



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 10826/1
Permit Holder:	Amplitel Pty Ltd
Duration of Permit:	From 17 March 2025 to 17 March 2030

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 installation of a Telecommunications Facility.

2. Land on which clearing is to be done

Lot 12176 on Deposited Plan 39607 (Crown reserve 24496), Eneabba

3. Clearing authorised

The permit holder must not clear more than 0.3 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

PART II – MANAGEMENT CONDITIONS

4. 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.

5. Weed and dieback 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* and *dieback*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no known *dieback* or *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.

6. Fauna Management

- (a) The permit holder must:
 - (i) engage a fauna spotter to inspect the area cross-hatched yellow in Figure 1 of Schedule 1 ahead of clearing machinery immediately prior to, and for the duration of, clearing activities to identify any native fauna that may be present, including malleefowl (*Leipoa ocellata*) mounds; and
 - (ii) conduct clearing activities in a slow, progressive manner in one direction, towards adjacent native vegetation, to allow fauna to move into adjacent native vegetation ahead of the clearing activity.
- (b) Clearing activities must cease in any area where native fauna individual(s) are identified under *condition* 6(a)(i) until native fauna individual(s) have moved on from that area to adjoining vegetation.
- (c) Where malleefowl mound(s) are identified under *condition* 6(a)(i), no clearing is to occur within 50-metres of the identified malleefowl mound(s), unless otherwise approved by the *CEO*.

7. Wind erosion management

The permit holder must commence construction activities no later than three (3) months after undertaking the clearing authorized under this permit.

PART III - RECORD KEEPING AND REPORTING

8. 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 activities generally	(a) the species composition, structure, and density of the cleared area; (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) the size of the area cleared (in hectares); (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with <i>condition 4</i> ; (f) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with <i>condition 5</i> ; and (g) actions taken in accordance with <i>condition 7</i> .
2.	In relation to fauna management pursuant to <i>condition 6</i>	(a) actions taken to avoid impacts to fauna in accordance with <i>condition 6(b)</i> if found; and (b) actions taken to avoid impacts to malleefowl mounds in accordance with <i>condition 6(c)</i> if found.

9. Reporting

The permit holder must provide to the *CEO* the records required under *condition 8* of this permit when requested by the *CEO*.

DEFINITIONS

In this permit, the terms in Table 2 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.
fill	means material used to increase the ground level, or to fill a depression.
dieback	means the effect of <i>Phytophthora</i> species on native vegetation.
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.

Term	Definition
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
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.
weeds	means any plant – <ul style="list-style-type: none"> (a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i>; 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



Meenu Vitarana

Manager

NATIVE VEGETATION REGULATION

*Officer delegated under Section 20
of the Environmental Protection Act 1986*

21 February 2025

Schedule 1

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

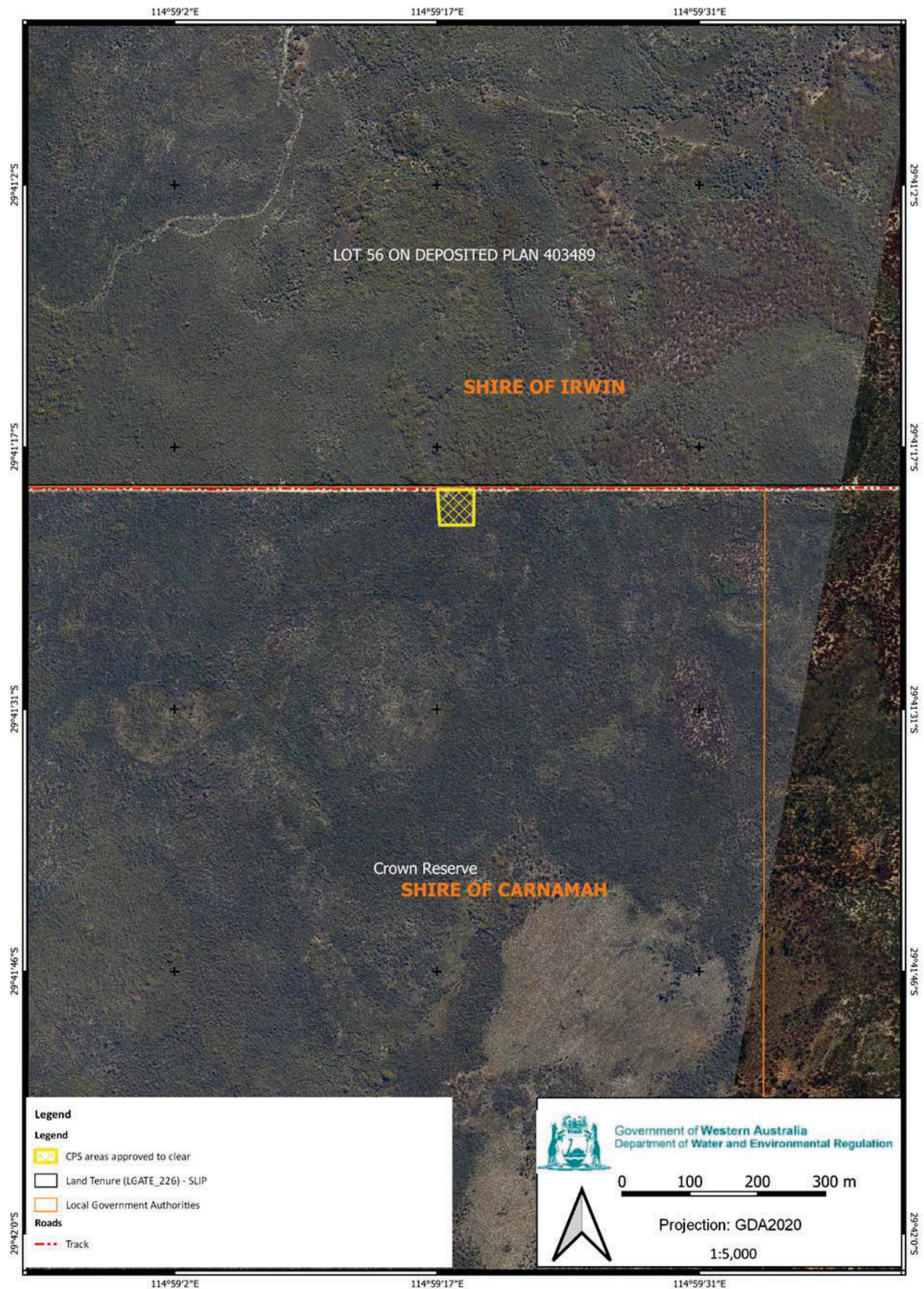


Figure 1: Map of the boundary of the area within which clearing may occur



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 10826/1
Permit type:	Purpose permit
Applicant name:	Amplitel Pty Ltd
Application received:	6 November 2024
Application area:	0.3 hectares of native vegetation
Purpose of clearing:	Installation of a telecommunications tower
Method of clearing:	Mechanical
Property:	Lot 12176 on Deposited Plan 39607 (Crown reserve 24496)
Location (LGA area/s):	Shire of Carnamah
Localities (suburb/s):	Eneabba

1.2. Description of clearing activities

The vegetation proposed to be cleared comprises 0.3 hectares of native vegetation contained within a single contiguous area near the Indian Ocean Drive/ Cliffhead Campsite Road, approximately 260 kilometres north of Perth (see Figure 1, Section 1.5). The proposed site is located west of Indian Ocean Drive near Illawong Beach, on the northern boundary of the Shire of Carnamah. The proposed clearing is to install a 60-metre Telecommunication Mast within a 20-metre x 30 metre compound area located in a one (1) hectare leased area (Amplitel, 2024).

The proposed work has been funded by Telstra and the Federal Government in Round 5A of the Federal Governments Mobile Black Spot Program (MBSP5A). There is currently little to no 4G coverage along Indian Ocean Drive in this area. The proposed work is designed to provide adequate coverage along Indian Ocean Drive and the surrounding areas to address an identified need for improved emergency services infrastructure along this occupied tourist route (Amplitel, 2024).

The proposed work includes installation of a new lattice tower, including new solar system and telecommunication outdoor equipment units and associated equipment. The major components are listed below (Amplitel, 2024).

- Installation of new 50 steel lattice tower.
- Installation of new headframe on top of lattice tower and associated antennas, feeders and required telecommunications equipment onto the new structure.
- Installation of new foundations for new solar panels and associated solar equipment.
- Installation of all underground earthing required for all equipment installation and connection of new earth grid to all installation.
- Installation of new solar panels, battery outdoor units and batteries required for solar installation.
- Installation of new cable tray from new monopole structure to equipment outdoor units.
- installation of new chain mesh fencing around entire compound including access gates.

1.3. Decision on application

Decision:	Granted
Decision date:	21 February 2025
Decision area:	0.3 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 E.1), the findings of a flora, vegetation and fauna survey, 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 proposed clearing is to install a Telecommunication Mast which is funded by Telstra and the Federal Government to improve emergency services infrastructure. Further, access to reliable mobile communications will assist in the protection of this valued and scenic coastal environment in times of emergency such as bushfire (Amplitel, 2024).

The assessment identified that the proposed clearing would result in:

- the potential introduction and spread of weeds and dieback into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values;
- impacts to priority four flora species *Eucalyptus zopherophloia* recorded within and adjacent to the construction footprint.

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 is unlikely to lead to appreciable land degradation, have long-term adverse impacts on environmental values and is unlikely to lead to an unacceptable risk to environmental values. The applicant has suitably demonstrated avoidance and minimisation measures and committed to mitigate the environmental impacts through adhering to the Construction Environment Management Plan (CEMP).

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 and dieback;
- commence construction activities within 3 months of clearing to mitigate the potential land degradation from wind erosion;
- engage a fauna spotter to identify any native fauna present including malleefowl mounds at the time of clearing and undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity; and
- no clearing within 50 metres of malleefowl mounds if identified, unless advised otherwise by the department.

1.5. Site map

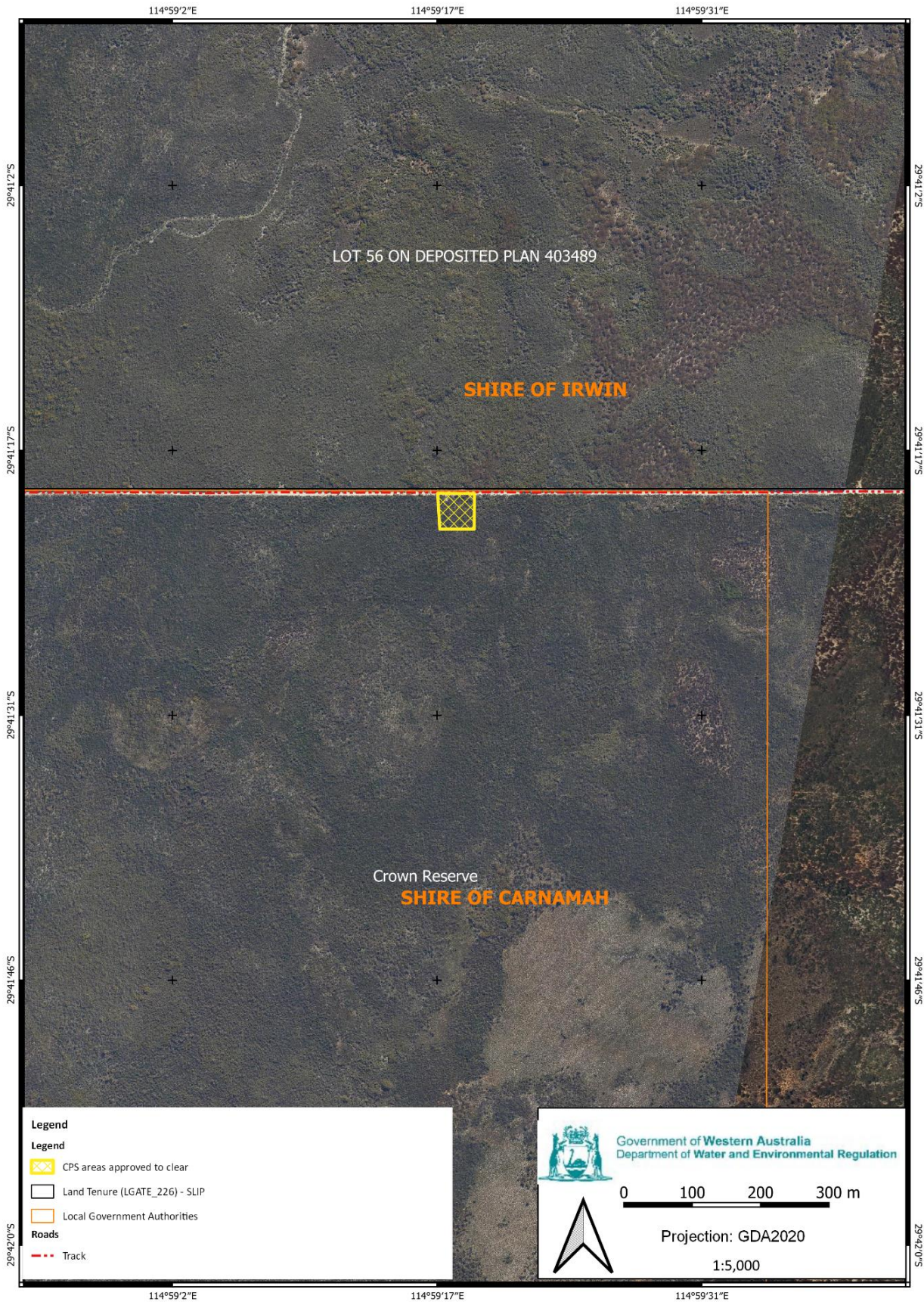


Figure 1 - The areas cross-hatched yellow indicate the area authorised to be cleared under the granted clearing permit

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 51O 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 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)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

Evidence was submitted by the applicant, demonstrating that sufficient measures have been applied to avoid and minimise the potential impacts of the proposed clearing on environmental values.

The proposed location has been determined by the co-ordinates set by the federally funded Mobile Blackspot Program to ensure mobile coverage to this area. The search area in proximity to these co-ordinates was predominantly with the Beekeepers Nature Reserve. Four alternate sites were considered with the selected location determined in consultation with the Department of Biodiversity, Conservation and Attractions (DBCA) (Amplitel, 2024).

To mitigate and reduce impacts on native vegetation the compound has been located in close proximity to an existing access track within the reserve to minimise native vegetation disturbance from the construction of new tracks on the site. Amplitel will seek to prevent disturbance to the adjacent vegetation in proximity to the compound by erecting appropriate fencing around the works area.

The site will utilise solar power and radio transmission to minimise the need for electrical and fibre cable trenching. The proposed development has been sited to avoid and minimise impacts on native vegetation as much as possible and provides a balance between vegetation removal, placement to mitigate visual impact and provision of essential infrastructure.

The applicant will ensure that vehicles and equipment are cleaned prior to entering the site to prevent any foreign material, weed species and soil pathogens from contaminating the site as detailed in the CEMP (Amplitel, 2024).

The site at Indian Ocean Drive, Cliffhead Campsite is identified as being within the dieback 'vulnerable zone' of Western Australia. The 'vulnerable zone' is the geographic region in which conditions enable dieback to occur and persist. Applicant has indicated that they will follow the required steps to manage the spread of dieback through dieback management practices and procedures in accordance with the Department of Biodiversity, Conservation and Attractions' *Phytophthora Dieback Management Manual – October 2020* (Amplitel, 2024).

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, conservation, or land and water resource 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), and conservation areas. 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 (fauna) - Clearing Principles (b)

Assessment

The basic fauna survey conducted by Ecoscape has identified one fauna habitat within the survey area described as Mallee Shrubland. This habitat consisted of low (two-three metre high) mallee Eucalypts and shrubs of low structural and species diversity with sandy soil between large limestone rocks. The vegetation density is suitable for nesting of small birds but unsuitable for larger species. Reptiles and small mammals may inhabit the survey area as there are suitable cracks and crevices for hiding, although there is likely to be only low food reserves from plant seeds and insects present due to the fire event occurred 3-4 years back. Larger mammals are unlikely to occur. There is no nearby fresh water source to attract fauna species. Overall, the habitat is considered as low quality for vertebrate fauna species (Ecoscape, 2024).

Malleefowl (*Leipoa ocellata*) (Vulnerable)

The desktop assessment noted six records of malleefowl (*Leipoa ocellata*) with the closest record being 10.73 kilometres from the application area. Noting that 99 percent of the application area consist of mallee shrubland habitat, the application area is likely to provide habitat for malleefowl. However, given that the habitat is considered as low-quality habitat and low food reserves from plant seeds and insect presence as identified through the survey by Ecoscape, and no nearby fresh water source to attract fauna species, it is unlikely for malleefowl to be present within the application area. Further, the fauna survey conducted by Ecoscape did not record any conservation significant fauna species, or any malleefowl mounds (Ecoscape, 2024). DBCA recommended to avoid any malleefowl mounds with a minimum of 50 metre buffer if found within the construction footprint area (DBCA, 2025).

Carnaby's cockatoo (*Zanda latirostris*) (Endangered)

The application area is mapped within the Carnaby's distribution range, but not within the distribution range for Baudin's cockatoo and forest-red tailed black cockatoo. The desktop assessment identified five records of Carnaby cockatoos (*Zanda latirostris*), with the closest record being 5.57 kilometres from the application area. However, there are no breeding or roosting records within the local area. Given that there is no fresh water source in close proximity to the survey area and noting that no breeding or roosting records within the local area, the application area is unlikely to provide significant habitat for Carnaby's cockatoo.

Western Spiny-tailed Skink (*Egernia stokesii badia*) (Vulnerable)

The basic fauna survey has considered the western Spiny-tailed Skink is as a likely species within the 20 kilometre buffer area. However, no records of the species were identified within the local area during the desktop. Overall, the habitat is considered as low quality for vertebrate fauna species (Ecoscape, 2024).

Graceful sunmoth (*Synemon gratiosa*) (Priority 4)

There are 24 records of this species recorded within the local area, with the closest record identified 16.96 kilometres from the survey area. Graceful sunmoth is known from 842 records with distribution of approximately 600 kilometres north-south and 42 kilometres east-west. The sunmoths only breed on two known species *Lomandra maritime* and *Lomandra hermaphrodita* and these species have not been recorded through the flora and vegetation survey. Noting the absence of preferred habitat, it is unlikely for the species to occur within the application area.

Kwongan Heath Shield-Backed Trapdoor Spider (*Idiosoma kwongan*) (Priority 1)

This is a poorly known invertebrate; with a known extent of occurrence of 500 km² with a restricted distribution, from southern Geraldton Sandplains, from Eneabba south to Green Head, and the Lesueur National Park; associated with kwongan Banksia heathlands of south-western Australia's northern sandplains.

There are only 2 records of this species recorded within the local area, with the closest record identified 17.29 kilometres from the survey area. DBCA advised that this species may occur on site noting the closest record is within the 20 kilometre buffer area (DBCA, 2025). Noting that there is no preferred habitat (based on known habitat), the

number of records and distance from the survey area, and the extent of the proposed clearing, it is unlikely that this species will be impacted by the proposed clearing.

Conclusion

Based on the above assessment, the Delegated Officer has determined that the proposed clearing is considered acceptable subject to relevant conditions in relation to this environmental value.

Conditions

- weed and dieback management measures will assist in mitigating impacts to surrounding vegetation,
- engaging a fauna spotter to identify any native fauna during the time of clearing and ensuring no impacts to such fauna, will mitigate any significant impacts to fauna, including invertebrate fauna,
- no clearing within 50 metres of any malleefowl mounds if identified, and
- to undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity

3.2.2. Biological values (priority flora) - Clearing Principles (c)

Assessment

The reconnaissance flora and vegetation survey conducted during 28 November 2023, by Ecoscape (Australia) Pty Ltd indicates the vegetation within the proposed clearing area consists of a single vegetation type called EzEsLMS: *Eucalyptus zopherophloia* and *Eucalyptus* spp. low mallee shrubland. Ecoscape indicates the vegetation within the proposed clearing area is largely assessed as being Excellent (Keighery, 1994) condition with only two small, disturbed areas adjacent to the track being in degraded or completely degraded (Keighery, 1994) condition (Ecoscape, 2024).

With consideration for the site characteristics set out above, relevant datasets (see Appendix E.1) and the flora and vegetation survey conducted by Ecoscape, the application area may provide suitable habitat for below mentioned priority flora species.

- *Dampiera tephrea* (P3)
- *Stylidium maritimum* (P3)
- *Eucalyptus zopherophloia* (P4).
- *Eucalyptus foecunda* subsp. *aeolica* (P2)
- *Grevillea olivacea* (P4)
- *Haloragis foliosa* (P3)

The flora and vegetation survey (Ecoscape, 2024) conducted during 28 November 2023 recorded 18 plants of priority (P4) flora species (*Eucalyptus zopherophloia*) across three locations, with the survey area being within the largest concentration of records for this species (Ecoscape, 2024). One location is within the construction footprint and two locations are adjacent to the construction footprint (1 metre east from the construction footprint).

Noting the presence of abundant better quality habitat for the species within adjacent Beekeepers nature reserve, the clearing of this species is not likely to represent a significant impact in a local or regional context and will not impact on the conservation status of this species. Further, advised received from the DBCA indicated that it is unlikely to pose a significant risk to threatened and priority flora from the proposed activities due to the low extend of clearing and available desktop information and local knowledge does not indicate any significance on threatened and priority flora within the application area (DBCA, 2025).

Conclusion

Based on the above assessment, the Delegated Officer has determined that the proposed clearing is considered acceptable subject to relevant conditions in relation to this environmental value.

Conditions

- no flora management conditions required,
- weed and dieback management measures will assist in mitigating impacts to surrounding vegetation.

3.2.3. Environmental values (Conservation areas) - Clearing Principles (h)

The proposed work is located within the Beekeepers Nature Reserve which is vested with the National Parks and Nature Conservation Authority (NPNCA) as a “C” class Nature reserve in 1992 (DBCA,1993).

Given that the proposed clearing is within Beekeepers Nature Reserve, DWER consulted the DBCA in relation to impacts to the recorded priority flora species and seeking recommended management practices. Noting the available desktop information and the local knowledge and considering the low extent of clearing, DBCA indicated that it is unlikely that the proposal poses a significant risk to threatened or priority floras noted in the assessment, there is only one individual of *Eucalyptus zopherophloia* (Priority 4) that will be directly impacted. From fauna management perspective, DBCA recommended specific recommendations as discussed above (See section 3.2.1).

Further DBCA recommended that the clearing be minimised as much as possible and a suitable hygiene plan be developed to manage the risk from the introduction and spread of weeds and dieback (DBCA,2025). As specified, the applicant will ensure that vehicles and equipment are cleaned prior to entering the site to prevent any foreign material, weed species and soil pathogens from contaminating the site as detailed in the CEMP (Amplitel, 2024).

Conclusion

Based on the above assessment, the Delegated Officer has determined that the proposed clearing is considered acceptable subject to relevant conditions in relation to this environmental value.

Conditions

- weed and dieback management measures will assist in mitigating impacts to surrounding vegetation within the Beekeepers Nature Reserve

3.3. Relevant planning instruments and other matters

The Shire of Carnamah advised DWER that the Shire has issued planning approval for the telecommunication tower, and the Shire does not have any objections to the proposed clearing (Shire of Carnamah,2024).

The application area is located within the boundaries of the registered area of interest of the Yamatji Marlpa Aboriginal Corporation RNTBC, acting on behalf of the Yamatji nation native title claimants. Noting the proposed clearing is considered as a future act under the *Native Title Act 1993*, the department requested to comment on the clearing permit application on 18 December 2024 and no comments were received.

Amplitel advised that Sticks and Stones Cultural Resources Management (SandS CRM) was contracted by Acquirecomm Pty Ltd as agent for Telstra Ltd under Telstra Ltd’s Yamatji Government Standard Heritage Agreement (YGSHA) with the Yamatji Southern Regional Corporation to undertake a Site Identification Survey for a proposed development associated with the installation of a new Telstra telecommunications facility. The survey has made following recommendations (Amplitel, 2025a).

- The project area has a low potential for subsurface aboriginal sites and a ‘Site Discovery Procedure’ should be adopted as a response to this potential
- When subsurface potential warrants, heritage monitors are engaged
- The YSRC representatives provided the following assessment:
 - The project will not impact on any known heritage values.
 - The project can proceed with the engagement of heritage monitors

Construction Environmental Management plan indicates that temporary clearing will be undertaken for storing of materials and temporary fencing. However, rehabilitation and revegetation is not appropriate for the temporary cleared areas, as they will be required to be maintained in a cleared state for future maintenance of the telecommunication tower (Amplitel, 2025b).

The proposed work is located within the Beekeepers Nature Reserve. DBCA’s leasing section has provided a letter of consent granting a licence for Amplitel to facilitate the installation of the telecommunications facility at Cliffhead campsite (Amplitel, 2024).

The ‘Eneabba West Ceremonial/ Camp’ historic aboriginal site is mapped with the western border of the application area. It is the permit holder’s responsibility to comply with the *Aboriginal Heritage Act 1972 (WA)* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

End

Appendix A. Site characteristics

A.1. Site characteristics

Characteristic	Details																								
Local context	<p>The area proposed to be cleared is a 0.3 -hectare part of an expansive tract of native vegetation in the intensive land use zone of Western Australia. The proposed clearing area is located within the Beekeepers Nature Reserve.</p> <p>Spatial data indicates the local area (20-kilometre radius from the centre of the area proposed to be cleared) retains approximately 97.62 per cent of the original native vegetation cover.</p>																								
Ecological linkage	The application area is not within a formally mapped ecological linkage.																								
Conservation areas	The application area is located within the Beekeepers Nature Reserve.																								
Vegetation description	<p>The reconnaissance flora and vegetation survey conducted during 28 November 2023, by Ecoscape (Australia) Pty Ltd (Ecoscape) indicates the vegetation within the proposed clearing area consists of a single vegetation type called EzEsLMS: <i>Eucalyptus zopherophloia</i> and <i>Eucalyptus</i> spp. low mallee shrubland.</p> <p>The full survey descriptions and maps are available in 0.</p> <p>This is consistent with the mapped vegetation type:</p> <ul style="list-style-type: none"> Cliff Head 432, which is described as Shrublands; <i>Acacia rostellifera</i> & <i>Melaleuca cardiophylla</i> thicket. <p><i>The mapped vegetation type retains approximately 90.51 per cent of the original extent (Government of Western Australia, 2019).</i></p>																								
Vegetation condition	<p>Ecoscape indicates the vegetation within the proposed clearing area is in largely assessed as being Excellent (Keighery, 1994) condition with only two small, disturbed areas adjacent to the tract being in degraded or completely degraded (Keighery, 1994) condition, described as depicted in the below table.</p> <table border="1"> <thead> <tr> <th>Vegetation condition</th> <th>Pristine</th> <th>Excellent</th> <th>Very good</th> <th>Good</th> <th>Degraded</th> <th>Completely degraded</th> <th>Not vegetated</th> </tr> </thead> <tbody> <tr> <td>Extent (ha)</td> <td>-</td> <td>0.99</td> <td>-</td> <td>-</td> <td>0.003</td> <td>0.007</td> <td>-</td> </tr> <tr> <td>Proportion (%)</td> <td>-</td> <td>99</td> <td>-</td> <td>-</td> <td>0.03</td> <td>0.07</td> <td>-</td> </tr> </tbody> </table> <p>The full Keighery (1994) condition rating scale is provided in 0.</p> <p>The full survey descriptions and mapping are available in 0.</p>	Vegetation condition	Pristine	Excellent	Very good	Good	Degraded	Completely degraded	Not vegetated	Extent (ha)	-	0.99	-	-	0.003	0.007	-	Proportion (%)	-	99	-	-	0.03	0.07	-
Vegetation condition	Pristine	Excellent	Very good	Good	Degraded	Completely degraded	Not vegetated																		
Extent (ha)	-	0.99	-	-	0.003	0.007	-																		
Proportion (%)	-	99	-	-	0.03	0.07	-																		
Climate and landform	The closest coastal Bureau of Meteorology station with long term temperature records is Jurien Bay which is located approximately 89 km south of the survey area. February is the hottest month with a mean maximum temperature of 30.8°C and minimum of 18°C. July is the coldest month with a mean maximum of 19.6°C and minimum of 9.5°C. The mean annual rainfall is 513.2 mm falling predominantly during May–August (Ecoscape, 2024).																								
Soil description and Land degradation risk	The soil is mapped as Tamala South 5 Subsystem (221Ta_5) described as low hills with relict dunes and some limestone outcrop; Calcareous shallow and deep sands.																								

Characteristic	Details
	The proposed clearing area has a low risk of land degradation resulting from water erosion, water logging, water repellence, surface acidification and phosphorous export except, and high to extreme risk of wind erosion (DPIRD, 2019).
Waterbodies and Hydrogeography	<p>The application area is within the Coastal catchment and within the Moore-Hill Rivers basin (DPIRD-069).</p> <p>The desktop assessment and aerial imagery indicated that no perennial or non-perennial watercourses transect the area proposed to be cleared. Numerous minor, non-perennial watercourses (Arro Lake) were recorded within the 20 kilometre radius local area, but none mapped within nor adjacent to the application area (DBCA-045).</p>
Flora	<p>The desktop assessment identified that a total of 45 threatened and priority flora species have been recorded within the local area, comprising four Priority 1 (P1) flora, four Priority 2 (P2) flora, 24 Priority 3 (P3) flora, 10 Priority 4 (P4) flora and three threatened flora species (Western Australian Herbarium, 1998-). None of these existing records occur within the application area, with the closest record being an occurrence of <i>Eucalyptus foecunda</i> subsp. <i>aeolica</i> (P2) approximately 1.18 kilometres from the application area.</p> <p>Ecoscope has indicated that no threatened flora species listed for protection under the Commonwealth EPBC Act or Western Australian BC Act were recorded during the survey. However, the following priority listed flora species has recorded within the survey area. They are:</p> <ul style="list-style-type: none"> • <i>Dampiera tephrea</i> (P3) • <i>Styliidium maritimum</i> (P3) • <i>Eucalyptus zopherophloia</i> (P4). <p>Further, Ecoscope has assessed that the following species also have suitable habitat and 'may occur' within the application area as a result of a post-survey likelihood assessment based on the site characteristics and vegetation types identified through the flora and vegetation survey:</p> <ul style="list-style-type: none"> • <i>Eucalyptus foecunda</i> subsp. <i>aeolica</i> (P2) • <i>Grevillea olivacea</i> (P4) • <i>Haloragis foliosa</i> (P3) <p>With consideration for the site characteristics set out above, relevant datasets (see Appendix E.1) and the flora and vegetation survey conducted by Ecoscope, the application area may provide suitable habitat for above mentioned priority flora species.</p>
Ecological communities	<p>There are no known Threatened or Priority Ecological communities located within, or in close proximity to the application area (GIS Database).</p> <p>The Ecoscope flora and vegetation survey did not record any known Threatened or Priority Ecological Communities.</p>
Fauna	<p>The desktop assessment identified that a total of 13 threatened or priority fauna species have been recorded within the local area, including three threatened fauna species, three priority fauna species, and seven fauna species protected under international agreement (DBCA, 2007-). None of these records occur within the application area, with the closest record being a red-necked stint (<i>Calidris ruficollis</i>), approximately 4.51 kilometres from the application area.</p> <p>The basic fauna survey conducted by the Ecoscope Australia Pty Ltd did not record any conservation significant species within the survey area. A single fauna habitat was recorded within the survey area which is described as Malle shrubland (Ecoscope, 2024)</p>

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*					
Geraldton Sandplains	3,136,037.83	1,404,424.32	44.78	568,255.10	18.12
Vegetation complex					
Cliff Head	5,636.04	5,101.00	90.51	3,001.04	53.25
Local area					
20km radius	70002.52	68334.94	97.62	-	-

*Government of Western Australia (2019a)

A.3. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix E.1), and biological survey information, 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]
<i>Eucalyptus foecunda</i> subsp. <i>aeolica</i>	P2	Y	Y	Y	1.18	20	N
<i>Eucalyptus zopherophloia</i>	P4	Y	Y	Y	1.39	9	Y
<i>Stylidium maritimum</i>	P3	Y	N	N	2.69	6	Y
<i>Dampiera tephrea</i>	P3	Y	N	Y	9.34	3	Y
<i>Grevillea olivacea</i>	P4	Y	Y	N	3.65	3	N
<i>Haloragis foliosa</i>	P3	Y	N	N	3.68	5	N

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

A.4. Fauna analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix E.1), and biological survey information, impacts to the following conservation significant fauna required further consideration.

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]
<i>Zanda latirostris</i>	EN	Y	Y	5.57	5	N
<i>Leipoa ocellata</i>	VU	Y	Y	10.73	6	N
<i>Egernia stokesii badia</i>	EN	Y	N	-	-	Y

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

A.6. Land degradation risk table

Land Qualities summary - % Map Unit

	Land Quality	Most limiting			Least limiting
1	pH				
1	acidification risk	presently acid: 10%	high: 0%	moderate: 0%	low: 90%
1	0-10 acidity	very strongly acid: 0%	strongly acid: 0%		
1	0-10 alkalinity	strongly alkaline: 0%	alkaline: 90%		
1	50-80 acidity	very strongly acid: 0%	strongly acid: 0%		
1	50-80 alkalinity	strongly alkaline: 0%	alkaline: 90%		
2	SALINITY				
2	surface salinity	extreme: 0%	high: 0%	moderate: 0%	slight to nil: 100%
2	salinity risk	presently saline: 0%	high: 0%	moderate: 0%	nil or partial: 100%
3	SOME PLANT LIMITS				
3	sub surface compact	high: 0%	moderate: 100%	low: 0%	
3	rooting depth	very shallow: 0%	shallow: 10%	moderately shallow: 65%	very deep to mod: 25%
3	water repel	high: 25%	moderate: 75%	low: 0%	nil: 0%
3	water storage	extremely low: 65%	very low: 35%	low: 0%	high to moderate: 0%
4	EROSION				
4	water erosion	extreme: 0%	very high: 1%	high: 0%	nil to moderate: 99%
4	wind erosion	extreme: 0%	very high: 33%	high: 62%	nil to moderate: 5%
4	flood risk (water flow)	high: 0%	moderate: 0%	low: 0%	very low: 100%
4	instability	high: 0%	moderate: 0%	low: 0%	nil to very low: 100%
5	WATER & DRAINAGE				
5	waterlogging	very high: 0%	high: 0%	moderate: 0%	nil to low: 100%
5	site drainage	very poor: 0%	poor: 0%	moderate: 0%	high: 100%
5	phosphorus export	extreme: 0%	very high: 1%	high: 0%	low to moderate: 99%
6	OTHER QUALITIES				
6	excavation ease	very low: 1%	low: 10%	moderate: 69%	high: 20%
6	microbial purification	very low: 0%	low: 80%	moderate: 20%	high: 0%

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<p><u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p><u>Assessment:</u> Although the application area may contain suitable habitat for priority flora species, the area proposed to be cleared does not contain locally or regionally significant flora, fauna, habitats and assemblages of plants.</p>	Not likely to be at variance	No
<p><u>Principle (b):</u> "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."</p> <p><u>Assessment:</u> No conservation significant fauna species were recorded during the survey (Ecoscape, 2024). The fauna habitat (mallee shrubland) identified</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.1, above.</i>

Assessment against the clearing principles	Variance level	Is further consideration required?
<p>through the survey do not represent critical habitat for conservation significant fauna species.</p> <p>Given that the low extent of proposed clearing, low habitat quality within the recorded habitat and no nearby fresh water sources, the proposed clearing is not considered likely to impact significant habitat for fauna. Additionally conditions are imposed on the permit to avoid, if fauna habitats are found within the construction footprint area.</p>		
<p>Principle (c): <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p>Assessment: The area proposed to be cleared may not contain habitat for flora species listed under the BC Act.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.2, above.</i>
<p>Principle (d): <i>“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.”</i></p> <p>Assessment: No threatened ecological communities were recorded during the flora and vegetation survey; therefore, the proposed clearing area is not considered to comprise vegetation representative of a threatened ecological community.</p>	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
<p>Principle (e): <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p>Assessment: The extent of the mapped vegetation type and native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia, 2001)</p>	Not likely to be at variance	No
<p>Principle (h): <i>“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.”</i></p> <p>Assessment: Given that the proposed clearing occurs within Beekeepers Nature reserve, the proposed clearing may have an impact on the environmental values of the reserve.</p>	May be at variance	Yes <i>Refer to Section 3.2.3, above.</i>
Environmental value: land and water resources		
<p>Principle (f): <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p>Assessment: Given no watercourses or wetlands are recorded the application area, the proposed clearing is unlikely to impact on- or off-site hydrology and water quality.</p>	Not at variance	No
<p>Principle (g): <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p>Assessment: The mapped soils are not susceptible to water erosion, water logging, nutrient export, salinity and surface acidification. However, application area is highly susceptible to wind erosion. However, due to the small extent of clearing within the highly vegetated area and with the requirement to undertake the works within 3 months of the clearing as conditioned on the permit to ensure soils are not left exposed for too long, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	May be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (i)</u>: “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.”</p> <p><u>Assessment</u>: Given no water courses and wetlands are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality.</p>	Not at variance	No
<p><u>Principle (j)</u>: “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</p> <p><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.</p> <p>Given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to contribute to waterlogging.</p>	Not at variance	No

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.
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. Biological survey information excerpts


Mapping unit	Vegetation type	Floristic quadrats	Representative photograph	Other characteristic species	Area (ha) and extent (%)
EzEsLMS	<p><i>Eucalyptus zopherophloia</i>, <i>Eucalyptus</i> sp. 1 and <i>Eucalyptus</i> sp. 2 low open mallee shrubland over <i>Melaleuca cardiophylla</i>, <i>Scaevola nitida</i> and <i>Acacia xanthina</i> tall shrubland over Goodeniaceae sp. and <i>Desmocladius</i> sp. low sparse forbland/sedgeland</p> <p>NVIS: U ^^<i>Eucalyptus zopherophloia</i>,<i>Eucalyptus</i> sp. 1,<i>Eucalyptus</i> sp. 2^mallee shrub15i;M ^^<i>Melaleuca cardiophylla</i>,<i>Scaevola nitida</i>,<i>Acacia xanthina</i>^shrub41c;G ^Goodeniaceae sp.,^<i>Desmocladius</i> sp.1^forb,sedgel1r</p>	CH2301		<p><i>Acacia lasiocarpa</i> <i>Calothamnus quadrifidus</i> <i>Carpobrotus</i> sp. <i>Cassytha flava</i> <i>Dampiera tephrea</i> <i>Dodonaea aptera</i> <i>Guichenotia ledifolia</i> <i>Lysiandra calycina</i> <i>Olearia axillaris</i> <i>Pimelea</i> sp. <i>Rhagodia preissii</i> subsp. <i>obovata</i> <i>Rytidosperma</i> sp. <i>Senecio</i> sp. <i>Stylidium maritimum</i></p>	0.99 ha 99 %
Not native vegetation (cleared)					0.01 ha 1%
TOTAL EXTENT					1 ha 100%

Table 1: Vegetation Type within the survey area

Possible limitations	Constraints (yes/no): Significant, moderate or negligible	Comment
Availability of contextual information at a regional and local scale	No	There was sufficient regional contextual information available to adequately describe the local conditions.
Competence/experience of the team conducting the survey, including experience in the bioregion surveyed	No constraints	The lead botanist conducting the field survey has over 30 years' experience undertaking flora and vegetation surveys over much of was including in the bioregion.
Proportion of the flora recorded and/or collected, and any identification issues	Negligible constraint	32 vascular flora taxa were recorded during the field survey of which 31.25% could not be identified with certainty to species level due to the lack of diagnostic reproductive material. This is considered as a negligible constraint as none were similar to any currently described TF or PF species.
Was the appropriate area fully surveyed (effort and extent)	No constraints	The survey area was entirely accessible and surveyed at sufficient intensity to describe the flora and vegetation within.
Access restrictions within the survey area	No constraints	The survey area was entirely accessible.
Survey timing, rainfall, season of survey	Negligible constraints	<p>The field survey was conducted during November which is within the optimal survey period for the South-West botanical province.</p> <p>The rainfall in the 6 months prior to the field survey was well below the mean for this period (Section 2.1.1), also indicated by the rainfall deciles (see below). This represents a constraint in regard to the ability to identify all species as reproductive material was not available as either species did not flower or had finished flowering early. The constraint is considered as negligible as none of the unidentified species resembled any currently described TF or PF species.</p>

Possible limitations	Constraints (yes/no): Significant, moderate or negligible	Comment
Disturbance that may have affected the results of the survey e.g. fire, flood, clearing	Moderate constraint	<p>According to Google Earth time series imagery (Google LLC 2022) the survey area was burnt between March 2019 and January 2021. Many of the mallees had not regrown to sufficient size to have flowered since the fire 3-4 years previously and were thus not identifiable.</p> <p>This is a moderate constraint as one of the likely species is conservation-listed (<i>Eucalyptus foecunda</i> subsp. <i>aeolica</i>; P2, although none of the collected <i>Eucalyptus</i> sp. resembled this species.</p> <p>A further constraint, although considered negligible, is that the regrowth vegetation was in places very dense thus restricting access. This was a constraint in terms of searches for conservation-listed species but not for overall site assessment.</p>

Table 2: Botanical limitations of the survey area


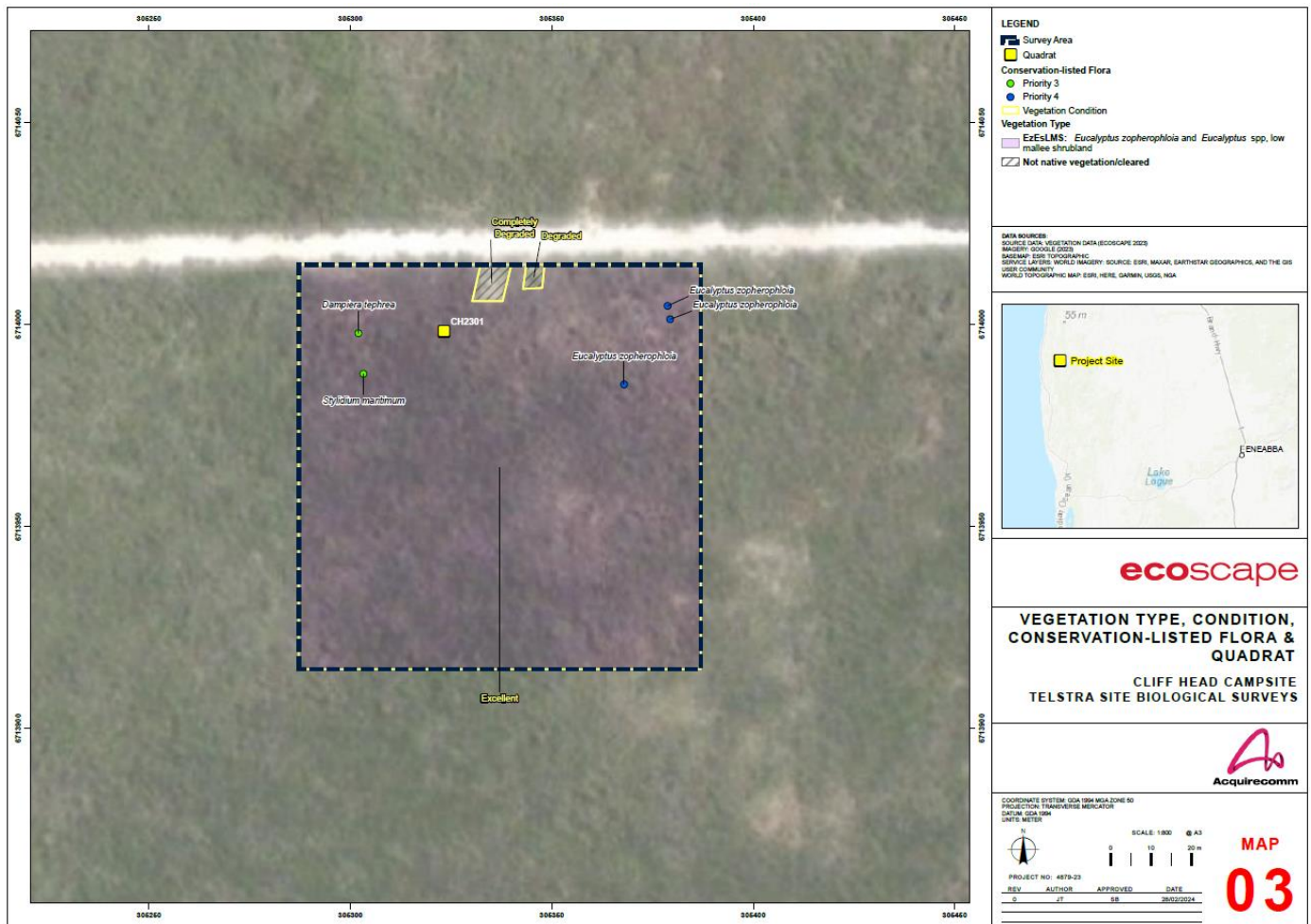
Habitat type	Description	Photograph
<p>Mallee shrubland</p>	<p>Only a single habitat type occurred, described as Mallee shrubland.</p> <p>The habitat was characterised by low mallee Eucalypts (upper photo) and tall <i>Melaleuca</i> (Honey myrtle), <i>Acacia</i> (Wattle) and other shrubs 2–3 m high and of various densities with some more open patches characterised by lower shrubs and herbs (mid photo). The area had been burnt 3–4 years previously and many of the herbs appear to be short-lived perennials that were dead or dying, although the poor seasonal rainfall may also have been a factor. The soil was sandy between large limestone rocks (lower photo). There is no nearby fresh water.</p> <p>This habitat is suited to smaller bird species as there is suitable cover and nest sites and likely to be suitable foraging for insectivores and granivores and, seasonally, for nectivores. The survey area is part of a large contiguous area of very similar habitat. The survey area is unlikely to be suited to larger birds due to the lack of structural diversity with no perching trees or taller nest sites, and the density of the vegetation indicates that it may be difficult for hunting species like raptors or owls to access their prey.</p> <p>Smaller mammals and reptiles are likely to occur with ample hiding places in crevices and crannies between limestone rocks. However, there were no large logs and the fallen timber was of small size.</p> <p>There was no evidence of larger mammals e.g. kangaroos in the dense vegetation and it is likely that would preferentially use man-made tracks for site traverses.</p> <p>Overall, the habitat is considered as low quality due to lack of plant structural and species diversity thus lack of foraging diversity.</p> <p>Extent: 0.99 ha; 99%</p>	

Table 3: Fauna habitat type within the survey area

Possible limitations	Constraints (yes/no): Significant, moderate or negligible	Comment
Availability of data and information	No constraint	Although there is little local information available the habitats present are regionally widespread and well understood.
Competency/experience of the survey team, including bioregion experience	No constraint	The surveyor has been undertaking Basic fauna surveys for over 15 years in the southwest of Western Australia.
Scope of survey e.g. excluded fauna groups	No constraint	The survey was confined to terrestrial vertebrate species.
Timing, weather, season	Negligible constraint	The survey was undertaken during late spring with fine and clear weather which was optimal as most fauna suites would be active during this period. However, the seasonal conditions were drier than average which may have had an impact on some fauna species.
Disturbances that may have affected results	Moderate-negligible constraint	The survey area had been burnt approximately 3–4 years prior to the survey area. As the fire, as viewed using Google Earth (Google LLC 2022) time series imagery, appears to have been large it is possible that some fauna species may have been significantly impacted (i.e. died) as a result and, as the vegetation has not significantly recovered may still be unsuitable for recolonisation. As only one fauna species was observed and there was no evidence of any others there may have been a constraint as a result of the fire. However, it is also possible that the habitat is only poor quality for a majority of species thus density of animals may be naturally low, thus few would be anticipated to be observed during a Basic fauna survey of a very small area.
Proportion of fauna identified, recorded, or collected	No constraint	Only one fauna species was observed and there were no signs of additional species.
Adequacy of survey intensity and proportion of survey achieved	No constraint	The survey was of sufficient intensity to adequately describe the habitats and gain an understanding of fauna likely to be present (or observed).
Access	No constraint	The survey area was fully accessible.
Possible limitations	Constraints (yes/no): Significant, moderate or negligible	Comment
Data and analysis issues including sampling biases	No constraint	Data analysis is not required for a Basic survey.

Table 4: Fauna survey Limitations



Map: Vegetation type, condition, conservation listed flora and Quadrat

Appendix E. Sources of information

E.1. GIS databases

Publicly available GIS Databases used (sourced from www.data.wa.gov.au):

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- 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)

- Offsets Register – Offsets (DWER-078)
- 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)

E.2. References

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