



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 9244/1
Permit Holder:	ViridisAg Pty Ltd
Duration of Permit:	From 12 August 2021 to 12 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 cropping.

2. Land on which clearing is to be done

Lot 449 on Deposited Plan 212363, Beaumont

3. Clearing authorised

The permit holder must not clear more than 8.84 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. Wind erosion management

The Permit Holder must ensure that the planting of crop species occurs within three months of the authorised clearing being undertaken.

PART III - RECORD KEEPING AND REPORTING

7. Records that must be kept

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

Table 1: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	<ul style="list-style-type: none"> (a) the species composition, structure, and density of the cleared area; (b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 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 4; (f) actions taken to minimise the risk of the introduction and spread of weeds and dieback in accordance with condition 5; and (g) actions taken to manage wind erosion in accordance with condition 6.

8. Reporting

The permit holder must provide to the *CEO* the records required under condition 7 of this permit when requested by the *CEO*.

DEFINITIONS

In this permit, the terms in Table 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.
fill	means material used to increase the ground level, or to fill a depression.
dieback	means the effect of <i>Phytophthora</i> species on native vegetation.
department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	<i>Environmental Protection Act 1986</i> (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.
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.

END OF CONDITIONS



Meenu Vitarana
A/MANAGER

NATIVE VEGETATION REGULATION

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

19 July 2021

Schedule 1

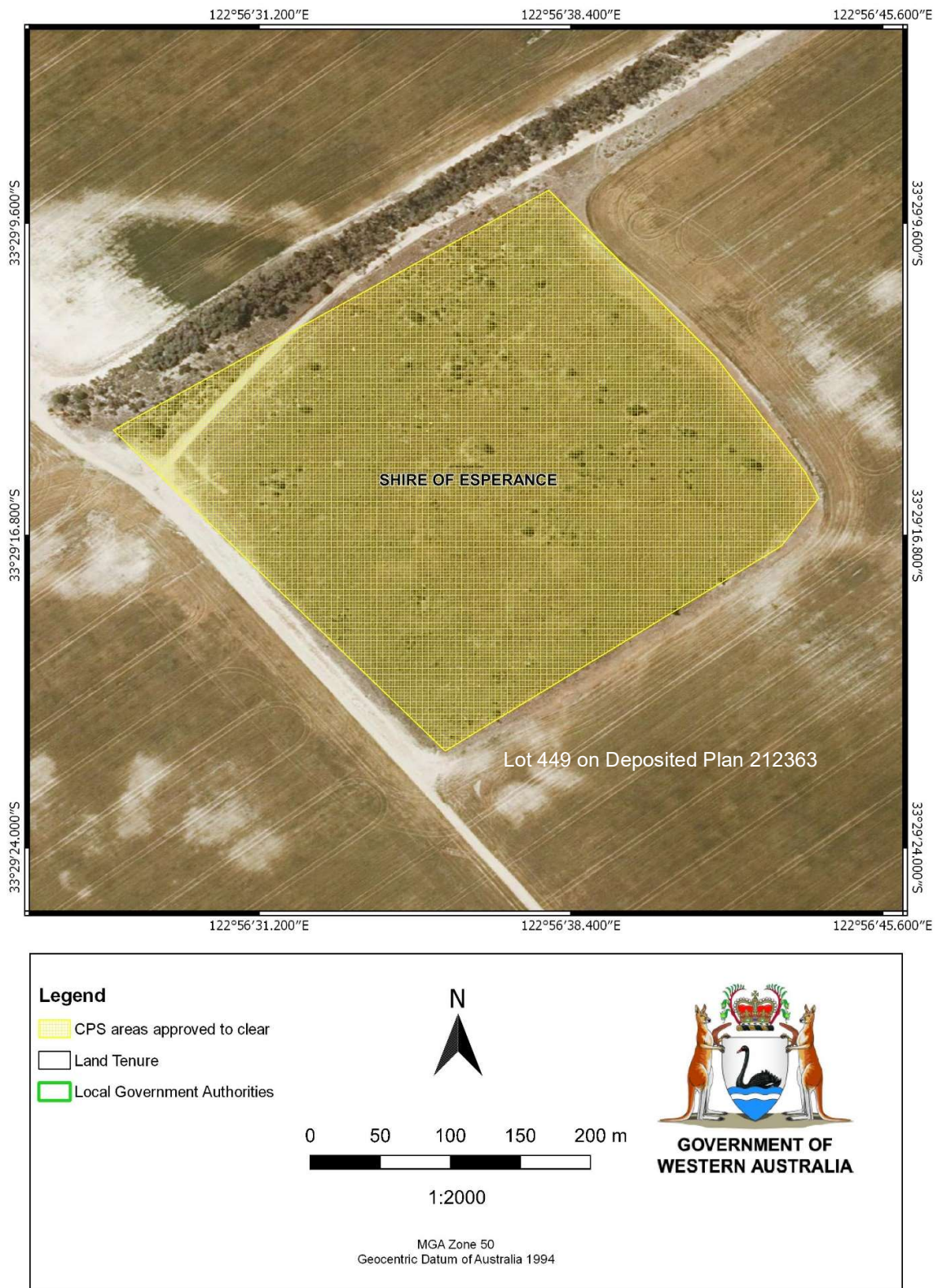


Figure 1: Map of the boundary of the area within which clearing may occur



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 9244/1
Permit type:	Purpose permit
Applicant name:	ViridisAg Pty Ltd
Application received:	23 March 2021
Application area:	8.84 hectares of native vegetation
Purpose of clearing:	Cropping
Method of clearing:	Mechanical removal
Property:	Lot 449 on Deposited Plan 212363
Location (LGA area/s):	Shire of Esperance
Localities (suburb/s):	Beaumont

1.2. Description of clearing activities

The vegetation proposed to be cleared is contained within a single contiguous area, approximately 300 metres wide by 300 metres long (see Figure 1, Section 1.5). The purpose of the clearing is to restore land previously used for farming to provide cropping land for barley, canola, lentils and wheat.

1.3. Decision on application

Decision:	Granted
Decision date:	19 July 2021
Decision area:	8.84 hectares of native vegetation as depicted in Section 1.5 below.

1.4. Reasons for decision

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

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix B), relevant datasets (see Appendix F), the clearing principles set out in Schedule 5 of the EP Act (see Appendix C), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

The assessment identified that the proposed clearing:

- May result in 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 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 consideration of 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; and
- Undertake cropping activities within three months of clearing to minimise the risk of wind erosion.

1.5. Site map

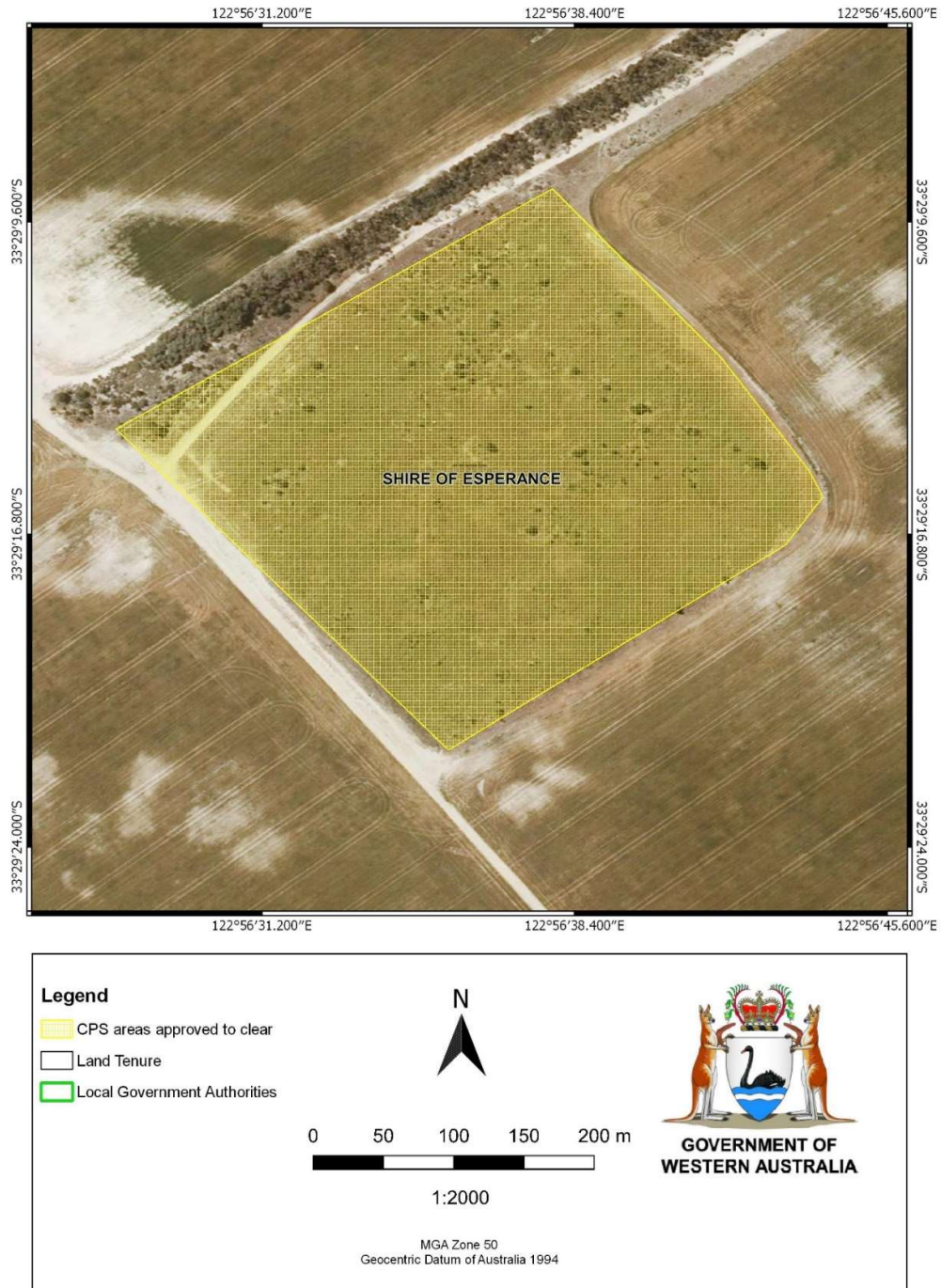


Figure 1. Map of the application area. The area crosshatched yellow indicates the area authorised to be cleared under the granted clearing permit.

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)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

The applicant advised the following in regard to consideration of avoidance and mitigation measures:

- Alternatives to the clearing have not been considered. The intent of the clearing is to remove regrown invasive and native vegetation from the area, to enable it to be restored as productive farming land. The area has become infested with weeds over recent years, which represent approximately 90 per cent of the vegetation cover in the proposed clearing area. The clearing program will eliminate these weeds, which are spreading into farming areas and surrounding remnant vegetation.

3.2. Assessment of impacts on environmental values

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

The assessment against the clearing principles (see Appendix C) identified that the risk of impacts of the proposed clearing to biological values (flora and vegetation) and land resources 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 (flora and vegetation) - Clearing Principle (a)

Assessment: Given the soil type and habitat identified to be present within the application area, it is considered that the application area may provide suitable habitat for the following priority flora species (Western Australian Herbarium, 1998-):

- *Isopogon alpicornis* (Priority 3)
- *Leucopogon remotus* (Priority 1)
- *Pultenaea adunca* (Priority 3)
- *Styphelia sulcata* (Priority 1)

However, given the Completely Degraded condition of the vegetation, and that the vegetation is regrowth and has been previously utilised for agriculture, it is considered unlikely that individuals of these species would be present within the application area.

Soils and habitat identified to be present within the application area may also provide suitable habitat for the Proteaceae dominated kwongan shrublands of the southeast coastal floristic province of Western Australia ecological community, which is listed as Threatened under the EPBC Act and Priority 3 under the BC Act. However,

vegetation present within the application area does not meet the key diagnostic characteristic or condition thresholds required to be considered as this community (Department of the Environment, 2014).

Conclusion: Based on the above assessment, the proposed clearing is unlikely to impact conservation significant flora species or ecological communities.

Conditions: No management conditions required.

3.2.2. Land resources - Clearing Principle (a)

Assessment: Soils identified to be present within the application area have a high risk of wind erosion.

The Department of Planning, Infrastructure and Regional Development (DPIRD) undertook a desktop assessment of land degradation risks from the proposed clearing (Commissioner of Soil and Land Conservation (CSLC), 2021). The assessment identified that the application area has a very high wind erosion hazard rating, which classifies the area as having a fair capability for cropping and low capability for grazing. The CSLC made the following recommendations to mitigate impacts of wind erosion resulting from the clearing:

- Minimising the length of time that the area is left bare;
- Minimise surface disturbance by excluding stock outside of the growing season;
- Maintaining groundcover of 50 per cent or more;
- Avoid using the area for harvesting subterranean clover seed; and
- Generally minimising surface disturbance caused by tillage and stock.

It is noted that the majority of the application area has a groundcover of exotic grasses, and as such the clearing of native vegetation within the area may have a lesser impact upon land degradation than removal of exotic species.

Conclusion: Based on the above assessment, the proposed clearing may result in increased land degradation through wind erosion. A condition to undertake cropping activities within three months of clearing is considered likely to mitigate these impacts.

Conditions: The Permit Holder will be required to undertake cropping activities within three months of clearing to reduce the exposure time of bare sandy soils and minimise the risk of wind erosion.

3.3. Relevant planning instruments and other matters

The Shire of Esperance advised DWER that local government approvals are not required, and that the proposed clearing is consistent with the Shire's Local Planning Scheme No. 24. The Shire did not have any objections to the proposed clearing.

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

End

Appendix A. Additional information provided by applicant

Summary of comments	Consideration of comment
Photographs of vegetation provided	Refer to Appendix E
Information provided regarding consideration of avoidance and minimisation of clearing	Refer to Section 3.1

Appendix B. Site characteristics

B.1. Site characteristics

Characteristic	Details
Local context	<p>The area proposed to be cleared is in the intensive land use zone of Western Australia. It is surrounded by a strip of native vegetation to the northwest, agricultural land to the northeast and southeast, and a vehicle track adjacent to agricultural land to the southwest.</p> <p>Spatial data indicates the local area (20-kilometre radius from the centre of the area proposed to be cleared) retains approximately 51 per cent of the original native vegetation cover.</p>
Ecological linkage	<p>The strip of native vegetation to the north-west is likely to act as a local ecological linkage, as this strip is connected to other strips of vegetation which connect small patches of native vegetation within the local area. Vegetation within the application area may contribute some value to this strip, although noting its degraded condition, it is not likely to play a significant role in this linkage.</p> <p>The application area is mapped within Zone C of the <i>Western Australian South Coast Macro Corridor Network</i>, which maps vegetation connectivity in the South Coast region (Wilkins et al., 2006). Zone C areas are described as areas that contain vegetation potentially providing habitat for wildlife at the local scale but requiring closer assessment to determine their value at a regional scale.</p>
Conservation areas	<p>The closest conservation areas to the application area are Niblick Nature Reserve, located approximately 3.8 km to the northeast, and Neredup Nature Reserve, located approximately 3.8 km to the southwest.</p>
Vegetation description	<p>Photographs supplied by the applicant indicate the vegetation within the proposed clearing area consists of sporadic shrubs and approximately 40 small trees over an understorey largely comprised of exotic grasses. Representative photos are available in Appendix E.</p> <p>This is consistent with the mapped vegetation types:</p> <ul style="list-style-type: none"> • Beard 47 (northern portion), which is described as Shrublands; tallerack mallee-heath; and • Beard 516 (southern portion), which is described as Shrublands; mallee scrub, black marlock (Shepherd et al, 2001). <p>The mapped vegetation types described above retain approximately 36 per cent and 55 per cent of their original extents respectively (Government of Western Australia, 2019).</p>
Vegetation condition	<p>Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in Completely Degraded (Keighery, 1994) condition, described as:</p> <ul style="list-style-type: none"> • 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. <p>The full Keighery (1994) condition rating scale is provided in Appendix D. Representative photos are available in Appendix E.</p>

Characteristic	Details
Climate and landform	Rainfall: 500 mm Evapotranspiration: 400 mm
Topography	Approximately 140 m AHD
Soil description	<p>The soil is mapped as Halbert 5 Subsystem (246Ha_5), however, the Commissioner of Soil and Land Conservation (CSLC, 2021) has provided the following advice regarding soils within the application area:</p> <p>Mapping of the area is general and the site is adjacent to both Halbert 3 (246Ha_3) and Scaddan 2 (246Sc_2) subsystems, and the author with expertise in pedology and soil survey is of the opinion that the area in question should be mapped as part of the Scaddan 2 subsystem. Scaddan 2 subsystem identifies a significant component (35% of the mapunit) as Pale deep sand soil on crests and slopes, and Halbert 5 identifies similar soil and landforms occupying approximately 10% of that mapunit. The site considered for clearing occupies a low crest and has Pale deep sand soils of the Heart Echo soil series (Scholz and Smolinski, 1996), who describe the soil as a uniform Pale deep sand with a conspicuously bleached lower topsoil and a yellow subsoil, sometimes with lime segregations.</p>
Land degradation risk	<p>The Commissioner of Soil and Land Conservation (CSLC, 2021) has provided the following advice regarding soils within the application area:</p> <ul style="list-style-type: none"> • Salinity – the probability of salinity developing on or off site from the proposed clearing is unlikely. As the nearest AgBore indicates very low rates of groundwater level rise and the relatively small area, the proposed clearing will have a negligible impact on the water balance. Hence the proposed clearing would not contribute greatly to any further development of salinity in comparison to the contribution from the current cleared area on this and surrounding locations. • Eutrophication – The pale deep sand within the proposed clearing area has a “Low Risk” rating for Phosphorus Export risk according to soil-landscape land quality attribution applied to the Pale deep sand of the 246Sc_2 mapunit (DPIRD, 2020, Van Gool et al., 2005). However, the local soil and landscape situations with a watertable anticipated to be within 2-5 m of the land surface, the sands likely having a low phosphorus retention index and the profile permeability being classed as rapid, the likely Phosphorus loss rating is moderate, using the van Gool et al 2005 methodology. Movement of Phosphorus from the site is likely localised to the nearest closed depression within the same parcel. This depression is cleared and hence is unlikely to degrade further. • Wind erosion - The Pale deep sand within the proposed clearing area has a very high wind erosion hazard, which rates it as class 3 land for minimum tillage cropping and class 4 land for grazing. Clearing of native vegetation is likely to contribute to wind erosion. The seasonal wind erosion risk should be addressed by: <ul style="list-style-type: none"> ○ Minimising surface disturbance by excluding stock outside of the growing season; ○ Minimising the length of time that the area is left bare; ○ Maintaining groundcover of 50% or more; ○ Avoid using the area for harvesting subterranean clover seed ○ Generally minimising surface disturbance caused by tillage and stock • Water erosion – Water erosion hazard of the Pale deep sand within the proposed clearing area is very low. Removal of native vegetation is unlikely to contribute greatly to an increase in water erosion risk. • Waterlogging – The high permeability and rapid internal drainage of the Pale deep sand results in a Nil rating for waterlogging risk within the proposed clearing area. Clearing may contribute to a slight increase in waterlogging in the small closed depression east of the site considered for clearing, but this risk is limited to the very wet years and is entirely contained within the applicant's

Characteristic	Details
	<p>property. Its impact will be limited to a temporary reduction in productivity during wet years and is not considered a land degradation hazard.</p> <ul style="list-style-type: none"> • Flooding – The Pale deep sand within the proposed clearing area is rated as “no risk” of flooding (DPIRD, 2020). Clearing of native vegetation is unlikely to increase the risk rating.
Waterbodies	The closest mapped watercourse to the application area is a minor non-perennial watercourse approximately 6 km northwest from the application area. No wetlands are mapped within the local area; however many small wetlands (playas) appear to be present in the local area, including one within the same property as the application area approximately 200 m to the southeast.
Hydrogeography	Hydrogeology - Rocks of Low Permeability, Fractured and Weathered Rocks - Local Aquifers (granitoid lithology) Groundwater salinity - 14000-35000 mg/L TDS
Flora	There are records of 20 priority flora species within the local area, the closest of which is Priority 1 species <i>Leucopogon remotus</i> located approximately 1.4 km southeast of the application area.
Ecological communities	There are records of 1 Priority 3 ecological community within the local area - Proteaceae dominated kwongan shrublands of the southeast coastal floristic province of Western Australia - the closest record of which is located approximately 230 m southwest of the application area.
Fauna	There are records of 1 threatened fauna species within the local area - <i>Leipoa ocellata</i> (malleefowl) - the closest record of which is located approximately 16 km northeast of the application area.

B.2. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA managed land
IBRA bioregion*					
Mallee	7,395,894.36	4,180,937.68	56.53	1,289,384.08	17.43
Vegetation complex					
Beard vegetation association 47*	1,032,885.09	370,425.32	35.86	185,187.18	17.93
Beard vegetation association 516*	607,426.24	332,848.54	54.80	146,938.59	24.19
Local area					
10km radius	127,940.49	65,726.16	51.37	-	-

B.3. Flora analysis table

With consideration for the site characteristics set out above and relevant datasets (see Appendix F), impacts to the following conservation significant flora required further consideration.

Species name	BC Act listing	Suitable habitat features ?	Same mapped vegetation type?	Same soil type as identified by DPIRD (2021)?	Distance of closest record to application area (km)	Number of known records (total)	Number of records in local area	Are surveys adequate to identify?
<i>Acacia diaphana</i>	1	N	Y	N	11.3	16	4	NA
<i>Acacia nitidula</i>	3	N	Y	N	9.8	32	2	NA
<i>Baeckea</i> sp. Gibson (K.R. Newbey 11084)	1	N	Y	N	9.0	4	5	NA
<i>Eremophila calcicola</i>	2	N	Y	N	15.7	4	1	NA
<i>Eucalyptus</i> sp. Esperance (M.E. French 1579)	1	N	Y	N	18.8	11	1	NA
<i>Isopogon alpicornis</i>	3	Y	Y	N	15.3	29	3	NA
<i>Leucopogon remotus</i>	1	Y	Y	N	1.4	18	9	NA
<i>Melaleuca viminea</i> subsp. <i>appressa</i>	2	N	Y	N	12.6	7	1	NA
<i>Micromyrtus elobata</i> subsp. <i>scopula</i>	3	N	N	N	6.5	15	1	NA
<i>Myriocephalus biflorus</i>	2	N	Y	N	12.7	3	1	NA
<i>Prostanthera carrickiana</i>	4	N	Y	N	13.8	7	4	NA
<i>Pultenaea adunca</i>	3	Y	Y	N	11.8	12	1	NA
<i>Spyridium mucronatum</i> subsp. <i>multiflorum</i>	2	N	Y	N	10.6	4	1	NA
<i>Stachystemon vinosus</i>	4	N	Y	N	13.0	29	1	NA
<i>Styphelia sulcata</i>	1	Y	Y	N	15.7	12	1	NA
<i>Triglochin</i> sp. Condingup (R. Davis 10877)	2	N	Y	N	5.1	5	2	NA

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

B.4. Fauna analysis table

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

Species name	Conservation status	Suitable habitat features?	Suitable vegetation type?	Distance of closest record to application area (km)	Number of known records in local area	Are surveys adequate to identify? [Y, N, N/A]
<i>Leipoa ocellata</i> (malleefowl)	VU	N	Y	16	2	N

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

B.5. Ecological community analysis table

With consideration for the site characteristics set out above and relevant datasets (see Appendix F), impacts to the following conservation significant ecological communities required further consideration.

Community name	Conservation status	Suitable habitat features?	Suitable mapped vegetation type?	Suitable mapped soil type?	Distance of closest record to application area (km)	Number of known records in local area	Are surveys adequate to identify?
Proteaceae dominated kwongan shrublands of the southeast coastal floristic province of Western Australia	P3	N	Y	Y	0.23	516	N

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

Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<p><u>Principle (a):</u> <i>“Native vegetation should not be cleared if it comprises a high level of biodiversity.”</i></p> <p><u>Assessment:</u> The area proposed to be cleared is not likely to contain locally or regionally significant flora, fauna, habitats or assemblages of plants. Vegetation within the area proposed to be cleared is not likely to be of high diversity.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.1, above.</i>
<p><u>Principle (b):</u> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.”</i></p> <p><u>Assessment:</u> The area proposed to be cleared is not likely to contain significant habitat for conservation significant fauna. Native vegetation is too sparse to be of high value for malleefowl, the only conservation significant fauna species recorded within the local area.</p>	Not likely to be at variance	No
<p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u> 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> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.”</i></p> <p><u>Assessment:</u> The area proposed to be cleared is unlikely to contain species indicative of a threatened ecological community listed under the BC Act.</p>	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u> 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 be significant part of an ecological linkage in the local area.</p>	Not likely to be at variance	No
<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> 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> No wetlands or watercourses are present within the application area, and vegetation is not consistent with riparian vegetation.</p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (g):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</p> <p><u>Assessment:</u> Soils identified to be present within the application area are highly susceptible to wind erosion. Noting the extent and condition of native vegetation within the application area, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	May be at variance	Yes <i>Refer to Section 3.2.2, above.</i>
<p><u>Principle (i):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</p> <p><u>Assessment:</u> Given the distance to the nearest surface waterbodies and the low risk of salinity associated with the clearing, the proposed clearing is unlikely to impact surface or ground water quality.</p>	Not likely to be at variance	No
<p><u>Principle (j):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</p> <p><u>Assessment:</u> Given the low risk of flooding and waterlogging associated with the soil type identified within the application area and the condition of the vegetation present, the proposed clearing is unlikely to contribute to flooding or waterlogging.</p>	Not likely to be at variance	No

Appendix D. Vegetation condition rating scale

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

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

Appendix E. Photographs of the vegetation



Figure 2 – Facing north-east from south-western boundary of application area. Scattered shrubs over exotic grasses.



Figure 3 – Shrubs and small trees over exotic grasses within application area.



Figure 4 – Small trees over exotic grasses within application area.

Appendix F. Sources of information

F.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- 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
- South Coast Significant Wetlands (DBCA-018)

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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