GOVERNMENT OF WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Area Permit Number:	CPS 11017/1
File Number:	DWERVT18316
Duration of Permit:	29 August 2025 to 29 August 2034

ADVICE NOTE

Monetary contribution to the Offsets Fund

The monetary contribution to the Offsets Fund referred to in *condition* 7 is intended to contribute towards the purchase and conservation in perpetuity of *native vegetation* that comprises high-quality foraging habitat for Carnaby's cockatoo (*Zanda latirostris*) and forest red-tailed black cockatoo (*Calyptorhynchus banksia naso*) and vegetation representative of the Banksia Woodlands of the Swan Coastal Plain ecological community.

Rehabilitation offset

The rehabilitation offset referred to in *condition* 8 is intended to facilitate the *rehabilitation* of 5.48 hectares of *native vegetation* within Lot 3001 on Deposited Plan 43727 (Crown Reserve R40505), Greenfields, to improve the value of significant foraging habitat for Carnaby's cockatoo and forest red-tailed black cockatoo and vegetation representative of the Banksia Woodlands of the Swan Coastal Plain ecological community.

PERMIT HOLDER

Department of Health

LAND ON WHICH CLEARING IS TO BE DONE

Lot 3001 on Deposited Plan 43727 (Crown Reserve R40505), Greenfields

AUTHORISED ACTIVITY

The permit holder must not clear more than 2.82 hectares of *native vegetation* within the combined areas 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 29 August 2027.

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. Demarcation of the clearing area

Prior to undertaking any *clearing* authorised under this permit, the permit holder must:

(a) demarcate the *clearing* area to avoid inadvertent removal of adjacent *native vegetation*; and

(b) within one (1) month of installing the above demarcation, notify the *CEO* in writing that the demarcation has been completed.

5. Wind erosion management

The permit holder must ensure that construction activities commence within three (3) months of the authorised *clearing* being undertaken, to reduce the risk of soil erosion by minimising the exposure time of soils prior to construction.

6. Fauna Management

(a) The permit holder must:

(i) engage a *fauna specialist* to traverse the areas cross-hatched yellow in Figure 1 of Schedule 1 ahead of clearing machinery immediately prior to, and for the duration of *clearing*, to identify the presence of any native vertebrate fauna;

(ii) ensure a *fauna specialist* inspects all trees to be cleared within the areas cross-hatched yellow in Figure 1 of Schedule 1, immediately prior to *clearing*, for the presence of south-western brush-tailed phascogale(s) (*Phascogale tapoatafa wambenger*); and

(iii) conduct *clearing* activities in a slow, progressive manner in one direction, towards adjacent *native vegetation* away from the existing Peel Health Campus infrastructure, to allow native fauna to move into adjacent *native vegetation* ahead of the *clearing* activity.

(b) *Clearing* activities must cease in any area where native vertebrate fauna are identified under *condition* 6(a), until those individual(s) have, after being encouraged to disperse by the *fauna specialist*, independently moved on from that area to adjoining *native vegetation.*

(c) Where native vertebrate fauna do not independently move on after being encouraged to disperse under *condition* 6(b), the *fauna specialist* must remove and relocate those individual(s) to adjoining *suitable habitat*.

(d) Where *conservation significant vertebrate fauna* are identified under *condition* 6(a), the permit holder must include the following in a report submitted to the *CEO* within three (3) months of undertaking any *clearing* authorised under this permit:

(i) the species and number of each *conservation significant fauna* individual(s) identified, and whether they required removal and relocation;

(ii) the date each individual was identified and/or removed and relocated;

(iii) the location where each individual was identified and/or removed and relocated to, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees;

(iv) the name and relevant qualifications of the *fauna specialist(s)* engaged under *condition* 6(a) and *condition* 6(b); and

(v) details pertaining to the circumstances of any death of, or injury sustained by, *conservation significant fauna* individual(s).

7. Offset – monetary contribution to the Offsets Fund

Prior to undertaking any *clearing* authorised under this permit, the permit holder must provide documentary evidence to the *CEO* that funding of $428,400 has been transferred to the Department of Water and Environmental Regulation for the purpose of acquiring, establishing or maintaining *native vegetation*, as an environmental offset for the *clearing* activities authorised under this permit.

8. Offset – rehabilitation

(a) Within 12 months of commencing *clearing* authorised under this permit and no later than 29 August 2027, the permit holder must submit a Project Rehabilitation Plan to the *CEO* for approval, for the *rehabilitation* of 5.48 hectares of *native vegetation* in the area cross-hatched red in Figure 2 of Schedule 1, being Lot 3001 on Deposited Plan 43727 (Crown Reserve R 40505), Greenfields.

(b) The Project Rehabilitation Plan must be:

(i) in accordance with the *revegetation guideline.*

(ii) prepared by an *environmental specialist*.

(c) The Project Rehabilitation Plan must include the following:

(i) the location of the proposed *rehabilitation* area(s), recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees;

(ii) *weed* control actions;

(iii) *direct seeding* or *planting* of *local provenance* at an *optimal time*, with species associated with the *Banksia Woodlands Community* and that provide Carnaby's cockatoo (*Zanda latirostris*) and forest red-tailed black cockatoo (*Calyptorhynchus banksia naso*) foraging habitat;

(iv) a *vegetation establishment period*;

(v) *rehabilitation* success completion criteria based on appropriate *reference sites*, including but not limited to target weed cover, vegetation condition, vegetation structure, species diversity and species density;

(vi) *remedial actions* to be undertaken if completion criteria are not met;

(vii) fencing actions as practicable and other measures to ensure there will be no adverse impacts to the vegetation within the area cross-hatched red in Figure 2 of Schedule 1, resulting from the adjacent infrastructure expansion;

(viii) details of ongoing maintenance and monitoring of the area(s) to be *rehabilitated* for a minimum of five (5) years;

(ix) timeframes for completion of activities; and

(x) management commitments that will be achieved.

(d) If the *CEO* decides not to approve the Project Rehabilitation Plan, the permit holder must revise and resubmit the Project Rehabilitation Plan for the *CEO's* approval within one (1) month of that decision.

(e) Where the *CEO* decides not to approve a resubmitted Project Rehabilitation Plan, the permit holder is required to continue to revise and resubmit Project Rehabilitation Plan(s) at the *CEOs* request, until such time that the *CEO* approves the Project Rehabilitation Plan.

(f) The permit holder must obtain the approval of the *CEO* prior to implementing the Project Rehabilitation Plan.

(g) The permit holder must implement the approved Project Rehabilitation Plan within 12 months of the date of approval by the *CEO*.

9. Offset – conservation reserve

Prior to 29 August 2027, the permit holder must provide to the *CEO* evidence of the creation of a new Reserve for the purpose of 'Conservation', with a Management Order to the Department of Health, over the area cross-hatched red in Figure 2 of Schedule 1, within Lot 3001 on Deposited Plan 43727 (Crown Reserve R 40505).

10. Records that must be kept

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

Table 1: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised *clearing* activities generally	(a) the species composition, structure, and density of the cleared area; (b) the location where the *clearing* occurred, recorded using a Global Positioning System (GPS) unit set to GDA2020, expressing the

No.	Relevant matter	Specifications
		coordinates in Eastings and Northings; (c) the date that the area was cleared; (d) the size of the area cleared (in hectares); (e) actions taken to avoid, minimise, and reduce the impacts and extent of *clearing* in accordance with *condition* 2; (f) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with *condition* 3; and (g) actions taken in accordance with *conditions* 4 and 5.
2.	In relation to fauna management pursuant to *condition* 6	(a) actions taken to avoid impacts to fauna in accordance with *condition* 6; and (b) a copy of the *fauna specialists* report in accordance with *condition* 6(d).
3.	In relation to the *rehabilitation* of areas pursuant to *condition* 8	(a) a description of the rehabilitation activities undertaken; (b) the size of the area *rehabilitated*; (c) the date/s which *rehabilitation* was undertaken; (d) the boundaries of the area *rehabilitated*, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings; and (e) any other actions taken in accordance with *condition* 8.

11. 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* 10; 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 days prior to the expiry date of the permit, a written report of records required under *condition* 10, where these records have not already been provided under *condition* 11(a).

DEFINITIONS

In this permit, the terms in Table 2 have the meanings defined.

Table 2: Definitions

Term	Definition
Banksia Woodlands Community	Means the 'Banksia woodlands of the Swan Coastal Plain ecological community', listed as Endangered under the *Environment Protection and Biodiversity Conservation Act 1999*
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*.
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under s.51H of the EP Act.
conservation significant vertebrate fauna	means those vertebrate fauna taxa listed as threatened or specially protected species under the *Biodiversity Conservation Act 2016* (WA), or as priority fauna classes 1, 2, 3, or 4 in the Department of Biodiversity, Conservation and Attractions Threatened and Priority Fauna List for Western Australia (as amended from time to time), and/or listed as threatened under the *Environment Protection and Biodiversity Conservation Act 1999*.
department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
dieback	means the effect of *Phytophthora* species on *native vegetation*.
direct seeding	means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species.
EP Act	*Environmental Protection Act 1986* (WA)
environmental specialist	means a person who holds a tertiary qualification in environmental science or equivalent and has a minimum of two (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.
fauna specialist	means a person who holds a tertiary qualification in environmental science or equivalent and has a minimum 2 years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed, or, who is approved by the *CEO* as a suitable fauna specialist for the bioregion and holds a fauna licence issued under the *Biodiversity Conservation Act 2016.*
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 km 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 April-July for undertaking *planting* and *direct seeding*.
planting	means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species.
reference sites	means nearby sites used to provide baseline data for planning a rehabilitation project. Measurements from fixed reference points or plots where biodiversity components are measured are used to set measurable *completion criteria* for rehabilitation projects. The *reference sites* must contain the following values:

Term	Definition
	• high quality foraging habitat for Carnaby's cockatoo (*Zanda latirostris*) and forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*); • vegetation representative of the *Banksia Woodlands Community;* and • vegetation in a Very Good (Keighery, 1994) or better condition.
rehabilitate/ rehabilitated/ rehabilitation	means actively managing an area containing *native vegetation* to improve the ecological function of that area.
remedial action/s	means any activity that is required to ensure successful re-establishment of vegetation to its pre-clearing composition, structure and density, and may include a combination of soil treatments and revegetation.
revegetation guideline	the document '*A Guide to Preparing Revegetation Plans for Clearing Permits*' (Department of Water and Environmental Regulation, 2018)
suitable habitat	means habitat known to support the native vertebrate fauna species requiring relocation, within the known current distribution of the species, and where practicable, within the area cross-hatched red in Figure 2 of Schedule 1.
vegetation establishment period	means a period of at least two summers after the *rehabilitation* during which time replacement and infill *rehabilitation* works may be required for areas in which *rehabilitation* has been unsuccessful and involves regular inspections of *rehabilitation* sites to monitor success.
weeds	means any plant – (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.

END OF CONDITIONS

Meenu Vitarana
MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

6 August 2025

Schedule 1

The boundary of the areas authorised to clear are shown in Figure 1. The boundary of the offset area is shown in Figure 2.

Figure 1: The areas cross-hatched yellow indicate the areas authorised to clear under this clearing permit.

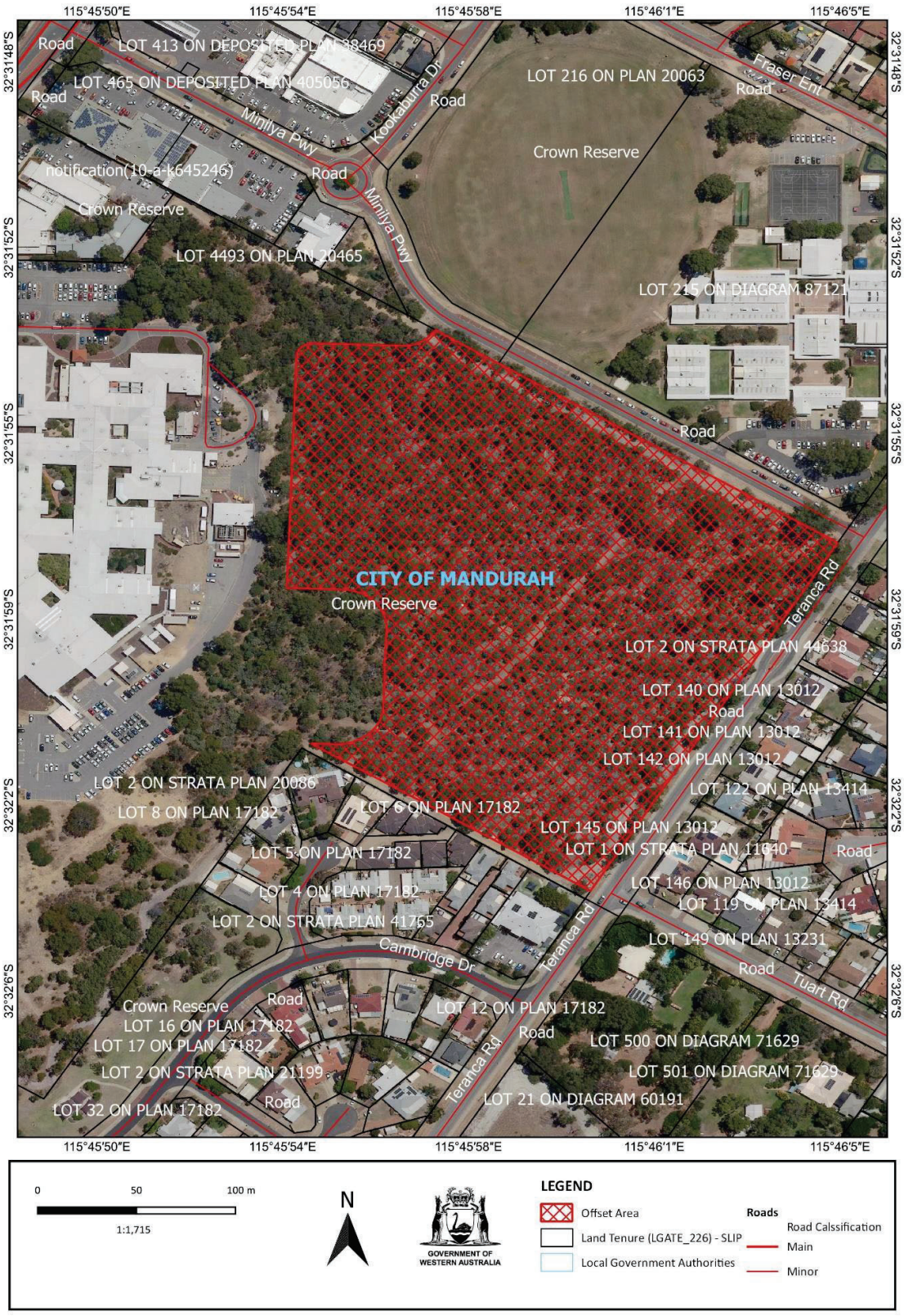

Figure 2: The area cross-hatched red indicates the offset area subject to *condition* 8 and *condition* 9.

Government of Western Australia
Department of Water and Environmental Regulation

Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 11017/1
Permit type:	Area permit
Applicant name:	Department of Health
Application received:	28 March 2025
Application area:	2.82 hectares (ha) of native vegetation
Purpose of clearing:	Peel Health Campus Expansion
Method of clearing:	Mechanical
Property:	Lot 3001 on Deposited Plan 43727 (Lot 3001) (Crown Reserve 40505), Greenfields
Location (LGA area/s):	City of Mandurah

1.2. Description of application

The applicant is proposing to clear 2.82 hectares (ha) of native vegetation within Lot 3001 on Deposited Plan 43727 (Lot 3001) (Crown Reserve 40505), Greenfields, to expand the Peel Health Campus. The vegetation proposed for clearing is next to the existing campus infrastructure, and forms part of a larger patch (comprising about 12 ha) of vegetation.

In 2020, the State Government publicly announced plans and a redevelopment budget of $152 million for a major expansion of the campus. The application area is for the proposed Stage 2 enabling works, being the final stage of the development works proposed for the expansion.

The proposed expansion would result in additional beds, an operating theatre, an emergency centre, car parks and connecting roads. These facilities will be directly connected to and integrated with the existing Peel Health Campus (Emerge, 2025).

The application area is currently reserved for ‘Public Purposes – Hospital’ under the Peel Region Scheme, and ‘Public Purposes - Hospital’ under the City of Mandurah Local Planning Scheme.

1.3. Decision on application

Decision:	Granted
Decision date:	6 August 2025
Decision area:	2.82 hectares of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

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

In making this decision, the Delegated Officer had regard for:

- the site characteristics (see Appendix A);

- relevant datasets (see Appendix E);
- the findings of biological surveys of the application area and surrounds;
- the clearing principles set out in Schedule 5 of the EP Act (see Appendix B);
- the applicant's efforts to avoid, minimise, mitigate and offset the environmental impacts of the proposed clearing in accordance with the WA Environmental Offsets Guidelines (2014) mitigation hierarchy;
- planning instruments and other relevant matters (see Section 3); and
- the necessity of clearing, to facilitate the expansion of the Peel Health Campus, which is a high priority State Government project.

The assessment identified that the proposed clearing would result in the following environmental impacts:

- the loss of:
  - 2.7 ha of high-quality foraging habitat for Carnaby's cockatoo and forest red-tailed black cockatoo (black cockatoos)
  - 1.91 ha of the Banksia Woodlands of the Swan Coastal Plain ecological community (Banksia Woodlands Community)
  - 0.024 ha (including three Tuart trees) that may be representative of the Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain ecological community (Tuart Woodlands Community)
- the potential introduction and spread of weeds and dieback into nearby native vegetation comprising high biodiversity
- the potential for wind erosion should soils be left bare post clearing
- a risk of injury to native fauna through clearing operations.

The Delegated Officer determined that impacts to adjacent vegetation from weed and dieback spread, the Tuart Woodlands Community, and fauna through machinery strike, can be appropriately managed through conditions on the clearing permit. The Delegated Officer determined that impacts to black cockatoo foraging habitat, and the Banksia Woodlands Community remained significant after the application of the mitigation hierarchy, and that these impacts constitute significant residual impacts.

The Delegated Officer determined that, given the extent of the significant residual environmental impacts and applicant's implementation of the mitigation hierarchy, it was appropriate to consider offsets to counterbalance the significant residual impacts in this instance.

The applicant has provided an adequate environmental offset, consistent with the WA Environmental Offsets Policy (2011) and WA Environmental Offsets Guidelines (2014), to counterbalance the above significant residual impacts.

The proposed offset involves the rehabilitation and conservation in perpetuity of 5.48 ha of native vegetation next to the application area within Lot 3001. The offset area includes the Banksia Woodlands Community, Tuart Woodlands Community and high value black cockatoo foraging habitat. The offset will aim to improve the quality of these environmental values, in accordance with a specific project rehabilitation plan. The proposed offset also includes a monetary contribution of $428,400 to the Part V Offsets Fund, to fund the purchase of 12.24 ha of high-quality foraging habitat for Carnaby's cockatoo and 2.4 ha of vegetation representative of the Banksia Woodlands Community. The suitability of the offset is summarised in section 4.

Considering the above, and the necessity for clearing, the Delegated Officer decided to grant a clearing permit subject to conditions requiring the applicant to:

- implement environmental offsets, as outlined above
- demarcate the application area to avoid the inadvertent clearing of adjacent high quality native vegetation
- undertake avoid and minimise measures to reduce the impacts and extent of clearing
- undertake hygiene steps to minimise the risk of the introduction and spread of weeds and dieback
- undertake construction activities within 3 months of clearing to minimise the risk of wind erosion
- undertake slow, one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity; and
- engage a fauna specialist for the duration of clearing activities to identify the presence of native vertebrate fauna allowing fauna to disperse from the clearing area, and removing and relocating any individuals that do not independently disperse.

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.

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*.

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)

Relevant policies considered during the assessment include:

- *WA 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, December 2013)
- *WA Environmental Offsets Guidelines* (August 2014)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2020).

3 Detailed assessment of application

3.1. Avoidance, minimisation and mitigation measures

The applicant submitted supporting information (Emerge, 2025), demonstrating the actions taken to avoid and minimise the impacts of the proposed clearing (Emerge, 2025). These actions include designing the campus expansion to minimise the impact to high value native vegetation within Lot 3001. This has resulted in the avoidance of (Emerge, 2025):

- 7.38 ha of black cockatoo foraging habitat
- 80 potential black cockatoo breeding trees
- 6.08 ha of the Banksia Woodlands Community
- 1.94 ha of the Tuart Woodlands Community.

The applicant notes that many iterations of the project development design were undertaken to limit the extent of clearing required for the development. These design changes included (Emerge, 2025):

- relocating the palliative care ward south of the ring road to avoid the need for clearing for this building
- removing the chemotherapy ward.

The applicant advised that the three tuart trees within the current application area have been included as a precaution and are unlikely to be cleared (Emerge, 2025).

The applicant notes that there is no further opportunity to avoid or minimise clearing and meet the needs of the required health campus upgrades (Emerge, 2025).

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid, minimise and mitigate the potential impacts of the proposed clearing on environmental values. After consideration of these measures, the Delegated Officer determined that it was appropriate to consider an environmental offset to counterbalance the significant residual impact to the Banksia Woodlands Community and black cockatoo foraging habitat. The applicant has proposed an adequate environmental offset, as detailed in Section 4.

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer had regard for the site characteristics (see Appendix A), biological survey findings, 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 biodiversity, conservation listed fauna and conservation listed ecological communities. 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 & threatened ecological communities – Principles (a) & (d)

Assessment

Background

The applicant commissioned a 'Detailed Flora and Vegetation Assessment' (Flora Assessment) (Emerge, 2024) over a larger area encompassing the application area. The assessment was consistent with the EPA's *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA 2016).

The Flora Assessment included surveys in November 2021, and September and October of 2022, 2023 and 2024, during which the composition and condition of vegetation was recorded. Targeted searches were conducted for conservation listed flora and ecological communities, with a focus on those with a high or moderate likelihood of occurrence. Transects were traversed at 10 to 20 m apart through areas of potentially suitable habitat.

Identified vegetation units were compared to the regional 'floristic community type' (FCT) dataset, being '*A floristic survey of the southern Swan Coastal Plain'* (Gibson *et al.* 1994), and assessed against TEC and PEC diagnostic criteria, with reference to size and/or vegetation condition thresholds (where these exist).

The Delegated Officer considers that the surveys were appropriate to identify conservation listed flora and threatened and priority ecological communities.

The vegetation in the application area comprises (Emerge, 2024) (see Appendix A for full descriptions):

- *Banksia attenuata* and *Eucalyptus marginata* (jarrah) woodland (BaEm)
- *Eucalyptus gomphocephala* (tuart) forest over bare ground (Eg)
- Tuart and *B.attenuata* woodland (EgBa)
- Open woodland of mixed native and non-native species (Mixed).

The vegetation within the application area ranges from completely degraded to very good (Keighery, 1994) condition, with the majority in a very good to good (Keighery, 1994) condition (see Appendix A).

Threatened and Priority Flora

The Flora Assessment did not identify any threatened or priority flora, despite intensive, appropriately timed survey effort (Emerge, 2024). Based on the survey findings, there is a low risk of impact to conservation listed flora from the proposed clearing.

Ecological Communities

Banksia Woodlands Community – direct impacts

According to available databases, the application area is mapped as the Banksia Woodlands Community. This community is a threatened ecological community (TEC) under the EPBC Act (Endangered) and is state listed by the Department of Biodiversity, Conservation and Attractions (DBCA) as a Priority 3 ecological community. The Banksia Woodlands Community supports a rich and diverse array of flora and fauna species and is restricted to the Perth and Dandaragan subregions of the Swan Coastal Plain (Department of the Environment and Energy (DotEE, 2016).

The Flora Assessment undertook floristic analysis of quadrat data to determine whether the vegetation types recorded were characteristic of any threatened or priority ecological communities (see section 4.2.2 of the Flora Assessment for this analysis) (Emerge, 2024).
The floristic analysis determined that vegetation unit BaEm represented floristic community type (FCT) 21a 'central *Banksia attenuata* – *Eucalyptus marginata* woodlands' (Emerge, 2024) which is a component of the Banksia Woodlands Community. The areas comprising BaEm were compared against the Commonwealth criteria for determining the presence of the Banksia Woodlands Community, as defined within the Approved Conservation Advice for this community (DotEE, 2016). The analysis considered the key diagnostic characteristics, condition

thresholds, minimum patch size thresholds and context. The analysis identified that 1.91 ha of the BaEm vegetation within the application area is representative of the Banksia Woodlands Community (Emerge, 2024) (see Figure 2).

DWER's assessment of the quantified proposed impact to the Banksia Woodlands Community concurred with that identified in the Flora Assessment. Therefore, the proposed clearing will result in the loss of 1.91 ha of this community.

The key threats to this community include clearing for development, fragmentation, dieback, weeds, and hydrological changes (DotEE, 2016). The areas considered critical for the persistence of this community include all patches that meet the key diagnostic characteristics and condition thresholds for the community, plus buffer zones, particularly where this comprises surrounding native vegetation. The description of critical habitat accounts for this community's occurrence in a highly cleared and modified landscape, and that patches of the community are largely small and fragmented (DotEE, 2016).

According to available datasets, about 321,603 ha of the Banksia Woodlands Community is mapped across the Swan Coastal Plain, noting this is indicative mapping that requires ground truthing. The proposed clearing therefore represents the loss of about 0.00006 % of the mapped potential occurrence of the community.

While the proposed clearing would result in a small overall impact to the mapped potential occurrence of this community, the Delegated Officer has considered the 1.91-ha impact as significant given the threat of ongoing clearing of representative patches on the Swan Coastal Plain. The residual impact to this community aligns with the definition of 'significant residual impact' in the WA Environmental Offset Guidelines, which includes areas defined as being critically impacted in a cumulative context (Government of Western Australia 2014).

The Delegated Officer considered the hierarchy of protect, restore, and offset as set out in the Approved Conservation Advice for this community. The applicant has made efforts to minimise impacts to this community by preferentially locating the proposed Peel Health Campus upgrades closest to the existing campus infrastructure. This has allowed for the retention of 6.08 ha of native vegetation within the surrounding Lot. Given the applicant's implementation of the mitigation hierarchy, and extent of impact proposed, the Delegated Officer determined that it was appropriate to consider an environmental offset to counterbalance the proposed impact to the Banksia Woodlands Community.

The applicant has proposed an offset to counterbalance the impact to the Banksia Woodlands Community. The nature and suitability of this offset is detailed under Section 4. The offset will provide an environmental outcome consistent with the Approved Conservation Advice for this community (DotEE, 2016).

Banksia Woodlands Community – indirect impacts

The application area forms part of a larger area mapped as the Banksia Woodlands Community within Lot 3001. The proposed clearing will not result in the isolation of any patches of the community, nor will it have the effect of increasing the distance to other patches of the Banksia Woodlands Community in the local area.

The proposed clearing and end land use will not substantially take groundwater beyond the applicants existing groundwater licence allocation, and noting the extent of proposed clearing and absence of watercourses on site, the risk of impact to natural hydrological processes is low.

The proposed clearing will however increase the risk of weeds and dieback spread, and dust deposition from construction activities into adjacent areas of the Banksia Woodlands Community. The applicant has advised that the following measures will be undertaken to limit these risks (Emerge, 2025):

- vehicles, machinery, and personnel to be free of mud/soil and plant material upon entering the site
- minimising clearing and earthworks during wet conditions
- using native landscaping species within plantings around the Peel Health Campus
- dust suppression measures, mulching, and erosion controls, to be set out in the construction management plan (to be required as part of the Western Australian Planning Commission Development Approval).

Tuart Woodlands Community

The Tuart Woodlands Community is listed as critically endangered under the EPBC Act and is listed by DBCA as a Priority 3 community. The distribution of this community is limited by the distribution of tuart trees as its defining

species (DotEE, 2019). Key threats to the community include land clearing, changes to climate and availability of water; invasion by weeds, and non-native fauna (DotEE, 2019).

The Flora Assessment undertook floristic analysis of quadrat data to determine the FCTs present and whether these form part of the Tuart Woodlands Community (see section 4.2.2 of the Flora Assessment) (Emerge, 2024). The Flora Assessment considered the structure, composition and patch size of potentially representative FCTs against the Approved Conservation Advice for this community. The Flora Assessment identified that vegetation units EgBa and Eg may be characteristic of this community.

Vegetation unit EgBa was identified in two discrete patches in the larger survey area, comprising a western and eastern patch (Emerge, 2024). The eastern patch, which was confirmed as an occurrence of the Tuart Woodlands Community (Emerge, 2024), is not within the application area (150 m east) and is proposed for retention.

The western patch is within the application area. This patch is in a 'moderate' to 'poor' condition. Noting this and the patch size (between 0.5 and 2 ha), the Flora Assessment determined that it does not meet the condition thresholds set out within the Approved Conservation Advice for this community (Emerge, 2024). The determination of patch size considered the distance to the next nearest potential Tuart Woodlands Community occurrence (Emerge, 2024). Noting the above, the western patch was not considered representative of the Tuart Woodlands Community.

Vegetation unit Eg comprises scattered tuart trees over planted gardens, bare ground and hardstand in the western portion of Lot 3001 (Emerge, 2024). The Flora Assessment identified that the Eg patch in Lot 3001 does not independently meet the size and condition threshold criteria for this community, as it is not in 'very high' or 'high' condition. However, this patch may be connected to other tuart trees across Lakes Road (within 60 m), which may extend the overall patch to 5 ha and meet the criterion for representing this community (Emerge, 2024). Noting that the presence of the Tuart Woodlands Community across Lakes Road has not been verified, it is uncertain whether the Eg patch is an occurrence of this community. Given this uncertainty, the Delegated Officer has precautionarily considered that vegetation type Eg is an occurrence of the Tuart Woodlands Community.

A small patch (0.024 ha, comprising three tuart trees) of Eg occurs within the western portion of the application area (see Figure 2). This area is bordered by a car park to the north and west, the Peel Health Campus buildings east, and bare areas surrounding the campus south. Noting the site context and extent of impact to a potential 5 ha or greater occurrence of this community, the Delegated Officer determined that the impact of the proposed clearing to this potential occurrence is not likely to be significant. The value of the tuart trees as foraging habitat for black cockatoos has been considered under section 3.2.2 below.

The proposed clearing is also unlikely to result in any indirect impacts to surrounding areas potentially comprising the Tuart Woodlands Community (being vegetation type Eg), given the other occurrences of vegetation type Eg are surrounded by the existing Peel Health Campus car park.

Conclusion

The clearing will result in the loss of 1.91 ha of native vegetation representative of the Banksia Woodlands Community and 0.024 ha of native vegetation that may be representative of the Tuart Woodlands Community.

The impact to the Banksia Woodlands Community constitutes a significant residual impact that requires counterbalancing by an environmental offset (detailed under Section 4). The Delegated Officer considered the extent of impact and the applicant's adherence to the mitigation hierarchy in determining that an environmental offset was a suitable option to counterbalance the above impact.

The proposed clearing may also increase the risk of weeds and dieback spreading into adjacent areas comprising the Banksia Woodlands Community. Appropriate management measures will be required as a condition of the clearing permit (as detailed below) to address this potential impact. These measures, together with those proposed by the applicant, are considered appropriate to manage this risk.

The small impact to the Tuart Woodlands Community was not considered significant, noting the extent of impact and site context. While an offset was not specifically required for this impact, it is noted that the offset proposed by the applicant will have the effect of retaining and conserving in perpetuity a 0.84 ha patch of the Tuart Woodlands Community, as shown in the eastern portion of Lot 3001 below.

Conditions

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

- implement an environmental offset (see Section 4)
- undertake avoid and minimise actions to reduce the impacts and extent of clearing
- undertake specific hygiene management measures to minimise the risk of the introduction and spread of weeds and dieback
- demarcate the application area prior to clearing to avoid inadvertent impacts to adjacent areas of the Banksia Woodlands Community proposed for retention and conservation.

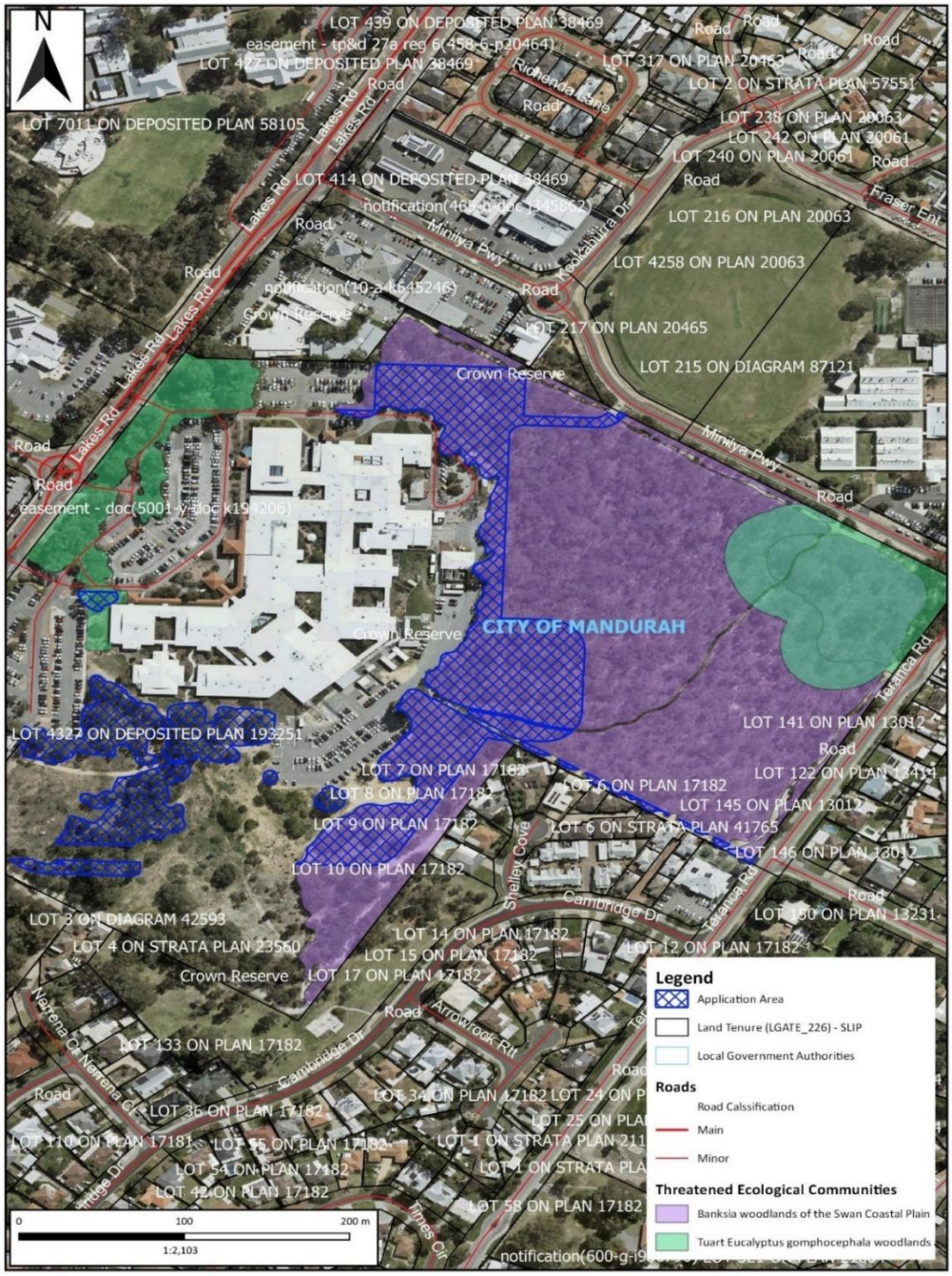

Figure 2 – Banksia Woodlands Community and Tuart Woodlands Community recorded occurrence.

The areas shaded purple and green indicate the Banksia Woodlands Community and Tuart Woodlands Community, respectively.

3.2.2. Biological values – Conservation listed fauna - Principle (b)

Assessment

Background

A 'Basic Fauna and Targeted Black Cockatoo Assessment' (Fauna Assessment) (Emerge, 2024a) was undertaken over a larger area encompassing the application area on 6 September 2024. The Fauna Assessment involved Emerge ecologists traversing the survey area during the day to evaluate the fauna habitat and record the presence of fauna species (Emerge, 2024a). An opportunistic fauna list was compiled which included evidence of species presence (Emerge, 2024a). Active searches for evidence of breeding, roosting and foraging activity for black cockatoos was undertaken. Hollows that appeared potentially suitable for use by black cockatoos from the ground were further inspected using a pole-mounted camera (Emerge, 2024a).

The Fauna Assessment identified six fauna habitat types within the application area (see Appendix A for full descriptions) (Emerge, 2024a):

- *Banksia* woodland
- *Eucalyptus* forest
- Grassland and bare ground
- Hardstand and buildings
- Mixed woodland
- Scattered shrubs and trees

The highest value habitat identified was *Banksia* woodland, which included a contiguous cover of native trees and shrubs with high microhabitat complexity, logs, hollows and leaf litter (Emerge, 2024a).

DWER's assessment identified that the below fauna species in Table 1 have the potential to occur within the application area. This is based on the proximity to known records, recorded vegetation and fauna habitat types (Emerge, 2024), and site characteristics.

Table 1. Native fauna species that may occur within the application area.

Name	Conservation status
Baudin's cockatoo (*Zanda baudinii*)	Endangered; BC Act & EPBC Act
black-striped snake (*Neelaps calonotos*)	Priority 3; DBCA listed
Carnaby's cockatoo (*Zanda latirostris*)	Endangered; BC Act & EPBC Act
chuditch (*Dasyurus geoffroii*)	Vulnerable; BC Act & EPBC Act
forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*)	Vulnerable; BC Act & EPBC Act
graceful sun-moth (*Synemon gratiosa*)	Priority 4; DBCA listed
pacific swift (*Apus pacificus*)	Migratory; BC Act and EPBC Act
peregrine falcon (*falco peregrinus*)	Other specially protected fauna; BC Act
Perth slider (*Lerista lineata*)	Priority 3; DBCA listed
quenda (*Isoodon fusciventer*)	Priority 4; DBCA listed
south-western brush tailed phascogale (*Phascogale tapoatafa wambenger*)	Conservation dependant; BC Act
Swan Coastal Plain shield-backed trapdoor spider (*Idiosoma sigillatum*)	Priority 3; DBCA listed

No conservation listed fauna were recorded within the application area during the Fauna Assessment (Emerge, 2024a).

The application area may transiently be used by the peregrine falcon and pacific swift for foraging, however noting these highly mobile avian species have large home ranges and were not identified on site, the proposed clearing is not likely to impact on these species. Therefore, these species have not been considered further below.

The western ringtail possum (*Pseudocheirus occidentalis*) (Critically Endangered; BC Act & EPBC Act) was excluded from Table 1, as the application area is beyond the northern extent of the key management zone for this species on the Swan Coastal Plain (SCP) and does not provide critical habitat for this species on the SCP.

Specifically, the SCP management zone comprises the southern extremity of the SCP, extending from north of Bunbury (around Yalgorup National Park 18 km south west of the application area) to Augusta, but principally around Busselton (Department of Parks and Wildlife (Parks and Wildlife), 2017). The habitat critical for WRP survival in the SCP management zone includes stands of mature *Agonis flexuosa* (peppermint trees), typically in low lying areas, with high canopy continuity (Parks and Wildlife, 2017). Stands of peppermint trees were not recorded in the Flora Assessment (Emerge, 2024).

Given the above, the western ringtail possum is unlikely to use the application area.

Carnaby's cockatoo and forest red-tailed black cockatoo

Foraging habitat

Most of the application area (2.7 ha) provides high value foraging habitat for Carnaby's cockatoo and forest red-tailed black cockatoo (herein collectively referred to as black cockatoos). This is noting the presence of the following vegetation types within the application area (Emerge, 2024):

- *Banksia* and jarrah dominated woodland (BaEm) (2.22 ha)
- mixed open woodland which includes some *Banksia* and jarrah (Mixed) (0.3 ha)
- tuart and banksia woodland (EgBA) (0.16 ha)
- three tuart trees over bare ground (Eg) (0.024 ha).

The Commonwealth referral guideline for black cockatoos (DAWE, 2022), specifies that habitat critical for their recovery includes foraging habitat (including remnant patches of vegetation), night roosting habitat and nesting trees for breeding. The importance of foraging habitat for Carnaby's cockatoo increases when it occurs within foraging distance of nesting sites (about 12 kilometres) as it supports breeding effort (EPA, 2019). Food resources within the range of roost sites are also important to sustain populations of black cockatoos (EPA, 2019).

There are 8 Carnaby's cockatoo nesting sites within 12 km of the application area (of which 5 are confirmed breeding sites), and 10 known black cockatoo roost sites (combination of Carnaby's and forest red-tailed black cockatoo) within 6 km of the application area. This indicates the foraging habitat present within the application area may support roosting black cockatoos and breeding effort for Carnaby's cockatoos.

The Delegated Officer therefore determined that the proposed clearing of 2.7 hectares of high value foraging habitat for black cockatoos constitutes a significant residual impact. This determination considered the:

- presence of high-value foraging habitat for black cockatoos within the application area
- proximity to known roost sites and Carnaby's cockatoo nest sites
- previous evidence of black cockatoos foraging nearby the application area
- cumulative loss of black cockatoo foraging habitat across these species range, particularly in the central and southern Swan Coastal Plain.

Noting the extent of the proposed impact to black cockatoo foraging habitat, and the applicant's adherence to the mitigation hierarchy (avoid, minimise, mitigate), the Delegated Officer determined that it was appropriate to consider an environmental offset to counterbalance this impact.

The applicant has proposed an adequate environmental offset to counterbalance the impact to black cockatoo foraging habitat. This offset is consistent with the key recovery actions outlined in the recovery plan for black cockatoos (see Section 4 for offset details).

Roosting and breeding habitat

Breeding habitat' for black cockatoos includes trees that either have a suitable nest hollow or are of a suitable DBH to develop a nest hollow (500 millimetres (mm) for most tree species) (DAWE, 2022).

The Fauna Assessment identified 118 potential breeding trees with a diameter at breast height (DBH) of more than 500 mm within the entirety of Lot 3001 (62 jarrah, 36 tuart and 10 marri). Black cockatoo breeding activity was not recorded in any of these trees (Emerge, 2024a). Of the 118 potential breeding trees recorded, 31 occur in the application area, of which 3 have hollows. None of these hollows were deemed suitable to provide black cockatoo breeding habitat, given their small size (Emerge, 2024a). The closest tree with hollows that may be of suitable size for breeding was recorded 85 metres west of the application area.

Black cockatoos commonly night roost in tall eucalypts near food and water resources. Noting the presence of tall eucalypts in the application area, and proximity to foraging habitat and the Serpentine River, the trees proposed to clear may provide roosting habitat for black cockatoos. The Fauna Assessment did not identify any evidence of roosting in Lot 3001 (branch clippings, droppings or feathers) (Emerge, 2024a).

The loss of potential roosting and potential future breeding habitat is not considered a significant residual impact in this instance, noting a lack of evidence of roosting use, and absence of trees with suitably sized breeding hollows in the application area. Therefore, an offset has not been required to counterbalance this impact. However, the Delegated Officer notes that the applicants proposed offset includes conserving in perpetuity and maintaining the adjacent remnant vegetation within Lot 3001, which includes 42 trees with a DBH of more than 500 millimetres.

Baudin's cockatoo

The Fauna Assessment identified that the application area does not include primary foraging habitat for Baudin's cockatoo. This is noting that the area of *Corymbia calophylla* forest (a preferred foraging resource for Baudin's cockatoo) recorded during the Fauna Assessment and Flora Assessment has been avoided by the applicant. The proposed clearing will however impact on secondary foraging habitat for this species, largely in the form of *Banksia* and jarrah woodland (Emerge, 2024a).

The application area is not within a known breeding area or within the predicted breeding range for this species, the latter of which begins about 60 km south. The application area is also outside of the mapped known key foraging areas and main wintering areas (areas used for foraging and roosting during the winter non-breeding season) for this species, based on modelled distribution mapping (DAWE, 2022).

Considering the above, the proposed clearing is not likely to impact on significant habitat for this species. While an offset has not been required to counterbalance impacts to this species habitat, it is noted that the proposed offset would have the effect of conserving in perpetuity and improving 5.48 hectares of adjacent native vegetation which provides secondary foraging habitat for this species. The monetary contribution provided to partially offset impacts to Carnaby's cockatoo and forest red-tailed black cockatoo habitat, would also have the effect of acquiring and conserving secondary (and potentially primary) foraging habitat for Baudin's cockatoo.

Swan Coastal Plain shield-backed trapdoor spider (SCP trapdoor spider)

The SCP trapdoor spider is known from *Banksia* woodland and heathland on sandy soils (Rix *et al*. 2018). There are 54 records of this species within 10 km of the application area. The application area therefore provides suitable habitat for this species within its known distribution.

A conservation assessment of the SCP trapdoor spider noted that the species is locally extinct throughout most of its range due to extensive land clearing and that further close assessment is crucial to the continued survival of this species (Rix *et al*. 2018).

The Fauna Assessment described the potential presence of this species as "negligible" (Emerge, 2024a). However, the Delegated Office considered that this species may occur within the application area. This is noting the presence of suitable habitat, number of records in the local area (10 kilometre radius surrounding the application area) and that this species has been previously recorded in remnants surrounded by urban sprawl (as is the case here). This view was supported by subject matter experts from DWER's Terrestrial Ecosystems Branch (DWER, 2025).

DWER subsequently requested the applicant undertake a targeted survey for this species, to determine its presence / absence, and if present, its extent of occurrence relative to the adjacent native vegetation.

The applicant subsequently commissioned a targeted survey for this species in May 2025. The survey was undertaken by Invertebrate Solutions (2025) in accordance with the 'Technical Guidance Sampling of short-range endemic invertebrate fauna' (EPA 2016). The survey included a targeted search for distinctive *Idiosoma sigillatum* burrows in areas of suitable habitat. No burrows, either active or inactive, were observed within the application area (Invertebrate Solutions, 2025).

Noting the findings of the above targeted *Idiosoma sigillatum* survey, the proposed clearing is not likely to impact on this species, or on critical habitat for this species.

Graceful sun-moth

This species occurs within coastal heathland on Quindalup dunes where it occurs on secondary sand dunes in areas where its preferred host plant *Lomandra maritima* is abundant. It is also known from *Banksia* woodland on

Spearwood and Bassendean dunes, where its second known host plant *Lomandra hermaphrodita* is abundant (Department of Environment and Conservation (DEC), 2011).

Lomandra hermaphrodita was recorded during the Flora Assessment (Emerge 2024). This plant occurs as scattered individuals within and beyond the application area. Its estimated cover within quadrat 2, which occurs in the application area (see Figure 5 of the Flora Assessment), is 0.1%. Noting the limited abundance, and that the plants recorded density within quadrat 3 is also 0.1%, which occurs in the adjacent offset area proposed for rehabilitation and conservation, the proposed clearing is not likely to impact on significant habitat for the graceful sun-moth.

Other fauna

The vegetation within the application area is not likely to comprise significant habitat for the Perth slider, black striped snake, western brush wallaby, south-west brush-tailed phascogale, quenda or chuditch. This is noting the:

- avoidance of 5.48 ha of high-quality *Banksia* woodland habitat adjacent (within the same Lot)
- absence of dense riparian habitat within the application area
- lack of connectivity of the application area to other remnants in the local area
- lack of evidence of use by any of these species within the application area (Emerge, 2024a)
- known ecology of these species.

However, these species and other native non-conservation listed fauna, may transiently use the site. Any such individuals using the site at the time of clearing may be impacted through fauna strike. Fauna management measures that require slow, one directional, progressive clearing and engaging a fauna specialist to traverse the application area immediately prior to and during clearing would assist to minimise this risk.

Fauna linkage values

The application area is not part of a formally mapped ecological linkage, it may however provide value as a stepping stone for fauna within a highly fragmented landscape. This value is somewhat limited for terrestrial fauna given the surrounding urban development and lack of connectivity with other remnants in the local area. However, it may support the movement of black cockatoos and other avian fauna through the landscape by providing a foraging resource. The impact to black cockatoo foraging habitat has been assessed as significant, and the applicant has provided an offset to counterbalance this impact (see Section 4).

The proposed clearing will increase the risk of weeds and dieback spreading into adjacent areas of fauna habitat. Adherence to specific weed and dieback hygiene protocols would assist to manage this risk.

Conclusion

Based on the above assessment, the proposed clearing will result in the loss of 2.7 ha of significant foraging habitat for Carnaby's cockatoo and forest red-tailed black cockatoo. This impact constitutes a significant residual impact that requires counterbalancing by an environmental offset (detailed under Section 4). The Delegated Officer determined that it was appropriate to consider an environmental offset to counterbalance the significant residual impacts in this instance, noting the applicant's adherence to the mitigation hierarchy and the extent of impact.

The proposed clearing will also increase the risk of fauna strike to native fauna using the application area at the time of clearing.

Conditions

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

- provide an environmental offset (as detailed in Section 4 below)
- undertake avoid and minimise measures to reduce the impacts and extent of clearing
- undertake hygiene steps to minimise the risk of the introduction and spread of weeds and dieback
- undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity

- engage a fauna specialist for the duration of clearing activities to identify the presence of native vertebrate fauna, allowing the opportunity to disperse, and removing and relocating any individuals that do not independently disperse.

3.3 Relevant planning instruments and other matters

Planning

The Department of Planning, Lands and Heritage (DPLH) was invited by DWER to provide comment on the proposed clearing and advised that (DPLH, 2025):

- when the Peel Region Scheme took effect in March 2003, the site of the Peel Health Campus was included in the Public Purposes (Hospital) reservation;
- the region scheme was assessed by the EPA, and the environmental conditions attached to its approval (through Ministerial Statement 000601) do not specifically identify remnant vegetation on the site of the Peel Health Campus as needing to be retained and protected;
- responsibility for managing the Peel Health Campus was transferred from the private operator to the Department of Health in August 2024;
- the planned redevelopment of the site will require Western Australian Planning Commission (WAPC) approval under the Peel Region Scheme - no other planning approval is required;
- the *South Metropolitan Peel Sub-regional Planning Framework*, released by the State Government in 2018, recognises that the land is reserved for Public Purposes (Hospital) in the region scheme; and
- noting the purpose for which the land is reserved in the region scheme, current strategic planning, and the purpose of the proposed works (which would be consistent with the purpose of the reservation in the Peel Region Scheme), it is likely an application for development approval will be approved.

The applicant has since been issued with draft conditions associated with the required WAPC development approval (DA) under the Peel Region Scheme, with the expected approval of the DA imminent. The draft conditions include requirements to prepare and implement a Construction Management Plan (CMP), to include management, mitigation and monitoring for surface water, groundwater, vegetation, flora and fauna protection, acid sulphate soils, vibration, dust and lighting. The draft conditions also include the requirement for a Drainage Management Plan.

The Delegated Officer took into consideration the consistency of the application with the Peel Regional Scheme and *South Metropolitan Peel Sub-regional Planning Framework*, in making a decision on this application.

A portion of the application area is identified as 'Greenfields Bushland' under *Environmental Protection Bulletin No. 12 Swan Bioplan – Peel Regionally Significant Natural Areas* (EPB 12). EPB 12 is used to inform strategic land use planning in the Peel Region by identifying regionally significant natural areas (RSNA). EPB 12 notes that (EPA, 2013):

- "the primary protection of remnant native vegetation is best achieved by locating development in cleared areas in preference to un-cleared lands;
- the Peel RSNAs information provides a key resource to inform strategic regional planning;
- the information provides guidance to State and Local Government authorities, community, industry and developers in planning to firstly, avoid, and then minimise, the impacts of development proposals and planning schemes on natural areas; and,
- development proposals and planning scheme amendments that impact on the Peel RSNAs will require detailed investigations of their natural values".

The Delegated Officer considered that the application is consistent with EPB12 noting the applicant has:

- commissioned a detailed flora and vegetation assessment and fauna assessment
- demonstrated efforts to avoid better quality vegetation and minimise the extent of clearing proposed
- provided an environmental offset to counterbalance significant residual impacts.

Other Matters

The application area is mapped as having no known Acid Sulphate Soil disturbance risk.

The applicant holds a current groundwater licence for the Peel Health Campus (GWL210129(1)). The licence is valid

from 7 May 2024 to 4 April 2034 and allows for the take of up to 7,500kL.

The application area intersects one registered Aboriginal Heritage Site (site 3582) associated with the Serpentine River. The applicant received advice from DPLH which confirmed the actual boundary of this site does not intersect the application area (Emerge, 2025). It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

The applicant referred the proposal to the Commonwealth Department of Climate Change, Energy, the Environment, and Water (DCCEEW) under the EPBC Act. In March 2025, DCCEEW determined that the proposed action was not a controlled action, and that assessment under the EPBC Act was not required.

4 Environmental offset

Significant residual impact

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 the avoidance, minimisation and mitigation measures (see Section 3.1), the loss of:

- 1.91 ha of the Banksia Woodlands Community; and
- 2.7 ha of high-quality foraging habitat for Carnaby's cockatoo and forest red-tailed black cockatoo.

The applicant has proposed an environmental offset to address the above impacts, as detailed below. The Delegated Officer determined in this instance that it was appropriate to consider an environmental offset to counterbalance the significant residual impacts. This is with consideration for the extent of impacts, and the applicants demonstrated efforts to avoid, minimise and mitigate the environmental impacts of the proposed clearing, in accordance with the mitigation hierarchy under the WA Environmental Offsets Guidelines (2014).

Proposed offset

Conservation and rehabilitation – Lot 3001

The applicant has proposed to conserve in perpetuity the majority (5.48 ha) of the adjoining native vegetation with Lot 3001 (being Crown Reserve 40505), through the creation of a new Conservation Reserve over this area (see Figure 3 below). This would have the effect of changing the current reservation of this portion of Lot 3001 from 'Hospital and Allied Purposes' to 'Conservation' to ensure the protection of this high-quality remnant vegetation (Emerge, 2025a).

The applicant has also committed to undertake rehabilitation actions within the proposed offset area to increase the quality of an occurrence of the Banksia Woodlands Community and black cockatoo foraging habitat. These actions will include infill planting with native species, fencing and weed control, to improve the condition of the vegetation within the offset area (Emerge, 2025a).

The applicants offset proposal specifies that a rehabilitation management plan will be developed for the offset area, which will set out weed control, access control, objectives, monitoring techniques and timeframes and contingencies (Emerge, 2025a).

Monetary contribution

To supplement the above conservation and rehabilitation offset, the applicant has proposed a monetary contribution to the Part V Offsets Fund, to fund the acquisition of:

- 12.24 hectares of native vegetation that comprises high-quality foraging habitat for Carnaby's cockatoo and forest red-tailed black cockatoo; and
- 2.4 ha of native vegetation that is representative of the Banksia Woodlands Community, to be protected in perpetuity.

The site for acquisition is currently unknown. In determining the funds required to acquire a land parcel with the above environmental values, the Delegated Officer considered the unimproved land values within most appropriate nearby Local Government Authority (LGA), where high quality black cockatoo foraging habitat, and vegetation representative of the Banksia Woodlands Community was most likely available for purchase. This was deemed to be the Shire of Murray.

The Delegated Officer considered it appropriate to base the required monetary offset on the value of land parcels of less than 20 ha within the Shire of Murray, given contributions to the Part V Fund are able to be pooled for more strategic land acquisitions. This is consistent with the WA Environmental Offsets Policy (2011).

Based on unimproved per hectare land values in the Shire of Murray (for land parcels under 20 ha), the Delegated Officer considered it appropriate to apply a rate of $35,000 per hectare to determine a suitable monetary offset contribution. Therefore a monetary contribution of $428,400 is required to fund the acquisition of 12.24 hectares of native vegetation that comprises high-quality foraging habitat for black cockatoos (including 2.4 hectares of the Banksia Woodlands Community).

Lot 3001 offset site values and rehabilitation potential

The Flora Assessment and Fauna Assessment encompassed the proposed offset area. The Flora Assessment identified that the offset area comprises (Emerge, 2024) (see full descriptions under Appendix A):

- *Banksia attenuata* and *Eucalyptus marginata* woodland (vegetation type BaEm)
- *Eucalyptus gomphocephala* and *Banksia attenuata* woodland (vegetation type EgBa)

The vegetation within the offset area is largely in a very good (Keighery, 1994) condition, except for some existing cleared tracks (Emerge, 2024).

The Flora Assessment identified that the offset area is representative of the Banksia Woodlands Community, and includes an 0.84 ha occurrence of the Tuart Woodlands Community (Emerge, 2024). The offset area contains 5.48 ha of high-quality foraging habitat for Carnaby's cockatoo and forest red-tailed black cockatoo and 42 potential black cockatoo breeding trees.

Noting the presence of some weed species within the offset area, existing cleared tracks and unrestricted access to the public, the offset area provides opportunities for improvement through targeted rehabilitation actions, such as weed control, infill planting and fencing.

Offset adequacy

In assessing whether the proposed offsets are adequately proportionate to the significance of the environmental values being impacted, DWER has considered the above information, and undertaken calculations using the WA Environmental Offsets Calculator. The justifications for the values used in the offset calculations are provided in Appendix D.

In determining the offsets adequacy, the Delegated Officer also considered:

- the approved conservation advice for the Banksia Woodlands Community, which notes that a perpetual change in land tenure for conservation with ongoing threat abatement and monitoring can provide a substantial net conservation benefit for the community (DotEE, 2016)
- the recovery plan for Carnaby's cockatoo and forest red-tailed black cockatoo, which identify the protection and management of important habitat for these species as a key recovery action (Parks and Wildlife, 2013; Department of Environment and Conservation, 2008). For Carnaby's cockatoo, a key recovery action includes improving security of tenure and management of foraging habitat within the species non-breeding range, through purchase, transfer of vesting, or conservation covenant (Parks and Wildlife, 2013).

The environmental outcome of the proposed offsets is therefore consistent with the approved conservation advice and recovery plans for the Banksia Woodlands Community, Carnaby's cockatoo and forest red-tailed black cockatoo, respectively.

In accordance with the WA Environmental Offsets Metric, WA Environmental Offsets Policy (2011) and WA Environmental Offsets Guidelines (2014), the Delegated Officer considers that the proposed conservation and rehabilitation offset, and monetary offset contribution, when combined, are adequate to counterbalance the significant residual impacts of the proposed clearing.

The Delegated Officer has therefore conditioned the above offsets on the clearing permit. These conditions include the following requirements:

- the provision of $428,400 as a monetary offset contribution
- the transfer of the Lot 3001 offset area (see Figure 3) to a new Reserve for the purpose of Conservation

- prepare and implement a project rehabilitation plan over the Lot 3001 offset area, which must include weed control, direct seeding or planting, completion criteria, remedial actions, fencing and other management measures to ensure no indirect impacts from the adjacent development, and maintenance and monitoring actions.

Regarding the Delegated Officer's acceptance of a monetary offset contribution to partially counterbalance the significant residual impacts, DWER required the applicant to demonstrate they have followed a hierarchy of preferred offset outcomes. In this instance the Delegated Officer considered the:

- applicant's investigation of preferred offset options following the hierarchy of offset preferences, and the commitment to conserve and rehabilitate 5.48 hectares of biodiverse native vegetation adjacent to the application area, to counterbalance a portion of the significant residual impacts. Additional areas of suitable land for rehabilitation in the vicinity of the application were explored but exhausted.
- urgency of the application - ongoing investigations of additional rehabilitation offset options would delay the applicant's ability to progress with the required Peel Health Campus expansion
- necessity of clearing - given the application is related to a high priority state government health care project
- adequacy of the proposed offset in proportion to the significance of the environmental value being impacted; and
- prospect of acquiring land containing high-quality foraging habitat for black cockatoos, and vegetation representative of the Banksia Woodlands Community through the Part V Offsets Fund.

Given the above, the Delegated Officer considered that a monetary contribution to the Part V Offsets Fund is an acceptable offset to partially counterbalance the significant residual impacts in this instance.

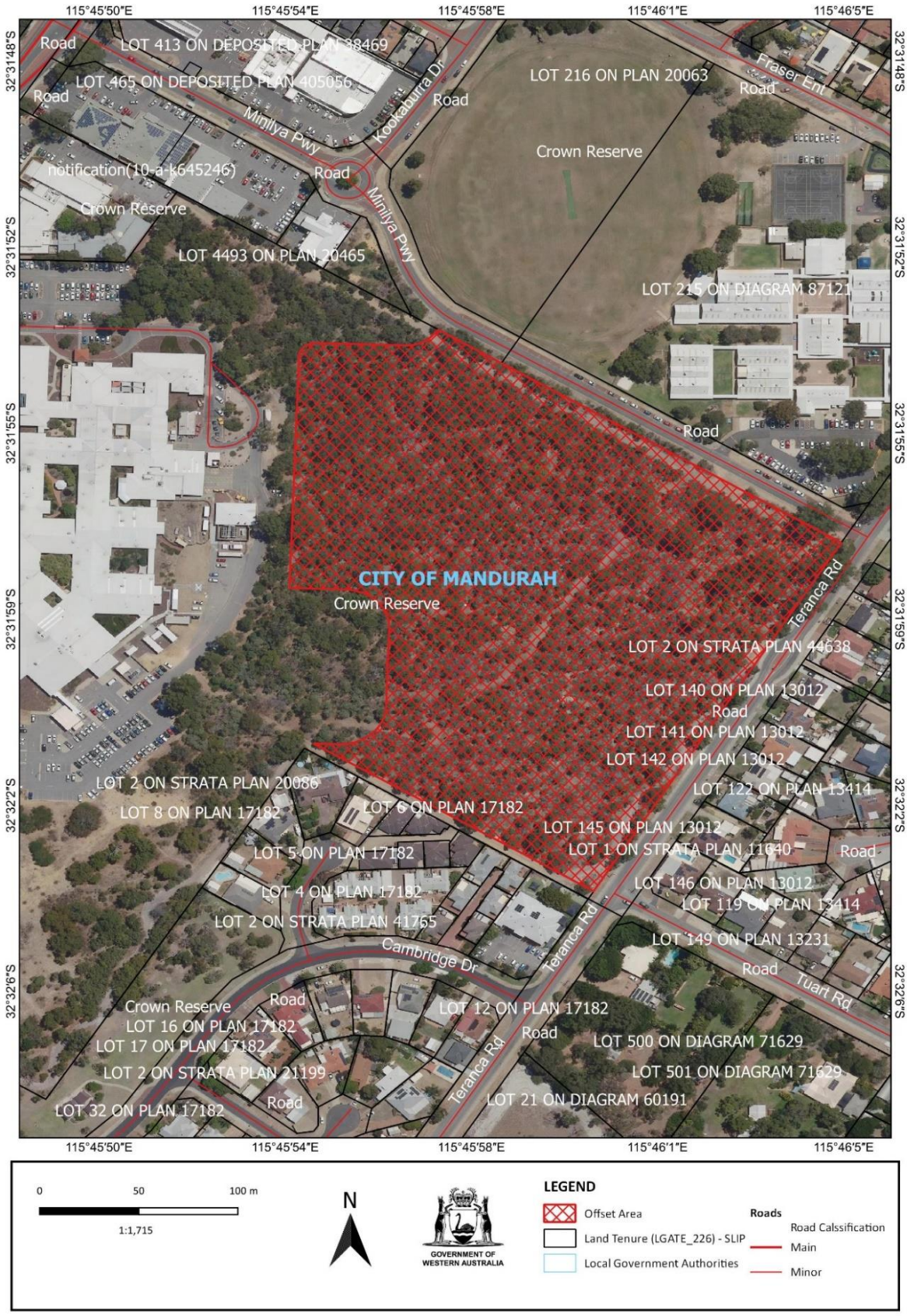

Figure 3 – Map of the offset area

The area cross-hatched red indicates the proposed conservation and rehabilitation offset area.

End

Appendix A. Site characteristics

A.1 Site characteristics

Characteristic	Details
Local context	The application area is in the Swan Coastal Plain Bioregion and Perth Subregion, in the highly urbanised northern portion of the City of Mandurah. The local area (10-km radius surrounding the application area) has been subject to extensive historical clearing for urban development and retains about 26.5% native vegetation cover.
Ecological linkage	The application area does not form part of any formally mapped ecological linkages.
Conservation areas	The closest DBCA managed conservation area is Goegrup Lake Nature Reserve, 1.1 km northeast of the application area.
Vegetation description	The Flora Assessment indicates that the vegetation within the application area consists of (Emerge, 2024): • **BaEm** - Woodland of *Banksia attenuata* and *Eucalyptus marginata* with scattered *Banksia grandis* over shrubland of *Gompholobium aristatum, Hibbertia hypericoides* and *Macrozamia riedlei* over mixed native sedge / herbland over grassland of **Ehrharta calycina* • **Eg** – Forest of *Eucalyptus gomphocephala* and scattered planted trees over planted gardens, bare ground and hard stand • **EgBa** - Woodland of *Eucalyptus gomphocephala* and *Banksia attenuata* over shrubland of *Gompholobium aristatum* and *Jacksonia sternbergiana* over mixed native sedge / herbland over grassland of **Ehrharta calycina* • **Mixed** - Open woodland of native species such as *Eucalyptus gomphocephala, Eucalyptus marginata*, *Banksia attenuata* and *Jacksonia furcellata* with non-native species such as **Eucalyptus camaldulensis*, **Ehrharta calycina* and **Eragrostis curvula* in modified drainage landform • **Ap** - Shrubland of *Acacia pulchella* var. *glaberrima* • **Non-native** - Heavily disturbed areas containing predominantly non-native vegetation with scattered native plants. The recorded vegetation type is partially consistent with the broad scale mapped vegetation type (Heddle et al., 1980): • Yoongarillup Complex - woodland to tall woodland of *Eucalyptus gomphocephala* (tuart) with *Agonis flexuosa* in the second storey. Less consistently an open forest of *Eucalyptus gomphocephala* (tuart) - *Eucalyptus marginata* (jarrah) - *Corymbia calophylla* (marri). South of Bunbury is characterized by *Eucalyptus rudis* (flooded gum) and *Melaleuca* species forming open forests.
Vegetation condition	The Flora Assessment indicates that the vegetation within the application area is in a very good to completely degraded (Keighery, 1994) condition (Emerge, 2024): • Completely degraded – 0.12 ha • Degraded – 0.79 ha • Good – 0.56 ha • Very good – 1.35 ha A description of each vegetation condition type is provided in Appendix C.
Climate and landform	Mandurah experiences a warm Mediterranean climate, characterised by hot, dry summers and cool to mild wet winters. The average annual rainfall recorded at the closest weather station to the application area is 717.4 mm.

Characteristic	Details
	The application area lies on a relatively flat landform with the elevation of the site ranging from 4 m (Australian height datum (mAHD) in the southern portion to 7 mAHD on the western side next to Lakes Road.
Soil description	The soils within the application area are mapped as the Spearwood S4a Phase, described as flat to gently undulating sandplain with deep, pale and sometimes bleached sands with yellow-brown subsoils.
Waterbodies / watercourses	There are no watercourses or wetlands mapped within the application area. The closest wetland is a floodplain of the Serpentine River, recognised as conservation category (UFI14577), located 520 m south. The closest watercourse is the Serpentine River mapped 780 m east of the application area.
Conservation listed flora	There are 38 conservation listed flora taxa known from the local area. No threatened or priority flora have been previously recorded within or nearby the application area. The closest recorded conservation listed flora to the application area is *Drosera occidentalis* (P4) located 155 m northwest. The Flora Assessment, which included multiple appropriately timed targeted surveys for priority and threatened flora known from the local area, did not identify any conservation listed flora in the application area or broader survey area (Emerge, 2024). Those conservation listed flora species most likely to occur within the application area are listed below under Section A.4.
Ecological communities	The closest mapped threatened or priority ecological community to the application area is the Banksia Woodlands of the Swan Coastal Plain ecological community (Banksia Woodlands Community) (Endangered; EPBC Act, Priority 3; BC Act), 140 m east. The Flora Assessment identified two conservation listed ecological communities within the application area (Emerge, 2024) (see Section 3.2.1): • Banksia Woodlands Community (1.91 ha recorded within the application area) • Tuart Woodlands Community (0.024 ha recorded within the application area).
Conservation listed fauna	A total of 59 conservation listed fauna species have been recorded in the local area. The closest record to the application area is Carnaby's cockatoo, recorded 200 m away. Those fauna species most likely to occur within the application area are listed below under Section A.3 and assessed under section 3.2.2. There are 8 Carnaby's cockatoo breeding sites (5 confirmed) recorded within 12 km of the application area, the closest of these is 4.5 km north. There are 10 black cockatoo roost sites within a six-kilometre radius, the closest of these is 850 m southwest.

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	1,501,222	578,913	38.6	222,917	14.9
Vegetation Complex**					

	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
Yoongarillup Complex	27,977.93	10,018.14	35.81	5,151.57	18.41
Local area					
10km radius	20,160	5,355	26.5	-	-

*Government of Western Australia (2019) **Government of Western Australia (2019a)

A.3 Fauna analysis

With consideration of the fauna habitat within the application area, relevant datasets, and biological survey information, impacts to the following conservation listed fauna required consideration.

Species name	Conservation status	Suitable habitat? [Y/N]	Did surveys identify within the application area? [Y, N, N/A]
Baudin's cockatoo (*Zanda baudinii*)	EN; BC Act & EPBC Act	Y – secondary foraging	N
black-striped snake (*Neelaps calonotos*)	Priority 3 (DBCA listed)	Y	N
Carnaby's cockatoo (*Zanda latirostris*)	EN; BC Act & EPBC Act	Y – primary foraging	N
chuditch (*Dasyurus geoffroii*)	VU; BC Act & EPBC Act	Y (not critical habitat)	N
forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*)	VU; BC Act & EPBC Act	Y – primary foraging	N
graceful sunmoth (*Synemon gratiosa*)	Priority 4	Y	N
Pacific swift (*Apus pacificus*)	M; BC Act and EPBC Act	Y – foraging	N
peregrine falcon (*Falco peregrinus*)	OS: BC Act	Y - foraging	N
Perth slider (*Lerista lineata*)	Priority 3	Y	N
quenda (*Isoodon fusciventer*)	Priority 4	Y	N
south-western brush-tailed phascogale (*Phascogale tapoatafa wambenger*)	CD; BC Act	Y	N
Swan Coastal Plain shield-backed trapdoor spider (*Idiosoma sigillatum*)	Priority 3	Y	N
western brush wallaby (*Notamacropus irma*)	Priority 4	Y	N
western ringtail possum (*Pseudocheirus occidentalis*)	CR; BC Act & EPBC Act	Y – marginal, no *Agonis flexuosa* and beyond SCP key management zone	N

CR: critically endangered, EN: endangered, VU: vulnerable, CD: conservation dependant, OS: other specially protected

A.4 Flora analysis

With consideration of the site characteristics, relevant datasets, and biological survey information, impacts to the following conservation significant flora required consideration.

Species name	Conservation status	Suitable habitat? [Y/N]	Are surveys adequate to identify? [Y, N, N/A]	Did surveys identify within or nearby application area? [Y, N, N/A]
Acacia benthamii	Priority 2 (DBCA listed)	Y	Y	N
Beyeria cinerea subsp. cinerea	Priority 3	Y	Y	N
Caladenia huegelii	EN (BC Act; EPBC Act)	Y	Y	N
Caladenia speciosa	Priority 4	Y	Y	N
Jacksonia sericea	Priority 4	Y	Y	N
Lasiopetalum membranaceum	Priority 3	Y	Y	N
Pterostylis frenchii	Priority 2	Y	Y	N
Thelymitra variegata	CR (BC Act; EPBC Act)	Y	Y	N
Verticordia lindleyi subsp. lindleyi	Priority 4	Y	Y	N

CR: critically endangered; EN: endangered

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: The application area includes vegetation in a very good (Keighery, 1994) condition representative of the Banksia Woodlands Community (Emerge, 2024). The application area also provides high value foraging habitat for Carnaby's cockatoo and forest red-tailed black cockatoo and therefore comprises a high level of biodiversity.	At variance	Yes *Refer to Section 3.2.1, above.*
Principle (b): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."* Assessment: The application area includes high value foraging habitat for Carnaby's cockatoo and forest red-tailed black cockatoo.	At variance	Yes *Refer to Section 3.2.2, above.*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: Appropriately timed flora surveys of the application area did not identify any BC Act or EPBC Act listed flora species (Emerge, 2024). The application area is therefore unlikely to contain or be necessary for the continued existence of threatened flora.	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (d): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."* Assessment: The Flora Assessment identified that 1.91 ha of the application area is representative of the Banksia Woodlands Community (Endangered; EPBC Act). A small portion of the application area (0.024 ha) may also be representative of the Tuart Woodlands Community (Critically Endangered; EPBC Act) (Emerge, 2024).	At variance	Yes *Refer to Section 3.2.2, above.*
Environmental value: significant remnant vegetation and conservation areas		
Principle (e): *"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."* Assessment: The remnant vegetation cover within the local area is 26.5% and the remaining extent of the mapped vegetation type in the application area (Yoongarillup Complex) is 35.81%. Noting the vegetation extent in the local area and fragmentation of vegetation in the City of Mandurah from urban development, the application area is within an extensively cleared area. The application area is a significant remnant as it includes the Banksia Woodlands Community and valuable foraging habitat for black cockatoos. The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30% of that present prior to 1750, below which species loss appears to accelerate exponentially at an ecosystem level. Further, the EPA recognises a minimum 10% representation threshold for ecological communities within constrained areas (EPA, 2008). The application area is in a constrained area. The remaining extent of the mapped vegetation type and vegetation in the local area are above the 10% threshold for constrained areas. Therefore, while the application area is a significant remnant in an extensively cleared landscape, this impact does not constitute a significant residual impact that needs counterbalancing through an offset. The significant environmental values of the application area are captured under the assessment against clearing principles (a), (b) and (d), where an environmental offset has been required to counterbalance the impact to these values (see Section 4).	At variance	No
Principle (h): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."* Assessment: The proposed clearing is unlikely to impact on any known conservation areas noting the closest conservation area is 1.1 km away. The application area does not provide linkage values between conservation areas.	Not likely to be at variance	No
Environmental value: land and water resources		
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment:	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
There are no wetlands or watercourses mapped within 500 m of the application area and the proposed clearing is not likely to impact on riparian vegetation.		
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The soils within the application area comprise bleached sands, which are susceptible to wind erosion. This is indicated by land degradation risk mapping which specifies that more than 70% of this subsystem has a high to extreme risk of wind erosion. Noting the above, the proposed clearing may increase the risk of land degradation via wind erosion, particularly if soils are left bare for lengthy periods before construction commences. These soils are highly porous and not at high risk of water erosion or waterlogging. To minimise this risk, the applicant is required to undertake construction activities within 3 months of clearing, as a condition of the clearing permit. The applicant has advised that erosion risks will be managed through dust suppression, mulching and other control measures as required, to be adopted in a construction management plan (Emerge, 2025). The management of dust and erosion during construction has been considered in the WAPC's development approval process for the project (see Section 3.3). Noting the above, the Delegated Officer considers that the risk of wind erosion will be appropriately managed such that there is a low risk of land degradation.	May be at variance	No
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: The application area is on relatively flat topography and does not intersect any surface water sources. The nearest watercourse is the Serpentine River 780 m away, separated from the application area by major urban development. The proposed clearing is therefore unlikely to impact on the quality of surface water. Groundwater salinity of the application area is mapped at between 500 and 1000 milligrams per litre total dissolved solids (marginal). The applicant has committed to retaining 5.48 ha of native vegetation in largely a very good (Keighery, 1994) condition within the same lot immediately east. Therefore, the proposed clearing of 2.82 ha of native vegetation next to the existing Peel Health Campus, is not likely to result in a perceptible rise in the watertable leading to increased groundwater salinity.	Not likely to be at variance	No
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: Noting the presence of highly permeable sandy soils, relatively flat topography, and absence of watercourses or wetlands on site, the proposed clearing is not likely to cause or exacerbate flooding.	Not likely to be at variance	No

Appendix C. Vegetation condition rating scale

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

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

Offset calculation 1 - significant residual impact to black cockatoo foraging habitat – conservation and rehabilitation offset.

Calculation	Score (Area)	Rationale
Conservation significance		
Description	Carnaby's cockatoo and forest red-tailed black cockatoo (black cockatoos) foraging habitat	The application area provides black cockatoo foraging habitat on the Swan Coastal Plain (SCP)
Type of environmental value	Species (flora/fauna)	Foraging habitat for black cockatoos
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) and forest red-tailed black cockatoo is listed as vulnerable under the BC Act and EPBC Act. The higher conservation value of endangered has therefore been used for this attribute.
Landscape level value impacted	Yes/No	Yes – SCP
Significant impact		

Calculation	Score (Area)	Rationale
Description	Clearing of suitable foraging habitat for black cockatoos	Proposed clearing of native vegetation considered significant foraging habitat for black cockatoos on the SCP.
Significant impact (hectares)	2.7	The extent of proposed impact to high quality foraging habitat for black cockatoos is 2.7 hectares.
Quality (scale)	7	The application area includes 2.7 hectares of foraging habitat for black cockatoos within a highly fragmented landscape on the Swan Coastal Plain. The condition of the vegetation largely ranges from very good to degraded, with the majority (1.35 ha) in a very good condition. There are multiple known breeding and roosting sites within 12km and 6km of the application area respectively, and multiple drinking water sources for black cockatoos in the local area. Noting the above, the application area provides relatively high value foraging habitat for black cockatoos.
Offset		
Description	Conservation and rehabilitation of native vegetation in Lot 3001 on Deposited Plan 43727 (Crown Reserve R 40505)	An offset involving the conservation in perpetuity and rehabilitation actions within adjacent vegetation immediately east in Lot 3001 on Deposited Plan 43727 (Crown Reserve R 40505), Greenfields (Lot 3001).
Proposed offset (area in hectares)	5.48	The area of native vegetation comprising black cockatoo foraging habitat that will be subject to a tenure change to 'conservation' and rehabilitation actions.
Current quality of offset site	8	The occurrence of high-quality black cockatoo foraging habitat in the offset area (mainly *Banksia* and jarrah woodland) is largely in a very good condition. As per the application area, the offset area is within 12km and 6km of multiple breeding and roost sites respectively and there are multiple nearby drinking water sources. Noting the above, the application area provides high value foraging habitat for black cockatoos.
Future quality WITHOUT offset	8	It is presumed that the offset area would remain of similar quality without specific improvement measures.
Future quality WITH offset	9	Rehabilitation actions including infill planting within existing tracks, fencing and weed control, would be able to achieve a slight increase in the future quality of the black cockatoo foraging habitat. This is noting the area is already largely in a very good condition. The rehabilitation actions will be in accordance with completion criteria (amongst other matters) set out in a Project Rehabilitation Plan, which is subject to approval by DWERs CEO.
Time until ecological benefit (years)	12	The benefit of weed control, fencing and infill planting are expected to be experienced in 12 years, which accounts for the ability for infill planted *Banksia* species to provide a foraging resource for black cockatoos. This timeframe has also considered the time taken to commence rehabilitation.
Confidence in offset result (%)	90	There is a high level of confidence that a small improvement could be delivered to black cockatoo foraging habitat in the offset area, in accordance with a Project Rehabilitation Plan.

Calculation	Score (Area)	Rationale
Duration of offset implementation (maximum 20 years)	20	Maximum value to be used. The area will be subject to conservation tenure, through the creation of a separate 'conservation' reserve and therefore conserved in perpetuity.
Time until offset site secured (years)	2	It is expected that the change to conservation tenure of the offset area could be achieved in 2 years.
Risk of future loss WITHOUT offset (%)	20%	Lot 3001 is zoned for the purpose of 'Public Purposes - Hospital' under the Peel Region Scheme and is currently reserved under a management order for the purpose of 'Hospital and Allied Purposes'. Therefore, there is a low-moderate risk that the site would be lost in the future to development associated with further Peel Health Campus expansions
Risk of future loss WITH offset (%)	5%	The site will be conserved in perpetuity through creation of a new conservation reserve, which would result in a very low level of risk of future loss.
Extent of Significant Residual Impact counterbalanced by this offset	56.3%	

Offset calculation 2 - significant residual impact to black cockatoo foraging habitat – monetary offset contribution.

Calculation	Score (Area)	Rationale
Conservation significance – As per offset calculation 1		
Significant impact – As per offset calculation 1		
Offset		
Description	Monetary offset contribution for land acquisition and conservation	Land acquisition via a monetary offset contribution is proposed to counterbalance the remining significant residual impacts (SRI) to black cockatoo foraging habitat that exist after the offset involving Lot 3001 on Deposited Plan 43727 (Crown Reserve R 40505), Greenfields is considered (change to conservation tenure and rehabilitation actions – as referred to in the above offset calculation).
Proposed offset (area in hectares)	12.24	The area of vegetation required to be conserved in perpetuity to counterbalance the remaining SRI to black cockatoo foraging habitat is 12.24 hectares (ha).
Current quality of offset site	7	While the site has not yet been identified, it is expected that the offset site will provide relatively high-quality foraging habitat for black cockatoos on the southern Swan Coastal Plain.
Future quality WITHOUT offset	7	While the site has not yet been identified, it is expected that the offset site is unlikely to improve or decline from its current quality over the next 20 years.
Future quality WITH offset	7	No on-ground management of the site is proposed as part of the offset, and therefore the sites quality is unlikely to improve beyond its current quality over the next 20 years

Calculation	Score (Area)	Rationale
Time until ecological benefit (years)	1	It is expected that the transfer of vegetation to conservation estate will be complete within 12 months.
Confidence in offset result (%)	90	There is a high level of confidence the land will be purchased, and the black cockatoo habitat quality will not deteriorate with the implementation of the offset.
Duration of offset implementation (maximum 20 years)	20	Maximum value used. The offset site will be conserved in perpetuity.
Time until offset site secured (years)	3	It is expected that the administrative process of executing the acquisition of the offset site can be achieved within three years.
Risk of future loss WITHOUT offset (%)	15%	It is expected that DWER will be purchasing a property that is zoned as 'rural' or equivalent and that there will be a relatively low risk of loss.
Risk of future loss WITH offset (%)	5%	The site will be managed in perpetuity for conservation purposes and there is therefore a very low risk of loss.
Extent of Significant Residual Impact counterbalanced by this offset	43.7%	

Offset calculation 3 - significant residual impact to the Banksia Woodlands Community – conservation and rehabilitation offset

Calculation	Score (Area)	Rationale
Conservation significance		
Description	Banksia Woodlands Community	The proposed clearing will impact on the Banksia Woodlands of the Swan Coastal Plain ecological community (Banksia Woodland Community)
Type of environmental value	Ecological community	The Banksia Woodland Community is a conservation listed ecological community.
Conservation significance of environmental value	Threatened ecological community – endangered	The Banksia Woodland Community is listed as endangered under the EPBC Act.
Landscape-level value impacted	Yes/no	Yes - SCP
Significant impact		
Description	Clearing of Banksia Woodland Community	Native vegetation that is representative of the Banksia Woodland Community.
Significant impact (hectares)	1.91	The extent of proposed impact to the Banksia Woodland Community is 1.91 hectares.
Quality (scale)	6	The vegetation in the application area representative of the Banksia Woodland Community is in a good to very good condition. This occurrence is in a highly cleared portion of the Swan Coastal Plain where the community has been subject to high levels of

Calculation	Score (Area)	Rationale
		fragmentation. Therefore, a moderate to high quality has been attributed.
Offset		
Description	Conservation and rehabilitation of native vegetation in Lot 3001 on Deposited Plan 43727 (Crown Reserve R 40505)	An offset involving the conservation in perpetuity and rehabilitation actions within adjacent vegetation immediately east in Lot 3001 on Deposited Plan 43727 (Crown Reserve R 40505), Greenfields (Lot 3001).
Proposed offset (area in hectares)	5.48	The area of native vegetation comprising the Banksia Woodland Community that will be subject to a tenure change to 'conservation' and rehabilitation actions.
Current quality of offset site	7	The offset area is largely in a very good condition and comprises the Banksia Woodland Community. This occurrence is within a highly cleared portion of the Swan Coastal Plain where the community has been subject to high levels of fragmentation.
Future quality WITHOUT offset	7	It is presumed that the offset area would remain of similar quality without specific improvement measures.
Future quality WITH offset	8	Rehabilitation actions including infill planting within existing tracks, fencing and weed control, would be able to achieve a slight increase in the future quality of this occurrence of the Banksia Woodland Community. This is noting the area is already largely in a very good condition. The rehabilitation actions will be in accordance with completion criteria (amongst other matters) set out in a Project Rehabilitation Plan, which is subject to approval by DWERs CEO.
Time until ecological benefit (years)	12	The benefits of weed control, fencing and infill planting amongst other rehabilitation actions are expected to provide benefit within 12 years. This time would allow successful weed control, and the establishment of juvenile infill planted species. This has also considered the time taken to commence rehabilitation.
Confidence in offset result (%)	90	There is a high level of confidence that a small improvement could be delivered to the occurrence of the Banksia Woodland Community, in accordance with a Project Rehabilitation Plan.
Duration of offset implementation (maximum 20 years)	20	Maximum value to be used. The area will be subject to conservation tenure, through the creation of a separate 'conservation' reserve and therefore conserved in perpetuity.
Time until offset site secured (years)	2	It is expected that the change to conservation tenure of the offset area could be achieved in 2 years.
Risk of future loss WITHOUT offset (%)	20%	Lot 3001 is zoned for the purpose of 'Public Purposes - Hospital' under the Peel Region Scheme and is currently reserved under a management order for the purpose of 'Hospital and Allied Purposes'. Therefore, there is a low-moderate risk that the site would be lost in the future to development associated with further Peel Health Campus expansions
Risk of future loss WITH offset (%)	5%	The site will be conserved in perpetuity through creation of a new conservation reserve, which would result in a very low level of risk of future loss.

Calculation	Score (Area)	Rationale
Extent of Significant Residual Impact counterbalanced by this offset	85.9%	

Offset calculation 4 - significant residual impact to the Banksia Woodlands Community – monetary offset contribution.

Calculation	Score (Area)	Rationale
Conservation significance – As per offset calculation 3		
Significant impact – As per offset calculation 3		
Offset		
Description	Monetary offset contribution for land acquisition and conservation	Land acquisition via a monetary offset contribution is proposed to counterbalance the remining significant residual impacts (SRI) to the Banksia Woodlands Community that exists after the offset involving Lot 3001 on Deposited Plan 43727 (Crown Reserve R 40505), Greenfields is considered (change to conservation tenure and rehabilitation actions – as referred to in the above offset calculation).
Proposed offset (area in hectares)	2.4	The area of vegetation required to be conserved in perpetuity to counterbalance the remaining SRI to black cockatoo foraging habitat is 2.4 hectares .
Current quality of offset site	7	While the site has not yet been identified, it is envisaged that the offset site will provide a relatively high quality occurrence of the Banksia Woodland Community on the southern Swan Coastal Plain.
Future quality WITHOUT offset	7	While the site has not yet been identified, it is expected that the offset site is unlikely to improve or decline from its current quality over the next 20 years.
Future quality WITH offset	7	No on-ground management of the site is proposed as part of the offset, and therefore the sites quality is unlikely to improve beyond its current quality over the next 20 years
Time until ecological benefit (years)	1	It is expected that the transfer of vegetation to conservation estate will be complete within 12 months.
Confidence in offset result (%)	90	There is a high level of confidence the land will be purchased and the Banksia Woodland Community quality will not deteriorate with the implementation of the offset.
Duration of offset implementation (maximum 20 years)	20	Maximum value used. The offset site will be conserved in perpetuity.
Time until offset site secured (years)	3	It is expected that the administrative process of executing the acquisition of the offset site can be achieved within three years.
Risk of future loss WITHOUT offset (%)	15%	It is expected that DWER will be purchasing a property that is zoned as 'rural' or equivalent and that there will be a relatively low risk of loss.

Calculation	Score (Area)	Rationale
Risk of future loss WITH offset (%)	5%	The site will be managed in perpetuity for conservation purposes and there is therefore a very low risk of loss.
Extent of Significant Residual Impact counterbalanced by this offset	14.1%	

Appendix E. Sources of information

E.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- 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 Mapping – Best Available
- Soil Landscape Mapping – Systems
- Swan Coastal Plain Wetlands (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)

E.2. References

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

Department of Agriculture, Water and the Environment (DAWE) (2022) *Referral guideline for 3 WA threatened black cockatoo species: Carnaby's Cockatoo, Baudin's Cockatoo and the Forest Red-tailed Black-cockatoo*. Department of Agriculture, Water and the Environment, Canberra.

Department of Environment and Conservation (2008) *Forest Black Cockatoo (Baudin's Cockatoo Calyptorhynchus baudinii and Forest Red-Tailed Black Cockatoo Calyptorhynchus banksia naso) Recovery Plan.* Department of Environment and Conservation, Perth, WA.

Department of Environment and Conservation (2011) *Conservation Advice for Synemon gratiosa (graceful sun-moth) – January 2011*. Department of Environment and Conservation, Perth, WA.

Department of the Environment and Energy (2016). *Approved Conservation Advice (incorporating listing advice) for the Banksia Woodlands of the Swan Coastal Plain ecological community*. Canberra: Department of the Environment and Energy. Available from: http://www.environment.gov.au/biodiversity/threatened/communities/pubs/131-conservation-advice.pdf

Department of the Environment and Energy (2019). *Approved Conservation Advice (incorporating listing advice) for the Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain ecological community*. Canberra: Department of the Environment and Energy. Available from: https://www.environment.gov.au/biodiversity/threatened/communities/pubs/153-conservation-advice.pdf

Department of Environment Regulation (DER) (2013). *A guide to the assessment of applications to clear native vegetation*. Perth.

Department of Parks and Wildlife (Parks and Wildlife) (2013) *Carnaby's Cockatoo (Calyptorhynchus latirostris) Recovery Plan.* Western Australian Wildlife Management Program No. 52. Department of Parks and Wildlife, Perth, WA.

Department of Parks and Wildlife (Parks and Wildlife) (2017) *Western Ringtail Possum (Pseudocheirus occidentalis) Recovery Plan*. Wildlife Management Program No. 58. Department of Parks and Wildlife, Perth, WA.

Department of Planning Lands and Heritage (DPLH) (2025) *Direct Interest Response to Clearing Permit Application CPS 11017/1* (DWER Reference DWERDT1110356).

Department of Planning Lands and Heritage (DPLH) (2025) *Draft Development Approval Conditions for Peel Health Campus Stage 2* (DWER Reference DWERDT1171044).

Department of Primary Industries and Regional Development (DPIRD) (2019). *NRInfo Digital Mapping. Department of Primary Industries and Regional Development.* Government of Western Australia.

Department of Water and Environmental Regulation (DWER) (2025) *Terrestrial Ecosystems Branch advice on Idiosoma sigillatum (Swan Coastal Plain shield-backed trapdoor spider) for Clearing Permit Application CPS 11017/1* (DWERDT1107904).

Emerge Associates (Emerge) (2024) *Detailed Flora and Vegetation Assessment. Peel Health Campus, Greenfields.* Prepared for the Department of Finance, October 2024 (DWER Reference DWERDT1103649).

Emerge Associates (Emerge) (2024a) *Basic Fauna and Targeted Black Cockatoo Assessment*. Peel Health Campus, Greenfields. Prepared for the Department of Finance, October 2024 (DWER Reference DWERDT1103557).

Emerge Associates (Emerge) (2025) *Clearing Permit Application: Peel Health Campus Expansion – 110 (Lot 3001) Lakes Road, Greenfield on Deposited Plan 43727*. Supporting information for Clearing Permit Application CPS 11017/1 (DWER Reference DWERDT1103655).

Emerge Associates (Emerge) (2025a) *Peel Health Campus: Application to Clear Native Vegetation Under the Environmental Protection Act 1986 – Request for Further Information Response.* Supporting information for Clearing Permit Application CPS 11017/1 (DWER Reference DWERDT1121707).

Environmental Protection Authority (EPA) (2008) *Environmental Guidance for Planning and Development*. Guidance Statement No 33. Environmental Protection Authority, WA.

Environmental Protection Authority (EPA) (2013). *EPA Advice: Swan Bioplan – Peel Regionally Significant Natural Areas.* In accordance with section 16(j) of the *Environmental Protection Act 1986*. Environmental Protection Authority, WA.

Environmental Protection Authority (EPA) (2016). *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment*. Environmental Protection Authority, WA.

Environmental Protection Authority (EPA) (2019). *EPA Technical Report: Carnaby's Cockatoo in Environmental Impact Assessment in the Perth and Peel Region*. Advice of the Environmental Protection Authority under Section 16(j) of the Environmental Protection Act 1986. Environmental Protection Authority, WA.

Environmental Protection Authority (EPA) (2020). *Technical Guidance – Terrestrial Fauna Surveys for Environmental Impact Assessment.* Environmental Protection Authority, WA.

Gibson, N., Keighery, B., Keighery, G., Burbidge, A. and Lyons, M (1994) *A Floristic survey of the southern Swan Coastal Plain*. Department of Conservation and Land Management and the Conservation Council of Western Australia, Perth.

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

Government of Western Australia. (2019a) *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

Heddle, 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.

Invertebrate Solutions (2025) *Targeted Assessment for Idiosoma sigillatum for the Peel Health Campus Upgrade*. Unpublished report to Department of Finance, May 2025.

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

Rix, M.G., Huey, J.A, Cooper, S.J.B, Austin, A.D. and Harvey, M.S (2018) *Conservation systematics of the shield-backed trapdoor spiders of the nigrum-group (Mygalomorphae, Idiopidae, Idiosoma): integrative taxonomy reveals a diverse and threatened fauna from south-western Australia*. ZooKeys 756: 1-121. doi: https://doi.org/10.3897/zookeys.756.24397.

Western Australian Herbarium (1998-). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. https://florabase.dpaw.wa.gov.au/ (Accessed June 2025).