



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 9696/1
File Number: DWERVT9995
Duration of Permit: From 28 May 2023 to 28 May 2028

PERMIT HOLDER

Aljim Pty Ltd and Daveben Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE

Lot 8 on Diagram 53241, Bunbury
Lot 17 on Deposited Plan 400561, Bunbury

AUTHORISED ACTIVITY

The permit holder must not clear more than 0.32 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

CONDITIONS

1. Period during which clearing is authorised

The permit holder must not clear any *native vegetation* after 28 May 2025.

2. 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.

3. **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.

4. **Directional clearing**

The permit holder must conduct clearing activities in a slow, progressive manner in a single direction towards adjacent *native vegetation* to allow fauna to move into adjacent *native vegetation* ahead of the clearing activity.

5. **Fauna management – western ringtail possums**

- (a) In relation to the area cross-hatched yellow in Figure 1 of Schedule 1, the permit holder must engage a *fauna specialist* to inspect that area immediately prior to, and for the duration of clearing activities, for the presence of western ringtail possum(s) (*Pseudocheirus occidentalis*).
- (b) Clearing activities must cease in any area where fauna referred to in condition 5(a) of this permit are identified until either:
 - (i) the western ringtail possum(s) individual has moved on from that area to adjoining *suitable habitat*; or
 - (ii) the western ringtail possum(s) individual has been removed by a *western ringtail possum specialist*.
- (c) Any western ringtail possum(s) individual removed in accordance with condition 5(b)(ii) of this permit must be relocated by a *western ringtail possum specialist* to a *suitable habitat*.
- (d) Where fauna is identified under condition 5(a) of this permit, the permit holder must within 14 calendar days provide the following records to the CEO:
 - (i) the number of individuals identified;
 - (ii) the date each individual was identified;
 - (iii) the location where each individual was identified recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
 - (iv) the number of individuals removed and relocated;

- (v) the relevant qualifications of the *western ringtail possum specialist* undertaking removal and relocation;
- (vi) the date each individual was removed;
- (vii) the method of removal;
- (viii) the date each individual was relocated;
- (ix) the location where each individual was relocated to, recorded using a GPS unit set to GDA94, expressing the geographical coordinates in Eastings and Northings or decimal degrees; and
- (x) details pertaining to the circumstances of any death of, or injury sustained by, an individual.

6. **Revegetation and rehabilitation**

The Permit Holder must, within 12 months of undertaking clearing authorised under this permit:

- (a) undertake deliberate *planting* of at least 74 *Agonis flexuosa* (peppermint) native plants within the area cross-hatched red in Figure 2 of Schedule 1;
- (b) ensure only *local provenance* propagating material of plants are used;
- (c) ensure planting is undertaken at the *optimal time*;
- (d) undertake weed control and watering of *plantings* for at least three years post planting;
- (e) the permit holder must, within 24 months of planting the *Agonis flexuosa* (peppermint) native plants in accordance with condition 6(a) of this permit;
 - (i) engage an *environmental specialist* to make a determination that at least 74 *Agonis flexuosa* (peppermint) native plants will survive; and
 - (ii) if the determination made by the *environmental specialist* under condition 6(e)(i) that at least 74 *Agonis flexuosa* (peppermint) native plants will not survive, the permit holder must plant additional *Agonis flexuosa* (peppermint) native plants that will result in at least 74 (*Agonis flexuosa* (peppermint) native plants persisting within the area cross-hatched red in Figure 2 of Schedule 1.
- (f) Where additional planting of *Agonis flexuosa* (peppermint) native plants is undertaken in accordance with condition 6(e)(ii), the permit holder must repeat the activities required by condition 6(b), 6(c), and 6(d) of this permit.

7. **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"> (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 Geocentric Datum Australia 2020 (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) the direction of the clearing undertaken; (f) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 2; (g) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 3; and (h) actions taken to manage and mitigate impacts to western ringtail possums in accordance with condition 5.
2.	In relation to vegetation management – <i>revegetation</i>	<ul style="list-style-type: none"> (a) <i>Revegetation</i> activities undertaken in accordance with condition 6 of this permit including: <ul style="list-style-type: none"> (i) the date that <i>revegetation</i> activities commenced; (ii) the number of <i>Agonis flexuosa</i> trees planted; (iii) <i>weed</i> control and watering activities undertaken; (iv) determination by an <i>environmental specialist</i>; and (v) the date and activities undertaken where additional <i>planting</i> is required.

8. Reporting

The permit holder must provide to the *CEO* the records required under condition 7 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.
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.
environmental specialist	means a person who holds a tertiary qualification in environmental science or equivalent, and has a minimum of 2 years work experience relevant to the type of environmental advice that an environmental specialist is required to provide under this permit, or who is approved by the CEO as a suitable
EP Act	<i>Environmental Protection Act 1986</i> (WA)
fauna specialist	means a person who holds a tertiary qualification specialising in environmental science or equivalent, and has a minimum of 2 years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed, or who is approved by the CEO as a suitable fauna specialist for the bioregion, and who holds a valid fauna licence issued under the <i>Biodiversity Conservation Act 2016</i> .
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.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
optimal time	optimal time means the period from May to July for undertaking planting.
planting	means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species.
revegetate/ed/ion	means the re-establishment of a cover of local provenance native vegetation in an area using methods such as natural regeneration, direct seeding and/or planting, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.

Term	Definition
suitable habitat (western ringtail possum)	means habitat known to support western ringtail possums (<i>Pseudocheirus occidentalis</i>) within the known current distribution of the species, typically characterised by abundant foliage, presence of suitable nesting structures such as tree hollows, as well as high canopy cover and continuity. Known habitat includes peppermint (<i>Agonis flexuosa</i>) dominated woodlands, jarrah (<i>Eucalyptus marginata</i>) and marri (<i>Corymbia calophylla</i>) forests, riparian vegetation with a canopy of Bullich (<i>Eucalyptus megacarpa</i>) or flooded gum (<i>Eucalyptus rudis</i>), karri (<i>Eucalyptus diversicolor</i>) forests, sheoak (<i>Allocasuarina fraseriana</i>) dominated woodlands, and other stands of myrtaceous trees growing near swamps, watercourses or floodplains.
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.
western ringtail possum specialist	means a <i>fauna specialist</i> who holds a tertiary qualification specialising in environmental science or equivalent, has a minimum of two years of work experience in western ringtail possum (<i>Pseudocheirus occidentalis</i>) identification, surveys of western ringtail possums and capture and handling of western ringtail possums, and holds a valid fauna licence issued under the <i>Biodiversity Conservation Act 2016</i> .

END OF CONDITIONS


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 Mincham
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Ryan Mincham
 MANAGER
 NATIVE VEGETATION REGULATION

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

5 May 2023

SCHEDULE 1

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

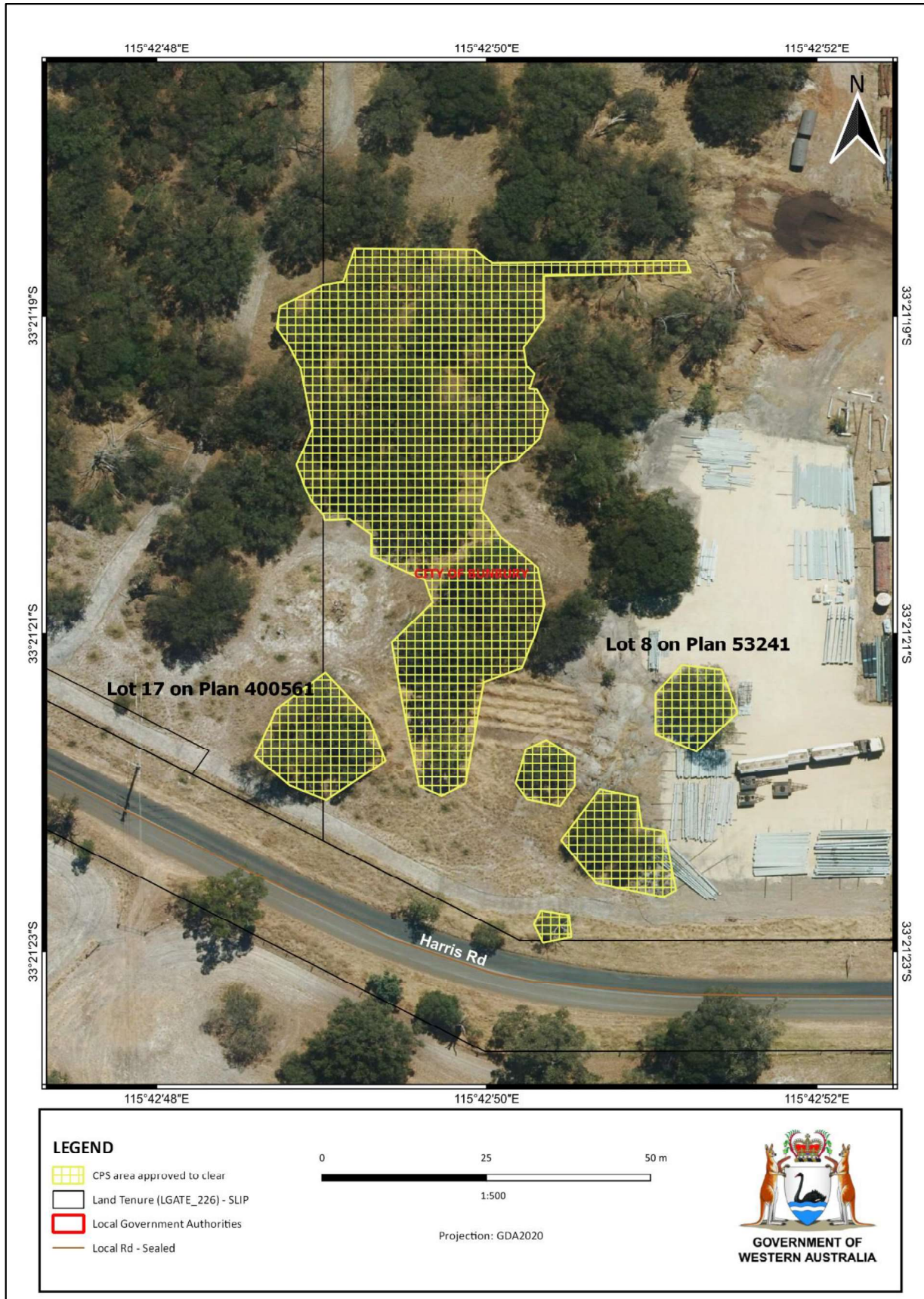


Figure 1: Map of the boundary of the area within which clearing may occur

The boundary of the area subject to conditions is shown in the map below (Figure 1).



Figure 2: Map of the boundary of the area subject to conditions.



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 9696/1
Permit type:	Area permit
Applicant name:	Aljim Pty Ltd and Daveben Pty Ltd
Application received:	20 April 2022
Application area:	0.32 hectares of native vegetation (revised)
Purpose of clearing:	Industrial Development
Method of clearing:	Mechanical Clearing
Property:	Lot 8 on Diagram 53241 Lot 17 on Deposited Plan 400561
Location (LGA area/s):	City of Bunbury
Localities (suburb/s):	Picton

1.2. Description of clearing activities

The Aljim Pty and Ltd and Daveben Pty and Ltd has applied to clear native vegetation for the purpose of landscaping, installation of services, construction of parking bays and sealed access/turnaround area to service the rear of a workshop (Aljim and Daveben, 2022a).

The vegetation proposed to be cleared to facilitate the above activities is dominated by a low open forest of peppermint (*Agonis flexuosa*) over a dense grassland of introduced species. Sections of the subject site have previously been cleared and contains bare ground or grassland (Appendix E, Harewood. G, 2022) (see Figure 1, Section 1.5).

1.3. Decision on application

Decision:	Granted
Decision date:	5 May 2023
Decision area:	0.32 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 B), relevant datasets (see Appendix F.1), the findings of a Western Ringtail Possum survey, photographs provided by the applicant (see Appendix E), the clearing principles set out in Schedule 5 of the EP Act (see Appendix C), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

The assessment identified that the proposed clearing will result in:

- the loss of native vegetation that is suitable habitat for *Pseudocheirus occidentalis* (Western Ringtail Possums);
- 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.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined that the proposed clearing is unlikely to lead to an appreciable land degradation, have long-term adverse impacts on environmental values and can be minimised and managed to unlikely lead to an unacceptable risk to environmental values.

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;
- undertake slow, progressive, one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity;
- engage a fauna specialist to inspect the clearing area immediately prior to, and for the duration of clearing activities for the Western Ringtail Possums;
- deliberately planting at least 74 individual plants of *Agonis flexuosa* (peppermint) within the area subject to conditions in Figure 2.

1.5. Site map

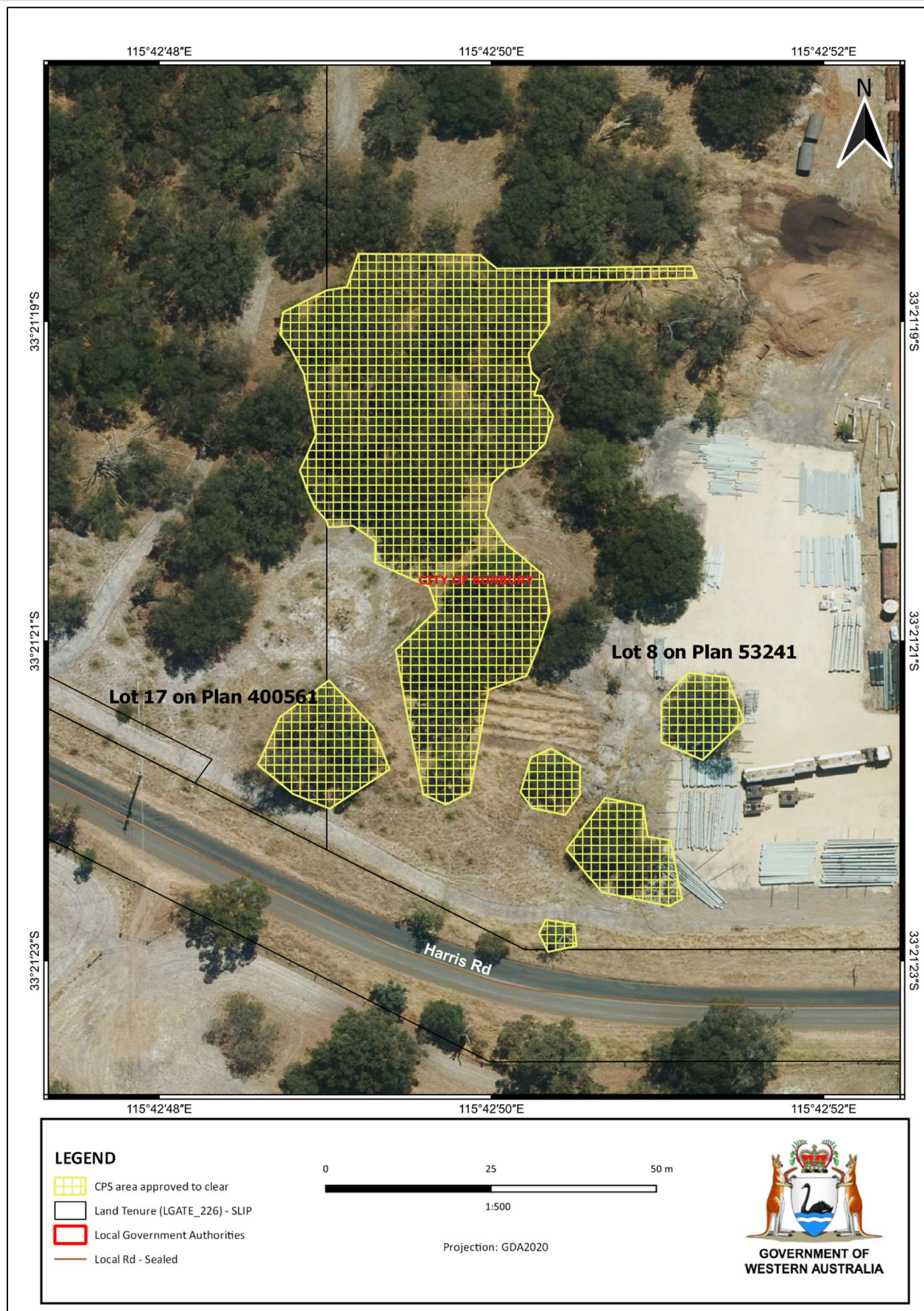


Figure 1 Map of the application area

The areas cross-hatched yellow indicate the areas 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 polluter pays principle
- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Soil and Land Conservation Act 1945* (WA)

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 – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

It was advised by the applicant and noted by the department that an application to clear native vegetation was submitted in 2013 to clear approximately 1.52 hectares of native vegetation within Lots 7 and 8 on deposited plan 53241. This application was withdrawn by the applicant. Since the original application, the applicant has significantly reduced the proposed clearing area prior to applying for the current clearing permit application CPS 9696/1. According to the applicant, consultation was undertaken with a fauna specialist in regard to reducing the potential environmental impacts to WRP habitat when finalising the clearing footprint (Aljim and Daveben, 2022a).

It is further noted that the applicant applied to clear an area of 1.06 hectares. However, the application area comprised largely of cleared land. Therefore, the applicant was requested to remove the cleared area from the initial clearing footprint. This has reduced the clearing area to 0.32 hectares.

According to the information provided by the applicant, the proposal involves clearing of peppermint trees known to provide habitat for the critically endangered species, *Pseudocheirus occidentalis* (Western Ringtail Possum (WRP)) (Aljim and Daveben, 2022b).

The application area is located within the Swan Coastal Plain. According to a study undertaken by the Department of Biodiversity, Conservation and Attraction (DBCA) in 2014, the area of remnant vegetation available for WRP habitat in the southern Swan Coastal Plain has been greatly reduced due to clearing for agriculture, mining and urban development. This has reduced the overall carrying capacity for WRP and limited connectivity between individuals, groups and sub-populations and the opportunities for sustaining a demographically and genetically viable population in the short to long term (DPaW, 2014). Therefore, the remaining WRP habitat is highly important, and mitigation of the impact resulting from the proposed clearing is important.

The department has requested that the applicant undertake revegetation of peppermint trees to mitigate the impact of clearing WRP habitat within the Swan Coastal Plain. To adequately counterbalance the impact resulting from the proposed clearing of approximately 23 *Agonis flexuosa* trees, a mitigation calculation was conducted using the WA environmental offset metric calculator. As an outcome, it was determined that to mitigate the above environmental impact, the applicant is required to revegetate at least 74 *Agonis flexuosa* plants. The applicant has identified a location within Lot 17 on Plan 400561, which is located immediately to the west of Lot 8 on Diagram 53241 and is owned by the applicant to undertake the revegetation activities.

Further mitigation measures include:

- Utilise directional clearing to direct displaced fauna towards the retained vegetation within the property and to avoid fauna from moving towards Harris Road located to the south of the application area.

- Undertake a pre-clearing inspection within the application area for the presence of WRP and relocate identified individuals to suitable habitat as required.

Based on the above, 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. The Delegated Officer considers that the proposed mitigation measures would adequately counterbalances the impact resulting from the proposed clearing.

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix B) 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 C) identified that the impacts of the proposed clearing present a risk to biological values (fauna, adjacent flora and vegetation). 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 (biodiversity) - Clearing Principles (a)

Assessment

The photographs provided by the applicant and the WRP fauna survey of the application area recorded the vegetation under application as a low open forest of peppermint (*Agonis flexuosa*) over a dense grassland of introduced species. A relatively juvenile jarrah tree also falls within the application area (Harewood, 2022). According to the photographs provided by the applicant and the information gathered through the WRP survey, the condition of the vegetation is rated as degraded to completely degraded (Keighery, 1996) (Aljim and Daveben, 2022b). Parts of the application area appeared to be previously cleared and contain bare ground or grassland.

Flora

The desktop assessment identified 35 conservation significant flora species within the local area which comprise of 30 Priority flora species and five threatened species. Given the degraded to completely degraded (Keighery, 2022) nature of the understorey within the application area and the location of the proposed adjacent to an existing industrial area, it is not likely that threatened or priority flora species recorded from the local area will occur within the application area.

Ecological community

According to the desktop assessment, the application area is located within the Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region', listed as a Priority 3 Priority Ecological Community (PEC) by the Department of Biodiversity, Conservation and Attractions (DBCA) and federally listed as Endangered under the Environment Protection and Biodiversity Conservation Act (EPBC Act). Based on the photographs provided by the applicant (Aljim and Daveben, 2022b), the vegetation present within the application area does not represent the Priority Ecological Community.

Fauna

The impact to fauna from the proposed clearing is discussed under 3.2.2.

Weeds

Weeds have the potential to out-compete native flora and reduce the biodiversity of an area. Potential impacts to biodiversity as a result of the introduction and spread of weeds and dieback may be minimised by the implementation of appropriate management conditions.

Conclusion

Based on the above assessment, the department has determined that the proposed clearing is unlikely to significantly impact on priority and threatened flora species identified from the local area and will not be impacting on any Priority Ecological Communities or Threatened ecological communities.

For the reasons set out above, it is considered that the impacts of the proposed clearing on adjacent habitats can be managed by taking steps to minimise the risk of the introduction and spread of weeds and dieback.

Conditions

- Weed and dieback management measures to be implemented.

3.2.2. Biological values (fauna) - Clearing Principles (b)

The desktop assessment identified 43 conservation significant fauna species within the local area which included of 30 birds, two invertebrates, seven mammals, two reptiles and two fish. Many of the records from the local area are migratory birds and fauna associated with the marine environment that are unlikely to occur within the application area given the absence of a watercourse or wetland. The lack of dense understory within the application area also suggests that it is unlikely to provide significant core habitat for ground dwelling fauna. However, these species may use the application area for dispersal through the landscape.

The vegetation identified within the application area primarily comprises of *Agonis flexuosa* (peppermint) trees and one juvenile jarrah tree. *Agonis flexuosa* is synonymous with habitat for the *Pseudocheirus occidentalis* (Western Ringtail Possums). Therefore, the desktop assessment identified that WRP are likely to occur within the application area. The applicant was requested to undertake a WRP survey over the application area. The WRP field surveys (day and night) were carried out on 27 September 2022 (Harewood, 2022).

Western Ringtail Possum (*Isodon fusciventer*)

Western Ringtail Possum (WRP) is listed as Critically Endangered under the *Biodiversity Conservation Act 2016* (BC Act), as well as the EPBC Act. According to the WRP recovery plan (DPaW, 2017), habitat critical to survival for WRP is not well understood and is therefore, based on the habitat variables observed where WRP are most commonly recorded. These appear to vary between key management zones. The common findings however are high nutrient foliage, availability for food, suitable structure for protection/nesting and canopy continuity to avoid/escape predation and other threats. Vegetation communities critical to the species include long unburnt mature remnants of peppermint woodlands with high canopy continuity, *Eucalyptus marginata* and *Corymbia calophylla* forests and woodlands with limited anthropogenic disturbance (unlogged or lightly logged, and a low intensity and low frequency fire history), that are intensively fox-baited, have low indices of fragmentation, coastal heath, bullich (*Eucalyptus megacarpa*) dominated riparian zones and karri forest (DPaW, 2017).

WRP resting sites include constructed dreys and tree hollows, with dreys constructed in the canopy when hollows are not available (Jones et al, 1994). The majority of the application area is mapped within a medium habitat suitability area for WRP. According to the WRP survey, the only evidence of WRP found were two deteriorating dreys. No other evidence of the species was detected. The lack of recent secondary evidence (fresh scats/ recent drey construction and maintenance) also suggests that WRP have not been present on site for several months at least. Although peppermint leaves are known to be a primary food source for the WRP, the survey report stated that the fact WRPs appear to be absent (or at best present in very low numbers) suggest that the vegetation may have a generally low nutrient value. The survey also concludes that the WRPs are largely avoiding the application area, most likely because of the vegetation not having the required nutrient levels to maintain a viable breeding population (Harewood, 2022). Any individuals that are recorded are likely to be transient individuals moving into the area from better quality habitat in adjoining areas.

Although the impact from the proposed clearing on WRP is not considered to be significant, given this species is listed as Critically Endangered, it is important that the loss of *Agonis flexuosa* species preferred by WRP for foraging in the Swan Coastal Plain is accounted for through mitigation measures. Therefore, to mitigate the clearing of the peppermint trees, the applicant is required to plant a minimum of 74 individuals of peppermint plants.

The proposed clearing has potential to impact individuals which may be present within the application area during clearing. To avoid such situations, the applicant must engage a fauna spotter to inspect the application area prior to, and for the duration of the clearing activities, for the presence of WRP. The clearing should also be undertaken in one direction to allow any ground dwelling fauna species to move into the adjacent vegetation ahead of clearing.

South-western brush-tailed phascogale (*Phascogale tapoatafa wambenger*)

The desktop assessment identified 48 records of the south-western brush-tailed phascogale (phascogale) with the closest record identified 0.84 kilometres from the application area. In south-west WA, this species is known to occur in dry sclerophyll forests and open woodlands that contain hollow bearing trees, with records less common in higher

rainfall areas. The phascogale is known to occur in highest densities in Perup/Kingston area, Collie River valley, Margaret River and Busselton (DEC, 2012). This species is known to occur in dry sclerophyll forests and open woodlands that contain hollow-bearing trees with sparse ground cover. Based on this habitat description, it is unlikely the application area will provide core habitat for this species.

Black cockatoos

Majority of the application area has been mapped as unconfirmed feeding habitat for Carnaby's cockatoo. Areas mapped as unconfirmed feeding habitat are areas of remnant vegetation on the Swan Coastal Plain that may provide important feeding resources for Carnaby's cockatoo. These areas were mapped based on the presence of vegetation types that Carnaby's cockatoo show preference for when choosing a food source. The application area is comprised primarily of *Agonis flexuosa*. Although Black cockatoos have been recorded removing bark from this species to feed on insects, they do not form core feeding habitat for black cockatoos (Valentine and Stock, 2008). The removal of the one juvenile jarrah tree among the peppermints are also not likely to significantly impact on the availability of the black cockatoo foraging.

According to the fauna observations during the WRP survey, it was determined that nature of the habitats present such as lack of hollow bearing trees and limited floral diversity suggest that it is unlikely other fauna species (excluding WRP) of conservation significance would be present and/or rely on the application area.

Ecological linkage

The proposed clearing area does not form part of a mapped ecological linkage, but may function as a steppingstone link in a highly cleared landscape. The application area is surrounded by roads from all directions. Therefore, the likelihood of ground-dwelling fauna species crossing the roads to reach adjacent native vegetation is unlikely.

Conclusion

Given the lack of evidence of WRP, limited extent of good or better (Keighery, 1994) condition vegetation, the application area being located next to an industrial development and the absence of dense peppermint trees makes it unlikely that the vegetation within the application area provides critical habitat for WRP. However, given the conservation status of the WRP, mitigation planting is necessary to ensure there is no permanent loss of the peppermint trees.

Based on the above reasons, it is considered unlikely that the application area represents habitat of importance to any other fauna species of conservation significance.

It is considered that the impact of the proposed clearing on the species occasionally visiting the site can be managed by slow directional clearing, allowing fauna to move into adjacent vegetation with the presence of a fauna specialist on site during clearing activities.

Conditions

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

- Slow directional clearing to allow WRP and phascogale to move into adjacent vegetation ahead of the clearing activities to avoid mortality to individuals.
- Engage a fauna specialist to inspect the clearing area for presence of WRP. immediately prior to, and for the duration of clearing activities.
- Undertake deliberate planting and ensure the long-term survival of at least 74 individual *Agonis flexuosa* (peppermint) plants within Lot 17 on Plan 400561.

3.2.3. Significant remnant vegetation (extensively cleared) - Clearing Principles (e)

The area under application is located within the Swan Coastal Plain Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 38.6 percent of its pre-European vegetation extent remaining (Government of Western Australia, 2013).

The vegetation under application is mapped as Beard vegetation association 1000 (Shepherd et al, 2001) of which there is approximately 26.4 percent of its pre-European extent remaining within the Swan Coastal Plain bioregion (Government of Western Australia, 2013). The vegetation present within the application area was observed as predominantly *Agonis flexuosa* with a degraded (Keighery, 1994) to completely degraded (Keighery, 1994) understorey. Given this, the application area is not representative of this vegetation association.

The application area includes remnants of two vegetation types; the Southern River Complex and the Guildford Complex (Webb et al, 2016), each type retaining approximately 18.43 and 5.09 of its pre-European extents respectively (Government of Western Australia 2019). The southern river complex is described as open woodland of *Corymbia calophylla* (Marri) - *Eucalyptus marginata* (Jarrah) - *Banksia* species with fringing woodland of *Eucalyptus rudis* (Flooded Gum) - *Melaleuca raphiophylla* (Swamp Paperbark) along creek beds. Guildford complex is described as a mixture of open forest to tall open forest of *Corymbia calophylla* (Marri) - *Eucalyptus wandoo* (Wandoo) - *Eucalyptus marginata* (Jarrah) and woodland of *Eucalyptus wandoo* (Wandoo) (with rare occurrences of *Eucalyptus lane-poolei* (Salmon White Gum)). Minor components include *Eucalyptus rudis* (Flooded Gum) - *Melaleuca raphiophylla* (Swamp Paperbark).

Based on the vegetation descriptions, the vegetation identified within the proposed clearing area is not representative of the above vegetation complexes.

The area under application is located within the City of Bunbury. The local area (10-kilometre radius) surrounding the application area retains approximately 17.90 percent vegetation.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 percent of that present pre-1750. Below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). Within defined constrained areas on the Swan Coastal Plain, the Environmental Protection Authority has set a target for retention of the pre-clearing extent of a particular native vegetation complex of 10 percent (EPA, 2006). The area under application has been classified as a constrained area and as the vegetation within the local area is 17.90 per cent, the proposed clearing is not considered not likely to be at variance to clearing principle (e).

It should also be recognised that to mitigate the impact of clearing peppermint trees, the applicant is conditioned to undertake revegetation of at least 74 peppermint trees. The revegetation will also contribute towards a gain in the vegetation extent within the local area.

Conclusion

Based on the above assessment, the vegetation proposed to be cleared is not representative of the broad scale mapped vegetation types. The extent of the native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia (EPA, 2006). Therefore, the proposed clearing will not significantly impact on the mapped vegetation types and the extent of native vegetation remaining within the local area as a result of the proposed clearing.

Condition

No conditions are required.

3.3. Relevant planning instruments and other matters

The City of Bunbury advised the department that local government approval held by the applicant is still valid. The City raised concerns in regard to possible Matters of National Environmental Significance been present within the proposed clearing area which may trigger a federal referral. It is the permit holder's responsibility to comply with any referral obligations under the *Environment Protection and Biodiversity Conservation Act 1999*.

Under the City of Bunbury's local planning scheme no. 8, the proposed clearing area is zoned as 'general industry' and the Delegated Officer has taken this into consideration during the granting of this application.

In recognition of past land use planning decisions, constrained areas have been identified on the Swan Coastal Plain of the Greater Bunbury Region Scheme, Peel Region Scheme and within the Bush Forever study area. Within these constrained areas, native vegetation retention objectives may be varied to "at least 10%". However, other principles do apply within these constrained areas, subject to exemptions for assessed schemes and deemed works of subdivisions. This includes the need to recognise locally significant bushland (DER, 2013).

No Aboriginal sites of significance have been mapped within 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. Additional information provided by applicant

Information	Description
Photographs (Aljim and Daveben, 2022a)	The applicant's consultant has provided photographs of the application area where clearing is proposed.
Western Ringtail Possum Survey (Harewood, 2022)	The Department sent a 'Request for further information' letter to the applicant on 22 July 2022 requesting a WRP survey be undertaken. As a result, a WRP survey was conducted by Greg Harewood (Zoologist) within the application area on 27 September 2022 (day and night).

Appendix B. Site characteristics

B.1. Site characteristics

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

Characteristic	Details
Local context	<p>The area proposed to be cleared is part of a fragmented patch of native vegetation surrounded by industrial and agricultural land in the intensive land use zone of Western Australia.</p> <p>Aerial imagery and spatial data indicates the local area (ten-kilometre radius from the centre of the area proposed to be cleared) retains approximately 17.90 per cent of the original native vegetation cover.</p>
Ecological linkage	The formal SWIRL ecological linkage transects vertically to the east of the application area. The proposed clearing area itself does not form part of a mapped ecological linkage.
Conservation areas	An un-named timber depot is located approximately 0.5 kilometres southwest of the application area, which is the closest conservation area identified to the application area. The proposed clearing area is not mapped within a DBCA conservation area.
Vegetation description	<p>Photographs provided by the applicant (Aljim and Daveben, 2022b) and the information from the WRP survey (Harewood, 2022) indicates that the vegetation within the proposed clearing area consists of a closed forest of <i>Agonis flexuosa</i>. Representative photos are available in Appendix E.</p> <p>The mapped vegetation types:</p> <ul style="list-style-type: none"> Beard Bassendean_1000, which is described as Woodland / Low woodland / Low forest or Woodland (Shepherd et al, 2001) Southern River Complex_42, which is described as an open woodland of <i>Corymbia calophylla</i> (Marri) - <i>Eucalyptus marginata</i> (Jarrah) - Banksia species with fringing woodland of <i>Eucalyptus rudis</i> (Flooded Gum) - <i>Melaleuca raphiophylla</i> (Swamp Paperbark) along creek beds. Guildford Complex_32, which is described as a mixture of open forest to tall open forest of <i>Corymbia calophylla</i> (Marri) - <i>Eucalyptus wandoo</i> (Wandoo) - <i>Eucalyptus marginata</i> (Jarrah) and woodland of <i>Eucalyptus wandoo</i> (Wandoo) (with rare occurrences of <i>Eucalyptus lane-poolei</i> (Salmon White Gum)). Minor components include <i>Eucalyptus rudis</i> (Flooded Gum) and <i>Melaleuca raphiophylla</i> (Swamp Paperbark). <p>The mapped vegetation types (Bassendean_1000 and Southern River Complex_42) retain more than 10 per cent of the original extent (Government of Western Australia, 2019). The mapped Guildford Complex_32 vegetation complex retains less than ten per cent of the original extent (Government of Western Australia, 2019).</p>

Characteristic	Details
Vegetation condition	<p>Photographs supplied by the applicant (Aljim and Daveben, 2022b) and the information from the WRP survey (Harewood, 2022) indicate the vegetation within the proposed clearing area is in degraded to completely degraded (Keighery, 1994) condition.</p> <p>The full Keighery (1994) condition rating scale is provided in Appendix D.</p> <p>Representative photos are available in Appendix E.</p>
Climate and landform	<p>The climate is classified as mediterranean, with dry, hot summers and cool, wet winters.</p> <ul style="list-style-type: none"> average rainfall is 666.2 mm per annum, with the majority falling between May and August. <p>The application area is mapped within the Bassendean B1a Phase described as extremely low to very low relief dunes, undulating sandplain and discrete sand rises (DPIRD, 2019).</p>
Soil description	The soil is mapped as deep bleached grey sands with an intensely coloured yellow B horizon occurring within one meter of the surface (DPIRD, 2019).
Land degradation risk	The land degradation table C.5. below outlines the land degradation risk levels for the Bassendean B1a Phase (DPIRD, 2019).
Waterbodies	The desktop assessment and aerial imagery indicated that no perennial watercourses or wetlands transect the area proposed to be cleared. The Ferguson River is identified 0.2 kilometres south of the application area.
Hydrogeography	<p>The application area falls within the Coastal plain hydrological zone of Western Australia.</p> <p>The application area is mapped within the Bunbury groundwater area as proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (RIWI Act) and is not subject to an area protected under the <i>Country Water Supply Act 1917</i> or a Public Drinking water source area.</p> <p>The groundwater salinity levels (Total Dissolved Solids) is mapped as 500-1000 milligrams per litre (fresh).</p>
Flora	The desktop assessment identified 35 conservation significant flora within the local area which comprise of 30 Priority flora species and five threatened species. According to the DBCA's databases, the closest species recorded is the threatened, <i>Diuris drummondii</i> , located 1.13 kilometres from the application area.
Ecological communities	<p>The TEC 'Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region', listed as Priority 3 PEC by DBCA and federally listed as Endangered under the EPBC Act is mapped within the application area, which is part of an approximately 2.8-hectare patch of Banksia Dominated Woodlands.</p> <p>No species representing the above PEC is considered to be present within the application area.</p>
Fauna	The desktop assessment identified 43 conservation significant fauna species within the local area which include 30 birds, two invertebrates, seven mammals, two reptiles and two fish. The closest record of any conservation significant fauna species is the <i>Pseudocheirus occidentalis</i> (Western ringtail possum), recorded 0.30 kilometres from the application area.

B.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*					
Swan Coastal Plain	1,501,221.93	579,813.47	38.62	222,916.97	14.85
Vegetation complex					
Beard vegetation association 1000 *	94,175.31	24,869.20	26.41	4,769.48	5.06
Southern River complex 42 **	58,781.48	10,832.18	18.43	940.36	1.60
Guildford complex 32 **	90,513.13	4,607.91	5.09	287.49	0.32
Local area					
10km radius	27,801.077	4,977.14	17.90	-	-

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

B.3. Fauna analysis table

Species scientific name	Species common name	Conservation status	Year of the most recent record	Distance of closest record to application area (km)	Number of known records (total)	Did survey identify ?
<i>Pseudocheirus occidentalis</i>	Western ringtail possum, ngwayir	CR	2020	0.30	1227	N
<i>Phascogale tapoatafa wambenger</i>	south-western brush-tailed phascogale, wambenger	CD	2019	0.84	48	N

B.4. Land degradation risk table

Risk categories	Bassendean B1a phase
Wind erosion	H1: 68% of map unit has a high to extreme hazard
Water erosion	L1: 0% of map unit has a very high to extreme hazard
Salinity	L1: 0% of map unit has a moderate hazard
Subsurface Acidification	H2: 100% of map unit has a high susceptibility
Flood risk	L1: 0% of the map unit has a moderate to high hazard
Water logging	L1: 2% of map unit has a moderate to very high risk
Phosphorus export risk	M2: 47% of map unit has a high to extreme hazard

Appendix C. 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></p> <p>The desktop study indicates the local area is of high biodiversity including nine conservation significant ecological communities, and relatively high numbers of conservation significant flora (35 species) and fauna (43 species). However, photographs provided by the applicant (Aljim and Daveben, 2022b) and the WRP fauna survey (Harewood, 2022), indicate the application area is in a degraded (Keighery 1994) to completely degraded (Keighery 1994) condition.</p> <p>The area contains low quality fauna foraging habitat, no assemblages of plants to indicate a TEC or PEC and no threatened or priority flora are likely to occur in the application area due to the degraded nature of the site.</p>	Not likely to 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 contain suitable foraging habitat for Western Ringtail Possums.</p>	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>There are five threatened flora species recorded within the local area. These include <i>Austrostipa bronweniae</i>, <i>Austrostipa jacobsoniana</i>, <i>Diuris drummondii</i>, <i>Drakaea micrantha</i> and <i>Eleocharis keigheryi</i>. Three of these species are associated with riparian and wetland vegetation and two species are associated with banksia or jarrah woodlands.</p> <p>The area proposed to be cleared is not likely to contain habitat for flora species listed above under the <i>Biodiversity Conservation Act 2016</i> given the unsuitable habitat type, degraded to completely degraded (Keighery, 1994) nature of the application area and the high abundance of weed species in the ground layer.</p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (d):</u> <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><u>Assessment:</u></p> <p>The area proposed to be cleared does not contain species that can indicate a threatened ecological community.</p>	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
<p><u>Principle (e):</u> <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><u>Assessment:</u></p> <p>The mapped vegetation types (Bassendean_1000 and Southern River Complex_42) retain more than 10 per cent of the original extent (Government of Western Australia, 2019). The mapped Guildford Complex_32 vegetation complex retains less than ten per cent of the original extent (Government of Western Australia, 2019). The vegetation within the application area is not representative of the Guildford Complex_32.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.2, above.</i>
<p><u>Principle (h):</u> <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><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 the nearby conservation areas.</p>	Not likely to be at variance	No
Environmental value: land and water resources		
<p><u>Principle (f):</u> <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><u>Assessment:</u></p> <p>Given no watercourses or wetlands are recorded within the application area, the proposed clearing is unlikely to impact on- or off-site hydrology and water quality.</p> <p>The proposed clearing will not involve clearing of riparian vegetation.</p>	Not likely to be at variance	No
<p><u>Principle (g):</u> <i>"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."</i></p> <p><u>Assessment:</u></p> <p>The mapped soils are not highly susceptible to wind, water erosion, nutrient export and salinity. Noting the extent of the application area, the condition of the vegetation (Keighery, 1994) and the standard construction methodologies implemented to avoid erosion, 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> <i>"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."</i></p> <p><u>Assessment:</u></p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Given no watercourses, wetlands and Public Drinking Water Sources Areas are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality.		
<p><u>Principle (j):</u> <i>"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."</i></p> <p><u>Assessment:</u></p> <p>The mapped soils and topographic contours in the surrounding area do not indicate that the proposed clearing is likely to contribute to increased incidence or intensity of flooding.</p> <p>Given no watercourses or wetlands are recorded within the application area, the proposed clearing is unlikely to contribute to waterlogging.</p>	Not likely to be at variance	No

Appendix D. 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 E. Biological survey information excerpts (Harewood, 2022), photographs of the vegetation (Aljim and Daveben, 2022b)

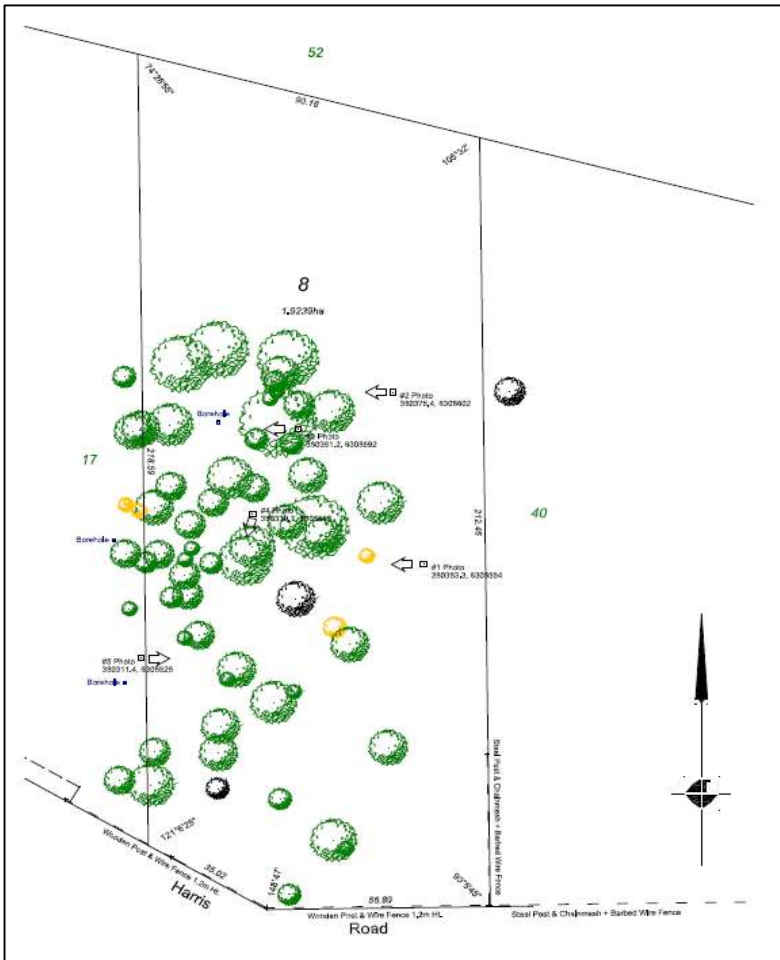


Figure 3: Location of the photo point and photo direction



Figure 4: Photograph number 1.



Figure 5: Photograph number 2.



Figure 6: Photograph number 3.



Figure 7: Photograph number 4.



Figure 8: Photograph number 5.



Figure 9: Location of the two degraded dreys identified during the WRP survey.

Appendix F. Sources of information

F.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)

F.2. References

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