GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 9155/1

File Number: DWERVT7214

Duration of Permit: From 15 April 2021 to 15 April 2030

PERMIT HOLDER

Shire of Augusta Margaret River

LAND ON WHICH CLEARING IS TO BE DONE

Lot 502 on Deposited Plan 73501, Gnarabup,

Lot 4862 on Deposited Plan 91785, Prevelly and Gnarabup

AUTHORISED ACTIVITY

The permit holder must not clear more than 0.71 hectares of native vegetation within the area cross-hatched yellow in Figure 1 of Schedule 1.

CONDITIONS

1. Period during which clearing is authorised

The permit holder must not clear any native vegetation after 15 April 2025.

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

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

(a) avoid the clearing of native vegetation;

(b) minimise the amount of native vegetation to be cleared; and

(c) reduce the impact of clearing on any environmental value.

3. Weed management

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

(a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;

(b) ensure that no known weed-affected soil, *mulch*, *fill*, or other material is brought into the area to be cleared; and

(c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

4. Wind erosion management

The permit holder must commence construction of the paths no later than three (3) months after undertaking the authorised clearing activities to reduce the potential for wind erosion.

5. Revegetation and rehabilitation – retention of vegetative material and topsoil

The permit holder must:

(a) retain the vegetative material and topsoil removed by clearing authorised under this permit and stockpile the vegetative material and topsoil in an area that has already been cleared;

(b) Within three months of clearing any areas that are no longer required for the purpose for which they were cleared under this permit, *revegetate* and *rehabilitate* such areas by:

  (i) re-shaping the surface of the land so that it is consistent with the surrounding five metres of uncleared land;

  (ii) laying the vegetative material and topsoil retained under condition 5(a) on the cleared area; and

  (iii) undertake *weed* control activities on an 'as needed' basis to reduce *weed* cover within the cleared areas to no greater than the *weed* cover within the surrounding five metres of uncleared land.

6. Records that must be kept

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

Table 1: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	(a) the species composition, structure, and density of the cleared area; (b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric

No.	Relevant matter	Specifications
		Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings; (c) the date that the area was cleared; (d) the size of the area cleared (in hectares); (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 2; and (f) actions taken to minimise the risk of the introduction and spread of weeds and dieback in accordance with condition 3; and (g) actions taken to manage and mitigate wind erosion in accordance with condition 4.
2.	In relation to revegetation and rehabilitation pursuant to condition 5.	(a) the size of the areas revegetated and rehabilitated; (b) the date(s) on which the revegetation and rehabilitation was undertaken; (c) the boundaries of the areas revegetated and rehabilitated (recorded digitally as a shapefile); (d) a description of the revegetation activities undertaken each year for each area revegetated; (e) a description of the native cover density for each area revegetated recorded on an annual basis; and (f) weed control activities undertaken within the area revegetated and rehabilitated.

7. Reporting

The permit holder must provide to the *CEO* the records required under condition 6 of this permit when requested by the *CEO*.

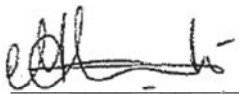
DEFINITIONS

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 *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.
fill	means material used to increase the ground level, or to fill a depression.
EP Act	*Environmental Protection Act 1986* (WA)
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.
rehabilitate / rehabilitated / rehabilitation	means actively managing an area containing native vegetation in order to improve the ecological function of that area.
revegetate / revegetated / revegetation	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.
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.

END OF CONDITIONS



Meenu Vitarana
A/MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

23 March 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

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 9155/1
Permit type:	Area permit
Applicant name:	Shire of Augusta Margaret River
Application received:	18 December 2020
Application area:	0.71 hectares of native vegetation
Purpose of clearing:	Realignment of an existing coastal path
Method of clearing:	Mechanical
Property:	Crown Reserve 41545 (Lot 502 on Deposited Plan 73501) Lot 4862 on Deposited Plan 91785
Location (LGA area/s):	Shire of Augusta Margaret River
Localities (suburb/s):	Prevelly and Gnarabup

1.2. Description of clearing activities

The vegetation proposed to be cleared is contained within a single contiguous area, consisting of an approximately 10 metre wide, 630 metre long area in a north-south direction, with four 10 metre wide offshoots to the west from this area (see Figure 1, Section 1.5). The proposed clearing is to facilitate the realignment of an existing coastal path to allow for coastal erosion. The new path will consist of a mixed coastal walkway with compacted limestone paths over less vegetated areas and boardwalks over more vegetated areas.

The pathway will consists of a 2 metre wide hardened surface and will require a maximum clearing width of 4 metres to facilitate truck and machinery access, however a 10 metre wide corridor has been identified within which the trail will be constructed to allow for detailed path designs to be finalised (Shire of Augusta Margaret River, 2020).

The applicant has advised they may replace parts of the existing coastal track with parts of the new track on an “as needed” basis as the existing track becomes unusable.

1.3. Decision on application

Decision:	Granted
Decision date:	23 March 2021
Decision area:	0.71 hectares of native vegetation as depicted in Section 1.5 below.

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 21 days and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix A), relevant datasets (see Appendix E.1), the findings of a site inspection conducted by the Shire of Augusta Margaret River, the clearing principles set out in Schedule 5 of the EP Act (see Appendix B), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

The assessment identified that the proposed clearing will result in:

- the loss of native vegetation that may provide suitable habitat for *Thinornis rubricollis* (Hooded plover), *Calyptorhynchus latirostris* (Carnaby's cockatoo), *Calidris alba* (sanderling), *Calidris ruficollis* (Red-necked stint) and *Falco peregrinus* (Peregrine falcon);
- potential land degradation in the form of wind erosion.

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 impacts of the proposed clearing on fauna habitat and land degradation can be minimised and managed to be unlikely to lead to an unacceptable risk to environmental values, and that the applicant has suitably demonstrated avoidance and minimisation measures.

The Delegated Officer decided to grant a clearing permit subject to conditions to:

- avoid, minimise to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds;
- rehabilitate and revegetate areas no longer required for the purpose for which they were cleared to re-establish fauna habitat and minimise wind erosion impacts;
- ensure construction of the paths commences within 3 months of the clearing to minimise wind erosion 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 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)

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)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

The applicant advised the following avoidance and mitigation measures had been considered for the proposed clearing:

- A number of design options were considered for the path realignment, with the chosen design comprising a mixed limestone and boardwalk path. This design will incorporate sections of boardwalk over more vegetated areas to minimise disturbance to soil and vegetation, particularly the better condition vegetation found in the southern portion of the application area;
- Where soil is proposed to be disturbed, areas will be stabilised through brushing, and planting of native species, predominately pigface and spinifex to reduce erosion;
- All clearing areas will be marked in the field with temporary fencing during construction to avoid any inadvertent disturbance to surrounding sensitive areas;
- Existing surface drainage patterns will be maintained during and following the project; and
- Weed and dieback hygiene measures will be implemented during clearing and construction (clean vehicles and machinery prior to entering the site).

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

3.2. Assessment of impacts on environmental values

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

The assessment against the clearing principles (see Appendix B) identified that the impacts of the proposed clearing to fauna and land degradation required further consideration. 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: The following conservation significant fauna may utilise the application area for habitat:

- *Thinornis rubricollis* (Hooded plover, hooded dotterel) (P4);
- *Calyptorhynchus latirostris* (Carnaby's cockatoo) (EN);
- *Calidris alba* (sanderling) (MI);
- *Calidris ruficollis* (Red-necked stint) (MI); and
- *Falco peregrinus* (Peregrine falcon) (OS).

Western Australian populations of the hooded plover forage along the edges of oceans and lakes and nest on the upper levels of the beach, in adjacent sand dunes, or on lake shores (Garnett et al, 2011). DBCA (2021) noted that hooded plovers have been recorded at Gnarabup beach, however that since July 2020 (i.e. in the most recent hooded plover breeding season) no hooded plover nesting activity has been recorded within the application area or along the adjacent beach. Furthermore, hooded plovers tend to prefer nesting in open areas with sparse to no vegetation (Mead et al, 2012) and it is noted that vegetation within the majority of the application area appears to be reasonably dense. Given this, the application area is not considered to be significant habitat for the hooded plover. However, acknowledging that hooded plovers may choose to nest within the application area in the future (DBCA, 2021), the applicant has been advised that clearing and path construction and removal should not disturb any hooded plover nests, if present.

The applicant indicated that Carnaby's cockatoo may potentially forage upon *Melaleuca huegelii*, found in the proposed clearing area (The Shire of Augusta Margaret River, 2020), however given that this is not a preferred food source for Carnaby's cockatoo and that *Melaleuca huegelii* is only sparsely present, the proposed clearing area is not considered to provide significant foraging habitat for Carnaby's cockatoo.

Both *Calidris alba and Calidris ruficollis* may utilise dunes for roosting (Higgins and Davies, 1996 and Department of the Environment, 2021). The Peregrine falcon may also utilise dune areas as foraging habitat. However given the large range of these species and small extent of the clearing, the proposed clearing is unlikely to impact upon these species.

The applicant has advised that they have received advice from DBCA that there are two nests of *Charadrius ruficapillus* (red-capped plover) on Gnarabup beach (note this species is not listed as a threatened or priority species under the BC Act or a migratory species under the *Environment Protection and Biodiversity Conservation Act 1999*) (Shire of Augusta Margaret River, 2021). However the applicant has advised that these nests do not intersect the application area.

A condition requiring the permit holder to rehabilitate and revegetate areas no longer required for the purpose for which they were cleared (i.e. areas adjacent to paths cleared to facilitate truck and machinery access) will help to restore habitat for the above species.

Conclusion: Based on the above assessment, the proposed clearing is not likely to result in significant impacts to conservation significant fauna.

Conditions: To address the above impacts, the following management measure will be required as a condition on the clearing permit:

- The Permit Holder must rehabilitate and revegetate areas no longer required for the purpose for which they were cleared.

3.2.2. Land degradation - Clearing Principle (g)

Assessment: Soils mapped within the application area have a high risk of wind erosion and given the location of the clearing area it is likely to be subjected to high winds. Accordingly, the proposed clearing may result in wind erosion, although noting the extent and linear nature of the application area, mitigation measures proposed by the applicant and final land use (i.e. crushed limestone and boardwalk paths), these are expected to be minor. Conditions placed on the permit requiring the permit holder to commence construction of the paths within 3 months of the clearing and to rehabilitate and revegetate areas no longer required for the purpose for which they were cleared (i.e. areas adjacent to paths cleared to facilitate truck and machinery access) will help to mitigate impacts to wind erosion.

Conclusion: Based on the above assessment, the proposed clearing may result in minor wind erosion impacts. It is considered that these impacts can be managed by the below management conditions.

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

- The Permit Holder must ensure construction of the paths commences within 3 months of the clearing;
- The Permit Holder must rehabilitate and revegetate areas no longer required for the purpose for which they were cleared, within three months of clearing such areas.

3.3. Relevant planning instruments and other matters

No Aboriginal Sites of Significance have been mapped within the application area. It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* (WA) and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

End

Appendix A. Site characteristics

A.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of an approximately 27.7 hectare isolated patch of native vegetation in the intensive land use zone of Western Australia associated with the Prevelly and Gnarabup coastline. The proposed clearing area is adjacent to native vegetation and the coastline to the west and native vegetation to the east. Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 63 per cent of the original native vegetation cover.
Ecological linkage	A linkage mapped in the South West Ecological Linkages is mapped approximately 770 m north-east of the application area, running in a north-west to south-east direction, however the application area is separate to this linkage. The application area is part of a linkage of vegetation associated with the coastline.
Conservation areas	The closest conservation area is Leeuwin-Naturaliste National Park, located approximately 450 m east of the application area.
Vegetation description	Photographs and a site inspection report supplied by the applicant indicate the vegetation within the proposed clearing area consists of dune species including *Carpobrotus virescens*, *Olearia axillaris*, *Acacia littorea*, and *Scaevola crassifolia* with occasional *Melaleuca huegelii*, with exotic species including *Ehrharta villosa* (pyp grass), *Tetragonia decumbens*, and *Pelargonium capitatum* (Rose Geranium). Representative photos are available in 0. This is consistent with the mapped vegetation type: • Kicarnup KBe (150), which is described as mosaic of coastal complex and closed heath of *Olearia axillaris-Pimelea ferruginea-Melaleuca huegelii* on exposed calcareous dunes on seaward slopes in hyperhumid to humid zones. (Mattiske and Havel, 1998). The mapped vegetation type retains approximately 47 per cent of the original extent (Government of Western Australia, 2019b).
Vegetation condition	Photographs and a site inspection report supplied by the applicant indicate the vegetation within the proposed clearing area is in Degraded to Good (Keighery, 1994) condition, described as: • 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; • 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. The full Keighery (1994) condition rating scale is provided in Appendix C. Representative photos are available in Appendix D.
Climate	Rainfall: 1100 mm Evapotranspiration: 800 mm
Topography	Elevation ranges from 15 m AHD in the east to 5 m AHD in the west of the application area.
Soil description	The soil is mapped as Kilcarnup beach Phase (216GrKPb), described as beaches and foredunes of calcareous sand, along the west coast (DPIRD, 2017).

Characteristic	Details

Land degradation risk	• Flood risk:
	  ○ 50-70% of the map unit has a moderate to high flood risk
	• Waterlogging:
	  ○ <3% of map unit has a moderate to very high waterlogging risk
	• Salinity
	  ○ <3% of map unit has a high subsurface acidification risk or is presently saline
	• Phosphorus export
	  ○ >70% of map unit has a high to extreme phosphorus export risk
	• Subsurface acidification
	  ○ <3% of map unit has a high subsurface acidification risk or is presently acid
	• Wind erosion
	  ○ > 70% of map unit has a high to extreme wind erosion risk
	• Water erosion:
	  ○ 10-30% of map unit has a high to extreme water erosion risk

Waterbodies	The desktop assessment and aerial imagery indicated that an inundation area is located approximately 375 m east of the application area. The Indian Ocean is located approximately 30 m west of the application area.
Hydrogeography	The application area is mapped within the Blackwood Groundwater Area proclaimed under the *Rights in Water and Irrigation Act 1914.* Hydrogeology: Surficial Sediments - Shallow Aquifers (Limestone, calcrete lithology) Groundwater salinity: 1000-3000 mg/L
Flora	There are records of two threatened and 11 priority flora species within the local area (10 km), none of which are found on the same soil or vegetation type as the application area. The closest recorded species is *Melaleuca lanceolata* forests, Leeuwin Naturaliste Ridge priority ecological community (Priority 2) located 2.4 km north of the application area.
Ecological communities	There are records of one threatened and one priority ecological community within the local area (10 km), none of which are found on the same soil type as the application area. The closest recorded ecological community is Leeuwin Naturaliste Ridge priority ecological community (Priority 2) located 2.4 km north of the application area.
Fauna	There are records of 28 threatened fauna species, 11 priority fauna species, five migratory fauna species, one conservation dependent fauna species and one other specially protected fauna species within the local area. The closest recorded species is *Thinornis rubricollis* (Hooded plover, hooded dotterel) (Priority 4) recorded 33 m west of 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*					
Warren	46.36	47.08	58.63	558,485.38	66.97
Vegetation complex					
Kilcarnup KbE (150)**	357.58	169.45	47.39	127.45	102.93
Local area (calculation)					
10km radius	15870.50	10028.94	63.19	-	-

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

A.3. Fauna analysis table

Species name	Conservation status	Suitable habitat features?	Most recent record in local area	Distance of closest record to application area (km)	Number of records in local area	Are surveys adequate to identify?
Calidris alba (sanderling)	MI	Y	2018	0.048	4	N/A
Calidris ruficollis (Red-necked stint)	MI	Y	1999	1.5	1	N/A
Calyptorhynchus latirostris (Carnaby's cockatoo)	EN	Y	2019	0.6	109	N/A
Falco peregrinus (Peregrine falcon)	OS	Y	2006	7.0	5	N/A
Thinornis rubricollis (Hooded plover, hooded dotterel)	P4	Y	2020	0.033	82	N/A

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

Appendix B. 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: The area proposed to be cleared does not contain locally or regionally significant flora, fauna, habitats or assemblages of plants.	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 area proposed to be cleared does not contain significant habitat for conservation significant fauna.	Not likely to be 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 area proposed to be cleared is not likely to contain flora species listed under the BC Act.	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 contains species indicative of a threatened ecological community.	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 extents of the mapped vegetation type and native vegetation in the local area are consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to comprise a significant part of an ecological linkage.	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 nearby 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: No water courses or wetlands are recorded within the application area and the vegetation proposed to be cleared is not consistent with riparian vegetation.	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 phosphorus export. The proposed clearing may result in wind erosion impacts, however noting the extent and linear nature of the application area, mitigation measures proposed by the applicant and final land use (i.e. crushed limestone and boardwalk paths), these are expected to be minor.	May be 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 water courses, wetlands or Public Drinking Water Sources Areas are recorded within the application area and the small extent of the proposed clearing, the proposed clearing is unlikely to impact surface or ground water 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: Although the mapped soils have a high flood risk, the topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding. Given the mapped soil type has a low waterlogging risk and no water courses or wetlands are recorded within the vicinity of the application area, the proposed clearing is unlikely to contribute to waterlogging.	Not likely to be at variance	No .

Appendix C. Vegetation condition rating scale

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

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Keighery (1994).

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.

Condition	Description
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

Appendix D. Photographs of the vegetation

Figure D-1: Vegetation within the application area - *Carpobrotus virescens, Olearia axillaris* and *Scaevola crassifolia*.

Figure D-2: Vegetation within application area - *Olearia axillaris* and *Acacia* spp.

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)
- Geomorphic Wetlands Leeuwin Naturaliste Ridge and Donnybrook to Nannup – Unreviewed (DBCA-043)
- 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

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 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 5 February 2021).

Department of the Environment (2021). *Calidris ruficollis* in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: https://www.environment.gov.au/sprat.

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.

Garnett, S.T., Szabo, J.K. and Dutson, G. (2011). *The Action Plan for Australian Birds 2010.* Birds Australia, CSIRO Publishing, Melbourne.

Government of Western Australia (2019) *2018 South West Vegetation Complex Statistics. Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions, Perth, https://catalogue.data.wa.gov.au/dataset/dbca

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

Higgins, P.J. & S.J.J.F. Davies, eds (1996). *Handbook of Australian, New Zealand and Antarctic Birds. Volume Three - Snipe to Pigeons*. Melbourne, Victoria: Oxford University Press.

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

Mattiske, E.M. and Havel, J.J. (1998) *Vegetation Complexes of the South-west Forest Region of Western Australia.* Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.

Mead, R., Yarwood, M., Cullen, M and Maguire, G. *Report on the 2012 Biennial Hooded Plover Count*. Birdlife Australia. Retrieved from https://www.birdlife.org.au/documents/BNB-2012HoodedPloverBiennialCountReport_final.pdf

Molloy, S., Wood, J., Hall, S., Wallrodt, S. and Whisson, G. (2009) *South West Regional Ecological Linkages Technical Report*, Western Australian Local Government Association and Department of Environment and Conservation, Perth.

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.

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

Shire of Augusta Margaret River (2020). Clearing permit application CPS 9155/1 and supporting documentation, received 18 December 2020 (DWER ref: DWERDT394429).

Shire of Augusta Margaret River (2021). Additional information provided by the applicant in relation to clearing permit application CPS 9155/1, received 3 March 2021 (DWER ref: A1985916).

Western Australian Herbarium (1998-). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. https://florabase.dpaw.wa.gov.au/ (Accessed 11 February 2021)