GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 10652/1

File Number: DWERVT15452

Duration of Permit: From 18 October 2025 to 18 October 2040

PERMIT HOLDER

Shire of Nannup

LAND ON WHICH CLEARING IS TO BE DONE

Lot 300 on Deposited Plan 41104 (Crown Reserve 5323), Cundinup

AUTHORISED ACTIVITY

The permit holder must not clear more than 2.07 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

CONDITIONS

1. Period during which clearing is authorised

The permit holder must not clear any *native vegetation* after 18 October 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. Wind erosion management

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

5. Directional clearing

The permit holder must:

(a) conduct *clearing* activities in a slow, progressive manner towards adjacent remnant *native vegetation*; and

(b) allow reasonable time for fauna present within the area being cleared under this permit to move into adjacent *native vegetation* ahead of the *clearing* activity.

6. Fauna management – Retain *black cockatoo habitat tree*

(a) The permit holder must not clear within ten (10) metres of the *black cockatoo habitat trees* ((marri - *Corymbia calophylla*) identified as containing suitable size hollow with confirmed signs of use by the *Targeted Fauna Survey* (Trees 29, 46 and 70), located at the following locations:

Tree ID	Easting	Northing
29	387665.3545	6256172.9717
46	387693.2729	6256308.4124
70	387706.4096	6256156.7810

(b) Prior to clearing under this permit, the permit holder must demarcate the *black cockatoo habitat trees* and the ten (10) metre buffer areas, in accordance with condition 6(a).

7. Fauna management – Chuditch

(a) Immediately prior to undertaking clearing of the area cross-hatched yellow in Figure 1 of Schedule 1, the permit holder must engage a *fauna specialist* to inspect the area to be cleared for the presence of chuditch (*Dasyurus geoffroii*) individuals.

(b) Where a chuditch individual(s) is identified in accordance with condition 7(a) of this permit, clearing must be ceased until after the individual has either:

(i) moved on to adjacent suitable habitat of its own accord; or
(ii) been relocated to adjacent suitable habitat by a *fauna specialist*.

(c) Where fauna is identified under condition 7(b), the permit holder must, within 14 calendar days, provide the following records to the CEO:

(i) the number of individuals identified;

(ii) the date each individual was identified;

(iii) the location where each individual was identified 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 number of individuals removed and relocated;

(vi) the date each individual was removed and relocated;

(vii) the method of removal;

(ix) the location where each individual was relocated to, recorded using a GPS unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings or decimal degrees; and

(x) details pertaining to the circumstances of any death of, or injury sustained by, an individual.

8. Mitigation – *rehabilitation* and *revegetation*

Within 12 months of the completion of gravel extraction and no later than 18 October 2028, at an *optimal time*, the permit holder must implement and adhere to the *Revegetation Management Plan*, including but not limited to the following actions:

(a) Commence *revegetating* and *rehabilitating* the area cross-hatched red on Figure 2 of Schedule 1, by way of:

(i) deliberately *planting* tube stock and spreading of native seeds that will result in the minimum completion criteria detailed in Table 1 of Schedule 2; and

(ii) ensuring only *local provenance* seeds and propagating material are used to *revegetate* and *rehabilitate* the area.

(b) Implement hygiene protocols by cleaning earth-moving machinery of soil and vegetation prior to entering and leaving the site;

(c) Undertake *weed* control activities prior to *planting*, and annually thereafter for the duration of this permit, as required;

(d) Undertake watering of the *planted* vegetation between November and March post-*planting,* as required, for the duration of this permit;

(e) Establish no less than four 10 x 10 metre monitoring quadrats within the *revegetated* and *rehabilitated* areas;

(f) Engage an *environmental specialist* to undertake annual monitoring within the quadrats specified in condition 8(e), for a minimum of two years after the *revegetation* commencement, and at 5-year and 10-year, post *revegetation;* and

(g) Undertake *remedial action* where monitoring undertaken in accordance with condition 8(e) indicated that *revegetation* has not met the completion criteria detailed in Table 1 of Schedule 2, including:

(i) repeating the *revegetation* actions required under conditions 8(a)-(d);

(ii) annual monitoring of the additional *revegetated* and *rehabilitated* areas by an *environmental specialist*, until the completion criteria detailed in Table 1 of Schedule 2 are met; and

(iii) where an *environmental specialist* has determined that the completion criteria detailed in Table 1 of Schedule 2 have been met, that determination must be submitted to the *CEO* within three months of the determination being made by the *environmental specialist*.

9. 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 geographical coordinates in Eastings and Northings; (c) the date that the area was cleared; (d) the size of the area cleared (in hectares); (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 2; (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 condition 4; and (h) actions taken in accordance with condition 5.
2.	In relation to fauna management pursuant to condition 6	(i) actions taken in accordance with condition 6; (a) photos of the trees before and after clearing activities.
3.	In relation to fauna management pursuant to condition 7	(a) the date(s) of inspection(s) by the *fauna specialist*; (b) the relevant qualifications of the *fauna specialist*; (c) a description of the *fauna specialist* inspection methodology employed; (d) the location of each chuditch individual identified recorded using a GPS unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings; (e) the date each chuditch individual was identified; (f) the date each identified chuditch individual moved on to adjacent suitable habitat or was

No.	Relevant matter	Specifications
		relocated to adjacent suitable habitat and a description of the adjacent suitable habitat; (g) any other actions taken in accordance with condition 7.
4.	In relation to *revegetation* and *rehabilitation* of areas pursuant to condition 8	(a) size of the areas *revegetated* and *rehabilitated*; (b) the date(s) on which the *revegetation* and *rehabilitation* was undertaken; (c) the boundaries of the areas *revegetated* and *rehabilitated* (recorded digitally as a shapefile set to GDA2020); (d) a list of species, including quantities, used for *revegetation* and *rehabilitation;* (e) description of the *revegetation* and *rehabilitation* activities undertaken, including actions taken to implement hygiene protocols and weed control; (f) a copy of the *environmental specialist*'s monitoring report(s); (g) any remedial actions required to be undertaken; (h) the date completion criteria are considered to have been met by the *environmental specialist*; and (h) any other actions taken in accordance with condition 8.

10. 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 9; and

(ii) records of activities done by the permit holder under this permit between 1 January and 31 December of the preceding calendar year.

(b) If no clearing authorised under this permit has been undertaken, a written report confirming that no clearing under this permit has been undertaken, must be provided to the *CEO* on or before 30 June of each calendar year.

(c) The permit holder must provide to the *CEO*, no later than 90 calendar days prior to the expiry date of the permit, a written report of records required under condition 9, where these records have not already been provided under condition 10(a).

DEFINITIONS

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

Table 2: Definitions

Term	Definition
black cockatoo habitat trees	means trees that have a diameter, measured at 130 centimetres from the base of the tree, of 50 centimetres or greater (or 30 centimetres or greater for *Eucalyptus salmonophloia* or *Eucalyptus wandoo*) that contain hollows suitable for breeding by *black cockatoo species*.
black cockatoo species	means one or more of the following species: (a) *Zanda latirostris* (Carnaby's cockatoo); (b) *Zanda baudinii* (Baudin's cockatoo); and/or (c) *Calyptorhynchus banksii naso* (forest red-tailed black cockatoo).
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*.
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
dieback	means the effect of *Phytophthora* species on native vegetation.
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.
EP Act	*Environmental Protection Act 1986* (WA)
fauna specialist	means a person who holds a tertiary qualification specialising in environmental science or equivalent, and has a minimum of 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 who holds a valid 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 100 kilometres and the same IBRA subregion of the area cleared.
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
optimal time	means the period between April and July
planting/ed	means the re-establishment of vegetation by creating soil conditions and planting seedlings of the desired species
Revegetation Management Plan	Means the plan developed by the permit holder for the *revegetation* and *rehabilitation* in accordance with condition 8 of this permit: *"Revegetation Management Plan. Cundinup Pit (Lot 300) Cundinup West Road, Cundinup – July 2025 (SW Environmental, 2025)."*
remedial action/s	means, for the purpose of this permit, any activity that is required to ensure successful re-establishment of understorey to its pre-clearing

Term	Definition
	composition, structure and density, and may include a combination of soil treatments and revegetation.
rehabilitate/ed/ing/ion	means the re-establishment of a cover of local provenance native vegetation in an area using methods such as natural regeneration, direct seeding and/or planting, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.
revegetate/ed/ing/ion	means actively managing an area containing native vegetation in order to improve the ecological function of that area.
Targeted Fauna Survey	means the Targeted Fauna Survey: Black Cockatoo and Western Ringtail Possum. Cundinup Pit (Lot 300) Cundinup West Road, Cundinup, conducted by SW Environmental (2024).
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

JBurton

Jessica Burton
MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

25 September 2025

SCHEDULE 1

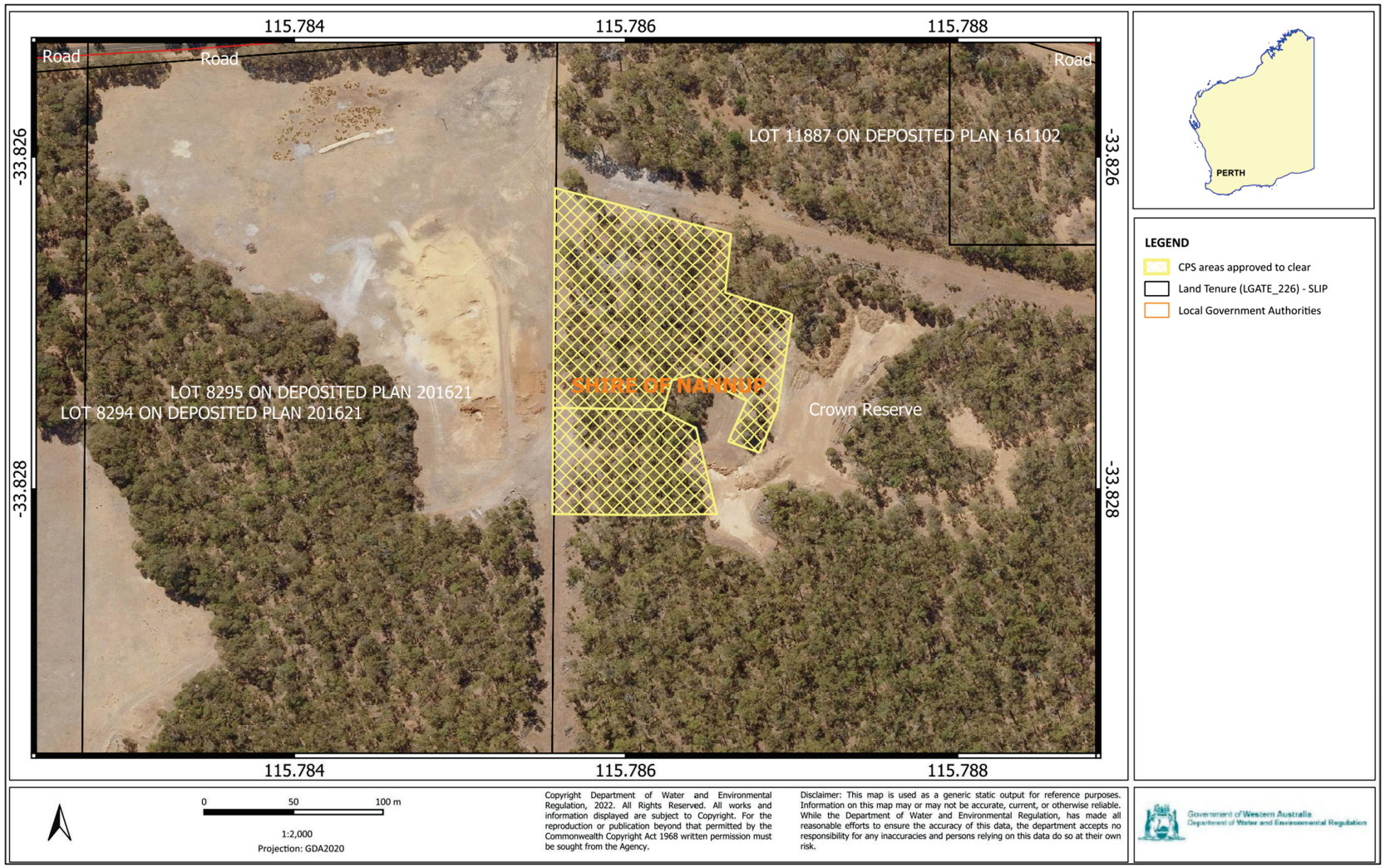


Figure 1: Map of the boundary of the area within which clearing may occur

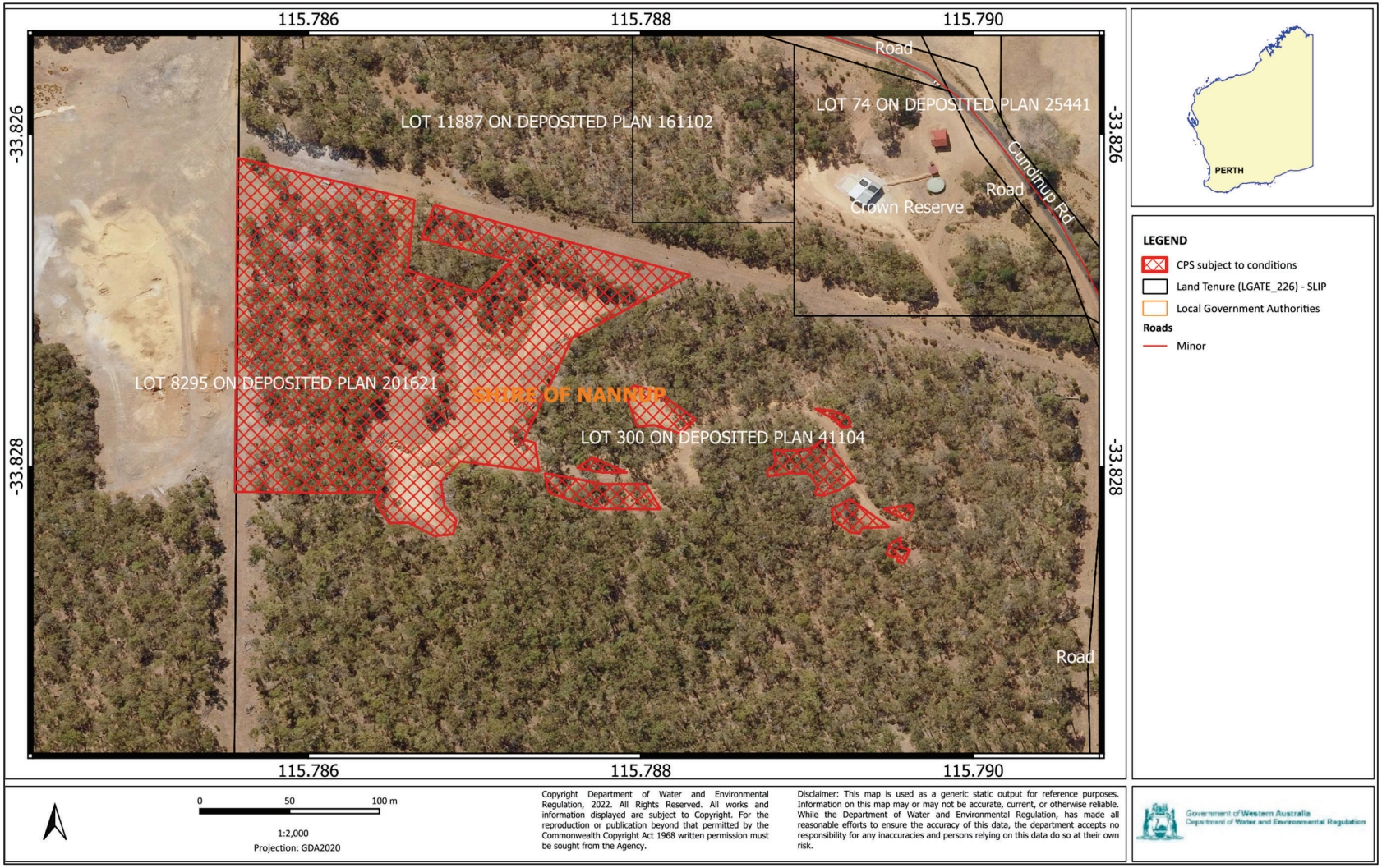


Figure 2: Map of the boundary of the revegetation and rehabilitation area subject to condition 8

Schedule 2

Table 1 - Revegetation and rehabilitation completion criteria in accordance with condition 8 of this permit

Criterion	Completion Targets	Completion Criteria
1- Tree density	600 stems per hectares	Achieve the tree density of 600 stems of *Corymbia calophylla* and *Eucalyptus marginata* per hectare by the end of 10-year revegetation period.
2 - Percentage of native vegetation cover in mid and ground stratum	At least 60 per cent cover of native vegetation	Achieve at least: • 30 % vegetation cover within two years following the commencement of revegetation activities • 45 % vegetation cover within five years following the commencement of revegetation activities • 60 % vegetation cover within ten years following the commencement of revegetation activities.
3 - Number of weed species and weed cover	Number of weed species present to be no more prevalent than their extent prior to clearing activities Weed cover to be ≤ 15%	• Number of weed species ≤ 12 • Weed cover ≤ 15% by the end of the 10-year revegetation period
4 - Presence and growth of mid and/or lower stratum black cockatoo foraging species	For trees and shrubs with locally occurring fauna value to be present and growth rates of such to be increasing	The coverage of black cockatoo foraging species in mid and ground stratum increases and achieves at least: • 10 % vegetation cover within two years following the commencement of revegetation activities • 15 % vegetation cover within five years following the commencement of revegetation activities • 20 % vegetation cover within ten years following the commencement of revegetation activities.

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 10652/1
Permit type:	Area permit
Applicant name:	Shire of Nannup
Application received:	19 June 2024
Application area:	2.07 hectares (as revised) of native vegetation
Purpose of clearing:	Gravel extraction
Method of clearing:	Mechanical
Property:	Lot 300 on Deposited Plan 41104 (Crown Reserve 5323)
Location (LGA area/s):	Shire of Nannup
Localities (suburb/s):	Cundinup

1.2. Description of clearing activities

The vegetation proposed to be cleared is contained within a single contiguous area (see Figure 1, Section 1.5).

The application is for the purpose of gravel extraction to serve for the road construction of the Shire of Nannup. The application area was an old mill site, and vegetation has been previously cleared (Shire of Nannup, 2024a). The area proposed to be cleared includes regrowth vegetation and completely cleared areas with topsoil stockpiles and sawn timber and rubble (see Appendix E, SW Environmental, 2024).

The extraction comprises of two stages (Shire of Nannup, 2025b):

- Stage 1 with the estimated yielding of 40,000 tonnes will occur in the first year.
- Stage 2 with the estimated yielding of 10,000 - 35,000 tonnes will occur in the following year.

1.3. Decision on application

Decision:	Granted
Decision date:	25 September 2025
Decision area:	2.07 hectares of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

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

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix B), relevant datasets (see Appendix F.1), the findings of biological surveys (see **Error! Reference source not found.**), the clearing principles set out in Schedule 5 of the EP Act (see Appendix C), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

The assessment identified that the proposed clearing will result in:

- the loss of native vegetation that is suitable habitat for black cockatoos, chuditch, and western brush wallabies;
- potential introduction and spread of weeds and dieback into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values; and
- potential land degradation in the form of subsurface acidification, phosphorus export and wind erosion.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined that the loss of suitable habitat for conservation significant fauna species is in short-term and can be mitigated by rehabilitating the clearing area and adjacent areas following extraction. The land degradation risks can be minimised by undertaking the applicant's proposed extraction management plan. The impact to chuditch that potentially use the application area, weeds and dieback spread risks and land degradation risk in the form of wind erosion can be minimised and managed to unlikely lead to an unacceptable risk to environmental values through permit conditions. The applicant has suitably demonstrated avoidance and minimisation measures.

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

- Avoid, minimise to reduce the impacts and extent of clearing.
- Take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback.
- Undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity.
- Commence activities related to the purpose of the clearing no later than three months after undertaking the clearing to minimise wind erosion.
- Avoid clearing three trees (Trees 29, 46 and 70) containing suitable size hollows with confirmed signs of use by black cockatoos with a minimum buffer of 10 metres.
- Undertaking pre-clearing inspection for chuditch.
- Revegetation of 3.91 hectares within the application area and adjacent areas following the extraction.

1.5. Site map

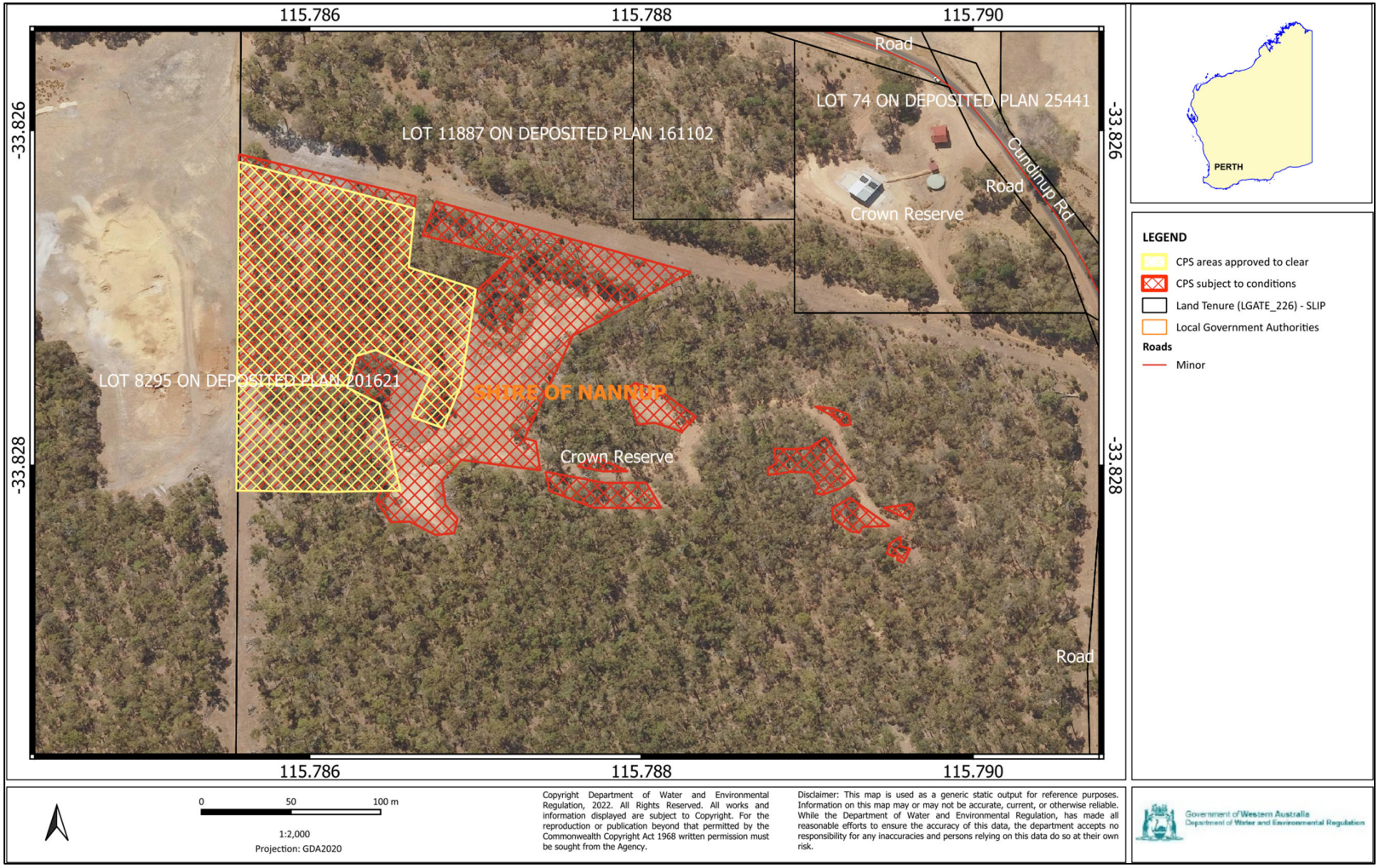


Figure 1 Map of the application area

The area crosshatched yellow indicates the area authorised to be cleared under the granted clearing permit.
The areas cross-hatched red indicate areas within which specific conditions apply.

2 Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)
- *Right in Water and Irrigation Act 1914* (RiWI Act)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

Supporting information submitted by the Shire of Nannup (the Shire) indicates that the applicant has undertaken the mitigation hierarchy (Shire of Nannup, 2025b), as follows:

- Revised the application area to avoid clearing three (3) confirmed breeding trees (Trees 29, 46 and 70 as defined in the targeted fauna survey, see Appendix E) with a minimum buffer of 10 metres, and two (2) trees with suitable diameter at breast height (DBH) but unsuitable hollow (Trees 37 and 72). The area proposed to be cleared reduced from 3.68 hectares in the initial application to 2.07 hectares after revised (Figure 2).
- Onsite rehabilitation: The applicant provided a revegetation plan proposing to rehabilitate the proposed clearing area after the gravel extraction completes and an additional area of 1.84 hectares within the same property. The total proposed rehabilitation area is 3.91 hectares (Figure 2).
- Weed control: The Shire also proposed to control the bulbous weed Watsonia (*Watsonia meriana*) in areas of 3.97 hectares at the eastern edge of the property (see Figure 2).
- In addition, the Shire has prepared an extraction management plan proposing measures to mitigate the impacts of the extraction activities (Shire of Nannup, 2025b), including:
    - Operational hours of extraction activities will be 7am - 5pm to ensure minimizing the impacts to black cockatoos using the potential nesting and roosting trees in the proximity range.
    - No extraction activities and machinery operation occur within 30 metres buffer of the potential nesting tree if there are signs of use by black cockatoos until the tree is no longer actively in use.
    - The removal of the topsoil/root layer of each extraction stage will not be carried out until the area is ready for gravel extraction.
    - Weeds will be managed prior to moving or spreading the topsoils.
    - Water erosion prevention measures such as contour the pit floor to a minimum 1 in 100 gradients to direct the runoff flow to a constructed sediment basin; slow water flow discharge to prevent scour by installing a rip rap spillway at the outlet of the sediment basin; install rock armouring at the discharge point where the overflow drainage enters the roadside drain.
    - Measures to mitigate the risks of land degradation due to subsurface acidification, phosphorus export and wind erosion (see details in Section 3.2.2).

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

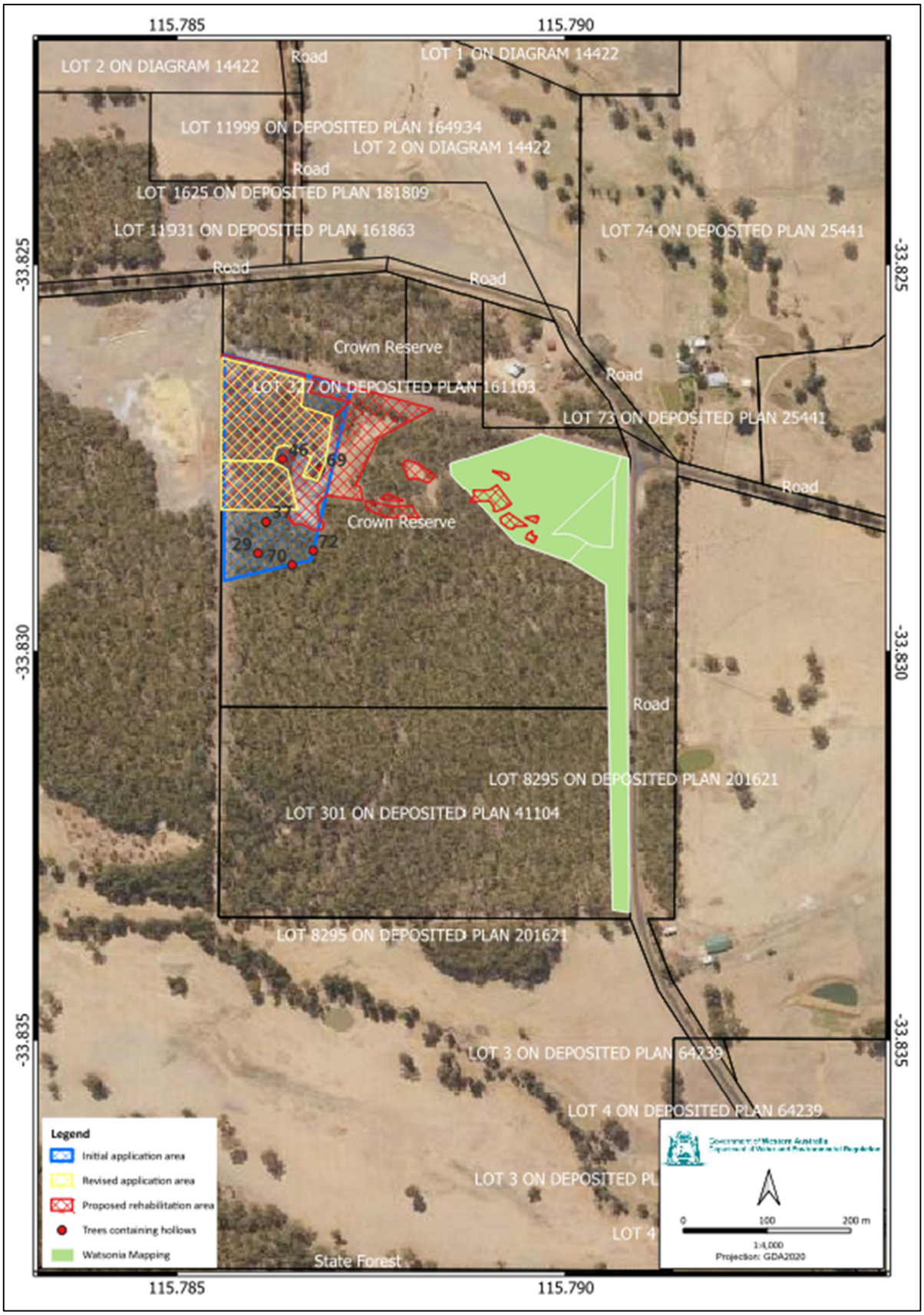


Figure 2. Mapping showing the revision of the application area, the proposed rehabilitation area and the proposed areas subject to weed control (data derived from SW Environmental, 2025).

3.2. Assessment of impacts on environmental values

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

The assessment against the clearing principles (see **Error! Reference source not found.**) identified that the impacts of the proposed clearing present a risk to biological values (fauna) and land resources. The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

3.2.1. Biological values (fauna and biodiversity) - Clearing Principles (a) and (b)

Assessment

According to available databases, 13 conservation significant fauna are recorded in the local area (10-kilometre radius of the application area). The application area may provide suitable habitat for six conservation significant fauna species, including three bird and three mammal species (See B.2 for fauna analysis table).

Bird species

Three threatened species of black cockatoos (BC)

Based on the known distribution and habitat preferences of the conservation significant bird species recorded, all the three threatened black cockatoo most likely occur over the application area. Within the local area, there are 21 records of Carnaby's cockatoo (*Zanda latirostris* - Endangered), three records of Baudin's cockatoo (*Zanda baudinii* - Endangered) and 16 records of forest red-tailed black cockatoos (FRTBC) (*Calyptorhynchus banksii naso* - Vulnerable) with the closest distance of approximately 7.1, 3.2 and 3.7 kilometres, respectively, from the application area. The application area is located within the mapped distribution areas of all three black cockatoo species, and it occurs in the potential breeding range of Carnaby's cockatoos. The closest black cockatoo breeding and roosting sites are recorded approximate 10.8 and 15.3 kilometres from the proposed clearing area, respectively (QGIS database).

There are three key components of BC habitat: foraging habitat; roosting habitat; and breeding habitat. Any tall trees, generally close to a riparian environment, can provide potential roosting habitat for BC (Commonwealth of Australia, 2022). A tree suitable for BC breeding is defined as a tree with a diameter of 50 centimetres or greater at a height of 1.5 metres above the ground. BC generally forages within six kilometres of a night roost site and, while nesting, within a 12-kilometre radius of their nest site (Commonwealth of Australia, 2022). BC forages on the seeds, nuts and flowers of a large variety of plants including *Proteaceou*s species (*Banksia*, *Hakea* and *Grevillea*), as well as *Allocasuarina* and *Eucalyptus* species, *Corymbia calophylla* and a range of introduced species (Valentine and Stock, 2008). Foraging resources associated with breeding are considered critical for all three BC species (Commonwealth of Australia, 2022).

Vegetation proposed to be cleared comprises of juvenile jarrah (*Eucalyptus marginata*) and marri (*Corymbia calophylla)* regrowth within an area that has been previously cleared. The application area is considered to provide suitable foraging, roosting and nesting habitat for BC. According to the findings of the targeted black cockatoo survey, the initial application area comprises approximately 3.14 hectares of suitable foraging and roosting habitat for BC, including 2.34 hectares providing high foraging quality habitat (SW Environmental, 2024). The survey also observed feed residue of FRTBC across the application area (SW Environmental, 2024). Flocks of FRTBC and white-tailed BC (specific species undetermined) were also observed foraging in the remnant vegetation adjacent to the application area (SW Environmental, 2024). Within the initial application area, there are 72 trees with suitable DBH (over 50 centimetres) providing potential breeding habitat, with six trees containing hollows. Among these six trees, three trees with the identified number of 29, 46 and 70 contain (potential) suitable size hollow with confirmed signs of use (see Figure 3) (SW Environmental, 2024). No evidence of BC roosting within the application area and adjacent remnant vegetation was observed during the survey (SW Environmental, 2024).

Figure 3. BC foraging habitat and locations of trees containing hollows within the application area (data derived from SW Environmental, 2024).

During the assessment process, responding to the Department's request to avoid clearing three confirmed breeding trees, the applicant has revised the application area (Figure 3). The revised application area comprises approximately 1.49 hectares of suitable foraging habitat for BC, including 1.32 hectares providing high foraging quality habitat (SW Environmental, 2025). In considering the application area comprising foraging habitat in associated with breeding

habitat, the proposed clearing of 1.49 hectares of foraging habitat for BC is considered to represent a significant residual impact.

To mitigate the impacts of the proposed clearing to BC foraging area, the applicant has proposed to revegetate a total area of 3.91 hectares, including the clearing area following extraction and an additional 1.84 hectares of adjacent areas (See Section 3.1). The proposed revegetation aims to achieve the tree density of 6,000 stems of jarrah and marri per hectares after 10 years of rehabilitation (SW Environmental, 2025). The proposed revegetation also includes *Hakea lissocarpha* and *Bankisa dallannery*, which are expected to provide foraging resource for BC sooner than the canopy species (Shire of Nannup, 2025b; SW Environmental, 2025). Based on a calculation consistent with the WA Environmental Offsets Metric, the proposed onsite revegetation is sufficient to counterbalance the significant residual impacts to foraging habitat for BC caused by the proposed clearing.

Mammal species

Chuditch (*Dasyurus geoffroii* - Vulnerable)

Chuditch is known to occupy a range of habitats including jarrah forests, eucalypt woodlands, mallee shrublands and heathland. The species uses denning habitat types such as hollow logs, burrows or rock crevices (DEC, 2012a). According to available databases, 20 records occur within the local area with the closest record 7.3 kilometres from the application area. The application area may provide foraging and sheltering habitat for this species. However, considering the existence of extensive area of similar or better-quality habitat within remaining in the local area and the proposed rehabilitation, the proposed clearing is not expected to have a significant impact on the long-term viability of local populations of chuditch. Potential impacts to chuditch caused the proposed clearing may be minimised by the implementation of a fauna management condition which requires a pre-clearing inspection and relocation of chuditch individuals if identified.

Western brush wallaby (*Notamacropus Irma* – Priority 4)

Western brush wallaby is highly mobile and does not rely on specialised niche habitats. This species inhabits open forest or woodland, particularly favouring open, seasonally wet flats with low grasses and open scrubby thickets. It is also found in some areas of mallee and heathland (DBCA, 2012). Nine records of western brush wallaby are mapped within the local area and the closest record is approximately 3.4 kilometres from the application area. Noting the high mobility of the species and the relatively small application area in comparison with the extensive available habitat for this species within the local area, the application area is unlikely to comprise significant habitat for western brush wallaby. Furthermore, considering that the clearing area will be rehabilitated following extraction, potential impacts of the proposed clearing to this species is likely to be in short-term and minimal.

South-western brush-tailed phascogale (*Phascogale tapoatafa wambenger* - conservation dependent fauna)

The south-western brush-tailed phascogale is an arboreal dasyurid, associated with dry sclerophyll forests and open woodlands that contain hollow-bearing trees, characterised by high canopy cover and connectivity (DEC, 2012b). Sixteen records of this species are mapped within the local area with the closest distance of 2.7 kilometres from the application area. The open forest structure of vegetation proposed to be cleared provide suitable habitat for this phascogale species. However, no phascogales were observed within the application area during the nocturnal surveys (SW Environmental, 2024). Noting the relatively small extent of the clearing area in comparison with the remnant vegetation in the local area, the proposed clearing area is unlikely comprises significant habitat for this species.

There is a chance that the proposed clearing may result in impacts to fauna individuals if they happen to be transiting across the application area during the time of the clearing.

Conclusion

Based on the above assessment, the proposed clearing will result in the removal of 2.01 hectares of foraging habitat for black cockatoos and have impacts to chuditch potential habitat. The clearing activities may impact to fauna individuals if they occur within the application area at the time of clearing and have the potential to impact the quality of the surrounding fauna habitat by facilitating the spread of weeds and dieback.

Conditions

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

- Directional clearing, which requires slow, progressive, one directional clearing to allow terrestrial fauna to disperse ahead of the clearing activity should they occur on site at the time of clearing.
- Weed and dieback management measures to assist in mitigating impacts to surrounding vegetation that provides fauna habitat.
- Undertaking pre-clearing inspection for chuditch.

- Avoid clearing three trees (Trees 29, 46 and 70) containing suitable size hollow with confirmed signs of use with a minimum buffer of 10 metres.
- Revegetation of 3.91 hectares within the application area and adjacent areas when the extraction is completed in accordance with the proposed revegetation management plan.

3.2.2. Land resources - Clearing Principles (g)

Assessment

The soils within the proposed clearing area are mapped as susceptible to subsurface acidification, phosphorus export and wind erosion. To mitigate the above land degradation risks, the Shire has proposed following measures in their extraction management plan (Shire of Nannup, 2025b):

- In relation to subsurface acidification risks:
  - Avoid unnecessary over-excavation into deeper clay or loamy subsoils;
  - Undertake proper trainings to the Shire's relevant officer and extraction operators about indicators of potential acid sulphate soils;
  - Cease the extraction immediately if the acid sulphate soils are encountered and engage experts to address the encountered issues.
- In relation to phosphorus export risks:
  - A sediment basin has been constructed at the lowest points of the pit to collect surface runoff and allow nutrient-laden soil sedimented before the runoff water leaving the site.
  - A rip rap spillway has been installed at the basin outlet to slow water flow to prevent scouring and erosion.
- In relation to wind erosion risks:
  - Applying progress extraction where only active areas will be cleared at one time to reduce the area of exposed soil.
  - Stabilizing stockpiled topsoil and undertaking inspection during windy conditions to implement corrective measures if necessary.
  - Watering the extraction areas and haul roads regularly during dry periods to prevent dust and surface loss.

The above mitigation measures proposed by the applicants and an additional condition on the clearing permit requiring extraction works to begin with three months of clearing to prevent the prolonged exposure of bare sandy soils can be considered sufficient to minimize and manage the land degradation risks caused by the proposed clearing.

Conclusion

Based on the above assessment, the proposed clearing and subsequent extraction activities may result in the land degradation due to subsurface acidification, phosphorus export and wind erosion.

Conditions

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

- activities for which clearing is authorised to commence within three months of clearing.

3.3. Relevant planning instruments and other matters

The clearing permit application was advertised on DWER's website on 26 July 2024, inviting submissions from the public within a 21-day period. No submissions were received.

The application area is located within the Crown Reserve 5325 which is mapped as Open Public Space under the Shire's local planning scheme. The Shire has confirmed that this mapping is incorrect, and the Shire holds a management order over this Reserve for the purpose of gravel extraction (Shire of Nannup, 2025a).

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

End

Appendix A. Additional information provided by applicant

Summary of information	Consideration of information provided
Revised application area	The application area has been revised, and the information has been presented in section 3.1 of this Report.
Targeted fauna survey	This information has been considered when making decision and presented in Sections 3.2.1 of this Report
Clarification on the inconsistency between zoning and management order	This information has been presented in Section 3.3 of this Report.
Extraction management plan, including mitigation measures	This information has been considered when making decision and presented in Sections 3.1 and 3.2.2 of this Report
Revised revegetation management plan	This information has been considered when making decision and presented in Sections 3.1 and 3.2.1 of this Report

Appendix B. Site characteristics

B.1. Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix C.

Characteristic	Details
Local context	The area proposed to be cleared is part of an expansive tract of native vegetation in the intensive land use zone of Western Australia. It is surrounded by cleared land to its north and bushland to its south. The proposed clearing area is part of a large area of vegetation. Aerial imagery indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains more than 30 per cent of the original native vegetation cover.
Ecological linkage	The application area is not mapped or appears to be within any formal/informal ecological linkages.
Conservation areas	The application area is not mapped within any conservation areas. The closest conservation area is a state forest, located approximately 550 metres southwest of the application area.
Vegetation description	Revegetation management plan (SW Environmental, 2025) indicates the vegetation within the proposed clearing area consists of *Eucalyptus marginata* subsp. *marginata* (Jarrah) and *Corymbia calophylla* (Marri) forest over low open shrubland to shrubland over various sedges and forbs. The application area also consists of completely cleared areas including disturbed gravel pit area and topsoil stockpiles (SW Environmental, 2025). Representative photos are available in **Error! Reference source not found.**. This is consistent with the mapped vegetation type: Gale, which is described as tall open forest of *Eucalyptus marginata* subsp. *marginata-Corymbia calophylla-Banksia grandis* on slopes off escarpment in perhumid and humid zones (Heddle et al., 1980). The mapped vegetation type retains approximately 62.8 per cent of the original extent (Government of Western Australia, 2019).

Characteristic	Details
Vegetation condition	Revegetation management plan (SW Environmental, 2025) indicates the vegetation condition within the proposed clearing area ranges from Very Good to Completely Degraded (Keighery, 1994) condition. The Keighery (1994) condition rating scale is provided in Appendix D. Representative photos are available in **Error! Reference source not found.**
Climate	Climate: Mean maximum temperature is 22.8 degrees Celsius. Mean minimum temperature is 8.6 degrees Celsius. Rainfall: Mean annual rainfall is 909.9 millimetres. (At Jarrahwood station, 11.3 kilometres from Cundinup - BOM, 2024)
Soil and landform description	The soil is mapped as 255LvGA, described as foot-slope fans over gneiss; Soils are sandy gravels.
Land degradation risk	The mapped soil has low risks of land degradation resulting from salinity, flooding, waterlogging and water erosion; but having medium to high risks due to subsurface acidification, phosphorus export and wind erosion (See Appendix B.3).
Waterbodies	The desktop assessment and aerial imagery indicated that no watercourses transect the area proposed to be cleared. The closest watercourse is a manmade earth dam located approximately 370 metres to the east of the application area.
Hydrogeography	The application area is not mapped within any surface water areas or groundwater areas proclaimed under the RiWI Act. Groundwater salinity within the application area is mapped as from 500 to 1000 milligrams per litre total dissolved solids.
Flora	Records of four conservation significant flora species have been mapped within the local area, including one threatened and three priority species. All these species are not mapped either in the same vegetation type or in the same soil type that occur within the application area.
Ecological communities	No threatened and priority ecological communities are mapped within the local area.
Fauna	The desktop assessment identified that a total of 15 threatened or priority fauna species have been recorded within the local area, including ten threatened fauna species, four priority fauna species, and one specially protected fauna species. The application area is located within the distribution of all three threatened black cockatoo species. The closest record from the proposed clearing is approximately 3.2 kilometres for forest red-tailed black cockatoo (FTRBC) (*Calyptorhynchus banksii naso*). Evidence of FTRBC foraging and BC breeding was observed within the application area during the targeted fauna survey (SW Environmental, 2024). White-tailed black cockatoos were also observed on neighbouring properties (SM environmental, 2025a)

B.2. Fauna analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix F.1), and information from the biological surveys (Appendix E), impacts to the following conservation significant fauna required further consideration.

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records within the combined application area	Are surveys adequate to identify? [Y, N, N/A]
Forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*)	VU	Y	Y	3.7	7	N/A
Chuditch (*Dasyurus geoffroii*)	VU	Y	Y	7.3	20	N/A
Western brush wallaby (*Notamacropus Irma*)	P4	Y	Y	3.4	9	N/A

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records within the combined application area	Are surveys adequate to identify? [Y, N, N/A]
South-western brush-tailed phascogale (*Phascogale tapoatafa wambenger*)	CD	Y	Y	2.7	16	N/A
Baudin's cockatoo (*Zanda baudinii*)	EN	Y	Y	3.2	3	N/A
Carnaby's cockatoo (*Zanda latirostris*)	EN	Y	Y	7.1	21	N/A

VU: Vunerable;; EN: Endangered; CD: conservation dependent, P: Priority

B.3. Land degradation risk table

Risk categories	***Land Unit 255LvGA***
Wind erosion	H2: >70% of the map unit has a high to extreme hazard
Water erosion	L1: <3% of the map unit has a very high to extreme hazard
Salinity	L1: <3% of the map unit has a moderate or high hazard or is presently saline
Subsurface Acidification	H2: >70% of the map unit has a high susceptibility
Flood risk	L1: <3% of the map unit has a moderate to high hazard
Water logging	L1: <3% of the map unit has a moderate to very high to risk
Phosphorus export risk	M1: 10-30% of the map unit has a high to extreme hazard

Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: The area proposed to be cleared contains suitable habitat for threatened fauna species. However, noting that the vegetation proposed to be cleared has regrown after the area had been cleared previously and the better-quality remnant vegetation exists in close proximity, the proposed clearing area is unlikely to comprise higher level of biodiversity compared with the surrounding remnant vegetation area.	Not likely to be at variance	Yes *Refer to Section 3.2.1, above.*
Principle (b): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."* Assessment: The area proposed to be cleared contains suitable habitat for threatened species, including black cockatoos, chuditch.	At variance	Yes *Refer to Section 3.2.1, above.*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: The area proposed to be cleared is unlikely to contain threatened flora species.	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: No threatened ecological communities are mapped within the local area. The area proposed to be cleared does not contain species that can indicate a TEC.	Not at variance	No
Environmental value: significant remnant vegetation and conservation areas		
Principle (e): *"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."* Assessment: The extent of the mapped vegetation type and native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.	Not 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: Given the distance to the closest conservation area, the proposed clearing is not likely to have an impact on the environmental values of 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: Given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to be associated with a watercourse or wetland.	Not likely to be at variance	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The mapped soil has a moderate to high risk of subsurface acidification, phosphorus export and wind erosion. Noting the extent of the application area, the proposed clearing is likely to have an impact on land degradation.	May be at variance	Yes *Refer to Section 3.2.2, above.*
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: Given no water courses or Public Drinking Water Sources Areas are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality.	Not likely to be at variance	No
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment:	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
The mapped soil and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding. Given no water courses are recorded within the application area, the proposed clearing is unlikely to contribute to waterlogging.		

Appendix D. Vegetation condition rating scale

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

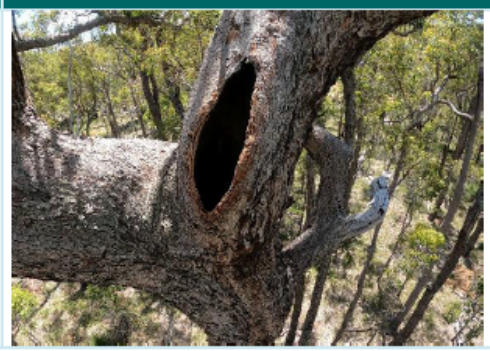
Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western 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 E. Biological survey information excerpts / photographs of the vegetation

Figure E.1. Representative photos of the application area (top: remnant vegetation; bottom left: cleared area with topsoil stockpiles; bottom right: sawn timber and rubble within the cleared area) (SW Environmental, 2024)

Tree ID	Comments	H1 note	
29	Tree with potentially suitable size hollow with signs of use (Confirmed)	10-15cm aperture, possible older evidence of use and possible suitable dimensions. Could be too exposed.	 

Tree ID	Comments	H1 note	
46	Tree with suitable size hollow with signs of use (Confirmed)	Vertical with multiple entries, >15cm aperture. Evidence of chewing on different entries. Probable black cockatoo breeding hollow.	

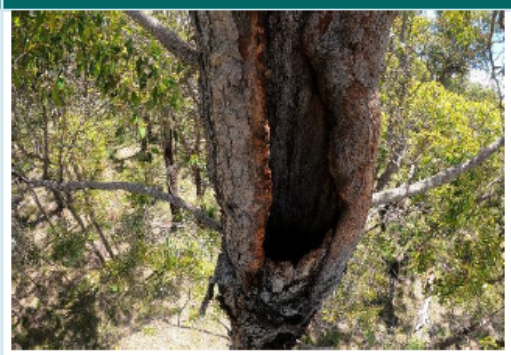
Tree ID	Comments	H1 note	
70	Tree with potentially suitable size hollow with signs of use (Confirmed)	Deep vertical hollow with >20cm aperture. Evidence of chewing. Possible black cockatoo breeding hollow. May be too deep.	  

Figure E.2. Hollow assessment and black cockatoo breeding suitability of three (3) confirmed breeding sites (SW Environmental, 2024)

Appendix F. Sources of information

F.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- DBCA – Lands of Interest (DBCA-012)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- IBRA Vegetation Statistics
- Imagery
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available

Restricted GIS Databases used:

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

F.2. References

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