Government of Western Australia
Department of Mines, Industry Regulation and Safety

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 9008/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: **MGM Bulk Pty Ltd**

1.3. Property details

Property: Mining Lease 70/1383
Local Government Area: Shire of Harvey
Colloquial name: Bagieau Road Quarry

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
10		Mechanical Removal	Limestone extraction and associated activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 2 December 2021

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

The vegetation of the application area is broadly mapped as the following Beard vegetation associations:
6: Medium woodland; tuart and jarrah; and
998: Medium woodland; tuart (GIS Database).

A flora and vegetation survey was conducted over the application area by Woodman Environmental Consulting Pty Ltd (Woodman) during November, 2018. The following vegetation association was recorded within the application area (Woodman, 2019):

VT2: Mid open to mid closed forest of *Eucalyptus decipiens* and *Eucalyptus gomphocephala* to 10 metres over low isolated clumps of trees of *Eucalyptus marginata* to 7 metres over mid isolated clumps of shrubs to tall shrubland of *Melaleuca systena* and *Spyridium globulosum* to 2 metres over low isolated clumps to low sparse shrubland of *Hibbertia hypericoides* subsp. *hypericoides* and *Rhagodia baccata* subsp. *baccata* to 0.5 metres over low isolated clumps of forbs to low forbland of **Geranium purpureum* and **Trifolium campestre* var. *campestre* to 0.2 metres over low isolated clumps of grasses to low open grassland of **Briza maxima* to 0.3 metres, on low ridge of yellow-brown sand with limestone outcropping.

The majority of the application area however, is dominated by pine plantation with isolated individuals of native species (assumed regrowth).

* denotes weed species.

Clearing Description

Bagieau Road Quarry.
MGM Bulk Pty Ltd proposes to clear up to 10 hectares of native vegetation within a boundary of the same size, for the purpose of limestone extraction and associated activities. The project is located approximately 47 kilometres south of Mandurah, within the Shire of Harvey.

Vegetation Condition

Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).

To:

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).

Comment

The vegetation condition was derived from a vegetation survey conducted by Woodman (2019).

The proposed clearing is for the purpose of limestone extraction and associated activities. Of the 10 hectares applied to clear, 1.7 hectares of remnant native vegetation exists in good to very good condition, 0.8 hectares of remnant native vegetation exists in degraded condition and the remaining 7.5 hectares exists as pine plantation with isolated native species as regrowth existing in a completely degraded condition.

3. Minimisation and Mitigation Measures

MGM Bulk Pty Ltd propose to construct the access track to the quarry along the alignment of the existing cleared track and firebreak and do not propose any additional clearing/widening of the access track (MGM Bulk, 2020). Although the proposed clearing includes 2.5 hectares of native vegetation that provides habitat for Black Cockatoos and Western Ringtail Possums, following mining in the area, MGM Bulk Pty Ltd will be rehabilitate this land back to native vegetation. MGM Bulk propose to progressively rehabilitate the entire application to native vegetation including 7.5 hectares of pine plantation (MGM Bulk, 2020). This will create additional habitat connectivity that does not currently exist with the 2.5 hectare remnant within the application area. MGM Bulk plan on preparing the revegetation plan in consultation with DBCA (MGM Bulk, 2020).

In 2018, the proponent was the successful respondent in the Request for Expressions of Interest by the Minister for Mines to access Bagieau Road Quarry. Under section 19 of the Mining Act 1978, the Minister for Mines may exempt land from the operation of any part or all of the Mining Act, while calling for applications (Request for Expressions of Interest) for the grant of a mining tenement over that land. Section 19(8) requires the Minister for Mines to comply with section 24 of the Mining Act which relates to mining on State Forest. In this case the Minister for Mines has obtained concurrence of the Minister for Environment. The Request for Expressions of Interest documents issued by DMIRS states that the area will return to a self-sustaining native vegetation coverage, with the Ministers letter of invitation to MGM Bulk reinforcing that "The ultimate requirement of rehabilitation within the lease will be to return the void to a safe, sustainable growth of native vegetation, as was clearly identified in the Request for Expressions of Interest documentation", with closure criteria negotiated between the lessee (MGM Bulk) and DBCA.

4. Assessment of application against Clearing Principles

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

Comments

Proposal may be at variance to this Principle

The clearing permit application area is located within the Perth subregion of the Interim Biogeographic Regionalisation for Australia (IBRA) Swan Coastal Plain Bioregion (GIS Database). The Perth subregion is characterised by colluvial and aeolian sands, alluvial river flats and coastal limestone, supporting heath and/or Tuart woodlands on limestone, *Banksia* and Jarrah-*Banksia* woodlands on Quaternary marine dunes of various ages, Marri on colluvial and alluvials (CALM, 2002).

A vegetation survey conducted by Woodman (2019) during November 2018 identified one vegetation type (VT) within the application area: VT2 - dominated by *Eucalyptus decipiens*, *Agonis flexuosa*, *Melaleuca systena* and *Spyridium globulosum*, in association with limestone. The majority of the application area (7.5 hectares) is dominated by pine plantation, with isolated individuals of native species that is presumed to be regrowth, in a completely degraded condition (MGM Bulk, 2020; GIS Database).

The VT2 is considered be representative the ecological community 'Tuart (*Eucalyptus gomphocephala*) woodlands of the Swan Coastal Plain', listed as Priority 3 in Western Australia and a Threatened Ecological Community (Critically Endangered) under the EPBC Act (Woodman, 2019). On a local scale, the VT2 vegetation community may provide foraging habitat for black cockatoos, however no conservation significant flora or fauna were recorded within the application area (Harewood, 2019). The VT2 vegetation community is wholly surrounded by pine plantation, and there is no connectivity to the remaining native vegetation within the local area (GIS Database). Therefore, this isolated patch is not considered significant on a regional scale.

A flora and vegetation survey undertaken by Woodman (2019) recorded 111 flora taxa from 43 families and 94 genera, including 30 weed species. A desktop assessment identified 32 conservation significant flora species previously recorded within the vicinity of the application area including eight Threatened and 24 Priority flora (Woodman, 2019). Of these, nine have the potential to occur due to the presence of suitable habitat, including *Alyogyne* sp. Rockingham (G.J. Keighery 14463) (P2), *Caladenia speciose* (P4), *Conostylis pauciflora* subsp. *pauciflora* (P4), *Hakea oligoneura* (P2), *Hibbertia leptotheca* (P3), *Lasiopetalum membranaceum* (P3), *Pimelea calcicola* (P3), *Pterostylis frenchii* (P2) and *Stylidium maritimum* (P3) (Woodman, 2019). The survey timing was considered to be appropriate for the detection of all of these species. One of these, *Lasiopetalum membranaceum* (P3), was recorded during the field survey of the application area and surrounding areas (Woodman, 2019). However, as this species was recorded outside of the application area, the proposed clearing is unlikely to significantly impact this species. A previous survey of the application area recorded *Conostylis pauciflora* subsp. *pauciflora* (P4), however this was considered to be a misidentification of *Conostylis aculeata* subsp. *preissii* recorded by Woodman (2019). No Threatened or Priority flora species were recorded within the application area (Woodman, 2019).

Thirty species of weeds were recorded within the application area (Woodman, 2019). Three of these; *Asparagus asparagoides* (Bridal Creeper), *Gomphocarpus fruticosus* (Narrow Leaf Cotton Bush) and *Zantedeschia aethiopica* (Arum Lily), are listed as a Declared Pest according to the *Biosecurity and Agriculture Management Act 2007*. Another weed recorded, *Geranium purpureum*, although not a Declared Pest, represents a localised occurrence of an environmental weed that is on the Commonwealth alert list and is only known from two locations within Western Australia (DBCA, 2020; Woodman, 2019). Machinery and truck movements present a high risk of spread of weeds (DBCA, 2020). Weeds and dieback have the potential to significantly change the dynamic of natural ecosystems and reduce the biodiversity of an area. MGM Bulk propose to develop and implement a Weed and Dieback Management Plan to minimise potential impact caused through weed and dieback spread (MGM Bulk, 2020). Potential impacts to biodiversity as a result of the

proposed clearing may be minimised by the implementation of a weed and dieback management condition.

A desktop fauna assessment of a wider area was conducted Bamford Consulting Ecologists (Bamford) in 2016, which identified the potential for 195 vertebrate fauna species to occur in the area including six frogs, 37 reptiles, 128 birds, and 18 native and six introduced mammals, and with the potential for 21 conservation significant fauna species to occur (Bamford, 2016). Significant fauna species identified as most likely to be impacted by the proposed clearing included: Carnaby's Cockatoo, *Calyptorhynchus latirostris* (Endangered at both state and federal level); Forest Red-tailed Black Cockatoo, *Calyptorhynchus banksii naso* (Vulnerable at both state and federal level); and Western Ringtail Possum, *Pseudocheirus occidentalis* (Critically Endangered at both state and federal level); and Quenda, *Isoodon fusciventer* (P4) (Bamford, 2016). The desktop assessment was followed by a targeted black-cockatoo habitat tree survey (Harewood, 2018) and a targeted survey for Western Ringtail Possum (Harewood, 2019). However, no Threatened or Priority fauna species have been recorded in the application area.

Based on the above, the proposed clearing may be at variance to this Principle.

Methodology

Bamford (2016)
CALM (2002)
DBCA (2020)
Harewood (2018)
Harewood (2019)
MGM Bulk (2020)
Woodman (2019)

GIS Database:
- IBRA Australia
- Pre-European Vegetation
- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers
- Threatened and Priority Flora
- Threatened Fauna

(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 indigenous to Western Australia.

Comments

Proposal is at variance to this Principle

The habitat within the application area includes *Eucalyptus* woodlands and pine plantation (MGM Bulk, 2020; Woodman, 2019).

The application area occurs within the modelled distribution of three Threatened species of Black Cockatoo: Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*) (VU); Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) (EN); and Baudin's Black Cockatoo (*Calyptorhynchus baudinii*) (EN) (DSEWPAC, 2012). The populations of all three Threatened species of Black Cockatoo are declining due to habitat destruction (DSEWPAC, 2012), and nest hollow shortage is considered a significant threat to breeding success and the long-term survival of Black Cockatoo populations (DEC, 2008, DPaW, 2013). There are three key components of Black Cockatoo habitat: foraging habitat; roosting habitat; and breeding habitat. The application area is located within the known breeding range for Carnaby's, the known distribution of Forest Red-tailed, and is identified as an area that Baudin's is 'likely to occur'; however is outside the known breeding and foraging areas (DSEWPAC, 2012). Black Cockatoos nest in large hollows in mature eucalypt trees including Tuart (*Eucalyptus gomphocephala*) and Jarrah (*Eucalyptus marginata*) (DSEWPAC, 2012). Research has indicated that it takes between 100 and 200 years for a tree to grow to a size where it could develop a hollow large enough to be suitable for breeding of Black Cockatoos (DEC, 2008; DPaW, 2013; DSEWPAC, 2012). For a breeding site to be viable, there must be sufficient foraging habitat available within 6 to 12 kilometres of a nesting site (DSEWPAC, 2012). The application area is considered to contain Black Cockatoo foraging habitat of negligible/low to low/moderate quality and potential roosting/nesting trees for Carnaby's and Forest Red-tailed Black Cockatoos (Harewood, 2018).

A black cockatoo habitat tree survey was undertaken by Harewood (2018) within the application and surrounding area. During the assessment of habitat trees for Black Cockatoos, 11 habitat trees were identified within the application area, all were Tuart (*Eucalyptus gomphocephala*), however none of these contained any hollows (Harewood, 2018). An additional 22 habitat trees were identified outside of the application area, with ten of these identified as containing hollows, however only six of these were identified as potentially being suitable for the nesting of Black Cockatoos based on the size and orientation of the hollows (Harewood, 2018). As a number of habitat trees and hollows were located in close proximity to the application area that are not proposed to be cleared, the clearing of 11 habitat trees with the potential to develop hollows over time and provide future breeding habitat for Black Cockatoos is not considered to be significant in a local context.

Taking into account the small size of the application area compared to the extent of native vegetation in the local area and that the application area is not within an ecological linkage, the proposed clearing is not likely to restrict the movement of black cockatoos across the landscape. A condition has been imposed on the permit

requiring the permit holder to revegetate the application area following the mining activities. These revegetation activities will result in the re-establishment of black cockatoo foraging habitat within the application area post-extraction.

The Western Ringtail Possum (*Pseudocheirus occidentalis*) (CR) current distribution is patchy and largely restricted to near coastal areas of peppermint woodland and peppermint/tuart associations from the Australind/Eaton area to east of Albany at Waychinicup National Park, and in the southern forest near Manjimup (DBCA, 2017). Suitable habitat for the western ringtail possum is located within the *Agonis flexuosa* woodland present within the application area (Harewood, 2019). A targeted Western Ringtail Possum survey conducted over the application area and surrounding areas identified three dreys and 28 trees containing possible hollows that may be used as refuge, as well as four individual possums (Harewood, 2018). The native vegetation within the application area is considered to be suitable habitat for Western Ringtail Possums, however no evidence of individuals or dreys were observed within the application area during the field survey (Harewood, 2019). As a number of individuals and dreys were observed in close proximity to the application area and noting Western Ringtail Possum drey locations may change over time (DBCA, 2020), there is potential for impacts to this species and its habitat as a result of the proposed clearing. However, long-term survival of the species requires linkages between suitable habitat patches (DPAW, 2017), whereas the application area contains an isolated patch of native vegetation surrounded by pine plantation (GIS Database). The proposed clearing is not expected to result in a loss of significant habitat for this species. Potential impacts to the Western Ringtail Possum may be minimised by the implementation of a fauna management condition, which requires a fauna spotter during clearing to ensure any displaced possums are able to move away from the disturbance to suitable habitat.

The Masked owl (*Tyto novaehollandiae*) (Priority 3), inhabits forests, woodlands, timbered waterways and open country on the fringe of these areas and usually roosts in vertical hollows in large trees. The main requirements are tall trees with suitable hollows for nesting and roosting and adjacent areas for foraging (Birdlife Australia, 2021). Surveys of the application area did not identify any hollow bearing trees (Harewood, 2018; Woodman, 2019).

Quenda (*Isoodon fusciventer*) (Priority 4) are widely distributed near the south coast from Guilderton north of Perth to east of Esperance. On the Swan Coastal Plain, Quenda are often associated with wetlands (DEC, 2012). The application area does not contain any wetlands and is therefore unlikely to be significant habitat for this species.

The Brush-tailed Phascogale (*Phascogale tapoatafa subsp. tapoatafa*) (CD) is likely to utilise the application area, as the species resides in dry sclerophyll forests and open woodlands that contain hollow-bearing trees (Bamford, 2016). Vegetation in better condition is adjacent to the application area and is likely to provide better quality habitat for this species.

The application area does not contain any breeding habitat for the Peregrine Falcon (*Falco peregrinus*) (OS), however the species may utilise the application area for occasional foraging (Bamford, 2016).

Several species of migratory birds may utilise the application area as part of their larger home range, however the application area is not likely to comprise core habitat for any migratory bird species (Bamford, 2016; GIS Database).

Based on the above, the proposed clearing is at variance to this Principle.

Methodology

Bamford (2016)
Birdlife Australia (2021)
DBCA (2012)
DBCA (2020)
DEC (2008)
DEC (2012)
DPaW (2013)
DPaW (2017)
DSEWPAC (2012)
Harewood (2018)
Harewood (2019)
MGM Bulk (2020)
Woodman (2019)

GIS Database:
- Imagery
- Pre-European Vegetation
- Threatened Fauna

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

Comments

Proposal is not likely to be at variance to this Principle

There are no known records of Threatened flora within the application area (GIS Database). Flora surveys of the application area did not record any species of Threatened flora (Woodman, 2019).

The vegetation associations within the application area are common and widespread within the region (Woodman, 2019; GIS Database), and the vegetation proposed to be cleared is unlikely to be necessary for the continued existence of any species of Threatened (rare) flora.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology

Woodman (2019)

GIS Database:
- Pre-European Vegetation
- Threatened and Priority Flora

(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.

Comments

Proposal is at variance to this Principle

A portion of the vegetation community VT2 is considered to be representative of the Tuart (*Eucalyptus gomphocephala*) woodlands of the Swan Coastal Plain Ecological Community, listed as Critically Endangered under EPBC Act, based on the approved conservation advice for the Tuart woodlands of the Swan Coastal Plain ecological community (DotEE, 2019; Woodman, 2019). The vegetation community VT2 consists of 2.5 hectares of the application area, with 1.7 hectares in a good to very good condition, and 0.8 hectares in a degraded condition (Keighery, 1994; Woodman, 2019).

On a local scale, the VT2 vegetation community may provide foraging habitat for black cockatoos, however no conservation significant flora or fauna were recorded within the area (Harewood, 2019; Woodman, 2019). The VT2 vegetation community is wholly surrounded by pine plantation, and there is no connectivity to the remaining native vegetation within the local area (GIS Database).

Given the isolation of the vegetation and the small area of degraded to very good condition vegetation, the proposed clearing is considered unlikely to have a significant impact on the Tuart TEC. It is noted that the Tuart TEC is also a state listed Priority Ecological Community (PEC). The description, area and condition thresholds that apply to the EPBC-listed TEC of the same name, also apply to this Priority ecological community.

Based on the above, the proposed clearing is at variance to this Principle.

Methodology

DotEE (2019)
Harewood (2019)
Woodman (2019)

GIS Database:
- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers

(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.

Comments

Proposal is not likely to be at variance to this Principle

The application area falls within the Swan Coastal Plain Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 38%, 41% and 51% of the pre-European vegetation still exists in the IBRA Swan Coastal Plain Bioregion, IBRA Perth Subregion and Shire of Harvey, respectively (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation associations 6: medium woodland; tuart and jarrah; and 998: medium woodland; tuart (GIS Database). Approximately 23% of the pre-European extent of vegetation association 6 remains uncleared at both the state, bioregional and subregional level (Government of Western Australia, 2019). Approximately 36% of the pre-European extent of vegetation association 998 remains uncleared at both the state, bioregional and subregional level (Government of Western Australia, 2019). Vegetation 6 is considered to be Vulnerable and vegetation association 998 is considered to be Depleted at both the state, bioregional and subregional level.

However, the area to be cleared comprises of a 2.5 hectare island of native vegetation within an existing pine plantation and does not connect with the adjacent larger remnant that borders the pine plantation. Therefore, it is unlikely that the isolated patch of native vegetation represents a significant remnant at either a local or regional scale.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DBCA managed lands (and post clearing %)
IBRA Bioregion – Swan Coastal Plain	1,501,221	579,813	~38	Depleted	~17 (38)
IBRA Subregion – Perth	1,117,757	466,142	~41	Depleted	~20 (39)
Local Government – Harvey	170,791	88,016	~51	Least Concern	~45 (75)
Beard vegetation associations – WA					
6	56,363	13,362	~23	Vulnerable	~21 (39)
998	51,015	18,492	~36	Depleted	~20 (48)
Beard vegetation associations – Swan Coastal Plain Bioregion					
6	56,363	13,362	~23	Vulnerable	~21 (39)
998	51,015	18,492	~36	Depleted	~20 (48)
Beard vegetation associations – Perth Subregion					
6	56,363	13,362	~23	Vulnerable	~21 (39)
998	51,015	18,492	~36	Depleted	~20 (48)

* Government of Western Australia (2019)
** Department of Natural Resources and Environment (2002)

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Department of Natural Resources and Environment (2002)
Government of Western Australia (2019)

GIS Database:
- IBRA Australia
- Pre-European Vegetation

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments **Proposal is not at variance to this Principle**

There are no watercourses or wetlands within the area proposed to clear (Woodman, 2019; MGM Bulk, 2020; GIS Database).

Based on the above, the proposed clearing is not at variance to this Principle**.**

Methodology MGM Bulk (2020)
Woodman (2019)

GIS Database:
- Hydrography, Lakes
- Hydrography, linear

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

Comments **Proposal is not likely to be at variance to this Principle**

The application area lies within the Spearwood soil-landscape system S2b Phase (Map Unit 211Sp_S2b) described as undulating and sandy slopes of the Spearwood dunes (DPIRD, 2020). The Spearwood S2b Phase Map Unit is described as mainly slopes of dune ridges with limestone outcropping and soils that are mainly very shallow to deep siliceous yellow-brown sands with rock outcrop and minor areas of pale deep

sand, supporting open eucalypt forest of tuart, jarrah and marri with a small tree layer of peppermint, mixed banksia species and sheoak (DPIRD, 2020). This land system has an increased risk of wind erosion on the loose sandy soils, however the risk to the application area is low due to the gentle slopes and the surrounding vegetation acting as a wind break (DPIRD, 2020).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology DPIRD (2020)

(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.

Comments

Proposal may be at variance to this Principle

The application area is located within the Myalup State Forest, which is managed by the Department of Biodiversity, Conservation and Attractions, and covers a total area of several thousand hectares (GIS Database). The proposed clearing has been minimised to mitigate potential environmental impacts and the application area is comprised largely of pine plantation and will be rehabilitated to native vegetation (GIS Database). However, the proposed clearing has the potential to impact the environmental values of the local area through the edge effects and increased weed and dieback infestation. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed and dieback management condition.

The application area comprises largely of pine plantation and will be rehabilitated to native vegetation, the proposed clearing is unlikely to impact on the environmental values of the State forest at a local level, or in a regional context, or any nearby conservation area.

Based on the above, the proposed may be at variance to this Principle.

Methodology GIS Database:
- DPaW Tenure

(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.

Comments

Proposal is not likely to be at variance to this Principle

There are no Public Drinking Water Source Areas within or in close proximity to the application area (GIS Database). There are no watercourses or wetlands within the area proposed to clear (GIS Database). The proposed clearing is unlikely to result in significant changes to surface water flows or to cause deterioration in the quality of underground water.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Database:
- Hydrography, Linear
- Public Drinking Water Source Areas

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

Comments

Proposal is not likely to be at variance to this Principle

The climate of the region is Mediterranean, with rainfall ranging between 600 and 1000 millimetres per year (CALM, 2002). The application area occurs in the very high rainfall zone (>750 mm average annual rainfall), receiving about 800 mm annual rainfall, however the risk of flooding and waterlogging is considered to be low due to the combination of landscape position and soil types present (DPIRD, 2020). The nearest weather station is Wokalup, approximately 20 kilometres south-east of the application area, with an average rainfall of approximately 957.4 millimetres per year (BoM, 2021). There are no water courses or waterbodies within the application area (GIS Database). The proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology BoM (2021)
CALM (2002)
DPIRD (2020)

GIS Database:
- Hydrography, linear

Planning Instrument, Native Title, previous EPA decision or other matter.

Comments

The clearing permit application was advertised on 24 August 2020 by the Department of Mines, Industry Regulation and Safety (DMIRS), inviting submissions from the public. No submissions were received in relation to this application.

The permit area is within the South West Native Title Settlement area (DPLH, 2021). This settlement resolves Native Title rights and interests over an area of approximately 200,000 square kilometres within the south west of Western Australia. The mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 2021). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

Under section 19 of the *Mining Act 1978*, the Minister for Mines (the Minister) may exempt land from the operation of any part or all of the Mining Act. While an area is so exempted, the Minister may call for applications (Request for Expressions of Interest) for the grant of a mining tenement over that land and the person applying to the Minister for the grant of a mining tenement must do so in such manner as the Minister directs. On receiving an application, the Minister may grant the mining tenement applied for subject to such terms and conditions as he thinks fit or he may refuse the application. However, section 19(8) requires the Minister to comply with section 24 of the Mining Act which relates to mining on State Forest. In this case, the Minister for Mines has obtained concurrence of the Minister for Environment. In 2018, MGM Bulk Pty Ltd received a Minister's (Minister for Mines) letter of invitation for Mining Lease 70/1383 as the successful respondent in the Expression of Interest process to extract basic raw materials at the Bagieau Road Site (within Myalup State Forest). The Request for Expressions of Interest documents issued by DMIRS states that the area will return to a self-sustaining native vegetation coverage, with the Ministers letter of invitation to MGM Bulk reinforcing that "The ultimate requirement of rehabilitation within the lease will be to return the void to a safe, sustainable growth of native vegetation, as was clearly identified in the Request for Expressions of Interest documentation", with closure criteria negotiated between the lessee (MGM Bulk Pty Ltd) and DBCA.

The project was referred to the federal Department of Agriculture, Water and the Environment on 4 November 2019. On 23 December 2019 a referral decision was made that the proposed action is a controlled action (EPBC 2019/8533) and requires assessment and approval under the EPBC Act before it can proceed, based on the presence of listed threatened species and communities. On 22 April 2020 it was decided that the project would be assessed by preliminary documentation.

Methodology DPLH (2021)

5. References

Bamford (2016) Myalup – Fauna Assessment. Report prepared by M. J. & A. R. Bamford Consulting Ecologists for Woodgis Environmental, February 2016.

Birdlife Australia (2021) Masked Owl. *Tyto novaehollandiae*. *Tytonidae*. http://www.birdlife.org.au/birdprofile/masked-owl (Accessed 16 November 2021).

BoM (2021) Bureau of Meteorology Website – Climate Data Online, Wokalup. Bureau of Meteorology. http://www.bom.gov.au/climate/data/ (Accessed 9 November 2021).

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.

DBCA (2020) Advice received in relation to Clearing Permit Application CPS 9008/1. Environmental Management Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, September 2020.

DEC (2008) Forest Black Cockatoo (Baudin's Cockatoo *Calyptorhynchus baudinii* and Forest Red-Tailed Black Cockatoo *Calyptorhynchus banksii naso*) Recovery Plan. Department of Environment and Conservation, Perth, Western Australia.

DEC (2012) Fauna profile – Quenda *Isoodon obesulus*. Department of Environment and Conservation, Perth, Western Australia.

Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.

DotEE (2019) *Approved Conservation Advice (incorporating listing advice) for the Tuart* (Eucalyptus gomphocephala) *woodlands and forests of the Swan Coastal Plain ecological community*. Canberra: Department of the Environment and Energy. http://www.environment.gov.au/biodiversity/threatened/communities/pubs/153-conservation-advice.pdf.

DPaW (2013) Carnaby's cockatoo *(Calyptorhynchus latirostris)* Recovery Plan. Western Australian Wildlife Management Program No. 52. Department of Parks and Wildlife, Perth, Western Australia, October 2013.

DPaW (2017) Western Ringtail Possum (*Pseudocheirus occidentalis*) Recovery Plan. Wildlife Management Program No. 58. Department of Parks and Wildlife, February 2017.
DPIRD (2020) Advice received in relation to Clearing Permit Application CPS 9008/1. Deputy Commissioner of Soil and Land Conservation, Department of Primary Industries and Regional Development, Western Australia, September 2020.
DPLH (2021) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS (Accessed 11 November 2021).
DSEWPAC (2012) EPBC Act Referral guidelines for three threatened black cockatoo species: *Carnaby's Cockatoo* (endangered) *Calyptorhynchus latirostris;* Baudin's cockatoo (vulnerable) *Calyptorhynchus baudinii;* and Forest red-tailed black cockatoo (vulnerable) *Calyptorhynchus banskii naso*. Department of Sustainability, Environment, Water, Population and Communities, Australian Government, Canberra.
Government of Western Australia (2019) 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions, Perth. https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics
Harewood (2018) Black Cockatoo Habitat Tree Assessment – Bagieau Road Limestone Extraction Area. Report prepared by Greg Harewood for MBS Environmental, April 2018.
Harewood (2019) Western Ringtail Possum Survey – Bagieau Road Limestone Extraction Area. Report prepared by Greg Harewood for MBS Environmental, June 2019.
Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
MGM Bulk (2020). Native vegetation clearing permit application Bagieau Road Quarry – Attachment 2: Additional information. Report prepared by MGM Bulk Pty Ltd, July 2020.
Woodman (2019) Bagieau Road Limestone Site – Flora and vegetation survey. Report prepared by Woodman Environmental Consulting Pty Ltd for MGM Bulk Pty Ltd, February 2019.

6. Glossary

Acronyms:

BC Act	*Biodiversity Conservation Act 2016,* Western Australia
BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DAWE	Department of Agriculture, Water and the Environment, Australian Government
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia
DMP	Department of Mines and Petroleum, Western Australia (now DMIRS)
DoE	Department of the Environment, Australian Government (now DAWE)
DoEE	Department of the Environment and Energy (now DAWE)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DAWE)
DWER	Department of Water and Environmental Regulation, Western Australia
EP Act	*Environmental Protection Act 1986*, Western Australia
EPA	Environmental Protection Authority, Western Australia
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	*Rights in Water and Irrigation Act 1914*, Western Australia
TEC	Threatened Ecological Community

Definitions:

{DBCA (2019) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia}:-

T **Threatened species:**

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened

species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act).

Threatened fauna is that subset of 'Specially Protected Fauna' listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

Threatened flora is that subset of 'Rare Flora' listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

CR **Critically endangered species**
Threatened species considered to be "*facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

EN **Endangered species**
Threatened species considered to be "*facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

VU **Vulnerable species**
Threatened species considered to be "*facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

Extinct Species:

EX **Extinct species**
Species where "*there is no reasonable doubt that the last member of the species has died*", and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

EW **Extinct in the wild species**
Species that *"is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form*", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

Specially protected species:

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

MI **Migratory species**
Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Includes birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

CD **Species of special conservation interest (conservation dependent fauna)**
Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

OS **Other specially protected species**
Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

P **Priority species:**

Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

P1 **Priority One - Poorly-known species**
Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

P2 **Priority Two - Poorly-known species**
Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

P3 **Priority Three - Poorly-known species**
Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

P4 **Priority Four - Rare, Near Threatened and other species in need of monitoring**
(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.
(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as Conservation Dependent.

(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.