

### **CLEARING PERMIT**

Granted under section 51E of the Environmental Protection Act 1986

**Purpose Permit number:** CPS 10312/1

**Permit Holder:** Service Stream Mobile Communications Pty Ltd

**Duration of Permit:** From 17 November 2023 to 17 November 2033

The permit holder is authorised to clear *native vegetation* subject to the following conditions of this permit.

## PART I - CLEARING AUTHORISED

### 1. Clearing authorised (purpose)

The permit holder is authorised to clear *native vegetation* for the purpose of connecting power to an Optus Mobile tower.

## 2. Land on which clearing is to be done

Lot 759 on Deposited Plan 207952, Ghooli

## 3. Clearing authorised

The permit holder must not clear more than 0.082 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

### 4. Period during which clearing is authorised

The permit holder must not clear any *native vegetation* after 17 November 2028.

# **PART II – MANAGEMENT CONDITIONS**

## 5. Avoid, minimise, and reduce impacts and extent of clearing

In determining the *native vegetation* authorised to be cleared under this permit, the permit holder must apply the following principles, set out in descending order of preference:

- (a) avoid the clearing of *native vegetation*;
- (b) minimise the amount of *native vegetation* to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

### 6. Weed management

When undertaking any clearing authorised under this permit, the permit holder must take the following measures to minimise the risk of introduction and spread of *weeds*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no known *weed*-affected soil, *mulch*, *fill*, or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

# 7. Directional clearing

The permit holder must:

- (a) conduct *clearing* activities in a slow, progressive manner towards adjacent *native vegetation*; and
- (b) allow a reasonable time for fauna present within the area being cleared to move into adjacent *native vegetation* ahead of the clearing activity.

## 8. Revegetation and rehabilitation- retention of vegetative material and topsoil

- (a) For the areas cross-hatched yellow in Figure 1 of Schedule 1, the permit holder must retain the vegetative material and topsoil removed by clearing authorised under this permit and stockpile the vegetative material and topsoil in an area that has already been cleared.
- (b) At an *optimal time* of the area no longer being required for the purpose of the clearing authorised under this permit, the permit holder must *revegetate* and *rehabilitate* the areas cross-hatched yellow in Figure 1 of Schedule 1 by:
  - (i) re-shaping the surface of the land so that it is consistent with the surrounding five (5) metres of uncleared land; and
  - (ii) ripping the ground on the contour to remove soil compaction; and
  - (iii) laying the vegetative material and topsoil retained under condition 8(a) on the cleared area.
- (c) The permit holder must, within 24 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 8(b) of this permit:
  - (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
  - (ii) engage an *environmental specialist* to make a determination as to whether the composition, structure and density determined under condition 8(c)(i) of this permit will, without further *revegetation* and *rehabilitation*, result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area.
- (d) If the determination made by the *environmental specialist* under condition 8(c)(ii) is that the species composition, structure, and density determined under condition 8(c)(i) will not, without further *revegetation*, result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, the permit holder must *revegetate* the area by deliberately *planting* and/or *direct seeding native vegetation* seeds that will result in a similar species composition, structure, and density of *native vegetation* to pre-clearing vegetation types in that area.

- (e) Where additional planting or *direct seeding* of *native vegetation* is undertaken in accordance with condition 8(d), the permit holder must repeat the activities required by condition 8(c) and 8(d) within 12 months of undertaking the additional *planting* or *direct seeding* of *native vegetation*.
- (f) Where a determination is made by an *environmental specialist* under condition 8(c)(ii) that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, that determination shall be submitted to the *CEO* within three months of the determination being made by the *environmental specialist*.

### PART III - RECORD KEEPING AND REPORTING

# 9. Records that must be kept

The permit holder must maintain records relating to the listed relevant matters in accordance with the specifications detailed in Table 1.

Table 1: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing	(a) the species composition, structure, and density of the cleared area;
	activities generally	(b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings;
		(c) the date that the area was cleared;
		(d) direction of clearing;
		(e) the size of the area cleared (in hectares);
		(f) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 5; and
		(g) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> in accordance with condition 6.
2.	In relation to the required revegetation activities in accordance with condition 8	(a) the location where <i>revegetation</i> activities occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA20), expressing the geographical coordinates in Eastings and Northings;
		(b) the date that the area was <i>revegetated</i> ;
		(c) species composition and structure of the <i>revegetation</i> ;
		(d) a copy of the <i>environmental specialist</i> 's report;
		(e) a description of the <i>revegetation</i> activities

No.	Relevant matter	Specifications
		undertaken; and (f) any remedial actions required to be undertaken.

# 10. Reporting

The permit holder must provide to the *CEO* the records required under condition 9 of this permit when requested by the *CEO*.

# **DEFINITIONS**

In this permit, the terms in Table have the meanings defined.

**Table 2: Definitions** 

Term	Definition				
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .				
clearing	has the meaning given under section 3(1) of the EP Act.				
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.				
direct seeding	means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species.				
environmental specialist	means a person who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit, or who is approved by the CEO as a suitable				
£11	environmental specialist.				
fill	means material used to increase the ground level, or to fill a depression.				
department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.				
EP Act	Environmental Protection Act 1986 (WA)				
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.				
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.				
optimal time	means the period from April to June for undertaking direct seeding, and the period from May to June for undertaking planting				
planting	means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species.				
rehabilitate/ed/ion means actively managing an area containing native vegetation i to improve the ecological function of that area.					
revegetate/ed/ion	means the re-establishment of a cover of local provenance native vegetation in an area using methods such as natural regeneration, direct seeding and/or planting, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.				
weeds	means any plant –  (a) that is a declared pest under section 22 of the <i>Biosecurity and</i>				

Term	Definition			
	Agriculture Management Act 2007; or			
	(b) published in a Department of Biodiversity, Conservation and			
	Attractions species-led ecological impact and invasiveness			
	ranking summary, regardless of ranking; or			
	(c) not indigenous to the area concerned.			

## **END OF CONDITIONS**

Mathew Gannaway
MANAGER

NATIVE VEGETATION REGULATION

Officer delegated under Section 20 of the Environmental Protection Act 1986

24 October 2023

# **Schedule 1**

The boundary of the area authorised to be cleared is shown in the map below (Figure 1).

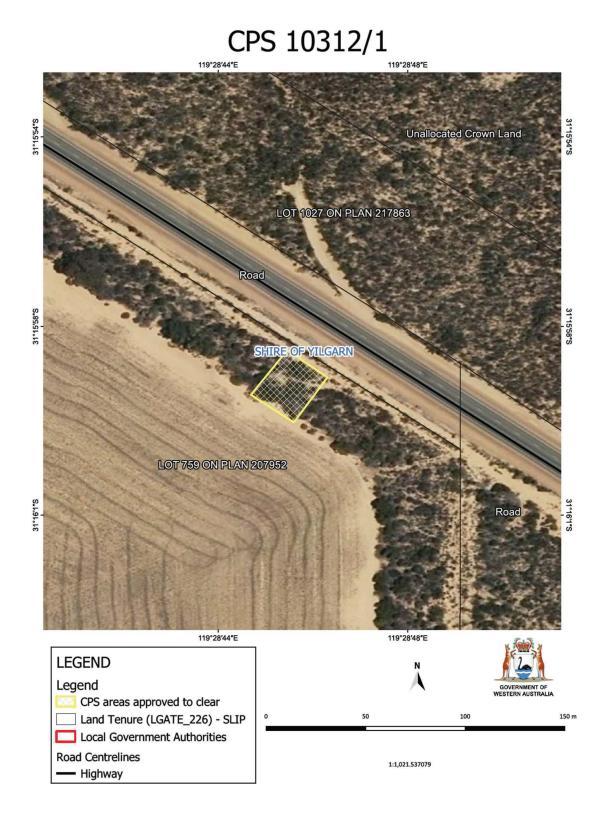


Figure 1: Map of the boundary of the area within which clearing may occur



# **Clearing Permit Decision Report**

## 1 Application details and outcome

### 1.1. Permit application details

Permit number: CPS 10312/1

Permit type: Purpose permit

**Applicant name:** Service Stream Maintenance Pty Ltd (SSM)

**Application received:** 21 August 2023

**Application area:** 0.082 hectares of native vegetation

Purpose of clearing: Connecting power to an Optus Mobile tower

Method of clearing: Mechanical Clearing

**Property:** Lot 759 on Deposited Plan 207952

Location (LGA area/s): Shire of Yilgarn

Localities (suburb/s): Ghooli

### 1.2. Description of clearing activities

The vegetation proposed to be cleared comprises of a small area of roadside native vegetation contained within a single contiguous area (see Figure 1, Section 1.5). The proposed clearing is to provide a power connection to an approved Indara telecommunications facility and on-going access for Western Power (Service Stream Maintenance, 2023).

### 1.3. Decision on application

**Decision:** Granted

**Decision date:** 24 October 2023

**Decision area:** 0.082 hectares of native vegetation, as depicted in Section 1.5, below.

#### 1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 21 days and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix A), relevant datasets (see Appendix E0), the clearing principles set out in Schedule 5 of the EP Act (see Appendix B), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration that the tower was built as part of the Federal Governments mobile blackspot program and is due to be upgraded with a new tower and power connection (Service Stream Maintenance, 2023).

The assessment identified that the proposed clearing will result in:

• the loss of native vegetation that is potentially suitable habitat for malleefowl (*Leipoa ocellata*), chuditch (*Dasyurus geoffroii*) and peregrine falcon (*Falco peregrinus*);

- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values; and
- suitable habitat for priority flora species.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing can be minimised and managed to unlikely lead to an unacceptable risk to fauna and priority flora species. Due to the small scale and localised nature of the clearing, there is not likely to be a significant impact to fauna or priority flora species.

The Delegated Officer decided to grant a clearing permit subject to conditions to:

- · avoid, minimise to reduce the impacts and extent of clearing,
- take hygiene steps to minimise the risk of the introduction and spread of weeds,
- undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity, and
- once the area is no longer required for the purpose of the clearing authorised under the permit, the permit holder must revegetate and rehabilitate the area to ensure native vegetation is not permanently lost.

## 1.5. Site map

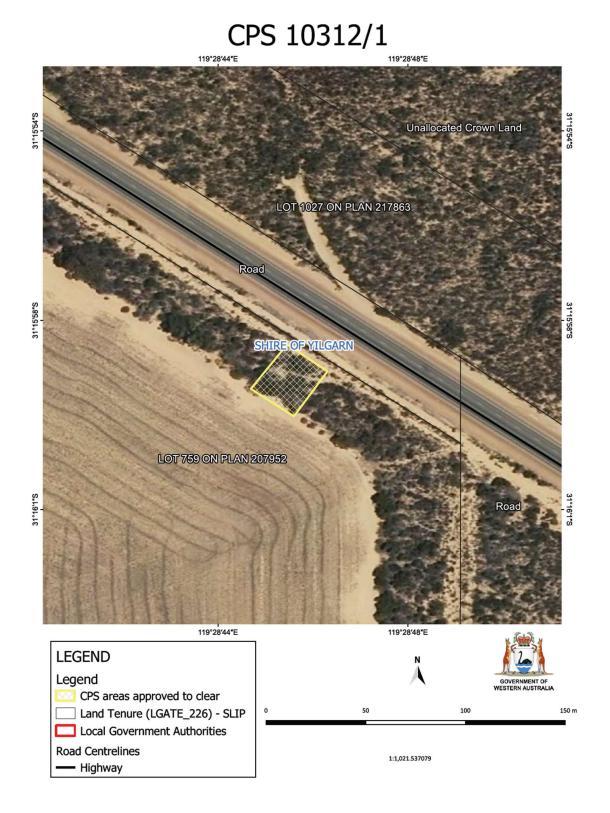


Figure 1 Map of the application area

The area crosshatched yellow indicates the area authorised to be cleared under the granted clearing permit.

### 2 Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection* (Clearing of Native Vegetation) Regulations 2004 (Clearing Regulations).

In addition to the matters considered in accordance with section 510 of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the polluter pays principle
- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- Biodiversity Conservation Act 2016 (WA) (BC Act)
- Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act)

The key guidance documents which inform this assessment are:

- A guide to the assessment of applications to clear native vegetation (DER, December 2013)
- Procedure: Native vegetation clearing permits (DWER, October 2019)

### 3 Detailed assessment of application

#### 3.1. Avoidance and mitigation measures

There is an existing power line running along highway. The new power connection to the existing power pole/line to constructed telecommunications facility has been sited to ensure close proximity to the power line, approximately 41 metres from the boundary (Service Stream Maintenance Pty Ltd, 2023). The applicant has also advised that they will undertake revegetation and rehabilitation of the site once the area is no longer required for the purpose of the clearing authorised under the permit.

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

#### 3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix A) and the extent to which the impacts of the proposed clearing present a risk to biological values.

The assessment against the clearing principles (see Appendix B) identified that the impacts of the proposed clearing present a risk to biological values (fauna and flora). The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

### 3.2.1. Biological values (flora) - Clearing Principle (a)

### Assessment

The application area is located within the Coolgardie IBRA region. According to available databases a total of 27 conservation significant flora species have been recorded within the local area (20-kilometre radius of the application area). Of the conservation significant flora species recorded in the local area, the application area may provide habitat for the following five flora species:

- Acacia desertorum var. nudipes (P3)
- Balaustion grandibracteatum subsp. grandibracteatum (P3)
- Prostanthera nanophylla (P3)
- Stylidium choreanthum (P3)
- Verticordia mitodes (P3)

This assumption is based on the mapped soil and vegetation types, distribution and condition of the vegetation.

Acacia desertorum var. nudipes (Priority 3) is a dense or open shrub or tree (rarely) that grows approximately 0.6-2 metres in height. It is found between Coolgardie and Yilgarn. It produces yellow flowers from August to October and is commonly found roadside in yellow sand and lateritic gravel along sandplains (FloraBase, 2023). It has been recorded 23 times within the local area and 35 times within the region (50 kilometre radius), the closest being 1.2 kilometres from the application area.

Balaustion grandibracteatum subsp. grandibracteatum (Priority 3) is a spreading shrub that grows to approximately 0.8 metres in height. It is predominantly found in the Yilgarn area and produces pink flowers and has thin, fibrous stems. This is commonly found in yellow sand over laterite (FloraBase, 2023). It has been recorded 17 times within the local area and 36 times within the region (50 kilometre radius), the closest record being 1.1 kilometres away from the application area.

*Prostanthera nanophylla* (Priority 3) is a small shrub that reaches one metre in height. It is found between Kondinin to Yilgarn, and produces blue-purple-white flowers from August to November and prefers yellow sand over laterite and rocky loam sandplains (FloraBase, 2023). Two records are found in the local area and 11 records within the region (50 kilometre radius), the closest being only 0.3 kilometres from the application area.

Stylidium choreanthum (Priority 3) also known as a dancing trigger plant is a creeping perennial herb that reaches 0.01-0.03 metres in height and 0.3 metres in width. It is found from Yilgarn to Coolgardie and produces pink-white flowers from September to November on yellow-white or red sand (FloraBase, 2023). It has been recorded times within the local area and 37 times within the region (50 kilometre radius), the closest being 1.9 kilometres from the application area.

Verticordia mitodes (Priority 3) is a small spreading shrub that reaches 0.7 metres in height. It is found between Coolgardie and Yilgarn and produces pink-purple flowers from October to January and found within undulating plains of yellow sand (FloraBase, 2023). Two records are found in the local area and 30 records within the region (50 kilometre radius), the closest being 2.1 kilometres from the application area.

#### Conclusion

Based on the above assessment, the proposed clearing may result in the loss of priority flora habitat. However, based on the small area of clearing proposed and the photos provided, it is likely that the proposed clearing would present a low risk to local populations. Noting the number of records within the local area and region of the potential priority flora to occur, if present within the application area, it is considered unlikely to be significant at subpopulation, regional or species level. If found within the clearing area, it is likely to be present in the adjacent vegetation within the road reserve that is not proposed to be impacted. In addition, the areas no longer required for the purpose of maintaining the phone tower will be rehabilitated. Any seed within the soil of any potential priority flora present will have the ability to germinate through revegetation.

#### **Conditions**

To address the above impacts, the following management measure will be required as a condition on the clearing permit:

• Implement weed management measures to mitigate impacts to adjacent vegetation.

### 3.2.2. Biological values (fauna) - Clearing Principle (b)

#### Assessment

The application area is located within the Coolgardie IBRA region. According to available databases a total of seven conservation significant fauna species have been recorded within the local area (20-kilometre radius of the application area). Of the conservation significant fauna species recorded in the local area, the application area may provide habitat for the following three fauna species:

- Dasyurus geoffroii (chuditch) (VU)
- Falco peregrinus (peregrine falcon) (OS)
- Leipoa ocellata (malleefowl) (VU)

This assumption is based on the habitat requirements, distribution, mapped vegetation types and the condition of the vegetation. Photos provided by SSM (2023) identified that the vegetation within the proposed area was largely consistent with the mapped vegetation types for the area, consisting of wattle, casuarina and melaleuca (Shepherd et al, 2001)

#### Chuditch

Chuditch used to live in most of continental Australia, except for the tropical north and temperate east. Currently, they can be found in areas dominated by sclerophyll forest, drier woodland, heath, and mallee shrubland, similar to the application area (Van Dyck and Strahan, 2008; National Environmental Science Program Threatened Species Research Hub, 2019). They are carnivorous and nocturnal, feeding on small mammals, birds, lizards, and frogs. The chuditch requires large areas of uncleared vegetation that provide enough food and refuge resources (National Environmental Science Program Threatened Species Research Hub, 2019). The application area is roadside

remnant vegetation. It is possible that the chuditch may occasionally occur within the application area, potentially as transient individuals, however it is unlikely that the taxon would regularly use and rely on habitats within the application area, noting the size of the clearing.

#### Peregrine falcon

The species is found in most habitats, from rainforests to the arid zone and at most altitudes, from the coast to alpine areas. It requires abundant prey and secure nest sites and prefers coastal and inland cliffs or open woodlands near water and may even be found nesting on high city buildings (Australian Museum, 2020). This species is widespread, highly mobile and is found in various habitats. The application area may comprise suitable habitat for this species, however, noting habitat preferences and the small extent of the proposed clearing, the application area is unlikely to comprise significant habitat for this species.

#### Malleefowl

The malleefowl is listed as vulnerable under both the BC Act and EPBC Act. The malleefowl is found principally in the semi-arid to arid zone in shrubland and low woodlands dominated by mallee and associated habitats. In Western Australia, they are also found in some shrublands dominated by acacia, and occasionally in woodlands dominated by eucalypts (Benshemesh, 2007). No malleefowl mounds were identified in site photos provided and significant habitat is not likely to be present within the application area.

#### Conclusion

Based on the above assessment, the proposed clearing is not likely to impact upon significant habitat for fauna. However the clearing may result in indirect impacts to fauna present within the application area during the clearing process. The proposed clearing activities may result in the introduction or spread of weeds into adjacent vegetation, which could impact habitat quality and connectivity.

### Conditions

To address the above impacts, the following management measure will be required as a condition on the clearing permit:

• Directional clearing, which requires slow, progressive, one directional clearing to allow terrestrial fauna to disperse ahead of the clearing activity should they occur on site at the time of clearing.

#### 3.3. Relevant planning instruments and other matters

The Shire of Yilgarn advised DWER that local government approvals are not required, and that the proposed clearing is consistent with the Shire's Local Planning Scheme. The Shire did not have any objections to the proposed clearing (Shire of Yilgarn, 2023).

Several Aboriginal sites of significance have been mapped within the local area. It is the permit holder's responsibility to ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

#### End

# Appendix A. Site characteristics

## A.1 Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix B.

Characteristic	Details
Local context	The area proposed to be cleared is a 0.082-hectare roadside patch of native vegetation in the intensive land use zone of Western Australia. It is surrounded by farms and patches of intact native vegetation.
	Spatial data indicates the local area (20-kilometre radius from the centre of the area proposed to be cleared) retains approximately 62.62 per cent of the original native vegetation cover.
Ecological linkage	The application area does not intersect any formally mapped ecological linkages.  Given the application area is not considered to be contribute significantly to the values of any formal or informal ecological linkages in the local area.
Conservation areas	The closest conservation area, Yellowdine Nature Reserve is located approximately 12.4 kilometres east of the application area.
Vegetation description	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area consists of <i>Acacia</i> sp. and <i>Allocasuarina</i> sp. Representative photos are available in Appendix D.
	This is consistent with the mapped vegetation type:  • Boorabbin 1413, which is described as wattle, casuarina and tea tree acacia-
	allocasuarina-melaleuca alliance (Shepherd et al, 2001).
	The mapped vegetation type retains approximately 99 per cent of the original extent (Government of Western Australia, 2019).
Vegetation condition	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in Very Good (Keighery, 1994) condition.
	The full Keighery (1994) condition rating scale is provided in 0. Representative photos are available in Appendix D.
Climate and landform	The region experiences a Mediterranean climate with cool winters and hot summers with a mean annual rainfall of 275-325 mm.
Soil description	The soil is mapped as Buladagie 2 Sandplain Subsystem (261Bd_2), which is described as flat and gently undulating yellow lateritic sandplain interspersed with red alkaline duplexes.
Land degradation risk	<ul> <li>Water Erosion: 100% of the map unit has a nil to moderate water erosion risk</li> <li>Wind Erosion: 61% of the map unit has a nil to moderate wind erosion risk</li> <li>Salinity: 95% of the map unit has a slight to nil salinity risk or is presently saline</li> <li>Flood: 100% of the map unit has a very low flood risk</li> <li>Waterlogging: 100% of the map unit has a nil to low waterlogging risk</li> <li>Subsurface Acidification: 66% of the map unit is presently acidic</li> <li>Phosphorus Export: 100% of the map unit has a low to moderate phosphorus</li> </ul>
	export risk.  The soils types within the application area are mapped as having a low risk of land degradation resulting from water erosion, salinity, waterlogging, flooding and phosphorus export, but as having a moderate to high risk of wind erosion and subsurface acidification (DPIRD, 2023). Noting the size of the clearing, any potential impacts from land degradation will likely be minimal.

Characteristic	Details
Waterbodies	The desktop assessment and aerial imagery indicated that there are no wetlands or watercourses within the application area.
	The application area is mapped within 500 metres of a minor nonperennial tributary of the Yilgarn River.
Hydrogeography	The mapped groundwater salinity is approximately 14000-35000 milligrams per litre total dissolved solids which is described as hypersaline (GIS Database).
Flora	According to available databases, 27 conservation significant flora species have been recorded within the local area. There are records of five priority flora within two kilometres, all of which are found on the same soil type as the application area. With consideration for the site characteristics set out above, relevant datasets (See Appendix E) and the habitat preferences and conservation statuses of the aforementioned species, the distribution and extent of existing records, the application area may provide suitable habitat for five conservation significant flora species and impacts to these species required further consideration (see Section 3.2.1)
Ecological communities	No Threatened or Priority ecological communities (TEC/PEC) are mapped within the application area. The closest TEC community is the Eucalypt woodlands of the Western Australian Wheatbelt which is 20 kilometres from the proposed area to be cleared.
Fauna	According to available databases, seven conservation significant fauna species have been recorded within the local area, including one endangered species, two vulnerable species, two priority 4 species and two migratory species. None of these exist within the application area, with the closest record being an occurrence of chuditch, approximately 3.2 kilometres from the application area.
	With consideration for the site characteristics set out above, relevant datasets (See Appendix E) and the habitat preferences of the aforementioned species, the application area may provide suitable habitat for three conservation significant fauna species and impacts to these species required further consideration (see Section 3.2.2).

# A.2 Vegetation extent

	Pre- European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre- European extent in all DBCA managed land
IBRA bioregion*					
Coolgardie	12912204.46	12648491.39	97.96	2114349.37	16.37
Vegetation association					
Boorabbin 1413 *	514446.16	509349059	99.01	114530.48	22.26
Local area					
20km radius	125833.20	78801.92	62.62	-	-

<sup>\*</sup>Government of Western Australia (2019a)

# A.3 Flora analysis table

With consideration for the site characteristics set out above and relevant datasets (see Appendix E), impacts to the following conservation significant flora required further consideration.

Species name	Conservation status	Suitable habitat features ? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Acacia desertorum var. nudipes	P3	Υ	Υ	Υ	5.9	23	N/A
Balaustion grandibracteatum subsp. grandibracteatum	P3	Y	Y	Y	1.1	17	N/A
Prostanthera nanophylla	P3	Y	Y	Υ	0.3	2	N/A
Stylidium choreanthum	P3	Y	Y	Υ	1.9	8	N/A
Verticordia mitodes	P3	Y	Y	Y	2.1	2	N/A

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

# A.4 Fauna analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Dasyurus geoffroii (chuditch)	VU	Υ	Υ	3.2	5	N/A
Falco peregrinus (peregrine falcon)	os	Υ	Υ	14.8	1	N/A
Leipoa ocellata (malleefowl)	VU	Υ	Y	8.9	6	N/A

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

# A.5 Ecological community analysis table

Community name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]		Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Duladgin Quartzite Ridge	P3	N	N	N	20	1	NA
Eucalypt woodlands of the Western Australian Wheatbelt	Т	N	N	N	20	1	NA

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

# Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?					
Environmental value: biological values							
Principle (a): "Native vegetation should not be cleared if it comprises a high level of biodiversity."	May be at variance	Yes Refer to Section					
<u>Assessment:</u> The area proposed to be cleared comprises suitable habitat for priority flora. However, the area proposed to be cleared does not contain locally or regionally significant assemblages of plants or significant habitat for fauna.		3.2.1, above.					
Principle (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."	May be at variance	Yes Refer to Section 3.2.2, above.					
Assessment: The area proposed to be cleared does not contain significant habitat for conservation significant fauna, however fauna may utilise the application area to traverse through the landscape.		,					
Principle (c): "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."	Not likely to be at	No					
Assessment: The area proposed to be cleared is unlikely to contain habitat for threatened flora.	variance						
Principle (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."	Not likely to be at variance	No					
Assessment: The area proposed to be cleared does not contain an assemblage of plants that represent a TEC.							
Environmental value: significant remnant vegetation and conservation ar	eas						
Principle (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."	Not at variance	No					
Assessment: The extent of the mapped vegetation type in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia.							
The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.							
Principle (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."	Not at variance	No					
Assessment: Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.							
Environmental value: land and water resources		1					
Principle (f): "Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."	Not at variance	No					
Assessment: Given no water courses or wetlands are recorded within the application area, the proposed clearing is not within an environment associated with a watercourse or wetland.							

Assessment against the clearing principles	Variance level	Is further consideration required?	
Principle (g): "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."	Not likely to be at	No	
Assessment: The mapped soils are moderately susceptible to wind erosion and subsurface acidification. Noting the extent of the application area along the road reserve and the condition of the vegetation, the proposed clearing is not likely to have an appreciable impact on land degradation.	variance		
Principle (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."	Not likely to be at variance	No	
Assessment: Given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality.			
Principle (j): "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."	Not at variance	No	
<u>Assessment:</u> The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.			
Given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to contribute to waterlogging.			

## Appendix C. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from

Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Measuring vegetation condition for the South West and Interzone Botanical Province (Keighery, 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.

Condition	Description
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

# Appendix D. Photographs of the vegetation along Great Eastern Highway



Figure 1. Photo showing roadside vegetation proposed to be cleared (Service Stream Maintenance, 2023)



Figure 2. Photo showing roadside vegetation proposed to be cleared (Service Stream Maintenance, 2023)



Figure 3. Photo showing roadside vegetation proposed to be cleared (Service Stream Maintenance, 2023)



Figure 4. Photo showing roadside vegetation proposed to be cleared (Service Stream Maintenance, 2023)



Figure 5. Photo showing roadside vegetation proposed to be cleared (Service Stream Maintenance, 2023)



Figure 6. Photo showing roadside vegetation proposed to be cleared (Service Stream Maintenance, 2023)



Figure 7. Photo showing roadside vegetation proposed to be cleared (Service Stream Maintenance, 2023)



Figure 8. Photo showing roadside vegetation proposed to be cleared (Service Stream Maintenance, 2023)



Figure 9. Photo showing roadside vegetation proposed to be cleared (Service Stream Maintenance, 2023)



Figure 10. Photo showing roadside vegetation proposed to be cleared (Service Stream Maintenance, 2023)



Figure 11. Photo showing roadside vegetation proposed to be cleared, noting the power pole to be connected (Service Stream Maintenance, 2023)



Figure 12. Photo showing underground conduit in area proposed to be cleared (Service Stream Maintenance, 2023)

# Appendix E. Sources of information

## E.1 GIS databases

Publicly available GIS Databases used (sourced from <a href="www.data.wa.gov.au">www.data.wa.gov.au</a>):

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)

- Contours (DPIRD-073)
- DBCA Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography Inland Waters Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality Flood Risk (DPIRD-007)
- Soil Landscape Land Quality Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping Best Available
- Soil Landscape Mapping Systems
- Wheatbelt Wetlands Stage 1 (DBCA-021)

#### Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

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