GOVERNMENT OF WESTERN AUSTRALIA

Environmental Protection Authority

EPA Referral Form

Form for the referral of a proposal to the Environmental Protection Authority under Section 38 of the *Environmental Protection Act 1986*

Referrer information

Who is referring this proposal?		✓ Proponent ☐ Decision-making authority ☐ Community member/third party	
Name Anthony Nicholson		**Signature** 	
Position	Director	Organisation	Resource Group (WA) Pty Ltd
Email	tonynicholson@resourcegroup.com		
Address	PO Box 332	Street Name	
	Inglewood	WA	6052
Date	16/06/2021		
Does the referrer request that the EPA treat any part of the proposal information in the referral as confidential? *Provide confidential information in a separate attachment.*		☐ Yes ✓ No	

Referral declaration for organisations, proponents and decision-making authorities:

I, Anthony Gerard Nicholson, declare that I am authorised to refer this proposal on behalf of Resource Group (WA) Pty Ltd and further declare that the information contained in this form is true and not misleading.

Part A: Proponent and proposal description

Proponent information

Name of the proponent/s (including Trading Name if relevant)	Resource Group (WA) Pty Ltd
Australian Company Number(s) ☐ **OR** Australian Business Number(s) ✓	8779452928
Contact for the proposal (if different from the referrer) *Please include: name, physical address, phone, and email.*	☐ Yes ✓ No
Does the proponent have the legal access required for the implementation of all aspects of the proposal?	✓ Yes ☐ No

***If yes**, provide details of legal access authorisations / agreements / tenure.* ***If no**, what authorisations / agreements / tenure is required and from whom?*	Previously provided to the EPA as part of the original submission - EPA (CMS 17570)
Proposal type	
What type of proposal is being referred? For a change to an approved proposal please state the Ministerial Statement number/s (MS No./s) of the approved proposal For a derived proposal please state the Ministerial Statement number (MS No.) of the associated strategic proposal	x significant – new proposal ☐ significant – change to approved proposal (MS No./s: _____) ☐ proposal under an assessed planning scheme ☐ strategic ☐ derived (Strategic MS No.: _____) Proposal previously referred to EPA in January 2020, decision: Not Assessed - Public Advice Given (Appealable)**.** Decision was appealed and was subsequently reviewed by the Appeals Convenor (Appeal Number 016 of 2020) who advised that the proponent should re-referred the proposal to EPA as a reduce proposal with the deletion of pits 1 and 2 and further consideration of the potential impacts of noise, dust and water management.
For a significant proposal: • Why do you consider the proposal may have a significant effect on the environment and warrant referral to the EPA?	Potential for noise generated by the quarrying operations to impact adjacent landowners (NSR's). Potential for articulate dust from quarrying and associated activities may impact upon human health, amenity and the environment
For a proposal under an assessed planning scheme, provide the following details: • Scheme name and number For the Responsible Authority: • What new environmental issues are raised by the proposal that were not assessed during the assessment of the planning scheme? • How does the proposal not comply with the assessed scheme and/or the environmental conditions in the assessed planning scheme?	n/a
Proposal description	
Title of the proposal	Proposed Quarrying, crushing and screening of Hard Rock Lot 150 Clydesdale Road Grass Valley
Name of the Local Government Authority in which the proposal is located.	Shire of Northam
Location:	Lot 150 on Plan 300080 (#792) Clydesdale

a) street address, lot number, suburb, and nearest road intersection; or b) if remote the nearest town and distance and direction from that town to the proposal site.	Road Grass Valley Closest intersection is Watson Rd and Clydesdale Rd. The nearest town is Grass Valley, approx. 3.2km to the southwest
Proposal description – including the key characteristics of the proposal *Provide as an attachment to the form*	It is proposed to extract, crush and screen approximately seventy thousand tonne (70,000tn) of hard rock sales per annum over the ten-year license period. In the first year or two of operation it is likely that the volumes will be lower than applied for as the business establishes itself in the marketplace. Additionally, sales volumes may vary from year to year up to a maximum of ~70,000tn depending on the market requirements at any given time. It is anticipated at this point that at the expiry of the first license period a second ten-year license will be sought, and so on until the resource is depleted in 20-30 years.
Have you provided electronic spatial data, maps and figure in the appropriate format? *Refer to instructions at the front of the form*	✓ Yes ☐ No
What is the current land use on the property, and the extent (area in hectares) of the property?	Current land use is mixed farming; being crops and sheep (~5000 head). The proposed development area covers a total area of approximately 15.2 ha
Have you had pre-referral discussions with the EPA at DWER Services? If so, quote the reference number and/or the DWER contact.	Previously referred to EPA (CMS 17570), Referral Examined, preliminary investigations and inquiries conducted. Proposal Not Assessed (11/03/2020)

Part B: Environmental impacts

Environmental factors

What are the likely significant environmental factors for this proposal?	☐ Benthic Communities and Habitat ☐ Coastal Processes ☐ Marine Environmental Quality ☐ Marine Fauna ☐ Flora and Vegetation ☐ Landforms ☐ Subterranean Fauna ☐ Terrestrial Environmental Quality ☐ Terrestrial Fauna ✓ Inland Waters ✓ Air Quality ✓ Social Surroundings ☐ Human Health

*For **each** of the environmental factors identified above, complete the following table, or provide the information in a supplementary report*		
Potential environmental impacts		
1	***EPA Factor - Social Surroundings (Noise)***	Refer to the attached supporting documentation for further detail
2	***EPA policy and guidance*** - What have you considered and how have you applied them in relation to this factor?	EPA Environmental Factors Guideline: Social Surroundings *Environmental Protection (Noise) Regulations 1997* (Noise Regulations)
3	***Consultation*** – Outline the outcomes of consultation in relation to the potential environmental impacts	
4	***Receiving environment*** – Describe the current condition of the receiving environment in relation to this factor.	Landowners residence (NSR1) has been included in the site noise calculations. NSR1 is 560 metres from the Southern boundary of proposed pit 3. NSR1 was deemed to receive noise at a level of 44.5dBa with Neutral Meteorological conditions and 49.8dBa in the worst predictable conditions. It should be noted that the 'worst meteorological conditions' affecting NSR1 occur rarely when the wind is somewhere between NNW and North (refer Wind Rose) .
5	***Proposal activities*** – Describe the proposal activities that have the potential to impact the environment	The proposed quarry is planned to operate as follows: • Dump truck (sales truck) movement 7:00 am to 5:00 pm Monday to Friday; • Crushing Operations 7:00 am to 5:00 pm Monday to Friday for 3 - 4 months per year (Winter) • Sales Period for full 12 months per year; • Other onsite operations 7:00 am to 5:00 pm Monday to Saturday; and • No operations on Sunday or public holidays.

6	***Mitigation*** – Describe the measures proposed to manage and mitigate the potential environmental impacts.	Noise levels measured at the nearby sensitive receivers are required to be adjusted if the noise exhibits impulsive, tonal, or modulating characteristics. If the noise is assessed as having tonal, modulating or impulsive characteristics, then the measured noise levels are adjusted. Under worst case meteorological conditions, the noise model predicts an exceedance at only NSR1 of 4.8 dB. The noise levels modelled for neutral conditions fall below the noise limit for all three noise sensitive receivers. To achieve compliance at all receivers during the worst-case meteorological conditions the following mitigation controls are proposed: - Sound power level of 6 dB below the level stated in Appendix A for the drill rig; - Sound power level reduction of 10 dB below the level stated in Appendix A for the Primary Crusher and Cone Crushers; and - 5 dB below the level stated in Appendix A for the Wheel Loaders. - Cease operations of noise emitting equipment until conditions are more favourable Drill rig noise controls may include: • High-spec muffler • Radiator Silencer • Upgraded Cooling fan • Acoustically treated enclosure of top drive or acoustically treated shroud over the derrick

7	***Impacts*** – Assess the impacts of the proposal and review the residual impacts against the EPA objective.	Predicted noise levels at the nearest three noise sensitive receivers with the implementation of mitigation measures are below the assigned noise level (ie 45 dBA)
8	***Assumptions*** - Describe any assumptions critical to your assessment e.g. particular mitigation measures or regulatory conditions.	Road trucks have not been considered in this report because; 1. Clydesdale Road which passes by all three NSR's is a Main Roads Western Australia (MRWA) designated truck route. As such trucks of various descriptions are permitted to travel along it at all times of the day and night. Resource Group gave an undertaking in the early part of the negotiation with Northam Shire over the Development Application not to travel past the NSR's with its own fleet of trucks even though it is an MRWA approved truck route. For the record NSR2 is only 260 metres from the GEH and its inherent traffic noise and is more likely to be impacted by that positioning rather than anything generated by the proposed quarry. 2. All trucks arriving and leaving the quarry turn left and travel East away from the NSR's moving towards Watson Rd to then gain access onto the Great Eastern Highway (GEH) and thence onwards to Perth.
1	***EPA Factor- Air Quality***	Refer to the attached supporting documentation for further detail
2	***EPA policy and guidance*** - What have you considered and how have you applied them in relation to this factor?	EPA Environmental Factor Guideline: Air Quality National Environment Protection Measures and World Health Organisation criteria
3	***Consultation*** – Outline the outcomes of consultation in relation to the potential environmental impacts	

4	***Receiving environment*** – Describe the current condition of the receiving environment in relation to this factor.	The topography surrounding the site is rolling rural land, with no major terrain features nearby. The project is in the vicinity of a few small commercial land uses, including sandpit operations located approximately 1.5 km south of the Project site, that have the potential to generate dust and particulate matter emissions. The receiving air environment in the vicinity of the project will also be affected by dust from surrounding agricultural activities, wind erosion during periods of dry and dusty wind conditions, Intermittent and short-term emissions of particulate matter and products of combustion from grass/bush fires, controlled burns and dust storms. Ambient monitoring data of Respirable Crystalline Silica (RCS) is not available for the region.

5	***Proposal activities*** – Describe the proposal activities that have the potential to impact the environment	The proposed quarry site layout includes two quarry pits (pits 3 and 4), one crushing plant operation area, a stockpile zone, a site office and a workshop. The allowed tonnage of material crushed is 70,000 tonnes per annum, which is low when compared to other quarries operating in Western Australia. Trucks will be loaded by front end loader (FEL) will cart material from the pits to a hardstand area for crushing and screening over a period of three to four months in total each year, during April – November, avoiding dust generation during the driest and hottest months to minimise potential impacts at surrounding sensitive receptors. Following crushing and screening, materials will be loaded to trucks and carted to the product stockpile area for sale and distribution. The operating hours for each relevant activity are outlined below. • Sales truck movement – 6:30 am to 2:00 pm Monday to Friday. • Crushing Operations – 7:00 am to 5:00 pm Monday to Friday • Other on-site operations – 7:00 am to 5:00 pm Monday to Saturday. Air emissions from the proposed quarry operations have the potential to generate particulate matter from material handling, hauling and processing activities impact on air quality. Also emissions of diesel combustion products from the vehicles and mobile machinery working on the site. The nearest sensitive receptor that has the potential to experience elevated particulate levels due to the proposed Project is a residential dwelling located 560 m southwest of the nearest quarry pit.

6	***Mitigation*** – Describe the measures proposed to manage and mitigate the potential environmental impacts.	The following management measures will be implemented to minimise dust emissions for the project: Site staff should determine the frequency of water cart passes required, based on the following: • Weather conditions • Volume of traffic on exposed or dusty surfaces • Extent of stripped area • Extent of unprotected areas • Retain as much vegetative screening between the Facility and the nearest sensitive receptors as possible Additionally, a dust management plan (DMP) has been developed (see attached) with key dust including the following mitigation measures: • Outline responsibilities of on-site personnel including employees and manager in minimising generation of dust from any on-site activities • Water spray at the hole collar area during drilling activities • Wet down the material prior to loading to trucks at the pit. The wetting down process is repeated several times as the front end loader works its way through in the pit. •At ROM Pad the material will be kept wet by water spray. Any release of fugitive dust during loading of ROM bin will be minimised using high pressure water sprays fitted with the ROM bin. • Ensure the materials are damp prior to loading to crusher. • Use of high pressure water sprays at all transfer points of the crusher plant. • Use of water sprays to ensure products are damp prior to loading dump trucks at the crusher pad and product stockpiles. • Water sprays at the product stockpile area as required to keep the surface damp. • Provide training to all personnel working on the site.

		• Slow moving sales stockpiles may have the batters sprayed with a dust settling emulsion to reduce any undue lift off in windy conditions.
7	***Impacts*** – Assess the impacts of the proposal and review the residual impacts against the EPA objective.	No exceedances of the cumulative 24-hour or annual average PM_{10} guideline are predicted to occur at any offsite receptor when dust mitigation measures are included in the emission estimation. No exceedances of the 24-hour average $PM_{2.5}$ guidelines are predicted at any off-site receptor.
8	***Assumptions*** - Describe any assumptions critical to your assessment e.g. particular mitigation measures or regulatory conditions.	The dust modelling study has incorporated a number of conservative assumptions including operation at peak weekly throughput throughout April to November. The predicted off-site impacts were determined likely to be a significant overestimation of the potential worst-case impacts. Regular communication is recommended with local landowners to ensure that the proposed DMP is being implemented effectively at the site to keep any air quality impacts at the surrounding sensitive receptors to acceptable levels.
1	***EPA Factor - Inland Waters***	Refer to the attached supporting documentation for further detail
2	***EPA policy and guidance*** - What have you considered and how have you applied them in relation to this factor?	EPA Environmental Factors Guideline: Inland Waters
3	***Consultation*** – Outline the outcomes of consultation in relation to the potential environmental impacts	

4	***Receiving environment*** – Describe the current condition of the receiving environment in relation to this factor.	The proposal area is located within the Mortlock River catchment, which merges into Avon River further downstream and is not located near any Ramsar wetlands or any other wetlands of conservation significance. The majority of the surface water flows on the site are confined to shallow broadly defined ephemeral drainage systems off the hills in which the Project resides. 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
5	***Proposal activities*** – Describe the proposal activities that have the potential to impact the environment	Potential quarrying activities to potentially impact on the water resources on neighbouring land, including sedimentation of water courses. Based on the proposed stockpile location, the southern end of the stockpile may encroach on the main creek line.
6	***Mitigation*** – Describe the measures proposed to manage and mitigate the potential environmental impacts.	There is a 10m wide corridor between the stockpile and the crushing plant and it proposed that the channel will be diverted through this corridor to mitigate impacts to the creek. The project proposes to control fines from discharging downstream by re-routing through at least two sediment control ponds/traps before final release into the drainage network. During pit development, the pit perimeter on the up-gradient side will be bunded to minimise runoff volumes reporting to the pit from any minor upslope areas. Where roads cross an ephemeral creek within Catchment A, two culverts will be installed. Furthermore, to prevent surface runoff of contamination, all fuel, oil and chemical storage areas, and wash-down facilities will be contained by adequate bunding in accordance with the appropriate regulations.

7	***Impacts*** – Assess the impacts of the proposal and review the residual impacts against the EPA objective.	The proposed mitigation will ensure that sediment is trapped, retained and controlled on site. As a consequence, there is little chance of sediment being carried down the water course into neighbouring lands as currently occurs due to any controls not being in place
8	***Assumptions*** - Describe any assumptions critical to your assessment e.g. particular mitigation measures or regulatory conditions.	

Part C: Other approvals and regulation

State and Local Government approvals

Is rezoning of any land required before the proposal can be implemented? If yes, please provide details.	☐ Yes ✓ No
If this proposal has been referred by a decision-making authority, what approval(s) are required from you?	n/a

Please identify other approvals required for the proposal:

Proposal activities e.g. clearing, dewatering, mining, processing, dredging	**Land tenure/access** e.g. Crown land, Mining lease, specify legislation for access if relevant	**Type of approval** e.g. Native Vegetation Clearing Permit, licence, mining proposal,	**Legislation regulating the activity** e.g. *EP Act 1986* – Part V, *RiWI Act 1914*, *Mining Act 1979*
General Application		Extractive Industry License	Northam Shire Extractive Industry Local Law 2008
Clearing of native vegetation		Native Vegetation Clearing Permit	*Environmental Protection Act 1986* (EP Act), section 51E
EPA license/works approval		Works Approval	Part V of the *Environmental Protection Act 1986*

Commonwealth Government approvals

Does the proposal involve an action that may be or is a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)?	☐ Yes ✓ No
Has the proposed action been referred? If yes, when was it referred and what is the reference number (EPBC No.)?	☐ Yes ✓ No Date: _____ EPBC No.: _____
If referred, has a decision been made on whether the proposed action is a controlled action? If 'yes', check the appropriate box and provide the decision in an attachment.	☐ Yes ☐ No ☐ Decision – controlled action ☐ Decision – not a controlled action
If the proposal is determined to be a controlled action, do you request that this proposal be assessed under the bilateral agreement or as an accredited assessment?	☐ Yes - Bilateral ☐ No ☐ Yes - Accredited
Is approval required from other Commonwealth Government/s for any part of the proposal? *If yes, describe.*	☐ Yes ✓ No Approval: