



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

### PERMIT DETAILS

Area Permit Number: CPS 9336/1  
File Number: DWERVT8156  
Duration of Permit: From 3 November 2021 to 3 November 2023

### PERMIT HOLDER

Port Bouvard Pistol and Small range Bore Rifle Club Inc.

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 1644 on Deposited Plan 180418, Dawesville

### AUTHORISED ACTIVITY

The permit holder must not clear more than 0.20 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

### CONDITIONS

#### 1. 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.

#### 2. 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.

### 3. Directional clearing

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

### 4. Wind erosion management

The permit holder must commence the re-establishment of the embankment no later than two months after undertaking the authorised clearing activities to reduce the potential for wind erosion.

### 5. 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"> <li>(a) the species composition, structure, and density of the cleared area;</li> <li>(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;</li> <li>(c) the date that the area was cleared;</li> <li>(d) the direction that clearing was undertaken;</li> <li>(e) the date that the embankment was re-established;</li> <li>(f) the size of the area cleared (in hectares);</li> <li>(g) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 1; and</li> <li>(h) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 2.</li> </ul>

## 6. Reporting

The permit holder must provide to the *CEO* the records required under condition 5 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.

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**END OF CONDITIONS**



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**Mathew Gannaway**  
**MANAGER**  
NATIVE VEGETATION REGULATION

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

8 October 2021

# SCHEDULE 1

The boundary of the area authorised to be cleared is shown in the map below (

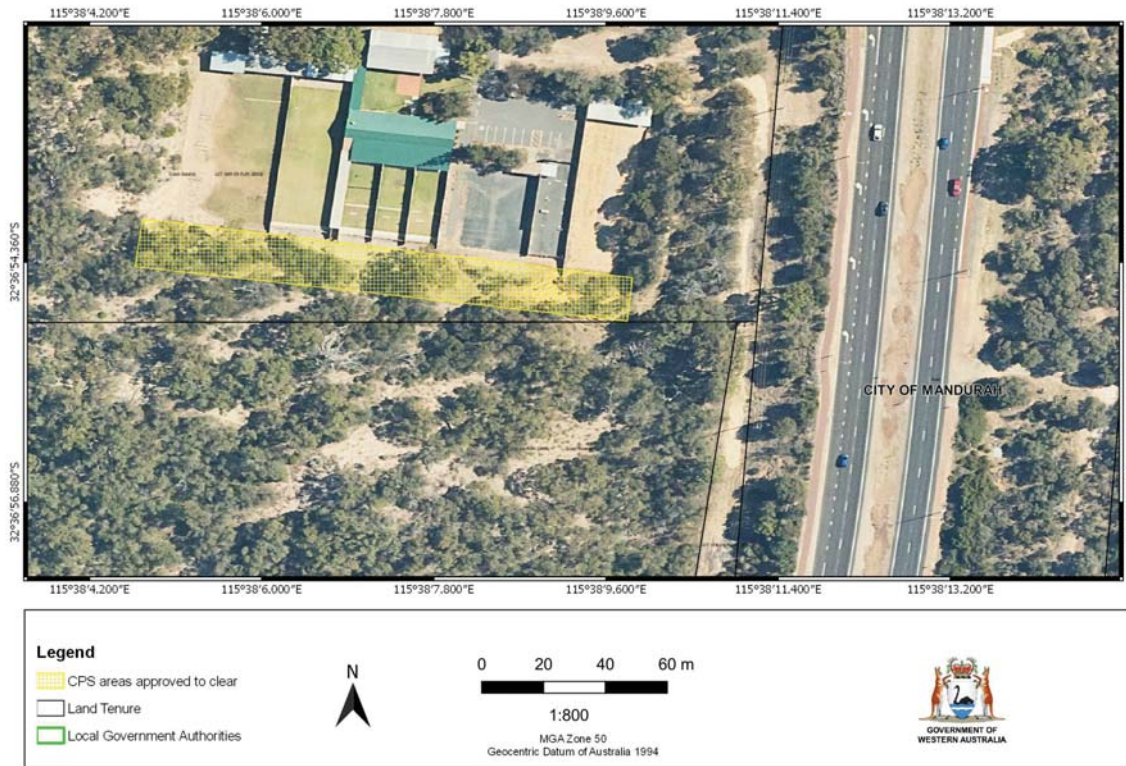


Figure 1).



**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

<b>Permit number:</b>	CPS 9336/1
<b>Permit type:</b>	Area permit
<b>Applicant name:</b>	Port Bouvard Pistol and Small Range Bore Rifle Club Inc.
<b>Application received:</b>	22 June 2021
<b>Application area:</b>	0.20 hectares of native vegetation and 3 native trees
<b>Purpose of clearing:</b>	Re-establishment of embankment, creating access and removing the risk of ricochet hazard
<b>Method of clearing:</b>	Mechanical
<b>Property:</b>	Lot 1644 on Deposited Plan 180418
<b>Location (LGA area/s):</b>	City of Mandurah
<b>Localities (suburb/s):</b>	Dawesville

#### 1.2. Description of clearing activities

The proposal is to clear three established *Eucalyptus gomphocephala* (Tuart) and regrowth vegetation within the Port Bouvard Pistol and Small-Bore Rifle ranges. The vegetation within the application area is present in the backstop of the pistol ranges where spent bullets collect in a sandy embankment. The area was previously cleared in approximately 2005 for the backstop and access. The embankment is inclining and exposing the roots of two of the Tuart trees which poses a possible safety risk. The trees are also identified as ricochet hazard. The proposed clearing is required to re-establish the sand embankment, create access and to remove the safety risk (PBPSRC, 2021a).

#### 1.3. Decision on application

<b>Decision:</b>	Granted
<b>Decision date:</b>	8 October 2021
<b>Decision area:</b>	0.2 hectares of native vegetation and three native trees, 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 14 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 clearing principles set out in Schedule 5 of the EP Act (see Appendix B), information provided by the applicant, relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration the purpose of the clearing is to improve safety for the pistol range users.

In particular, the Delegated Officer has considered the following:

- The application area is on the edge of a patch of native vegetation mapped as the critically endangered 'Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain' (Tuart Woodlands) Threatened Ecological Community (TEC) under the EPBC Act, which is also a Priority Ecological Community (PEC) (Priority 3) as listed by the Department of Biodiversity, Conservation and Attractions (DBCA). Given the limited extent of clearing, the Completely Degraded (Keighery, 1994) condition of vegetation, and the presence of Tuart Woodlands in better condition nearby, the proposed clearing is unlikely to significantly impact the conservation values or maintenance of the TEC. Clearing, however, may facilitate the spread of weeds and dieback into the adjacent remnant vegetation and affect its quality and habitat values. The potential impact can be mitigated by applying weeds and dieback management measures.
- The application area may contain suitable habitat for conservation significant fauna including the Carnaby's Black cockatoo species, Critically Endangered Western Ringtail Possum (WRP), Endangered Brush-tailed phascogale, Priority 4 Quenda/ Southern brown bandicoot and Priority 4 Perth slider / lined skink. Given the vegetation condition and the presence of larger patches of vegetation nearby, the clearing is unlikely to impact significant habitat for the fauna listed above. To minimise impacts on individuals that may be present at time of clearing, clearing is to be undertaken in a slow, progressive manner towards adjacent remnant native vegetation.
- The sandy soils within the application area are prone to wind erosion if left exposed for an extended period of time. Re-establishment of the embankment within two months of clearing will minimise this risk.

After consideration of the available information, the Delegated Officer determined the proposed clearing is unlikely to result in long-term adverse impacts on the environment.

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 clearing in a slow, progressive manner to allow fauna to disperse into the adjacent remnant
- re-establishment of the embankment within two months of clearing to minimise soil 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)
- *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)

## 3 Detailed assessment of application

### 3.1. Avoidance and mitigation measures

The application area was previously cleared in 2005 to create a backstop for the pistol ranges and associated access. It is now nearly devoid of native vegetation apart from three established Tuart (*Eucalyptus gomphocephala*) and sparse regrowth vegetation. The three Tuart trees are identified as ricochet hazard situated on the verge of an inclining sandy slope that poses safety hazards (PBPSRC, 2021a). Given the potential hazards present, the need to re-establish the inclining embankment to prevent further land deterioration, and the applicant's commitment to avoid clearing of the regrowth vegetation, the Delegated Officer was satisfied that the applicant could not have made further efforts 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 may present a risk to conservation significant fauna and adjacent vegetation. The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

#### 3.2.1. Biological values (biodiversity and priority ecological community) – Clearing Principles (a)

##### Assessment

The application area is a part of a vegetation patch listed as the Tuart Woodlands PEC. The PEC is synonymous with the Commonwealth-listed Tuart Woodlands TEC. The Tuart woodlands are protected, among others, for they are floristically diverse and provide a range of cross-scale ecological functions in the landscape (Threatened Species Scientific Committee, 2016).

The Tuart Woodlands patch measures 16.66 hectares. Within a 10 km radius from the application area, 102 patches of vegetation are mapped as the Tuart woodlands with a total area of 2,497 hectares and a mean patch size of 2.44 hectares.

The presence of the Tuart Woodland TEC is assessed with reference to the Approved Conservation Advice for the Tuart Woodlands (Commonwealth of Australia, 2016). According to the Conservation Advice, the key diagnostic characteristics of the Tuart Woodlands TEC include, but not limited to:

- Occurs in the Swan Coastal Plain Bioregion, Western Australia.
- Primarily occurs on the Spearwood and Quindalup dune systems.

- The presence of at least two living established *Eucalyptus gomphocephala*, with a gap of no more than 60 m between the outer edges of the canopies of adjacent Tuart trees.
- An understorey of native plants is present, which may include grasses, herbs and shrubs.

Photographs provided by the applicant (PBPSRC, 2021a) and aerial imagery indicate that the vegetation within the application area is in Completely Degraded condition according to the rating scales provided by Keighery (1994). The area has been highly modified to facilitate the operations of the Recreational Shooting range. The Tuart trees proposed to be cleared occur over a bare patch of sand on the northern edge of the mapped TEC that would be unlikely to provide habitat to other flora. As such, the application area is unlikely to comprise a high level of biodiversity. Whilst the application area forms part of a remnant mapped as the Tuart Woodland TEC, the proposed clearing of three Tuart trees on the edge of a 16.66 hectare remnant is unlikely to significantly impact on the biodiversity and conservational value of the broader area. However, the proposed clearing may introduce and / or spread weeds and dieback into the nearby TEC and degrade its habitat values. Weed and dieback management measures are therefore required to prevent and mitigate potential impacts from clearing.

#### Conclusion

The vegetation within the application area is on the edge of a remnant mapped as the Tuart Woodlands TEC. The proposed clearing is unlikely to result in a long-term detrimental impact on the environmental values of the TEC, provided weed and dieback management measures are in place.

#### Conditions

The permit holder is to take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback.

### **3.2.2. Biological values (fauna) – Clearing Principles (b)**

#### Assessment

No records of conservation significant fauna occur within the application area. However, desktop analysis indicated that 45 conservation significant fauna species have been recorded within 10 km radius from the perimeter of application area. Several of these records are of marine species which are unlikely to be present in the application area; and more than a quarter of the listed fauna species are migratory birds. Whilst the birds may visit the vegetation in the application area and adjacent remnant vegetation, the three Tuart individuals are unlikely to comprise significant habitat for these birds.

Of the listed fauna, *Isoodon fusciventer* (Quenda/ southern brown), *Lerista lineata* (Perth slider, lined skink), *Phascogale tapoatafa wambenger* (South-western brush-tailed phascogale, wambenger), *Pseudocheirus occidentalis* (Western ringtail possum / WRP), and Black cockatoo species of *Calyptorhynchus latirostris* (Carnaby's Black cockatoos), *Calyptorhynchus baudinii* (Baudin's cockatoo), and *Calyptorhynchus sp.* 'white-tailed black cockatoo' are further assessed to ascertain the likelihood of occurrence in the application area and its vicinity.

On the Swan Coastal Plain, the Priority 4 Quenda is often associated with wetlands and feeds in adjacent forest and woodland, which indicate that their presence around the application area is likely. Quenda, however, prefers shrub cover with high vegetation density and often avoid grasses (Watson, 2018). Given the low density of native vegetation and absence of understorey and shrubs from the application area, it is unlikely that the application area would comprise significant habitat for Quenda.

Given the several records of Priority 3 Perth lined skink in the vicinity of the application area, the presence of this fauna in the application area is possible. The Perth lined skink is known to inhabit landscaped gardens and may persist in degraded areas subsequent to development although they are also more sedentary than the larger reptiles (Maryan, B. et al., 2015). As such, the application area may provide habitat to this species prior to and after clearing. Given the small clearing area, the surrounding vegetation and the species' ability to thrive in degraded environments, the proposed clearing is unlikely to pose significant impacts on Perth lined skinks. Clearing, however, should to be undertaken in a slow one directional manner to allow any individuals present to disperse to into the adjacent remnant vegetation.

Brush-tailed phascogale inhabits dry sclerophyll forest and open woodlands with hollow bearing trees. A review of the photographs of the three Tuart trees proposed to be cleared indicates the absence of hollows which is a surrogate of the Brush-tailed phascogale's presence. Given the vegetation condition and the characteristics of the trees, the application area is unlikely to comprise habitat for the Brush-tailed phascogale.

As many as 163 records of WRP has been known from the local area. The nearest is located approximately 0.6 km North-east of the application area, opposite the Bouvard Bowling Club. Other records also include those from developed areas surrounded by remnant Tuart woodlands. This suggests that WRP may be present in relatively disturbed areas within the local context, including that of the application area. However, unlike most areas within the local context, being zoned for Recreational Shooting, the application area tends to be noisier that WRP may avoid it. Photographs provided by the applicant also do not indicate the presence of any dreys. Given the above, the trees proposed to be cleared are unlikely to be inhabited by WRP. The removal of the three Tuart trees is unlikely to have an impact on WRP and its available habitat within the local area.

The application area is within the modelled distribution of two species of black cockatoo known from the Perth metropolitan area; the Endangered Carnaby's cockatoo (*Calyptorhynchus latirostris*) and the Vulnerable Forest red-tailed Black cockatoo (*Calyptorhynchus banksii naso*). No records of the Forest red-tailed black cockatoo are known from the local area. In contrast, 318 records of Carnaby's Cockatoo and 13 records of White-tailed black cockatoo (*Calyptorhynchus* sp.) are known from the local area, with records within 200 metres of the application area.

Black cockatoo habitat can be considered in terms of breeding, roosting and foraging habitat. Roost sites, which tend to be located in the largest trees within a particular area and in close proximity to both water and food supplies, are nearby. The nearest Black cockatoo roosting site is located approximately 1 km southwest of the application area, within a patch of Tuart woodlands TEC. The application area is unlikely to offer roosting habitat due to the size of the trees being cleared and the noise associated with the shooting range. Photographs provided by the applicants do not indicate the presence of hollows on the three Tuart trees proposed to be cleared.

The approximately 20-hectare Tuart woodlands immediately south and west of the application area offers foraging habitat for Black cockatoo. Within the local context, large areas of native vegetation surround the application area, with approximately 41 percent native vegetation cover within ten kilometres of the application area. Most of this vegetation has also been mapped as Black cockatoo feeding areas. Given the above, in addition to the small clearing size, the application area is unlikely to comprise significant foraging habitat for Black cockatoos. Removal of the three Tuart trees would unlikely impact on the availability of foraging habitat for Black cockatoos within the local context.

Conclusion:

Based on the above assessment, the proposed clearing is unlikely to result in significant impacts on the habitats of Quendas, Perth lined skinks, Brush-tailed phascogale, WRP and Black cockatoos. Impacts to individuals that may be present at the time of clearing could be minimised by slow one directional clearing towards adjacent remnant vegetation.

Conditions:

To address the above impacts, staged and slow clearing in a north to south direction will be required as a condition on the clearing permit. This is to allow fauna individuals present at the time of clearing to move into adjacent vegetation ahead of the clearing.

### **3.3. Relevant planning instruments and other matters**

The application area is situated within a Crown land (Reserve 32447) which reserved for the purpose of Recreation and managed by the City of Mandurah (PBPSBR, 2021b). Port Bouvard Pistol and Small Range Bore Rifle Club Inc. hold a lease over a portion of the land for a 21-year term since 1 January 2009 (City of Mandurah, 2020). Accordingly, the City has confirmed that the Club has the authority to act on behalf of the City within the leased property. The City has expressed support for the Club to apply for the clearing permit on the condition that the Club implement a revegetation plan for the western slope adjacent to the Club and a qualified person inspect the trees for fauna prior to removal (City of Mandurah, 2021). The Delegated Officer considered that given the size of the trees being cleared, a qualified fauna inspector was not required as a condition on the clearing permit. The Port Bouvard Pistol and Small Range Bore Rifle Club Inc. may be required to comply with management conditions imposed by the City in accordance with the lease agreement.

Several Aboriginal sites of significance have been mapped within the local 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

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.

### A.1. Site characteristics

Characteristic	Details
Local context	<p>The area proposed to be cleared is situated on the edge of a 16.6-hectare remnant of native vegetation in the intensive land use zone of Western Australia. It is surrounded by urban dwellings and some remnant vegetation patches.</p> <p>Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 41 per cent of the original native vegetation cover.</p>
Ecological linkage	The application area is not within any formal ecological linkages.
Conservation areas	The application area is not within or adjacent to any conservation areas.
Vegetation description	<p>Photographs supplied by the applicant indicate the vegetation within the proposed clearing area consists of three <i>Eucalyptus gomphocephala</i> trees. Representative photos and location of these trees are available in Appendix DD.</p> <p>This is consistent with the mapped Cottesloe Vegetation Complex-Central and South, of Swan Coastal Plain bioregion, which is described as mosaic of woodland of <i>Eucalyptus gomphocephala</i> (Tuart) and open forest of <i>Eucalyptus gomphocephala</i> (Tuart) - <i>Eucalyptus marginata</i> (Jarrah) - <i>Corymbia calophylla</i> (Marri); closed heath on the Limestone outcrops.</p> <p>The mapped vegetation complex retains approximately 35.81 per cent of the original extent (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 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>The climate of the City of Mandurah is characterised by a mean annual rainfall of 647.4 mm, mean temperature ranging between 14.8 °C (minima) to 23.3 °C (maxima).</p> <p>The landform of the application area and surround is typical of the Quindalup Dune System, formed by aeolian deposit.</p>
Soil description	The soil is mapped as Quindalup South Qp1 phase, described as a complex of nested low relief parabolic dunes with moderate to steep slopes and uniform calcareous sands showing variable depths of surface darkening.
Land degradation risk	<p>Wind erosion risk: M2 - 30-50% of map unit has a high to extreme wind erosion risk</p> <p>Water erosion risk: M2 - 30-50% of map unit has a high to extreme water erosion risk</p> <p>Water logging risk: L1- &lt;3% of map unit has a moderate to very high waterlogging risk</p> <p>Subsurface acidification risk: L1 - &lt;3% of map unit has a high subsurface acidification risk or is presently acid</p> <p>Nutrient export risk: L 1- &lt;3% of map unit has a high nutrient export risk</p>
Waterbodies	The desktop assessment and aerial imagery indicated that the application area does not transect any watercourses. The Peel Yalgorup Systems, a Ramsar wetland, is located approximately 600 metres to the east.
Hydrogeography	Groundwater in the application area is mapped within the Peel-Harvey Estuary Consanguineous Suits, which occurs over Calcareous mud, muddy sand, quartz sand overlying quartz sand; limestone in some areas. Groundwater salinity is between 500 – 1000 mg/L (TDS)

Characteristic	Details
Flora	No priority or threatened flora is listed within the application area and its vicinity.
Ecological communities	The application area is located on the edge of a remnant vegetation patch mapped as the Tuart ( <i>Eucalyptus gomphocephala</i> ) woodlands and forest of the Swan Coastal Plain.
Fauna	Within the local context, 45 conservation significant fauna have been recorded, none of the records occurs within the application area. A large proportion of the records is that of marine fauna species and migratory birds. A known Black Cockatoo roost site is 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*					
Swan Coastal Plain	850,785.09	276,461.42	32.49	112,729.53	73.67
Vegetation complex					
Cottesloe Complex -Central and South	45,299.61	14,567.87	32.16	6,606.12	14.58
Local area (calculation - delete if not required)					
10km radius	10,512.36	4,377.44	41.59	-	-

\*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>Caladenia huegelii</i>	T	N	N	Y	1.87	1	N/A
<i>Conostylis pauciflora subsp. pauciflora</i>	P4	N	N	N	3.83	5	N/A
<i>Drakaea elastica</i>	T	N	N	N	8.26	1	N/A
<i>Hakea oligoneura</i>	P2	N	N	Y	2.87	2	N/A
<i>Hibbertia leptotheca</i>	P3	N	N	N	6.97	1	N/A
<i>Lasiopetalum membranaceum</i>	P3	N	N	Y	1.87	5	N/A
<i>Stylidium maritimum</i>	P3	N	N	Y	8.42	3	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	Y	4.84	2	N/A
<i>Calyptorhynchus latirostris</i> (Carnaby's cockatoo)	EN	N	Y	0.20	318	N/A
<i>Calyptorhynchus</i> sp. 'white-tailed black cockatoo' (white-tailed black cockatoo)	EN	N	Y	2.27	13	N/A
<i>Isodon fusciventer</i> (Quenda, southwestern brown bandicoot)	P4	N	N	0.70	48	N/A
<i>Lerista lineata</i> (Perth slider, lined skink)	P3	Y	Y	0.61	11	N/A
<i>Phascogale tapoatafa wambenger</i> (South-western brush-tailed phascogale)	CD	N	Y	0.85	3	N/A
<i>Pseudocheirus occidentalis</i> (Western ringtail possum, ngwayir)	CR	N	Y	0.57	163	N/A

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]
Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	N	N	Y	1.68	81	N/A
Forests and woodlands of deep seasonal wetlands of the Swan Coastal Plain (floristic community type 15 as originally described in Gibson et al. (1994))	Vulnerable	N	N	N	8.12	1	N/A
Herb rich saline shrublands in clay pans (floristic community type 7 as originally described in Gibson et al. (1994))	Vulnerable	N	N	N	7.35	2	N/A
Subtropical and Temperate Coastal Saltmarsh	Priority 3	N	N	N	2.15	14	N/A
Tuart ( <i>Eucalyptus gomphocephala</i> ) woodlands and forests of the Swan Coastal Plain	Priority 3	Y	Y	Y	0.00	102	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?
<b>Environmental value: biological values</b>		
<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></p> <p>The area proposed to be cleared occurs on the edge of a patch of remnant vegetation mapped as the Tuart woodlands PEC/TEC. The Tuart trees proposed to be cleared occur over a bare patch of sand on the northern edge of the mapped TEC that would be unlikely to provide habitat to other flora. As such, the application area is unlikely 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> <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></p> <p>Black cockatoos, Quendas, WRPs, Perth skinks and Brush-tailed phascogale have been recorded within 10 km of the application area. None of the records is from within the application area.</p>	Not likely to be at variance	Yes  Refer to Section 3.2.2, above.
<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></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> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared does not resemble any state listed TEC’s endorsed by Western Australian Minister for Environment.</p>	May be at variance	Yes  Refer to Section 3.2.1, above.
<b>Environmental value: significant remnant vegetation and conservation areas</b>		
<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 extent of the mapped vegetation type and native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to be part of a significant 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></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
<b>Environmental value: land and water resources</b>		

Assessment against the clearing principles	Variance level	Is further consideration required?
<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>No water courses or wetlands are recorded in the vicinity of the application area, the proposed clearing is unlikely to impact on- or off-site hydrology and water quality.</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 having low to medium risks of land degradation due to wind, water erosion, nutrient export, or salinity. However, being on a slope, the application area may have a localised erosion risk. Noting the limited extent of the application area and that the purpose of clearing is to re-establish the embankment of sand, the proposed clearing is not likely to lead to an appreciable land degradation. The sandy soils are prone to wind erosion if left exposed for a period of time. Ensuring works are undertaken within two months will mitigate this risk.</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>Given no water courses are recorded within the application area, 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> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><u>Assessment:</u></p> <p>The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.</p>	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 devised by Keighery, B.J. (1994) below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

### Measuring vegetation condition for the South West and Interzone Botanical Province (Keighery, 1994)

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

**Appendix D. Photographs of the vegetation (Port Bouvard Pistol and Small-bore Rifle Club Inc, 2021a)**



Figure 2. Aerial photograph of the application area indicating the location of the three Tuart trees proposed to be cleared.



Figure 3. Tuart Tree 1



Figure 4. Tuart Tree 2



Figure 5. Tuart Tree 3

## Appendix E Sources of information

### E.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- Wheatbelt Wetlands Stage 1 (DBCA-021)

Restricted GIS Databases used:

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

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