



Appeals Convenor
Environmental Protection Act 1986

**REPORT TO THE
MINISTER FOR ENVIRONMENT**

**APPEAL IN OBJECTION TO THE DECISION OF THE ENVIRONMENTAL
PROTECTION AUTHORITY NOT TO ASSESS A PROPOSAL
QUARRY AT LOT 150 CLYDESDALE ROAD, GRASS VALLEY,
SHIRE OF NORTHAM**

PROPONENT: RESOURCE GROUP (WA) PTY LTD

Appeal Number 016 of 2020

November 2020

Appeal Summary

This is a report in relation to an appeal against the decision of the Environmental Protection Authority (EPA) not to assess a proposal by Resource Group (WA) Pty Ltd (proponent) to develop a hard rock quarry at Lot 150 Clydesdale Road, Grass Valley (the proposal), in the Shire of Northam.

Broadly the appellant contended that potential impacts from the proposal from noise and on air quality, flora and fauna, and inland waters are significant and warrant formal assessment under Part IV of the *Environmental Protection Act 1986* (EP Act).

In responding to the appeal, the EPA advised that the likely environmental effects of the proposal were not so significant as to warrant formal assessment. The EPA was of the view that the potential impacts of the proposal can be adequately managed through implementation of the proposal in accordance with the referral documentation, the proponent's management and mitigation measures, and other statutory decision-making processes.

Late in the appeal investigation the proponent advised that it intends to proceed with a smaller proposal, not involving the development of pits 1 and 2, and that removing the pits from the approval may address the concerns raised on appeal. Taking this new information into account, and noting the concerns identified in respect to noise and dust emissions from the proposal, the Appeals Convenor concluded that the proposal should be remitted to the EPA for a fresh decision as to whether or not to assess the proposal.

Recommendation

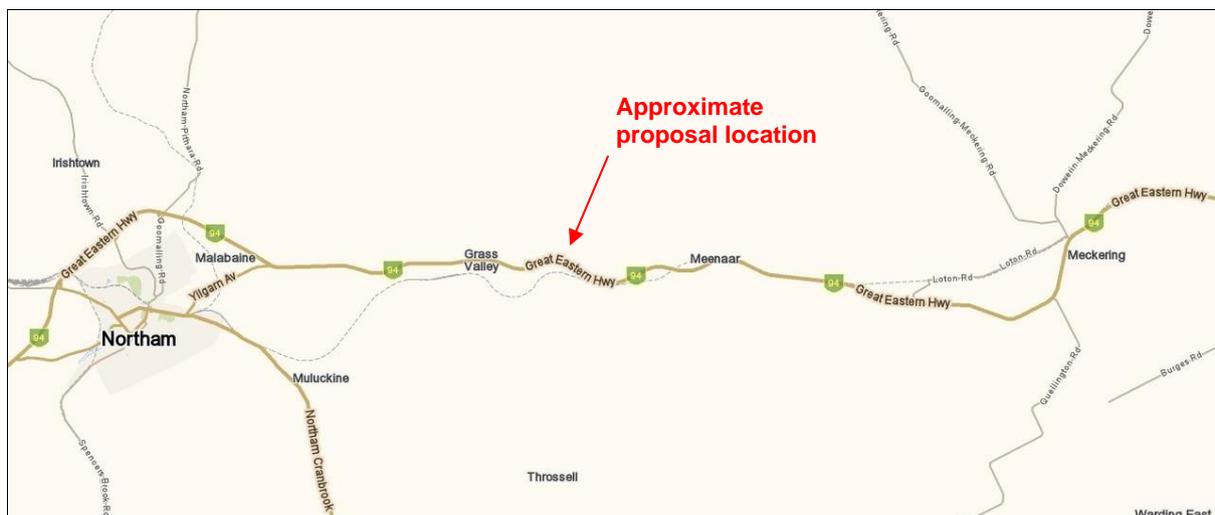
In light of the proponent's advice that it now intends to proceed with a smaller proposal not involving the development of pits 1 and 2, it is recommended that the Minister allows the appeal to the extent that the proposal is remitted to the EPA for a fresh decision as to whether or not to assess the proposal, having particular regard to potential impacts from noise, dust and water management.

INTRODUCTION

This report addresses an appeal lodged by the Dempster and Park families in objection to the decision of the Environmental Protection Authority (EPA) not to assess a proposal by Resource Group (WA) Pty Ltd (proponent) to develop a hard rock quarry at Lot 150 Clydesdale Road, Grass Valley (the proposal), in the Shire of Northam.

The proposed development is located approximately three kilometres (km) north-east of the Grass Valley town site (see Figure 1). The proposal is the construction of a hard rock quarry and will involve the extraction, crushing and screening of approximately seventy thousand tonnes of hard rock per year for up to 30 years. The proposal would require the clearing of 8.41 hectares (ha) of native vegetation with a total disturbance footprint of 15.92 ha (see Figure 2).¹

Figure 1 – Proposal location



(Source: Whereis.com)

Lot 150 Clydesdale Road is freehold land, which is zoned 'Rural' under the Shire of Northam's Local Planning Scheme No.6, and is located within the Avon River Catchment Surface Water Resource proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act).

Planning context

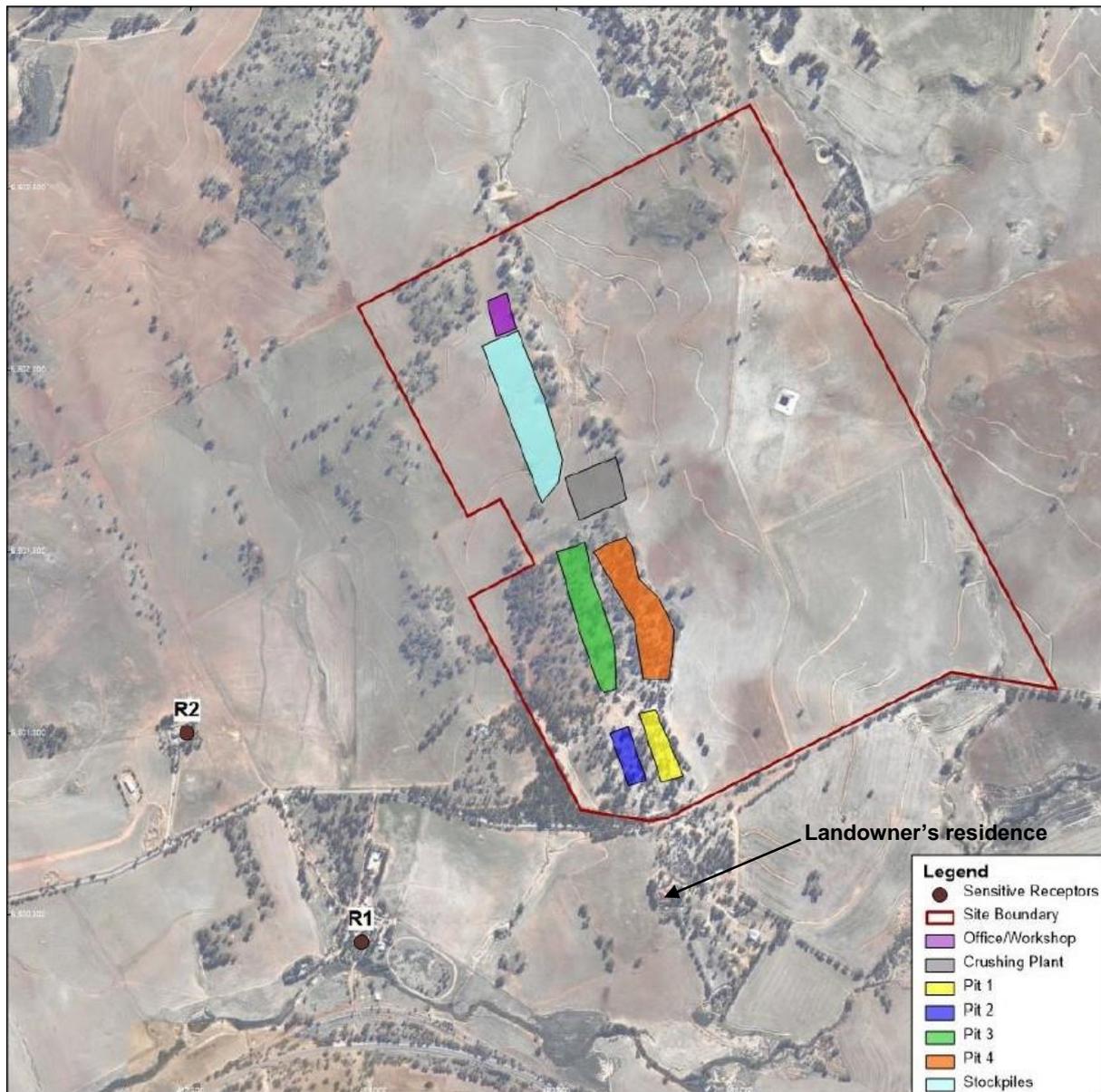
On 20 February 2019, at a Shire of Northam Ordinary Council Meeting, an application for planning consent for an extractive industry at Lot 150 Clydesdale Road, Grass Valley was made by the proponent. The meeting minutes recorded that the Council passed a resolution to grant development approval under Shire of Northam Local Planning Scheme No. 6 to the proponent for an extractive industry at Lot 150 Clydesdale Road, Grass Valley, subject to conditions. The meeting minutes also noted that the proposal had been referred to the EPA for assessment and that planning approval would not be issued, pending the outcome of the referral.² In response to the appeal, the Shire of Northam advised that the Council's resolution on this matter had been held in abeyance awaiting the outcome of the appeal process. The Shire also advised that the proponent will require an extractive industry licence (EIL) under the *Planning and Development Act 2005* (Planning and Development Act).³

¹ EPA, *Public advice*, 16 March 2020, page 1.

² Shire of Northam, *Ordinary Council Meeting Minutes*, 20 February 2019, pages 66 to 170.

³ Shire of Northam, *Response to the appeal*, 17 April 2020.

Figure 2 – Proposal layout



(Source: adapted from SLR: September 2019)

EPA referral

As noted above, in February 2019 the proposal was referred to the EPA to determine whether or not the proposal required environmental impact assessment and, if so, what level of assessment would be applied.

The proposal was advertised for seven day public comment as part of the referral process and eight public comments were received. The key issues raised were:

- clearing of habitat for threatened species including black cockatoos;
- clearing and fragmentation of remnant vegetation;
- effects on air quality including potential health impact from silicosis as a result of dust; and

- effects on social surroundings including increases to noise.⁴

The EPA considered that the likely environmental effects of the proposal were not so significant as to warrant formal assessment under Part IV of the *Environmental Protection Act 1986* (EP Act). The EPA was of the view that the potential impacts of the proposal can be adequately managed through implementation of the proposal in accordance with the referral documentation, the proponent's management and mitigation measures, and other statutory decision-making processes.

In March 2020, the EPA released its decision not to assess the proposal and provided Public Advice on the environmental aspects of the proposal, and it was against this decision the appeal was received.

OVERVIEW OF APPEAL PROCESS

In accordance with the EP Act, for an appeal against a decision of the EPA not to assess a proposal, two reports relating to the matters raised on appeal are required for the Minister for Environment to determine the outcome of an appeal:

- a report from the Appeals Convenor, as required by section 109(3) of the EP Act
- a report from the EPA on the appeal, as required by section 106(1).

This document is the Appeals Convenor's report to the Minister.

In order to properly advise the Minister, the Appeals Convenor conducted an investigation into the matters raised on appeal. The investigation included:

- review of and regard for the matters raised in the appeal submitted by the appellant
- review of and regard for the report from the EPA provided under section 106 of the EP Act
- review of and regard for the response to the appeal provided by the Shire of Northam on 17 April 2020
- review of and regard for the response to the appeal provided by the proponent on 28 April 2020
- a meeting with the appellant in relation to issues raised in the appeal on 21 May 2020
- discussions with the proponent on 26 May 2020 in relation to issues raised in the appeal
- review of and regard for the response to the EPA's section 106 report provided by the appellant on 29 May 2020
- a visit by representatives of the Office of the Appeals Convenor to the appellant's property in Grass Valley on 14 July 2020
- review of and regard for further information provided by the appellant on 15 July 2020
- a video meeting with Shire of Northam representatives in relation to issues raised in the appeal on 24 July 2020
- email from the proponent suggesting that pits 1 and 2 be removed from the proposal received 7 September 2020
- a meeting with the proponent on 2 November 2020 in relation to the findings of the appeal investigation

⁴ EPA, *Public advice*, 16 March 2020, page 1.

The environmental appeals process is a merits-based process. For appeals in relation to an EPA decision not to assess, the Appeals Convenor normally considers questions of environmental significance, relevance of factors, additional information not considered by the EPA, and whether other approvals processes can adequately address the relevant environmental factors without the need for formal assessment by the EPA. The level of public interest may also be relevant.

OUTCOME SOUGHT BY APPELLANT

The appellant requested that the Minister remit the proposal to the EPA for formal assessment.

GROUNDINGS OF APPEAL

The appellant raised a number of concerns, which have been broadly summarised under the following grounds:

- noise
- air quality
- flora and fauna
- inland waters

GROUND 1: NOISE

The appellant submitted that the proponent's assessment of potential noise impacts on nearby sensitive receptors was inadequate, and that the EPA did not have proper regard to the issue. The appellant was concerned that the proponent's referral documents contain inconsistencies and inaccuracies in relation to separation distances to nearby sensitive receptors. In particular, the appellant asserted that the EPA did not consider the potential impact of noise and blasting on the appellant's nearest residence located 750 metres (m) from the proposal area, nor impacts to the landowner's residence which is a distance of 300 m from Pit 2.

The appellant was of the view that, if the proposal is not assessed by the EPA, then statutory controls will not be applied to control noise emissions and planning processes would not manage this issue. The appellant asserted the proponent's noise assessment indicates that neighbouring land within 50 m of the boundary of Lot 150 Clydesdale Road will be effectively sterilised from development. The appellant also contended that noise impacts from trucks and other transport vehicles had not been considered by the proponent or the EPA.

Consideration

The EPA's environmental objective for the factor 'Social Surroundings' is 'To protect social surroundings from significant harm. The EPA's *Environmental Factor Guideline: Social Surroundings* (Social Surroundings EFG) describes (among other things) EIA considerations for this factor and identifies activities that can impact the amenity of social surroundings. Such activities include developments that generate noise or vibration in proximity to sensitive premises¹¹.

The Public Advice states:

The nearest sensitive receptor (NSR) is the residence of the landowner, approximately 300 metres from the quarry pit of the proposed development. The next closest NSR is approximately 850 metres from the nearest quarry pit for the proposed development.

¹¹ EPA, *Environmental Factor Guideline: Social Surroundings*, December 2016.

An acoustic assessment undertaken predicted that by applying the recommended mitigation techniques, including the use of localised bunding/screening and/or selection of quieter plant, the predicted worst-case scenario noise level at the NSR would comply with the *Environmental Protection (Noise) Regulations 1997* (Noise Regulations).¹²

The proponent's referral documentation included two Acoustic Assessment Reports, *Clydesdale Road Quarry Project Grass Valley Acoustic Assessment* (May 2018¹³ and October 2019¹⁴), and the *Clydesdale Road Quarry Project Grass Valley Blasting Assessment* report (October 2019)¹⁵.

In its advice on the appeal, the EPA noted that the Acoustic Assessment Report (May 2018) stated that the separation distance between Receptor 1 (R1) (see Figure 2) and Pit 2 was 900 m; while the Acoustic Assessment Report (October 2019) stated it was 864 m. During the EPA's assessment of the referral, GIS analysis was undertaken to confirm the exact distance to this neighbouring dwelling was 864 m. It was indicated that this dwelling is likely to be the nearest third-party location with the greatest impact from noise. The EPA also indicated that the proponent provided the Acoustic Assessment Report (October 2019) to address some of the issues raised during the development application process to the Shire of Northam. The EPA advised that it reviewed both reports, but focussed on the revised acoustic assessment when making its decision.

It is noted that the proposal would be required to conform to the *Environmental Protection (Noise) Regulations 1997* (Noise Regulations).

The Noise Regulations require that buildings directly associated with a noise sensitive use warrant protection from unreasonable noise and stipulate that the assigned (allowable) levels should apply at these locations. The proponent's acoustic assessments identified farm residences R1 and R2 (see Figure 2) as the nearest noise sensitive receptors to the proposal area, but do not mention the landowner's residence.

In relation to potential noise impacts on the landowner's residence, the EPA advised that its assessment did consider potential noise impacts at the landowner's residence. The EPA noted that the landowner has an agreement with the proponent to allow construction of the quarry on their land. Given this, the EPA advised that the landowner's property may be considered as an 'Industrial and utility premises' under Part A of Schedule 1 of the Noise Regulations.

In response to the EPA's advice, the appellant was of the view that the landowner's residence is a 'Noise sensitive premises' as set out in Part C of Schedule 1 of the Noise Regulations, given it is located south of Clydesdale Road and outside the proposal development envelope (see Figure 2).

Schedule 1 of the Noise Regulations is titled 'Classification of premises'. It is divided into three parts: Part A 'Industrial and utility premises'; Part B 'Commercial premises'; and Part C 'Noise sensitive premises'. Together, these classifications are used to define how the Noise Regulations apply to different types of premises.

¹² EPA, *Public advice*, 16 March 2020, pages 4-5.

¹³ SLR Consulting Australia Pty Ltd, *Clydesdale Road Quarry Project Grass Valley Acoustic Assessment*, May 2018.

¹⁴ SLR Consulting Australia Pty Ltd, *Clydesdale Road Quarry Project Grass Valley Acoustic Assessment*, October 2019.

¹⁵ SLR Consulting Australia Pty Ltd, *Clydesdale Road Quarry Project Grass Valley Blasting Assessment*, October 2019.

Relevant to this proposal and the EPA's reference to Part A of Schedule 1, 'industrial and utility premises' is defined to include (at item 5) '... any premises used for sand, gravel, clay, limestone, or rock excavation'.

In short, it is understood that the EPA is of the view that because of the agreement in place between the landowner and the proponent, the whole of Lot 150 (including the residential buildings on Lot 150 south of Clydesdale Road) can be regarded as 'industrial and utility' premises.

The EPA's position is important, as the Noise Regulations permit higher noise emissions at industrial and utility receptors than would apply if the premises were described as residential (noise sensitive premises, Part C). For example, regulation 8 of the Noise Regulations provide an L_{A10} assigned noise level at an industrial premises as 65 dB (all hours) compared to a range 35 to 45 dB if the premises are classified as a highly sensitive area at noise sensitive premises (i.e. a residential building).

On revised modelling outlined in the Acoustic Assessment Report (October 2019), L_{A10} noise levels at the landowner's residence before and after mitigation are predicted to be 55 dB. This level complies with the assigned levels in regulation 8 if the premises are regarded as industrial, but would not to comply for any time of day if the premises are regarded as a residence: that is, if the landowner's residence was regarded as noise sensitive premises within the meaning of Part C of Schedule 1, it seems that modelling predicts that the proposal could not comply with the assigned levels in the Noise Regulations.

The revised modelling also indicates that a portion of land owned by the appellant west of the proposal will receive noise levels above the assigned level for rural premises of 60 dB before and after mitigation.

During the appeal investigation, in response to concerns about noise levels at the landowner's residence, the proponent indicated that it now intends to proceed with a smaller proposal, not involving the development of pits 1 and 2 (located closest to the residence on Lot 150 Clydesdale Road). It is noted that the proposal approved by the Shire of Northam includes pits 1 and 2, and the proposal as referred to the EPA (and therefore the subject of this appeal) also includes these pits.

Conclusion

Taking into account the foregoing, it is considered that the landowner's residence on 150 Clydesdale Road is a 'noise sensitive premises' for the purposes of the Noise Regulations. This is on the basis that, while the residence is within the same cadastre of the land on which the quarry is proposed, it is used for a purpose completely unconnected with the quarry i.e. it is used solely or mainly for residential purposes.

As a consequence of this conclusion, the assigned noise levels applicable to that residence are not those that were referenced by the EPA in its decision not to assess the proposal.

Taking into account the proponent's advice that the pits that are in closest proximity to sensitive receptors are no longer proposed to be developed, and its suggestion that removing the pits from the approval may address the concerns raised in respect to this matter, it is recommended that this ground of appeal be allowed to the extent that the proposal is remitted to the EPA for a fresh decision as to whether or not to assess the proposal.

GROUND 2: AIR QUALITY

The appellant was concerned that respirable silica dust from quarry operations may travel by wind and impact on neighbouring properties, particularly one of their residential dwellings which is located 750 m from the proposal area. The appellant contended that the proponent's referral documents did not provide adequate information on the risk of respirable silica dust impacting neighbouring landholders, and that the EPA did not have proper regard to the issue. The appellant was of the view that, if the proposal is not assessed by the EPA, then statutory controls will not be applied to the proponent's mitigation measures to manage dust emissions. The appellant was also concerned that planning processes would not manage this issue.

Consideration

The EPA's objective for the environmental factor 'Air Quality' is 'To maintain air quality and minimise emissions so that environmental values are protected'.

The Public Advice states that the proposal activities have potential to release dust into the environment.¹⁹

The proponent's referral documentation includes an *Air Quality Impact Assessment, Proposed Grass Valley Quarry Project*²⁰ (AQIA Report), which identified the main sources of dust being wheel generated, and from material handling and processing, drilling, blasting and wind erosion of stockpiles.

The AQIA Report states that the closest third-party sensitive receptor that has the potential to experience elevated particulate levels due to the proposal is a residence located approximately 750 m south-west of the nearest quarry pit (R1 as indicated in Figure 2). As noted in Ground 1, the EPA advised that during the assessment GIS analysis was undertaken to confirm the exact distance to this neighbouring dwelling was 864 m.

In its advice on the appeal, the EPA advised:

The impacts from dust in the *Air Quality Report* (SLR Consulting Australia Pty Ltd October 2019) has used a conservative separation distance of 750m in its model as it takes into account that the residents of this property will move around on a daily basis and could be potentially exposed when moving around the property. This is a conservative approach as its unlikely people would be consistently exposed at the higher concentration of dust, particularly considering the quarry will have limited hours of operation, and the majority of the time people will be at the residence and movement around the property is likely to occur in part in an enclosed vehicle. The results of the air quality studies found that there were no exceedances of cumulative 24-hour average for PM10 and PM2.5 or annual average of PM10 guidelines predicted at any off-site receptor. There was a slight exceedance of annual average of PM 2.5 however the exceedance is most likely caused by an elevated background concentration from hazard reduction burning and bushfires...

As the neighbours' properties are on heavily cleared agricultural land, the environment would produce higher ambient levels of dust. The modelling suggests that it is unlikely that the quarry would result in a significant increase in RCS levels above those ambient levels already in this location.²²

In its Public Advice, the EPA noted:

¹⁹ EPA, *Public advice*, 16 March 2020, page 4.

²⁰ SLR Consulting Australia Pty Ltd, *Air Quality Impact Assessment, Proposed Grass Valley Quarry Project*, September 2019.

²² EPA, Response to the appeal, pages 3 to 7.

An air emissions modelling assessment commissioned for the proposal has predicted that dust particulates, including dust potentially containing Respirable Crystalline Silica, would meet the National Environment Protection (Ambient Air Quality) Measures.²³

It is noted that the National Environment Protection (Ambient Air Quality) Measure (NEPM [Ambient Air Quality]) monitors seven criteria pollutants: carbon monoxide; oxides of nitrogen; ozone; sulphur dioxide; and PM₁₀ and PM_{2.5} particle fractions.²⁴ There is no NEPM standard for respirable crystalline silica (RCS) as suggested by the EPA in its Public Advice.

The proponent's AQIA Report states that ambient monitoring data of RCS is not available for the region in which the proposal is located. The AQIA Report concluded that the 'use of a RCS/PM_{2.5} ratio of 0.03 (3%) in estimating ambient level RCS concentrations based on recorded PM_{2.5} concentrations is appropriate and likely to provide conservative estimation of RCS concentrations'.²⁵

In its response, the proponent advised that proposed management measures to mitigate dust emissions from the proposal include the use of a water truck and water sprays at dust prone areas and activities such as crushing. The proponent advised that quarry and crushing activities would not operate between December and March when the prevailing winds are north-easterly. The proponent also advised that activities during the December to March period would be limited to loading incoming trucks from stockpiles, with a water truck applying water to roads and dust prone areas to reduce dust lift-off.

It is noted that the development application considered by the Shire of Northam included proposed Condition 19, which requires the development and implementation of an environmental management plan (EMP). The EMP is to include (among other things) dust mitigation measures and a requirement that crushing activities be restricted to between 1 April to 30 November each calendar year.

In relation to concerns regarding the separation distance to the landowner's residence, the EPA advised:

In making its determination on impacts to air quality, the EPA considered the Cooke family [landowner] residence in its assessment. During a site visit conducted by the Department of Water and Environmental Regulation (DWER) in February 2020, the distance between the Cooke family residence and Pit 2 was verified to be approximately 300 m. Subsequently, the DWER contacted the proponent's consultant (SLR Consulting) and requested additional modelling to be undertaken to assess the impact of air quality on the Cooke family residence. Results from the additional modelling undertaken found only slight exceedances of the 24-hour average PM₁₀ guideline would be predicted in an uncontrolled, worst-case scenario. Through the use of appropriate mitigation techniques such as dust suppression, staged disturbance and only operating during the wetter months, and limited hours per day, the worst case scenario would not occur.²⁶

In the Public Advice, the EPA noted that the proponent would be required to apply for a works approval and licence under Part V of the EP Act, which considers emissions and discharges, and an EIL required under the Planning and Development Act.

In this case, a works approval and licence would be required for crushing and screening activities exceeding a design capacity of 50,000 tonnes per year (category 12, Schedule 1, *Environmental Protection Regulations 1987*). In an appeal against the conditions of a works approval for a hard rock quarry in the Shire of Collie in 2018, the Department of Water and

²³ EPA, *Public advice*, 16 March 2020, page 4.

²⁴ <http://www.nepc.gov.au/>

²⁵ SLR Consulting Australia Pty Ltd, *Air Quality Impact Assessment, Proposed Grass Valley Quarry Project*, September 2019, page 18.

²⁶ EPA, *Response to the appeal*, pages 2 to 3.

Environmental Regulation (DWER) relevantly advised that it does not have a role in approving quarries but does regulate crushing and screening of material extracted from quarries under Part V of the EP Act. It advised in that case that mining, free digging, excavating, quarrying and blasting do not constitute screening etc of material, and therefore do not fall within the scope of category 12 premises.

Discussions with the Shire of Northam indicated that *Shire of Northam Extractive Industries Local Law 2008* (Extractive Industries Local Law) requires annual inspections of premises, and further inspections may be undertaken if required. For example, in response to complaints received from the public. It was also indicated that the Shire has established procedures for investigating and managing complaints received in relation to extractive industries.

Conclusion

Taking into account the foregoing, and noting the recommendation under Ground 1 of this report that the proposal is remitted to the EPA for a fresh decision as to whether or not to assess the proposal, it is considered appropriate for the EPA to review the matters raised in this ground of appeal, including in respect to NEPM (Ambient Air Quality), and the extent to which dust can be adequately managed under other statutes.

GROUND 3: FLORA AND FAUNA

The appellant submitted that the EPA's decision failed to take into account that the proposal area contains the listed Eucalypt Woodlands of the Western Australian Wheatbelt Threatened Ecological Community (TEC) and potential breeding habitat for the listed Carnaby's black cockatoo. The appellant questioned the adequacy of the proponent's desktop survey and one day field assessment of the biodiversity values of the proposal area. The appellant also question whether a clearing permit would be required to clear native vegetation within the proposal area, and if statutory controls would be applied to manage rehabilitation.

The appellant noted that the proponent's landform report, which was included in the referral documentation, had no details on authorship and was undated.

Consideration

The EPA's environmental objectives for the environmental factors 'Flora and Vegetation' and 'Terrestrial Fauna' are, respectively:

- To protect flora and vegetation so that biological diversity and ecological integrity are maintained
- To protect terrestrial fauna so that biological diversity and ecological integrity are maintained.

In its Public Advice, the EPA stated:

The EPA notes that the proposal involves the clearing of 8.4 ha of vegetation on the site. The vegetation association is predominately *Eucalyptus wandoo* tall open woodland (53.9%) with the remainder mostly consisting of historically cleared grazing land (44.6%). The vegetation condition for the disturbance area is completely degraded - vegetation contained more than 70% exotic understorey cover and has been heavily grazed by sheep.²⁷

²⁷ EPA, *Public advice*, 16 March 2020, page 3.

The proponent's consultant undertook a flora, vegetation and fauna survey of the proposal area, which included a desktop study and a reconnaissance and level 1 field survey undertaken on 2 October 2019²⁸.

The EPA advised that DWER conducted a site visit in February 2020, which found that the native vegetation proposed to be cleared was in a completely degraded condition (Keighery 1994). The EPA also advised that the vegetation proposed to be cleared does not meet the minimum requirements to be considered Eucalypt Woodlands of the Western Australian Wheatbelt TEC, based on Commonwealth guidelines²⁹.

In relation to Carnaby's black cockatoo, the EPA noted Commonwealth guidance that *Eucalyptus wandoo* trees with a diameter at breast height greater than 300 millimetres should be assessed for suitable nest hollows. The EPA advised that DWER's site visit determined that the eucalyptus trees within the proposal area were not of a size to be considered suitable breeding or roosting habitat for Carnaby's black cockatoo, and no trees with hollows were identified.

In its Public Advice, the EPA states that the proponent has committed to minimising impacts to native vegetation by minimising clearing to areas required for construction and operation of the quarry, and development and implementation of the EMP. The EMP would include management measures such as clearing and access controls, weed management and rehabilitation (among other things).³⁰

In its response, the proponent advised that it will apply for a clearing permit to undertake the proposed clearing, and develop and implement the EMP required through the Shire of Northam's planning process.

In its Public Advice, the EPA considered that the proposal, if implemented consistent with the referral information, can meet the EPA's objectives for Flora and Vegetation and Terrestrial Fauna, and that the environmental effects of the proposal are not so significant as to warrant formal assessment. The EPA noted that the proponent would be required to obtain a native vegetation clearing permit under Part V of the EP Act, which would include an assessment of the impacts to native vegetation and terrestrial fauna from the proposed clearing.

With regards to rehabilitation, discussions with the Shire of Northam indicated that the proponent's EMP must include details of site rehabilitation. The Shire noted that relevant considerations include progressive closure and rehabilitation of individual quarry pits, final land use and landform, and screening of the site using trees and other vegetation.

In relation the proponent's landform report, it is noted that the referral documents included an unauthored and undated version of the *Grass Valley Project – Description of Landform*³¹ report. The proponent advised that this was an administrative oversight, and that the authored and dated version of the report which was considered by the EPA during the assessment should have been included in the referral documentation available online through the EPA. It is noted that the proforma and final versions of the report are identical in content. The EPA advised that the landform was not considered unique on a local or regional scale and is not sensitive.

²⁸ Ecologia, *Resource (WA) Group Pty Ltd Grass Valley Hard Rock Quarry Flora and Fauna Assessment*, November 2019.

²⁹ Commonwealth of Australia, *Eucalypt Woodlands of the Western Australian Wheatbelt: a nationally protected ecological community*, 2016.

³⁰ EPA, *Public advice*, 16 March 2020, page 3.

³¹ Graham Lee & Associates Pty Ltd, *Grass Valley Project – Description of Landform*, 27 August 2019.

Conclusion

For the reasons stated above, it is considered that the impacts from clearing of native vegetation can be assessed by DWER through a clearing permit process and that this is the best mechanism to assess impacts of the kind raised by this ground of the appeal. If DWER's assessment of the clearing application indicates that the environmental risks posed are unacceptable, DWER can refuse to issue a permit, or can ensure conditions are attached to a permit which would mitigate the environmental impacts. It is also noted that the Shire of Northam can manage closure and rehabilitation of the quarry through its Extractive Industries Local Law. It is therefore recommended that this ground of appeal be dismissed.

GROUND 4: INLAND WATERS

The appellant contended that the proponent's assessment of potential impacts to surface and ground water was inadequate, and that the EPA failed to adequately consider the environmental risks posed by the implementation of the proposal on water resources. The appellant asserted that the proponent's referral documents contain inconsistencies and inaccuracies in relation to water management.

Specifically, the appellant asserted that proponent's water report:

- inaccurately refers to a 'granite' rather than a 'quartzite' quarry
- 'contains inconsistent information, originally stating that only the stockpile and Pit 4 intercept the two creeks, and then later in the report including Pit 3 as a pit that intercepts the creeks'.

The appellant was of the view that the EPA's assessment should have considered potential impacts to water resources on neighbouring land, which may affect livestock water supplies. The appellant was also concerned that the proposal may adversely impact on an historic well located on adjoining land.

Consideration

The EPA's objective for the environmental factor 'Inland Waters' is 'To maintain the hydrological regimes and quality of groundwater and surface water so that environmental values are protected'.

The proponent's referral documentation included a *Grass Valley Hard Rock Quarry Water Management Assessment*³² (WMA Report), which outlined the results of a drilling program undertaken within the proposal area that included over a dozen bores drilled to a depth of 60 m.

In its advice, the EPA stated:

Based on the results of the drilling program, it is likely that there is no surficial aquifer or any groundwater that may occur localised in rock fractures. The data presented showed no evident connection between the surface water hydrology and any localised groundwater. As groundwater was not intercepted at depth, it is likely that the quarry operations will occur above the water table and would be unlikely to impact groundwater resources.³³

In relation to the reference to a 'hard rock (granite) quarry' in the WMA Report, the EPA advised:

³² Water Technology, *Grass Valley Hard Rock Quarry Water Management Assessment*, 16 December 2019.

³³ EPA, Response to the appeal, page 8.

The EPA acknowledges that the consultants who prepared the water management report referred to the project as a granite quarry in their report, whereas the project as referred was for a quartz hard rock quarry. The EPA noted that the drilling program failed to encounter groundwater, and based on the information provided, the proposed pits would remain above the water table for the duration of mining, regardless of the resource (quartz vs granite). The EPA considered the approach to surface water management and considers that the approach would be similar between a quartz and granite quarry.³⁴

It is noted that the EPA can only consider each proposal referred to it on its own merits. For the current proposal, based on the information provided by the proponent, quarrying would occur above the water table. If that changed, then the proponent would need to consider whether the proposal should be referred to the EPA under Part IV Division 1 of the EP Act.

The proponent's WMA Report recommended measures to control surface water runoff from the proposal area and manage its discharge downslope, including the installation of:

- a diversion drain around the stockpile area
- two sediment traps to prevent the discharge of sediment
- two culvert crossings across an ephemeral creek.

The EPA advised that:

... any significant diversion of these creeks would require a bed and banks permit from the DWER, under the *Rights in Water and Irrigation Act 1914* (RiWI Act). If required, the permit would be conditioned and require an engineer's certificate to ensure the safety and adequacy of diversion structures. The EPA considered that the management of surface water could be appropriately regulated under the RiWI Act, when making its decision...

The EPA considered that the catchment and creek flow system present in the proposal area was likely to cause minimal impacts to neighbouring properties. The majority of the surface water flow at the site is confined to shallow broadly defined ephemeral drainage systems off the hills. An un-named creek extends from the north of the site and travels down to Clydesdale Rd passing through a culvert out into the adjacent paddock. This creek has been observed to be dry for most of the year, with ephemeral flows expected in response to rainfall events. The creek flow is relatively low and through the use of mitigation techniques such as sediment traps, the impact on surface water quality and surrounding areas is likely to be minimal.³⁵

The EPA also advised that the proponent may need to take water and install a bore to supply water for the proposal in which case, the proponent would be required to apply for a licence to take water in accordance with the RiWI Act. The EPA also advised that DWER's licensing process under Part V of the EP Act can assess and apply controls relating to water management, if required. It appears the land the subject of this proposal is not within a proclaimed groundwater area, and as such, it is unclear that a licence to abstract water would be required. It is also unclear as to the extent to which abstraction of water is a matter normally regulated under Part V of the EP Act.

Conclusion

Noting the above, while quarrying will occur above the water table, given the potential that groundwater abstraction may not require approvals in the form identified in the EPA's advice, it is recommended that this ground of appeal be allowed to the extent that the EPA reconsiders these matters as part of the remittal recommended by Ground 1.

³⁴ Ibid, page 7.

³⁵ Ibid, pages 7 to 8.

OTHER MATTERS

The appellant raised concerns that blasting operations may have commenced for the proposal without appropriate notice to surrounding landowners. The appellant submitted this matter is relevant to the Minister's considerations, however it is considered to be outside the scope of the appeal and as a result, is not the subject of consideration or recommendation.

In response, the proponent advised:

... no member of Resource Group or any other organisation, apart from the Owner, has been near the site since the EPA inspection in February, let alone to drill and blast...

The EPA advised that:

The EPA cannot comment on allegations of unlawful blasting being undertaken by the proponent. If this is being undertaken, it is suggested that the appellant contact the Shire of Northam.

CONCLUSION AND RECOMMENDATION

After considering all of the information provided in respect to the appeal, and in light of the proponent's advice that it now intends to proceed with a smaller proposal not involving the development of pits 1 and 2, it is recommended that the Minister allows the appeal to the extent that the proposal is remitted to the EPA for a fresh decision as to whether or not to assess the proposal, having particular regard to potential impacts from noise, dust and water management.

It is otherwise recommended the appeal be dismissed.

Emma Gaunt
APPEALS CONVENOR

Investigating Officer:
Michael Power, Senior Appeals Assessor