significance - DIA 28/02/03
 - Cadastre - DLI 1/12/05
 - Native Title Claims - DLI 7/11/05
 - RIWI Act, Groundwater Areas - WRC 13/06/00
 - RIWI Act, Surface Water Areas - WRC 18/10/02

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Infrastructure Maintenance	Mechanical Removal	302	Grant	<p>The application has been assessed and the clearing as proposed is at variance to Principle f) and not likely to be at variance to the remaining Principles.</p> <p>For Principle f) Ison Environmental Planners reported that whilst the proposed work of cable installation will affect vegetation at the watercourse crossings the disturbance will be minimal and temporary, as a section of work would only take a few days and soil and grass would begin to return to the original condition soon after construction ceased.</p> <p>Therefore the assessing officer recommends that a permit should be granted.</p>

5. References

DAFWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DoE TRIM ref DOC8819.

Deed of Agreement (2006) Deed of Agreement between Telstra Corporation Limited and Ngaanyatjarra Land Council (Aboriginal Corporation) and Yarnangu Ngaanyatjarraku Parna (Aboriginal Corporation) and Ngaanyatjarra Council (Aboriginal Corporation). Telstra-Ngaanyatjarra Lands Optic Fibre Cable Agreement 2006. TRIM Ref DOC5322.

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.

Ison Environmental Planners (2006) Consultant's Report. Significant Flora and Fauna- Proposed optic fibre cable route: Warburton-Warakurna and Bajic Corner-Blackstone, Western Australia. TRIM Ref DOC6547.

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)