



## CLEARING PERMIT

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

### PERMIT DETAILS

Area Permit Number: CPS 9969/1  
File Number: DWERVT11459  
Duration of Permit: From 12 June 2024 to 12 June 2032

### PERMIT HOLDER

Mr Gerard Gordon and Ms Jennifer Fox

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 5 on Plan 14876, City of Cockburn

### AUTHORISED ACTIVITY

The permit holder must not clear more than 0.06 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 12 June 2026.

#### 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 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.

#### 4. Offset – Planting (Carnaby’s cockatoo habitat)

- (a) Within 12 months of undertaking clearing authorised under this permit, and no later than 12 June 2027, the Permit Holder must *plant* at least 30 (thirty) trees comprising *Banksia attenuata*, *Banksia menziesii* and/or *Banksia ilicifolia* within the area cross-hatched red in Figure 2 of schedule 1.
- (b) In undertaking the planting required under condition 4(a), the permit holder must:
  - (i) ensure only *local provenance* propagating material is used;
  - (ii) ensure *planting* is undertaken at an *optimal time*; and
  - (iii) undertake weed control and watering of *plantings* for at least two years post planting.
- (c) Within 12 months of planting the 30 (thirty) *Banksia attenuata*, *Banksia menziesii* and/or *Banksia ilicifolia* trees in accordance with condition 4(a) and condition 4(b) of this permit, the permit holder must:
  - (i) engage an *environmental specialist* to make a determination that at least 30 (thirty) *Banksia attenuata*, *Banksia menziesii* and/or *Banksia ilicifolia* trees will survive within the area cross-hatched red in Figure 2 of Schedule 1, to be set out in a report; and
  - (ii) if the determination made by the *environmental specialist* under condition 4(c)(i) is that a minimum of 30 (thirty) *Banksia attenuata*, *Banksia menziesii* and/or *Banksia ilicifolia* trees will not survive, the permit holder must undertake additional planting that will result in 30 (thirty) *Banksia attenuata*, *Banksia menziesii* and/or *Banksia ilicifolia* trees persisting within the area cross-hatched red in Figure 2 of Schedule 1.
- (d) Where additional planting of trees is undertaken in accordance with condition 4(c)(ii) of this permit, the permit holder must repeat the activities required by condition 4(b) and condition 4(c) of this permit.

#### 5. Offset - Native vegetation conservation (conservation covenant)

For the area cross-hatched red in Figure 2 of Schedule 1, the permit holder must, within 12 months of the commencement of clearing authorised under this permit, and no later than 12 June 2027:

- (a) give a conservation covenant under section 30B of the *Soil and Land Conservation Act 1945* for the protection and management of vegetation in perpetuity; and
- (b) within 1 month of executing the conservation covenant, provide a copy of the executed conservation covenant to the *CEO*.

## 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	<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 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings;</li> <li>(c) the date that the area was cleared;</li> <li>(d) the size of the area cleared (in hectares);</li> <li>(e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 2;</li> <li>(f) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 3;</li> <li>(g) actions taken to give a conservation covenant in accordance with condition 5.</li> </ul>
2.	In relation to <i>planting</i> pursuant to condition 4	<ul style="list-style-type: none"> <li>(a) the date(s) that <i>planting</i> was undertaken;</li> <li>(b) the location where the <i>planting</i> occurred (recorded digitally as a shapefile);</li> <li>(c) a description of the <i>planting</i> activities undertaken, including actions to undertake watering and weed control;</li> <li>(d) a description of remedial actions undertaken;</li> <li>(e) a copy of the <i>environmental specialist's</i> monitoring report and determination, pursuant to condition 4(c)(i).</li> </ul>

## 7. Reporting

- (a) The permit holder must provide to the *CEO*, on or before 30 June of each calendar year, a written report containing:
  - (i) the records required to be kept under condition 6; and
  - (ii) records of activities done by the permit holder under this permit between 1 January and 31 December of the preceding calendar year.
- (b) If no clearing authorised under this permit has been undertaken, a written report confirming that no clearing under this permit has been undertaken, must be provided to the *CEO* on or before 30 June of each calendar year.

- (c) The permit holder must provide to the *CEO*, no later than 90 calendar days prior to the expiry of this permit, a written report of records required under condition 6, where these records have not already been provided under condition 7(a).

## DEFINITIONS

In this permit, the terms in Table 2 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 s.51H of the EP Act.
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.
dieback	means the effect of <i>Phytophthora</i> species on native vegetation.
environmental specialist	means a person who holds a tertiary qualification in environmental science or equivalent and has a minimum of 2 years work experience relevant to the type of environmental advice that an environmental specialist is required to provide under this permit, or who is approved by the CEO as a suitable environmental specialist.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
fill	means material used to increase the ground level, or to fill a depression.
local provenance	means native vegetation seeds and propagating material from natural sources within 50 kilometres and the same IBRA subregion of the area cleared.
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
optimal time	means the period from May to October for undertaking planting and seeding
plant/s/ing	means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings or tubestock of the desired species
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



Meenu Vitarana  
 MANAGER  
 NATIVE VEGETATION REGULATION

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

20 May 2024

# SCHEDULE 1

The boundary of the area authorised to be cleared is shown in Figure 1. The boundary of the area subject to offset requirements, as set out in conditions 4 and 5, is shown in Figure 2.



**Figure 1: Map of the boundary of the area within which clearing may occur (cross-hatched yellow)**



Figure 2: Map of the boundary of the area within which offset conditions 4 and 5 apply (cross-hatched red)



# Clearing Permit Decision Report

## 1 Application details and outcome

### 1.1. Permit application details

<b>Permit number:</b>	CPS 9969/1
<b>Permit type:</b>	Area permit
<b>Applicant name:</b>	Mr Gerard Gordon and Ms Jennifer Fox
<b>Application received:</b>	19 November 2022
<b>Application area:</b>	0.06 hectares of native vegetation
<b>Purpose of clearing:</b>	House renovations and fire hazard reduction
<b>Method of clearing:</b>	Mechanical
<b>Property:</b>	Lot 5 on Plan 14876
<b>Location (LGA area/s):</b>	City of Cockburn
<b>Localities (suburb/s):</b>	Banjup

### 1.2. Description of clearing activities

The application area comprises six small patches of vegetation within a larger remnant occurring within Lot 5, which is zoned as 'resource' by the City of Cockburn (see Figure 1, Section 1.5). The application is to mechanically clear 0.06 hectares of native vegetation for house renovations and fire hazard reduction (Gordon & Fox, 2022).

The City of Cockburn has identified the property as a Bush Fire Prone Area. The need for fire hazard reduction cleaning in this instance relates to the Shire's Development Approval requirement, to implement recommendations contained in the applicants Bushfire Management Plan (as previously approved by the Shire).

### 1.3. Decision on application

<b>Decision:</b>	Granted
<b>Decision date:</b>	20 May 2024
<b>Decision area:</b>	0.06 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 public submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix A), relevant datasets (see Appendix F.1), a DWER site inspection (see Appendix E), 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 would result in:

- the loss of 0.06 hectares of native vegetation which provides significant foraging habitat for Carnaby's cockatoo (*Zanda latirostris*)
- an increased risk of spreading weeds and dieback into adjacent vegetation, which could impact on the quality of the adjacent native vegetation and fauna habitat values.

After consideration of the above information, as well as the applicants advice that disturbed and cleared areas have been utilised as far possible (noting that the location of the renovations are restricted to the presence of the existing structures), DWER determined that the proposed clearing will result in a significant residual impact to Carnaby's cockatoo foraging habitat.

In accordance with the Government of Western Australia's Offsets Policy (2011) and Offset Guidelines (2014), an offset was considered required to counterbalance the significant residual impacts of the proposed clearing (see section 4).

To counterbalance the above significant residual impact, the applicant has agreed to the following offsets:

- the rehabilitation of 0.41 hectares (minimum) of Carnaby's cockatoo foraging habitat within the same property as the application area, and the conservation of this vegetation in perpetuity.

The Delegated Officer determined that the proposed offset (refer to section 4 for details) is sufficient to counterbalance the loss of 0.06 hectares of native vegetation which provides significant foraging habitat for Carnaby's cockatoo.

Given the above, the Delegated Officer decided to grant a clearing permit subject to the following conditional requirements:

- consider avoid and minimise actions to further reduce the impact and extent of clearing
- undertake weed and dieback management to minimise their risk of introduction and spread
- rehabilitate 0.41 hectares of foraging habitat for Carnaby's cockatoo as an offset action to counterbalance the significant residual impact to Carnaby's cockatoo foraging habitat
- provide a conservation covenant over the proposed rehabilitation area under section 30B of the *Soil and Land Conservation Act 1945* to ensure its conservation in perpetuity.

Given the above and noting the offset provided counterbalances the significant residual impacts of the clearing (see section 4), the Delegated Officer determined the proposed clearing is unlikely to lead to an unacceptable risk to the environment.



1.5. Site map



Figure 1 Map of the application area

The areas cross-hatched yellow indicate the areas authorised to clear under the granted clearing permit.



**Figure 2 Map of the offset area**

The area cross-hatched red indicates the area required for rehabilitation and conservation in perpetuity.

## 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
- principle of intergenerational equity
- polluter pays principle
- principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include the:

- *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).

Relevant policies considered during the assessment include the:

- *Environmental Offsets Policy* (2011)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, 2013)
- *Procedure: Native vegetation clearing permits* (DWER, 2019)
- *Environmental Offsets Guidelines* (2014).

## 3 Detailed assessment of application

### 3.1. Avoidance and mitigation measures

The applicant has advised that the need for vegetation clearing has been minimised by utilising disturbed and cleared areas as far possible. Further avoidance and mitigation measures were not considered as the design of the house renovations are fixed to the location of the existing structures.

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

### 3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix 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 present a risk to biological values (fauna). 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 - Clearing Principles (a & b)

##### Assessment

##### **Flora and Vegetation**

The application area can be divided into two broad areas, namely the western and eastern sections.

The vegetation in the western section consists mainly of Banksia species including Holly leaved Banksia (*Banksia ilicifolia*), Firewood Banksia (*Banksia menziesii*), Candlestick Banksia (*Banksia attenuata*) with Australian Christmas trees (*Nuytsia floribunda*). Some trees exhibited signs of galls and several dead trees were also present (DWER, 2023). Weeds such as pig face (*Carpobrotus edulis*) and invasive Arum Lily (*Zantedeschia aethiopica*) as well as bare ground is present throughout (DWER, 2023). *Zantedeschia aethiopica* (Arum Lily) is listed as a Declared pest under the *Biosecurity and Agriculture Management Act 2007* (BAM Act). The vegetation within the application area is in Completely Degraded (Keighery, 1994) condition (DWER, 2023).

The vegetation in the eastern section contains Banksia species dominated by Firewood Banksia (*Banksia menziesii*), Candlestick Banksia (*Banksia attenuata*) over bare ground or lawn (DWER, 2023). The vegetation is in Completely Degraded (Keighery, 1994) condition (DWER, 2023).

The highly disturbed application area is not considered to be representative of any threatened or priority ecological communities and noting that the understorey comprises bare areas or weeds, is unlikely to contain threatened or priority flora (DWER, 2023).

The vegetation immediately south of the application area is dominated by Firewood Banksia (*Banksia menziesii*), Candlestick Banksia (*Banksia attenuata*) and Australian Christmas trees (*Nuytsia floribunda*) with weeds and grass understorey (DWER, 2023). The vegetation is in Degraded (Keighery, 1994) condition (DWER, 2023). An 0.41 hectare section in this southern area has been identified for rehabilitation and forms the offset site for this application (discussed under Section 4).

There is an increased risk of adverse impacts to nearby native vegetation from clearing through spreading weeds and dieback, which may indirectly impact on surrounding biodiversity. Conditions of the clearing permit to manage the spread of weeds and dieback will mitigate the potential risk to nearby native vegetation and its biodiversity values.

## Fauna

According to available databases, 32 conservation significant fauna species have been recorded within the local area. The closest recorded conservation significant fauna species to the application area is quenda (*Isoodon fusciventer*), recorded around 300 metres south of the application area. The closest record of Carnaby's cockatoo (*Zanda latirostris*) is around 500 meters from the application area.

Of the species recorded within the local area, two species were considered highly likely to occur within the application area based on their known habitat preferences and the habitat available within the application area. These are Carnaby's cockatoo (*Zanda latirostris*) and forest red-tailed black cockatoo (*Calyptrorhynchus banksii naso*) (collectively referred to as black cockatoos).

Other fauna of conservation significance may use the site infrequently or as part of the larger patch on the property. Impacts to these species are considered negligible given the completely degraded condition of vegetation, lack of understorey and presence of vegetation in better condition in nearby conservation areas including Jandakot Regional Park and Bush Forever Site 263, which occur on the opposite side of Gibbs Road. The application area does not provide preferred habitat for quenda noting the lack of dense understorey vegetation.

## Black cockatoos

The application area is within Carnaby's cockatoo and forest red-tailed black cockatoo known distribution. A review of available databases indicated the application area is within 10 kilometres of 11 mapped black cockatoo roosting sites, the closest is around 1.7 kilometres from the application area. The local area does not contain any confirmed mapped black cockatoo breeding sites, however there are 20 potential breeding sites located within 12 kilometres of the site. The local area contains 116 previous records of black cockatoo species, the closest located 500 metres away. The nearest confirmed breeding location for black cockatoos is located approximately 18 kilometres northeast of the application area.

The application area does not contain any potential black cockatoo breeding or roosting habitat, due to the absence of large, tall trees (DWER, 2023).

Forest red-tailed black cockatoos primarily feed on the seeds of jarrah and marri trees and therefore foraging habitat for the this species is not present within the application area.

Carnaby's cockatoo's diet includes seeds of native proteaceous plant species such as Banksia species (Commonwealth of Australia, 2022). The applicant proposes to remove 0.06 hectares of native vegetation which

contains Carnaby's cockatoo foraging habitat, noting that several *Banksia* species occur within the application area. The foraging habitat is of moderate quality noting the density of foraging species, lack of foraging evidence observed on site, and site context.

The referral guidelines indicate that while breeding, Carnaby's cockatoo will generally forage within a 12-kilometre radius of their nesting site. Following breeding, they assemble into flocks and move through the landscape searching for food, usually foraging within 6 kilometres of a night roost (Commonwealth of Australia, 2022). This variable range indicates large areas of foraging habitat are required to support Carnaby's cockatoo populations. Cumulative impacts of the loss of remnant vegetation restrict the availability of food sources for black cockatoos, which is evident on the Swan Coastal Plain (Commonwealth of Australia, 2022).

The referral guidelines identify that any native vegetation that is used for foraging by black cockatoos at any time is important for the species recovery (Commonwealth of Australia, 2022), this is particularly the case on the highly fragmented Swan Coastal Plain. The application area, which is within 6 kilometres of multiple roost sites, and within 12 kilometres of multiple potential breeding sites, represents significant foraging habitat for Carnaby's cockatoo.

The impact of the proposed clearing on black cockatoo foraging habitat constitutes a significant residual impact. Environmental offsets are therefore required to counterbalance this significant residual impact. The proposed rehabilitation of 0.41 hectares of Carnaby's cockatoo foraging habitat within the same property as the application area (as discussed in Section 4), and long-term conservation of this rehabilitation area, will adequately counterbalance this significant residual impact.

### Conclusion

Based on the above assessment, the proposed clearing will impact on significant Carnaby's cockatoo foraging habitat. The proposed rehabilitation of 0.41 hectares of black cockatoo foraging habitat within the same property as the application area, will adequately counterbalance the loss of 0.06 hectares of Carnaby's cockatoo foraging habitat proposed for clearing, noting that the rehabilitation area will be conserved in perpetuity via a conservation covenant placed on the property title under section 30B of the *Soil and Land Conservation Act 1945* (as discussed in Section 4).

### Conditions

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

- the requirement to undertake weed and dieback management measures to minimise the risk of introduction and spread of weeds and dieback.
- offset – the requirement to rehabilitate 0.41 hectares of a specified area within the same property as the application area, with Carnaby's cockatoo foraging habitat.
- the requirement to place a conservation covenant over the above rehabilitation area under section 30B of the *Soil and Land Conservation Act 1945*.

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

Other relevant authorisations required for the proposed land use include development approval under the *Planning and Development Act 2005* (issued by the City of Cockburn).

The City of Cockburn (the City) advised DWER that local government development approvals (DA) have been obtained by the applicant and are subject to the following conditions, as relevant to the clearing permit application:

- no land shall be cleared of vegetation that contains declared rare flora or priority species or declared sites of environmental or biological significance, as determined by the City
- revegetation shall be installed, reticulated and/or irrigated in accordance with the approved site plan within 6 months of the date of the DA with a report including photographs of plantings to be submitted to the city upon completion of the planting. The revegetation is to be maintained in perpetuity to the satisfaction of the City. The revegetation is to consist of:
  - minimum 30 tube-stock trees of native species being *Banksia attenuata*, *Banksia menziesii*, *Banksia ilicifolia* and *Allocasuarina fraseriana*, to be planted and replaced if any fail to establish
  - tree guards / bamboo canes to be installed to protect plantings
  - hand watering to be conducted as required during the summer months of November - March to ensure survival

- trees to be progressing and growing well into maturity with a follow-up report including photographs to be provided to the City two years from the date of its approval.

The offset rehabilitation area required for this clearing permit application aligns with the above requirements of the City's DA requirements.

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

#### **4 Suitability of offsets**

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

- the loss of 0.06 hectares of significant foraging habitat for Carnaby's cockatoo.

The applicant has proposed an environmental offset consisting of rehabilitation actions to improve and protect a 0.41-hectare patch of nearby vegetation on the property, that provides Carnaby's cockatoo significant foraging habitat.

The vegetation proposed for rehabilitation and conservation (shown in figure 2) comprises Firewood Banksia (*Banksia menziesii*), Candlestick Banksia (*Banksia attenuata*) and Australian Christmas tree (*Nuytsia floribunda*) with weeds and grass understorey and therefore provides existing Carnaby's cockatoo foraging habitat while providing opportunities for habitat improvements through infill planting of foraging species and weed control. The applicant has also agreed to place this patch of vegetation under a conservation covenant (through section 30B of the *Soil and Land Conservation Act 1945*) for protection in perpetuity.

In assessing whether the proposed offset is adequately proportionate to the significance of the environmental values being impacted, the delegated officer considered the WA Environmental Offsets Metric (including the WA environmental offsets calculator), and the WA Environmental Offsets Policy and WA Environmental Offsets Guidelines. The WA environmental offsets calculator identified that the proposed rehabilitation and conservation in perpetuity of 0.41 hectares of native vegetation with Carnaby's cockatoo foraging habitat is sufficient to counterbalance the impacts of the proposed clearing. The Delegated Officer considers that this adequately counterbalances the significant residual impacts resulting from the proposed clearing.

Subsequently, the clearing permit includes conditional requirements to undertake specific rehabilitation actions and to place a conservation covenant over the proposed rehabilitation area. The justification for the values used in the offset calculation is provided in Appendix D.

**End**

## Appendix A. Site characteristics

### A.1. Site characteristics

Characteristic	Details
Local context	<p>The application area comprises 0.06 hectares of closely scattered areas of native vegetation in the intensive land use zone of Western Australia. The proposed clearing area is a small portion of a larger remnant on the property in a highly cleared area within a rural urban setting.</p> <p>Spatial data indicates the local area (10-kilometre radius from the centre of the application area) retains approximately 24 per cent of its original native vegetation extent.</p>
Ecological linkage	The application area is at the intersection of two Perth Regional Ecological Linkages (nr 46 and 52) mapped by WA Local Government Association's (WALGA) biodiversity project.
Conservation areas	Jandakot Regional Park, the Gibbs Road Swamp System, and Bush Forever Site 263 occur nearby the application area on the opposite side of Gibbs Road to the application area.
Vegetation description	<p>Photographs supplied by the applicant and a DWER site inspection indicate that the vegetation within the application area includes Banksia species with weeds and little to no understorey (DWER, 2023). Representative photos and maps are available in Appendix E.</p> <p>This mapped vegetation type, Bassendean Complex-Central and South, is described as vegetation that ranges from woodland of <i>Eucalyptus marginata</i> (Jarrah) - <i>Allocasuarina fraseriana</i> (Sheoak) - Banksia species to low woodland of Melaleuca species, and sedgelands on the moister sites. This area includes the transition of <i>Eucalyptus marginata</i> (Jarrah) to <i>Eucalyptus tottiana</i> (Pricklybark) in the vicinity of Perth (Hedde et al., 1980).</p> <p>The mapped vegetation type retains approximately 26.87 per cent of its pre-European extent (Government of Western Australia, 2019).</p>
Vegetation condition	<p>Photographs supplied by the applicant and DWER site inspection indicate the vegetation within the proposed clearing area is in Completely Degraded (Keighery, 1994) condition, described as:</p> <ul style="list-style-type: none"> <li>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.</li> </ul> <p>The full Keighery (1994) condition rating scale is provided in Appendix C C. Representative photos are available in Appendix E.</p>
Climate	The annual mean rainfall for the area is 824.4 mm (BoM 2019).
Soil description and landform	The soil is mapped as Bassendean B2 phase, described as flat to very gently undulating sandplain with well to moderately well drained deep bleached grey sands with a pale-yellow B horizon or a weak iron-organic hardpan 1-2 m.
Land degradation risk	The application area is mapped as having a high risk of acidification and phosphorus export, a moderate risk of wind erosion and a low risk of waterlogging.
Waterbodies	The desktop assessment and aerial imagery indicated that the application area is less than 100 metres from Gibbs Road Swamp System that is on the Directory of Important Wetlands of Australia and Geomorphic Wetlands of the Swan Coastal Plain (Resource enhancement category).
Hydrogeography	<p>The application area:</p> <ul style="list-style-type: none"> <li>is mapped within the Jandakot Groundwater Area, as proclaimed under the RIWI Act</li> <li>is not within a proclaimed surface water area</li> <li>is within the Jandakot Underground water pollution Control Area protection zones for public drinking water source area (PDWSA)</li> </ul>

Characteristic	Details
	<ul style="list-style-type: none"> <li>is not within a known watercourse.</li> </ul>
Flora	According to available databases, seven flora species listed as threatened under the BC Act and 16 Priority flora (DBCA listed) have been recorded within the local area. No threatened or priority listed flora have been recorded within the application area, and none were considered likely to occur based on a site inspection (DWER, 2023).
Ecological communities	The application area is not mapped within a threatened or priority ecological community. Occurrences of the Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region (Priority 3) are mapped on neighbouring properties of which the closest is 200 metres.
Fauna	There are records of 32 fauna species of conservation significance within the local area, the closest record being quenda, recorded around 300 metres from the application area. There are eleven known black cockatoo roost sites within the local area, the closest is less than two kilometres away.

## 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> "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p><u>Assessment:</u></p> <p>The proposed clearing area is not likely to contain locally or regionally significant flora or assemblages of plants. The application area:</p> <ul style="list-style-type: none"> <li>contains vegetation in a Completely Degraded (Keighery, 1994) condition</li> <li>is not likely to contain threatened or priority flora</li> <li>is not representative of a TEC or PEC.</li> </ul> <p>While the application area provides foraging habitat for Carnaby's cockatoo, it is not considered to have high biodiversity values.</p>	Not likely to be at variance	Yes Refer to Section 3.2.1, above.
<p><u>Principle (b):</u> "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."</p> <p><u>Assessment:</u></p> <p>The application area provides significant foraging habitat for Carnaby's cockatoo. The proposed environmental offset will ensure that the impact to this species foraging habitat is adequately counterbalanced.</p>	At variance	Yes Refer to Section 3.2.1, above.
<p><u>Principle (c):</u> "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."</p> <p><u>Assessment:</u></p> <p>The application area is unlikely to contain habitat for threatened flora species due to the Completely Degraded condition and highly disturbed nature of the application areas.</p>	Not likely to be at variance	Yes Refer to Section 3.2.1, above.
<p><u>Principle (d):</u> "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."</p> <p><u>Assessment:</u></p>	Not likely to be at variance	No



Assessment against the clearing principles	Variance level	Is further consideration required?
No Threatened Ecological Communities (TECs) listed under the BC Act or the EPBC Act have been mapped within the application area and the application area is not considered representative of any such communities (DWER, 2023).		
<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 application area is classified as a constrained area on the Swan Coastal Plain, where the threshold for representation of the pre-clearing extent of native vegetation is 10 per cent. The remaining extent of the vegetation complex mapped over the application area (26.87 percent) and extent of vegetation in the local area (24 per cent) are consistent with the national objectives and targets for biodiversity conservation in Australia, being greater than 10 per cent.</p> <p>The application area is within the outer edge of a mapped Regional Ecological Linkage (nr 46 and 52). However, the vegetation within the application area is not integral to the functioning of the linkage and the proposed offset will ensure that a higher quality (post rehabilitation) remnant, which contributes greater value to the ecological linkages, will exist on the property in perpetuity.</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>The application area is around 100 metres from the Jandakot Regional Park (regional park) and Bush Forever site 263. The property is separated from the regional park by Gibbs Road and from the Bush Forever site by Gibbs Road (north) and adjacent residential properties (east). Given the distance to these conservation areas and small application area, the proposed clearing is not likely to have a significant impact on the environmental values of adjacent conservation areas. Weed and dieback management measures conditioned on the clearing permit will mitigate any potential impacts to nearby conservation reserves.</p>	Not likely to be at variance	No
<b>Environmental value: land and water resources</b>		
<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 watercourses or wetlands are mapped within the application area, and no riparian vegetation was identified during a DWER site inspection (DWER, 2023).</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>Noting the condition of the vegetation within application area and the mapped soil types, the small extent of proposed clearing is not likely to cause appreciable land degradation.</p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<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 the distance to the closest wetlands and watercourses and small size of the application area, the proposed clearing is unlikely to impact on surface or groundwater quality.</p>	<p>Not likely to be at variance</p>	<p>No</p>
<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>Given no wetlands or watercourses are recorded within the application area, and the high permeability of the soils on-site, the proposed clearing is unlikely to exacerbate flooding.</p>	<p>Not likely to be at variance</p>	<p>No</p>

## Appendix C. Vegetation condition rating scale

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

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

Environmental value to be offset		
Calculation/Element	Score (Area)	Rationale
<b>Conservation significance</b>		
Description	0.06 ha foraging habitat for Carnaby's cockatoo	The application area is mapped within the known distribution of Carnaby's cockatoo and provides suitable foraging habitat for this species.
Type of environmental value	Species (Flora/Fauna)	Carnaby's cockatoo
Conservation significance of environmental value	Rare/Threatened Species - Endangered	Carnaby's cockatoo is listed as endangered under the BC Act (state) and EPBC Act (federal).
Landscape-level value impacted	yes/no	Yes - Application area is at the meeting point of 46 (N-S) and 52 (E-W) Perth Regional Ecological Linkage, however the present Completely Degraded vegetation condition of the application area provides minimal value to the linkage.
<b>Significant impact</b>		
Description	clearing of 0.06 ha of moderate quality foraging habitat for Carnaby's black cockatoo	Proposed clearing of native vegetation considered suitable habitat for Carnaby's cockatoo
Significant impact (hectares) / Type of feature	0.06	The applicant is proposing to clear 0.06 hectares of suitable Carnaby's cockatoo foraging habitat

Quality (scale) / Number	7.00	The vegetation proposed to be cleared consists mainly of Banksia species (Holly leaved Banksia ( <i>Banksia ilicifolia</i> ), Firewood Banksia ( <i>Banksia menziesii</i> ), Candlestick Banksia ( <i>Banksia attenuata</i> )) with Australian Christmas trees ( <i>Nuytsia floribunda</i> ) over a weedy and disturbed understorey. Banksia species are a preferred foraging source for Carnaby's cockatoo. Noting this, site context, a lack of foraging evidence on site and proximity to known roost and breeding sites, the application area is considered to provide moderate to high quality foraging habitat for Carnaby's cockatoos.
<b>Rehabilitation credit</b>		
Description	0	No rehabilitation within the application area is proposed.
<b>Offset</b>		
Description	Rehabilitation within the same property	Rehabilitation of an area of 0.41 ha within the application, with minimum 30 tube-stock trees comprising <i>Banksia attenuata</i> , <i>Banksia menziesii</i> , <i>Banksia ilicifolia</i> and <i>Allocasuarina fraseriana</i> .
Proposed offset (area in hectares)	0.41	This is the total area of rehabilitation required to counterbalance the significant residual impacts of the proposed clearing by 100% on Carnaby's foraging habitat.
Current quality of offset site / Start number (of type of feature)	7.00	The native vegetation on the offset site is comparable to that within the impact site.
Future quality WITHOUT offset (scale) / Future number WITHOUT offset	7.00	It is considered that the quality of the habitat will remain the same without the proposed rehabilitation.
Future quality WITH offset (scale) / Future number WITH offset	8.00	On-ground management and planting are proposed as part of the offset. This includes tree guards, weed control and conditions for rehabilitation requirements. The rehabilitation conditions are expected to improve the quality of foraging habitat for black cockatoos.
Time until ecological benefit (years)	12.00	It is anticipated that the rehabilitation will result in vegetation that would provide better quality foraging habitat within 12 years.
Confidence in offset result (%)	0.7	There is a high to moderate level of confidence that the rehabilitation program will succeed, and that the habitat quality will improve.
Duration of offset implementation (maximum 20 years)	20.00	The offset will be implemented in perpetuity. The maximum value has been applied.
Time until offset site secured (years)	1.00	Time for the rehabilitation to commence and the offset site to be finalised.
Risk of future loss WITHOUT offset (%)	15.0%	The application area is zoned as 'rural' and it is assumed that the rehabilitation areas have no planning approvals associated with them. There is a moderate to low level of risk of loss.
Risk of future loss WITH offset (%)	5.0%	Conserving the offset site under a conservation covenant will considerably reduce the risk of loss.

Appendix E. DWER site inspection photographs



Figure 1. Location of application areas and offset area.



Fig-1. Large Holly Banksia (*Banksia ilicifolia*).  
□



Fig-2. Materials, soil and rubble stored in the area.  
□



Fig-3. Young Banksia recruitment.  
□



Fig-4. A number of dead Banksia trees located within the application area.  
□



**Fig-5.** Banksias species (dominated by Firewood Banksia (*Banksia menziesii*), Candlestick Banksia (*Banksia attenuata*)) over bare ground or lawn.



**Fig-6.** East section for Bowling alley.



**Fig-7.** Weeds like pig face (*Carpobrotus edulis*) and invasive Arum Lily (*Zantedeschia aethiopica*) as well as bare ground is present throughout.



**Fig-8.** Weeds like pig face (*Carpobrotus edulis*) and invasive Arum Lily (*Zantedeschia aethiopica*) as well as bare ground is present throughout.



Fig-9. Soils were light grey sand.



Fig- 10. Towards the southern extent vegetation condition improves. This is the area indicated by the City of Cockburn for rehabilitation planting.



Fig- 11. Galls were observed on several trees throughout the application area.



Fig- 12. Firewood Banksia (*Banksia menziesii*) is the dominant Banksia species throughout the application area.



## Appendix F. Sources of information

### F.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

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)

## F.2. References

- City of Cockburn (2023) *Advice for clearing permit application CPS 9969/1*, received 15 August 2023 (DWER Ref: DWERDT871156).
- Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.
- Commonwealth of Australia (2022) Referral guidelines for three WA threatened black cockatoo species. Carnaby's Cockatoo (*Zanda latirostris*), Baudin's Cockatoo (*Zanda baudinii*) and the Forest Red-tailed Black-cockatoo (*Calyptorhynchus banksii naso*). Available from: <https://www.dcceew.gov.au/sites/default/files/documents/referralguideline-3-wa-threatened-blackcockatoo-species-2022.pdf>
- 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](https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf).
- 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](https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.PDF).
- Department of Water and Environmental Regulation (DWER) (2023) *Site Inspection Report for Clearing Permit Application CPS 9969/1*, 7 September 2023. Department of Water and Environmental Regulation, Western Australia (DWER Ref: DWERDT900708).
- 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>
- Gordon, G., and Fox, J. (2022) *Clearing permit application CPS 9969/1*, received 19 November 2022 (DWER Ref: DWERDT689357).
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) *Vegetation Complexes of the Darling System, Western Australia*. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.