



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

<b>Purpose Permit number:</b>	CPS 10194/1
<b>Permit Holder:</b>	Shire of Yilgarn
<b>Duration of Permit:</b>	From 15 September 2023 to 15 September 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 gravel extraction.

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

Unallocated Crown Land (PIN: 965955), Skeleton Rock

#### **3. Clearing authorised**

The permit holder must not clear more than one hectare of *native vegetation* within the area cross-hatched yellow in Figure 1 and Figure 2 of Schedule 1.

#### **4. Period during which clearing is authorised**

The permit holder must not clear any *native vegetation* after 15 September 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 conduct clearing activities in a slow, progressive manner towards adjacent *native vegetation* to allow fauna to move into adjacent *native vegetation* ahead of the clearing activity.

## 8. Priority flora management

Prior to clearing, the permit holder must install a *temporary fence* on the boundary of the areas cross-hatched yellow in Figure 1 and Figure 2 of Schedule 2.

## 9. Revegetation and rehabilitation

The permit holder shall:

- (a) 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) within 12 months following completion of gravel extraction activities, *revegetate* and *rehabilitate* the area(s) that are no longer required for the purpose for which they were cleared under this permit by:
  - (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land;
  - (ii) ripping the ground on the contour to remove soil compaction;
  - (iii) ripping the pit floor and contour batters within the extraction site;
  - (iv) laying the vegetative material and topsoil retained under condition 9(a) on the cleared area(s);
  - (v) deliberately *planting* and/or *direct seeding native vegetation* that will result in a similar species composition, structure and density of *native vegetation* to pre-clearing vegetation types in that area; and
  - (vi) ensuring only *local provenance* seeds and propagating material are used to *revegetate* and *rehabilitate* the area.
- (c) within 24 months of undertaking *revegetation* and *rehabilitation* in accordance with condition 9(b) of this permit:
  - (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*;
  - (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 9(c)(i) of this permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, the permit holder must undertake

additional *planting* or *direct seeding of native vegetation* in accordance with the requirements of condition 9(b)(v) and 9(b)(vi) of this permit.

### **PART III - RECORD KEEPING AND REPORTING**

#### **10. 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	<ul style="list-style-type: none"> <li>(a) the species composition, structure, and density of the cleared area;</li> <li>(b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings;</li> <li>(c) the date that the area was cleared;</li> <li>(d) the size of the area cleared (in hectares);</li> <li>(e) the date the extraction operations ceased;</li> <li>(f) actions taken to avoid, minimise, reduce the impacts and extent of clearing in accordance with condition 5;</li> <li>(g) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> in accordance with condition 6;</li> <li>(h) Actions taken to undertake slow directional clearing in accordance with condition 7; and</li> <li>(i) Actions take to install a <i>temporary fence</i> in accordance with condition 8</li> </ul>
2.	In relation to <i>rehabilitation</i> and <i>revegetation</i> pursuant to condition 9	<ul style="list-style-type: none"> <li>(a) the location of any areas <i>revegetated</i> and <i>rehabilitated</i>, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA20), expressing the geographical coordinates in Eastings and Northings or decimal degrees;</li> <li>(b) a description of the <i>revegetation</i> and <i>rehabilitation</i> activities undertaken;</li> <li>(c) the size of the area <i>revegetated</i> and <i>rehabilitated</i> (in hectares);</li> <li>(d) the species composition, structure and density of <i>revegetation</i> and <i>rehabilitation</i>, and</li> <li>(e) a copy of the <i>environmental specialist's</i> report.</li> </ul>

## 11. Reporting

The permit holder must provide to the *CEO* the records required under condition 10 of this permit when requested by the *CEO*.

## DEFINITIONS

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

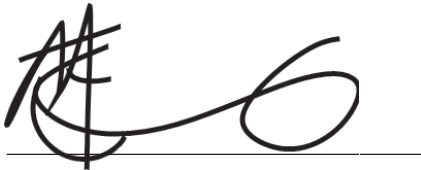
**Table 2: Definitions**

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;
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	<i>Environmental Protection Act 1986</i> (WA)
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 <i>CEO</i> as a suitable environmental specialist.
fill	means material used to increase the ground level, or to fill a depression.
local provenance	means native vegetation seeds and propagating material from natural sources within 50 kilometres and the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion of the area cleared.
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.
optimal time	means the period from April to June for undertaking <i>direct seeding</i> , and the period from May to June for undertaking <i>planting</i> ;
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
planting	means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;
regenerate/ed/ion	means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing mulch;
rehabilitate/ed/ion	means actively managing an area containing native vegetation in order to improve the ecological function of that area;
revegetate/ed/ion	means the re-establishment of a cover of <i>local provenance</i> native vegetation in an area using methods such as natural <i>regeneration</i> , <i>direct seeding</i> and/or <i>planting</i> , so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.
temporary fence	means a fence constructed of, at a minimum, wooden or metal pegs and flagging tape to demarcate the clearing boundary during clearing

Term	Definition
	activities to ensure impacts to adjacent flora does not occur.
weeds	means any plant – <ul style="list-style-type: none"> <li>(a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i>; or</li> <li>(b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or</li> <li>(c) not indigenous to the area concerned.</li> </ul>

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**END OF CONDITIONS**



Mathew Gannaway  
 MANAGER  
 NATIVE VEGETATION REGULATION

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

22 August 2023

# Schedule 1

## Plan 10194/1

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.**

# Plan 10194/1

The boundary of the area authorised to be cleared is shown in the map below (Figure 2).



**Figure 2: 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 10194/1
Permit type:	Purpose permit
Applicant name:	Shire of Yilgarn
Application received:	12 May 2023
Application area:	1 hectare of native vegetation within a 9.66 hectare footprint
Purpose of clearing:	Gravel source for road construction
Method of clearing:	Mechanical
Property:	Unallocated Crown Land (PIN 965955)
Location (LGA area/s):	Shire of Yilgarn
Localities (suburb/s):	Skeleton Rock

### 1.2. Description of clearing activities

The vegetation proposed to be cleared is distributed across two separate areas referred to within this report as Area A and Area B (see Figures 1 and 2, Section 1.5).

The Shire of Yilgarn is undertaking a road upgrade and maintenance works south and south-west of the townships of Southern Cross and Marvel Loch. This includes realignments and sealing of Stubbs Street and Parker Range Road south of Moorine Rock, the newly constructed Parker Range Road diversion around the Mt Caudan minesite and a section of the Marvel Loch to Forrestania Road from the Parker Range Road intersection to the Mt Holland minesite. The realignment widening and sealing is required due to anticipated increase in traffic as a result of expanded mining operations within the area (Western Botanical, 2023).

Two rehabilitated waste rock landforms (WRL) adjacent to the Marvel Loch – Forrestania (MLF) road alignment have been identified for use as road building material, reducing the need for development of new borrow pits in uncleared native vegetation. Both areas proposed to be cleared are situated in former heap-leach gold mining operations and lie wholly within formerly cleared and now rehabilitated areas (Western Botanical, 2023).

### 1.3. Decision on application

Decision:	Granted
Decision date:	22 August 2023
Decision area:	One hectare of native vegetation within a larger footprint of 9.66 hectares, 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 and vegetation survey (see Appendix D), 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 purpose of clearing for gravel extraction is to facilitate road upgrades and maintenance works due to anticipated increase in traffic as a result of expanded mining operations within the local area.

The assessment identified that the proposed clearing will result in:

- the loss of priority flora species
- 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
- indirect impact to adjacent priority flora during clearing activities
- impacts to native fauna if present during clearing activities.

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 priority flora, adjacent remnant vegetation and individual fauna species. The applicant has suitably demonstrated avoidance and minimisation measures.

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
- revegetate and rehabilitate the application area post extraction to ensure native vegetation is not permanently lost
- demarcation of clearing area prior to clearing to minimise indirect impacts to adjacent priority flora during clearing activities.

## 1.5. Site map



**Figure 1. Map of the application area (Area A)**



**Figure 2. Map of the application area (Area B)**

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 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)

## 3 Detailed assessment of application

### 3.1. Avoidance and mitigation measures

The applicant advised that the proposed clearing areas were selected within pre-disturbed waste dumps to mitigate clearing of virgin bush in other areas for road construction materials. This greatly reduced the amount of clearing required for the road construction project (Shire of Yilgarn, 2023).

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). 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 and communities) - Clearing Principles (a) and (d)

##### Assessment

##### **Flora**

According to available databases, one threatened flora, five Priority 1, four Priority 2, four Priority 3 and two Priority 4 have been recorded within the local area of Area A and Area B. To confirm the presence/absence of priority and threatened species within the application, the applicant commissioned Western Botanical (2023) to undertake a flora and vegetation survey.

The Western Botanical (2023) flora and vegetation survey was undertaken within Area A on 13 May 2023 and Area B was surveyed on 12 May 2023 and 25 May 2023. The survey efforts appear appropriate to assess impacts to threatened and priority flora (DBCA, 2023).

A flora and vegetation survey undertaken by Western Botanical (2023) identified one priority 2 flora species and two species of interest species within Area A. One Priority 1, one Priority 2, one Priority 3 and one species of interest was identified within Area B. The impacts to each of these species is discussed below:

*Acacia asepala* (P2) is a shrub found in populations from Parker Range south to Frank Hann National Park and east to Bremer Ranger (extent of occurrence (EOO): 12,700 km<sup>2</sup>). The regional population size is estimated to be at least 25,000 plants. Five plants were located within the northern burrow pit site (Area A) with a further 8 plants observed outside but close to the application area. As this species has been noted to be common in the local area, the proposed clearing is unlikely to have a significant impact on the conservation status of this species (DBCA, 2023).

*Brachyloma stenolobum* (P1) is a shrub known from several populations in the Parker Range to Mt Holland area and a single location East of Bremer Range (EOO: 3,000 km<sup>2</sup>). Two plants were recorded within the southern application area (Area B) with no additional plants recorded in the area immediately adjacent to Area B. While the proposed clearing may have a significant impact on the local population within the application area, additional surveys undertaken by Western Botanical in the Moorine Rock and Forrestania areas have found over 1000 plants of this species to date and indicate it has a scattered distribution on yellow sandplains. These additional records indicate that whilst the impact is likely significant at the local level, the proposed clearing is unlikely to have a significant impact on the conservation status of this species (DBCA, 2023).

*Balaustion grandibracteatum* subsp. *junctura* (P2) is a small shrub known from several locations between Parker Ranger south to Forrestania. The proposed clearing will impact two individuals of *B. grandibracteatum* subsp. *junctura*. An additional 98 individuals have been recorded adjacent to the application area. Western Botanical advised that they have recorded 8,308 plants of *B. grandibracteatum* subsp. *junctura* in the vicinity of the road alignment from Parker Range to Mt Holland (Western Botanical, 2023). The proposed clearing is unlikely to result in a significant impact to the conservation status of this species (DBCA, 2023).

*Verticordia stenopetala* (P3) is a small shrub that is known from numerous locations between Mt Walton in the north to South of the Forrestania crossroads, and from Walgoolan in the west to Queen Victoria rock in the east (EOO 36,250 km<sup>2</sup>). The proposed clearing will impact upon 10 individuals of *Verticordia stenopetala*. An additional 103 individuals have been recorded outside of the application area. Western Botanical has advised there are around 34,379 plants of *Verticordia stenopetala* in the region from Parker Range to Mt Holland. Therefore, the proposed clearing is unlikely to result in a significant impact to the conservation status of this species (DBCA, 2023).

A number of priority flora species have been recorded on the boundary and adjacent to the application area (Figures 4 and 5). The proposed clearing may indirectly impact priority flora located adjacent to the application area through the spread of weeds. Weed management actions will help mitigate this risk. Demarcating the boundary of the area proposed to be cleared will reduce the likelihood of any accidental clearing occurring.

### **Ecological Communities**

Area A and Area B are mapped within the priority ecological community (PEC) 'Plant assemblages of the Park Range System', which is listed as Priority 3 (iii) PEC by Department of Biodiversity, Conservation and Attractions (DBCA). Given that the areas proposed to be cleared are in highly disturbed and in a degraded (Keighery, 1994) condition, the vegetation is not likely to be representative of this PEC. Furthermore, according to available databases 'the Plant assemblages of the Parker Range System PEC' comprises an area of approximately 41,725.73 hectares. The clearing of 1 hectare of native vegetation that is mapped as the PEC only represents 0.002 per cent of this PEC.

The 'Eucalypt woodlands of the Western Australian Wheatbelt' (Eucalypt Woodlands) is mapped approximately 3.3 and 5.8 kilometres from Area B and Area A respectively. The Eucalypt Woodlands is listed as a Priority 3 PEC by the DBCA and a Critically Endangered (CR) threatened ecological community (TEC) under the EPBC Act. Both study areas represent rehabilitated waste dumps and the vegetation proposed to be cleared is not representative of this TEC.

Area A is surrounded by an area mapped as Vegetation Association: *Eucalyptus longicornis* dominated tall woodland with *E. salmonophloia* and *Eucalyptus* aff. *salubris glaucous branchlet* form (WB40196) on red fine sandy loam with calcrete nodules, which is in Excellent condition (Western Botanical, 2023), and may be representative of this TEC. The proposed clearing may indirectly impact adjacent vegetation that may represent the abovementioned PEC and TEC through the spread of weeds.

### **Conclusion**

Based on the above assessment, the proposed clearing may result in indirect impacts to adjacent priority flora and vegetation. No significant impacts to a PEC, TEC or presence of priority flora are likely to occur as a result of the proposed clearing.

### **Conditions**

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- weed management to minimise the risk of introduction and spread of weeds;
- a temporary fence be installed to demarcate the proposed clearing area and mitigate impacts to priority flora located within the vicinity of the proposed clearing area.

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

According to available databases, two conservation significant fauna species have been recorded within the local area being:

- Malleefowl (*Leipoa ocellata*); and
- Lake Cronin snake (*Paroplocephalus atricep*)

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 on site during the flora and vegetation survey undertaken by Western Botanical (2023) and significant habitat is not likely to be present within the application area.

The Lake Cronin snake is listed as Priority 3 by DBCA. Suitable habitat for this species may be present within the application area. However, given the disturbed nature of the application area, the proposed clearing is not likely to impact upon significant habitat for this species.

Given the degraded and sparse nature of the vegetation proposed to be cleared, the vegetation within the application area is not likely to provide significant habitat for these species. The two application areas are surrounded by intact remnant vegetation in an excellent condition (Western Botanical, 2023). Suitable habitat for these species is present adjacent to the application area.

The proposed clearing may directly impact fauna individuals during clearing activities if present. Fauna management practices will help mitigate impacts to fauna present during clearing activities. Rehabilitating the area post extraction will ensure that what minimal habitat is present will be returned.

#### Conclusion

Based on the above assessment, the proposed clearing may result in impacts to native fauna if present during clearing activities. No significant impacts to fauna habitat is likely to occur as a result of the proposed clearing.

#### Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- Slow directional clearing to allow fauna to move into adjacent vegetation ahead of the clearing activity and minimise impact to individuals.
- Revegetate and rehabilitate the application area post extraction to ensure native vegetation is not permanently lost.

### 3.3. Relevant planning instruments and other matters

No Aboriginal sites of significance have been mapped within the application area.

The Claimant ground of the Karratjibbin people have advised that the area of the proposed clearing is apart of their cultural heritage materials and are known to be within multiple land parcels and road reserves of Unallocated Crown Land (PIN 965955), Skeleton Rock. It was requested that a Heritage Survey be conducted by the Karratjibbin people. The permit holder advised that they are committed to doing the works with sensitivity to heritage values, with no heritage sites identified (Shire of Yilgarn, 2023a). 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

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.

### A.1. Site characteristics

Characteristic	Details
Local context	<p>The area proposed to be cleared is located within two separate areas, totalling 3.92 hectares (Area A) and 5.7 hectares (Area B). The application areas have previously been cleared. Both areas are surrounded by existing remnant native vegetation.</p> <p>The proposed clearing areas are within two rehabilitated waste rock landforms which are situated in former heap-leach gold mining operations and lie wholly within formerly cleared and now rehabilitate areas.</p> <p>Aerial imagery indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 90 per cent of the original native vegetation cover.</p>
Ecological linkage	<p>The application area does not intersect any formally mapped ecological linkages.</p> <p>Given the application area is in a completely degraded (Keighery, 1994) condition that has been previously cleared and is surrounded by existing remnant native vegetation in better condition, it is not considered to be contributing significantly to the values of any ecological linkages.</p>
Conservation areas	<p>The closest conservation area, Jilbadji Nature Reserve, is located approximately 2.5 km and 5.2 km east from Area B and Area A respectively.</p>
Vegetation description	<p>A flora and vegetation survey undertaken by Western Botanical (2023) indicates the vegetation within the proposed clearing area consists of:</p> <p>Area A: is largely dominated by annual weeds <i>*Dittrichia graveolens</i>, <i>*Centaurea melitensis</i> and <i>*Sonchus oleraceus</i>. Native vegetation consists of a few scattered <i>Acacia</i> and <i>Melaleuca</i> shrubs, a few eucalypts and low numbers of individuals of other endemic species.</p> <p>Area B: dominant species include <i>Acacia assimilis</i> subsp. <i>assimilis</i>, <i>Melaleuca lanceolata</i>, <i>M. lateriflora</i>, <i>Allocasuarina acutivalvis</i>, and occasional eucalyptus spp. trees and mallees.</p> <p>The full survey descriptions and maps are available in Appendix D.</p> <p>This is consistent with the mapped vegetation types:</p> <ul style="list-style-type: none"> <li>• Area A: Beard Vegetation Association 1068, which is described as Medium woodland; salmon gum, morrel, gimlet and <i>Eucalyptus sheathiana</i> (Shepherd et al, 2001).</li> <li>• Area B: Beard Vegetation Association 552, which is described as shrublands; <i>Casuarina acutivalvis</i> and <i>Calothamnus</i> (also <i>Melaleuca</i>) thicket on greenstone hills (Shepherd et al, 2001).</li> </ul> <p>The mapped vegetation types retain approximately 49.75 and 99.26 per cent of their original extent respectively (Government of Western Australia, 2019).</p>
Vegetation condition	<p>A flora and vegetation survey undertaken by Western Botanical (2023) indicates the vegetation within the proposed clearing area is in degraded (Keighery, 1994) condition.</p>

Characteristic	Details
	<p>Western Botanical (2023) described Area A as 'poorly rehabilitated with little native vegetation establishing within the alkaline gravely-loamy waste rock landform and with less than 2% projected foliar cover of native species'.</p> <p>Area B has been revegetated with 85 species of local endemic flora species which appear to have been either direct seeded on to the site or returned in topsoil used for this purpose. The overall projected foliar cover is estimated at 5% but is variable and there are relatively large areas with little native vegetation present and other areas with denser patches. Weeds are absent (Western Botanical, 2023).</p> <p>The full Keighery (1994) condition rating scale is provided in Appendix C.</p> <p>The full survey descriptions and mapping are available in Appendix D.</p>
Climate and landform	The region experiences a Mediterranean climate with cool winters and hot summers with a mean annual rainfall of 292.8 millilitres.
Soil description	<p>The soil is mapped as:</p> <p>Area A: AC1 which is described as 'Gently sloping to gently undulating plateau areas, or uplands, on granites, gneisses, and allied rocks, with long gentle slopes and, in places, abrupt erosional scarps; and</p> <p>Area B: 261DD which is described as undulating plains with some low dunes, seasonal lakes, and clay pans (DPIRD, 2022).</p>
Land degradation risk	Given the mapped soil types and end land use within the application area, the proposed clearing is not likely to be susceptible to wind or water erosion, increase waterlogging or phosphorus export.
Waterbodies	<p><u>Area A</u> The closest non perennial watercourse is located 750 metres from the application area.</p> <p><u>Area B</u> The closest non-perennial watercourse is located approximately 45 metres east of the application area.</p>
Hydrogeography	The application areas are located within the Westonia Groundwater Area proclaimed under the <i>Rights and Water Irrigation Act 1914</i> . The mapped groundwater salinity is approximately 14,000 to 35,000 milligrams per litre total dissolved solids which is described as hypersaline (GIS Database).
Flora	<p>According to available database one threatened flora, five Priority 1, four Priority 2, four Priority 3 and two Priority 4 have been recorded within the local area of Area A and Area B.</p> <p>A flora and vegetation survey undertaken by Western Botanical (2023) identified one priority 2 flora species within Area A. One Priority 1, one Priority 2 and one Priority 3 was identified within Area B. No threatened flora were identified.</p>
Ecological communities	<p>Area A and Area B are mapped within the PEC 'Plant assemblages of the Park Range System', which is listed as Priority 3 PEC by DBCA.</p> <p>Eucalypt woodlands of the Western Australian Wheatbelt TEC is mapped approximately 3.3 and 5.8 kilometres from Area B and Area A respectively.</p>
Fauna	<p>According to available databases, two conservation significant fauna species have been recorded within the local area of each application area being:</p> <ul style="list-style-type: none"> <li>• Malleefowl (<i>Leipoa ocellata</i>); and</li> </ul>



Characteristic	Details
	<ul style="list-style-type: none"> <li>Lake Cronin snake (<i>Paroplocephalus atricep</i>)</li> </ul>

## Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
<b>Environmental value: biological values</b>		
<p><u>Principle (a):</u> “Native vegetation should not be cleared if it comprises a high level of biodiversity.”</p> <p><u>Assessment:</u></p> <p>The application areas comprise priority flora species.</p> <p>However, the areas proposed to be cleared do not contain locally or regionally significant flora, fauna, habitats, assemblages of plants.</p>	May be at variance	Yes <i>Refer to Section 3.2.1, above.</i>
<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></p> <p>The area proposed to be cleared does not contain significant habitat for conservation significant fauna.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.2, above.</i>
<p><u>Principle (c):</u> “Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</p> <p><u>Assessment:</u></p> <p>No threatened flora were identified within the application areas (Wetsern Botanical, 2023). The area proposed to be cleared is unlikely to contain threatened flora.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.1, above.</i>
<p><u>Principle (d):</u> “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.”</p> <p><u>Assessment:</u></p> <p>The proposed clearing area does not contain a species composition indicative of a TEC listed under the BC Act and/or EPBC Act.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.1, above.</i>
<b>Environmental value: significant remnant vegetation and conservation areas</b>		
<p><u>Principle (e):</u> “Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</p> <p><u>Assessment:</u></p> <p>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. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.</p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (h):</u> “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.”</p> <p><u>Assessment:</u></p> <p>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.</p>	Not likely to be at variance	No
<b>Environmental value: land and water resources</b>		
<p><u>Principle (f):</u> “Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</p> <p><u>Assessment:</u></p> <p>Given no water courses or wetlands are recorded within 45 metres of the application area, the proposed clearing is not going to impact an environment associated with a watercourse or wetland.</p>	Not likely to be at variance	No
<p><u>Principle (g):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</p> <p><u>Assessment:</u></p> <p>The mapped soils are not susceptible to wind, water erosion, nutrient export or salinity. Noting the extent of the application area and the condition of the vegetation, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	Not likely to be at variance	No
<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></p> <p>Given no watercourses or wetlands are recorded within close proximity of the application area, the proposed clearing is unlikely to impact surface or ground water quality.</p>	Not likely to be 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></p> <p>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>	Not likely to be 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. Flora and vegetation survey information excerpts

**Plate 1. View of the northern face of the MLF37 WRL**



**Plate 2. View of the top of the MLF37 WRL**



**Figure 3. Photographs of Area A (Western Botanical, 2023)**

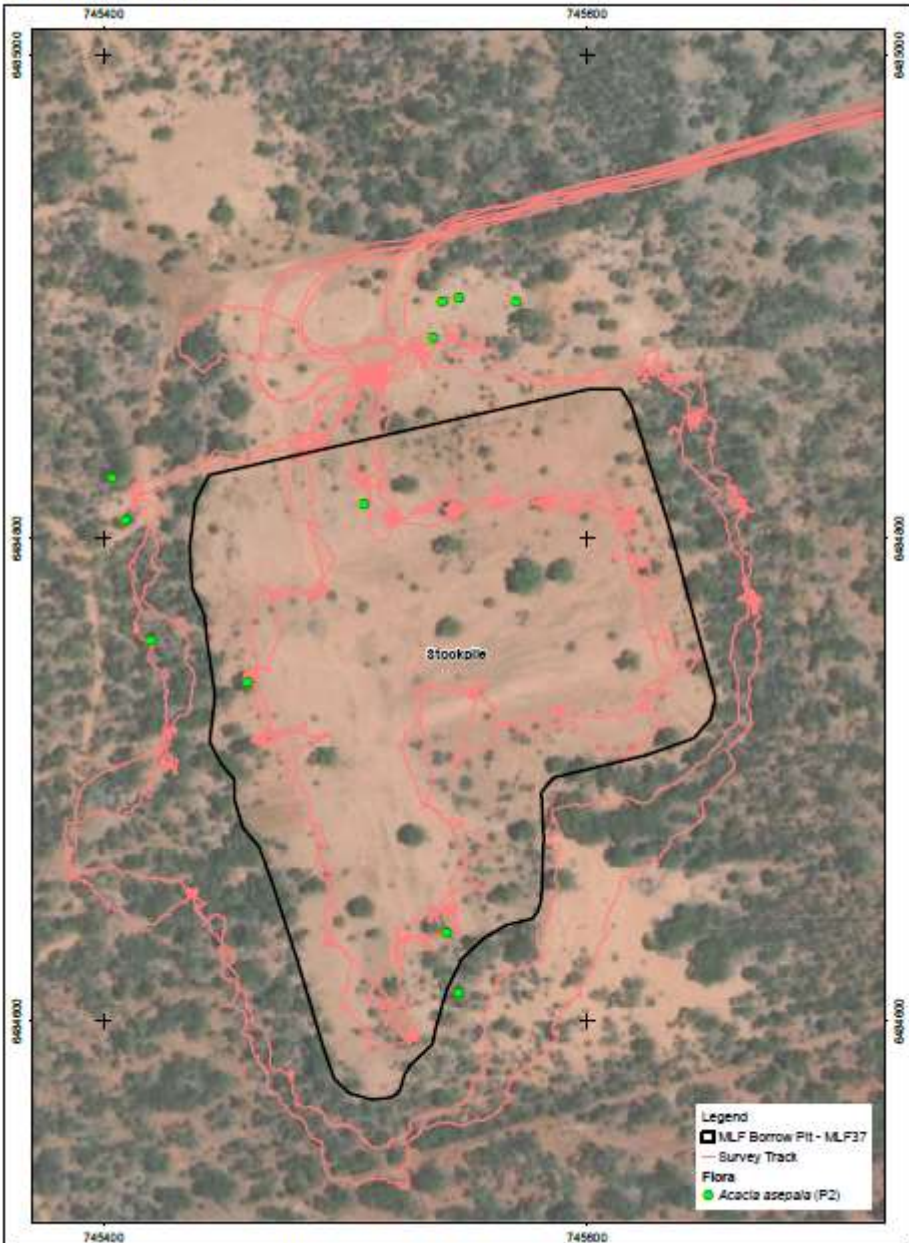


Figure 4. Priority flora Area A (Western Botanical, 2023)

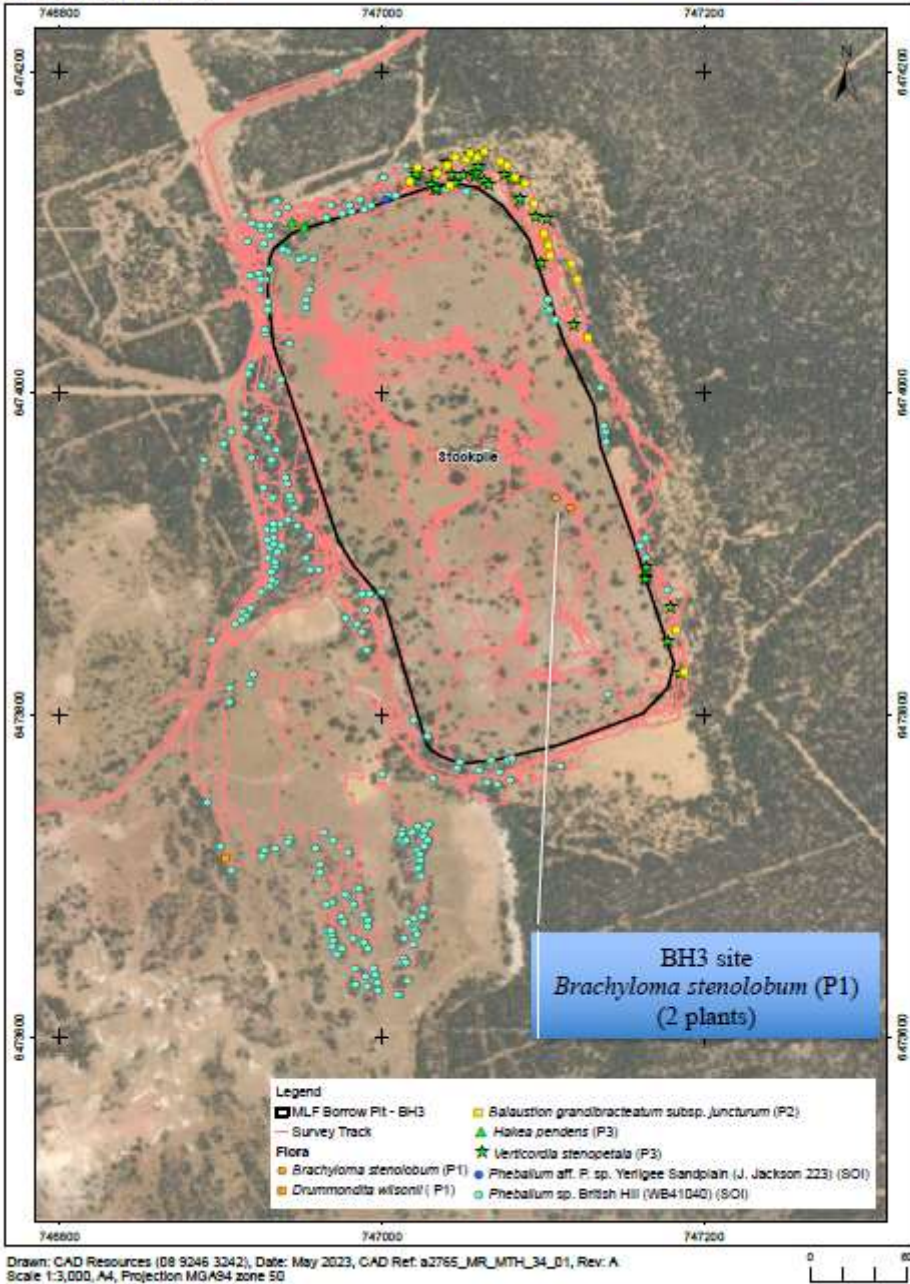


Figure 5. Significant flora Area B (Western Botanical, 2023)

## Appendix E. Sources of information

### E.1. GIS databases

Publicly available GIS Databases used (sourced from [www.data.wa.gov.au](http://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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