GOVERNMENT OF
With PaWESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 8986/1

File Number: DWERVT6213

Duration of Permit: From 11 January 2021 to 11 January 2028

PERMIT HOLDER

Shire of Quairading

LAND ON WHICH CLEARING IS TO BE DONE

Old Beverley Road reserve (PIN 11659566), Wamenusking and Pantapin

AUTHORISED ACTIVITY

The permit holder must not clear more than 20 native trees within the area cross-hatched yellow in Figure 1a, Figure 1b and Figure 1c of Schedule 1.

CONDITIONS

1. Period during which clearing is authorised

The permit holder must not clear any native vegetation after 11 January 2023.

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. Revegetation and rehabilitation

The permit holder must within 12 months of undertaking clearing authorised under this Permit:

(a) Undertake deliberate *planting* of at least 20 *Eucalyptus loxophleba* (York Gums) and 20 *Eucalyptus wandoo* (Wandoo) within the area cross-hatched red in Figure 2 of Schedule 1;

(b) Ensure only *local provenance* propagating material of *E. loxophleba* and *E. wandoo* is used;

(c) Ensure *planting* is undertaken at the *optimal time*;

(d) Ensure *plantings* are of a suitable size, preferable at least one metre in height;

(e) Undertake weed control and water of plants for at least three years post *planting*;

(f) The permit holder must within 24 months of planting the 20 *E. loxophleba* and 20 *E. wandoo* in accordance with condition 4(a) of this Permit:

  (i) Engage an *environmental specialist* to make a determination that the 20 *E. loxophleba* and 20 *E. wandoo* will survive.

  (ii) If the determination made by the *environmental specialist* under condition 4(f)(i) that the 20 *E. loxophleba* and/or 20 *E. wandoo* will not survive, the permit holder must *plant* additional *E. loxophleba* and/or *E. wandoo* that will result in 20 *E. loxophleba* and 20 *E. wandoo* persisting within area cross-hatched red in Figure 2 of Schedule 1.

(g) Where additional planting of *E. loxophleba* and/or *E. wandoo* is undertaken in accordance with condition 4(f), the Permit Holder must repeat the activities required by condition 4(c), 4(d) and 4(e) of this Permit.

5. Records that must be kept

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

Table 1: Records that must be kept

Relevant matter	Specifications
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 trees); (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 2 of this Permit; (f) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 3 of this Permit; and (g) actions taken in accordance with condition 4 of this Permit.

6. Reporting

(a) The permit holder must provide to the *CEO*, on or before 31 December of each calendar year, a report containing:

(i) The record required to be kept under condition 5 of this Permit; and

(ii) Records of activities undertaken by the permit holder under this Permit between 1 July of the preceding calendar year and 30 June of the current 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 31 December of each calendar year.

(c) The permit holder must provide to the *CEO*, no later than 90 calendar days prior to expiry date of the Permit, a written report of records required under condition 5, where these records have not already been provided under condition 6(a) of this Permit.

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 *EP Act*.
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.
environmental specialist	means a person who holds a tertiary qualification in environmental science or equivalent, and has a minimum of 2 years work experience relevant to the type of environmental advice that an environmental specialist is required to provide under this permit, or who is approved by the *CEO* as a suitable environmental specialist.
EP Act	*Environmental Protection Act 1986* (WA).
fill	means material used to increase the ground level, of fill a hollow.
local provenance	means native vegetation seeds and propagating material from natural sources within 10 and 50 kilometres and the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion of the area cleared.
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
optimal time	means the period from May to June for undertaking *planting.*
planting	means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species.
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

Mathew Gannaway
MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

17 December 2020

SCHEDULE 1

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

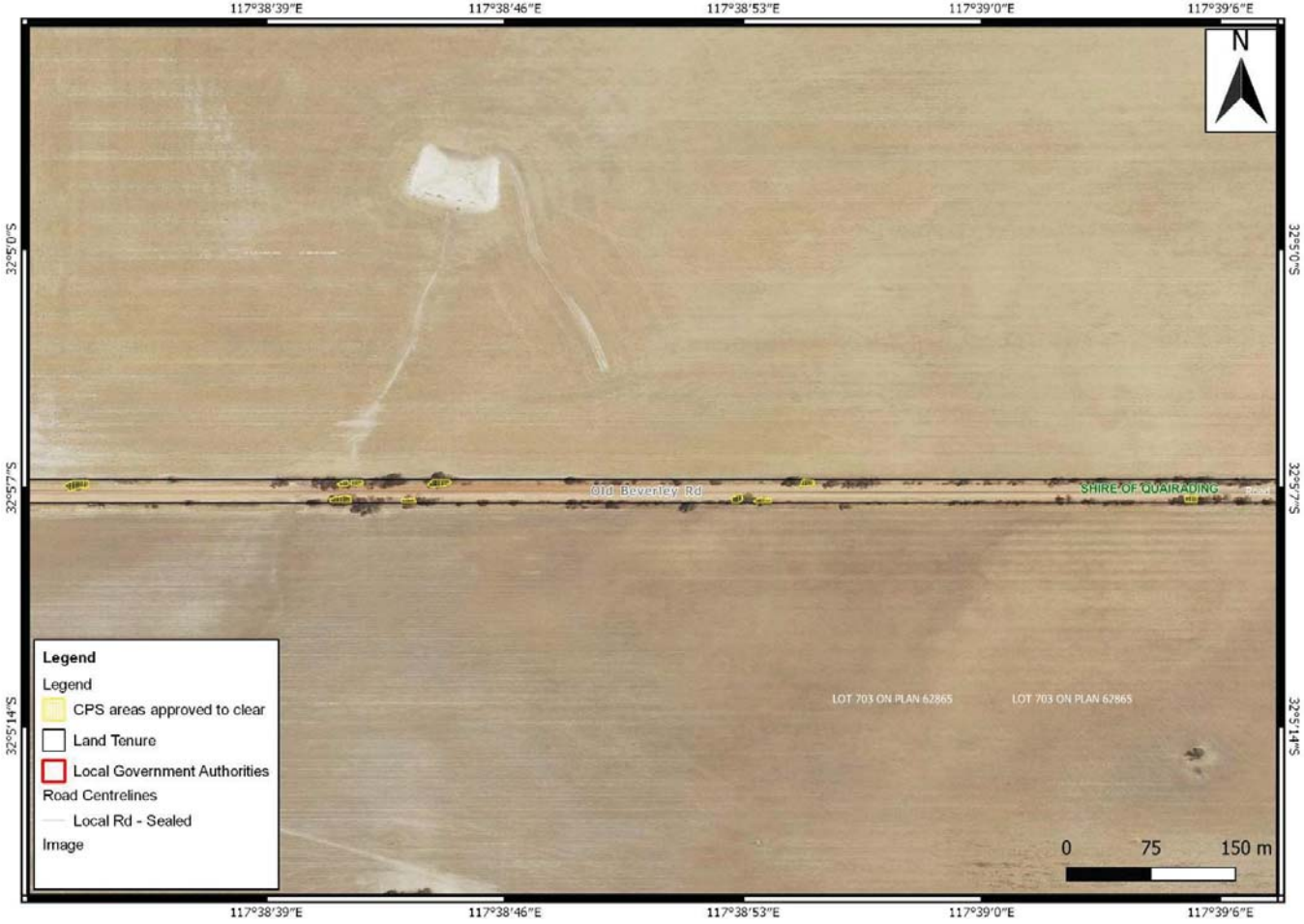

Figure 1a, Figure 1b and Figure 1c).

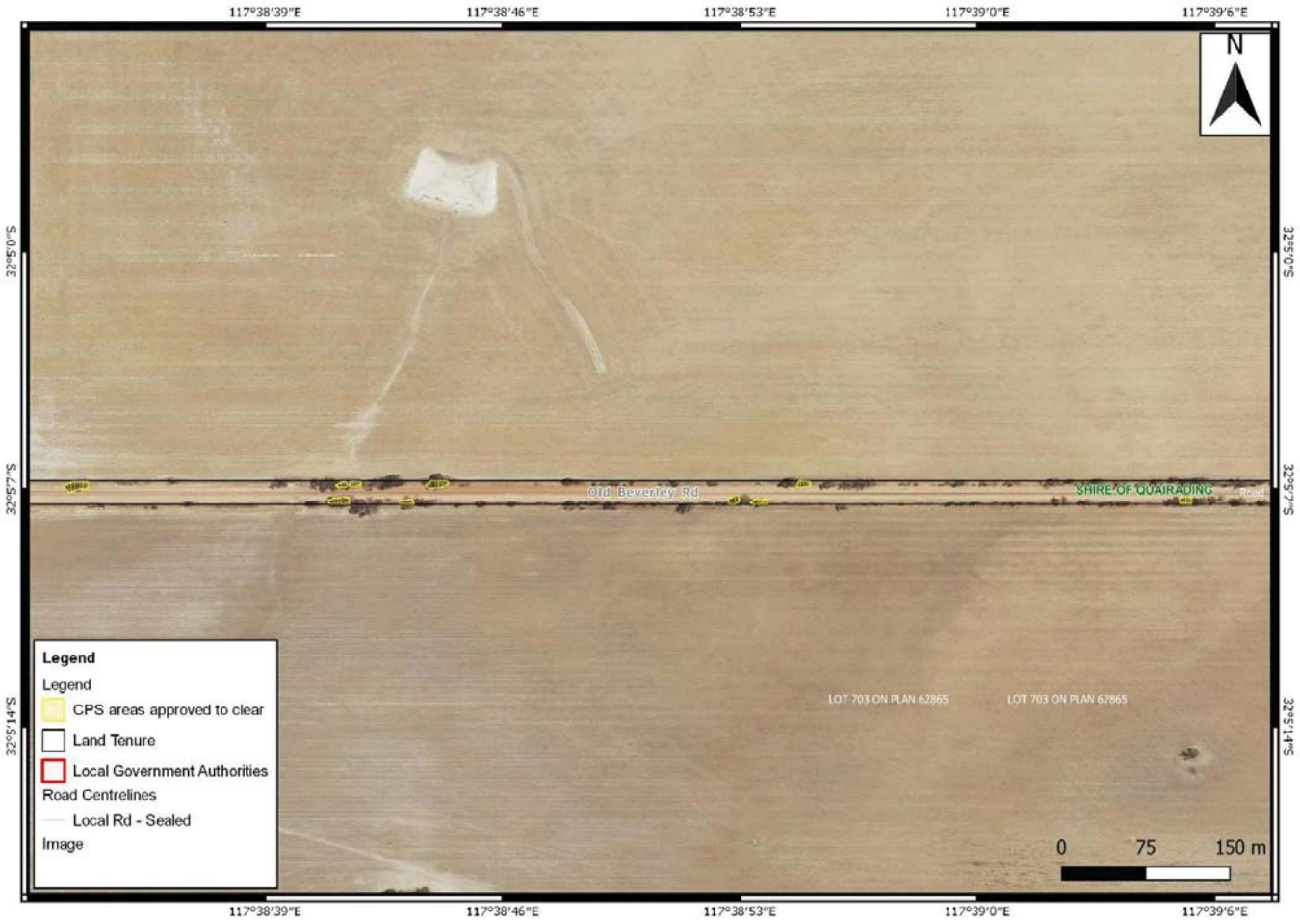

Figure 1a: Map of the boundary of the area within which clearing may occur

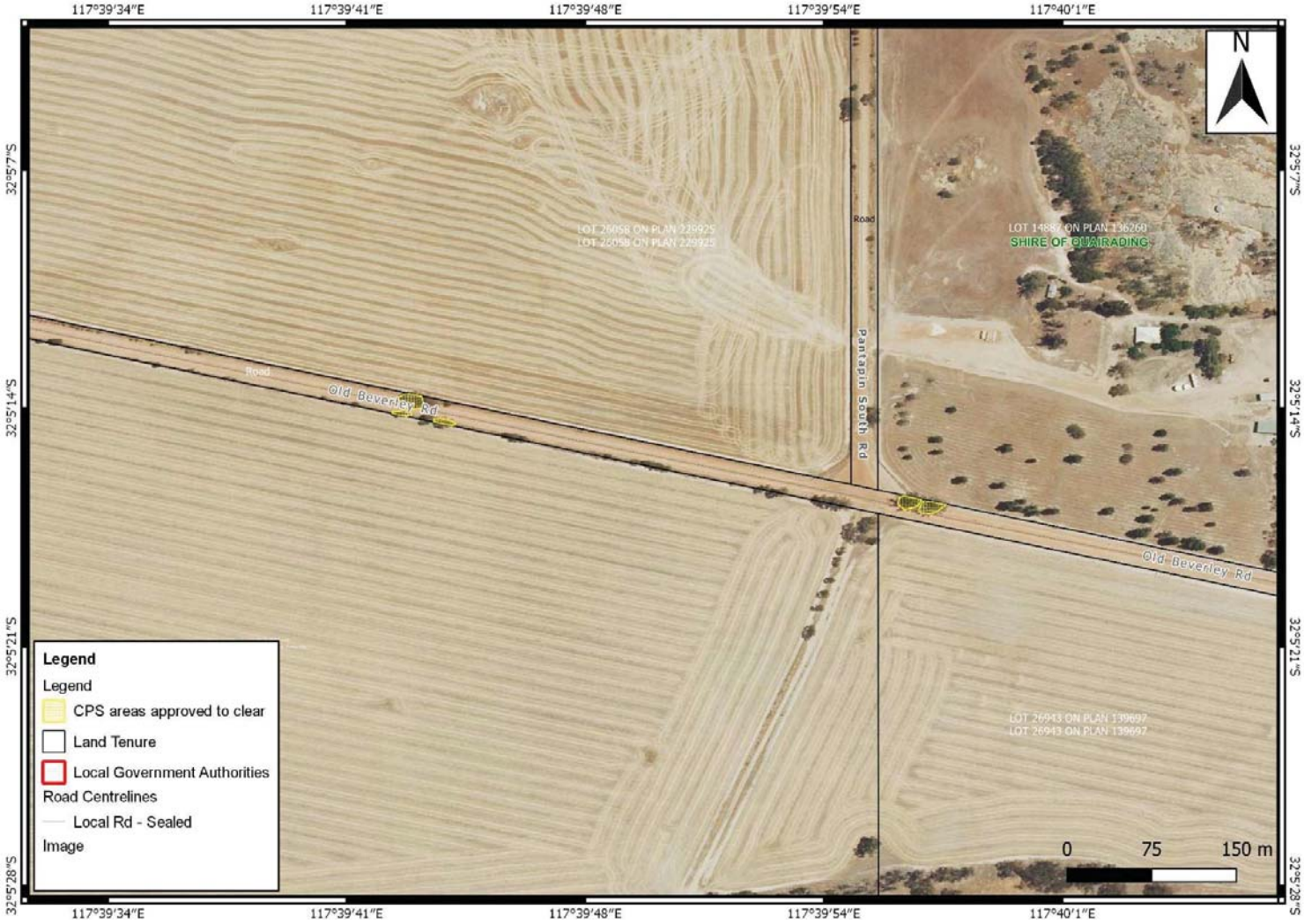

Figure 2b: Map of the boundary of the area within which clearing may occur

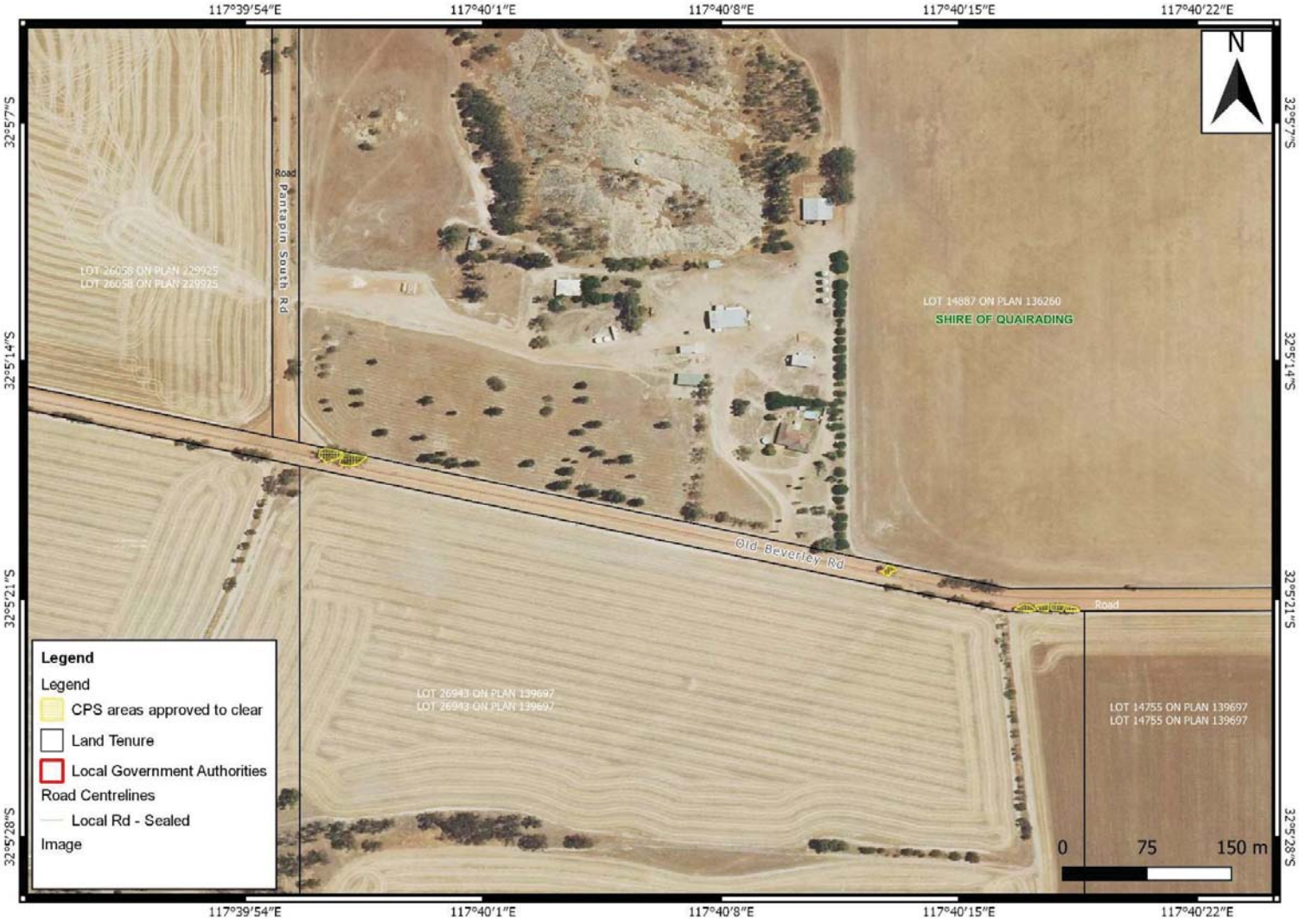

Figure 3c: Map of the boundary of the area within which clearing may occur

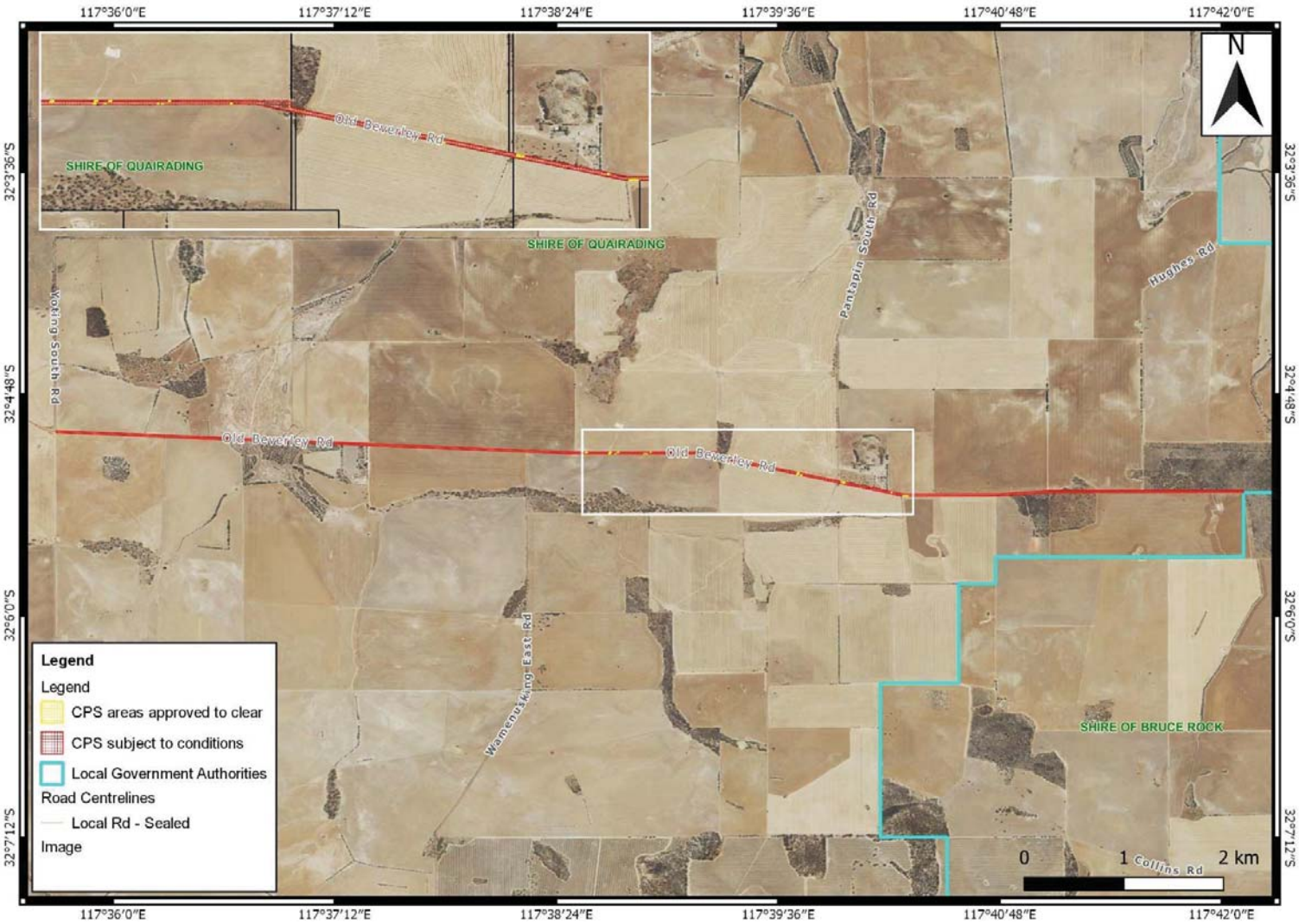

Figure 2: Map of the boundary of the area (cross-hatched red) within which the revegetation of 20 *Eucalyptus loxophleba* and 20 *E. wandoo* must occur

Clearing Permit Decision Report

1. Application details and outcome

1.1. Permit application details

Permit number:	CPS 8986/1
Permit type:	Area permit
Applicant name:	Shire of Quairading (the Shire)
Application received:	29 July 2020
Application area:	0.59 hectares (ha) of native vegetation and 27 native trees
Revised area:	20 native trees
Purpose of clearing:	Road maintenance
Method of clearing:	Mechanical clearing
Property:	Old Beverley Road reserve (PIN 11659566)
Location (LGA area/s):	Shire of Quairading
Localities (suburb/s):	Wamenusking and Pantapin

1.2. Description of clearing activities

The initial application was to clear native vegetation along Goldfields Road reserve (Site 1) and Old Beverley Road reserve (Site 2). At Site 1, the Shire applied to clear seven native trees and 0.59 ha of native vegetation and at Site 2, 20 native trees scattered along approximately 2.8 kilometre (km) linear road reserve.

The application was revised during the assessment process in response to the Department of Water and Environmental Regulation's (DWER) correspondence outlining the findings of the assessment. The changes included:

- Removal of Site 1 from the application area which has resulted in the reduction in the amount of clearing from 0.59 ha of native vegetation and 27 native trees to 20 native trees (see Figure 1, Section 1.5). See Section 3.1 for further details.

1.3. Decision on application and key considerations

Decision:	Granted
Decision date:	17 December 2020
Decision area:	20 native trees, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit application was made in accordance with section 51E of the *Environmental Protection Act 1986* (EP Act) and was received by the DWER on 29 July 2020. DWER advertised the application for public comment and no submissions were received.

In undertaking their assessment, and in accordance with section 51O of the EP Act, the Delegated Officer has given consideration to the Clearing Principles in Schedule 5 of the EP Act (see Appendix B), relevant planning instruments, and any other pertinent matters they deemed relevant to the assessment (see Sections 3 and 4), avoidance and mitigation measures implemented by the Shire (2020b), the findings of a DWER site inspection (2020), as well as relevant datasets available at the time of the assessment (see Appendix E). The Delegated Officer also took into consideration that the purpose of the clearing is to improve safety of the Old Beverley Road.

Based on the findings of the assessment, the Delegated Officer has determined that the proposed clearing will result in the loss of 20 native trees in an extensively cleared landscape which may function as an ecological linkage enabling fauna to move between areas of remnant vegetation.

To mitigate the potential significant residual impacts, the Shire (2020b) has committed to planting 40 replacement trees (a ratio of 2:1) at the same general location within the Old Beverley Road reserve.

The Delegated Officer considered that the impacts of the proposed clearing are unlikely to have any long-term adverse impacts on the environmental values in the local area and that the planting of 20 *Eucalyptus loxophleba* (York gum) and 20 *Eucalyptus wandoo* (Wandoo) will mitigate any potential impacts. This has been conditioned on the clearing permit.

1.5. Site maps

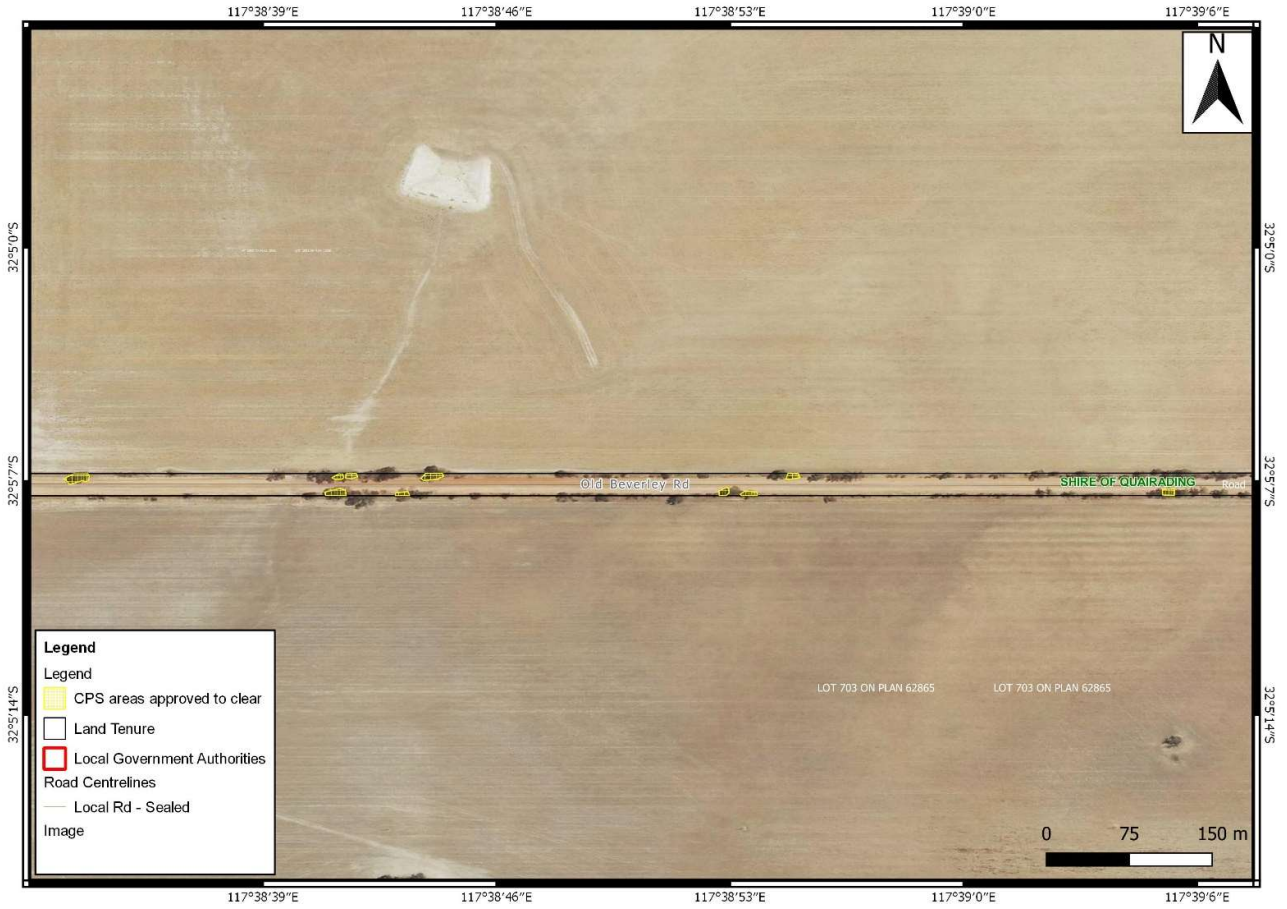

Figure 1a

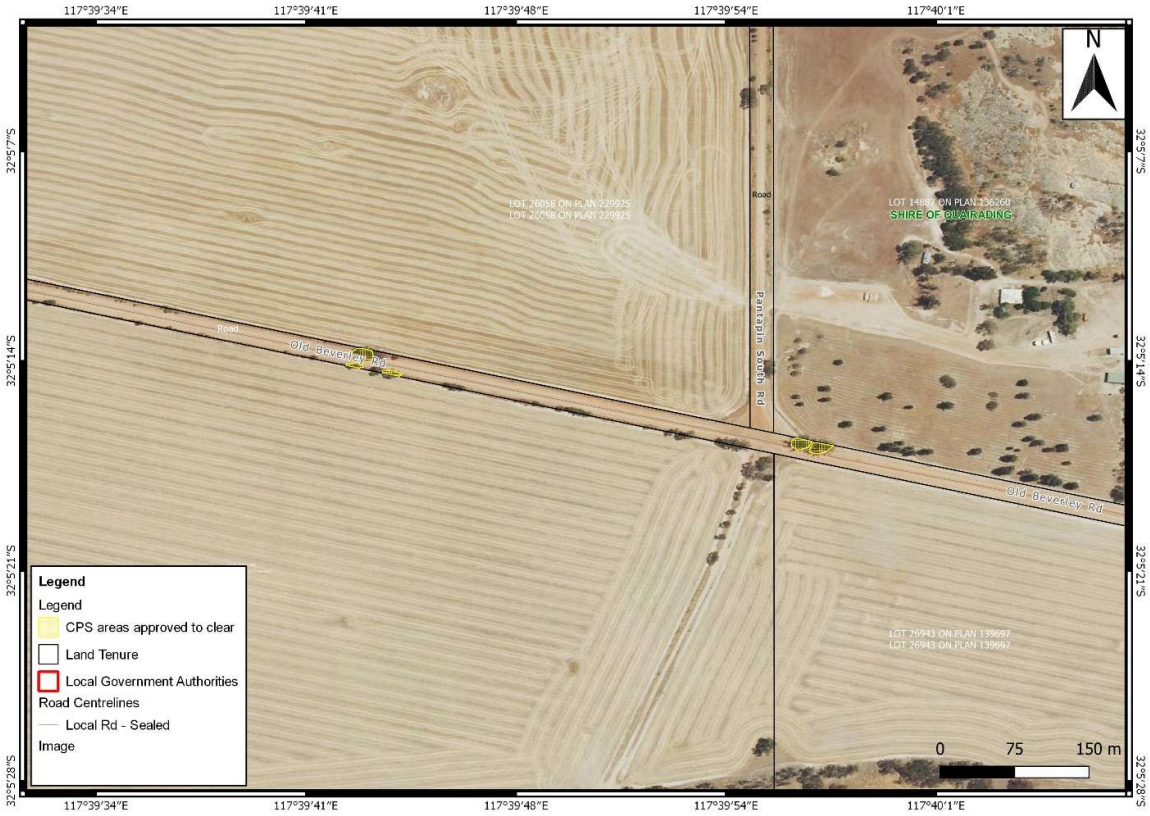

Figure 1b

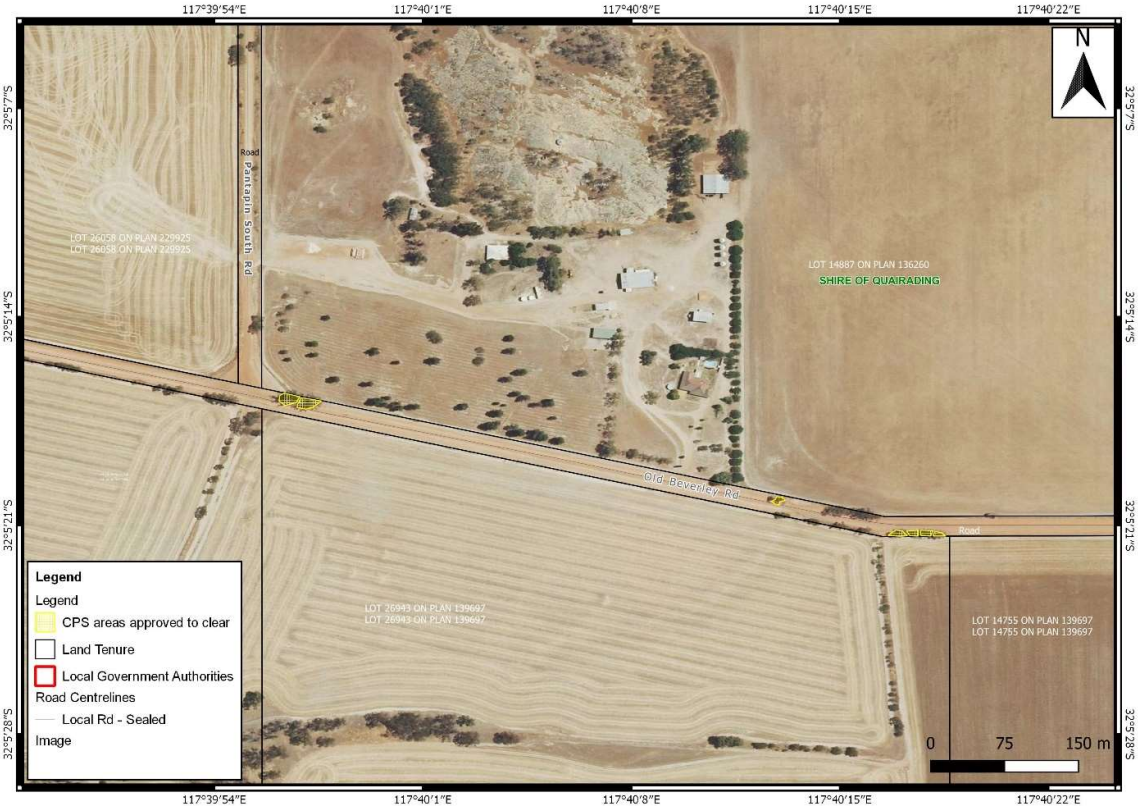

Figure 1c

Figures 1a - 1c. The areas cross-hatched yellow indicate the areas authorised to be cleared under the granted clearing permit.

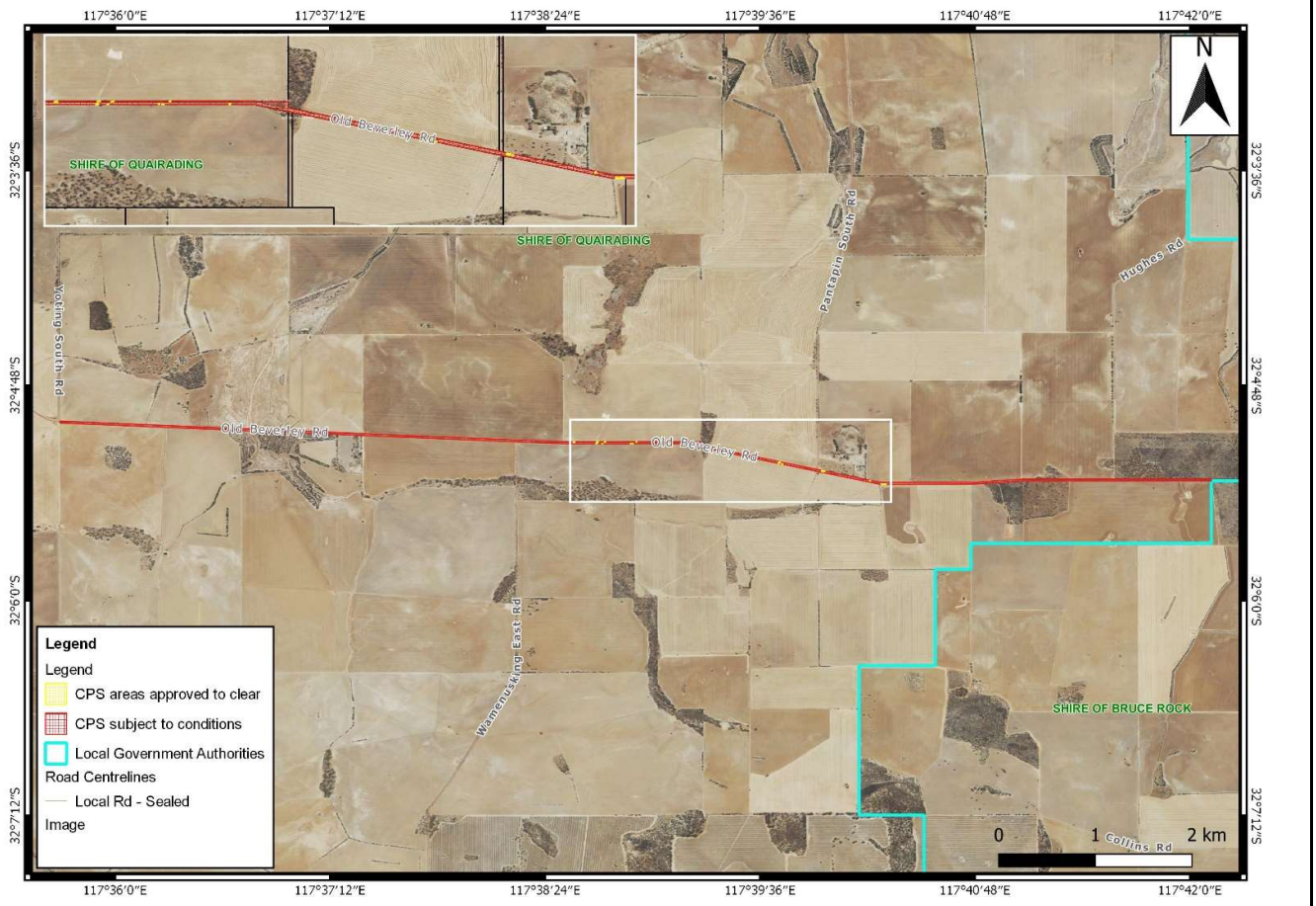

Figure 2 The areas cross-hatched yellow within the map in the top left corner indicate the areas authorised to be cleared under the granted clearing permit. The area cross-hatched red indicates the area where the 40 replacement trees must be planted.

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 1.3), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

1. the precautionary principle
2. the principle of intergenerational equity
3. 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); and
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act).

Relevant policies considered during the assessment were:

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019).

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

In relation to whether alternatives have been considered that would avoid or minimise the need for clearing, the applicant has advised that the proposed area has been assessed with careful attention to moving the centreline of the road in places to reduce the clearing footprint in more heavily vegetation areas.

Furthermore, in response to the DWER correspondence detailing the findings of its assessment, the Shire has reduced the application area from 0.59 ha of native vegetation and 27 native trees to 20 native trees. To mitigate the loss of 20 native trees, the Shire has committed to planting 40 replacement trees along Old Beverley Road reserve (Shire of Quairading, 2020b).

This adequately demonstrated that all reasonable efforts had been taken to avoid and minimise potential impacts of the clearing on environmental values.

3.2. Assessment of environmental impacts

In assessing the application in accordance with section 51O of the EP Act, the Delegated Officer has examined the application and site characteristics (Appendix A) and considered whether the clearing poses a risk to environmental values. The assessment against the Clearing Principles is contained in Appendix B.

This assessment identified that the clearing may pose a risk to the environmental values of fauna and significant remnant vegetation; and that these required further consideration. The detailed consideration and assessment of the clearing impacts against the specific environmental values is provided below. Where the assessment found that the clearing presents an unacceptable risk to environmental values, conditions aimed at controlling and/or ameliorating the impacts have been imposed under sections 51H and 51I of the EP Act. These are also identified below.

3.2.1. Environmental value: biological values (fauna) – Clearing Principle (b)

Assessment:

According to available databases, 39 records of 13 conservation significant fauna species have been recorded within the local area (Department of Biodiversity, Conservation and Attractions (DBCA), 2007). Noting the habitat requirements and known distribution of the recorded species, the mapped vegetation type and the condition of the vegetation within the application area, the application area may comprise suitable habitat for *Calyptorhynchus latirostris* (Carnaby's cockatoo).

Carnaby's cockatoo

The application area falls within the known distribution of Carnaby's cockatoo and according to available databases, a single occurrence of this species was recorded in the local area in 1981 approximately 18.9 km south of the application area (DBCA, 2007-).

The assessment has identified that the application area is not likely to provide suitable breeding habitat for Carnaby's cockatoo. Suitable breeding habitat for black cockatoos includes trees which either have a suitable nest hollow or are of a suitable dimeter at breast height (DBH) to develop a nest hollow. For most tree species a suitable DBH is 500 millimetres (mm). For salmon gum and wandoo, suitable DBH is 300 mm (Commonwealth of Australia, 2012). A DWER site inspection of the application area did not observe any hollows suitable for black cockatoos (DWER, 2020).

Noting typical food resources for Carnaby's cockatoo, the assessment has identified that the application area is not likely to provide significant foraging habitat for this species. 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). Whilst the application area includes a few *Eucalyptus* species that may be utilised for foraging, they are not the preferred foraging species for Carnaby's. No foraging evidence was observed within the application area (DWER, 2020).

Ecological linkage

A review of aerial imagery indicates that the vegetation in the application area functions as an ecological linkage between areas or remnant vegetation in the local area and is likely to facilitate landscape connectivity and contribute to fauna dispersal between larger isolated bushland fragments in an extensively cleared landscape. Whilst it has been taken into account that the proposed clearing is limited to 20 scattered trees along the Old Beverley road, given the context of the landscape where the vast majority of vegetation has been cleared, it is considered that the application area may be important for the survival of fauna species within the local and broader region.

Outcome:

Based on the above assessment, the Delegated Officer determined that the proposed clearing will result in the loss of 20 native trees important for fauna movement across an extensively cleared landscape. The Delegated Officer further determined that the impacts on ecological linkages can be mitigated through the planting of 40 native trees (as conditioned on the permit).

The Shire (2020b) has committed to planting 40 replacement trees (a ratio of 2:1) at the same general location within the Old Beverley Road reserve.

3.2.2. Environmental value: significant remnant vegetation– Clearing Principles (e)

Assessment:

As detailed below, the assessment has identified that the application area is located within an extensively cleared landscape.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

The extent of native vegetation within the local area is inconsistent with these thresholds as it retains approximately 7.88 per cent (approximately 8,978 ha) vegetation cover. The application represents approximately 0.002 per cent of the remaining vegetation within the local area and the proposed clearing will reduce the extent of native vegetation within the local area to 8,977.6 ha.

The application area is located within the 'Avon Wheatbelt' Interim Biogeographic Regionalisation for Australia (IBRA) which retains approximately 18.51 per cent of its pre-European vegetation extent (Government of Western Australia, 2019).

The Beard vegetation associations 955 and 1023, which have been mapped within the application area, retain approximately 10.70 and 10.84 per cent of their original vegetation extents, respectively.

Taking into account that the application area provides an ecological linkage between areas of remnant vegetation in the local area that is likely to facilitate landscape connectivity and contribute to fauna dispersal between larger isolated bushland fragments in an extensively cleared landscape, the vegetation within the application area is considered to be significant as a remnant within an extensively cleared area.

There is a risk of weeds and dieback spreading into remnants of native vegetation adjacent to the proposed clearing and the applicant will be required to adhere to weed and dieback management measures (as conditioned on the clearing permit) to minimise this risk.

Outcome:

To address the loss of 20 native trees within an extensively cleared landscape, the Shire has committed to planting 40 replacement trees (a ratio of 2:1) within Old Beverley Road reserve. The Delegated Officer determined that this will adequately mitigate the impacts of the proposed clearing and that no significant residual impacts remain. An offset was not required in this instance.

In addition, it is considered that the impacts of the proposed clearing on adjacent remnant vegetation can be managed by requiring the applicant to take steps to minimise the risk of the introduction and spread of weeds and dieback.

3.3. Relevant planning instruments and other matters

No registered Aboriginal sites of significance have been mapped within the application area. The nearest Aboriginal Heritage Places is Registered Site 'Parkayerring Rock.' located approximately 3.8 km from the application area. Given the separation distance, the proposed clearing is unlikely to impact on this site. 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.

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.

1. Site characteristics

Site characteristic	Details
Local context	The proposed clearing area is part of an isolated patch of native vegetation within Old Beverley Road reserve and is surrounded by a landscape that has been extensively cleared for agricultural purposes. The vast majority of the road reserve is devoid of native vegetation. Spatial data indicates the local area (20 km radius of the application area, which is equal to approximately 136,964 ha) retains approximately 7.88 per cent (10,792 ha) of the original native vegetation cover within 1,756 remnant areas. The majority (approximately 84 per cent) of the remnant areas are less than 5 ha in size. Approximately 1.16 per cent of the local area (approximately 1,594 ha) occurs within DBCA managed estate.
Vegetation description	Nineteen trees are mapped within the Beard vegetation association 1023, which is described as medium woodland; york gum, wandoo and salmon gum (*Eucalyptus salmonophloia*) (Shepherd et al, 2001). One tree is mapped within the Beard vegetation association 955, which is described as mosaic of shrublands; scrub-heath (South East Avon) / shrublands; *Allocasuarina campestris* thicket (Shepherd et al, 2001). A DWER site inspection (2020) observed that the application area comprises york gums, wandoos and two unidentified *Eucalyptus* sp. Noting this, the vegetation in the application area was considered to be a degraded remnant of Beard vegetation association 1023. Representative photos of the vegetation proposed to be cleared are available in Appendix D.
Vegetation condition	A DWER site inspection (2020) noted that the vegetation within the application area is in completely degraded (Keighery, 1994) condition. The full Keighery condition rating scale is provided in Appendix C. Representative photos are available in Appendix D.
Soil description	The soils are mapped as (Department of Primary Industries and Regional Development (DPIRD), 2020): • Walyerming 3 undifferentiated Phase (11 trees), described as largely colluvial gently undulating rises with small areas of granitic soils between Quairading and Corrigin, with duplex soils and minor sandplain, vegetated by Wandoo-Salmon Gum woodland and Tammar scrub (Schoknecht et al., 2004); and • Walyerming 1 Subsystem (nine trees), described as isolated mesas and rises between Quairading and Corrigin, with weakly developed laterites forming yellow sands with some gravels and vegetated by Proteaceae heath, Tammar thicket and scattered Wandoo (Schoknecht et al., 2004).
Land degradation risk	The mapped soils have high acidification risk and moderately high sub surface compact. Walyerming 1 Subsystem, has moderately high water repel.
Waterbodies	The desktop assessment indicated that the closest wetland from the application area is an un-named wetland located approximately 300 metres north of the most eastern tree. The closest watercourse from the application area is a minor, non-perennial watercourse located approximately 230 metres south of the eastern end of the application area.

Site characteristic	Details
Conservation areas	The closest conservation area is Pikaring West Nature Reserve (Class A) located approximately 2 km east of the application area.
Climate and landform	Rainfall: 400 mm Evapotranspiration: 400 mm Groundwater Salinity (Total Dissolved Soilds): 7,000-14,000 milligrams per litre total dissolved solids

2. Flora, fauna and ecosystem analysis

With consideration for the site characteristics set out above and relevant datasets, the following conservation significant flora and fauna species and ecological communities may be impacted by the clearing.

Species / Ecological Community	Conservation status	Distance of closest record to application area (metres)	Suitable soil type? (flora, ecological community)	Suitable vegetation type? (flora, ecological community)	Suitable habitat features (fauna)	Are surveys adequate to identify?
Flora						
Acacia arcuatilis	Priority (P)2	4,663	Yes	No	N/A	N/A
Acacia ataxiphylla subsp. *magna*	Threatened (T)	1,772	Yes	No	N/A	N/A
Acacia campylophylla	P3	2,561	Yes	No	N/A	N/A
Acacia cochlocarpa subsp. *velutinosa*	T	12,379	Yes	No	N/A	N/A
Acacia inophloia	P3	13,310	Yes	No	N/A	N/A
Acacia lirellata subsp. *lirellata*	P3	3,233	Yes	No	N/A	N/A
Acacia phaeocalyx	P3	3,029	Yes	No	N/A	N/A
Acacia volubilis	T	13,250	Yes	No	N/A	N/A
Allocasuarina fibrosa	T	14,777	Yes	No	N/A	N/A
Arnocrinum drummondii	P3	14,401	Yes	No	N/A	N/A
Baeckea sp. *Tammin (R. Coveny 8319 & B. Habberley)*	P3	14,639	Yes	No	N/A	N/A
Baeckea sp. *Tampia Hill (J.C. Anway 327)*	P1	13,328	Yes	No	N/A	N/A
Baeckea sp. *Youndegin Hill (A.S. George 15772)*	P1	13,649	Yes	No	N/A	N/A
Banksia cuneata	T	13,995	Yes	No	N/A	N/A
Banksia dallanneyi subsp. *agricola*	P2	17,494	Yes	No	N/A	N/A
Banksia densa	P2	8,402	Yes	No	N/A	N/A

Species / Ecological Community	Conservation status	Distance of closest record to application area (metres)	Suitable soil type? (flora, ecological community)	Suitable vegetation type? (flora, ecological community)	Suitable habitat features (fauna)	Are surveys adequate to identify?
Banksia horrida	P3	7,721	Yes	No	N/A	N/A
Banksia splendida subsp. *splendida*	P2	18,492	Yes	No	N/A	N/A
Beaufortia burbidgeae	P3	8,851	Yes	No	N/A	N/A
Calothamnus brevifolius	P4	8,627	Yes	No	N/A	N/A
Chamelaucium sp. *Dryandra (D. Rose 446)*	P2	13,896	Yes	No	N/A	N/A
Cryptandra dielsii	P3	14,715	Yes	No	N/A	N/A
Dampiera triloba	P3	18,492	Yes	No	N/A	N/A
Darwinia sp. *Chiddarcooping (S.D. Hopper 6944)*	P4	18,360	Yes	No	N/A	N/A
Darwinia sp. *Corrigin (T. Erickson TEE 308)*	P2	18,360	Yes	No	N/A	N/A
Daviesia nudiflora subsp. *drummondii*	P3	7,706	Yes	No	N/A	N/A
Daviesia uncinata	P3	8,952	Yes	No	N/A	N/A
Eucalyptus erythronema subsp. *inornata*	P3	5,294	Yes	No	N/A	N/A
Eucalyptus macrocarpa x pyriformis	P3	18,492	Yes	No	N/A	N/A
Eucalyptus sargentii subsp. *onesis*	P3	6,019	Yes	No	N/A	N/A
Eucalyptus spathulata subsp. *salina*	P3	18,207	Yes	No	N/A	N/A
Eucalyptus subangusta subsp. *virescens*	P3	17,540	Yes	No	N/A	N/A
Frankenia glomerata	P4	16,306	Yes	No	N/A	N/A
Gastrolobium spectabile	P3	18,492	Yes	No	N/A	N/A
Gonocarpus intricatus	P4	18,862	Yes	No	N/A	N/A
Grevillea haplantha subsp. recedens	P3	18,492	Yes	No	N/A	N/A
Grevillea scapigera	T	8,819	Yes	No	N/A	N/A
Guichenotia seorsiflora	T	4,860	Yes	No	N/A	N/A
Hakea aculeata	T	3,907	Yes	No	N/A	N/A

Species / Ecological Community	Conservation status	Distance of closest record to application area (metres)	Suitable soil type? (flora, ecological community)	Suitable vegetation type? (flora, ecological community)	Suitable habitat features (fauna)	Are surveys adequate to identify?
Hopkinsia anoectocolea	P3	18,492	Yes	No	N/A	N/A
Jacksonia debilis	P1	16,153	Yes	No	N/A	N/A
Lechenaultia pulvinaris	P4	13,597	Yes	No	N/A	N/A
Melaleuca sciotostyla	T	14,485	Yes	No	N/A	N/A
Podotheca pritzelii	P3	19,461	Yes	No	N/A	N/A
Ptilotus fasciculatus	P4	17,404	Yes	No	N/A	N/A
Pultenaea indira subsp. pudoides	P2	8,952	Yes	No	N/A	N/A
Roycea pycnophylloides	T	17,569	Yes	No	N/A	N/A
Scaevola tortuosa	P1	18,267	Yes	No	N/A	N/A
Scholtzia eatoniana	P1	8,950	Yes	No	N/A	N/A
Scholtzia halophila subsp. mortlockensis	P3	15,913	Yes	No	N/A	N/A
Stylidium coroniforme subsp. *amblyphyllum*	T	3,029	Yes	No	N/A	N/A
Stylidium scabridum	P4	17,360	Yes	No	N/A	N/A
Thomasia glabripetala	T	11,413	Yes	No	N/A	N/A
Thysanotus tenuis	P3	5,400	Yes	No	N/A	N/A
Verticordia huegelii var. *tridens*	P3	5,893	Yes	No	N/A	N/A
Fauna						
Bilby, dalgyte, ninu	Vulnerable (VU)	19,416	N/A	N/A	No	N/A
Black-flanked rock-wallaby, black-footed rock-wallaby	Endangered (EN)	15,910	N/A	N/A	No	N/A
Chuditch, western quoll	VU	14,417	N/A	N/A	No	N/A
Common greenshank, greenshank	Migratory birds protected under an international agreement (IA)	17,615	N/A	N/A	No	N/A
Common Sandpiper	IA	18,795	N/A	N/A	No	N/A
Fork-tailed swift	IA	18,924	N/A	N/A	No	N/A
Malleefowl	VU	2,523	N/A	N/A	No	N/A
Marsh sandpiper, little greenshank	IA	19,411	N/A	N/A	No	N/A

Species / Ecological Community	Conservation status	Distance of closest record to application area (metres)	Suitable soil type? (flora, ecological community)	Suitable vegetation type? (flora, ecological community)	Suitable habitat features (fauna)	Are surveys adequate to identify?
Red-necked stint	IA	17,165	N/A	N/A	No	N/A
Water-rat, rakali	P4	19,424	N/A	N/A	No	N/A
White-tailed black cockatoo	EN	18,924	N/A	N/A	Yes	N/A
Ecological communities						
Banksia prionotes and *Xylomelum angustifolium* low woodlands on transported yellow sands	P1	13,090	No	No	N/A	N/A
Eucalypt woodlands of the Western Australian Wheatbelt	P3	163	Yes	Yes	N/A	N/A
Mottlecah dominated heathland on deep white sands	P1	18,684	No	No	N/A	N/A
Salt Flats Plant Assemblages of the Mortlock River (East Branch)	P1	18,551	No	No	N/A	N/A

3. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	% remaining	Current extent in all DBCA managed land (ha)	% current extent in all DBCA managed land (proportion of pre-European extent)
IBRA bioregion					
Avon Wheatbelt	9,517,109.95	1,761,187.42	18.51	174,980.68	1.84
Vegetation associations					
955	120,564.93	12,900.72	10.70	1,097.56	0.91
1023	1,522,680.40	165,123.60	10.84	17,277.64	1.13
Local area					
Site 2	136,964	10,792	7.88	1,594.15	1.16

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 application is to clear 20 individual trees over an understorey which is devoid of native vegetation, the proposed clearing will have limited impacts on habitat for threatened or priority flora. The application area does not comprise significant habitat for fauna and vegetation in the application area is not representative of any threatened or priority ecological communities recorded in the local area.	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: Taking into consideration the extent of the proposed clearing, that is comprised of 20 individual trees over an understorey which is devoid of native vegetation, the proposed clearing is not likely to impact a significant habitat for conservation significant fauna. Aerial imagery indicate that the application area functions as an ecological linkage between areas of remnant vegetation in the local area. The application area is likely to facilitate landscape connectivity and contribute to fauna dispersal between larger isolated bushland fragments in an extensively cleared landscape.	May be 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: Considering the application is to clear 20 individual trees over an understorey which is devoid of native vegetation, suitable habitat for threatened flora is unlikely to occur within the application area.	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 proposed clearing area does not contain species composition indicative of a threatened ecological community listed by the Western Australian Minister for Environment.	Not likely to be at variance	No.
Environmental values: 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 associations and native vegetation in the local area is inconsistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation in application area is considered important for the movement of fauna within the local and broader region.	Is at variance	Yes Refer to Section 3.2.2 above.

Assessment against the Clearing Principles	Variance level	Is further consideration required?
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 separation distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of any nearby conservation areas.	Not likely to be at variance	No
Environmental values: 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: No watercourses or wetlands are mapped within the application area and the application area does not comprise any distinctive riparian vegetation (DWER, 2020).	No 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: Noting the minimal extent of the proposed clearing in completely degraded (Keighery, 1994) condition scattered along the application area, the proposed clearing is not likely to cause 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: Noting the minimal extent of the proposed clearing scattered along the application area, the proposed clearing is not likely to cause deterioration in the quality of surface or underground water. No watercourses or wetlands are mapped within the application area.	Not likely to be at variance	No
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: Noting the minimal extent of the proposed clearing scattered along the application area, the proposed clearing is not likely to cause, or exacerbate, the incidence or intensity of flooding.	Not likely to be at variance	No

Appendix C – Vegetation condition rating scale

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

Measuring Vegetation Condition for the South West and Interzone Botanical Province (Keighery, 1994)

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

Appendix D – Representative photos of the vegetation within the application area

Figure 3a

Figure 3b

Figure 3c

Figure 3a – 3c Representative photos of the vegetation within the application area (DWER, 2020).

Appendix E – References and databases

1. GIS datasets

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)
- Cadastre Address (LGATE-002)
- Consanguineous Wetlands Suites (DBCA-020)
- 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)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Remnant Vegetation, All Areas
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- South Coast Significant Wetlands (DBCA-018)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- RIWI Act, Groundwater Areas (DWER-034)

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

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