GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 10293/1
Permit Holder:	Luke Shuttleworth
Duration of Permit:	From 10 January 2025 to 10 January 2040

ADVICE NOTE

Allocation of offset site

In relation to the condition 10 of this permit, a total *revegetated* area of 0.3 hectares within Lot 322 on Deposited Plan 222010, will be attributed to the offset for the *native vegetation* clearing authorised under this permit. The nominated site will be *revegetated* to provide *suitable habitat* for western ringtail possums (*Pseudocheirus occidentalis*) and will be conserved in perpetuity.

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

PART I – CLEARING AUTHORISED

1. Clearing authorised (purpose)

The permit holder is authorised to clear *native vegetation* for the purpose of installation of caravan and camp infrastructure.

2. Land on which clearing is to be done

Lot 1461 on Deposited Plan 219777, Emu Point

3. Clearing authorised

The permit holder must not clear more than 0.05 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

4. Period during which clearing is authorised

The permit holder must not clear any *native vegetation* after 10 January 2030.

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 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.

7. Fauna management – Western ringtail possum habitat trees

The permit holder must not clear the three (3) *Agonis flexuosa* (peppermint) trees marked in red in Figure 1 of Schedule 1 and listed at the locations listed in Table 1 below.

Table 1: Trees to be retained from clearing.

Tree species	Easting	Northing
Agonis flexuosa	585859.8	6126514.4
Agonis flexuosa	585870.4	6126521.6
Agonis flexuosa	585846.8	6126496.2

8. Directional clearing

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

9. 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 *western ringtail possum 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 9(a) 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 9(b)(ii) must be relocated by a *western ringtail possum specialist* to a *suitable habitat*.

(d) Where fauna is identified under condition 9(a), 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 GDA2020, 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.

10. Offset – Revegetation

Within 12 months of the commencement of clearing, the permit holder must implement and adhere to the *Revegetation Plan*, including but not limited to the following actions:

(a) *revegetate* at least 0.3 hectares of *native vegetation* within the area cross-hatched red in Figure 2 of Schedule 1 of this permit by:
  (i) ripping the soil prior to *planting* to remove any areas of compaction or other obstruction that could prevent root penetration of seedlings;
  (ii) deliberately *planting* tube stock, that will result in the establishment of *suitable habitat* for western ringtail possums, in accordance with the *Revegetation Plan*; and
  (iii) ensuring only *local provenance* seeds and propagating material are used to *revegetate* the area.
(b) undertake *weed* control activities in accordance with *Revegetation Plan*.
(c) fence along the boundary of the area cross-hatched red in Figure 2 of Schedule 1 and undertake regular monitoring of the fence for the entire duration of this permit.
(d) install signage to educate users of the *revegetation* activities being undertaken;
(e) establish a minimum of four 10 x 10 metre quadrat monitoring sites.
(f) implement hygiene protocols by cleaning earth-moving machinery of soil and vegetation prior to entering and leaving the site;
(g) achieve the completion criteria specified in Table 1 of Schedule 2 after the five-year and 17-year monitoring periods for areas *revegetated* under this permit.
(h) undertake remedial actions for areas *revegetated* where monitoring indicates that *revegetation* has not met the completion criteria, specified in Table 1 of Schedule 2 including:
  (i) *revegetate* the area by deliberately *planting native vegetation* that will result in the minimum completion criteria in Table 1 of Schedule 2 and ensuring only *local provenance* seeds and propagating material are used;
  (ii) undertake further *weed* control activities; and
  (iii) annual monitoring of the *revegetated* site, until the completion criteria, outline in Table 1 of Schedule 2 are met.

11. Land degradation – soil erosion

The permit holder must begin the construction and installation of caravan and camp infrastructure within one (1) month of the completion of clearing authorised under this permit, to reduce the risk of land degradation by minimising the time of exposed soils.

PART III - RECORD KEEPING AND REPORTING

12. 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 2.

Table 2: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	(a) the species composition, structure, and density of the cleared area; (b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings; (c) the date that the area was cleared; (d) the size of the area cleared (in hectares); (e) direction of the clearing; (f) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 5; (g) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 6; (h) actions taken to avoid clearing of the three peppermint trees in accordance with condition 7; (i) actions taken in accordance with condition 8; and (j) actions taken to manage and mitigate impacts to western ringtail possums in accordance with condition 9; and (k) actions taken to mitigate land degradation in accordance with condition 11.
2.	In relation to the *revegetation* area pursuant to condition 10 of this permit.	(a) the location of any areas revegetated, 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; (b) a description of the *revegetation* activities

No.	Relevant matter	Specifications
		undertaken; (c) weed control measures undertaken; (d) the date *revegetation* area was fenced; (e) the date *revegetation* activities started; (f) the size of the area *revegetated* (in hectares); (g) the assessment of the *revegetation* against criterion outlined in condition 10(h); (h) any remedial actions undertaken in accordance with condition 10(i); and

13. Reporting

(a) permit holder must provide to the *CEO* on or before 30 June of each year, a written report:
  (i) of records required under condition 12 of this Permit; and
  (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding calendar year

(b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the *CEO* on or before 30 June of each year

(c) Prior to 10 October 2039, the permit holder must provide to the *CEO* a written report of records required under condition 12 of this Permit, where these records have not already been provided under condition 13(a) of this Permit.

DEFINITIONS

In this permit, the terms in Table 3 have the meanings defined.

Table 3: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*.
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 *Phytophthora* species on native vegetation.
department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	*Environmental Protection Act 1986* (WA)

Term	Definition
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 *Biodiversity Conservation Act 2016*.
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. where adequate supply of seedlings and propagation materials cannot be sourced from the designated area, that it would be suitable for these materials to be obtained outside of the 50 km, as long as seeds are sourced from the same IBRA subregion as the cleared area, such as the 'local botanic region' or the 'southern coastal botanic region' (or similar).
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.
Revegetation Plan	means the plan developed by Tranen Revegetation Systems on behalf of the permit holder for the revegetation within Lot 322 on Deposited Plan 222010, Emu Point in accordance with condition 10 of this permit and titled: 'P1089A Lot 322 Troode St Revegetation Implementation Plan P1089A-01-03 City of Albany, November 2024'
suitable habitat (western ringtail possum)	means habitat known to support western ringtail possums (*Pseudocheirus occidentalis*) 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 (*Agonis flexuosa*) dominated woodlands, jarrah (*Eucalyptus marginata*) and marri (*Corymbia calophylla*) forests, riparian vegetation with a canopy of Bullich (*Eucalyptus megacarpa*) or flooded gum (*Eucalyptus rudis*), karri (*Eucalyptus diversicolor*) forests, sheoak (*Allocasuarina fraseriana*) dominated woodlands, and other stands of myrtaceous trees growing near swamps, watercourses or floodplains.
weeds	means any plant – (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.
western ringtail possum specialist	means a *fauna specialist* who holds a tertiary qualification specialising in environmental science or equivalent, has a minimum of two years of work

Term	Definition
	experience in western ringtail possum (*Pseudocheirus occidentalis*) identification, surveys of western ringtail possums and capture and handling of western ringtail possums, and holds a valid fauna licence issued under the *Biodiversity Conservation Act 2016*.

END OF CONDITIONS

Jessica Burton
A/MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

18 December 2024

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 and where conditions apply.

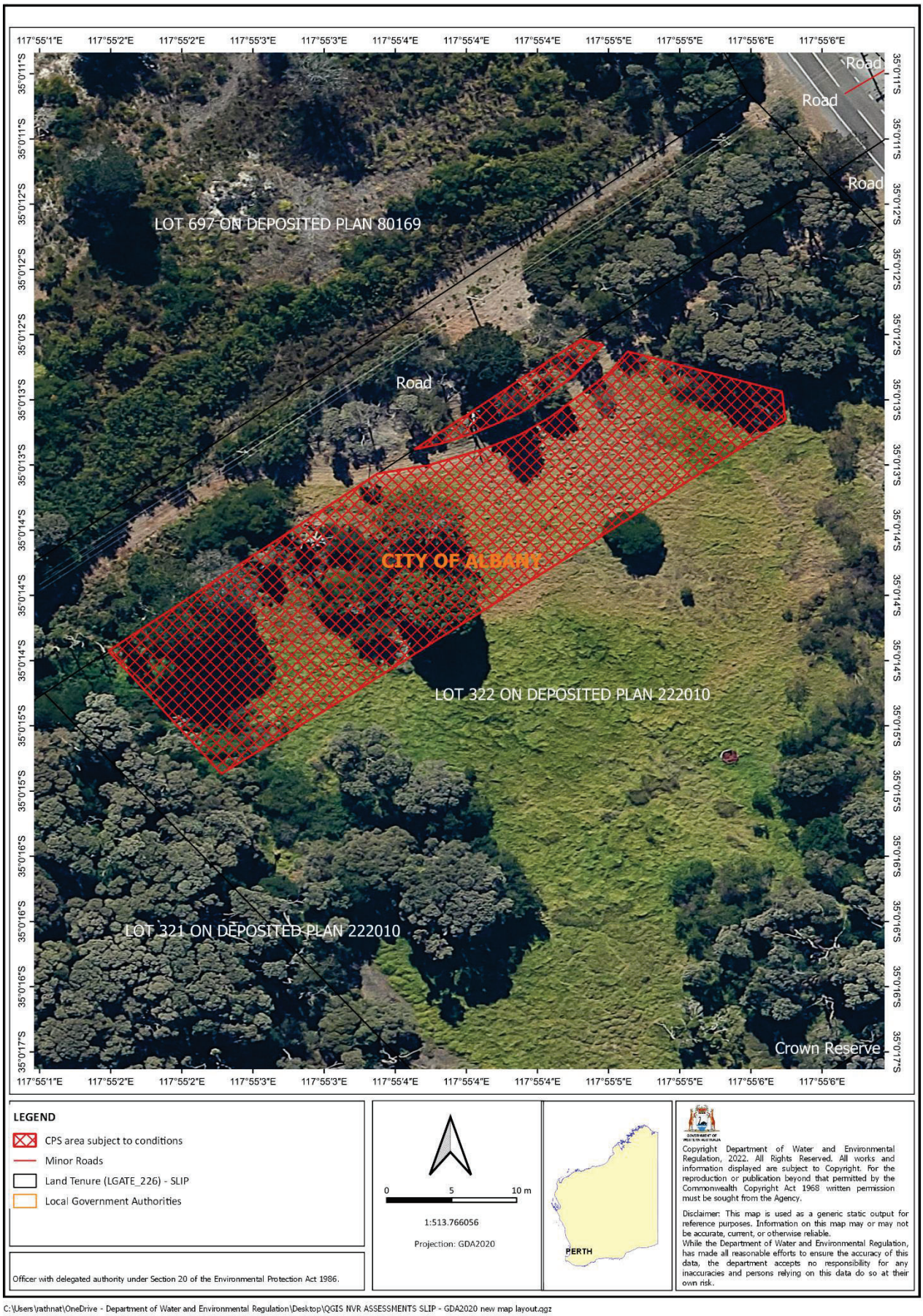


Figure 2: Map of the boundary of the area within which revegetation conditions apply.

Schedule 2

Table 1: Completion targets and criteria

Aspect	Performance target Year 3-5	Completion target Year 17	Monitoring	Contingency measures
(1) Bushland, woody, and declared weeds (Group 1)	No obvious presence of declared or aggressive bushland weed. No mature woody weeds. Woody seedlings being regularly pulled and sprayed.	Absence of declared or aggressive bushland weeds. Absence of woody weeds with only seedlings being transported in by birds.	Density/cover of weed species in monitoring quadrat and across the offset site to be monitored annually for the duration of this permit or until the revegetation is considered successful.	Consideration of alternative or increased weed control. Increase the intensity of weed control. More targeted weed control.
(2) Pasture weeds (Group 2)	Average seasonal (late spring early summer) weed cover is maintained at <20 %	Average pasture weed foliage cover is <10% based on quadrat data.		
(3) Possum habitat value as indicated by foliage cover (overall)	Native vegetation cover is increasing at each monitoring event and showing flushes of new leaf growth	Overall native vegetation projected foliage cover >70 % based on quadrat data including a high proportion of species suited for western ringtail possum habitat.	Cover estimates (% cover) of installed plants using quadrat monitoring and photo monitoring be done annually for the duration of the permit or until revegetation is considered successful. Density (plants / m2) installed plants by species years 3 to year 5.	Additional infill planting in low density areas and low cover areas.
(4) Possum habitat value as indicated by foliage cover (overstorey)	Overstorey and emergent mid-storey density >80% cover of initial planting density of 2 plants per m^2.	Overstorey and emergent mid-storey projected foliage cover >50% of initial planting density based on quadrat data.	Density (plants / m2) installed plants by species Years 3 to Year 5 using quadrat monitoring and photo monitoring.	Increase infill planting in year 5 – 10.
(5) Good establishment of tube stock and self-maintaining vegetation	All species chosen and planted persisting on site with some species persisting better than	Evidence of the most successful species having natural recruitment.		Targeted infill planting of more reproductively successful species.

	others. Infill planting in Year 3, 4, and 5 at or below expected rates of 40%, 20%, and 10% of total numbers of primary install, respectively. Signs of flowering and seeding of planted species.	Evidence of recruitment of native species and possibly recruitment into the site from species in surrounding bushland.		Increase infill planting in year 5 – 10.
Site is sufficiently managed and protected from external pressures	All fences, tracks, buffers etc. maintain their primary function. No obvious signs of external disturbance.	No obvious signs of external disturbance (e.g. dumping, vandalism, unauthorised access etc.). Fences and tracks in good functional condition based on site-wide inspection.	Observations for fauna presence, pest activities, and signs of habitat use.	Improvements to site protection through fencing and preparing the track.

Government of Western Australia
Department of Water and Environmental Regulation

Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 10293/1
Permit type:	Purpose permit
Applicant name:	Luke Shuttleworth
Application received:	3 August 2023
Application area:	0.05 hectares of native vegetation
Purpose of clearing:	Caravan and camp infrastructure
Method of clearing:	Mechanical clearing
Property:	Lot 1461 on Deposited Plan 219777
Location (LGA area/s):	Shire of Albany
Localities (suburb/s):	Emu Point

1.2. Description of clearing activities

The application is to clear 0.05 hectares of native vegetation within Lot 1461 on Deposited Plan 219777, Emu Point, for the purpose of installation of new caravan and camping sites. The vegetation proposed to be cleared is contained within a single contiguous area (see Figure 1, Section 1.5).

The reason for the proposed clearing is that the City of Albany (the City) have approached Big4 Emu Beach Holiday Park in regard to making a land swap on the southern boundary of the leased area. The land swap is due to coastal erosion in the area, and it involves Big4 Emu Beach surrendering 1257 square meters of the existing leased area, in return the City have offered a 1627 square meter portion of land adjacent to the existing lease. The land swap gives the City an opportunity to relocate the Bike-Walk path that is under threat from coastal erosion (Shuttleworth. L, 2023a).

1.3. Decision on application

Decision:	Granted
Decision date:	18 December 2024
Decision area:	0.05 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 (department) advertised the application for 21 days and five submissions were received. Consideration of matters raised in the public submissions are summarised in Appendix B.

In making this decision, the Delegated Officer had regard for:

- avoidance and minimisation actions implemented by the applicant;
- site characteristics and analysis of flora, fauna and ecological communities recorded/mapped within the local area (a 20 kilometres radius buffer from the application area);

- the 10 Clearing Principles set out in Schedule 5 of the EP Act (see Appendix D);
- a detailed assessment of the clearing impacts on environmental values (see Section 3.2);
- the additional information obtained during the assessment. Including the findings of:
    - fauna impact assessment (Gilfillan.S, 2021);
    - flora and vegetation survey (Southern Ecology, 2023);
    - a foreshore management plan (City of Albany, 2021); and
    - revegetation implementation plan (Tranen, 2024)

In addition to the above, in making the decision to grant the clearing permit, the Delegated Officer also took into consideration that the City of Albany (City) arranged a land swap with the applicant to allow the City to realign a public path being impacted by coastal erosion. As part of the land swap proposal, the applicant surrendered part of their existing caravan park lease area and gained a new lease area which incorporates the application area.

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 will result in the loss of 0.05 hectares of native vegetation that provides high quality habitat for Western Ringtail Possums (WRP).

To address the above significant residual impacts and applying the WA environmental offsets metric (the offsets metric) along with the environmental offsets metric guideline, and consistent with the WA Environmental Offsets Policy (2011) (the Offsets Policy) and Western Australia's Environmental Offsets Guidelines (2014) (the Offsets Guidelines), the Delegated Officer determined that the following offsets would address 100 per cent of the significant residual impacts of the clearing on the removal of habitat that is suitable for WRP.

- Revegetation and conservation of 0.3 hectares of native vegetation within Lot 322 on Deposited Plan 222010 Troode St, Collingwood Park as detailed below:
    - Revegetation from low to high quality habitat for WRP with on ground management and rehabilitation in accordance with a revegetation plan.

The Delegated Officer determined that the above offset was sufficient to counterbalance the significant residual impacts associated with this project. Further information on the suitability of the offset provided is summarised in Section 4.

In addition to the above, the Delegated Officer also determined that the proposed clearing may also result in the following impacts:

- indirect impact to WRP and other fauna that maybe utilising the application area at the time of clearing activities;
- 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
- potential land degradation in the form of wind and water erosion.

The Delegated Officer determined that the proposed clearing is unlikely to have any long-term adverse impacts on the environment, and that management, mitigation and offset measures conditioned on the permit will mitigate and offset any potential impacts. The Delegated Officer decided to grant a clearing permit subject to conditions to:

- avoid, minimise and reduce the impacts and extent of clearing;
- take 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;
- retain three *Agonis flexuosa* (peppermint) trees within the application area;
- commencement of activities associated with the installation of caravan and camp infrastructure within one month of the cessation of clearing to minimise the risk of land degradation;
- pre-clearance survey to identify WRP prior to clearing; and
- provision of an offset, as outlined above.

Noting the applicant's requirements under the permit conditions to provide an offset to counterbalance the significant residual impacts by 100 per cent, the Delegated Officer considered that the impacts of the proposed clearing are unlikely to have any long-term adverse impacts on the environmental values in the local area and that the abovementioned management practices will adequately counterbalance any potential impacts.

1.5. Site map



Figure 1 Map of the application area

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

2 Legislative context

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

In addition to the matters considered in accordance with section 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)
- *Planning and Development Act 2005* (WA) (P&D Act)
- *Soil and Land Conservation Act 1945* (WA)

Relevant policies considered during the assessment include:

- *Environmental Offsets Policy* (2011)

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)
- *Environmental Offsets Guidelines* (August 2014)
- Technical guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

The following information was submitted by the applicant, demonstrating that avoidance and minimisation measures were considered during the planning phase of the project.

- Two areas on the eastern boundary of the Emu Beach Holiday Park adjacent to Firth Street, Emu Point was considered for the installation of the caravan and the camp infrastructure. A WRP assessment was conducted within Area one (1) and Area two (2) by spotlighting on one night (12 March 2021) and two-day searches (28 March 2021 and 08 July 2021) to look for WRP dreys (Gilfillan, S. 2021).
    - Area 1 comprised of 0.107 hectares of native vegetation. One possible drey was observed within Area 1 in thick vines (*Senecio angulate*) that cover some of the Peppermint trees (Gilfillan, S. 2021).
    - Area 2 comprised of 0.215 hectares of native vegetation. No dreys were observed in Area 2 (Gilfillan, S. 2021).

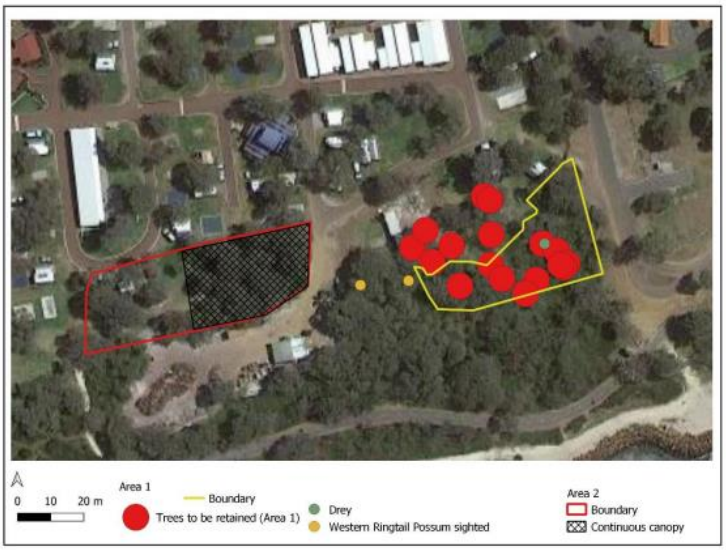


Figure 2: Two areas that were considered by the applicant for the purpose of the clearing application.

The applicant noted the advice provided within the fauna report that only 50 per cent of the total area originally proposed for clearing (0.322 ha) should be cleared to avoid significant impacts on WRPs (Gilfillan, S. 2021). In taking the recommendations made by the fauna survey into account, the applicant decided to reduce the clearing area to 0.05 hectares to ensure impacts to WRP was reduced and also selected to undertake clearing within Area two as this area has the least canopy connectivity. The applicant has proposed to retain the tree that consist of a drey and two additional peppermint trees which are listed in the Table 1 below (Shuttleworth. L, 2023b).

The applicant has also avoided the vegetation identified as very good (Keighery, 1996) containing dense understory of *Lepidosperma gladiatum* and limited the proposed clearing to the vegetation in degraded condition (Keighery, 1994).

Table 1: Location data for the trees proposed to be retained.

Tree species	Easting	Northing
Agonis flexuosa	585859.8	6126514.4
Agonis flexuosa	585870.4	6126521.6
Agonis flexuosa	585846.8	6126496.2

The applicant has proposed to revegetate an area of 0.3 hectares to counterbalance the significant residual impacts of the proposed clearing. This site was selected to also facilitate potential future revegetation opportunities involving infill planting and weed control. The Figure 3 below is a representation of the proposed revegetation/rehabilitation for the site (City of Albany, 2024).

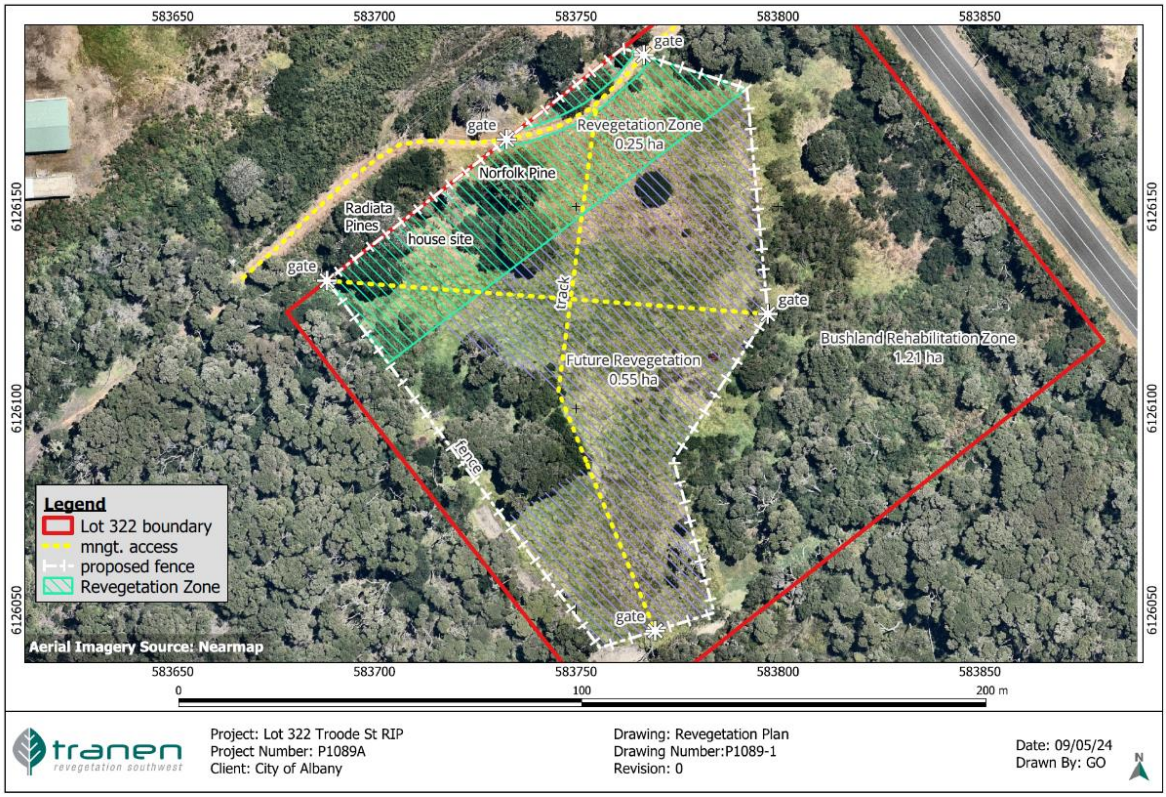


Figure 3: A map representing the proposed revegetation/rehabilitation works on Lot 322 Troode street.

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.

After consideration of avoidance and mitigation measures, it was determined that an offset was necessary to counterbalance the significant residual impacts to WRP habitat. In accordance with the Government of Western Australia's *Environmental Offsets Policy* and *Environmental Offsets Guidelines*, these significant residual impacts have been addressed through the conditioning of environmental offset requirements on the permit. The nature and suitability of the offset provided is summarised in section 4.

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix CAppendix C) 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 D**Error! Reference source not found.**) identified that the impacts of the proposed clearing present a risk to biological values (fauna), riparian vegetation and land resources. The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

3.2.1. Biological values (fauna, flora and adjacent vegetation) - Clearing Principles (a) and (b)

Assessment

The flora and vegetation survey (Southern Ecology, 2023) indicates that the application area consists of *Agonis flexuosa* (peppermint) low forest over *Lepidosperma gladiatum* sedgeland in a degraded condition. A total of 30 taxa were recorded from 24 families in the survey area, including 12 weed species (Southern Ecology, 2023).

According to the desktop assessment, the closest recorded flora species is the Priority three (3), *Andersonia auriculata* identified 400 metres from the application area. This species is associated with wet soils and swampy areas in woodland or shrubland over sedges, including Eucalyptus spp., Allocasuarina spp., Agonis spp., *Taxandria parviceps*, Kunzea spp., Adenanthos spp., *Stylidium leeuwinense*, *Callistachys lanceolata*, and *Beaufortia decussata* and can also be associated with granite outcrops (WA Herb, 1998).

The condition of the vegetation within the application area is degraded (Keighery, 1996) due to heavy infestation of weeds, evidence of past clearing and soil disturbance. The flora and vegetation assessment did not find any records of threatened or priority flora species within the application area and it was determined that the habitat within the application area is not considered suitable to support any known conservation significant flora species (Southern Ecology, 2023).

The application area is not mapped within a Priority Ecological Community (PEC) or a Threatened Ecological Community (TEC) nor is the native vegetation present within the application area likely to be representative of a PEC or a TEC (Southern Ecology, 2023).

According to the flora and vegetation survey (Southern Ecology, 2023), there is a risk from weed infestation spreading from the application area into vegetation identified to be in a very good condition (Keighery, 1996). The presence of species listed as Declared Plants under the BAM Act within the survey area can exacerbate this risk unless weed and dieback management measures are put in place. A weed and dieback management condition has been included within the clearing permit.

Fauna

The desktop assessment identified 75 conservation significant fauna recorded within the local area which included of 58 birds, 12 mammals, one reptile and four invertebrates. 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.

In forming a view on the likelihood of each species occurring within the application area, the following was considered:

- the preferred habitat and vegetation types of the species, and
- their recorded proximity to the application,

The likelihood analysis identified 12 fauna species which may occur within the application area. Of these, *Pseudocheirus occidentalis* (western ringtail possum) and *Isoodon fusciventer* (quenda) are considered likely to occur.

Western ringtail possum (CR)

Western Ringtail Possum (WRP) is listed as Critically Endangered under the 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).

According to the WRP recovery plan (DPAW 2017), habitat loss and fragmentation from urban development is a key threatening process for WRP in the South Coast zone. Disruption to canopy connectivity restricts dispersal ability of WRP and can cause overpopulation within patches of habitat. Where WRP must come to the ground to disperse between habitat, the risk of predation increases. Maintaining habitat connectivity is essential for long-term conservation of WRP.

WRP resting sites include constructed dreys and tree hollows, with dreys constructed in the canopy when hollows are not available (Jones et al, 1994). According to the available data, the application area is not mapped within a habitat suitability area for WRP. However, According to WRP assessment undertaken over two days, one WRO individual was spotted at two locations within the application area. In addition, one tree with a possible drey was identified. The applicant advised that they will be retaining this tree from the clearing (Gilfillan, 2021). Given the canopy connectivity within the property, the vegetation is likely to be significant for the WRP species. The dense sedge understorey in the application area may also provide suitable refuges sites for WRP.

The application area is connected to a larger patch of remnant native vegetation where WRP have been recorded. The proposed clearing is considered to permanently reduce canopy connectivity, impacting linkage habitat for WRP and remove suitable WRP foraging habitat and suitable WRP refuge habitat (dreys and dense sedgeland). Based on this, the proposed clearing would result in a significant residual impact to WRP habitat.

Addition to the above, 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 specialist 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.

Quenda (P4)

The Quenda (P4), is known to inhabit scrubby, swampy vegetation with low, dense understorey, located nearby water courses, pasture, or forest/woodland that is regularly burnt and is in areas of pasture and cropland lying close to dense cover (DBCA, 2017). The dense sedge understorey within the site is suitable habitat for the Quenda. No evidence of quenda (diggings) or individuals of quenda were observed in the application area during site inspection in March and July 2021(Gilfillan, 2021). The survey noted that the site has rabbits, and their diggings can make Quenda diggings difficult to detect (Gilfillan, S., 2021) and the high number of rabbits is likely to exclude quenda from the site. Quenda are known to inhabit the vegetation behind the dunes along Middleton Beach (Gilfillan, 2021). Quendas are likely to be transient visitors to the application area while moving through adjacent vegetation.

Based on the above and the small area of the proposed clearing, it is unlikely for the application area to represent significant habitat for this species. Given there is potential for quenda to transect the application area, and to avoid any mortality, a directional clearing condition is implemented on the clearing permit.

Ecological linkage

The application area falls within the South Coast Macro Corridor (Strategic Zone A). Areas within Zone A contains areas of woody vegetation where polygons greater than 30 hectares in size are spaced no greater than one kilometre apart and potentially form the most strategic link between major protected areas (Wilkins et al, 2016).

Remnant vegetation mapped within the local area accounts for approximately 41 per cent of the total land area and the selective clearing through the south coast macro corridor is limited to a small area of 0.05 hectares, that also has large trees retained on site. Based on this, impacts at the landscape scale will not be significant as a result of the proposed, relatively small nature of the clearing.

Conclusion

Based on the above assessment, the impact of the proposed clearing on WRP habitat constitutes a significant residual impact. To reduce the risk of impact to WRP individuals present at the time of the clearing, pre-clearing inspection of trees for western ringtail possums will be required.

The applicant may have notification responsibilities under the EPBC Act for impacts to WRP and their habitats. The applicant has been advised to contact the federal Department of Climate Change, Energy, the Environment and Water (DCCEEW) to discuss EPBC Act referral requirements.

Conditions

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

- avoid, minimise to reduce the impacts and extent of clearing.
- slow directional clearing to allow WRP and quenda 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 of suitable habitat for WRP and ensure the long-term survival of at least 0.30 hectares within Lot 322 on Deposited Plan 222010 as an offset to counterbalance impacts to WRP habitat.
- take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback into adjacent vegetation

3.2.2. Land resources - Clearing Principle (g)

Assessment

The soils within the application area have been mapped by the Department of Primary Industries and Regional Development (DPIRD) as the soil unit Meerup beach ridges phase described as beach ridge dunes (<5 m high) and intervening swales. The soil is on the Meerup beach ridges phase is described as calcareous deep sands.

DPIRD mapping indicates that the Meerup soil unit which covers the entire application area has a high risk of wind erosion, water repellence and a medium risk of water erosion due to the infiltration of through the sands (DPIRD, 2019). Therefore, the proposed clearing may result in land degradation in the form of wind erosion. However, the impact of the proposed clearing is not likely to result in appreciable land degradation in the form of wind erosion given the extent of the proposed clearing, commitment to retain three large trees on site and the vegetation remaining in the surrounding area ((Shuttleworh.L, 2003b).

Given the application area is located approximately 65 metres from the coast, there maybe a risk of clearing native vegetation within close proximity to where coastal erosion is known to occur. In stating that, it is noted that there is an approximately 45 metres of vegetation in very good condition (Keighery,1994) that is present between the application area and the coast which acts as a buffer.

The department requested further information from the applicant in regard to how potential land degradation impacts are proposed to be managed to ensure that there is no increased risk to coastal erosion from the prosed clearing. The applicant has informed the department that the existing caravan park has mitigated any concerns regarding land degradation over the time it has been operating (Shuttleworh.L, 2003b). The site is managed with grass species, gardens and trees that thrive in the local coastal environmental. During the works, there will be ground staff on site that manage and visually monitors the condition of the caravan park on a daily basis. In the instance ground grass cover gets damaged or site becomes degraded with topsoil exposed, the site will be barricaded/isolated and the area will be taken out of service ensuring that any vehicle traffic and foot traffic is not further disturbing the soil. In this instance, the site becomes dry, the site officers will be obligated to water the soil and repair the groundcover by regrowth or replanting where required (Shuttleworh.L, 2003b).

In addition to the above, it is also noted that the Emu Beach Foreshore management plan implemented by the City of Albany covers the application area. This document guides the management of coastal erosion and hazards.

A land degradation management condition has been placed n the clearing permit to ensure that no sedimentation erosion occurs as a result of the proposed clearing.

Conclusion

Based on the above assessment, and the proposed land degradation measures in place, it is unlikely that the proposed clearing will lead to appreciable land degradation impacts.

Conditions

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

- The permit holder must commence the construction of the caravan park no later than one months after undertaking the authorised clearing activities.

3.3. Relevant planning instruments and other matters

Other relevant authorisations required for the proposed land use include:

- Development approval under the *Planning and Development Act 2005* (issued by the City of Albany)

The application area is located within the Foreshore zone under the City of Albany's Local Planning scheme no 2. The objectives of areas zoned as 'Foreshore' are:

- To set aside areas for foreshore reserve that adjoin or directly influences a waterway or coastline.
- To provide for the protection of natural values and processes, a range of active and passive recreational uses, cultural and community activities, activities promoting community education of the environment and/or uses that are compatible with and/ or support the amenity of the reservation.

Based on above, the proposed works are consistent with the City of Albany's local planning scheme. The City of Albany has issued a Development Approval under the *Planning and Development Act 2005* to the applicant on 08 November 2024 subject conditions.

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.

4 Suitability of offsets

Through the detailed assessment outlined in Section 3.2 above, the Delegated Officer has determined that the following significant residual impacts remain after the application of the avoidance and mitigation measures summarised in Section 3.1:

- 0.05 hectares of native vegetation that provides high quality habitat for WRP.

City of Albany has advised the department that the City will be taking over the responsibility of the implementation of the approved offset. The department has received evidence of correspondence from the applicant confirming endorsement of the offset area, and acknowledgement that the City has prepared the offset proposal on the applicant's behalf, and that the City will be responsible for the implementation of the offset proposal, in accordance with relevant conditions (City of Albany, 2024).

On behalf of the applicant, City of Albany proposed an offset to counterbalance the significant residual impact of clearing high quality WRP habitat by revegetating an area of 0.30 hectares of degraded land to good condition (Keighery, 1994) within Lot 322 on Deposited Plan 222010, Collingwood Park, in accordance with a revegetation implementation plan (City of Albany, 2024). The offset site is owned by the City of Albany and is currently zoned as an environmental conservation reserve under the City of Albany's local planning scheme No 2.

Based on the information submitted, the department has undertaken an offset calculation using the Western Australian offset metric 'calculator' and it has determined that, to counterbalance 100 per cent of the Significant Residual Impact (SRI) of clearing 0.05 hectares of native vegetation that provides high quality habitat for western ringtail possums, revegetation of 0.27 hectares of degraded (Keighery, 1994) land would be required. The applicant would also be required to:

- revegetate to deliver a WRP habitat quality score improvement from 0 to 6 over a period of 17 years in accordance with the revegetation implementation plan.
- place a conservation covenant under section 30B of the *Soil and Land Conservation Act 1945*, over the 0.27 hectare offset area on Lot 322 on Deposited Plan 222010 Troode St, Collingwood Park.

The proposed offset area forms part of a habitat corridor and is currently in degraded condition (Keighery, 1994). Following the revegetation of the site, this area will provide enhanced connectivity for WRP. The objective of the revegetation plan is to create a self-sustaining native vegetation that supports WRP. The plan also proposes the rehabilitation of additional areas adjacent to the proposed offset area to be undertaken in the future to enhance the current offset site (Tranen, 2024).

The primary "possum" tree species to be planted within the offset area are:

- *Agonis flexuosa* (peppermint)
- *Allocasuarina fraseriana* (she Oak)
- *Eucalyptus staeri* (Albany blackbutt)
- *Taxandria juniperina* (wattie)
- *Corymbia calophylla* (marri)

Given the above, the proposed offset is considered to adequately counterbalance the significant residual impact listed above, representing 100 per cent of the offset contribution consistent with the *WA Environmental Offset Policy*. The Delegated Officer considers that this adequately counterbalances the significant residual impacts resulting from the proposed clearing. The justification for the values used in the offset calculation is provided in Appendix F.

End

Appendix A. Additional information provided by applicant

Summary of comments	Consideration of comment
Flora and vegetation assessment (Southern Ecology, 2023)	Southern Ecology, on behalf of the applicant undertook a site visit to undertake an assessment of the flora and vegetation within a survey area of approximately 0.16 hectares. The site visit was conducted on 12 July 2023.
Fauna impact assessment of the proposed clearing area (Gilfillan.S, 2021)	The survey area was separated into Area 1 and Area 2. The survey assessed the habitat within both the areas to determine its suitability for two conservation significant fauna species. These are: • Western Ringtail Possum (*Pseudocheirus occidentalis*) • Southern Brown Bandicoot (Quenda) (*Isoodon obesulus subsp. Fusciventer*). The survey was conducted over three days during March 2021 and July 2021.
Emu Beach Foreshore management plan (FMP) (City of Albany, 2021)	This Emu Beach FMP is an important guiding document for the management of coastal erosion and hazards between the Albany Golf Club and Emu Point.
Offset Revegetation Implementation Plan (RIP) (Tranen, 2024)	City of Albany commissioned Tranen revegetation systems to prepare a revegetation implementation plan (RIP) for Lot 322 Troode Street, Collingwood Park. The revegetation is to counterbalance the significant residual impact from clearing native vegetation that is habitat for the threatened WRP. The RIP is designed to provide a step-by-step guide and includes: • an implementation schedule. • a comprehensive weed control strategy. • identifies suitable species and quantities for plantings. • recommends density and vegetation structure of plantings. • expected infill plantings. • post-planting weed control. • protection of plantings from excessive herbivore browsing.

Appendix B. Details of public submissions (submission, 2023a) (submission, 2023b) (submission, 2023c) (submission, 2023d) (submission, 2023e)

Summary of comments	Consideration of comment
Wildlife habitat should be retained in its entirety due to the presence of critically endangered Western Ring Tail Possums, quendas, birds, reptiles and insects. The foreshore reserve has been identified as a part of an ecological corridor providing habitat for western ringtail possums, orchids and other flora and fauna species. Carnaby's black cockatoo and Baudin's black cockatoo (also priority fauna species) have been reported within	Impact to WRP and other fauna of conservation significance are assessed under section 3.2.1 of the decision report. The department has further implemented fauna management conditions on the clearing permit to ensure that no direct impacts occur to WRP individuals and by undertaking clearing in a directional manner, fauna that are visiting the application area will be able to move into adjacent vegetation ahead of the clearing activities.

Summary of comments	Consideration of comment
the Emu Point residential estate by the various surveys and may be impacted.	The department has implemented a revegetation offset to ensure that no significant residual impact on WRP habitat occurs as a result of the proposed clearing. Given the vegetation proposed for clearing is *Agonis flexuosa* (peppermint) low forest over *Lepidosperma gladiatum* sedgeland, impacts to black cockatoo species is unlikely to occur.
impacts to non-conservation significant fauna: birds, reptiles and insects.	The directional condition implemented on the clearing permit will ensure that any fauna present within the application area at the time of clearing has moved into the adjacent vegetation prior to the commencement of clearing.
Coastal erosion is occurring immediately to the south of the caravan park site, with clearing of nearby vegetation being expressly contrary to recommendations and statements in the Emu Beach Foreshore Management Plan (EBFMP). The clearing application will increase the area of the caravan park towards the area where erosion is occurring.	Impacts on the clearing on land degradation is discussed under section 3.2.2 of the decision report. City of Albany has granted development approval to the applicant to undertake the works proposed.
impacts to fauna habitat corridor	The department acknowledges the ecological value of the application area. However, noting the small area of clearing in comparison to the extent of vegetation available surrounding the application area, it is not likely the clearing will significantly impact the ecological connectivity between the remnant vegetation in this area.
Enough native vegetation has already been cleared to allow expansion of this caravan park over the years.	The department has no record of historical clearing permits granted for the purpose allowing an expansion of the caravan park at Emu point.

Appendix C. Site characteristics

C.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 the department at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix D.

Characteristic	Details
Local context	The area proposed to be cleared is a part of an expansive tract of coastal native vegetation in the intensive land use zone of Western Australia. The application area is adjacent to an existing caravan park and is surrounded by areas cleared for residential and recreational use. Spatial data indicates the local area (20-kilometre radius from the centre of the area proposed to be cleared) retains approximately 41 per cent of the original native vegetation cover.
Ecological linkage	The application area falls within the South Coast Macro Corridor (Strategic Zone A).
Conservation areas	The application area does not intersect a mapped conservation area. The closest conservation area is an agreement to reserve located approximately nine kilometres from the application area.

Characteristic	Details
Vegetation description	The flora and vegetation assessment (Southern Ecology, 2023) indicates the vegetation within the proposed clearing area consists of *Agonis flexuosa* (peppermint) low forest over *Lepidosperma gladiatum* sedgeland. The survey indicates the vegetation is consistent with the peppermint low forest vegetation unit described in the Albany Regional Vegetation Survey (Sandiford and Barrett, 2010). Photographs and species list are available in Appendix G. The broadly mapped vegetation type: • Beard vegetation association 423, described as mixed heath with scattered tall shrubs Acacia spp., Proteaceae and Myrtaceae (Shepherd et al. 2001). The Albany Regional Vegetation Survey (Sandiford and Barrett, 2010) maps the application area as: • Limestone Coastal Heath. Key identifying features include a mixed tall shrub layer with *Adenanthos sericeus*, *Spyridium globulosum*, *Banksia praemorsa*, *Banksia sessilis*, *Leucopogon parviflorus*, *Acacia littorea*, *Allocasuarina lehmanniana* and *Scaevola nitida* dominant. Occurs on coastal sand dunes and adjacent flats with alkaline soils. This unit forms a mosaic with other vegetation units, including peppermint low forest.
Vegetation condition	The flora and vegetation assessment (Southern Ecology, 2023) indicates the vegetation within the proposed clearing area is in Degraded (Keighery, 1994) condition due to heavy infestation of weeds and evidence of past clearing and soil disturbance. The full Keighery (1994) condition rating scale is provided in Appendix E. Excerpts of the survey and maps are available in Appendix G.
Climate and landform	The average annual rainfall received over the application area from 1991 to 2020 is 600 to 1000 millimetres (Commonwealth of Australia, 2021). The application area is at an altitude of 65 - 70 meters above sea level. The landform is mapped as Meerup beach ridges phase (242MmMRr), described as beach ridge dunes (<5 m high) and intervening swales. The geology of the site is Aeolian calcareous and silicieous sands over sediments and granite.
Soil description	The soil is on the Meerup beach ridges phase is described as calcareous deep sands.
Land degradation risk	DPIRD provides a series of soil degradation risk mapping at the systems levels (DPIRD, 2019). The land degradation table C.4. below summarises the soil degradation risk within the application area.
Waterbodies	The desktop assessment and aerial imagery indicate that no watercourses transect the application area. The nearest watercourse is the Kalgan River located approximately 570 metres northwest of the application area.
Hydrogeography	The application area is not subject to an area proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act) or protected under the *Country Water Supply Act 1917*. The groundwater salinity level (Total Dissolved Solids) is mapped as 500 - 1000 milligrams per litre (fresh).
Flora	The desktop assessment identified 99 conservation significant flora taxa within the local area which comprises 16 threatened flora and 83 priority flora taxa. There are no conservation significant flora records within the application area. The nearest record is a Priority 3 species, *Andersonia auriculata*, approximately 400 metres from the application area. Several weeds are present within the application area, one of which is listed as Declared Plants under the BAM Act. This weed of National Significance (WoNS), is the **Asparagus asparagoides*.
Ecological communities	No conservation significant ecological communities or buffers are mapped over the application area. The closest mapped priority ecological community is the Subtropical and Temperate Coastal Saltmarsh (priority 3) approximately 700 metres from the

Characteristic	Details
	application area. The application area is 150 metres from this PEC buffer. There are no threatened ecological communities recorded in the local area.
Fauna	The desktop assessment identified 75 conservation significant fauna in the local area which included of 58 birds, 12 mammals, one reptile and four invertebrates. The closest records are *Limosa lapponica* (bar-tailed godwit) and *Zanda latirostris* (Carnaby's cockatoo) recorded 90 metres from the application area.

C.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*					
Jarrah Forest	4,506,660.25	2,399,838.15	53.25	1,673,614.25	37.14
Vegetation complex*					
Beard vegetation association 423	25,870.74	22,063.14	85.28	7,501.23	29.00
Local area					
20km radius	79,082.76	32,496.59	41.09	-	-

*Government of Western Australia (2019)

C.3. Fauna analysis table

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

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)
Pseudocheirus occidentalis (western ringtail possum)	CR	Y	Y	0.21
Isoodon fusciventer (quenda)	P4	Y	Y	0.58

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

C.4. Land degradation risk table

Risk categories	*Land Unit 1*
Water repellence	H2: >70% of map unit has a high water repellence risk
Wind erosion	H1: >70% of map unit has a high to extreme wind erosion risk
Phosphorus export risk	M1: 10-30% of map unit has a high to extreme phosphorus export risk
Water erosion	M1: 10-30% of map unit has a high to extreme water erosion risk
Salinity	L1: <3% of map unit has a moderate to high salinity risk or is presently saline
Subsurface Acidification	L1: <3% of map unit has a high subsurface acidification risk or is presently acid

Flood risk	L1: <3% of the map unit has a moderate to high flood risk
Water logging	L1: <3% of map unit has a moderate to very high waterlogging risk

Appendix D. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: Considering the degraded condition (Keighery, 1994) of the vegetation and the small area of clearing proposed, the application area is unlikely to comprise a high level of biodiversity. Any potential impacts can be managed via permit conditions. No PECs are mapped within the application area nor is the vegetation proposed for clearing representative of a PEC.	Not likely to be at variance	Yes *Refer to Section 3.2.1, above.*
Principle (b): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."* Assessment: The application area contains significant habitat for western ringtail possums and other fauna species are likely to also utilise the application area for dispersing.	At variance	Yes *Refer to Section 3.2.1, above.*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: The application area is unlikely to contain habitat for threatened flora species. No threatened flora species were identified in the application area during the flora and vegetation survey (Southern Ecology, 2023).	Not likely to be at variance	No
Principle (d): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."* Assessment: The area proposed to be cleared does not contain species that indicate a threatened ecological community. There are no threatened ecological communities recorded in the local area.	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
Principle (e): *"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."* Assessment: The extent of the mapped vegetation type and native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia.	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (h): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."* Assessment: Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of any conservation areas.	Not likely to be at variance	No
Environmental value: land and water resources		
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment: Given the extent of proposed clearing and that 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. The proposed clearing does not consist of vegetation growing in association with a watercourse or wetland.	Not likely to be at variance	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The mapped soils are highly susceptible to wind erosion and water repellence. Noting the condition, area, foreshore management plan and land degradation measures proposed to be implemented by the applicant, it is unlikely for the proposed clearing to result in an appreciable land degradation.	At variance	Yes *Refer to Section 3.2.2, above.*
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: Given no watercourses or wetlands occur within the application area, and noting the size and condition of the vegetation (Keighery, 1994), the proposed clearing is unlikely to impact on surface or groundwater quality.	Not likely to be at variance	No
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: According to available mapping, the application area is within a low flood and waterlogging risk area. Given this, and the small extent of proposed clearing, it is unlikely that the proposed clearing with cause or exacerbate flooding or waterlogging.	Not likely to be at variance	No

Appendix E. 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 F. Offset calculator value justification

Field Name	Description	Justification for value used
Area of impact (habitat/community) or Quantum of impact (features/individuals)	The area of habitat/community impacted, or number of features/individuals impacted	0.05 hectares of native vegetation that comprises of suitable habitat for Western Ringtail Possums.
Quality of impacted area (habitat/community)	The quality score for area of habitat/community being impacted - a measure of how well a particular site supports a particular threatened species or ecological community and contributes to its ongoing viability	8 – The vegetation in the application area provides preferred habitat for WRP. WRP have been recorded 200 metres from the application area. A WRP individual and a drey were identified in the application area during the site survey (Gilfillan, 2021). The application area is considered part of an ecological linkage for WRP present nearby. Given the habitat attributes and site context of the application area, the vegetation under application is considered to provide high quality habitat for WRP.
Time over which loss is averted (habitat/community)	This describes the timeframe over which changes in the level of risk to the proposed offset site can be considered and quantified	20 - the offset site will be conserved in perpetuity. 20 years is the maximum value associated with this field.
Time until ecological benefit (habitat/community) or Time horizon (features/individuals)	This describes the estimated time (in years) that it will take for the main benefit of the quality (habitat/community) or value (features/individuals) improvement of the proposed offset to be realised	17 – Average time until planted vegetation has matured enough to be used as habitat by WRP. An extra two years has been added to account for the delay in commencement of the revegetation.
Start area (habitat/community) or Start value (features/individuals)	The area of habitat/community or number of features/individuals proposed to offset the impacts	0.3 hectares - an area of 0.3 is required to counterbalance the significant residual impacts to WRP habitat by 100 per cent.
Start quality (habitat/community)	The quality score for the area of habitat/community proposed as an offset - a measure of how well a particular site supports a particular threatened species or ecological community and contributes to its ongoing viability	0 – completely degraded condition with limited value for WRPs

Future quality without offset (habitat/community) or Future value without offset (features/individuals)	The predicted future quality score (habitat/community) or value (features/individuals) of the proposed offset site without the offset	0- no significant change expected
Future quality with offset (habitat/community) or Future value with offset (features/individuals)	The predicted future quality score (habitat/community) or value (features/individuals) of the proposed offset site with the offset	6 - The offset site is considered to improve from low to high quality habitat for WRP with on ground management and rehabilitation with appropriate completion criteria.
Risk of loss (%) without offset (habitat/community)	This describes the chance that the habitat/community on the proposed offset site will be completely lost (i.e. no longer hold any value for the protected matter of concern) over the foreseeable future without an offset	5% - The proposed offset site is currently an environmental conservation reserve and managed by the City of Albany under the Local Planning Scheme no 2.
Risk of loss (%) with offset (habitat/community)	This describes the chance that the habitat/community on the proposed offset site will be completely lost (i.e. no longer hold any value for the protected matter of concern) over the foreseeable future with an offset	5% - The proposed offset site is currently an environmental conservation reserve and managed by the City of Albany under the Local Planning Scheme no 2.
Confidence in result (%)	The capacity of measures to mitigate risk of loss of the proposed offset site	80% - there is a high confidence in the revegetation given the revegetation would occur in accordance with a revegetation plan.
% of impact offset	% of the significant residual impact that would be offset by the proposed offset (note: the offset calculations combined should equate to 100% for each residual impact)	100% - Obtained through the input of variables explained above.

Appendix G. Biological survey information excerpts (Gilfillan, S. 2021) (Southern Ecology, 2023) (Tranen, 2024).

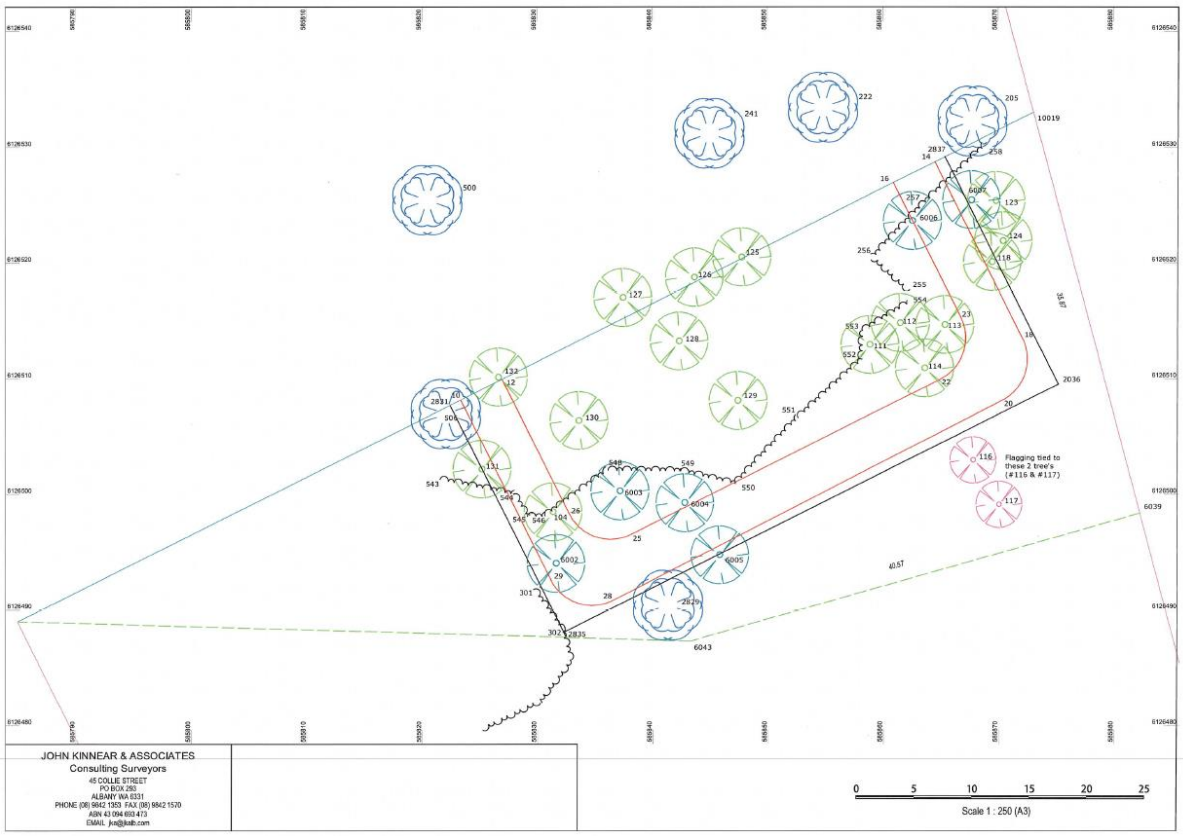


Figure 4: A surveyor drawing of the site where the application area is located.



Image 1: Degraded (Keighery, 1994) condition vegetation within the application area.



Image 2: photographs of very good condition vegetation. This area avoided from the proposed clearing footprint

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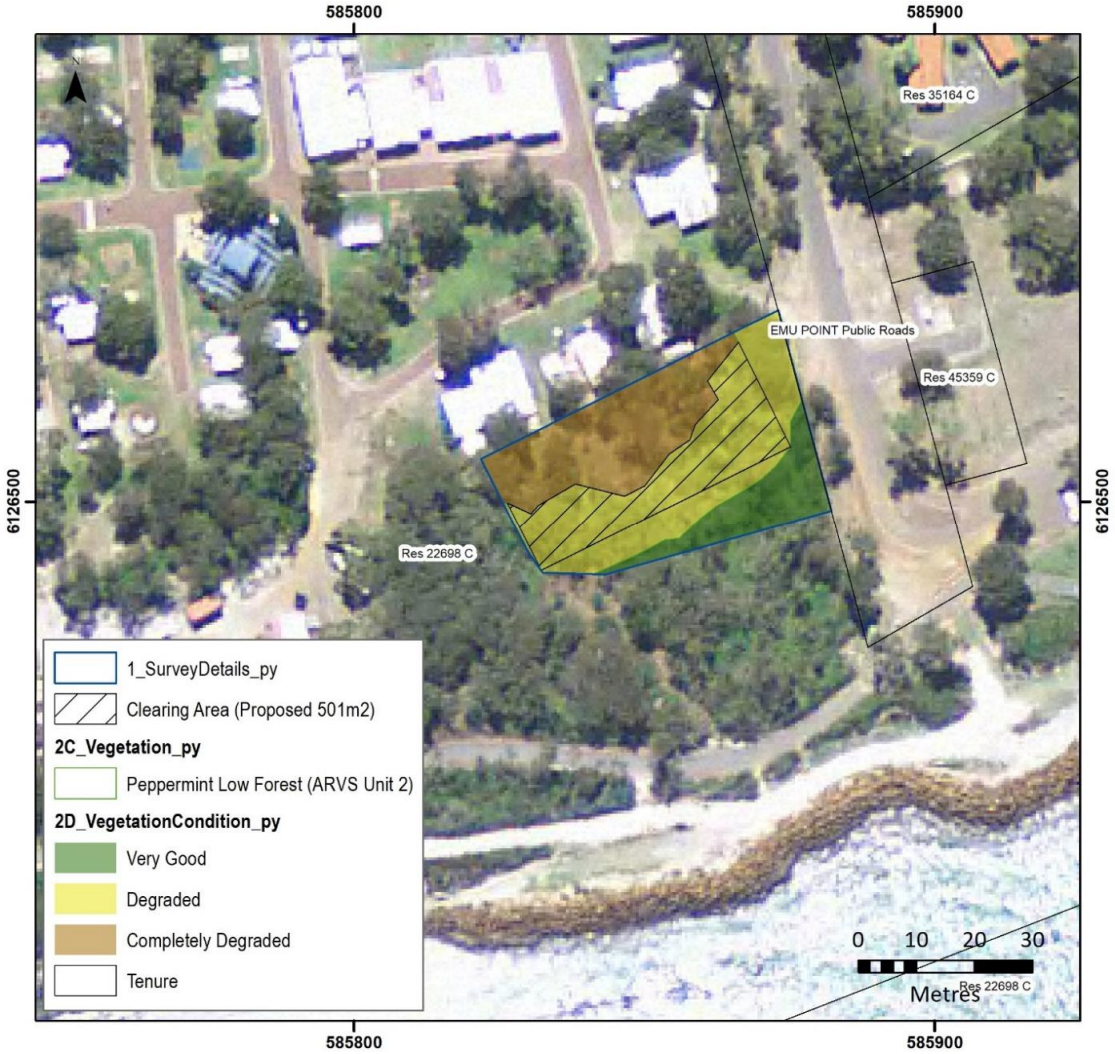


Figure 5: A map illustrating the condition (Keighery, 1994) of the vegetation within the survey

Table 2: Vascular plant species recorded from the survey area.

Family	Taxon	Status	Weed	Comment
Agapanthaceae	*Agapanthus praecox*	*WoNS*	*	
Apiaceae	*Daucus glochidiatus*			
Apocynaceae	*Vinca major*		*	
Asparagaceae	*Asparagus asparagoides*		*	
Asteraceae	*Senecio angulatus*		*	
Asteraceae	*Sonchus oleraceus*		*	
Brassicaceae	*Cardamine hirsuta*		*	
Chenopodiaceae	*Rhagodia baccata*			
Chenopodiaceae	*Rhagodia crassifolia*			
Crassulaceae	*Crassula spathulata*			
Cyperaceae	*Ficinia nodosa*			
Cyperaceae	*Lepidosperma angustatum*			narrow form
Cyperaceae	*Lepidosperma gladiatum*			
Dilleniaceae	*Hibbertia cuneiformis*			
Ericaceae	*Leucopogon parviflorus*			
Euphorbiaceae	*Homalanthus populifolius*		*	
Fabaceae	*Acacia littorea*			
Fabaceae	*Hardenbergia comptoniana*			
Geraniaceae	*Pelargonium capitatum*		*	
Moraceae	*Morus nigrus*		*	
Myrtaceae	*Agonis flexuosa*			
Orchidaceae	*Caladenia flava*			
Orchidaceae	*Cyrtostylis huegelii*			
Oxalidaceae	*Oxalis perennans*			
Poaceae	*Stenotaphrum secundatum*		*	
Polygalaceae	*Polygala myrtifolia*		*	
Ranunculaceae	*Clematis pubescens*			
Restionaceae	*Desmocladus flexuosus*			
Rhamnaceae	*Spyridium globulosum*			
Rubiaceae	*Galium murale*		*	

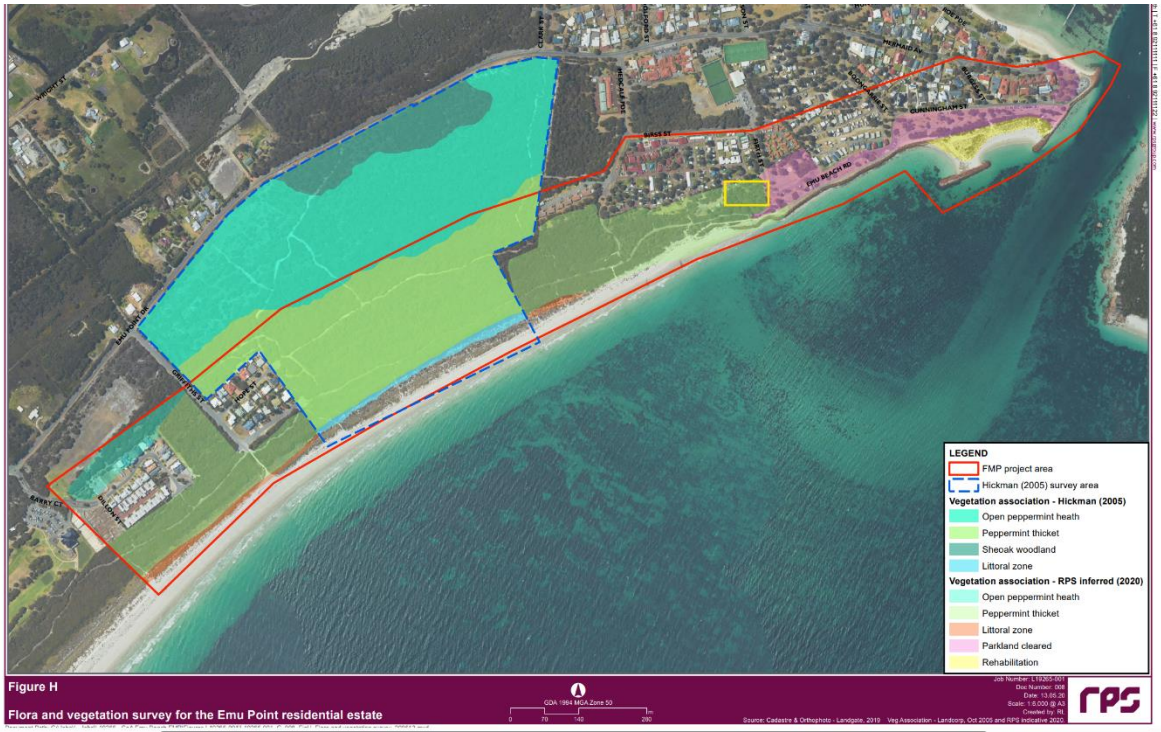


Figure 6: Vegetation mapping from the Foreshore Management Plan. Approximate location of the application area is outlined within the yellow polygon.

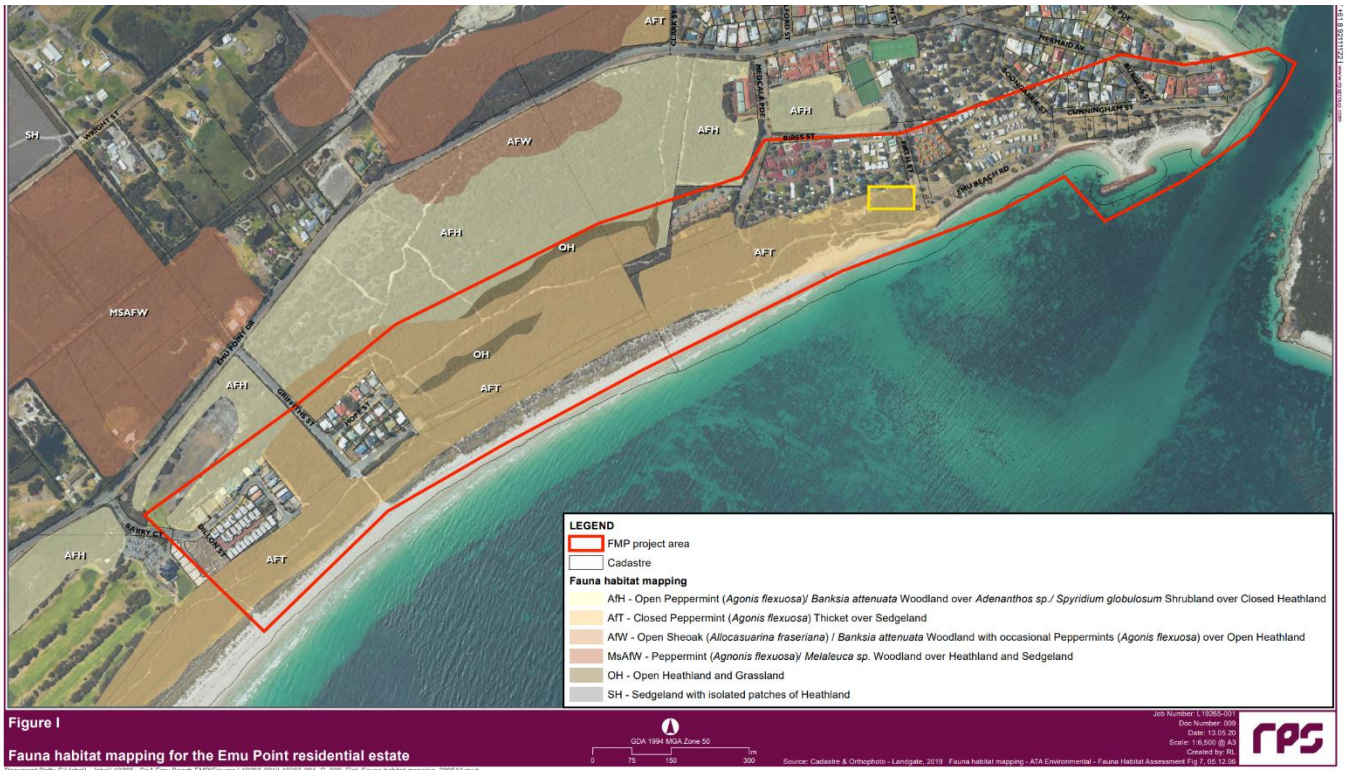


Figure 7: Fauna habitat mapping from the Foreshore Management Plan. Approximate location of the application area is outlined within the yellow polygon.

Appendix H. Sources of information

H.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)

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