GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 9082/1
Permit Holder:	B & J Catalano Pty Ltd
Duration of Permit:	From 25 June 2021 to 25 June 2031

The permit holder is authorised to clear native vegetation subject to the following conditions of this permit.

PART I – CLEARING AUTHORISED

1. Clearing authorised (purpose)

The permit holder is authorised to clear native vegetation for the purpose of gravel extraction.

2. Land on which clearing is to be done

Lot 12596 on Deposited Plan 208623, North Walpole.

3. Clearing authorised

The permit holder must not clear more than 1.92 hectares of native vegetation within the area cross-hatched yellow in Figure 1 of Schedule 1.

4. Period during which clearing is authorised

The permit holder must not clear any native vegetation after 25 June 2026

PART II – MANAGEMENT CONDITIONS

5. 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.

6. 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.

7. Directional clearing

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

8. Fauna management – western ringtail possums

(a) In relation to the area cross-hatched yellow in Figure 1 of Schedule 1, the permit holder must engage a *fauna specialist* to inspect that area immediately prior to, and for the duration of clearing activities, for the presence of western ringtail possum(s) (*Pseudocheirus occidentalis*).

(b) Clearing activities must cease in any area where fauna referred to in condition 8(a) of this permit are identified until either:

(i) the western ringtail possum(s) individual has moved on from that area to adjoining *suitable habitat*; or

(ii) the western ringtail possum(s) individual has been removed by a *western ringtail possum specialist*.

(c) Any western ringtail possum(s) individual removed in accordance with condition 8(b)(ii) of this permit must be relocated by a *western ringtail possum specialist* to a *suitable habitat*.

(d) Where fauna is identified under condition 8(a) of this permit, 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 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;

(iv) the number of individuals removed and relocated;

(v) the relevant qualifications of the *western ringtail possum specialist* undertaking removal and relocation;

(vi) the date each individual was removed;

(vii) the method of removal;

(viii) the date each individual was relocated;

(ix) the location where each individual was relocated to, recorded using a GPS unit set to GDA94, 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.

9. Retain vegetative material and topsoil, and rehabilitation

(a) The Permit Holder must retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared.

(b) The Permit Holder must within 12 months and no later than 1 May 2027, *revegetate* and *rehabilitate* the areas that are no longer required for the purpose for which they were cleared under this Permit by:

(i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land;

(ii) ripping the ground on the contour to remove soil compaction; and

(iii) laying the vegetative material and topsoil retained under condition 9(a) on the cleared area.

(c) The Permit Holder must within 18 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 9(b) of this permit:

(i) engage an *environmental specialist* to determine the species composition, structure and density of the vegetation of area *revegetate*d and *rehabilitate*d; and

(ii) engage an *environmental specialist* to make a determination as to whether the composition, structure and density determined under condition 9(c)(i) of this permit will, without further revegetation, result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area.

(d) If the determination made by the environmental specialist under condition 9(c)(ii) is that the species composition, structure, and density determined under condition 9(c)(i) will not, without further revegetation, result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, the Permit Holder must *revegetate* the area by deliberately planting and/or direct seeding native vegetation seeds that will result in a similar species composition, structure, and density of native vegetation to pre-clearing vegetation types in that area.

(e) Where additional planting or direct seeding of native vegetation is undertaken in accordance with condition 9(d), the Permit Holder must repeat the activities required by condition 9(c) and 9(d) within 12 months of undertaking the additional planting or direct seeding of native vegetation.

(f) Where a determination is made by an environmental specialist under condition 9(c)(ii) that the composition, structure and density within areas *revegetate*d and *rehabilitate*d will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, that determination shall be submitted to the CEO within three months of the determination being made by the environmental specialist.

PART III - RECORD KEEPING AND REPORTING

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 Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings; (c) the date that the area was cleared; (d) the size of the area cleared (in hectares); (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 5; (f) actions taken to minimise the risk of the introduction and spread of *weed*s and *dieback* in accordance with condition 6. (g) actions taken in accordance with condition 7 of this permit; (h) actions taken to manage and mitigate impacts to western ringtail possums in accordance with condition 8.
2.	In relation to *revegetation* and *rehabilitate* of areas pursuant to condition 9 of this permit	(a) a description of the *revegetation* and *rehabilitation* activities undertaken; (b) the size of the areas *revegetated* and *rehabilitated* (in hectares); (c) the date that *revegetation* and *rehabilitation* works began; and (d) actions taken in accordance with condition 9(d) of this Permit.

11. Reporting

The permit holder must provide to the *CEO* the records required under condition 10 of this permit when requested by the *CEO*.

DEFINITIONS

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

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the *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.
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.
rehabilitate / rehabilitated / rehabilitation	means actively managing an area containing native vegetation in order to improve the ecological function of that area.
revegetate / vegetated / revegetation	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.
suitable habitat (western ringtail possum)	means habitat known to support western ringtail possums (*Pseudocheirus occidentalis*) within the known current distribution of the species, typically characterised by abundant foliage, presence of suitable nesting structures such as tree hollows, as well as high canopy cover and continuity. Known habitat includes peppermint (*Agonis flexuosa*) dominated woodlands, jarrah (*Eucalyptus marginata*) and marri (*Corymbia calophylla*) forests, riparian vegetation with a canopy of Bullich (*Eucalyptus megacarpa*) or flooded gum (*Eucalyptus rudis*), karri (*Eucalyptus diversicolor*) forests, sheoak (*Allocasuarina fraseriana*) dominated woodlands, and other stands of myrtaceous trees growing near swamps, watercourses or floodplains.
weeds	means any plant – (a) that is a declared pest under section 22 of the *Biosecurity*

Term	Definition
	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.
western ringtail possum specialist	means a fauna specialist who holds a tertiary qualification specialising in environmental science or equivalent, has a minimum of two years of work experience in western ringtail possum (*Pseudocheirus occidentalis*) identification, surveys of western ringtail possums and capture and handling of western ringtail possums, and holds a valid fauna licence issued under the *Biodiversity Conservation Act 2016*.

END OF CONDITIONS

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Ryan Mincham
MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

2 June 2021

Schedule 1

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

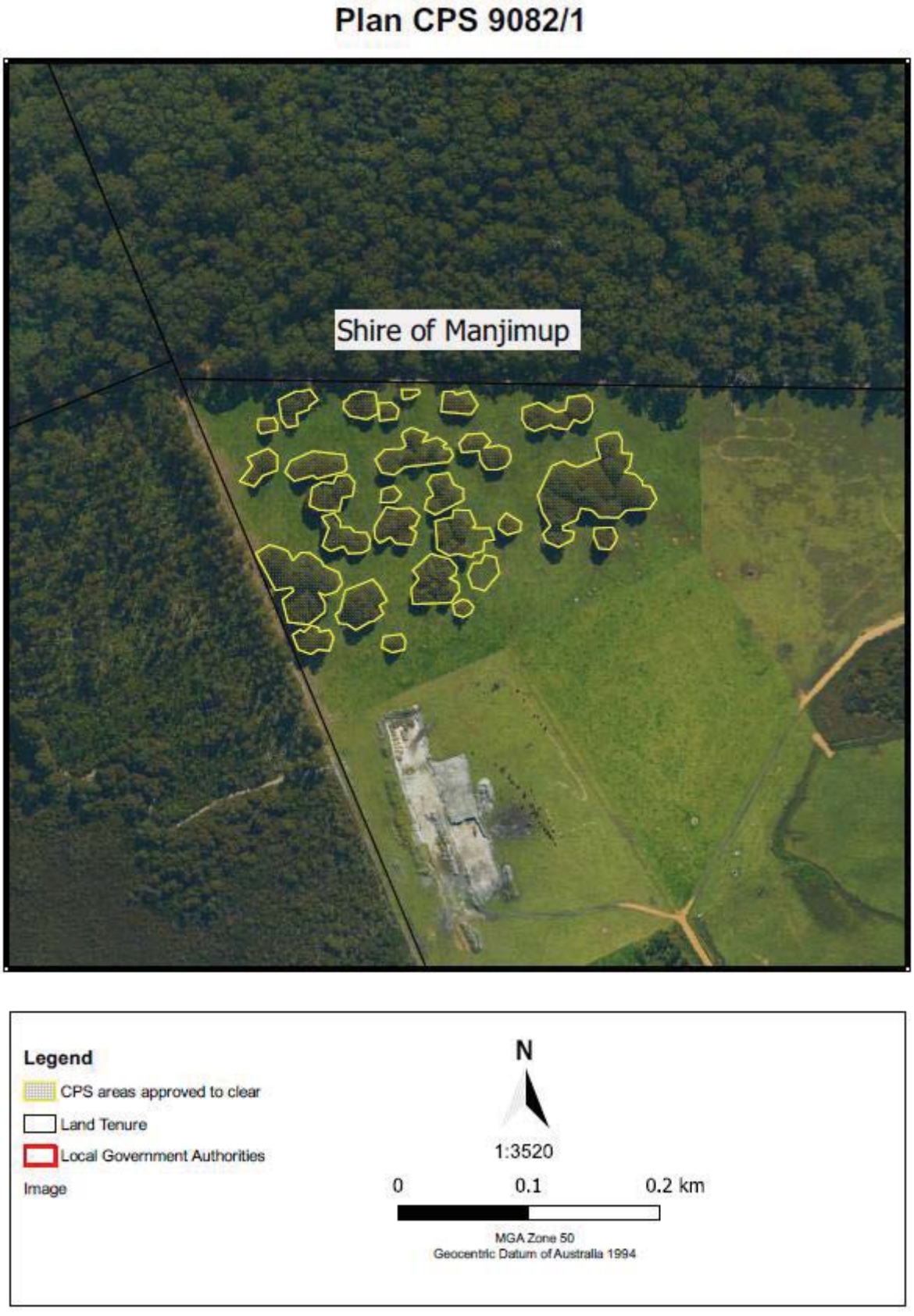

Figure 1: Map of the boundary of the area within which clearing may occur

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 9082/1
Permit type:	Purpose permit
Applicant name:	B & J Catalano Pty Ltd
Application received:	12 October 2020
Application area:	1.92
Purpose of clearing:	Gravel extraction
Method of clearing:	Mechanical
Property:	Lot 12596 on Deposited Plan 208623, North Walpole
Location (LGA area/s):	Shire of Manjimup
Localities (suburb/s):	North Walpole

1.2. Description of clearing activities

The application is to clear 1.92 hectares of native vegetation distributed across twenty-seven sperate parcels for the purpose of gravel extraction. The sites are all within the north-western corner of Lot 12596 on Deposited Plan 208623, North Walpole.

1.3. Decision on application

Decision:	Granted
Decision date:	2 June 2021
Decision area:	1.92 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 a habitat assessment (Appendix D) (Lundstrom, 2021, A1993371), the clearing principles set out in Schedule 5 of the EP Act (see Appendix B), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

The assessment identified that the proposed clearing will result in:

- the loss of native vegetation that is suitable habitat for threatened Black cockatoo species; Forest red-tailed black cockatoos (*Calyptorhynchus banksii naso*), Carnaby's Cockatoo (*Calyptorhynchus latirostris*) and Baudin's Cockatoo (*Calyptorhynchus baudinii*)), as well as the Square-tailed Kite (*Lophoictinia isura*)
- the loss of habitat trees which could potentially be utilised by the western ringtail possum (*Pseudocheirus occidentalis*)

- the 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.

After consideration of the available information, the Delegated Officer determined the proposed clearing is unlikely to have long-term adverse impacts on environmental values. Loss of habitat that may be used by threatened species of Black cockatoos is not likely to have an adverse effect on the long-term viability of these species in the local or regional area. Large areas of nearby remnant vegetation provide suitable habitat which is in better condition than that found in the application area, indicating that the vegetation within the application area is not likely of high significance to these species when assessed in the local context. It is considered that the clearing impacts can be minimised and managed to the extent they do not present an unacceptable risk to environmental values through the conditions described below.

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

- avoid and 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
- implement western ringtail possum management measures to minimise the risk of impacts to any individuals that may be present within the application areas
- revegetate and rehabilitate areas cleared for works within 12 months of the area no longer being required for the purpose for which it was cleared.

1.5. Site map

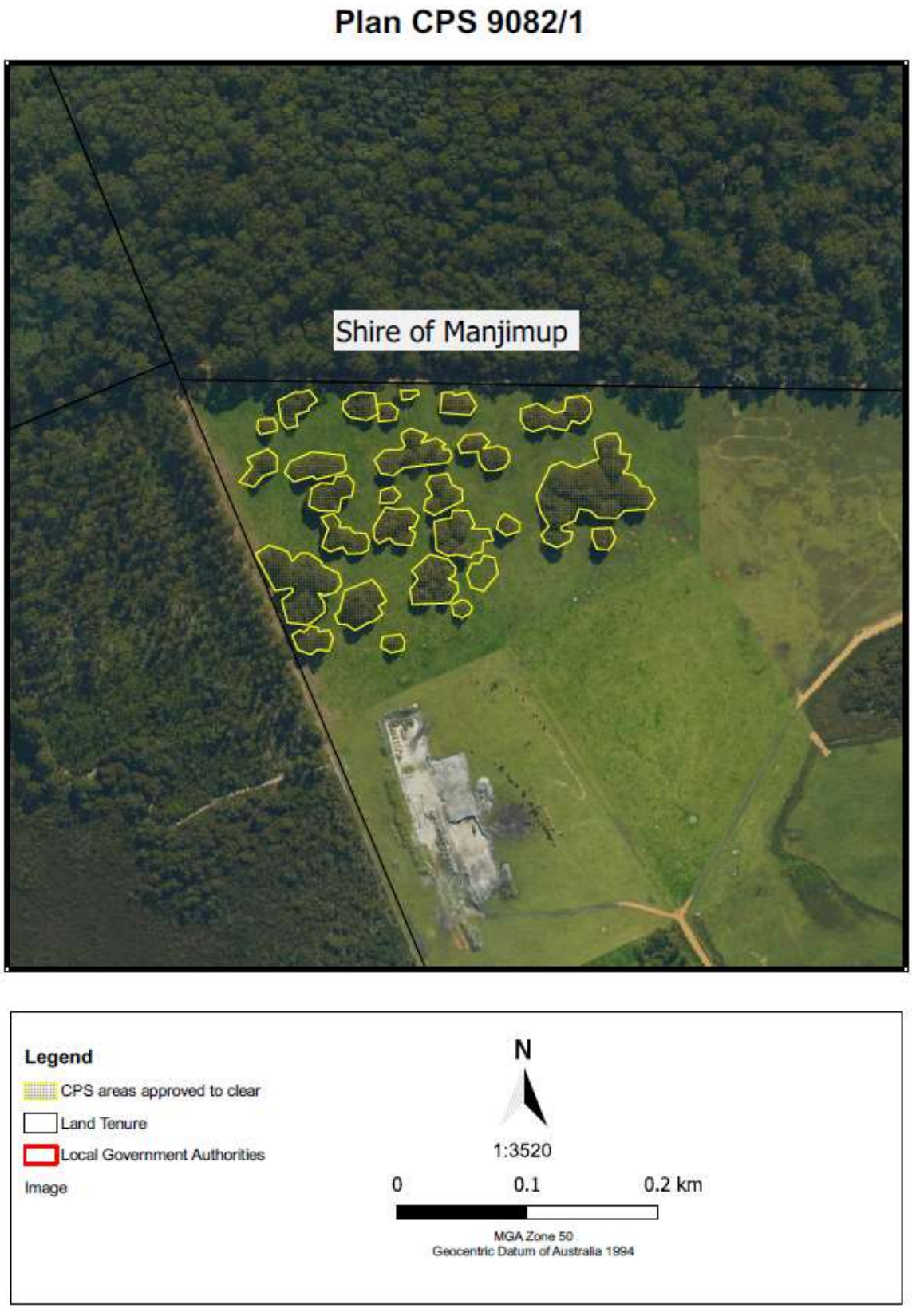

Figure 1 Map of the application area

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

2 Legislative context

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

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

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)

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 – Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

The Delegated Officer was satisfied that the potential impacts of the proposed clearing on environmental values have been reduced as far as practicable through the selection of areas of completely degraded vegetation.

3.2. Assessment of impacts on environmental values

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

The assessment against the clearing principles (see Appendix B) identified that the proposed clearing will result in the removal of some foraging vegetation for Black cockatoos, some potential nesting and vantage point trees for Square-tailed Kites and trees which provide preferred habitat for the western ringtail possum. The potential risk from the spread of weeds and dieback was also considered. 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. Environmental value: biological values (fauna – Clearing Principle (b)

Assessment

According to available databases, a total of 35 conservation significant fauna species have been recorded within the local area (Department of Biodiversity, Conservation and Attractions (DBCA), 2007). Noting the habitat requirements of the recorded species, the mapped vegetation type, the condition of the vegetation within the application area, as well as the photographs supplied by the applicant (Lundstrom, 2021), the application area has some features that comprise suitable habitat for:

- Black cockatoos
- Square-tailed Kite
- Western Ringtail Possum

Black cockatoos

According to available databases, 8 records of forest red-tailed black cockatoo, 18 records of Carnaby's cockatoo and 113 records of Baudin's cockatoo have been recorded in the local area (DBCA, 2007).

A field survey identified that the application area is not likely to provide suitable breeding habitat (Lundstrom, 2021). Suitable breeding habitat for black cockatoos includes trees which either have a suitable nest hollow, or are of a suitable diameter at breast height (DBH) to develop a nest hollow. For most tree species a suitable DBH is 500 millimetres (Commonwealth of Australia, 2012). A survey found no suitable breeding trees within the application area (Lundstrom, 2021). Only one type of tree species suitable for black cockatoo habitat, *Eucalyptus jacksonii* or *guilfoylei,* was identified in the survey. A total of sixteen *E. jacksonii* or *guilfoylei* were recorded within the application area and all had a DBH greater than 500 millimetres. While these could be considered potential habitat trees, no hollows were recorded in any of these trees and no evidence of chewed nuts (from foraging) was observed within the application area (Lundstrom, 2021).

Noting typical food resources for black cockatoos, the application area contains only a limited amount of foraging habitat. Forest red-tailed black cockatoo forages within jarrah and marri woodlands and forest, and edges of karri forests including wandoo and blackbutt. The application area is within the range of this species. The species largely feeds on seeds of marri and jarrah, as well as other *Eucalyptus* species and *Allocasuarina* cones (Commonwealth of Australia, 2012). Baudin's cockatoos prefer foraging within Eucalypt woodlands and forest, and proteaceous woodland and heath. During the breeding season (October to late January/early February) this species has a preference for marri seeds. Outside the breeding season the species may feed in fruit orchards and tips of *Pinus* sp. (Commonwealth of Australia, 2012). Carnaby's cockatoo feeds on the seeds, nuts and flowers of a large variety of plants including Proteaceous species (*Banksia*, *Hakea* and *Grevillea*), as well as Allocasuarina and Eucalyptus species, *Corymbia calophylla* and a range of introduced species (Valentine and Stock, 2008).

The local area comprises approximately 23,467 hectares of native vegetation and the application areas represent approximately 0.008 per cent of this extent. Approximately 82.4 per cent (19,332 hectares) of the vegetation in the local area occurs within DBCA managed estate.

Significant habitat refers to the resources (breeding, resting and feeding), connectivity or habitat area for a species or community that is critical for its survival. Noting the location of the application areas with regard to the nearby DBCA lands and the extent of remnant vegetation in the local area, the application areas are unlikely to provide significant foraging habitat or ecological linkage value for black cockatoos.

The application areas are located within the mapped confirmed breeding area for Carnaby's cockatoo, core distribution range for forest red-tailed black cockatoo and Baudin's cockatoo. According to available databases, there are no confirmed breeding locations within the local area. The closest confirmed breeding location for white-tailed black cockatoos and forest red-tailed black cockatoo are located approximately 14 and 54 kilometres from the application areas respectively. Noting this, the proposed clearing is unlikely to reduce the amount of food available to breeding birds or affect chick survival rates. No confirmed roosting sites are recorded within the local area, however, there are likely to be trees suitable for roosting within the local area. Although some of the trees proposed to be cleared are of a size suitable for roosting by Black cockatoos, their removal is not likely to compromise the long-term viability of Black cockatoos given the abundance of native vegetation of equal, or better condition within conservation areas in the local area.

Taking into account the small size of the application areas compared to the extent of native vegetation in the local area and that the application areas do not provide a significant ecological linkage function, the proposed clearing is not likely to restrict the ability of black cockatoos to migrate across the landscape.

Western Ringtail Possum

Peppermint trees (*Agonis flexuosa*), which are preferred habitat trees for the western ringtail possum, represent 91% of the vegetation within the application areas. The Completely Degraded condition of the vegetation and location within an open paddock with no contiguous canopy increases the risk of predation as individuals would be required to move between trees on the ground. Although the vegetation within the application areas is not likely to provide optimum habitat for western ringtail possums, there is a possibility that this species is present within the application areas given the closest record is 4.39 kilometres south of the application areas.

West Frankland State Forest is directly to the north, east and south east of the application areas and it is predominantly of the same vegetation type as that mapped over the application areas (Keystone, Kb). Keystone, Kb, vegetation type provides suitable habitat for western ringtail possum, including peppermint trees which provide preferred foraging and nesting habitat for this species. While none of the trees within the application areas displayed hollows that could be used as potential refuges and no dreys or scats were recorded in the field survey (Lundstrom, 2021), it is considered that with appropriate western ringtail possum management conditions, any impacts to this species can be adequately managed.

Square-tailed Kite

During the on-site survey, a Square-tailed Kite was observed circling above open woodland near the application areas. The vegetation within the application areas, which include trees with broken canopy within large areas of open pasture and near remnant bushland, provides ideal hunting habitat for this species. Nearby remnant vegetation to the north which overlooks cleared paddocks provides ideal alternative habitat very close by. Square-tailed kite habitat is not restricted to the application areas and suitable habitat is broadly found both locally and regionally, as well as across most of Western Australia. The species is listed as Least Concern (IUCN, 2021) and clearing of the vegetation within the application areas is not likely to affect the long-term viability of this species on a local or regional level.

Nearby remnant vegetation risk of weed and dieback incursion.

The application areas are adjacent to remnants of native vegetation. Adhering to weed and dieback management measures (as conditioned on the clearing permit) will minimise the risk of weeds and dieback spreading into nearby habitats.

Outcome:

Based on the findings of the assessment, the Delegated Officer determined that the proposed clearing will impact on suitable foraging habitat for Black cockatoos, however, this habitat is not considered to be significant given the abundance of native vegetation of equal, or better condition in the local area, much of which occurs within conservation areas The proposed clearing will result in the removal of *Agonis flexuosa* which is preferred habitat for the western ringtail possum. Given the suitability of habitat for this species and records of its occurrence within the local area, there is the potential for individuals to be present within the application areas.

Due to the close proximity of large parcels of remnant native vegetation, it is considered necessary to impose dieback and weed management conditions on the permit.

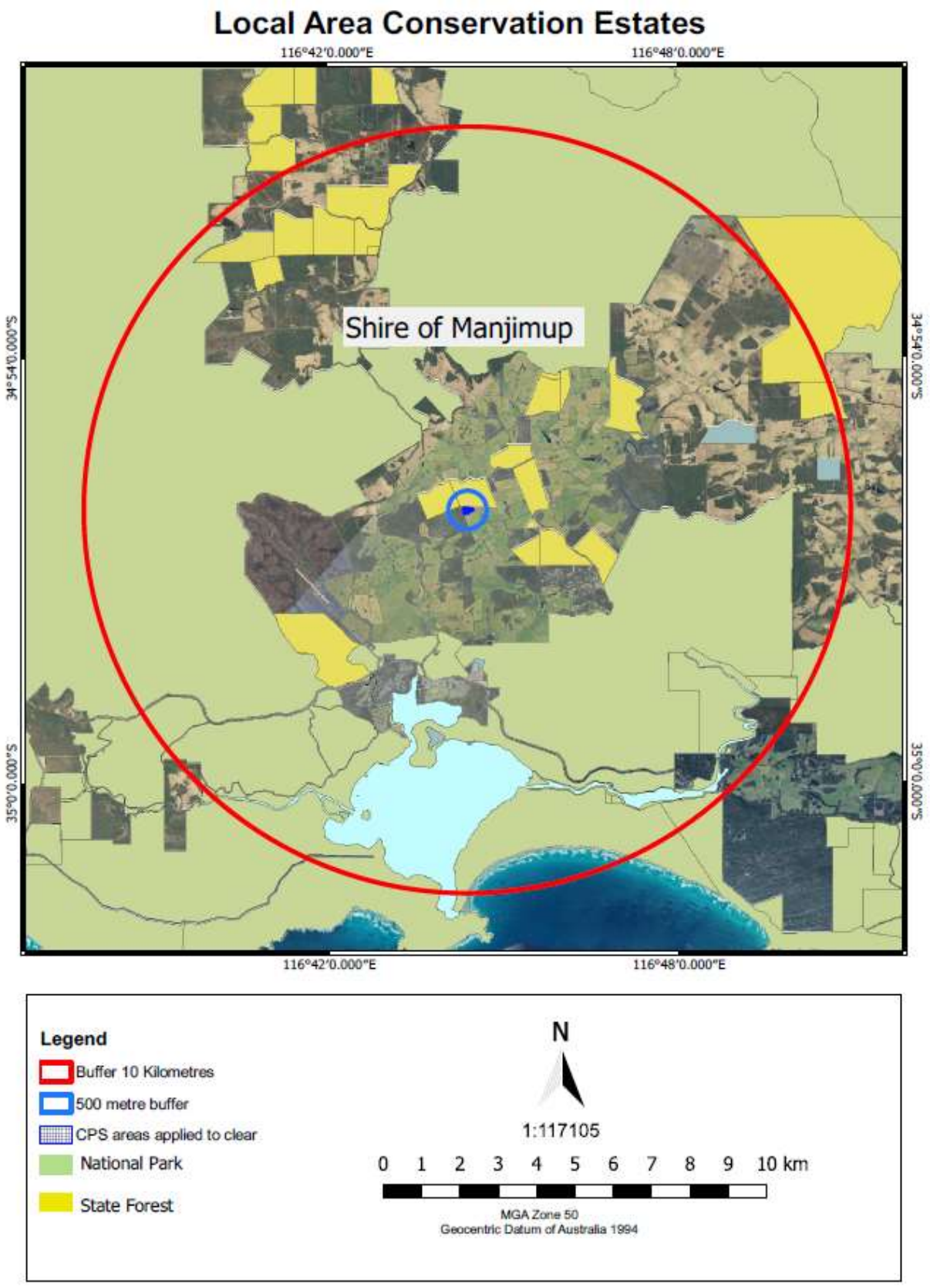

Figure 2 - Map of conservation estates within the local area. The application areas are shown in the centre of the 500 metre buffer (outlined in blue).

Conclusion

Based on the above assessment, the proposed clearing will result in the removal of trees which provide potential foraging habitat for Black cockatoo, as well as suitable habitat for the western ringtail possum.

For the reasons set out above, it is considered that the proposed clearing will not significantly impact the availability of suitable fauna habitat within the local area. The imposition of permit conditions requiring the revegetation and rehabilitation of the site post-extraction will ensure there is no permanent loss of fauna habitat. Fauna management conditions, if appropriately implemented, will also ensure that there is no impact to western ringtail possums that may be present at the time of the clearing. Potential impacts from the introduction of weeds and dieback can be managed by standard weed and hygiene conditions.

Conditions

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

- avoid, minimise to reduce the impacts and extent of clearing
- take hygiene steps to minimise the risk of the introduction and spread of weeds
- directional clearing - the Permit Holder must conduct clearing activities in a slow, progressive manner from south to north to allow fauna to move into adjacent native vegetation ahead of the clearing activity
- western ringtail possums - the permit holder will be required to engage a fauna specialist to inspect the clearing area immediately prior to and for the duration of the clearing for the presence of western ringtail possums. A western ringtail possum specialist will be required to translocate any individuals if required.
- the permit holder must revegetate and rehabilitate areas cleared for temporary works within 12 months of the area no longer being required for the purpose for which it was cleared.

3.3. Relevant planning instruments and other matters

The Shire of Manjimup advised DWER that local government approvals are not required, and that the proposed clearing is consistent with the Shire's Local Planning Scheme. The Shire did not have any objections to the proposed clearing and confirmed that the applicant had a current Extractive Industry Licence and Development Approval.

The proposed clearing is within a Priority 2 (P2) area of the Walpole Weir Catchment area, which supplies drinking water to the town of Walpole. DWER water source protection planning branch (WSPP) confirmed that the proposed clearing is not likely to be a risk to this drinking water catchment as it is far enough away from waterways, Butlers Dam and the Walpole Weir and that turbidity is not likely to be a risk to the drinking water source. However, the WSPP branch advised that it is preferable for drinking water source protection that the applicant chooses an already cleared area for gravel extraction on their property rather than clear the vegetation (DWER, 2020).

The application areas are located within the boundaries of the Wagyl Kaip & Southern Noongar Indigenous Land Use Agreement (ILUA). Native Title Claims filed include the Single Noongar Claim (Area 1) (WAD6006/2003). Frankland River (Place ID 21906) located approximately 2 kilometres to the east of the application areas is an Aboriginal Heritage Place.

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

End

Appendix A. Site characteristics

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

A.1. Site characteristics

Characteristic	Details
Local context	Spatial data indicates the local area (10 km radius from the application areas, which is equal to approximately 29,812 hectares, excluding waterbodies) retains approximately 78.7 per cent (23,467 hectares) of the original native vegetation. The majority (approximately 82 per cent) of this remnant vegetation, (approximately 19,332 hectares) occurs within conservation estate (see figure 2 for depiction of conservation estates in the local area).
Ecological linkage	The application areas are within the south coast macro corridor ecological linkage. Other mapped ecological linkages within the local area are: • South West Regional Ecological linkage centre line is approximately 500 metres north of the application areas. This ecological linkage connects the West Frankland State Forest, which is immediately to the north of the application areas, to Mount Frankland South National Park (5.72 kilometres to the west of the application areas). • The closest Roadside Conservation – Road Centrelines is 695 metres south of the application areas and runs in an east-west direction. Given that the application areas consist of fragmented parcels of vegetation in close proximity to substantial areas of contiguous remnant vegetation, the clearing of this vegetation is not likely to significantly impact upon ecological linkage function.
Conservation areas	The closest conservation area is West Frankland State Forest (Class A) located approximately 10 metres north of the application areas (see Figure 2 above).
Vegetation description	Photographs supplied by the applicant (Lundstrom, 2021). A review of photographs provided indicates that the vegetation within the application areas is mostly comprised of isolated stands of *Agonis flexuosa*, several *Eucalyptus sp.* and *Allocasuarina decussata*. Although these species are consistent with the mapped vegetation type, Keystone, Kb, the overall vegetation structure, with no midstory or ground cover is not entirely representative of the mapped vegetation type (Keyston, Kb) which is described as: • Which is described as: Mosaic of tall open forest of *Eucalyptus guilfoylei, Eucalyptus jacksonii, Eucalyptus diversicolor* on slopes of major hills rising above coastal plain with *Allocasuarina decussata, Banksia grandis, Agonis flexuosa* on slopes in hyperhumid and perhumid zones and tall open forest of *Eucalyptus brevistylis, Eucalyptus marginata subsp. marginata, Corymbia calophylla* and the occasional *Eucalyptus megacarpa* near rock outcrops in hyperhumid and perhumid zones (Shepherd et al, 2001) The mapped vegetation type retains approximately 78.25 per cent of the original extent (Government of Western Australia, 2019).
Vegetation condition	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in Completely Degraded condition (Keighery, 1994) condition, described as: • 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. The full Keighery (1994) condition rating scale is provided in Appendix C. Representative photos are available in Appendix D.

Characteristic	Details
Climate and landform	Rainfall: 1300 millilitre per annum Evapotranspiration: 900 millilitre per annum Geology: Metasedimentary rocks and Granite and gneiss
Soil description	The soil type mapped within the application areas is Keystone brown duplex Phase - 254WhKYb (DPIRD, 2020) which is described as: • Brown gravelly duplex soils and red of yellow earths; much laterite. Marri-Karri-Red Tingle-Yellow Tingle forest.
Land degradation risk	The mapped soils within the application areas have a high phosphorus export and subsurface acidification risk. The mapped soils have a moderate risk of subsurface compaction, water and wind erosion.
Waterbodies	The desktop assessment indicates the application areas are not mapped within any wetland, watercourse or waterbody. The closest non-perennial mapped drainage line is approximately 205 metres to the south east, with another watercourse being approximately 220 metres to the west.
Hydrogeography	The application areas are partially mapped within a Priority 2 (P2) area of the Walpole Weir Catchment area, which supplies drinking water to the town of Walpole, via several sources - a run-of-the-river dam called Walpole Weir, Butler's Creek Dam (in the east of the catchment) and two bores along Swann Road.
Flora	Four flora species listed as threatened under the BC Act and 39 Priority listed flora by DBCA have been recorded within the local area. The closest record of a conservation significant flora species is a record of *Diuris drummondii* (T), located approximately 2.9 km from the application areas.
Ecological communities	Two priority ecological communities are mapped within the local area: • *Reedia spathacea - Empodisma gracillimum - Schoenus multiglumis* dominated peat paluslopes and sandy mud floodplains of the Warren Biogeographical Region (3.67 kilometres from the application areas). • Subtropical and Temperate Coastal Saltmarsh (4.3 kilometres from the application areas).
Fauna	According to available databases there are 35 conservation significant fauna recorded within the local area. The closest recorded species is the quenda, southwestern brown bandicoot (*Isoodon fusciventer*), recorded 810 metres south of the application areas. • A record of a forest red-tailed black cockatoo 4.42 kilometres north. • The closest Baudin's cockatoo record is 0.98 kilometres to the north-east. • The closest Carnaby's cockatoo record is 1.24 kilometres to the south-west. • The closest white-tailed black cockatoo record is 2.2 kilometres north. • The closest white-tailed black cockatoo breeding site is approximately 14 kilometres to the north. • The closest record of a forest red-tailed black cockatoo is 54 kilometres to the east. • The closest record of a western ringtail possum is 4.39 kilometres to the south.

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*					
Warren	15,231.68	13,966.77	91.70	13,209.44	86.72
Vegetation complex					
Keystone, Kb	29,634.10	23,188.19	78.25	18,283.86	61.70
Local area					
10km radius	29,812.6	23,467	78.7	19,332.6	82

*Government of Western Australia (2019a) Application area – 1.92

**Government of Western Australia (2019b)

A.3. Fauna and Flora Analysis Table

Fauna Analysis Table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Are surveys adequate to identify? [Y, N, N/A]
Western ringtail possum, ngwayir	CR	N	Y	4.38	Y
Baudin's cockatoo	EN	N	Y	0.98	Y
Carnaby's cockatoo	EN	N	Y	1.60	Y
White-tailed black cockatoo	EN	N	Y	2.38	Y
Forest red-tailed black cockatoo	VU	N	Y	4.41	Y
Square-tailed kite	LC	Y	Y	0	Y

Flora Analysis Table

Threatened Flora Taxon	Status	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Suitable habitat features? [Y/N]
Banksia verticillata	T	No	No	No
Drakaea micrantha	T	No	No	No
Microtis globula	T	No	No	No
Reedia spathacea	T	No	No	No
Diuris drummondii	VU	No	No	No

Priority Flora Taxon	Status	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Suitable habitat features? [Y/N]
Amanita walpolei	P2	No	No	No
Andersonia redolens	P2	No	Yes	No
Calymperastrum latifolium	P2	Yes	No	No
Chamaexeros longicaulis	P2	No	No	No
Chamelaucium floriferum subsp. diffusum	P2	No	Yes	No
Chamelaucium floriferum subsp. floriferum	P2	No	No	No
Corybas autumnalis	P2	No	No	No
Drosera binata	P2	No	No	No
Drosera huegelii var. phillmanniana	P2	No	No	No
Lepyrodia extensa	P2	No	No	No
Pertusaria trachyspora	P2	No	No	No
Rorippa cygnorum	P2	No	No	No
Schizaea rupestris	P2	No	No	No
Sphagnum novozelandicum	P2	No	No	No
Acacia euthyphylla	P3	No	No	No
Actinotus repens	P3	No	No	No
Adelphacme minima	P3	No	No	No
Alexgeorgea ganopoda	P3	No	No	No
Andersonia auriculata	P3	No	No	No
Anthocercis sylvicola	P3	No	No	No
Caustis sp. Boyanup (G.S. McCutcheon 1706)	P3	No	No	No
Corybas abditus	P3	No	No	No
Hemigenia microphylla	P3	No	No	No
Juncus meianthus	P3	No	No	No
Leptinella drummondii	P3	No	No	No
Leucopogon alternifolius	P3	No	No	No
Acacia semitrullata	P4	No	No	No
Aotus carinata	P4	No	No	No
Banksia serra	P4	No	No	No
Banksia sessilis var. cordata	P4	No	No	No
Boronia virgata	P4	No	No	No
Caladenia interjacens	P4	No	No	No
Eucalyptus brevistylis	P4	No	No	No
Gahnia sclerioides	P4	No	No	No
Gonocarpus simplex	P4	No	No	No
Microtis pulchella	P4	No	No	No
Pleurophascum occidentale	P4	No	No	No
Stylidium leeuwinense	P4	No	No	No
Thomasia quercifolia	P4	No	No	No

A.4. Ecological Community Analysis Table

Ecological Community Name	Conservation Status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)
Reedia swamps - Warren region: *Reedia spathacea - Empodisma gracillimum - Schoenus multiglumis* dominated peat paluslopes and sandy mud floodplains of the Warren Biogeographical Region.	P1	N	N	3.67
Coastal Saltmarsh: Subtropical and Temperate Coastal Saltmarsh	P3	N	N	4.3

A.5. Land Degradation Risk Table

Risk categories	***Land Unit 1 - Keystone brown duplex Phase***
Phosphorus export	H1 - 50-70% of map unit has a high to extreme phosphorus export risk
Subsurface acidification	H2 - >70% of map unit has a high subsurface acidification risk or is presently acid
Wind erosion	M1 - 10-30% of map unit has a high to extreme wind erosion risk
Water erosion	M2 - 30-50% of map unit has a high to extreme water erosion risk
Subsurface compaction	M2- 30-50% of the map unit has a high subsurface compaction risk
Flood Risk	L1 - <3% of the map unit has a moderate to high flood risk
Water repellence	L1 - <3% of map unit has a high water repellence risk
Waterlogging	L1 - <3% of map unit has a moderate to very high waterlogging risk
Salinity	L1 - <3% of map unit has a moderate to high salinity risk or is presently saline

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: Considering the understorey is dominated by weeds and is in a Completely Degraded condition (Keighery, 1994), the application areas are not likely to provide suitable habitat for conservation significant flora. The application areas do not comprise significant habitat for fauna, although it may provide some limited foraging habitat for Black cockatoos, as well as suitable habitat for the western ringtail possum The area proposed to be cleared does not contain species that are representative of a threatened ecological community. There are two conservation significant ecological communities mapped within the local area - Reedia swamps – Warren region (P1) and Coastal Saltmarsh (P3). The site characteristics within the application areas are not consistent with requirements of either of these ecological communities. The areas proposed to be cleared do not contain site characteristics, that are likely to support locally or regionally significant flora, fauna, habitats, or assemblages of plants. The application areas are likely to comprise reduced biodiversity values relative to areas of better quality remnant vegetation within the local area, including the adjacent West Frankland State Forest (see Plate 10, Appendix D).	Not likely to be at variance	No
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 does contain some potential foraging and roosting habitat for Black cockatoos, as well as suitable habitat for the western ringtail possum. None of the trees present within the application areas contain hollows suitable for breeding by Black cockatoos, although two bird nests were observed during a habitat assessment within the trees proposed to be cleared. Of the 212 trees identified within the application areas, only 19 are considered potential Black cockatoo foraging species, with the remainder (193) being peppermint trees (*Agonis flexuosa*) (Lundstrom, 2021). The closest confirmed breeding record for a forest red-tailed black cockatoo is 54 kilometres to the east of the application areas and the closest record of white-tailed black cockatoo breeding is approximately 14 kilometres to the north. The closest recorded black cockatoo roost is 41 kilometres to the east. The close proximity to alternative habitat in equal or better condition, which is predominantly protected within conservation estates indicates that the vegetation is unlikely to represent locally or regionally significant foraging habitat for Black cockatoos. A Square-tailed Kite (*Lophoictinia isura*) was observed during the field survey. This species is native to Australia and its conservation status is considered to be of Least Concern (IUCN, 2021) due to its extensive distribution across Australia and population viability.	May be at variance	Yes

Assessment against the clearing principles	Variance level	Is further consideration required?
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 significant habitat for threatened flora species listed under the BC Act. All species found within the local area that are listed under the BC Act are low growing shrubs or annual flowering plants. The vegetation within the application areas and surrounding paddock is in a Completely Degraded condition, having been continuously disturbed from agriculture. It is not likely that threatened flora occur within the application areas due to the absence of ground cover and mid-story species and the presence of paddock grasses and aggressive weed species which are known to displace native grass species. Given the above, the vegetation proposed for clearing is not likely to be necessary for the continued existence of threatened flora species.	Not likely to be at variance	No
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 area proposed to be cleared does not contain species representative of a threatened ecological community (TEC) listed under the BC Act.	Not likely to be 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 remnant vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia, with a national objective to prevent the clearing of ecological communities with an extent below 30 per cent of that present prior to European settlement (DEH, 2001). The vegetation within the application areas does not provide a significant ecological linkage function within the local area.	Not likely to be 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 areas proposed to be cleared are within close proximity to the West Frankland State Forest (located approximately 10 metres north at its nearest point). Given this, there is potential for the clearing activities to introduce weeds and dieback to nearby conservation areas. It is considered that these risks can be adequately managed through standard weed and dieback hygiene conditions.	May 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 watercourses or wetlands are recorded within the application areas and the closest waterline is 205 metres south-east of the application areas, the	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
proposed clearing is not likely to significantly impact vegetation associated with watercourses or wetlands. The vegetation within the application areas is not considered to be 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 mapped soils are highly susceptible to phosphorus export and subsurface acidification and moderately susceptible to wind erosion, water erosion and subsurface compaction. All other land degradation risks are low. Noting the extent and location of the application areas and the current condition of the vegetation, the proposed clearing is not likely to increase the risk of appreciable land degradation.	Not likely to 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: Although the application areas are partially mapped within a priority 2 area of the Walpole Weir catchment area, advice received from the from the Water Source Protection Planning Branch of DWER indicated that the proposed clearing is unlikely to impact surface or ground water quality and given that the proposed clearing is far enough away from waterways, Butler's Dam and the Walpole Weir, turbidity is not likely to be a risk to the drinking water sources (DWER, 2020).	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: The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to an increased incidence or intensity of flooding. Given no watercourses or wetlands are recorded within the application areas and the closest watercourse is a non-perennial stream located 205 metres south-east of the application areas, the proposed clearing is unlikely to contribute to waterlogging.	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.

Clearing Permit Decision Report

Appendix D. Survey map and photographs

Lundstrom Environmental Consultants Pty Ltd 21, Sellen Court, Leeming, WA 6149 Mobile: 0417934863; mikelund1@bigpond.com	Scale: 1:2500 Original Size: A4 Air Photo Date: Landgate 2015 Datum: Australian Geocentric 1994 (GDA94)	B&J Catalano Pty Ltd Clarke Road Walpole Gravel Extraction	Habitat Values of Proposed Clearing Area Figure 2

Clearing Permit Decision Report

PROPOSED CLEARING AREA – VARIETY OF TREE SPECIES

Plate 1. Peppermint Trees

Plate 2. Peppermint Trees

Plate 3. Karri Sheoak Trees

Plate 4. Tingle Tree

PROPOSED CLEARING AREA – HABITAT VALUES

Plate 5. One of Two Nests (Centre Right) Observed at the Top of a 15m (+) High Tingle Tree

Plate 6. Bird Droppings Beneath the Two Nests in the Tingle Tree

VIEWS TO ADJACENT VEGETATION OF THE WEST FRANKLAND STATE FOREST	
 Plate 7. View 1	 Plate 8. View 2
 Plate 9. View 3	 Plate 10. View 4

Appendix E. References and databases

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

Restricted GIS Databases used:

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

Threatened Ecological Communities and Priority Ecological Communities (Buffers)

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