



Environmental  
Protection  
Authority

# Limestone Quarry, Lot 4 Binningup Road, Binningup

GM Giacci Family Trust t/a MGM Bulk Pty Ltd

Report 1758

March 2024

This assessment report has been prepared by the Environmental Protection Authority (EPA) under s. 44 of the *Environmental Protection Act 1986* (WA). It describes the outcomes of the EPA's assessment of the Limestone Quarry, Lot 4 Binningup Road, Binningup proposal by the GM Giacci Family Trust trading as MGM Bulk Pty Ltd.

This assessment report is for the Western Australian Minister for Environment and sets out:

- what the EPA considers to be the key environmental factors identified in the course of the assessment
- the EPA's recommendations as to whether or not the proposal may be implemented and, if it recommends that implementation be allowed, the conditions and procedures, if any, to which implementation should be subject
- other information, advice and recommendations as the EPA thinks fit.



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Chair  
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# Summary

## Proposal

The Limestone Quarry, Lot 4 Binningup Road, Binningup is a proposal to extract up to 120,000 cubic metres of limestone from a 26-hectare area of previously cleared land. The proposal is located approximately 640 metres south east of the township of Binningup, in the southwest region of Western Australia (Figure 1).

The proponent for the proposal is the GM Giacci Family Trust trading as MGM Bulk Pty Ltd.

The proposal involves staged limestone extraction, crushing and screening on-site and at the conclusion of operations, the extraction area will be rehabilitated and returned to pasture.

The proposal is for the extraction of the limestone resource over an operational period of five years.

## Context

The Environmental Protection Authority (EPA) notes that the proponent progressed planning approval processes in parallel with EP Act approvals processes and recognises that there has been community opposition to the proposal.

The EPA has considered the proposed residential development of Lot 9005 Lakes Parade, Binningup (Lot 9005) to the west of the proposal area. Whilst development in this area is unlikely to occur during the life of the proposed operations, the EPA has taken a cautionary approach and recommended conditions to manage potential impacts on future developments in this area.

## Assessment of key environmental factors

Social surroundings and air quality are the key environmental factors that may be impacted by the proposal.

The EPA has considered potential impacts to other environmental factors such as flora and vegetation, terrestrial fauna, inland waters, greenhouse gas emissions and human health in Appendix D.

Environmental factor: Social surroundings	
Residual impact on key value	Assessment finding / environmental outcome
Potential noise impact on amenity from fixed and mobile plant equipment (including crusher, screen, and stacker).	<p>The proposal has the potential to impact sensitive receptors from noise emissions. The modelling of quarry operations with the proponent's proposed mitigation measures indicates compliance with the <i>Environmental Protection (Noise) Regulations 1997</i> (Noise Regulations) at all noise sensitive premises in the Binningup townsite and other noise sensitive premises where there is the greatest concern.</p> <p>The only sensitive receptor where higher noise levels are likely under worst case meteorological conditions is located 125 metres south of the proposal. The EPA notes that the quarry would not be operational when worst case disturbance may occur such as late at night and early mornings.</p> <p>The EPA considers that the quarry operations are at a relatively small scale and provide scheduling and scale down options that allow the conditioning of measures to mitigate potential impacts. The EPA notes that the occupier of the premises has written a letter supporting the proposal and has not raised concerns about noise emissions.</p> <p>The environmental outcome for noise is likely to be consistent with the EPA objective for social surroundings, subject to:</p> <ul style="list-style-type: none"> <li>• Condition A1 – limit the hours of operation and life of mining operations</li> <li>• Condition B-1 – noise management, which includes the construction of bunding around the crushing and screening plant and a management plan requiring real time noise level monitoring and additional mitigation measures, including stopping specific activities or reducing operations if required, to comply with the Noise Regulations and staging of operations to minimise the impact of emissions on a prospective residential development west of the proposal site.</li> </ul>
Potential impacts to visual amenity in an agricultural setting.	<p>The visual landscape has the potential to be impacted by the proposal, however, the rural landscape comprises low-lying pasture grasses with no substantial landscape features.</p> <p>The proposal will be visible from a limited number of publicly accessible viewpoints, with visibility obscured by existing vegetation from the golf course and the nearest Binningup residences. The most sensitive viewing location associated with the proposal is restricted to a small stretch along Binningup Road, which is a regional/local distributor road.</p> <p>The environmental outcome for the visual component of social surroundings is likely to be consistent with the EPA objective for this factor, subject to:</p>

	<ul style="list-style-type: none"> <li>• Condition A1 – limit active excavation of land to no more than four hectares.</li> </ul> <p>The EPA considers that the requirement for a Rehabilitation Management and Monitoring Plan under the <i>Planning and Development Act 2005</i> will contribute to meeting the EPA objective for this factor.</p>
<p>Environmental factor: Air quality</p>	
<p>Residual impact on key value</p>	<p>Assessment finding / environmental outcome</p>
<p>Potential impacts to air quality from dust emissions (total suspended particulates (TSP), PM<sub>10</sub> and PM<sub>2.5</sub>)).</p>	<p>The proposal will create fugitive dust from extraction, crushing, screening and other operations on the site. The proponent's dispersion modelling of estimated dust emissions from the proposal predicts no exceedances of air quality criteria at sensitive receptors in the township of Binningup. The Department of Health (DoH) noted in relation to health impacts of the proposal on the town that the predicted increases of dust levels above existing background levels are small.</p>



	<p>For the one closest residence to the proposal, air dispersion modelling suggests the potential of high dust levels over a 24-hour average under worst case meteorological conditions. The DoH advised that the exposure of sensitive receptors at the closest residence should be minimised.</p> <p>The Draft Guideline for Air Emissions (DWER, 2019) includes ambient air quality guideline values, which are based on the approved health guidelines from DoH. For particulate matter (PM<sub>10</sub>) this guideline has a maximum (ambient) concentration of 46 micrograms per cubic metre. The EPA has recommended this level, which is lower than the National Environment Protection (Ambient Air Quality) Measure (NEPM), as an appropriate threshold that should not be exceeded at any residential premises from implementation of the proposal.</p> <p>The EPA also considers that the quarry operations and the individual dust generating activities provide scheduling and scale down options that enable the conditioning of measures to mitigate potential impacts. The EPA recommends that the following conditions be applied:</p> <ul style="list-style-type: none"> <li>• Condition A1 – limit amount of land open for excavation, hours of operation and project life</li> <li>• Condition B-2 – Air Quality, which includes requirements for the proponent to implement real time dust monitoring and a management plan with management criteria, operational control procedures and contingency measures, and the staging of operations to minimise the impact of emissions on the prospective residential development west of the proposal site.</li> </ul> <p>The EPA considers that subject to the above conditions, the environmental outcome is likely consistent with its objective for air quality.</p>
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## Holistic assessment

The EPA considered the connections and interactions between relevant environmental factors and values to inform a holistic view of impacts to the whole environment. The EPA formed the view that the holistic impacts would not alter the EPA's conclusions about consistency with the EPA factor objectives.

## Conclusion and recommendations

The EPA has taken the following into account in its assessment of the proposal:

- environmental values which may be significantly affected by the proposal
- residual impacts, emissions and effects in relation to the key environmental factors, separately and holistically (this has included considering cumulative impacts of social surroundings and air quality)
- likely environmental outcomes (and taking into account the EPA's recommended conditions), and the consistency of these outcomes with the EPA objectives for the key environmental factors

- the EPA's confidence in the proponent's proposed mitigation measures
- whether other statutory decision-making processes can mitigate the potential impacts of the proposal on the environment
- principles of the *Environmental Protection Act 1986*.

The EPA has recommended that the proposal may be implemented subject to conditions recommended in Appendix A.

# 1 Proposal

The Limestone Quarry, Lot 4 Binningup Road, Binningup is a proposal to extract up to 120,000 cubic metres of limestone from a 26-hectare area of previously cleared land. The proposal is located approximately 640 metres from the township of Binningup, in the southwest region of Western Australia (see Figure 1). The proponent for the proposal is the GM Giacci Family Trust trading as MGM Bulk Pty Ltd.

The proposal involves staged limestone extraction, crushing and screening on-site, haulage of limestone off-site by truck and rehabilitating the site to a pastoral land use. The available limestone resource at the site is estimated as 120,000 cubic metres.

The proposal was referred to the Environmental Protection Authority (EPA) by the Conservation Council of Western Australia on 19 August 2020. The referral information was published on the EPA website for seven days public comment. On 24 June 2021, the EPA decided to assess the proposal at the level Referral Information with additional information required. The EPA also published the additional information on its website for public review for two weeks (from 31 October 2022 to 13 November 2022).

The proposal is set out in the proponent's referral documentation, which is available on the EPA website.

The elements of the proposal which have been subject to the EPA's assessment are included in Table 1.

**Table 1: Proposal content document**

Proposal element	Location	Maximum extent or range
<i>Physical elements</i>		
Development envelope	Figure 1	26 hectares
<i>Operational elements</i>		
Production capacity	Up to 80,000 tonnes per year	
Limestone extraction and crushing on-site	Up to 120,000 cubic metres of limestone	
Truck movements	Up to 8 per day	
<i>Timing elements</i>		
Operational hours	07:00 to 18:00, Monday to Friday (excluding public holidays) and 07:00 to 12:00 on Saturdays.	
Project life	Up to 5 years	

## Proposal alternatives

The proponent did not consider alternative locations for the proposal, as the limestone resource cannot be moved. The proponent has designed the operation in stages and to occur in a manner which reduces its visual amenity impacts and impacts from noise and dust.

## Proposal context

The proposal is located on previously cleared farmland in the Shire of Harvey. It is zoned “Rural” under the Greater Bunbury Region Scheme and “General Farming” pursuant to the Shire of Harvey Local Planning Scheme No. 1. A Notice of determination on an application for development approval of the proposal, which was valid for two years, was issued by the Shire of Harvey under the *Planning and Development Act 2005* on 21 December 2020.

In determining the level of assessment, the EPA considered that social surroundings would be the key environmental factor that may be impacted by the proposal as the implementation of the proposal has the potential to generate dust, noise and visual amenity issues on nearby residents including the township of Binningup.

The EPA notes that the local community has expressed opposition to the proposal and that there are public concerns with the location of the limestone quarry in proximity to residential and other sensitive land uses. Through the assessment and public consultation process it was determined that air quality should also be considered as a key environmental factor.

The EPA has considered the prospective residential development of Lot 9005 Lakes Parade, Binningup (Lot 9005) to the west of the proposal in relation to the potential development overlapping with the timeframe of the proposal. The EPA is, however, limited in consideration of impacts on the environment and will only make recommendations that protect the environment in a manner consistent with the definitions of ‘environment’ and ‘social surroundings’ under the EP Act. Specifically, the EPA is not able to consider impacts to society, land use planning, community sentiment and economic benefit through this assessment except where they relate to the protection of the environment as defined in the EP Act.

The EPA has recommended conditions which should ensure the proposal is complete by the time of potential development west of the proposal area and has proposed conditions to minimise impacts to any sensitive receptor to within the appropriate standards. The EPA recommends that any potential land use conflict be discussed by relevant Ministers during the consultation process under s45, so that the decision includes strategic environmental planning considerations, and other matters outside of the scope of the EPA’s assessment of an individual proposal.

## Consultation

The EPA published the proponent’s referral information for the proposal on its website for seven days public comment (from 9 April 2021 to 15 April 2021).

The EPA also published the proponent’s additional information on its website for a two-week public review (from 31 October 2022 to 13 November 2022). The EPA considered the comments received during these public consultation periods in its assessment.



**Figure 1: Development envelope**

## 2 Assessment of key environmental factors

This section reports the outcome of the EPA's assessment of the key environmental factors against its environmental objectives, and its recommendations on conditions the proposal should be subject to if it is implemented.

The EPA has also considered the principles of the *Environmental Protection Act 1986* (see Appendix C) in assessing whether the residual impacts will be consistent with its environmental factor objective.

The EPA evaluated the impacts of the proposal on other environmental factors, including inland waters, flora and vegetation, terrestrial fauna and landforms and concluded impacts to these environmental factors were unlikely to be significant. This evaluation is included in Appendix D.

### 2.1 Social Surroundings

The EPA environmental objective for social surroundings is *to protect social surroundings from significant harm* (EPA 2023).

The proponent submitted the following studies and reports for the assessment:

- Noise Assessment (Lloyd George Acoustics, 2022)
- Visual Impact Assessment (Accendo, 2022).

These documents have been used by the EPA as the basis for its assessment.

<b>Key environmental values and context</b>	
<p>The proposal is located approximately 125 metres north of the closest individual residence and approximately 640 metres southeast of the closest residence within the township of Binningup. To the west of the extraction area there is a proposed residential development at Lot 9005 Lakes Parade, Binningup. Information provided by the proponent indicated that the proposed development is unlikely to occur within the proposed operational project life of the quarry. The mitigation measures proposed for social surroundings would nonetheless still be applicable to this development.</p> <p>The landscape is relatively flat with an elevation ranging between 2 and 3 metres AHD and has predominantly been cleared of vegetation and used for broad paddock grazing or horticulture.</p>	
<b>Impacts from the proposal</b>	<b>Assessment finding, environmental outcome and recommended conditions</b>
<b>Noise</b>	
<p><b>Potential impacts</b> Potential noise impacts on the amenity of residents from:</p> <ul style="list-style-type: none"> <li>• fixed plant equipment (including crusher, screen, stacker)</li> <li>• mobile plant equipment (including front end loader, excavator and transport trucks, and reversing alarms).</li> </ul> <p><b>Avoidance and minimisation measures (including regulation by other DMAs)</b> The proponent has proposed the implementation of mitigation measures to control noise impacts:</p> <ul style="list-style-type: none"> <li>• operational hours from 7:00 am to 6:00 pm, Monday to Friday (excluding public holidays) and 7:00 am to 12:00 pm Saturdays</li> <li>• the property immediately south of the proposal: <ul style="list-style-type: none"> <li>○ 7-metre-high noise bund on the southern border of the operations.</li> </ul> </li> </ul>	<p><b>Assessment finding and environmental outcomes:</b> The EPA only considers amenity, aesthetic, or other social impacts from a proposal, if these are directly linked to changes to the physical or biological environment.</p> <p>The proponent's noise assessment modelling of quarry operations with proposed mitigation measures indicates compliance with the <i>Environmental Protection (Noise) Regulations 1997</i> at all noise sensitive premises in the Binningup townsite, including under worst case meteorological conditions. The EPA notes that the quarry would not be operational when worst case conditions may occur such as late nights and early mornings when noise emissions are most impactful.</p>

- the greater Binningup area:
  - a 4-metre-high earth bund around the crushing and screening plant
  - a buffer of 1 kilometre between the crushing and screening plant and the closest residences in Binningup
  - operational controls such as speed restrictions and the use of flashing lights or broadband alarms instead of reversing alarms.

### Consultation

The key matters raised during the consultation period include the impact of noise from crushing, screening, and transport of material to residents and visitors to the town of Binningup.

The only property where predicted noise levels may be higher than the noise regulations assigned levels, is located 125 metres south of the proposal. The Noise Assessment regarded the property as a “caretaker’s residence”. Given that the property is on land adjacent to the quarry, rather than the same site, the EPA considers this property, consistent with the Shire’s Local Planning Scheme definition, to be a noise sensitive premises rather than a caretaker’s residence. The EPA notes that higher noise levels are possible during the closest quarry stages and worst case meteorological conditions at this property. During the assessment process the occupiers at this premises has written a letter supporting the proposal.

The EPA considers that the quarry operations provide scheduling and scale down options that enable the conditioning of measures to mitigate potential impacts to the one sensitive receptor immediately south of the proposal. It is recommended that a condition be included requiring the proponent to demonstrate compliance with the Noise Regulations through the implementation of an approved Noise Management Plan, including noise monitoring at the sensitive receptor, trigger criteria and contingency actions. The proponent may also enter into an agreement with the occupiers of that premises to improve the properties attenuation of acoustics, but the proponent will still be required to meet the criteria in the Noise Regulations in the property.

Should residences become occupied within one kilometre of the proposal area, including the prospective residential development to the west of the proposal, the proponent will be required to resubmit the Noise Management Plan to ensure



	<p>that noise monitoring and management at the new sensitive premises occur and meets the Noise Regulations.</p> <p>The EPA further considers it appropriate to condition limits to operational hours and temporal scope which would also protect potential future residential developments closer to the operation. Conditions are also recommended to require substantial commencement of the proposal within one year of authorisation and implementation of quarrying on the western side of the proposal area first to minimise potential noise impacts to any new residential properties.</p> <p>The EPA advises that, subject to compliance with recommended conditions, there is unlikely to be any residual impact from noise emissions and the environmental outcome is likely to be consistent with the EPA objective for social surroundings.</p> <p><b>Recommended conditions to ensure consistency of environmental outcome with EPA objective:</b></p> <ul style="list-style-type: none"> <li>• Condition A1 – limit the hours of operation and life of mining operations</li> <li>• Condition B-1 – meet environmental outcomes for noise including the implementation of a Noise Management Plan which requires real time noise measurement and implementation of additional mitigation measures to demonstrate compliance with the Noise Regulations</li> <li>• Condition C4-2 – stage extraction and real time monitoring at occupied residences within 1 kilometre from the proposal</li> <li>• Condition D4-1 – time limit for commencement of the proposal.</li> </ul>
<p><b>Visual Amenity</b></p>	

<p><b>Potential impacts</b></p> <p>Potential impacts to visual amenity in an agricultural setting through proposal elements including:</p> <ul style="list-style-type: none"> <li>• 8-metre-high stockpile</li> <li>• 7-metre-high noise bund on the southern border of the operations</li> <li>• decrease of the natural landform by an average of 2 metres.</li> </ul> <p><b>Avoidance and minimisation measures (including regulation by other DMAs)</b></p> <p>The proponent submitted the following:</p> <ul style="list-style-type: none"> <li>• limit the amount of land exposed to limestone extraction at any time</li> <li>• limiting the duration by which the mine will be operational (five years)</li> <li>• preserve the existing shape of the landform and blend the site into the surrounding landscape during rehabilitation</li> <li>• restore the disturbed land to its current land use (pasture).</li> </ul> <p><u><i>Planning and Development Act 2005</i></u></p> <p>The Shire of Harvey issued a Notice of determination on an application for development approval of the limestone quarry under the <i>Planning and Development Act 2005</i> (Shire of Harvey, 2020). The Notice includes a requirement for the proponent to implement a Rehabilitation Management and Monitoring Plan to ensure no net loss of agricultural land.</p> <p><b>Consultation</b></p>	<p><b>Assessment finding and environmental outcomes:</b></p> <p>The Visual Impact Assessment identified that the proposal will be visible from a limited number of publicly accessible viewpoints more than 700 metres from the proposal site (Accendo Australia, 2022).</p> <p>Visibility of the quarry operations from the golf course and nearest Binningup residences will be obscured from viewpoints by existing vegetation. The most sensitive viewing locations associated with the proposal are restricted to a 170-metre stretch along Binningup Road, which is a regional/local distributor road approximately 600 metres north of the proposal boundary, which connects the Binningup townsite to Forrest Highway.</p> <p>The EPA considers that the proponent has applied the mitigation hierarchy to appropriately minimise impacts to visual amenity. It is recommended that the proponent's proposed minimisation measure to limit the amount of land excavation at any one time be conditioned to ensure that the visual amenity aspect of the proposal meets the objectives for social surroundings.</p> <p>The EPA regards that regulation under other decision-making processes, specifically the <i>Planning and Development Act 2005</i> will contribute to the management of visual impacts to be consistent with the EPA objective for social surroundings.</p> <p><b>Recommended conditions to ensure consistency of environmental outcome with EPA objective:</b></p> <ul style="list-style-type: none"> <li>• Condition A1 – limit active excavation of land to four hectares.</li> </ul>
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<p>The matters raised during the consultation period were a general concern about the visual impact of the proposal in a rural setting.</p>	<p>DMA processes:</p> <ul style="list-style-type: none"> <li>• Requirement to implement a Rehabilitation Management and Monitoring Plan through the development approval of the limestone quarry under the <i>Planning and Development Act 2005</i>.</li> </ul>
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## 2.2 Air quality

The EPA environmental objective for air quality is *to maintain air quality and minimise emissions so that environmental values are protected* (EPA 2020).

The following investigations and reports from the proponent were used to inform the assessment of potential impacts:

- Lot 4 Binningup Road, Binningup Ambient Air Quality Assessment (Environmental Technologies and Analytics, 2020)
- Dust Monitoring and Management Plan (Environmental Technologies and Analytics, 2020).

The Department of Water and Environmental Regulation (DWER) advised that the above reports include the required content for assessment.

In addition to the above, the EPA requested the proponent submit a Human Health Risk Assessment (Benchmark Toxicology Services, 2022) to determine the potential impacts to air quality from dust emissions associated with the implementation of the proposal. The risk assessment and recommended conditions were reviewed by the Department of Health (DoH). The review notes that the Human Health Risk Assessment has addressed the potential health risk.

### Key environmental values and context

The EPA defines air quality as *the chemical, physical, biological and aesthetic characteristics of air* (EPA 2020). The focus of this environmental factor and its objective for this assessment is the impacts of emissions on air quality and other environmental values within close proximity of the proposal.

The proposal is located approximately 125 metres north of the closest, individual residence and approximately 640 metres southeast of the closest residence within the township of Binningup. To the west of the extraction area there is a proposed residential development at Lot 9005 Lakes Parade, Binningup. Information provided by the proponent indicates that the proposed development at Lot 9005 Lakes Parade Binningup would not occur within the proposed operational lifetime of the quarry. The mitigation measures proposed for air quality would nonetheless still be applicable to this development.

### Impacts from the proposal

#### Potential impacts

Potential impacts to air quality from dust emissions (TSP, PM<sub>10</sub> and PM<sub>2.5</sub>).

#### Avoidance and minimisation measures (including regulation by other DMAs)

To control dust impacts the proponent has proposed the following:

- buffer of 1 kilometre between the crushing and screening plant and the closest residences in Binningup
- restricting operational hours to 07:00 – 18:00 Monday to Friday (excluding public holidays) and 07:00 – 12:00 Saturdays
- water trucks to apply water on roads and cleared areas
- install plant/equipment sheltered from prevailing winds
- establish a 4-metre-high bund across the crushing and screening plant

### Assessment finding, environmental outcome and recommended conditions

#### Assessment finding and environmental outcomes:

The proposal will create fugitive dust from different activities on the site. The proponent's dispersion modelling of estimated dust emissions from the proposal predicts no exceedances of air quality criteria at sensitive receptors in the township of Binningup. For sensitive receptors at the closest residence to the proposal, modelling suggests that the proposal could contribute to higher dust levels under conservative worst case dispersion conditions when quarrying occurs in locations closest to this receptor.

In relation to the composition and potential health effects of dust emissions from the proposal, the Human Health Risk Assessment (HHRA) states that limestone in its pure form (calcium carbonate) could be a health risk at very high concentrations and exposure over a long time, such as occupational settings. The limestone emissions from the proposal are expected to be a small proportion (1-5%) of

- avoid the stripping of topsoil when soil is dry or during windy (more than 8 metres per second) conditions
- temporary bunds, stockpiles and exposed areas will be watered and stabilised as required
- minimise drop distances when loading limestone onto trucks
- cover truck loads with tarpaulin or similar.

### Consultation

The key matters raised during the consultation period include impact of dust deposition from crushing, screening and transport of limestone on properties in close proximity to the proposal, as well as the health impact from the public inhaling limestone dust.

emissions based on the estimates of particulate emissions from the crusher screen and loader.

The DoH advised that health impacts of the proposal on the town of Binnigup at the current population level are likely to be low and noted that the predicted increases of dust levels above existing background levels are small. For the sensitive receptor at the closest residence, DoH advised that the proponent should make all efforts to minimise exposure to dust at this location.

The EPA notes that emission estimates for fugitive emissions are typically conservative and that high levels of dust at the closest residence are predicted for short periods of time. The EPA considers it appropriate that emission estimates and predicted modelled concentrations of dust are verified and managed through recommended conditions during the implementation of the proposal, including a condition requiring the proponent monitor and verify that dust emissions contain a limestone concentration of no more than 5%.

The Draft Guideline for Air Emissions (DWER, 2019) includes ambient air quality guideline values, which are based on the approved health guidelines from the Department of Health. For particulate matter smaller than 10 microns (PM<sub>10</sub>) this guideline specifies a maximum (ambient) concentration of 46 micrograms per cubic metre. The EPA has recommended this level, which is lower than the National Environment Protection (Ambient Air Quality) Measure (NEPM), as an appropriate threshold that should not be exceeded at any residential premises from implementing the proposal.

	<p>To minimise impacts on the prospective residential development to the west of the proposal area, the EPA recommends that the proposal is substantially commenced within one year of authorisation, as well as staging of the proposal to ensure that the most westerly areas are implemented first.</p> <p>The EPA also considers that the quarry operations and the separate dust generating activities provide scheduling and scale down options that enable the conditioning of measures to mitigate potential impacts to the one sensitive receptor immediately south of the proposal.</p> <p>The EPA advises that the residual impact of dust is manageable subject to the implementation of a Dust Management Plan and recommended conditions. The recommended conditions specify outcomes for ambient dust levels at residential properties and limestone concentration of dust. Completion of quarry stages on the western side of the proposal is required, as well as a revision of the Dust Management Plan to include appropriate monitoring if the quarry operation overlaps with the prospective residential development. Subject to the recommended conditions, the environmental outcome is likely consistent with the EPA objective for air quality.</p> <p><b>Recommended conditions to ensure consistency of environmental outcome with EPA objective:</b></p> <ul style="list-style-type: none"><li>• Condition A1 – limit amount of land open for excavation, hours of operation and project life</li><li>• Condition B-2 – meet environmental outcomes for air quality including requirements for the proponent to</li></ul>
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	<p>implement real time dust monitoring at the closest sensitive receptor to the proposal and a management plan with management criteria, operational control procedures and contingency measures including scaling down the operations or stopping work.</p> <ul style="list-style-type: none"><li>• Condition C4-2 – stage extraction and real time monitoring at occupied residences within 1 kilometre from the proposal.</li><li>• Condition D4-1 – time limit for commencement of the proposal.</li></ul>
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### 3 Holistic assessment

While the EPA assessed the impacts of the proposal against the key environmental factors and environmental values individually in the key factor assessments above, given the link between air quality and social surroundings, the EPA also considered connections and interactions between them to inform a holistic view of impacts to the whole environment.

The EPA's evaluation of other environmental factors (that is, those which were not considered key factors for assessment) is included in Appendix D.

#### Summary of holistic assessment

The potential changes to the biological and physical environment including noise and dust emissions from the proposal, have the potential to interact with social surroundings and may indirectly impact in the short term on future surrounding land use options and the amenity for current residents.

The EPA has considered the proposal in the context of cumulative and holistic impacts within the rural setting. While only the closest sensitive receptor to the south of the proposal is likely to experience impacts related to social surroundings and air quality, the setting of specific proposal limitations and the implementation of management plans are recommended to ensure consistency with the relevant EPA environmental factor objectives.

When the separate environmental factors and values affected by the proposal were considered together in a holistic assessment, the EPA formed the view that the impacts from the proposal would not alter the EPA's views about consistency with the EPA's factor objectives as assessed in section 2.



## 4 Recommendations

The EPA has taken the following into account in its assessment of the proposal:

- environmental values likely to be significantly affected by the proposal
- assessment of key environmental factors, separately and holistically (this has included considering cumulative impacts of the proposal where relevant)
- EPA's confidence in the proponent's proposed mitigation measures
- likely environmental outcomes which can be achieved with the imposition of conditions
- consistency of environmental outcomes with the EPA objectives for the key environmental factors
- whether other statutory decision-making processes can mitigate the potential impacts of the proposal on the environment and
- principles of the EP Act.

The EPA recommends that the proposal may be implemented subject to the conditions recommended in Appendix A.

## 5 Other advice

### **Planning processes**

In providing its recommendation to the Minister, the EPA has only considered environmental matters as per the EP Act. Specifically, the EPA is not able to consider impacts to land use planning, society and economic benefit where they are inconsistent with the EPA's remit under this legislation.

The EPA is aware of the considerable community interest in this proposal and the prospective residential development of Lot 9005 Lakes Parade, Binningup (Lot 9005) to the west of the proposal.

The EPA has recommended conditions which should support completion of the proposal by the time of the prospective residential development. However, the EPA encourages consultation across all relevant State Government portfolios to ensure that any recommendation has regard to matters that the EPA is unable to consider, particularly with respect to strategic land use planning considerations, and other matters outside of the scope of the EPA's assessment of an individual proposal.

### **Regulation and consultation**

The Proponent does not have an agreement to enable the occupier(s) of the nearest sensitive receptor to move away from the proposal for the operational lifetime of the proposal. The occupier(s) have declared that they are aware that the proposal may be taking place, pending the necessary approvals. It is the EPA's view that the objectives for its key environmental factors still apply to this sensitive receptor, so has recommended stricter conditions for this sensitive receptor.

The EPA has taken notice of concerns from residents of the nearby town of Binningup and expects the proponent to continue consultation with concerned residents and respond to concerns and queries from these residents in a transparent manner. The EPA expects the proponent to maintain its social licence through a meaningful consultation process during operations.

### **Other decision-making authorities**

In relation to the ongoing reform of Part V of the EP Act, the EPA considers that quarries could be assessed and regulated under Part V, which is a more appropriate, prescriptive and efficient regulatory instrument in comparison to Part IV ministerial statement conditions. The EPA also considers that for smaller quarries, the Local Government Authority (LGA) may take a lead role where Part V of the EP Act may not require licensing. The EPA would like there to be a clear framework of minimum standards for LGA's to adhere to in respect to quarries within 2km of a township or sensitive receptor. Upfront regional environmental planning for basic raw materials could also assist in achieving sustainable development and consider issues outside of the EPA's assessment.

# Appendix A: Recommended conditions

Section 44(2)(b) of *Environmental Protection Act 1986* specifies that the EPA's report must set out (if it recommends that implementation be allowed) the conditions and procedures, if any, to which implementation should be subject. This appendix contains the EPA's recommended conditions and procedures.

## Recommended Conditions

### STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED (*Environmental Protection Act 1986*)

LIMESTONE QUARRY, LOT 4 BINNINGUP ROAD, BINNINGUP

**Proposal:** The proposal is to construct and operate a limestone quarry located approximately one kilometre north-west of Binningup.

**Proponent:** The GM Giacci Family Trust t/a  
MGM Bulk Pty Ltd  
Australian Company Number 34 165 448 920

**Proponent address:** 26 Stirling Street, BUNBURY WA 6230

**Assessment number:** 2300

**Report of the Environmental Protection Authority:** 1758

**Introduction:** Pursuant to section 45 of the *Environmental Protection Act 1986*, it has been agreed that the proposal entitled Limestone Quarry, Lot 4 Binningup Road, Binningup described in the 'Proposal Content Document' submitted on 24 January 2024, may be implemented and that the implementation of the proposal is subject to the following implementation conditions and procedures:

#### Conditions and procedures

##### Part A: Proposal extent

##### Part B: Environmental outcomes, prescriptions and objectives

##### Part C: Environmental management plans and monitoring

##### Part D: Compliance and other conditions

**PART A: PROPOSAL EXTENT****A1 Limitations and Extent of Proposal**

A1-1 The proponent must ensure that the proposal is implemented in such a manner that the following limitations or maximum extents are not exceeded:

<b>Proposal element</b>	<b>Location</b>	<b>Maximum extent</b>
<b>Physical elements</b>		
Development envelope	Figure 1	Disturbance of up to 26 hectares within the development envelope. No clearing of native vegetation.
<b>Operational elements</b>		
Production capacity	Up to 80,000 tonnes per year.	
Quarry and associated infrastructure	Quarry operations and infrastructure including loader, mobile crusher plant and mobile screening plants.	
Active excavation	No more than 4 hectares at any time.	
Hours of operation	07:00 – 18:00 Monday to Friday (excluding public holidays) 07:00 – 12:00 Saturdays.	
<b>Timing elements</b>		
Mine life	Up to 5 years.	

## PART B – ENVIRONMENTAL OUTCOMES, PRESCRIPTIONS AND OBJECTIVES

### B1 Noise

B1-1 The proponent must ensure the implementation of the proposal achieves the following environmental outcomes:

- (1) establish bunding of at least four (4) metres in height around the crushing and screening plant; and
- (2) comply with the assigned noise levels in the **Noise Regulations** within fifteen (15) metres of any **noise sensitive premises**; or
- (3) comply with the assigned noise levels in the **Noise Regulations** at any **noise sensitive premises** where the proponent and the owner and any occupier of that premises has written agreement to do so.

B2-1 The proponent must review and update the **Noise Management Plan** that demonstrates how the achievement of the environmental outcome in condition B1-1 will be monitored, substantiated and satisfies the requirements of conditions C4 and submit it to the **CEO**.

### B2 Air Quality

B2-1 The proponent must ensure the implementation of the proposal achieves the following environmental outcome:

- (1) ensure dust emissions from activities undertaken in implementing the proposal do not exceed the following levels at any residential premises within one kilometre from the development envelope:
  - (a) forty-six (46) micrograms per cubic metre of particulate matter smaller than ten (10) microns over a twenty-four (24) hour average.
  - (b) five (5) percent total limestone concentration in any six-month period.

B2-2 The proponent must review and update the **Dust Management Plan** that demonstrates how the achievement of the environmental objective in condition B2-1 will be monitored, substantiated and satisfies the requirements of conditions C4 and submit it to the **CEO**.

## PART C – ENVIRONMENTAL MANAGEMENT PLANS AND MONITORING

### C1 Environmental Management Plans: Conditions Related to Commencement of Implementation of the Proposal

C1-1 The proponent must not undertake:

- (1) **ground disturbing activities** until the **CEO** has confirmed in writing that the environmental management plans required by conditions B1-2 and B2-2, meets the requirements of that condition and condition C4.

### C2 Environmental Management Plans: Conditions Relating to Approval, Implementation, Review and Publication

C2-1 Upon being required to implement an environmental management plan under Part B, or after receiving notice in writing from the **CEO** under condition C1-1 that the environmental management plans required in Part B satisfies the relevant requirements, the proponent must:

- (1) implement the most recent version of the **confirmed** environmental management plans; and
- (2) continue to implement the **confirmed** environmental management plans referred to in condition C2-1(1), other than for any period which the **CEO** confirms by notice in writing that it has been demonstrated that the relevant requirements for the environmental management plan have been met, or are able to be met under another statutory decision-making process, in which case the implementation of the environmental management plan is no longer required for that period.

C2-2 The proponent:

- (1) may review and revise a **confirmed** environmental management plan provided it meets the relevant requirements of that environmental management plan, including any consultation that may be required when preparing the environmental management plan;
- (2) must review and revise a **confirmed** environmental management plan and ensure it meets the relevant requirements of that environmental management plan, including any consultation that may be required when preparing the environmental management plan, as and when directed by the **CEO**; and
- (3) must revise and submit to the **CEO** the **confirmed** Environmental Management Plan if there is a material risk that the outcomes or objectives it is required to achieve will not be complied with, including but not limited to as a result of a change to the proposal.

- C2-3 Despite condition C2-1, but subject to conditions C2-4 and C2-5, the proponent may implement minor revisions to an environmental management plan if the revisions will not result in new or increased **adverse impacts** to the environment or result in a risk to the achievement of the limits, outcomes or objectives which the environmental management plan is required to achieve.
- C2-4 If the proponent is to implement minor revisions to an environmental management plan under condition C2-3, the proponent must provide the **CEO** with the following at least twenty (20) business days before it implements the revisions:
- (1) the revised environmental management plan clearly showing the minor revisions;
  - (2) an explanation of and justification for the minor revisions; and
  - (3) an explanation of why the minor revisions will not result in new or increased **adverse impacts** to the environment or result in a risk to the achievement of the limits, outcomes or objectives which the environmental management plan is required to achieve.
- C2-5 The proponent must cease to implement any revisions which the **CEO** notifies the proponent (at any time) in writing may not be implemented.
- C2-6 **Confirmed** environmental management plans, and any revised environmental management plans under condition C2-4(1), must be published on the proponent's website and provided to the **CEO** in electronic form suitable for on-line publication by the Department of Water and Environmental Regulation within twenty (20) business days of being implemented, or being required to be implemented (whichever is earlier).

### **C3 Conditions Related to Monitoring**

- C3-1 The proponent must undertake monitoring capable of:
- (1) substantiating whether the proposal limitations and extents in Part A are exceeded; and
  - (2) **detecting** and substantiating whether the environmental outcomes identified in Part B are achieved (excluding any environmental outcomes in Part B where an environmental management plan is expressly required to monitor achievement of that outcome).
- C3-2 The proponent must submit as part of the Compliance Assessment Report required by condition D2, a compliance monitoring report that:

- (1) outlines the monitoring that was undertaken during the implementation of the proposal;
- (2) identifies why the monitoring was capable of substantiating whether the proposal limitation and extents in Part A are exceeded;
- (3) for any environmental outcomes to which condition C3-1(2) applies, identifies why the monitoring was scientifically robust and capable of **detecting** whether the environmental outcomes in Part B are met;
- (4) outlines the results of the monitoring;
- (5) reports whether the proposal limitations and extents in Part A were exceeded and (for any environmental outcomes to which condition C3-1 (2) applies) whether the environmental outcomes in Part B were achieved, based on analysis of the results of the monitoring; and
- (6) reports any actions taken by the proponent to remediate any potential non-compliance.

#### **C4 Environmental Management Plans: Conditions Relating to Monitoring and Adaptive Management for Outcomes Based Conditions**

C4-1 The environmental management plans required under condition B1-2 and condition B2-2 must contain provisions which enable the substantiation of whether the relevant outcomes of those conditions are met, and must include:

- (1) **threshold criteria** that provide a limit beyond which the environmental outcomes are not achieved;
- (2) **trigger criteria** that will provide an early warning that the environmental outcomes are not likely to be met;
- (3) monitoring parameters, sites, control/reference sites, methodology, timing and frequencies which will be used to measure **threshold criteria** and **trigger criteria**. Include methodology for determining alternate monitoring sites as a contingency if proposed sites are not suitable in the future;
- (4) baseline data;
- (5) data collection and analysis methodologies;
- (6) adaptive management methodology;
- (7) **contingency measures** which will be implemented if **threshold criteria** or **trigger criteria** are not met; and
- (8) reporting requirements.



C4-2 The environmental management plans required under conditions B1-2 and B2-2 are also required to include:

- (1) Real time monitoring at the nearest sensitive receptor
- (2) Staging of the extraction which considers potential residential developments constructed during the **operational** phase of the proposal.
- (3) **Contingency measures** including, but not limited to a reduction or cessation of activities when the **trigger criteria** included in condition C4-1(3) are exceeded.
- (4) A schedule for review and revision that implements real time monitoring at **occupation** of any residences at Lot 9005 Lakes Parade, Binningup within one kilometre from the development envelope during the **operational** phase of the proposal.

C4-3 Without limiting condition C3-1, failure to achieve an environmental outcome, or the exceedance of a **threshold criteria**, regardless of whether **threshold contingency measures** have been or are being implemented, represents a non-compliance with these conditions.

## **PART D – COMPLIANCE, TIME LIMITS, AUDITS AND OTHER CONDITIONS**

### **D1 Non-compliance Reporting**

**D1-1** If the proponent becomes aware of a potential non-compliance, the proponent must:

- (1) report this to the **CEO** within seven (7) days;
- (2) implement **contingency measures**;
- (3) investigate the cause;
- (4) investigate environmental impacts;
- (5) advise rectification measures to be implemented;
- (6) advise any other measures to be implemented to ensure no further impact;
- (7) advise timeframe in which contingency, rectification and other measures have and/or be implemented; and
- (8) provide a report to the **CEO** within twenty-one (21) days of being aware of the potential non-compliance, detailing the measures required in conditions D1-1(1) to D1-1(7) above.

**D1-2** Failure to comply with the requirements of a condition, or with the content of an environmental management plan required under a condition, constitutes a non-compliance with these conditions, regardless of whether the **contingency measures**, rectification or other measures in condition D1-1 above have been or are being implemented.

### **D2 Compliance Reporting**

**D2-1** The proponent must provide an annual Compliance Assessment Report to the **CEO** for the purpose of determining whether the implementation conditions are being complied with.

**D2-2** Unless a different date or frequency is approved by the **CEO**, the first annual Compliance Assessment Report must be submitted within fifteen (15) months of the date of this Statement, and subsequent reports must be submitted annually from that date.

**D2-3** Each annual Compliance Assessment Report must be endorsed by the proponent's Chief Executive Officer, or a person approved by proponent's Chief Executive Officer to be delegated to sign on the Chief Executive Officer's behalf.

**D2-4** Each annual Compliance Assessment Report must:

- (1) state whether each condition of this Statement has been complied with, including:
  - (a) exceedance of any proposal limits and extents;
  - (b) achievement of environmental outcomes;
  - (c) achievement of environmental objectives;
  - (d) requirements to implement the content of environmental management plans;
  - (e) monitoring requirements;
  - (f) implement **contingency measures**;
  - (g) requirements to implement adaptive management; and
  - (h) reporting requirements;
- (2) include the results of any monitoring (inclusive of any raw data) that has been required under Part C in order to demonstrate that the limits in Part A, and any outcomes or any objectives are being met;
- (3) provide evidence to substantiate statements of compliance, or details of where there has been a non-compliance;
- (4) include the corrective, remedial and preventative actions taken in response to any potential non-compliance;
- (5) be provided in a form suitable for publication on the proponent's website and online by the Department of Water and Environmental Regulation;
- (6) be prepared and published consistent with the latest version of the Compliance Assessment Plan required by condition D2-5 which the **CEO** has confirmed by notice in writing satisfies the relevant requirements of Part C and Part D.

D2-5 The proponent must prepare a Compliance Assessment Plan which is submitted to the **CEO** at least six (6) months prior to the first Compliance Assessment Report required by condition D2-2, or prior to implementation of the proposal, whichever is sooner.

D2-6 The Compliance Assessment Plan must include:

- (1) what, when and how information will be collected and recorded to assess compliance;
- (2) the methods which will be used to assess compliance;

- (3) the methods which will be used to validate the adequacy of the compliance assessment to determine whether the implementation conditions are being complied with;
- (4) the retention of compliance assessments;
- (5) the table of contents of Compliance Assessment Reports, including audit tables; and
- (6) how and when Compliance Assessment Reports will be made publicly available, including usually being published on the proponent's website within sixty (60) days of being provided to the **CEO**.

### **D3 Contact Details**

D3-1 The proponent must notify the **CEO** of any change of its name, physical address or postal address for the serving of notices or other correspondence within twenty-eight (28) days of such change. Where the proponent is a corporation or an association of persons, whether incorporated or not, the postal address is that of the principal place of business or of the principal office in the State.

### **D4 Time Limit for Proposal Implementation**

D4-1 The proposal must be substantially commenced within one (1) year from the date of this Statement.

D4-2 The proponent must provide to the **CEO** documentary evidence demonstrating that they have complied with condition D4-1 no later than fourteen (14) days after the expiration of period specified in condition D4-1.

D4-3 If the proposal has not been substantially commenced within the period specified in condition D4-1, implementation of the proposal must not be commenced or continued after the expiration of that period.

### **D5 Public Availability of Data**

D5-1 Subject to condition D5-2, within a reasonable time period approved by the **CEO** upon the issue of this Statement and for the remainder of the life of the proposal, the proponent must make publicly available, in a manner approved by the **CEO**, all validated environmental data collected before and after the date of this Statement relevant to the proposal (including sampling design, sampling methodologies, monitoring and other empirical data and derived information products (e.g. maps)), environmental management plans and reports relevant to the assessment of this proposal and implementation of this Statement.

D5-2 If:

- (1) any data referred to in condition D5-1 contains trade secrets; or

- (2) any data referred to in condition D5-1 contains particulars of confidential information (other than trade secrets) that has commercial value to a person that would be, or could reasonably be expected to be, destroyed or diminished if the confidential information were published,

the proponent may submit a request for approval from the **CEO** to not make this data publicly available and the **CEO** may agree to such a request if the **CEO** is satisfied that the data meets the above criteria.

- D5-3 In making such a request the proponent must provide the **CEO** with an explanation and reasons why the data should not be made publicly available.

## **D6 Independent Audit**

- D6-1 The proponent must arrange for an independent audit of compliance with the conditions of this statement, including achievement of the environmental outcomes and/or the environmental objectives and/ or environmental performance with the conditions of this statement, as and when directed by the **CEO**.
- D6-2 The independent audit must be carried out by a person with appropriate qualifications who is nominated or approved by the **CEO** to undertake the audit under condition D6-1.
- D6-3 The proponent must submit the independent audit report with the Compliance Assessment Report required by condition D2, or at any time as and when directed in writing by the **CEO**. The audit report is to be supported by credible evidence to substantiate its findings.
- D6-4 The independent audit report required by condition D6-1 is to be made publicly available in the same timeframe, manner and form as a Compliance Assessment Report, or as otherwise directed by the **CEO**.

Table 1: Abbreviations and definitions

Acronym or abbreviation	Definition or term
<b>Adverse impact</b>	Negative change that is neither trivial nor negligible that could result in a reduction in health, diversity or abundance of the receptor/s being impacted, or a reduction in environmental value. Adverse impacts can arise from direct or indirect impacts, or other impacts from the proposal.
<b>Detecting</b>	The smallest statistically discernible effect size that can be achieved with a monitoring strategy designed to achieve a statistical power value of at least 0.8 or an alternative value as determined by the <b>CEO</b> .
<b>CEO</b>	The Chief Executive Officer of the Department of the Public Service of the State responsible for the administration of section 48 of the <i>Environmental Protection Act 1986</i> , or the <b>CEO's</b> delegate.
<b>Confirmed</b>	<p>In relation to a plan required to be made and submitted to the <b>CEO</b>, means, at the relevant time, the plan that the <b>CEO</b> confirmed, by notice in writing, meets the requirements of the relevant condition.</p> <p>In relation to a plan required to be implemented without the need to be first submitted to the <b>CEO</b>, means that plan until it is revised, and then means, at the relevant time, the plan that the <b>CEO</b> confirmed, by notice in writing, meets the requirements of the relevant condition.</p>
<b>Contingency measures</b>	Planned actions for implementation if it is identified that an environmental outcome, environmental objective, threshold criteria or <b>management target</b> are likely to be, or are being, exceeded. Contingency measures include changes to operations or reductions in disturbance or <b>adverse impacts</b> to reduce impacts and must be decisive actions that will quickly bring the impact to below any relevant threshold, management target and to ensure that the environmental outcome and/or objective can be met.
<b>Dust management plan</b>	<i>Lot 4 Binningup Road, Binningup Dust Monitoring and Management Plan November 2020.</i>
<b>Ground disturbing activities</b>	Any activity or activities undertaken in the implementation of the proposal, including any clearing, civil works or construction.
<b>Management action</b>	The identified actions implemented with the intent of to achieving the environmental objective.
<b>Management target</b>	A type of indicator to evaluate whether an environmental objective is being achieved.

<b>Noise management plan</b>	<i>Lot 4 Binningup Road, Binningup Noise Management Plan October 2020.</i>
<b>Noise regulations</b>	<i>Environmental Protection (Noise) Regulations 1997.</i>
<b>Noise sensitive premises</b>	Has the same meaning as defined by regulation 2(1) of the <i>Environmental Protection (Noise) Regulations 1997.</i>
<b>Occupation/ Occupier/</b>	Used as a residence by property owner or tenant.
<b>Operational</b>	Phase by which material is actively extracted from within the development envelope.
<b>Trigger criteria</b>	Indicators that have been selected for monitoring to provide a warning that, if exceeded, the environmental outcome may not be achieved. They are intended to forewarn of the approach of the threshold criteria and trigger response actions.
<b>Threshold criteria</b>	The indicators that have been selected to represent limits of impact beyond which the environmental outcome is not being met.


### Figures (attached)

Figure 1 Limestone quarry, Lot 4 Binningup Road, Binningup (This figure/map is a representation of the co-ordinates referenced in Schedule 1).

All co-ordinates are in metres, listed in Map Grid of Australia Zone 50 (MGA Zone 50), datum of Geocentric Datum of Australia 2020 (GDA20).

Spatial data depicting the figures are held by the Department of Water and Environmental regulation. Record no. DWERDT359994.



<p><b>Legend</b></p> <p> Development envelope</p>	<p><b>SOURCE DATA</b> Proponent: The GM Giacci Family Trust Basemap: ESRI World Imagery</p> <p>DWER GIS Section Date: 15/11/2023, Map Version: 1 File No: DWERTD332359</p> <p><small>Disclaimer This map is intended as a generalised interpretation of environmental issues. The information contained on this map is to be considered indicative only and is to be verified with the Department of Water and Environmental Regulation. We do not accept any incident or consequential damages resulting from use of the material. Copyright Department of Water and Environmental Regulation, 2023. All Rights Reserved. All works and information contained are subject to Copyright. For the reproduction or publication beyond that permitted by the Commonwealth Copyright Act 1969, written permission must be sought from the Agency.</small></p>	 <p>N</p>  <p>0 200 400 Metres</p> <p>Spatial Reference: GDA2020 MGA Zone 50 Scale: 1:15,000 at A4</p>	<p><b>LOCALITY MAP</b></p>  <p>MYALLUP BRUNSWICK JUNCTION BUNBURY</p>
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## Appendix B: Regulation by other DMA processes

**Table B1: Identified relevant decision-making processes for the regulation of outcomes for the proposal**

Statutory decision-making process	Environmental outcome
1. <i>Planning and Development Act 2005</i>	<ul style="list-style-type: none"> <li>• Demonstrate that the separation distance of 0.5 meters to groundwater is maintained.</li> <li>• Excavation depth of the quarry does not exceed 1.5 mAHD.</li> <li>• No extraction of groundwater or dewatering from the quarry during the operation of the proposal.</li> <li>• Maintain water quality through regulation of refuelling activities and prohibition of vehicle and machinery refuelling and storage of hydrocarbons on-site.</li> <li>• Demonstrate the preservation of the existing shape of the landform and no net loss of agricultural land through the implementation of a Rehabilitation Management and Monitoring Plan.</li> </ul>
2. <i>Rights in Water and Irrigation Act 1914</i>	<ul style="list-style-type: none"> <li>• Maintain hydrological regimes to protect environmental values in allocation of water for dust suppression for the proposal.</li> </ul>
3. <i>Part V of the Environmental Protection Act 1986</i>	<ul style="list-style-type: none"> <li>• Contribute towards the environmental outcome for dust emissions through requirements for design and operational measures.</li> <li>• Contribute towards the environmental outcome for maintenance of water quality through requirements for design and operational measures.</li> </ul>

## Appendix C: Decision-making authorities

**Table C1: Identified relevant decision-making authorities for the proposal**

Decision-Making Authority	Legislation (and approval)
1. Minister for Water	<i>Rights in Water and Irrigation Act 1914</i> - groundwater abstraction licence - licence to construct bores
2. State Mining Engineer, Department of Mines, Industry Regulation and Safety	<i>Mines Safety and Inspection Act 1994</i> - mine safety - approval to commence mining operations
3. Chief Executive Officer, Department of Water and Environmental Regulation	<i>Environmental Protection Act 1986</i> - part V works approval and licence
4. Chief Executive Officer Shire of Harvey	<i>Planning and Development Act 2005</i> - extractive industries licence

## Appendix D: Environmental Protection Act principles

Table D1: Consideration of principles of the *Environmental Protection Act 1986*

EP Act principle	Consideration
<p><b>1. The precautionary principle</b></p> <p><i>Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In application of this precautionary principle, decisions should be guided by –</i></p> <p><i>(a) careful evaluation to avoid, where practicable, serious or irreversible damage to the environment; and</i></p> <p><i>(b) an assessment of the risk-weighted consequences of various options.</i></p>	<p>The EPA has considered the precautionary principle in its assessment and has had particular regard to this principle in its assessment of air quality and noise.</p> <p>The proponent has provided noise mitigation measures and a dust management plan suitable for containment of emissions consistent with general current industry practice.</p> <p>The EPA noted the predicted potential for high levels of dust and noise for short periods of time under worst case meteorological conditions at one sensitive receptor closest to the proposal. The EPA has not used conservative modelling predictions as a reason for postponing recommendations for strict conditions to monitor, reduce and manage emissions to prevent significant environmental impacts.</p>
<p><b>2. The principle of intergenerational equity</b></p> <p><i>The present generation should ensure that the health, diversity and productivity of the environment is maintained and enhanced for the benefit of future generations.</i></p>	<p>The EPA has considered the principle of intergenerational equity in its assessment and has had regard to this principle in its assessment of the visual amenity aspect of social surroundings.</p> <p>The EPA considers consistency with this principle could be achieved with the implementation of its recommended conditions, including decision-making processes under the <i>Planning and Development Act 2005</i> that includes requirements for the rehabilitation of the site and return to land use for pasture.</p> <p>From its assessment of this proposal, the EPA has concluded that the environmental values will be protected and that the health and productivity of the environment will be maintained for the benefit of future generations.</p>
<p><b>3. The principle of the conservation of biological diversity and ecological integrity</b></p> <p><i>Conservation of biological diversity and ecological integrity should be a fundamental consideration.</i></p>	<p>The proposal does not require any clearing of native vegetation and the proponent has selected an existing disturbed site for the proposal to reduce potential impacts from the proposal. The EPA considers the siting of the proposal in a previously cleared area to be consistent with good environmental practise and EP Act objectives.</p>

EP Act principle	Consideration
	The EPA has considered the extent of potential impacts from the proposal to flora and vegetation and terrestrial fauna and has concluded that the proposal is unlikely to reduce biological or ecological values within the area.
<p><b>4. Principles relating to improved valuation, pricing and incentive mechanisms</b></p> <p>(1) <i>Environmental factors should be included in the valuation of assets and services.</i></p> <p>(2) <i>The polluter pays principle — those who generate pollution and waste should bear the cost of containment, avoidance or abatement.</i></p> <p>(3) <i>The users of goods and services should pay prices based on the full life cycle costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any wastes.</i></p> <p>(4) <i>Environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, which enable those best placed to maximise benefits and/or minimise costs to develop their own solutions and responses to environmental problems.</i></p>	<p>In considering this principle, the EPA notes that the proponent will bear the costs relating to implementing the proposal to achieve environmental outcomes, and management and monitoring of environmental impacts during construction, operation and decommissioning of the proposal.</p> <p>The EPA has had particular regard to this principle in considering social surroundings and air quality by noting that the proponent will be required to pay costs for implementation of mitigation measures and monitoring to ensure that the Noise Regulations and air quality criteria can be met.</p>
<p><b>5. The principle of waste minimisation</b></p> <p><i>All reasonable and practicable measures should be taken to minimise the generation of waste and its discharge into the environment.</i></p>	The EPA notes that waste will be minimised through the control of dust emissions through an approved environmental management plan.

## Appendix E: Other environmental factors

**Table E1: Evaluation of other environmental factors**

Environmental factor	Description of the proposal's likely impacts on the environmental factor	Government agency and public comments	Evaluation of why the factor is not a key environmental factor
<b>Land</b>			
Flora and vegetation, and Terrestrial fauna.	Impacts to land through the disturbance of up to 26 hectares of land. Temporary removal and stockpiling of topsoil.	<p><u>Public comments</u></p> <ul style="list-style-type: none"> <li>Impact to western ringtail possum, black-cockatoo and herpetofauna and their habitat</li> </ul> <p><u>Agency comments</u></p> <ul style="list-style-type: none"> <li>None</li> </ul>	<p>Flora and vegetation and terrestrial fauna were not identified as key environmental factors when the EPA decided to assess the proposal.</p> <p>No native vegetation or fauna habitat will be cleared for the proposal. The EPA considers that the proposed mitigation measures and recommended limits for the proposal will manage the risk of indirect impacts to offsite vegetation and fauna.</p> <p>The EPA therefore did not consider impacts to fauna, and flora and vegetation to be key environmental factors at the conclusion of its assessment.</p>
Landforms	Temporary removal and stockpiling of topsoil.	<p><u>Public comments</u></p> <ul style="list-style-type: none"> <li>Impact on geo-heritage value of Yalgorup Plain</li> </ul> <p><u>Agency comments</u></p> <ul style="list-style-type: none"> <li>None</li> </ul>	<p>Landforms was not identified as a preliminary environmental factor when the EPA decided to assess the proposal.</p> <p>The EPA noted the international significance of the geoheritage values of the Yalgorup Plain in its Strategic Environmental Advice on the Dawesville to Binningup Area under section s. 16(e) of the EP Act (EPA 2010). The EPA further notes that the Yalgorup Plain is described as well preserved and protected within Yalgorup National Park (Semeniuk et al, 2019).</p> <p>Due to the small (26 ha of cleared land) scale of potential impact to the Yalgorup Plain EPA did not consider impacts to landforms to be a key environmental factor at the conclusion of its assessment.</p>
<b>Water</b>			

Environmental factor	Description of the proposal's likely impacts on the environmental factor	Government agency and public comments	Evaluation of why the factor is not a key environmental factor
Inland waters	Potential impact to groundwater quality from seepage and direct discharge of hydrocarbons, chemicals or sediment (in stormwater) to the environment.	<p><u>Public comments</u></p> <ul style="list-style-type: none"> <li>Impact to hydrology</li> <li>Impact to Parkfield Drain and Leschenault Estuary and Yalgorup wetlands system</li> </ul> <p><u>Agency comments</u></p> <ul style="list-style-type: none"> <li>Department of Water and Environmental Regulation</li> </ul>	<p>Inland waters was not identified as a preliminary environmental factor when the EPA determined to assess the proposal.</p> <p>Relevant to quarrying, water resources may be affected by changes to groundwater levels and increased stormwater runoff. DWER's advice on review of the proponent's Works and Excavation Plan stated that:</p> <ul style="list-style-type: none"> <li>excavation activities are not planned to intercept groundwater</li> <li>the surface of the pit will be internally drained, to ensure no surface water runoff.</li> </ul> <p>The development approval issued by the Shire of Harvey [EX/007 – 21 December 2020] requires the proponent to maintain a 0.5 metre separation distance to groundwater for the life of extraction activities which includes monthly monitoring of installed piezometers from May – October. In addition, the provisions in the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i> and the <i>Contaminated Sites Act 2003</i> will apply to the proposal.</p> <p>As there will be no intersection of the water table, maintenance of a separation distance through other decision-making processes and hydrogeological processes will not be impacted, the EPA did not consider inland waters to be a key environmental factor at the conclusion of its assessment.</p>
<b>Air</b>			
Greenhouse gas emissions	Generation of greenhouse gas scope 1 and 2 emissions.	<p><u>Public comments</u></p> <ul style="list-style-type: none"> <li>Potential impact on future carbon sequestration</li> </ul> <p><u>Agency comments</u></p> <ul style="list-style-type: none"> <li>None</li> </ul>	The proposal would not result in the emissions of 100,000 tonnes of carbon dioxide from scope 1 or 2 sources in any year. Accordingly, the EPA did not consider greenhouse gas emissions to be a key environmental factor at the conclusion of its assessment.

## Appendix F: Relevant policy, guidance and procedures

The EPA had particular regard to the policies, guidelines and procedures listed below in the assessment of the proposal.

- *Environmental factor guideline – Social surroundings* (EPA 2023)
- *Environmental factor guideline – Air quality* (EPA 2020)
- *Environmental impact assessment (Part IV Divisions 1 and 2) procedures manual* (EPA 2021)
- *Statement of environmental principles, factors, objectives and aims of EIA* (EPA 2021)
- *Environmental impact assessment (Part IV Divisions 1 and 2) administrative procedures 2021* (State of Western Australia 2021)

## Appendix G: List of submitters

### 7-day comment on referral

#### Organisations and public

- 122 submissions were received from the public during the 7-day public comment period.

#### Government agencies

- None.

### Public review of proponent information

#### Organisations and public

- 139 submissions were received from the public during the 2-week public period.

#### Government agencies

- Department of Health
- Department of Biodiversity, Conservation and Attractions.



## Appendix H: Assessment timeline

Date	Progress stages	Time (weeks)
24 June 2021	EPA decided to assess – level of assessment set	
2 July 2021	EPA requested additional information	1
29 October 2022	EPA received additional information	69
31 October 2022	EPA accepted additional information	0
31 October 2022	EPA released additional information for public review	0
13 November 2022	Public review period for additional information closed	2
1 February 2024	EPA completed its assessment (s. 44(2b))	63
1 March 2024	EPA provided report to the Minister for Environment	6
7 March 2024	EPA report published	3 days
28 March 2024	Appeals period closed	3

Timelines for an assessment may vary according to the complexity of the proposal and are usually agreed with the proponent soon after the EPA decides to assess the proposal and records the level of assessment.

In this case, the EPA met its timeline objective to complete its assessment and provide a report to the Minister.

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## References

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