



DRAFT CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 9246/1
Permit Holder:	Harvest Road Oceans Pty Ltd
Duration of Permit:	From 6 August 2021 to 6 August 2026

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 power supply upgrade.

2. Land on which clearing is to be done

Lot 501 on Deposited Plan 64940, Emu Point.

3. Clearing authorised

The permit holder must not clear more than 0.003 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

PART II – MANAGEMENT CONDITIONS

4. Avoid, minimise, and reduce impacts and extent of clearing

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

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

5. Weed and dieback management

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

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

6. Directional clearing

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

7. Fauna management – Western ringtail possum

- (a) In relation to the area cross-hatched yellow in Figure 1 of Schedule 1, the permit holder must inspect that area immediately prior to, and for the duration of clearing activities, for the presence of western ringtail possum (*Pseudocheirus occidentalis*).
- (b) Clearing activities must cease in any area where fauna referred to in condition 7 (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 individual removed in accordance with condition 7(b)(ii) must be relocated by a *western ringtail possum specialist* to *suitable habitat*.
- (d) Where fauna is identified under condition 7(a), the permit holder must within two months 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 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
 - (iv) whether the individual naturally dispersed;
 - (v) the number of individuals removed and relocated;
 - (vi) the relevant qualifications of the *western ringtail possum specialist* undertaking removal and relocation;
 - (vii) the date each individual was removed;
 - (viii) the method of removal;

- (ix) the date each individual was relocated;
- (x) 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
- (xi) details pertaining to the circumstances of any death of, or injury sustained by, an individual.

PART III - RECORD KEEPING AND REPORTING

8. Records that must be kept

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

Table 1: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	<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 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings; (c) the date that the area was cleared; (d) the direction of clearing; (e) the size of the area cleared (in hectares); and (f) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 4; (g) actions taken to minimise the risk of the introduction and spread of weeds and dieback in accordance with condition 5; and (h) fauna management actions undertaken in accordance with condition 7, including the who undertook the initial inspection for WRP.

9. Reporting

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

DEFINITIONS.

In this permit, the terms in Table 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 (WA)</i> and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
Fill	means material used to increase the ground level, or to fill a depression.
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.
Suitable (western possum) habitat ringtail	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 – (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 fauna specialist who holds a tertiary qualification specialising in environmental science or equivalent, has a minimum

Term	Definition
	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 license issued under the <i>Biodiversity Conservation Act 2016</i> .

END OF CONDITIONS



Mathew Gannaway
MANAGER
NATIVE VEGETATION REGULATION

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

13 July 2021

Schedule 1

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



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



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 9246/1
Permit type:	Purpose permit
Applicant name:	Harvest Road Oceans Pty Ltd
Application received:	23 March 2021
Application area:	0.003 hectare of native vegetation
Purpose of clearing:	Power supply upgrade
Method of clearing:	Mechanical
Property:	Lot 501 on Deposited Plan 64940
Location (LGA area/s):	City of Albany
Localities (suburb/s):	Emu Point

1.2. Description of clearing activities

The vegetation proposed to be cleared comprises 0.003 hectares, consisting of three trees within two separate areas (Figure 1, Section 1.5). Area A is on the edge of a vast tract of native vegetation bordering with the Swarbrick Street reserve. Area B is a barren patch on the harbor side of Lot 501. The proposed clearing is to allow for an upgrade of power supply servicing the Emu Point Boat Harbor.

1.3. Decision on application

Decision:	Granted
Decision date:	13 July 2021
Decision area:	0.003 hectares of native vegetation

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 14 days and no submissions were received.

In undertaking the assessment, and in accordance with section 51O of the EP Act, the Delegated Officer has considered the site characteristics (see Appendix A), the Clearing Principles set out in Schedule 5 of the EP Act (Appendix B), supporting information from the applicant (Appendix D), relevant datasets (See Appendix E), relevant planning instruments, and any other pertinent matters they deemed relevant to the assessment (see Section 3 and 4).

In particular, the Delegated Officer has determined that:

- The application area may provide suitable foraging habitat for conservation significant fauna, including Western ringtail possum (*Pseudocheirus occidentalis*) (WRP) and black cockatoos (*Calyptorhynchus* sp.). However, it is unlikely to comprise significant habitat within the context of the local area.
- Clearing could introduce and spread weeds and dieback into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values. The likelihood of introduction and spread of weed and dieback could be reduced by applying weed and dieback management measures.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing is unlikely to lead to long-term adverse impacts on the adjacent native vegetation and its habitat 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 clearing in south to northwest direction to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity to minimise impact to individuals
- pre-clearance inspection for the presence of WRP to ensure that individuals are not harmed at the time of clearing and the engagement of a WRP fauna specialist to relocate WRP's that do not naturally disperse.

1.5. Site map



Figure 1 Map of the application area

The areas crosshatched 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 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)

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

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

3.2. Assessment of impacts on environmental values

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

The assessment against the clearing principles (see Appendix B) identified that the potential impacts of the proposed clearing present a risk to:

- 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 (Fauna) – Clearing Principles (a) and (b)

Assessment:

Within a 20 kilometre radius from the application area, 93 conservation significant fauna are recorded. These include aquatic marine species, migratory birds, WRP and Black cockatoos. The aquatic marine would be unlikely to be directly impacted by the proposed clearing. Migratory birds may be transient visitors to the vegetation in the proposed clearing area. Given the small clearing extent and presence of considerably similar vegetation within the local area, the vegetation proposed to be cleared is unlikely to comprise significant habitat for migratory birds.

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 themes 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 (DPaW, 2017):

- long unburnt mature remnants of peppermint (*Agonis flexuosa*) woodlands with high canopy continuity and high foliage nutrients (high in nitrogen and low toxin levels)
- jarrah (*Eucalyptus marginata*)/marri (*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 and have low indices of fragmentation
- coastal heath
- jarrah/marri woodland and forest
- peppermint woodlands
- myrtaceous heaths and shrublands
- Bullich (*Eucalyptus megacarpa*) dominated riparian zones; and

- karri forest.

Given the several records of WRP in the area, the two peppermint trees proposed to be cleared in area A are therefore likely to provide suitable habitat for WRP. Biodiverse Solutions inspected the application area on 1 July 2021 and reported the absence of drey and scats on the two trees and immediate surrounds (Biodiverse Solutions, 2021). This suggests that the two peppermint trees within the application area do not comprise roosting or breeding habitat for WRP, although the possibility for the fauna to use the proposed clearing area as foraging habitat cannot be ruled out. Considering the location of the proposed clearing on the edge of a large remnant (Emu Point Reserve), the presence of similar vegetation in better condition within the local area, and the small extent of clearing, the proposed clearing is unlikely to significantly impact WRP habitat.

Noting the proximity of records of black cockatoos to the application area, the peppermint trees proposed to be cleared may also provide foraging habitat for black cockatoo species. Given that this is not a preferred foraging or roosting tree species, as well as the availability of other food sources including the Banksia trees in a nearby vegetated area, the proposed clearing is unlikely to impact significant habitat for black cockatoos.

Conclusion:

WRP and black cockatoo species may use the proposed clearing area as foraging habitat. Noting that the proposed clearing is located along an edge of a large remnant, the presence of similar vegetation in better condition in the local area, and the relatively small extent of clearing, the proposed clearing is unlikely to contain significant habitat for WRP and black cockatoos. Directional clearing and engaging a fauna specialist where WRP are observed will reduce the potential for impacts to WRP individuals that may be present at the time of clearing.

Condition:

The Delegated Officer determined that the following management conditions on the clearing permit will adequately mitigate the potential impacts of the proposed clearing on the above environmental values:

- Directional clearing towards adjacent remnant native vegetation to ensure fauna escape ahead of the clearing activity.
- Pre-clearance inspection for the presence of WRP to ensure that individuals are not harmed at the time of clearing and the engagement of a WRP fauna specialist to relocate WRP's that do not naturally disperse.

3.2.2. Significant remnant vegetation and conservation areas - Clearing Principle (e)

Assessment:

The application area is mapped within the Albany vegetation association and the Coastal *Banksia ilicifolia* / Peppermint Low Woodland vegetation complexes mapped by the Albany Regional Vegetation Survey (Sandiford and Barrett, 2010), which retains approximately 27.3 percent and 1.1 percent of the original native cover respectively. The latter two figures are inconsistent with the national objectives to prevent clearance of ecological communities with an extent below 30 percent of that present pre-1750 (Commonwealth of Australia, 2001). The vegetation proposed to be cleared is also a part of a Strategic Zone A of the Western Australian South Coast Macro Corridor Network, which potentially provide significant ecological linkage in the local area (Wilkins et al 2006). However, the local area (within 20-kilometre radius from the area proposed to be cleared) retains approximately 41 percent of the original native vegetation cover. Given the small scale of clearing within the context of the local area, presence of adjacent vegetation and its location on the edge of a large remnant, it is unlikely that the proposed clearing will impact the functionality as an ecological linkage. In addition, the clearing of 0.003 hectares is not considered to be a significant remnant.

Despite the small size of the application area, clearing may contribute to the cumulative impacts and loss of vegetation in the mapped vegetation complex. *Phytophthora* dieback is known to be a threat to vegetation in the Albany region (Sandiford and Barrett, 2010). The proposed clearing may indirectly impact the surrounding vegetation due to the introduction and spread of dieback and weeds. These indirect impacts may be mitigated by applying dieback and weed management measures.

Conclusion:

Based on the above assessment, the vegetation proposed to be cleared is not considered significant as a remnant due to the small scale of clearing, presence of surrounding vegetation, and the vegetation cover within the local

context. Potential indirect impacts of the proposed clearing on the surrounding vegetation could be managed by taking steps to minimise the risks of the introduction and spread of dieback and weeds.

Conditions:

To address the above impacts, dieback and weed management measures to mitigate impacts to adjacent vegetation will be required as a condition on the clearing permit.

3.3. Relevant planning instruments and other matters

The City of Albany (the City), who is also the landowner of the property within which clearing is proposed, provided its statement of agreement for the proponent to apply for a clearing permit. After an inspection, the City advised that the proposed clearing area was already disturbed and most of the area cleared due to historical filling of the area and construction of a fence. However, the City stipulated the need to avoid and minimise clearing of mature peppermint trees to conserve WRP's in the area (City of Albany, 2021)

Several 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. Site characteristics

A.1 Site characteristics

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

Characteristic	Details
Local context	<p>The area proposed to be cleared consists of two separate areas within a parcel of land that is a part of a boat harbor. Area A is a part of a large vegetated area whilst area B is in a heavily disturbed area on the harbor side.</p> <p>The local area in this assessment is defined as the area within 20 km radius from the area proposed to be cleared. The local area retains approximately 41 percent of the original native vegetation cover.</p>
Ecological linkage	<p>The application area is mapped within Strategic Zone A of the Western Australian South Coast Macro Corridor Network, characterised by areas of woody vegetation where polygons greater than 30 ha in size are spaced no greater than 1 km apart and potentially form the most strategic link between major protected areas (Wilkins et al 2006).</p>
Conservation areas	<p>There are no conservation areas in the application area. The nearest conservation area is the Gull Rock National Park, located approximately 2.2 km to the east and across the channel.</p>
Vegetation description	<p>Photographs supplied by the applicant indicate the vegetation within the proposed clearing area consists of Peppermint trees (<i>Agonis flexuosa</i>) over native and non-native species. The understory vegetation consists of <i>Hibbertia</i> sp., <i>Lepidosperma</i> sp., <i>Desmocladius flexuosa</i>, <i>Ficinia nodosa</i>, *<i>Cenchrus clandestinus</i> (Kikuyu grass), *<i>Asparagus asparagoides</i>, *<i>Oxalis</i> sp., *<i>Trifolium</i> sp., *<i>Asparagus</i> sp., and *<i>Gladiolus</i> sp. (Biodiverse Solutions, 2021).</p> <p>Note: * denotes introduced species.</p> <p>This is typical of the Coastal <i>Banksia ilicifolia</i> / Peppermint Low Woodland vegetation complex mapped by the Albany Regional Vegetation Survey (Sandiford and Barrett, 2010).</p>
Vegetation condition	<p>Photographs supplied by the applicant indicate the vegetation within the proposed clearing area A is in good condition, whilst Area B is in degraded condition (Keighery, 1994).</p> <p>The full Keighery (1994) condition rating scale is provided in Appendix C. Representative photos are available in Appendix D.</p>
Climate and landform	<p>Landform around the application area includes beach ridges with gentle slopes. Geologically the area is underlain by Proterozoic rocks including granite with Eocene marine sediments lying above the base rocks. Local climate is characterised by mean annual rainfall of 930 mm and evapotranspiration 800 mm.</p>
Soil description	<p>The soil is mapped as Meerup beach ridges phase (242MmMRr) which is characterised by beach ridges, peppermint heath and banksia woodland.</p>
Land degradation risk	<p>The soils in the application area and its surrounding are not susceptible to land degradation due to salinity, acidification, water logging or flood. Being close to the ocean, it is prone to wind erosion.</p>
Waterbodies	<p>The nearest water body is the Oyster Bay. The proposed clearing does not intersect any watercourses.</p>
Hydrogeography	<p>The application area is mapped within the Lake Seppings consanguineous wetland suite.</p>
Flora	<p>There are 46 records of conservation significant flora within the local area, twelve of which are threatened. None of the flora is recorded within the application area. The</p>

Characteristic	Details
	closest record is 0.37 km away. Some of the flora share soil characteristics with that of proposed clearing area.
Ecological communities	The application area is not within any mapped priority or threatened ecological community. The nearest mapped priority ecological community is the 'Subtropical and Temperate Coastal Saltmarsh' ecological community (Priority 3), located approximately 0.25 km away from the application area.
Fauna	There are 93 records of fauna of conservation significance within the local area, which include the aquatic marine fauna and migratory birds. The terrestrial fauna of conservation significance includes back cockatoos and western ringtail possum which were recorded within 1 km radius from the application area.

A.2. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA managed land
IBRA bioregion*					
Jarrah Forest	4,506,660	2,399,838	53.25	1,673,614	69.73
Vegetation complex					
Beard vegetation association: Albany	46,537	12,694	27.28	3,358	26.46
Coastal <i>Banksia ilicifolia</i> / Peppermint Low Woodland (Albany Regional Vegetation Survey) (Sandiford and Barret, 2010)	506		1.1		
10km radius	80,249	33,093	41	-	-

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

A.3. Flora analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Andersonia pinaster</i>	T	N	N	Y	13.5	3	N/A
<i>Banksia brownii</i>	T	N	N	N	5.9	25	N/A
<i>Banksia goodii</i>	T	N	Y	Y	1.5	20	N/A
<i>Caladenia harringtoniae</i>	T	N	N	N	5.9	14	N/A

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Conostylis misera</i>	T	N	N	N	5.9	1	N/A
<i>Drakea micrantha</i>	T	N	N	Y	2.7	3	N/A
<i>Isopogon uncinatus</i>	T	N	N	Y	7.0	10	N/A
<i>Verticordia fimbriolepis</i> subsp. australis	T	N	N	Y	16	1	N/A

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

A.4. Fauna analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Calyptorhynchus baudinii</i> (Baudin's cockatoo)	EN	N	N	1.5	1925	N/A
<i>Calyptorhynchus latirostris</i> (Carnaby's cockatoo)	EN	N	N	0.12	4295	N/A
<i>Calyptorhynchus</i> sp. 'white-tailed black cockatoo'	EN	N	N	0.20	1394	N/A
<i>Pseudocheirus occidentalis</i> (Western Rintail Possum)	CR	Y	Y	0.06	716	Y

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

A.5. Ecological community analysis table

Community name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Astartea scoparia</i> Swamp Thicket	Priority 1	N	N	Y	0.91	5	N/A
<i>Banksia coccinea</i> Shrubland	Priority 1	N	N	Y	14.91	104	N/A
<i>Banksia coccinea</i> thicket	Priority 1	N	N	Y	0.81	1159	N/A
<i>Banksia littoralis</i> / <i>Melaleuca incana</i>	Priority 1	N	N	N	9.73	12	N/A
Coastal <i>Melaleuca incana</i> / <i>Taxandria juniperina</i>	Priority 1	N	N	Y	10.32	8	N/A
<i>Melaleuca striata</i> / <i>Banksia</i> spp Coastal Heath	Priority 1	N	N	Y	8.50	43	N/A
Coastal Saltmarsh	Priority 3	N	N	Y	0.25	155	N/A

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

A.6 Land degradation risk table

Risk categories	Land Unit 1
Wind erosion	H1: (>70% has high to extreme risk)
Water erosion	M1: 3-10% of the map unit has a very high to extreme hazard
Salinity	L1: <3% of the map unit has a moderate to high hazard saline
Subsurface Acidification	L1: <3% of the map unit has a moderate to high hazard
Flood risk	L1: <3% of the map unit has a moderate to high hazard
Water logging	L1: 3-10% of the map unit has a moderate to very high to risk
Phosphorus export risk	M1: 3-10% of the map unit has a high to extreme hazard

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<p><u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared is within the buffer of the 'Subtropical and Temperate Coastal Saltmarsh' priority ecological community (Priority 3). It does not contain regionally significant assemblages of flora or fauna. Noting the condition and size of the proposed clearing, the application area is not likely to comprise a high level of biodiversity.</p>	May be at variance	Yes Refer to Section 3.2.1 above
<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 application area includes suitable foraging habitat for the Western Ringtail Possum (<i>Pseudocheirus occidentalis</i>) and Black cockatoos which are recorded within 1-kilometre radius from the application area.</p>	May be at variance	Yes Refer to Section 3.2.1 above.
<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>The area proposed to be cleared is unlikely to contain flora species listed under the BC Act.</p>	Not likely to be at variance	No
<p><u>Principle (d):</u> "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."</p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared is not within any mapped threatened ecological community (TEC) as listed by Western Australia Minister for Environment or contain assemblages of plants that resemble a TEC.</p>	Not likely to be at variance	No.
Environmental value: significant remnant vegetation and conservation areas		

Assessment against the clearing principles	Variance level	Is further consideration required?
<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 application area is mapped within the ‘Albany’ vegetation association and ‘Coastal <i>Banksia ilicifolia</i> / Peppermint Low Woodland’) which retains 27 percent and 1.1 percent of its original vegetation cover respectively (Sandiford and Barrett, 2010). The vegetation proposed to be cleared is also a part of a Strategic Zone A of the Western Australian South Coast Macro Corridor Network (Wilkins et al 2006).</p>	Not likely to be at variance	Yes Refer to Section 3.2.2, above.
<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 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>The proposed clearing area is located 0.15 kilometres away from the shore of Oyster Bay, a wetland listed in the Directory of Important Wetlands of Western Australia. Built up areas separates the proposed clearing from the Bay. Given the separation and extent of clearing, the proposed clearing is unlikely to impact on the wetland.</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 susceptible to water erosion, nutrient export, salinity, acidification or compaction risk. Being on the coastline, wind erosion and water logging may present a risk to the area. Noting the extent of the application area and the condition of the surrounding vegetation, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	Not likely to be at variance	No
<p><u>Principle (i):</u> <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> <p>The proposed clearing and associated works will not intercept any water courses or local groundwater. It is unlikely to impact on the quality of surface or groundwater.</p>	Not likely to be at variance	No
<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>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<p>The mapped soils in the surrounding area are not susceptible to flooding. The proposed clearing is unlikely to contribute to increased incidence or intensity of flooding.</p>		

Appendix C. Vegetation condition rating scale

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

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

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.

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

Appendix D. Photographs of the vegetation provided by the Applicant



Appendix E. Sources of information

E.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems

Restricted GIS Databases used:

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

E.2. References

Biodiverse Solutions (2021). *Additional supporting document for clearing permit application CPS 9264/1*. Received 1 July 2021. Biodiverse Solutions: Albany (DWER Ref: A2022508)

City of Albany (2021). *Letter to Harvest Road Oceans Pty Ltd. Re: Permit to clear native vegetation for power connection on reserve 42964 along northern and western fence line of Lease PRO296 Emu Point*. Albany (Ref: DWERDT431351)

Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.

Department of Environment Regulation (DER) (2013). *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf.

Department of Parks and Wildlife (DPAW) (2017). *Western Ringtail Possum (Pseudocheirus occidentalis) Recovery Plan*. Perth.

Department of Primary Industries and Regional Development (DPIRD) (2019). *NRInfo Digital Mapping. Department of Primary Industries and Regional Development*. Government of Western Australia. URL: <https://maps.agric.wa.gov.au/nrm-info/> (accessed 30 June 2020).

Department of Sustainability, Environment, Water, Population and Communities (DSEWPC) (2013). *Approved Conservation Advice for the Monsoon vine thickets on the coastal sand dunes of Dampier Peninsula*. Canberra. Available from: <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/105-conservation-advice.pdf>.

Department of Sustainability, Environment, Water, Population and Communities (2013). *Conservation Advice for Subtropical and Temperate Coastal Saltmarsh*. Canberra: Department of Sustainability, Environment, Water, Population and Communities. Available from: <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/118-conservation-advice.pdf>. In effect under the EPBC Act from 10-Aug-2013.

Department of Water and Environmental Regulation (DWER) (2019). *Procedure: Native vegetation clearing permits*. Joondalup. Available from: https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.PDF

Environmental Protection Authority (EPA) (2016). *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment*. Available from: http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey_Dec13.pdf.

Environmental Protection Authority (EPA) (2016). *Technical Guidance – Terrestrial Fauna Surveys*. Available from: https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Tech%20guidance-%20Terrestrial%20Fauna%20Surveys-Dec-2016.pdf.

Government of Western Australia. (2019) *2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>

Harvest Road Oceans Pty Ltd (2021). *Clearing permit application CPS 9246: form and supporting documents*. Received 23 March 2021. Perth (Ref DWERDT431351)

Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) *Vegetation Complexes of the Darling System, Western Australia*. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.

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

Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) *Atlas of Australian Soils*, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press: Melbourne.

Sandiford, E.M. and S. Barrett (2010). *Albany Regional Vegetation Survey. Extent, Type and Status*. Department of Environment and Conservation, Western Australia.

Schoknecht, N., Tille, P. and Purdie, B. (2004) *Soil-landscape mapping in South-Western Australia – Overview of Methodology and outputs* Resource Management Technical Report No. 280. Department of Agriculture.

- Shah, B. (2006) *Conservation of Carnaby's Black-Cockatoo on the Swan Coastal Plain, Western Australia*. December 2006. Carnaby's Black-Cockatoo Recovery Project. Birds Australia, Western Australia.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) *Native Vegetation in Western Australia, Extent, Type and Status*. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Threatened Species Scientific Committee (2018). *Conservation Advice Pseudocheirus occidentalis (Western ringtail possum)*. Canberra: Department of the Environment and Energy. Available from: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/25911-conservation-advice-11052018.pdf>. In effect under the EPBC Act from 11-May-2018.
- Valentine, L.E. and Stock, W. (2008) *Food Resources of Carnaby's Black Cockatoo (Calyptorhynchus latirostris) in the Gnangara Sustainability Strategy Study Area*. Edith Cowan University and Department of Environment and Conservation. December 2008.
- Western Australian Herbarium (1998-). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed in June 2021)
- Wilkins, P., Gilfillan, S., Watson, J. and Sanders, A. (ed). (2006). *The Western Australian South Coast Macro Corridor Network – a bioregional strategy for nature conservation*. Department of Conservation and Land Management (CALM) and South Coast Regional Initiative Planning Team (SCRIPT), Albany, Western Australia.