CLEARING PERMIT APPLICATION

LOT 3 Morangup Road, Morangup

PREPARED FOR

BORAL BRICKS WESTERN AUSTRALIA PTY LTD (MIDLAND BRICK)

JUNE 2020

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Document History:

Date	Document Name	Document Manager	Summary of Document Revision	Client Delivered
May-19	1056 – Squarcini Clearing Permit	SR	Draft	May-20
Jun-19	1056 – Squarcini Clearing Permit	SR	Final	Jun-20

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Appendices

1 Introduction

1.1 Background

Land Insights act for Boral Bricks Western Australia Pty Ltd and lodges this application on their behalf. The application is seeking a Clearing Permit to provide for clearing of vegetation on Lot 3 Morangup Road, Morangup. The purpose of clearing is to facilitate rehabilitation of the site in accordance with the approved Rehabilitation Management Plan (Appendix F). The application seeks a Purpose Permit for the removal of vegetation regrowth within the quarry and directly surrounding the site to allow for site rehabilitation as shown on the attached plan. The area being applied for is 25.33 hectares.

The following are attached to this report:

- Appendix A – Application Form
- Appendix B – Landowner Letter of Consent
- Appendix C – Plans
- Appendix D – Certificate of Title
- Appendix E – Planning Approval and Extractive Industry Licence
- Appendix F – Rehabilitation Management Plan

1.2 Site Description

Lot 3 is located approximately 10km west of the Toodyay townsite. It is approximately 180 hectares in size. The current excavation area is located at the south-western corner of the property. The quarry is operated by Boral Bricks Western Australia Pty Ltd (Midland Brick).

The area being applied for (the 'application area') includes the vegetation regrowth within the quarry and the vegetation surrounding the quarry and overburden dumps. A plan showing the extent of clearing is at Appendix C. The existing operation and the rehabilitation have Planning Approval and an Extractive Industry Licence issued by the Shire of Toodyay (Appendix E).

The site of the existing quarry was parkland cleared in the 1970's. The vegetation within the quarry and around some perimeter areas has been cleared in the past to allow for excavation. This vegetation is regrowth from the last 5 – 10 years. The vegetation surrounding the quarry on the eastern and northern sides is largely regrowth from the last 30 years.

The vegetation subject to this application essentially comprises three different vegetation types:

- Regrowth areas within the quarry area
- Wandoo Woodland on the eastern side of the quarry
- Jarrah-Marri Woodland on the northern side of the quarry.

Vegetation within the quarry area (regrowth) largely comprises Dryandra with some scattered Wandoo (*Eucalyptus wandoo*) saplings and immature trees.

Vegetation on the eastern side of the quarry largely comprises Wandoo Woodland. This vegetation is largely regrowth from the last 30 years. The occasional mature tree is located within this area. The area subject to this application avoids these mature trees.

The northern side of the quarry comprises Jarrah-Marri Woodland (E. *marginata* and *Corymbia calophylla*). As with the other areas, this vegetation is largely regrowth from the last 30 years with the occasional mature tree or dead mature tree. The area subject to this application avoids these mature trees.

As is mentioned above, clearing is required to facilitate rehabilitation of the quarry in accordance with the approved Rehabilitation Management Plan (Appendix F).

1.3 Ownership

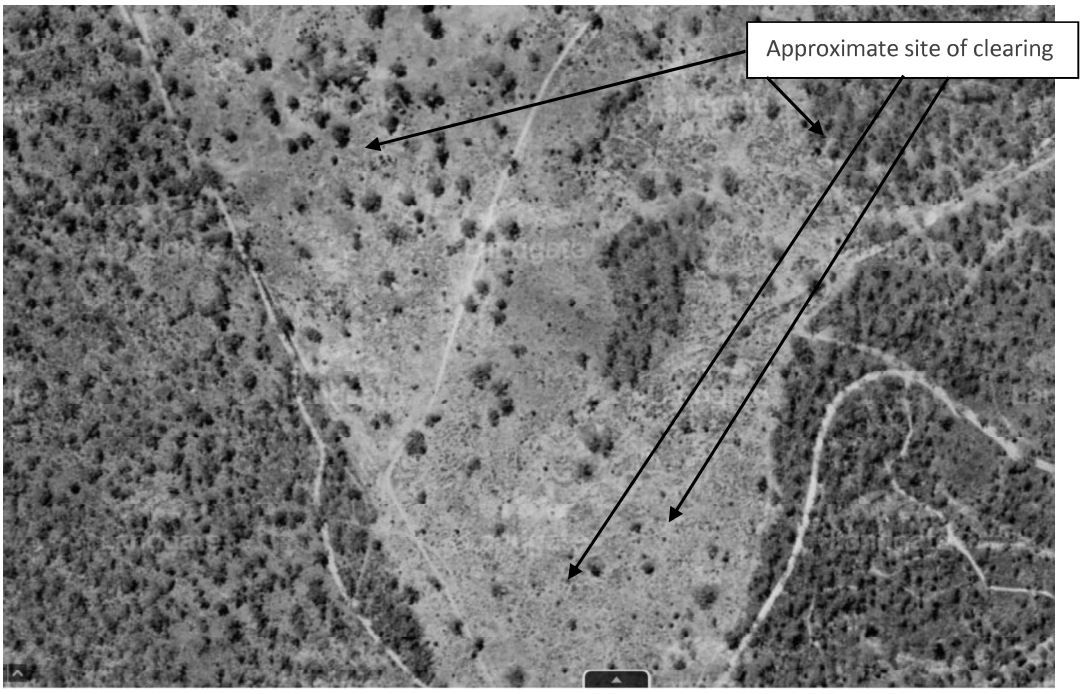
Ownership details are provided in the table below. A copy of the Certificate of Title is at Appendix D.

Table 1.1 – Ownership details

LOT #	PLAN/DIAGRAM	VOLUME	FOLIO	OWNER
3	D38894	382	31A	John Emanuel Squarcini

1.4 Historic Photos

Historic photos of the application area are included below.



Aerial photo from 1979 showing the extent of vegetation within the application area. This photo demonstrates that the area now occupied by the quarry was largely cleared except for scattered trees. This extent of clearing is particularly obvious when comparing the site with the adjoining vegetation (Source: Landgate)

Aerial photo from 1981 showing the site of the existing quarry was parkland cleared (source: Landgate)

Aerial photo from 2000 showing the vegetation within the application area. The vegetation within and surrounding the quarry has been regenerating since it was cleared in the 1960's/1970's (Source: Landgate)

Aerial photo from 2010 showing the vegetation within the quarry is predominantly cleared to allow for extraction activities. (Source: Landgate)

Aerial photo from 2015 showing regrowth commencing within the quarry area, particularly on overburden bunds. The vegetation surrounding the quarry has been regenerating since it was parkland cleared in the 1960's/1970's (Source: Landgate)

1.5 Site photos

Photos of the vegetation within the application area are provided below.

Photo 1 – Vegetation regrowth on one of the overburden bunds, located at the south-west corner of the site. The dominant species is Dryandra and all vegetation is young, between 5-10 years of regrowth.

Photo 2 – Vegetation regrowth on one of the overburden bunds, located at the south-west corner of the site. The dominant species is Dryandra and all vegetation is young, between 5-10 years of regrowth.

Photo 3 – Regrowth on the overburden bunds at the southern side of the quarry. The dominant species is Dryandra and plants are young, indicating that regrowth has only occurred for the past few years.

Photo 4 – Vegetation regrowth on the overburden bunds located around the edge of the quarry. Regrowth has been occurring between the last 5-10 years.

Photo 5 – Trees located within the quarry which require clearing in order for the site to be recontoured.

Photo 6 – Vegetation regrowth on the overburden bunds located around the edge of the quarry. Regrowth has been occurring between the last 5-10 years.

Photo 7 – Photo taken of the quarry which demonstrates the depth of the pit and gives a sense of the recontouring requires to achieve a safe and stable slope, and hence the requirement for clearing on top of the overburden bunds.

Photo 8 – Wandoo trees located at the north-eastern corner of the quarry.

Photo 9 – Wandoo woodland on the eastern side of the quarry. Some clearing will be required in this area t facilitate recontouring. It should be noted that large mature trees such as those shown in the background of this picture will not be cleared as they are outside of the application area.

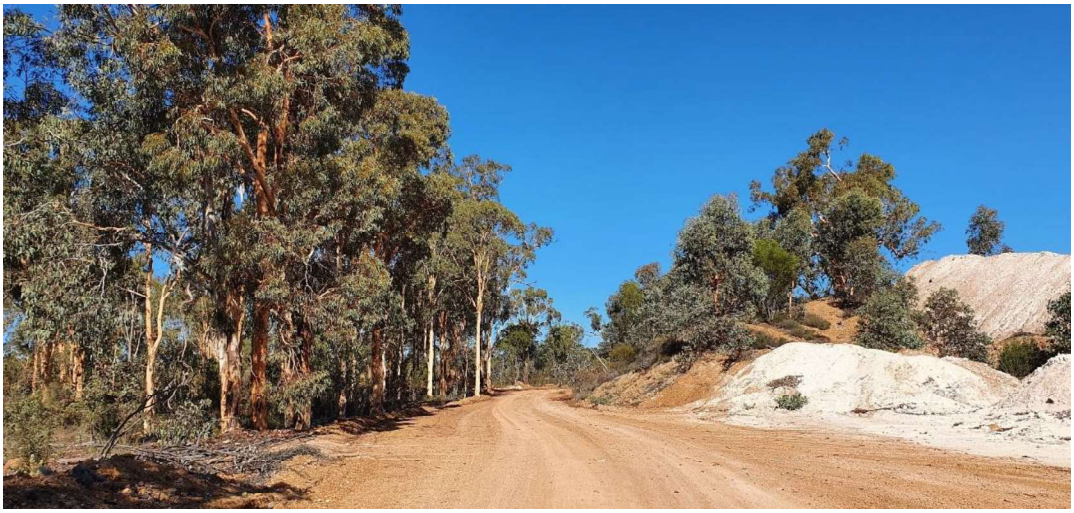


Photo 10 – Wandoo woodland at the eastern side of the quarry which will require clearing to facilitate site contouring. Wandoo regrowth can be seen in the above photo on the overburden bund.

Photo 11 - Wandoo woodland at the eastern side of the quarry which will require clearing to facilitate site contouring. No mature trees are located in the application area, as can be seen in the above photo. The vegetation in this area has been previously cleared in the 1960's/1970's and is regrowth from the past 30 years.

Photo 12 – Jarrah-marri woodland located on the northern side of the quarry. The vegetation in this area has been previously cleared in the 1960's/1970's and is regrowth from the past 30 years.

Photo 13 – Jarrah-marri woodland located on the northern side of the quarry. The vegetation in this area has been previously cleared in the 1960's/1970's and is regrowth from the past 30 years.

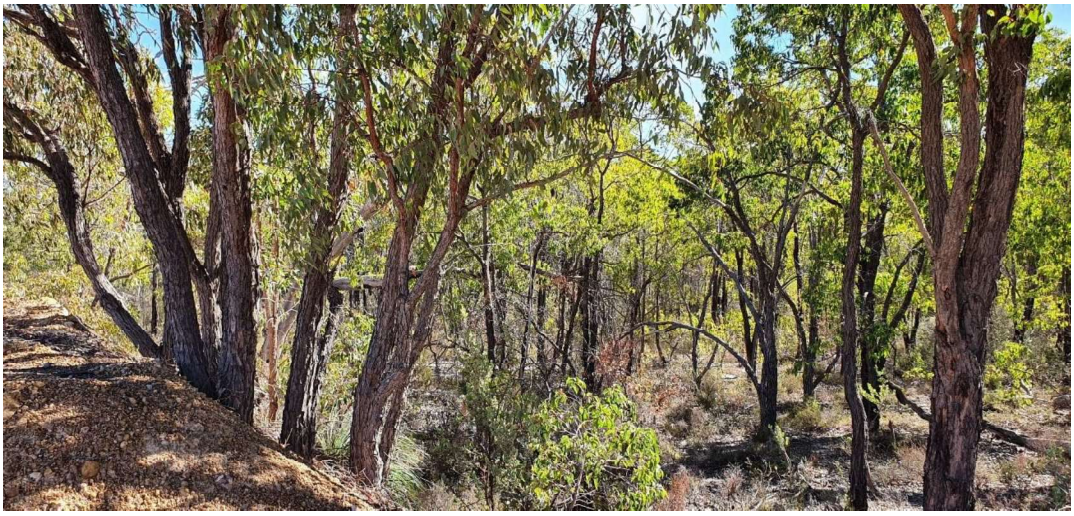


Photo 14 – Jarrah-marri woodland located on the northern side of the quarry. The vegetation in this area has been previously cleared in the 1960's/1970's and is regrowth from the past 30 years. No mature trees are located within the application area.

2 Clearing permit principles

2.1 Introduction

The environmental matters to be considered in the assessment of a clearing permit are set out in 'A Guide to the Assessment of Applications to Clear Native Vegetation' (Department of Environment Regulation, 2014). The Guide sets out the clearing principles against which applications are assessed. These Principles are listed under Schedule 5 of the *Environmental Protection Act 1986*.

The clearing principles are addressed in chapter 2.2 below.

2.2 Clearing Principles

a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

This principle aims to protect areas of high biodiversity. It protects intact natural systems with naturally occurring high levels of species diversity, ecosystem diversity and genetic diversity and natural systems which, although they may be degraded, may contain high levels of diversity compared with the remaining vegetation of that ecological community.

The application area has low species diversity as only a few species have regrown on the stockpiles. As can be seen from the historic photos of the site (above), the original vegetation was cleared for the quarry operations and the existing vegetation is regrowth (except for a small amount at the south-western corner and a few trees at the eastern side).

Vegetation within the application area comprises largely of Dryandra with some Wandoo (*Eucalyptus wandoo*), Jarrah (*Eucalyptus marginata*) and Marri (*Corymbia calophylla*). Ecosystem diversity within the application area is low. The regrowth in the quarry area comprises limited species and the vegetation around the perimeter of the quarry is regrowth over the last 30-40 years.

The pre-European vegetation complex is mapped by the Department of Biodiversity, Conservation and Attractions (DBCA) (based on mapping by Heddle et al. (1980) and Mattiske and Havel (1998)) as 'Yalanbee Complex – Y6'. This vegetation complex is described as:

> *'Woodland of* Eucalyptus wandoo – Eucalyptus accedens*, less consistently open forest of* Eucalyptus marginata subsp. thalassica – Corymbia calophylla. *Mixture of open forest of* Eucalyptus marginata subsp. thalassica– Corymbia calophylla *on lateritic uplands and breakaway landscapes in arid and perarid zones.'*

The western side of the application area is mapped as 'Coolakin Complex' which is described as:

> *'Woodland of* Eucalyptus wandoo *with mixtures of E*ucalyptus patens, Eucalyptus marginata subsp. thalassica *and* Corymbia calophylla *on the valley slopes in arid and perarid zones.'*

The pre-European vegetation mapping by the Department of Primary Industries and Regional Development (DPIRD) (regional vegetation mapping by Shepherd *et al*., 2002) shows two vegetation associations across the site:

- A majority of the application area is mapped as 'Bannister_1006' which is described as *Jarrah, marri and wandoo* (Eucalyptus marginata, Corymbia calophylla, E. wandoo)
- The eastern side of the application area is 'Bannister_4' which is described as *Jarrah, marri and wandoo* (Eucalyptus marginata, Corymbia calophylla, E. wandoo)

Based on an on-site assessment by an environmental consultant at Land Insights (on the 1st May 2020), and the vegetation assessment by Landform Research (dated 2009) the vegetation condition was classified as 'Completely Degraded' and 'Degraded' (using the Keighery vegetation condition scale in Bush Forever Volume 2 (WAPC, 2000)).

The areas within the quarry and the regrowth on the overburden dumps are 'Completely Degraded'. The vegetation on the eastern and northern side of the quarry is 'Degraded'.

The vegetation condition ratings reflects the degraded and disturbed nature of the site, the lack of species diversity and structure, especially within the quarry, and edge effects such as weeds.

The definitions are below:

> '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.*
>
> '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; &grazing.*

The application area shows obvious signs of disturbance such as the presence of weeds, low density, low species diversity, lack of structure and poor condition in general.

Based on the above, the vegetation within the application area does not comprise a high level of biological diversity. As such, the proposed clearing is not considered to be at variance with this principle.

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

This principle aims to maintain indigenous fauna species and assemblages of species in their local natural habitat. In particular, this principle considers any potential impact to specially protected or threatened fauna.

The vegetation within the quarry is regrowth from the last 5-10 years, therefore it is considered that the habitat value for native fauna is low. In addition, it is not considered that this vegetation provides significant habitat for threatened fauna.

The vegetation surrounding the quarry to the east and north could have some limited habitat value, however as the clearing is on the edge of the disturbed quarry area it is not considered that there will be significant impact to native fauna and threatened fauna.

In addition to the above, mature trees over 50mm in diameter (and 30mm for Wandoo) have been identified and are not included in the application area in order to avoid impact to black cockatoo trees.

The Jarrah-Marri woodland and Wandoo woodland can be used by black cockatoos for foraging. The application area includes approximately 1.5 hectares of Jarrah-Marri woodland and Wandoo Woodland around the edge of the quarry area. As this vegetation is a thin strip around the edge of the quarry and is in degraded condition, it is not considered that clearing this vegetation will have a significant impact on foraging habitat.

Considering the above, the proposed clearing is not considered to be at variance with this principle.

c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

This Principle refers to flora that are listed as 'threatened' under the *Biodiversity Conservation Act 2016*.

The vegetation within the application area is largely regrowth over the last 5-10 years and the site has been cleared in the past (except for a small area in the south-west corner and at the eastern side of the application area). As such, it is unlikely that threatened/rare or priority flora is located within the application area. The proposed clearing is not considered to be at variance with this 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.

This Principle aims to protect threatened ecological communities (TEC's) as declared under section 51B of the *Environmental Protection Act 1986* (EP Act) or the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act).

As is discussed above, the vegetation within the application area has been cleared previously and is largely regrowth over the last 5-10 years. In addition, the vegetation does not reflect the pre-European vegetation mapped by DBCA and DPIRD (vegetation complexes and vegetation associations). As a result, it is unlikely that the area contains or could be classified as a TEC under either the EP Act or the EPBC Act. As there are no known TEC's located within the application area, the proposed clearing is not considered to be at variance with this 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.

This principle aims to maintain sufficient native vegetation in the landscape for the maintenance of ecological values. The area being applied for is 25.33 hectares, however a majority of this area is the quarry and only a small proportion (approximately 1.5 hectares) comprises the Jarrah-Marri Woodland and Wandoo Woodland around the perimeter of the site.

As is discussed above, the pre-European vegetation has been mapped by DBCA (based on mapping by Heddle et al. (1980) and Mattiske and Havel (1998)) as 'Yalanbee Complex – Y6' and ;Coolakin Complex' on the western side of the application area. The vegetation association is 'Bannister_1006' except for the eastern extent of the application which is 'Bannister_4' as mapped by DPIRD (based on regional vegetation mapping by Shepherd et al., 2002). The percentage remaining of these vegetation types are listed below.

- Yalanbee – 51.9%
- Coolabin – 41.9%

- Bannister 4 – 30.3%
- Bannister 1006 – 52.6%

As can be seen above, all percentages remaining are above the 30% threshold as recommended by the EPA.

In addition, the vegetation within the quarry has been cleared in the past, is highly disturbed and no longer reflective of the pre-European state. Vegetation surrounding the quarry was cleared in the 1960s/1970s and has been regenerating since the 1980s. The area proposed to be cleared is a small percentage to the overall area of vegetation remaining on the property and is not considered that clearing this amount will impact on the vegetation a remnant.

Therefore, it is not considered that the vegetation is significant as a remnant and is not at variance with this 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.

This Principle aims to protect vegetated watercourses and wetlands and their buffers. Vegetation growing in association with a watercourse is defined as vegetation within the buffer.

There are no wetlands or watercourses within the application area. A minor watercourse (Mortigup Brook, a level 5 Major Tributary) is located approximately 100 metres to the north of the quarry and approximately 50 metres from the proposed clearing. Morangup Brook (a level 4 Significant Stream) is located approximately 2.4km to the north-west of the proposed clearing. The Jimpwrding Brook (a level 4 Significant Stream) is approximately 2km to the east.

The vegetation within the application area comprises of dryland species only and no wetland-dependent species are present. As a result, the vegetation within the application area is not associated with the wetlands or watercourse located nearby and is not considered to be at variance with this principle.

g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

This Principle aims to maintain sufficient native vegetation to prevent land degradation such as soil erosion, salinity, nutrient export, acidification, waterlogging or flooding.

As the purpose of the proposed clearing will be for the rehabilitation of the clay pit, it is not considered that this principle applies to this proposal. Rehabilitation will take place in accordance with the Rehabilitation Management Plan (Landform Research, 2018) as approved by the Shire of Toodyay. Following recontouring of the site it will be revegetated which will improve land qualities, including erosion.

The soil-landscape unit mapped across the site is predominantly 'Yalanbee' subsystem (DPIRD, 2020). It is described as '*gravelly, yellowish brown soils that vary from loamy sands to clays, with pockets of pale sands and rock*.'

Salinity risk is identified by the Department of Primary Industries and Regional Development (DPIRD) as 'low risk' for the application area and surrounding area. Therefore, it is not considered that the removal of vegetation within the application area will lead to an increase to salinity risk.

Waterlogging and flood risk as mapped by DPIRD is also mapped as 'low risk' within the application area.

Water erosion risk is also low, although wind erosion can be high. The applicant operates in accordance with an approved Dust Management Plan (Landform Research, 2018).

As the ground will be highly modified for site rehabilitation and given the area to be cleared is relatively small, it is considered that the proposed clearing will not cause appreciable land degradation.

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.

This Principle aims to ensure that the conservation values of conservation areas are not reduced as a result of clearing. This includes factors such as habitat fragmentation and impact to ecological linkages and buffers. Assessment of this principle needs to consider the distance of the application area to conservation areas and whether any vegetated ecological linkages exist between the application area and conservation areas.

The site does not directly adjoin any conservation areas. The nearest conservation area is the Avon Valley National Park which is approximately 4km from the application area and the Morangup Nature Reserve which is approximately 5.7km from the application area.

The vegetation within the application area is classified as 'completely degraded' and 'degraded' and would not contribute a significant ecological link to the local conservation areas.

Given the area proposed to be cleared is the regeneration within the quarry and the surrounding areas, and the relatively small area, it is not likely that the proposed clearing will have an adverse impact on nearby conservation areas and is not considered at variance with this 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.

This principle aims to ensure that the quality of water supplies is not reduced as a result of clearing and that water regimes and environmental water provisions are not affected.

The site has been included in the following allocation and management areas:

- Groundwater Area – Karri (unproclaimed)
- Surface Water Area – Avon River (proclaimed)

- Surface Water Management Area – Avon River
- Surface Water Management Subarea – Avon River
- Hydrographic Catchment Basin – Swan Coastal
- Hydrographic Catchment – Swan Avon
- Hydrographic Subcatchment – Avon River
- The application area is not located within a Public Drinking Water Source Area.

The Excavation and Rehabilitation Management Plan (Landform Research, 2018) states that there is 'no evidence of seepages or water table have been observed in the pit.' In addition, 'no groundwater has been encountered in this or other excavations, with water in the pits originating from precipitation.'

As is discussed above, there are no wetlands or watercourses within the application area and there are no wetland-dependent species present. The closest water feature is a minor watercourse (Mortigup Brook, a level 5 Major Tributary) is located approximately 100 metres to the north of the quarry and approximately 50 metres from the proposed clearing.

Surface water and groundwater is managed through the approved Water Management Plan prepared for the site by Landform Research (2018).

Given there are no surface water features and the site already has an approved Water Management Plan, it is considered that the proposed clearing is not considered at variance with this principle.

j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.

This Principle aims to ensure that there is no increase in the frequency or intensity of flooding from clearing.

The application area is not located within the FPM 100 year ARI Floodway and Flood Fringe Line as mapped by the DWER (2020). The application area also has a low waterlogging and flood risk as mapped by DPIRD (2020). No surface water features are located within the application area. In addition, surface water and groundwater is managed through the approved Water Management Plan prepared for the site by Landform Research (2018).

The proposed clearing will not have an impact on flood potential in the area and is not considered at variance with this principle.

3 Planning instruments and other matters

3.1 Introduction

The planning instruments and other matters to be considered in the assessment of a clearing permit are set out in 'A Guide to the Assessment of Applications to Clear Native Vegetation' (Department of Environment Regulation, 2014). The Guide states that *when assessing planning instruments, relevant local and regional level planning strategies, by-laws and policies should be considered as part of the recommendations to the CEO.* 'Other matters' are listed in the Guide as *consideration of land use impacts, previous decisions related to the area, other legislative requirements related to the application and the necessity of the clearing*. Planning instruments and other matters are addressed below.

3.2 Environmental Protection Act 1986 Section 51O – Planning Matters

State Planning Policy 2.4 – Basic Raw Materials

The purpose of SPP 2.4 is to identify priority areas for extraction of basic raw materials to ensure that an adequate supply is available to meet community needs and demands now and into the future.

The quarry is included in the 'Priority Resource Location'. These areas are defined as *locations of regionally significant resources which should be recognised for future basic raw materials extraction and not constrained by incompatible uses or development*. In these areas there *will be a general presumption against the intrusion of proposed new uses which are not compatible with extractive industry operations*.

The property has been extracted in accordance with SPP 2.4. The purpose of clearing is to facilitate rehabilitation of the quarry.

Draft State Planning Policy 2.4 – Basic Raw Materials

Draft State Planning Policy 2.4 – Basic Raw Materials was released for public comment in October 2018. It *enables the responsible extraction of BRM, while ensuring the protection of*

people and the environment. The updated mapping identifies 'Extraction Sites' and areas of 'Significant Geological Supplies'. The Policy provides guidance to operators and decision makers regarding applications for BRM extraction, as well as other types of planning applications that can potentially impact on extraction sites or significant geological supplies.

The draft SPP 2.4 mapping indicates that the quarry is identified as 'Significant Geological Supplies'. The quarry has been extracted in accordance with the draft Policy. The purpose of clearing is to facilitate the rehabilitation of the quarry.

Shire of Toodyay Town Planning Scheme No. 4

The site is zoned 'Rural' in the Shire of Toodyay Town Planning Scheme No 4. Objective d) of this zone is to *allow for the extraction of basic raw materials where it is environmentally and socially acceptable*. This application has attempted to demonstrate where possible how the proposed clearing can be considered environmentally and socially acceptable to allow for the approved extraction to continue.

The Shire of Toodyay has issued Planning Approval for the extractive industry operation in accordance with the Scheme (Appendix E).

Shire of Toodyay Extractive Industries Local Law

The Shire of Toodyay Extractive Industries Local Law requires that a person carrying our extractive operations have a licence from the Shire. An Extractive Industry Licence has been issued in accordance with the Shire of Toodyay Extractive Industries Local Law (Appendix E).

3.3 Environmental Protection Act 1986 Section 51O – Relevant Matters

Land use impacts

Environmental impacts resulting from the clearing not taking place will be significant as the quarry will not be able to be rehabilitated and established with native vegetation as set out in the Rehabilitation Management Plan (Landform Research, 2018). Clearing of a small amount of vegetation will enable for site recontouring. Following recontouring the site will be revegetated with native plants.

It is not considered that the proposed clearing will have any adverse social or economic impacts.

Previous decisions

There have been two previous clearing permits issued for the site to facilitate excavation (CPS 2541/1 and CPS 4721/1). There are no other previous decisions relating to clearing which affect the site.

Legislative requirements

The proposed clearing and subsequent land use (extractive industries) does not require any other approvals under other written laws except for the Planning Approval and Extractive Industry Licence which have already been issued by the Shire of Toodyay for the site (Appendix E).

Necessity

The application area has been carefully planned to minimise clearing as much as possible. Mature trees around the edge of the pit areas have been avoided.

The proposed clearing of a relatively small area is necessary in order to rehabilitate the site and revegetate with native species, resulting in an overall environmental benefit to the site.