

4 March 2025

Department of Water and Environmental Regulation
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To Whom it May Concern,

RE – Lot 103 Boyanup Road West - Clearing Permit Application

Please find herein information pertaining to a clearing permit application on behalf of Leeuwin Civil Pty Ltd (the applicant) for vegetation within a portion of Lot 103 Boyanup Road West, Stratham (herein referred to as the subject site) (refer to **Figure 1**).

Background

The applicant is seeking to extract sand from a 5.4 hectare (ha) area within the subject site (herein referred to as the application area). The subject site is located within the Shire of Capel and is approximately 10 km south of the Capel town centre. The proposed sand extraction will be completed over a 5 year period with up to 200,000 m³ of sand extracted per year depending on demand and climatic factors.

A Development Application for Planning Approval was approved by the Regional Development Assessment Panel for the proposed extractive industry operation on the 10th February 2025 (DAP/23/02583).

To enable the proposed sand extraction, the removal of approximately 0.5 ha of native vegetation is required (refer to **Figure 1**). This is based on the removal of 50 trees at 100 m² for each tree. Therefore, a clearing permit pursuant to the *Environmental Protection Act 1987* is required.

Vegetation within the application area has been cleared for livestock grazing and is comprised of pasture/bare ground with isolated trees including *Corymbia calophylla* (marri), *Eucalyptus marginata* (jarrah) and dead unidentified species (Harewood 2023) (refer to **Plates 1 and 2**).

A Fauna Assessment undertaken within the subject site (Harewood 2023) describes the fauna habitat present as 'totally degraded' stating that '*with respect to fauna in general the survey area does not appear to represent habitat of significance and is only likely to support a very depauperate fauna assemblage dominated by a small range of mainly common bird species*'.

The black cockatoo habitat tree assessment identified 16 trees within the proposed application area with a diameter at breast height (DBH) >50 cm. Five of these trees appeared not to contain hollows of any size. The remaining 11 trees contained apparent or obvious hollows, all of which were assessed as being unlikely to be suitable for black cockatoos to use for nesting purposes, due to the hollows apparent small size, unsuitable orientation and/ or low height above ground level. Of the 11 trees containing hollows, nine are dead trees. While some of the hollows present in these trees have large entrances none of the hollows were considered by Harewood to be suitable for black cockatoos after close examination with a drone. No hollows showed any conclusive evidence of use by any fauna (Harewood 2023).

Given the relatively small numbers of scattered trees defined as quality foraging habitat (marri and jarrah) it is not possible to define the area of this resource, however the fauna survey estimates there is approximately less than 0.1 ha based on canopy extent (Harewood 2023).

No evidence of western ringtail possums (WRPs) (i.e. scats, dreys or individuals) was observed during the day or night survey. Furthermore, the small peppermint woodland area to north of the application area, which was identified as the only area of potential suitable habitat for WRP (Harewood 2023), has been omitted from this application. WRPs are unlikely to utilise the isolated paddock trees (comprised of marri, jarrah and unidentified dead species) within the subject site for any purpose.



Plate 1. Cleared pasture with isolated trees (jarrah, marri and dead unidentified species)



Plate 2. Cleared pasture with isolated trees (jarrah, marri and dead unidentified species)

Avoidance and Mitigation Measures

The applicant undertook an assessment of the area prior to determining the suitability of the clearing footprint. This included an assessment of vegetation and flora within the proposed clearing area and surrounds. Based on the assessment, an area approximately one hectare in size to the north east of the subject site described as a '*peppermint low woodland with very occasional emergent eucalypts*' (Harewood 2023) has been avoided and will be excluded from the application area, given its potential to provide habitat for WRP..

Accordingly, the application area has been designed to avoid vegetation of significance. Based on the current vegetation condition (completely degraded), it is considered very unlikely that the subject site contains any vegetation or flora of conservation significance.

It is considered that no other reasonable and practicable avoidance measures can be implemented within the application area, whilst obtaining access to the sand resource.

The application area will be cleared progressively over approximately five years in accordance with the requirements for extraction of the sand resource. Consequently, it is not proposed to clear the entire clearing footprint as a single exercise.

Specifically, to avoid any direct impact to native fauna during vegetation clearing, the following management measures will be implemented:

- During clearing, a qualified fauna expert will be present to direct clearing operators, particularly when clearing trees are occupied by fauna, to ensure that these are cleared in a way that allows the animals to safely mobilise to adjacent areas. In addition, they will supervise any animal handling and the rescue of injured animals should this be required;
- No stockpiling of topsoil or other material is to occur outside of the clearing boundary;
- If clearing during black cockatoo breeding season (i.e. August to May), potential habitat trees (i.e. DBH in excess of 50 cm) for nesting hollows will be checked; and
- If active black cockatoo nests are located in the clearing footprint, no clearing will occur until fledglings have left the nest.

To counteract the loss of 50 native trees, of which nine are dead, the applicant proposes to plant 100 trees along the western boundary of the application area as shown in **Figure 1**. A mixture of *Agonis flexuosa*, *Eucalyptus marginata*, *Corymbia calophylla* and *Eucalyptus rudis* will be planted along the low-lying area. This will ensure that there will be a net increase in the number of trees on the property.

Impact Assessment

Any clearing of native vegetation requires a permit in accordance with Part V of the *Environmental Protection Act 1986* (EP Act), except where an exemption applies under Schedule 6 of the Act or is prescribed by regulation in the *Environmental Protection (Clearing Native Vegetation) Regulations 2004*.

The clearing of native vegetation for the purpose of the extractive industry operations is subject to a clearing application. Clearing applications are assessed against the Ten Clearing Principles outlined in Schedule 5 of the EP Act. These principles aim to ensure that all potential impacts resulting from the removal of native vegetation can be assessed in an integrated manner.

An examination of the Ten Clearing Principles based upon a site visit, a fauna survey (Harewood 2023) and desktop information is provided below.

Table 1: Assessment against the Ten Clearing Principles.

Principle	Assessment	Conclusion
a.) Native vegetation should not be cleared if it comprises a high level of biological diversity	<p>Vegetation mapping (Heddl <i>et.al</i> 1980) indicates that the original vegetation complexes within the application area would have included:</p> <ul style="list-style-type: none"> Serpentine River Complex - Closed scrub of <i>Melaleuca</i> species and fringing woodland of <i>Eucalyptus rudis</i> (Flooded Gum) - <i>Melaleuca raphiophylla</i> (Swamp Paperbark) along streams. Karrakatta Complex – Central and South - Predominantly open forest of <i>Eucalyptus gomphocephala</i> (Tuart) - <i>Eucalyptus marginata</i> (Jarrah) - <i>Corymbia calophylla</i> (Marri) and woodland of <i>Eucalyptus marginata</i> (Jarrah) - <i>Banksia</i> species. <i>Agonis flexuosa</i> (Peppermint) is co-dominant south of the Capel River. <p>Vegetation Complex statistics for the Swan Coastal Plain indicate the vegetation extent remaining of the Serpentine River Complex to be 9.8% and the Karrakatta Complex – Central and South to be 23.5%. (Webb <i>et al.</i> 2016).</p> <p>The clearing area is considered to be in a Completely Degraded (Keighery 1994) condition due to a history of anthropogenic impacts which has resulted in an altered vegetation structure (i.e. absence of under and mid-storey). The clearing area contains limited floristic characteristics associated with the abovementioned vegetation complex and therefore is not considered representative of either complex. Furthermore, in accordance with the DPIRD <i>Native Vegetation</i> dataset which identifies areas of intact native vegetation, this mapping shows the application area as being devoid of native vegetation. Notwithstanding, the removal of approximately 0.5 ha of isolated paddock trees, approximately nine of which are dead, will have a negligible impact on the vegetation extent remaining of the either Complex on a local and regional scale.</p> <p>The condition of the application area and history of anthropogenic disturbances denotes that it would not contain any Priority or Threatened Ecological communities (PEC or TECs). Given that livestock grazing is a current land use, and with the absence of native under and mid-storey vegetation, the occurrence of flora of conservation significance is considered very unlikely.</p>	Based on the extent of disturbance within the subject site, and the limited clearing footprint, the subject site is not likely to comprise high biodiversity. The proposed clearing is not at variance to this Principle.

Principle	Assessment	Conclusion
	<p>As discussed under Principle (b), the removal of approximately 50 paddock trees or less than 0.004% of suitable foraging habitat within a 5 km radius of the application area will marginally reduce the local extent of foraging habitat, however the impact is unlikely to be significant for fauna species of conservation significance.</p> <p>The clearing will result in the removal of approximately 50 isolated native trees, of which nine are dead. The removal of these trees is not considered likely to significantly impact on the biological diversity of the area.</p> <p>The proposal is not at variance to this Principle.</p>	
<p>b.) Native vegetation should not be cleared if it comprises the whole or part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.</p>	<p>A targeted fauna assessment was undertaken by Greg Harewood which included a literature review, a daytime reconnaissance survey and a nocturnal spotlighting survey. The field component of the fauna assessment was carried out on the 22 April 2023 (day survey) and the 26th April (night survey) (refer to Appendix A).</p> <p>The black cockatoo habitat tree assessment identified 16 trees within the application area with a DBH >50 cm. Five of these appeared not to contain hollows of any size. The remaining 11 trees, of which nine are dead, contained apparent or obvious hollows, all of which were assessed as being unlikely to be suitable for black cockatoos to use for nesting purposes, due to the hollows apparent small size, unsuitable orientation and/ or low height above ground level. While some of the hollows present in these trees have large entrances none of the hollows were considered by Harewood to be suitable for black cockatoos after close examination with a drone. No hollows showed any conclusive evidence of use by any fauna (Harewood 2023).</p> <p>Given the relatively small numbers of scattered trees defined as quality foraging habitat (marri, jarrah and banksia) it is not possible to define the area of this resource, however the fauna survey estimates there is approximately less than 0.1 ha based on canopy extent (Harewood 2023).</p> <p>No evidence of WRPs (i.e. scats, dreys or individuals) was observed during the day or night survey. Furthermore, the small peppermint woodland area of what appears to be suitable</p>	<p>Removal of vegetation within the subject site is not considered to be at variance to this Principle.</p>

Principle	Assessment	Conclusion
	<p>habitat (Harewood 2023) has been omitted from this application. Given that there is no evidence of WRPs utilising the surrounding area, it is considered unlikely that they will use the vegetation within the application area for any purpose. It is also noted that the DBCA's <i>Western Ringtail Possum Habitat Suitability</i> database has not mapped the application area as containing any habitat potentially suitable for WRPs. Areas mapped as WRP habitat have been avoided and will be protected.</p> <p>Fauna habitat within the subject site is totally degraded and therefore, with respect to fauna in general, the application area does not appear to represent habitat of significance and is only likely to support a very depauperate fauna assemblage dominated by a small range of mainly common bird species (Harewood 2023).</p> <p>In the <i>EPBC Act referral guidelines for three threatened black cockatoo species</i> (2022), the Commonwealth DCCEEW identify flora species as potential breeding and foraging habitat for the three threatened species of black cockatoo. The proposed works will result in the removal of 16 trees with a DBH in excess of 50cm. However, nine of these trees are dead and accordingly, are unlikely to ever be a good candidate for breeding purposes and currently provides negligible habitat for the species. Furthermore, the presence of dead individuals within the area could potentially present a danger to livestock and human life. None of the 16 trees subject to clearing contain any obvious hollows deemed suitable for use by black cockatoos. The removal of 16 trees constitutes the removal of approximately 1,600 m² of potential foraging habitat for black cockatoos. However, it should be noted that no foraging debris attributed to black cockatoos was located within the survey area during the survey period.</p> <p>Approximately 4,160 ha of native vegetation is located within a 5 km radius of the clearing area, denoting that this minor loss, approximately 0.004% of the native vegetation in a 5km radius will not impact on local availability of foraging habitat.</p> <p>Furthermore, to counteract the loss of 50 native trees, of which nine are dead, the applicant proposes to plant 100 trees along the western boundary of the application area as shown in Figure 1. A mixture of <i>Agonis flexuosa</i>, <i>Eucalyptus marginata</i>, <i>Corymbia</i></p>	

Principle	Assessment	Conclusion
	<p><i>calophylla</i> and <i>Eucalyptus rudis</i> will be planted along the low-lying area. This will ensure that there will be a net increase in the number of trees on the property.</p> <p>The highly disturbed environment of the application area is unlikely to present a significant impact to any fauna species of conservation significance.</p> <p>In consideration of the above, the isolated paddock trees within the application area are not considered to provide significant habitat for conservation significant fauna recorded within the local area.</p>	
c.) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.	A search for known rare and Priority flora within or in proximity to the application area was undertaken through a review of the relevant databases. Species of conservation significance that have potential to occur in the locality are either shrubs or herbs. In consideration of the previous and current land use (intensive livestock grazing) which has resulted in the complete absence of mid and under-storey native vegetation, it is considered unlikely that the subject site contains flora species of conservation significance.	Removal of the vegetation within the subject site is not considered to be at variance with this Principle in consideration of the current and historical land use. .
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.	<p>The DBCA defines an ecological community as “a naturally occurring assemblage that occurs in a particular type of habitat” (PWS 2015). A TEC is one that has declined in area or was originally limited in distribution. Uncommon ecological communities that do not strictly meet TEC defined criteria, or are inadequately defined, are listed by the DBCA as a PEC.</p> <p>As well as protection under State legislation, selected ecological communities are also afforded statutory protection at a Federal level pursuant to the EPBC Act. The EPBC Act provides for the protection of TECs, which are listed under section 181 of the Act, and are defined as “Critically Endangered”, “Endangered” or “Vulnerable” under Section 182.</p> <p>A search of the DBCA’s and EPBC Act databases found three TECs endorsed under State and Commonwealth legislation and policy recorded within proximity to the application area. This included the Banksia Dominated Woodlands of the Swan Coastal Plain IBRA</p>	Clearing of the 50 paddock trees is not considered to be at variance to this Principle as vegetation consistent with the mapped TEC/PEC is not present within the clearing area.

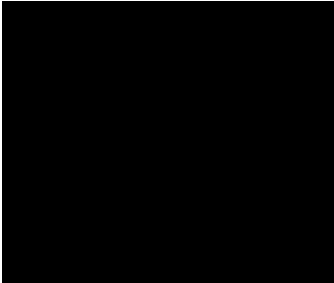
Principle	Assessment	Conclusion
	<p>Region ecological community, the Tuart (<i>Eucalyptus gomphocephala</i>) Woodlands and Forests of the Swan Coastal Plain ecological community and the Clay Pans of the Swan Coastal Plain ecological community.</p> <p>None of the vegetation within the application area is representative of these TECs based on the following:</p> <ul style="list-style-type: none"> the absence of clay soils; the 'completely degraded' condition of the vegetation; and the absence or limited numbers of key indicator species such as <i>Banksia</i> spp. and <i>Eucalyptus gomphocephala</i>. <p>On this basis, the application area is not likely to comprise or be necessary for the maintenance of a TEC and therefore the proposed clearing is not at variance to this Principle.</p>	
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.	<p>Vegetation within the application area has previously been cleared and subjected to a history of anthropogenic disturbances. Historically, the vegetation would have been representative of the Serpentine River Complex and the Karrakatta Complex - Central and South. The application area does not contain the floristic composition or structure consistent with these vegetation complexes. In addition, the DPIRD <i>Native Vegetation</i> dataset which identifies areas of intact native vegetation, shows the application area as being devoid of native vegetation. Accordingly, the clearing of 50 paddock trees, nine of which are dead, in a completely degraded condition will not impact on the extent of either complex.</p> <p>Furthermore, the application area does not comprise high biological diversity, is not likely to impact upon significant habitat for fauna indigenous to Western Australia, priority or threatened flora and is not likely to comprise a PEC or TEC. On this basis the application area is not considered to be a significant remnant within an extensively cleared landscape.</p> <p>The proposed clearing is not at variance to this Principle.</p>	The clearing is not considered to be at variance to this Principle as the vegetation is not considered significant as a remnant of native vegetation.

Principle	Assessment	Conclusion
f.) Native vegetation should not be cleared if it is growing in, or in association with an environment associated with a watercourse or wetland.	<p>No wetlands or watercourses are mapped within the application area. Accordingly, no riparian vegetation will be impacted.</p> <p>The proposed clearing is not at variance to this Principle.</p>	Clearing within the application area is not considered to be at variance with this Principle as no riparian vegetation will be impacted.
g.) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	<p>Tille and Lantzke (1990) places the vegetation subject to clearing within the Spearwood S1b phase, comprised of dune ridges with deep siliceous yellow brown sands or pale sands with yellow-brown subsoil and slopes up to 15%. This Phase is typically associated with a low risk of water erosion. Furthermore, given the limited amount of vegetation subject to clearing it is very unlikely to cause appreciable land degradation in the form of water erosion. Furthermore, a DWER approved Water Management Plan has been prepared for the proposed works and all management actions will be implemented.</p> <p>This Phase is typically associated with a high risk of wind erosion. However, no signs of wind erosion were observed onsite. Clearing and subsequent rehabilitation will be undertaken progressively to ensure the limited area will be susceptible at any one time. Given the limited amount of vegetation subject to clearing and the proposed rehabilitation measures it is unlikely to cause appreciable land degradation in the form of wind erosion.</p> <p>The proposed clearing is not likely to be at variance to this Principle.</p>	Clearing of the application area is not considered to be at variance to this Principle given the nature of the site and the proposed works.
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.	<p>The proposed clearing will not result in any impacts to the environmental values of any adjacent or nearby conservation areas. A buffer of 20m from any Lot boundaries and 10m from the drip line of any vegetation to be retained will be maintained, on advice from DBCA.</p> <p>In consideration of the above, the clearing is not at variance to this Principle.</p>	The proposed clearing is not considered to be at variance to this Principle as there will be no direct or indirect impacts to conservation areas in proximity to the subject site.
i.) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause	The current water cycle within the subject site consists of inputs from rainwater flowing downhill in a westerly direction into the wider drainage system. The development is not proposing to alter this process, as there are no drainage lines within the proposed extraction area.	The clearing is not considered to be at variance to this Principal as it is unlikely that the clearing will alter natural surface

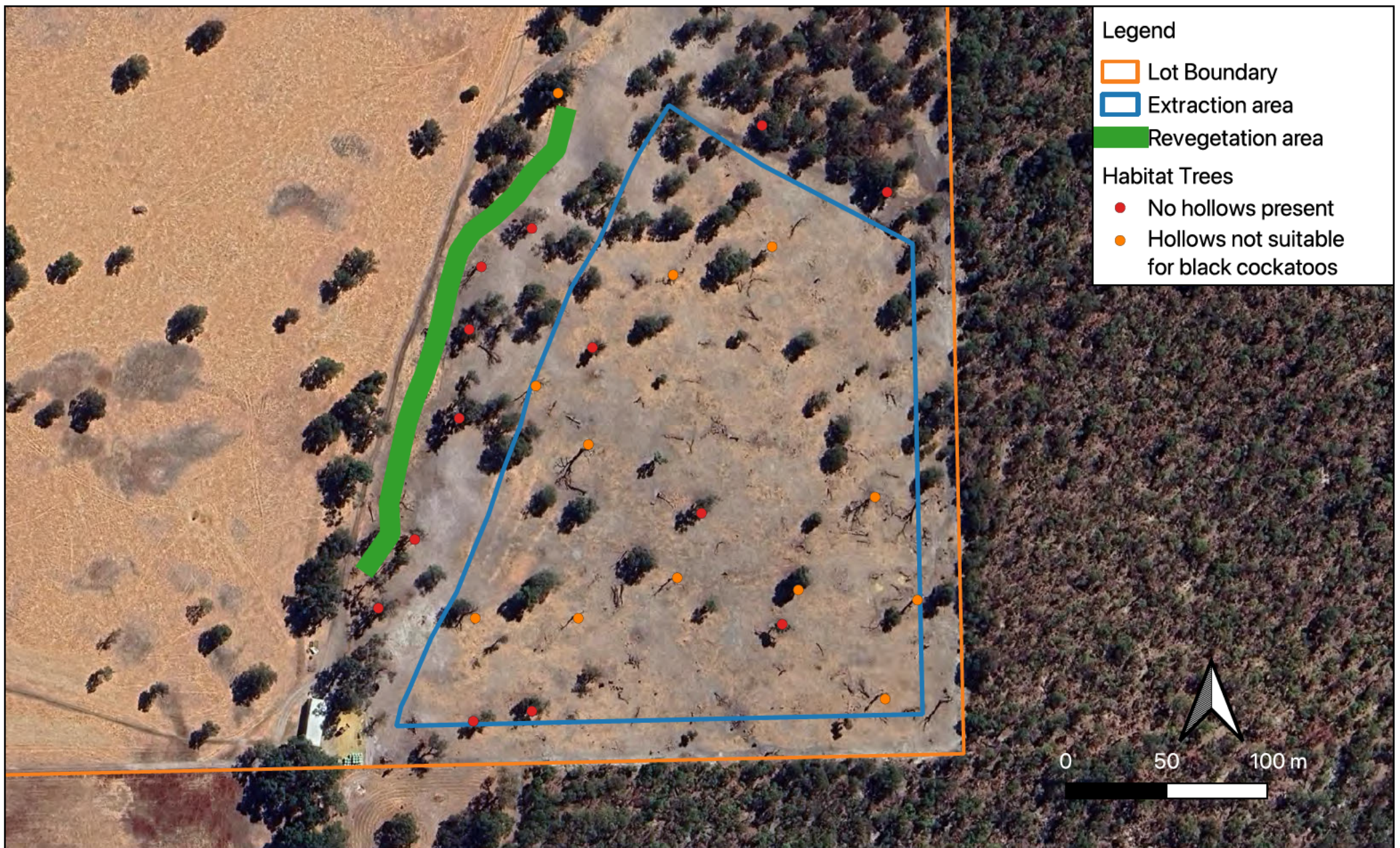
Principle	Assessment	Conclusion
deterioration in the quality of surface or underground water.	<p>No surface water features have been identified within the extraction site with a dam located to the north west of the subject site with a 100 m buffer. Therefore, the development is unlikely to impact on surface flows.</p> <p>Groundwater will not be extracted or dewatered during the operation of the quarry and therefore, no impacts to groundwater levels are proposed.</p> <p>Maximum excavation levels will be approximately 15 m AHD. No interaction with groundwater is expected during excavation works. Furthermore, a separation of at least 1m, between the final contours and the maximum groundwater elevation will be maintained. Furthermore, all works will be carried out in accordance with the DWER approved Water Management Plan.</p> <p>Accordingly, no impacts to groundwater are expected as a result of this proposal.</p> <p>The proposed clearing is not likely to be at variance to this Principle.</p>	water flows or involve groundwater interactions.
j.) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.	<p>The application area does not contain a watercourse. The limited clearing along a previously disturbed area is highly unlikely to substantially increase runoff and therefore the incidence or intensity of flooding.</p> <p>The proposed clearing is not likely to be at variance to this Principle.</p>	Clearing within the application area is not considered to be at variance to this Principle as it is unlikely to increase run off and therefore intensity or incidence of flooding.

Summary

I trust this information is sufficient for your purposes. Should you have any queries or require further information, please do not hesitate to contact the undersigned.



FIGURES



Legend

- Lot Boundary
- Extraction area
- Revegetation area

Habitat Trees

- No hollows present
- Hollows not suitable for black cockatoos

PROJECT 103 Boyanup Road West, Stratham

DRAWING TITLE Figure 1 - Vegetation to be cleared

CLIENT Leeuwin Civil Pty Ltd



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Western Australia 6280
Mobile 0418 950 852

Project Number
Drawing Number
Revision
Date
Sheet 1 of 1

2311
Figure 1
A
5/03/2025

Designed
Drawn
Checked
Approved
Local Authority

PN
PN
Shire of Capel

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