

**JOINT REGIONAL PLANNING PANEL
Northern Region**

JRPP No	2017NTH001
DA Number	DA 41/16-17
Local Government Area	Glen Innes Severn
Proposed Development	Extractive Industry – 300,000 tonnes/annum hardrock
Street Address	1323 Gwydir Highway Matheson Lot 87 and 113 DP 753319
Applicant/Owner	Glen Innes Severn Council/Glen Innes Severn Council
Number of Submissions	One
Regional Development Criteria (Schedule 4A of the Act)	<ul style="list-style-type: none"> • s 77A of the <i>Environmental Planning & Assessment Act 1979</i> the proposal is identified as designated development as defined in Schedule 3 of the <i>EP&A Regs 2000</i> being an extractive industry • s 91 of the <i>EP&A Act 1979</i> the proposal is identified as being integrated development requiring a licence or approval from: <ol style="list-style-type: none"> 1. An Environment Protection Licence from the NSW Environment Protection Authority under Section 53 of the <i>POEO Act 1997</i>. 2. A Section 138 approval from the Roads and Maritime Service under Section 138 of the <i>Roads Act 1993</i>.
List of All Relevant s79C(1)(a) Matters	<ul style="list-style-type: none"> • SEPP (State & Regional Development) 2011 • SEPP (Mining, Petroleum Production & Extractive Industries) 2007 • SEPP 33. (Hazardous & Offensive Development) • SEPP 55 Remediation of Land • SEPP 44 (Koala Habitat) • SEPP (Rural Lands) 2008Glen Innes Severn Local Environmental Plan 2012 • Glen Innes Severn Development Control Plan 2014
List all documents submitted with this report for the panel's consideration	<ol style="list-style-type: none"> 1. Environmental Impact Statement 2. Report Prepared by Libby Cumming, Senior Town Planner
Recommendation	That the Norther Regional Joint Regional Planging Panel issue conditional consent.
Report by	Libby Cumming
Report date	7 June 2017



GLEN INNES SEVERN COUNCIL

Assessment Wattle Vale Hard Rock Quarry Stage 2



6 June 2017

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1. INTRODUCTION

1.1 Executive Summary

The Glen Innes Severn Council is the proponent for a Development Application to construct and operate a new hard rock quarry at the property known as Wattle Vale, Glen Innes. Material from the quarry will be used for the upgrade and maintenance of local roads. In addition the quarry will also provide material, as required, for the construction of nearby wind farm projects. The proposed Wattle Vale Quarry is approximately 13 km west of Glen Innes, having an address of 1323 Gwydir Highway, Matheson. (Locality Map – Appendix A). The development will be located wholly on Lot 113 of DP 753319.

To facilitate commencement of the quarry, Development Application DA26/16-17 Stage 1 was approved by Glen Innes Severn Council on 17 January 2017. (Development Consent DA26/16-17 - Appendix B)

The current land use is predominately grazing.

Access (Entry only) to the proposed quarry is via the approved access road for the Glen Innes Wind Farm (GIWF), located along the southern boundary of Lot 113 of DP 753319. This access has been constructed and is currently the approved access for Stage 1 of the quarry. Access to and from the Gwydir Highway is currently subject to traffic control when haulage is being undertaken as per conditions of consent for Stage 1. It is proposed to construct an additional exit on the Gwydir Highway for exit only traffic from the site.

The development is an extractive industry under the *Glen Innes Severn Local Environmental Plan 2012* (GIS LEP) and is designated and integrated development under the *Environmental Planning & Assessment Regulation 2000*. In accordance with Schedule 4A (Clause 8) of the *Environmental Planning & Assessment Act 1979* the Northern Regional Joint Regional Planning Panel (NJRPP) is the consent authority.

The application was notified for a period of thirty (30) days, concluding on the 20 February 2017. One submission was received as a result of the public notification.

Referrals were sent to external agencies and internal departments for comment.

The Application for Development has been assessed in accordance with S79C of the *Environmental Planning and Assessment Act 1979* (EPAA) and the relevant state and local environmental planning instruments. Based on the assessment detailed in this report, the development application is recommended for approval subject to the conditions provided in draft format for the consideration of the NJRPP.

1.2 Scope of this Report

This report has been prepared provide an overview of the proposal and the statutory assessment procedure used during the processing of the development application. An assessment of the key environmental issues of the development is then provided which culminates in the recommendation to the NJRPP.

1.3 Site Description & Surrounding Land Use

The proposed development site occurs approximately 13 kilometres west of Glen Innes. It sits on undulating pasture land on the edge of the Waterloo Range and has been cleared due to historical

agricultural land uses, with some pasture improvement evident. Remnant native vegetation being restricted to isolated mature trees and small patches of acacia regrowth are present onsite.

The Gwydir Highway traverses the land with the Gwydir Highway road corridor being located on the norther boundary of the proposed quarry site.

The proposed quarry occurs close to the top of a ridge at around 1,180 m AHD. The land itself has a gentle slope ranging from 1,090 m Australian Height Datum (AHD), to a ridge with an elevation of approximately 1,190 m AHD. The surrounding environment is undulating, with surrounding plains having a general elevation of approximately 1,000 m AHD.

An unnamed tributary of Back Plain Creek runs through the Development site and is a tributary of the Wellingrove Creek, which flows into the Severn River to the north. A number of small farm dams are located throughout the land, including one which is immediately below the proposed quarry.

The land is predominantly cleared and is currently being used as pasture.

The surrounding area is sparsely populated with the closest residence lying approximately 1.5 km to the north-east of the proposed quarry site.

1.4 Regional Context

The Glen Innes Severn Local Government Area (LGA) is primarily known for its agricultural enterprises, with the town of Glen Innes providing an important centre for livestock sales. Key industries in the region include wool, sheep, cattle, agriculture, fossicking and tourism. Renewable energy is a growing industry in the region, with three wind farms and one solar farm having been recently approved.

1.5 The Development

The proposed development involves a hard rock quarry, with an annual maximum extraction rate of 300,000 tonnes pa and a maximum daily extraction rate of 3,000 tonnes per day. The total area of disturbance is approximately 8 hectares which includes an extraction area of approximately 6 hectares. The primary purpose of the proposed development is to supply suitable aggregate resources for the construction of proposed wind farm projects in the area and road construction through the Glen Innes LGA. The quarry is expected to commence operation in 2017 and be in operation for at least 30 years. Summarised, the activities proposed to be undertaken are:

- Progressive installation of environmental controls including erosion and sediment control measures.
- Construction of an intersection with the Gwydir Highway and signage.
- Construction of fencing.
- Delineation of the site and stockpiling areas.
- Vegetation clearance, soil stripping and stockpiling.
- Construction of temporary drainage controls.
- Expanded quarry operations.
- Establish site office and weighbridge.
- Close and rehabilitate the quarry.

The proposal is otherwise described in written and graphical form in the EIS.

1.6 Operation of the Quarry

The quarry operations would be carried out in stages and in response to demand. Topsoil stripping would occur in stages prior to excavation. As each bench is exhausted another will be opened. There are 25 benches.

Areas would be stripped immediately prior to quarrying. Overburden would either be stockpiled for future rehabilitation works, or placed in final location as voids are created. A quarry face of about 7 metres in depth would be established. Excavation would commence on the western side and continue in an easterly direction.

Overlying weathered material would be removed using bulldozers and excavators. Underlying fresh rock would require blasting on weekdays between the hours of 10 am and 3 pm. Blasting would be strictly controlled and conducted by a suitably qualified blasting contractor who would bring explosives onto site as required.

Contractors would crush and screen the extracted material using mobile plant positioned close to the extraction area. An excavator would feed the excavated rock into a mobile primary crusher. The primary crusher would then pass the crushed material to a secondary mobile crusher for further crushing, at which point the material would be passed through a screening plant to sort the crushed aggregate into different grades. The screening plant would discharge the crushed and screened aggregate into a stockpile area using a radial stacking conveyor.

Material would be stockpiled in designated areas and would be stored in various grades for sale or distribution. Other aggregate may be brought to site from time to time to blend road base products.

Operations would generally be limited to the following times:

- Monday to Friday: 7.00 am to 5.00 pm
- Saturday: 8.00 am to 4.00 pm
- No work on Sundays or Public Holidays.

Staff may arrive and leave site before and after these times to 'start-up' and 'shut-down' the quarry but excavation, crushing or loading would not occur outside the times specified above. It is expected there will be a maximum of 8 staff onsite at any one time.

The access road from the Gwydir Highway along the public road reserve has been approved as part of the Glen Innes Wind Farm and is not part of the Development. However, the intersections (entry and exit) with the Gwydir Highway will need to be upgraded. It is proposed to upgrade the accesses to incorporate Channelised Right-Turn (CHR(s)) and Auxiliary Left-Turn (AUL(s)) treatments (refer to Section 7.6 of the EIS).

The traffic generation from the workforce generation is to be 24 vehicle trips per day (vtpd) with the heavy vehicle traffic expecting to generate about 100 truck and dog loads or 200 truck movements per day. The truck movements would start at 7.00 am and continue evenly throughout the day, until 5.00 pm.

Surface flows from the quarry (rainfall or groundwater ingress) would drain to the sedimentation basin (either freely or by pumping depending on the stage of quarrying). Following an appropriate settling time for suspended sediments, water from these dams would either be used onsite for dust suppression or discharged to a series of drainage lines that lead to Wellingrove Creek and the Severn River.

During dry conditions, exposed areas would be sprayed with water from a water cart to suppress dust. Water will be sourced from the sediment basin, which will be oversized to allow for water storage while still allowing sufficient capacity to meet the quarry operational requirements.

The site office would consist of a demountable building about 10 metres long by 4 metres wide. Quarrying would be limited to daylight hours, avoiding the need for lighting.

Mobile plant refuelling would take place on site from a self-bunded portable fuel truck with a capacity of up to 10,000 litres. All scheduled plant and equipment maintenance would take place off site.

A rainwater tank would be connected to the site office to service the toilets and hand basin but potable water for domestic uses would be imported to site. Toilet facilities would be provided with effluent being treated and disposed onsite via a septic tank. Power is not required to operate the quarry.

Small amounts of domestic refuse would be generated on site and be removed for recycling or disposal at a suitably licensed landfill.

1.7 Decommissioning & Rehabilitation

Following completion of quarrying, areas that are no longer in use would be landscaped and progressively rehabilitated. Rehabilitation would generally involve:

- Removal of all structures, equipment and other materials from the works area.
- Earthworks and landscaping to shape the land to maximum 3:1 batter slopes with a minimum 0.5% grade to allow free drainage to a small existing farm dam to the west, which will act as a sediment basin.
- Revegetation would use native and introduced pasture species to match existing conditions.
- Erosion and sedimentation control would remain in place until the site is appropriately reinstated and revegetated.
- Access roads would be retained for future on farm use.

A concept rehabilitation plan is provided in Appendix D.

2. STATUTORY ASSESSMENT FRAMEWORK

2.1 Environmental Planning & Assessment Act 1979 & Associated Regulation

Designated Development

Pursuant to section 77A of the *Environmental Planning & Assessment Act 1979* the proposal is identified as designated development as defined in Schedule 3 of the *Environmental Planning & Assessment Regulations 2000* being an extractive industry, that:

- Obtain or process for sale, or re-use, more than 30,000 cubic metres of extractive material per year, or
- Disturbance of a total surface area of more than 2 hectares of land.

Integrated Development

Pursuant to section 91 of the *Environmental Planning & Assessment Act 1979* the proposal is identified as being integrated development requiring a licence or approval from:

1. An Environment Protection Licence (EPL) from the NSW Environment Protection Authority (EPA) under Section 53 of the *Protection of the Environment Act 1997*.
2. A Section 138 approval from the Roads and Maritime Service under Section 138 of the *Roads Act 1993*.

Joint Regional Planning Panel

The development is listed as regional development which Joint Regional Planning Panels may be authorised to exercise the consent authority functions of councils under Schedule 4A of the *Environmental Planning & Assessment Act, 1979*.

Section 79 Assessment

In accordance with Section 79 and 79A of the *Environmental Planning & Assessment Act, 1979* the development application was publicly exhibited for a period of thirty (30) days.

A Section 79C assessment has been carried out and is detailed in Section 3 of this report.

2.2 Other Legislation

Heritage Act 1977

The *Heritage Act 1977* (Heritage Act) is administered by the NSW Heritage Council and aims to ensure that the heritage of NSW is adequately identified and conserved. An approval under section 60 of the Heritage Act is required for impacts to State Heritage Register listed heritage items. An excavation permit under section 140 of the Heritage Act is required for impacts to archaeological relics

The *Aboriginal Cultural Heritage Assessment* (Appendix D of the EIS) concluded “no items of European heritage value were identified during the survey. As such, no further recommendations for historic heritage are required”.

Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) establishes a licensing regime for pollution generating activities in NSW. Under Sections 47 and 48, an Environment Protection Licence (EPL) is required for scheduled development work and scheduled activities respectively.

The Development would extract more than 30,000 tonnes of extractive material per year and therefore meets the definition of a scheduled activity under Clause 19 of Schedule 1 of the POEO Act. An Environment Protection Licence is therefore required from the Environment Protection Authority.

National Parks & Wildlife Act 1974

The *National Parks & Wildlife Act 1974* (NPW Act) is administered by NSW Office of Environment and Heritage (OEH). It is an offence not to notify the OEH of the location of Aboriginal sites and objects under Section 89A of the NPW Act. Section 86 of the NPW Act provides that it is an offence to harm or desecrate an Aboriginal object or an Aboriginal place.

Approval is required from Office of Environment & Heritage to knowingly destroy, deface or damage; or knowingly cause or permit the destruction of or damage to an Aboriginal object or Aboriginal Place.

The *Aboriginal Cultural Heritage Assessment* (Appendix D of the EIS) concluded that the development is unlikely to lead to the harm of any Aboriginal objects however makes recommendations with regard to the potential finding of any Aboriginal objects.

Native Vegetation Act 2003

The *Native Vegetation Act 2003* (NV Act) regulates the clearing of native vegetation on certain land in NSW and requires development consent granted by the Minister before such clearing activities are undertaken. Approval is required under this Act from the Minister to clear native vegetation in certain circumstances.

The NV Act does not apply to the clearing of native vegetation that is, or is part of, designated development within the meaning of the EPA Act and for which development consent has been granted. If development consent is granted for the Development, including any associated clearing of native vegetation, further approval under the NV Act will not be required.

Roads Act 1993

The *Roads Act 1993* determines the rights of the public and adjacent land owners to use public roads, and establishes procedures for the opening and closing of public roads. Under the Roads Act applications are required to be made for the closure of roads and for works in road reserves.

The development involves the upgrading of the intersection on the Gwydir Highway and therefore requires a Section 138 approval from Roads & Maritime Service.

Threatened Species Conservation Act 1995

Approval is required to:

- a) harm any animal that is of, or is part of, a threatened species, population or ecological community
- b) pick any plant that is of, or is part of, a threatened species, population or ecological community
- c) damage critical habitat
- d) damage habitat of a threatened species, population or ecological community.

The *Flora and Fauna Impact Assessment* (Appendix H) notes that up to 7.76 ha of low impact EEC vegetation will be removed for the development. It concludes that the proposal will not have or result in a significant impact.

Water Act 1912

The *Water Act 1912* has been repealed by the *Water Management Act 2000*. However, some of the licensing provisions remain in force where the water source is not covered by a water sharing plan. The development is located within a groundwater area currently administered by the *Water Act 1912*, as there is no water sharing plan in place in for the area.

Water Management Act 2000

The *Water Management Act 2000* (WM Act) regulates the taking, interception, storage and use of surface water and groundwater within areas subject to water sharing plans. There is no groundwater sharing plan applicable to the development site, however surface water within the catchment area of the development is managed under the *Water Sharing Plan for the NSW Border Rivers Unregulated and Alluvial Water Sources*. As such, surface water within the catchment is managed under the WM Act.

The development may intercept groundwater but is within the maximum harvestable rights (surface water only) for the development site. If groundwater is intercepted a water access licence will be required.

Rural Fires Act 1997

This Act requires approval of development on bushfire prone land, as identified by a "Bushfire Prone Land Map" prepared under Section 146 of the EP&A Act.

Under the NSW Planning & Environment Secretary's Environmental Assessment Regulation (SEARs) Advice in Appendix A of the EIS, the NSW Rural Fire Service in their advice dated 8 July 2016 state:

While the subject lots, are in part mapped bush fire prone land by Glen Innes Severn Shire Council, the extraction sites and proposed vehicle access, are not mapped bush fire prone.

The NSW Rural Fire Service has no objection and no requirements for the proposed hard rock quarry.

Based on this advice, the NSW Rural Fire Service was not consulted as part of this application.

Environment Protection & Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) prescribes the Commonwealth's role in environmental assessment, biodiversity conservation and the management of protected areas.

The EPBC Act is administered by the Department of the Environment and Energy (DEE) and provides protection for listed Matters of National Environmental Significance (MNES). There are currently nine MNES:

- World heritage properties.
- National heritage properties.
- Wetlands of international importance.
- Listed threatened species and ecological communities.
- Listed migratory species.
- Protection of the environment from nuclear actions.
- Commonwealth marine areas.
- The Great Barrier Reef Marine Park.
- Water resources.

Approval for the development under the EPBC Act is not required as the development is unlikely to impose a “significant effect” on any MNES or on any of the listed migratory species predicted to occur in the locality, therefore there is unlikely to be controlled action. See Section 3.6 for further details.

2.3 Draft New England North West Regional Plan

This draft plan identifies that the New England North West Region has a growing and diversified agricultural sector. The draft Plan aims to establish protection for existing agricultural land from uses that compromise long term agricultural productivity and maximises opportunities for co-existence with non-agricultural uses. This development which will act as a supporting base for agriculture, will not impact or compromise any long term agricultural productivity.

2.4 Chronology

A basic chronology of events concerning public notification and statutory referral of the Development Application is as follows:

	Date	Comment
Application Lodgement Date	12/1/2017	
Period of Public Notification	26/1/2017 – 20/2/2017	30 day notification period 7 Adjoining landowners were notified.
Newspaper Notices	26/1/2017 2/2/2017 9/2/2017 16/2/2017	Appendix E - Glen Innes Examiner
Media Release	7/2/2017	Appendix E – Posted to Facebook and sent to Media – Taken up and published by ABC New England North West Radio and Glen Innes Examiner
Referral Agency Letters	25/1/2017	Office of Environment & Heritage
	23/2/2017	Response Received – Requested Additional Information
	20/4/2017	Additional Information Forwarded
	26/5/2017	Response Received – Requested Additional Information
	31/5/2017	Additional Information Forwarded
	2/6/2017	Response Received
	25/1/2017	NSW Department of Primary Industries
	9/2/2017	Response Received
	25/1/2017	Roads & Maritime Services
	20/2/2017	Response Received
	25/1/2017	NSW Environment Protection Authority



	6/3/2017	General Terms of Approval Issued
	25/1/2/2017	Department of Industry – Lands
		No response received
	23/2/2017	TransGrid
	3/4/2017	Response Received
Additional Information Request	28/2/2017	Email Request
	19/3/2017	Response Received
	29/5/2017	Email Request
Assessment Completed for JRPP	6/6/2017	
Assessment Submitted to JRPP	7/6/2017	With all Supporting Documentation

3. SECTION 79C ASSESSMENT

3.1 Section 79C (a)(i) Environmental Planning Instruments

Glen Innes Severn Local Environmental Plan 2012

The site is located within the RU1 (Primary Production) zone. The development is defined as 'Extractive Industry' and is development permitted with consent.

Extractive industry means:

The winning or removal of extractive materials (otherwise than from a mine) by methods such as excavating, dredging, tunnelling or quarrying, including the storing, stockpiling or processing of extractive materials by methods such as recycling, washing, crushing, sawing or separating, but does not include turf farming.

Extractive material means:

Sand, soil, gravel, rock or similar substances that are not minerals within the meaning of the Mining Act 1992.

The following clauses apply:

Clause 1.2:	Aims of plan
Clause 2.3:	Zone objectives and land use tables
Clause 5.10:	Heritage conservation

Clause 1.2 Aims of plan	
(1) This Plan aims to make local environmental planning provisions for land in Glen Innes Severn in accordance with the relevant standard environmental planning instrument under section 33A of the Act.	
(2) The particular aims of this Plan are as follows:	
(a) to encourage the proper management, development and conservation of natural and human resources in Glen Innes Severn by protecting, enhancing and conserving the following:	
(i) land of significance to agricultural production,	This land is not classified as being significant agricultural land, by nature of its geology.
(ii) timber, minerals, soil, water and other natural resources,	The development site is regionally mapped as LSC Class 3, 4 and 7 land. LSC Class 3 land has moderate limitations which indicates cropping and intensive grazing are able to be undertaken, with careful management of limitations to avoid land and environmental degradation. LSC Classes 4 and 7 land have high limitations if used for agricultural land uses more intensive than grazing with limited or no cultivation; with few management practices available to overcome these limitations.
(iii) areas of significance for nature conservation,	The landform of the final quarry would create a void. The benches of the quarry would be rehabilitated, but it is unlikely that mature vegetation could be established for many years

	<p>and only for species which could adapt to the quarry conditions. As the area is not actively logged or suitable for any intensive agricultural pursuit, this impact is not considered to be significant.</p> <p>The Office of Environment a Heritage have requested as part of the development consent that a Biodiversity Offset Strategy is prepared to address the loss of the endangered ecological community Ribbon Gum, Mountain Gum - Snow Gum grassy forest/woodland of the New England Tableland Bioregion.</p>
<i>(iv) areas of high scenic or recreational value,</i>	This land is not considered to be an area of high scenic or recreational value.
<i>(v) landscapes, places and buildings of archaeological or heritage significance, including aboriginal relics and places,</i>	See Section 3.6.
<i>(vi) communities and settlements,</i>	There are no nearby communities or settlements which may be affected by this development.
<i>(b) to facilitate growth and development that:</i>	
<i>(i) minimises the cost to the community of fragmented and isolated development of rural land, and</i>	There is no fragmentation of land involved, neither will it isolate future development of rural land.
<i>(ii) facilitates the efficient and effective delivery of amenities and services, and</i>	The quarry is strategically placed to provide a supply of aggregate material for use in public road construction and maintenance, but would also fulfil an anticipated short and medium term demand for aggregate products for the construction of major wind farm projects in the region.
<i>(iii) facilitates stimulation of demand for a range of residential, enterprise and employment opportunities and promotes agricultural diversity, and</i>	It is anticipated that up to eight fulltime employees would be required during periods of maximum extraction. Haulage of material would also provide employment for truck drivers. Additional off site employment would also be generated, in the maintenance and support services for equipment and machinery
<i>(iv) maximises the efficient use of existing infrastructure.</i>	The close proximity of the site to the Glen Innes Wind Farm, located to the immediate south of the development, and the proximity to the Gwydir Highway is also a benefit to the wider community because it avoids transporting materials over a longer distance and potentially impacting on a greater number of people.

Clause 2.3 Zone objectives and land use table

The consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone.

The development has been assessed in accordance with the relevant RU1 objectives detailed below. The following assessment considers that the development is consistent with the RU1 objectives.

To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.	The proposal supports the continued sustainability of the primary production use of the land by ensuring a quality high standard road network to enable safe movement for residents in the vicinity and to accommodate road users.
To encourage diversity in primary industry enterprises and systems appropriate for the area.	The predominant use in the vicinity is grazing, with the immediate use of windfarms is a recent introduction to the immediate area.
To minimise the fragmentation and alienation of resource lands.	The proposal will not fragment nor alienate resource land.
To minimise conflict between land uses within this zone and land uses within adjoining zones.	This proposal will not generate conflicts as the zoning/land use is consistent, i.e. Primary Production zone and primary production use.

Clause 5.10 Heritage Conservation

The development has been assessed in accordance with the relevant objectives detailed below. The following assessment considers that the development is consistent with these objectives.

a) to conserve the environmental heritage of Glen Innes Severn,	Proposal consistent with the objectives detailed below.
b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,	See section 3.6.
c) to conserve archaeological sites,	See section 3.6.
d) to conserve Aboriginal objects and Aboriginal places of heritage significance.	See section 3.6.

3.2 State Environmental Planning Policies

SEPP (State and Regional Development) 2011

The aims of this Policy are to identify development that is State significant development or State significant infrastructure and critical State significant infrastructure and to confer functions on joint regional planning panels to determine development applications.

The proposed development is listed under Schedule 4A of the *Environmental Planning and Assessment Act 1979* and accordingly the Joint Regional Planning Panel is the consent authority, having functions of a consent authority under SEPP (State and Regional Development) 2011. Glen Innes Severn Council functions consist of:

- The receipt and assessment of development applications;
- The determination and receipt of fees for development applications; and
- Notification of determination of development applications.

Schedule 1, Clause 7 outlines State Significant Development for extractive industries. Through assessment of the EIS it is considered the development is not State Significant Development, as the proposed extractive industry will not extract is below the 500,000 tpa extraction threshold, nor will it extract a total resource of more than five million tonnes threshold.

The EIS identified an extraction rate of up to 300,000 tpa over a 25-30 year lifespan. Utilising the maximum rate for every year the quarry would be in operation indicates the 2.5 million tonne total resource would be exceeded within 9 years.

Council is therefore satisfied that the development is not State Significant Development, rather Regional Development pursuant to Clause 20, given the development fits the criteria under Schedule 4A of the *Environmental Planning and Assessment Act 1979*.

SEPP (Mining, Petroleum Production and Extractive Industries) 2007

This Policy aims to provide for the proper management and development of mineral, petroleum and extractive material resources for the social and economic welfare of the State. The Policy establishes appropriate planning controls to encourage ecologically sustainable development.

This Policy applies to the whole state of NSW and prevails over any inconsistencies with any other environmental planning instruments including GIS LEP. Under the SEPP the proposed development is defined as an extractive industry. The definition of an extractive industry is:

The winning or removal of extractive materials (otherwise than from a mine) by methods such as excavating, dredging, or quarrying, including the storing, stockpiling or processing of extractive materials by methods such as recycling, washing, crushing, sawing or separating, but does not include:

- a) turf farming, or*
- b) tunnelling for the purpose of an approved infrastructure development, or*
- c) cut and fill operations, or the digging of foundations, ancillary to approved development, or*
- d) the creation of a farm dam if the material extracted in the creation of the dam is used on site and not removed from the site.*

The proposed quarry (*extractive industry*) meets the relevant aims of the Policy with regard to the orderly and economic use of the land, while addressing the ecological and environmental issues.

A portion of the development site has been classified as being Biophysical Strategic Agricultural Land (BSAL) by NSW Planning and Environment. This is land which is deemed to have high quality soil and water resources capable of sustaining high levels of productivity. This has not been identified in the EIS, yet the required matters under Part 3 *Development applications – matters for consideration* have been addressed adequately.

Property information

Property Details

Address
Lot / Plan no. 113/DP753319
Council Glen Innes Severn

Planning Layers

Please select the layer you wish to display on the map
— Planning layers associated with property

Planning viewer



Legislation information

Source NSW Planning Portal

It is noted that pursuant to Clause 7(3) of the SEPP, an extractive industry may be carried out with development consent on any land on which agriculture or industry may be carried out. Under GIS LEP 2012, agriculture may be carried out in the RU1 Primary Production zone. Accordingly, the SEPP enables consent to be granted to the development subject to consideration of the matters contained in the SEPP.

With regard to Clause 12, the proposed quarry (*extractive industry*) will have minimal impact on the existing uses of land in the vicinity of the development. Land uses in the locality predominantly comprise *extensive agriculture* due to the poor agricultural quality of the land, however the quarry is a viable operation providing basalt to the nearby windfarms and the Glen Innes Severn LGA.

While there are large areas available for extensive agriculture, there are limited areas for the quarrying of basalt which is commercially viable. As such, the uniqueness of the site increases its value with regard to public benefit.

SEPP No. 33 (Hazardous and Offensive Development)

Provides definitions for 'hazardous industry', 'hazardous storage establishment', 'offensive industry' and 'offensive storage establishment'. The definitions apply to all planning instruments, existing and future.

In this Policy:

potentially hazardous industry means a development for the purposes of any industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would pose a significant risk in relation to the locality:

- a) to human health, life or property, or
- b) to the biophysical environment,

and includes a hazardous industry and a hazardous storage establishment.

potentially offensive industry means a development for the purposes of an industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would emit a polluting discharge (including for example, noise) in a manner which would have a significant adverse impact in the locality or on the existing or likely future development on other land, and includes an offensive industry and an offensive storage establishment.

The EIS identifies the development as being potentially hazardous or offensive but *given the location of the site, its separation from neighbours, and the intended management, mitigation and monitoring measures proposed to be implemented, no such detrimental impacts are anticipated to occur*

As there would be limited potential for polluting discharge from the site which would pose a significant risk to human health, life or property or potential for polluting discharge from the site which would pose a significant risk to the biophysical environment this development is not considered to be either potentially hazardous or offensive.

SEPP No. 55- Remediation of Land.

This SEPP aims to promote the remediation of land through a consistent state wide planning approach for the treatment of contaminated land and requires an investigation to be made if land contamination is suspected. A land contamination assessment has not been carried out. There is no record of any contamination on this land or in the close vicinity that would affect this land. Given the history of use of the land, there is no suspected land contamination.

SEPP No. 44 (Koala Habitat)

State Environmental Planning Policy 44 (SEPP 44) aims to encourage the 'proper conservation and management of areas of natural vegetation that provide habitat for Koalas (*Phascolarctos cinereus*) to ensure a permanent free-living population over their present range and reverse the current trend of Koala population decline'.

Schedule 1 of SEPP No. 44 identifies areas of land that are classified as being 'Core Koala Habitat' or 'Potential Koala Habitat'. They are defined as follows:

- *Core Koala Habitat* is an area of land with a resident population of koalas, evidenced by attributes such as breeding females (that is, females with young) and recent sightings of and historical records of a population.
- *Potential Koala Habitat* are areas of native vegetation where the trees of the types listed in Schedule 2 constitute at least 15 per cent of the total number of trees in the upper or lower strata of the tree component.

Under SEPP 44, if core Koala habitat is to be impacted by a proposal, an approved Koala Plan of Management is required prior to approval of the proposed development. It is unlikely koala's have the potential to exist in the locality due to the lack of suitable habitat. It is therefore not considered to be core or potential Koala habitat.

SEPP (Rural Lands) 2008

This SEPP contains rural planning principles applicable to the use and development of rural land. These principles include protecting productive activities and opportunities, recognition of the significance of rural land to the community and identification of natural resources and the provision of opportunities of natural resources. The proposed extractive industry is considered to be consistent with these principles. The proposal will provide for the sustainable, economic use of a natural resource (hard rock) and includes operational measures that will result in the rehabilitation and restoration of the site following completion of the extraction activity.

3.2 Section 79C(a)(ii) Draft Environmental Planning Instruments

There are no draft environmental planning instruments to be considered in this assessment.

3.3 Section 79C(a)(iii) Development Control Plan

Glen Innes Severn Development Control Plan 2014

The *Glen Innes Severn Development Control Plan 2014* (DCP) does not have specific clauses regarding extractive industries, yet the following has been considered:

Chapter 2 – Notification – Notification and agency referral was carried out as per the provisions of this Chapter.

Chapter 4 – Rural Development – Compliant and has been addressed adequately within the EIS in terms of rural land use conflict, building siting, setbacks, onsite management of wastewater, bushfire, access arrangements, environmental considerations, flooding, land use buffers, services and farm dams.

Chapter 7 – Access and Parking – This has been adequately addressed within the Traffic Impact Assessment and advice received from Roads and Maritime Services.

No further assessment required under this plan.

3.4 Section 79C(a)(iia) Planning Agreement

There is no Planning Agreement in force under Section 93F of the EP&A Act.

3.5 Section 79C(a)(iv) Environmental Planning & Assessment Regulations 2000

General Terms of Approval

The proposed development is also deemed to be Integrated Development under s91 of the *Environmental Planning & Assessment Act 1979*, with regard to:

- Environment Protection Licence - for the regulation of pollution from the quarry. The licence would be issued by the Environment Protection Authority (EPA) under the *Protection of the Environment Operations Act 1997*.

The EPA has provided Council with General Terms of Approval (GTA) in correspondence dated 6 March 2017. The GTA is included in Appendix F.

The EPA have raised the issue of water supply and has raised the fact that there has been no demonstration of sufficient supply for operational needs.

The EPA has reviewed the information provided and noted that the proponent has not suitably demonstrated that sufficient water supplies would be available to meet operational requirements. The Environmental Impact Statement (EIS) contains conflicting comments about groundwater availability at the site. From the water balance calculations, groundwater inflow is essential to implementing environmental controls (dust suppression). The handling and criteria that the pit water is fit for this purpose is not assessed in detail within the EIS.

The EPA is concerned that the contingency measures for a lack of onsite water, using farm dams or water from another quarry, do not discuss the feasibility or suitability of these waters. The EPA notes a commitment to the practice of conserving water during times of limited supply and is concerned of the implications this may have on environmental controls such as dust suppression. No contingencies or management options are discussed for the handling or disposal of waters generated from pit inflow during high recharge years.

The EPA have still issued the GTA with the recommendation to the NJRPP:

The EPA recommends that the Joint Regional Planning Panel requires the proponent to develop and implement a Groundwater Management Plan that addresses, at a minimum, the above concerns and includes the local groundwater monitoring around the periphery of the pit, as outlined in the EIS, prior to the commencement of operations at Stage 2 of the Quarry.

The EPA has determined that it is able to issue a licence for the proposal, subject to a number of conditions. The applicant will need to make a separate application to EPA to obtain this licence.

The GTA conditions have been reflected within the draft conditions of consent.

No additional matters prescribed in the Regulations affect determination of this application.

Concurrence Authorities

The proposed development is also deemed to require concurrence from the Roads & Maritime Service (RMS) under s77 of the *Environmental Planning & Assessment Regulation 2000* with regard to issuing and Section 138 Approval under the *Roads Act 1993*.

The Gwydir Highway is a classified (State) road. In accordance with Section 7 of the *Roads Act 1993* (the Act) Glen Innes Severn Council is the Roads Authority for all public roads in the subject area. RMS has responsibilities for classified roads in accordance with the Act. Prior to the commencement of physical works within the road reserve of the Gwydir Highway, the Council as the developer is to obtain the approval of Council as the Roads Authority under Section 138 of the *Roads Act 1993*. Council as the Roads Authority is required to obtain the concurrence of RMS prior to the issue of such approval as they are responsible for the Gwydir Highway.

The quarry would operate with a one way internal traffic arrangement with the entry exit (access 1) already having been approved as part of the Glen Innes Wind Farm. The exit access (access 2) will need to be constructed. Project Approval 07 -0036, dated January 2016, for Glen Innes WindPower Pty Ltd, conditions 2.28 – 2.33 are specific to this approval. The full approval is located at <https://majorprojects.accelo.com/public/ec758cf4c9f84d9aa6e684dbcbae7a1e/02.%20Glen%20Innes%20Wind%20Farm%20MOD%203%20-%20Consolidated%20Approval.pdf>.

The RMS has provided Council with advice in correspondence dated 20 February 2017. The advice is included in Appendix G.

The RMS has reviewed the proposed development and provides the following comments to assist the NJRPP in making a determination;

- 1. All ingress to the quarry development is proposed via shared access with the Glen Innes Wind Farm (GIWF). GIWF is responsible for constructing a shortened channelised right-turn treatment (CHR/S) and a shortened auxiliary left-turn treatment (AUL/S). Where the access is not constructed by the GIWF, the quarry developer will be required to determine an appropriate access treatment in consultation with Roads and Maritime and construct the access prior to the commencement of traffic generated by the quarry.*
- 2. The Traffic Impact Assessment (TIA) has concluded that the CHR/S and AUL/S to be constructed by GIWF will accommodate the traffic volumes generated by the operational phase of the GIWF and the quarry development. It should be noted that this is based on the assumption that no quarry traffic will be accessing the site from the west. Therefore it is suggested that the development approval restrict quarry trucks from accessing the site from the west. Alternatively further assessment could be requested to consider deceleration and storage requirements to cater for westbound quarry trucks.*
- 3. The TIA has identified that the proposed egress to the Gwydir Highway will require an Austroads basic left-turn (BAL) treatment and appropriate regulatory signage to restrict ingress movements. This upgrade will require the approval of Roads and Maritime and a concept design should be prepared and forwarded to development.northern@rms.nsw.gov.au.*

It is recommended that Council seek in-principle agreement from Roads and Maritime to the concept design as soon as possible, and prior to development approval, to enable the concept design to be included in the conditions of approval.

- 4. The current Austroads Guidelines, Australian Standards and Roads and Maritime Supplements are to be adopted for the proposed works on the Gwydir Highway.*

The developer will be required to enter into a Works Authorisation Deed (WAD) with Roads and Maritime for all works deemed necessary on the classified (State) road (Gwydir Highway). The developer will be responsible for all costs associated with the works and administration for the WAD. Further information on undertaking private developments adjacent to classified roads can be accessed at: <http://www.rms.nsw.gov.au/projects/planning-principles/index.html>

5. *Prior to the commencement of quarry traffic movements a Driver Code of Conduct for heavy vehicle operators should be prepared to include, but not be limited to;*
- A map of the primary haulage route/s highlighting critical locations;*
 - Safety initiatives for haulage along school bus routes and through residential areas and/or school zones;*
 - An induction process for vehicle operators and regular toolbox meetings;*
 - A complaint resolution and disciplinary procedure; and*
 - Any community consultation measures for peak haulage*

This advice has been reflected within the draft conditions of consent.

State Agency Submissions

As per the provisions of s77 of the *Environmental Planning & Assessment Regulation 2000* the following State Agencies were notified of the proposed development.

- Department of Industry – Resources & Energy
- Department of Industry – Lands Office
- TransGrid
- Office of Environment & Heritage

A copy of all State Agency submissions is contained within Appendix H of this report.

Department of Industry – Resources & Energy

The Department of Industry – Resources & Energy has provided Council with advice in correspondence dated 9 February 2017. They advised:

The proponent is required to adequately demonstrate the size and quality of the geological resource proposed for extraction, and its suitability for the intended end uses. The geotechnical investigations reported in the EIS and Appendices adequately demonstrate a basalt and tuff resource, suitable for concrete aggregates and road bases.

The development of Wattle Vale Quarry would make a significant long term contribution to meeting the hard rock aggregate requirements of the Glen Innes Severn region, including increased demand from major wind farm developments, at a time when existing supplies in the LGA are diminishing.

NSW Department of Industry - Division of Resources & Energy (DRE) collects data on the quantity and value of construction materials produced annually throughout the State. Forms are sent to all operating quarries at the end of each financial year for this purpose. The statistical data collected is of great value to government and industry in planning and resource management, particularly as a basis for analysing trends in production and for estimating future demand for particular commodities or in particular regions. In order to assist in the collection of construction material production data, the proponent should continue to provide annual production data for the subject site to DRE as a condition of any new or amended development consent.

A statement of commitment to include provision of production data to DRE in any conditions of approval should be included in the Response to Submissions and Draft Conditions.

This request has been reflected within the draft conditions of consent.

Department of Industry – Lands Office

No response was received from the Department of Industry – Lands Office, therefore their concurrence is assumed.

The access which is to be used for the entrance to the site is a Crown road and Travelling Stock Reserve. This access has already been approved for use as part of the Glen Innes Wind Farm Project. Local Land Services were not consulted with as they have already given approval for the construction of this access.

TransGrid

TransGrid has provided Council with advice in correspondence dated 3 April 2017. They advised:

After review of the subject property, TransGrid can confirm the development site is not impacted by a TransGrid easement therefore TransGrid does not have any issues with the proposed development.

Office of Environment & Heritage

The Office of Environment & Heritage (OEH) has provided Council with final advice in correspondence dated 2 June 2017. The original advice dated 26 May 2017 requested further information from the applicant which was provided to Council on 19 March 2017. The final advice states:

On review of the resubmitted Flora and Fauna Impact Assessment (FFIA) prepared by GOH, dated May 2017, we note that it has addressed several of the issues in our letter dated 26 May 2017. The only outstanding issue is the ongoing exclusion of the area subject to the proposed intersection with the Gwydir Highway from assessment by the FFIA.

As shown in the FFIA Figure 4-1 Survey Effort, the area has not been assessed for the presence of threatened species, populations, ecological communities or their habitats. However, the Environmental Impact Assessment for the Wattle Vale Hard Rock Quarry shows the proposed highway intersection as part of the subject site.

We advise that several threatened flora species are known to occur within the Gwydir Highway (road) reserve in this locality. The OEH does not understand why the area remains excluded from the FFIA assessment, and therefore the biodiversity values remain unassessed. If the Northern Joint Regional Planning Panel is to progress with the Wattle Vale Quarry application the OEH recommends, that the Gwydir Highway intersection be excluded from any pending consent associated with DA41/16-17, and a separate development application process be required for that part of the proposal.

If the development was to progress with the exclusion of the proposed Gwydir Highway intersection, the OEH would support the issue of development consent with the following recommended conditions.

Prior to Commencement of Works, the proponent is required to:

- 1. Provide an Environmental Management Plan which includes the mitigation measures listed in Section 7.2.2 of the Flora and Fauna Impact Assessment by GHD, dated May 2017, as well as any other requirements listed by Council. The Environmental Management Plan is to be prepared to the satisfaction of the consent authority and submitted prior to site works commencing for Stage 2 works.*
- 2. Provide a surveyed plan of the Wattle Vale Quarry Operational Area representing the operational limit of this consent. The plan must include, but not be limited to, the extraction area, location and area of occupation of proposed site sheds, compounds and weighbridge, roads, parking areas, fuel storage, dams, temporary drainage, restrictive fencing, overburden*

and stockpile areas. The surveyed plan is to be prepared to the satisfaction of the consent authority and submitted prior to commencement of Stage 2 works.

3. *Prepare a Flora and Fauna Management Sub-plan in consultation with the NSW Office of Environment & Heritage. The plan is to contain the recommended mitigation measures listed in Section 7.2.3 of the of the Flora and Fauna Impact Assessment by GHD, dated May 2017, as well as:*
 - a. *Identify trees to be removed and trees to be retained within the Wattle Vale Quarry Operational Area. Trees to be retained are to be protected in accordance the Australian Standard 4970-2009 Protection of trees on development sites. The retained trees and their management requirements are to be included in the Sensitive Areas Plan.*
 - b. *Identify and include areas of high environmental value on a Sensitive Areas Plan, and provide management actions to ensure protection. This may include but not be limited to drainage lines, areas of endangered ecological communities or hollow bearing trees within and/or adjacent to the quarry operational area.*
 - c. *Include reporting requirements to ensure management of threatened species if detected during the pre-clearing surveys. Include the procedure to adjust the calculated offsets required for the loss of threatened species and their habitat with the Biodiversity Offset Strategy.*
 - d. *Include fauna welfare and clearing procedures for the felling of habitat trees (hollow-bearing) and removal of ground based woody material.*
 - e. *Identify opportunities to relocate habitat resources removed from the quarry operational areas, and included as part of the nominated Biodiversity Offset Strategy area.*
 - f. *Set the performance criteria and reporting requirements used to assess compliance with the recommended mitigation measures.*
4. *Prepare a Biodiversity Offset Strategy to address the loss of the endangered ecological community Ribbon Gum, Mountain Gum - Snow Gum grassy forest/woodland of the New England Tableland Bioregion. The Biodiversity Offset Strategy is to be drafted in consultation with the NSW Office of Environment & Heritage, and to the satisfaction of the consent authority prior to commencement of works.*
5. *The Biodiversity Offset Strategy must:*
 - a. *Include Wattle Vale Quarry Operational Area (surveyed plan) as the accurate extent of impact, and the calculated area of impact be included as part of the offset calculation.*
 - b. *Use the NSW BioBanking Assessment Methodology to determine the quantum of offsets required to compensate for the loss of endangered ecological community.*
 - c. *Accord with the OEH offsetting principles in the selection of the offset site. These principles are found on the NSW Office of Environment & Heritage website at <http://www.environment.nsw.gov.au/biodivoffsets/oehoffsetprincip.htm>.*
 - d. *Identify conservation mechanisms to be used to ensure the in-perpetuity protection and management of the proposed offsets.*
 - e. *Identify management actions to improve the site, performance criteria used to measure completion of the proposed actions, and reporting requirements.*

During Operations

6. *Prepare a detailed rehabilitation plan in accordance with the Figure 1-1 Concept Rehabilitation Plan prepared by GHD dated 30 March 2017. The plan is to be provided by a suitably qualified person with documented experience in environmental restoration within 12 months from the date of this consent. The plan must be prepared to the satisfaction of the consent authority.*

7. *Implement the management actions and recommendations listed in the Flora and Fauna Management Sub-plan and Biodiversity Offset Strategy.*
8. *Biodiversity reporting is to occur in accordance with the reporting framework as set out in the Flora and Fauna Management Sub-plan and Biodiversity Offset Strategy.*

Prior to Lapse of Consent

9. *A final Biodiversity Offset Strategy implementation report is to be drafted in consultation with NSW Office of Environment & Heritage and submitted to the consent authority prior to the lapse of this consent.*
10. *All works in accordance with the approved Rehabilitation Plan are to be completed prior to the lapse of this consent. A final report confirming completion as stated in the plan must be submitted to the satisfaction of the consent authority. The report is to be provided by a suitably qualified person with documented experience in environmental restoration.*

The quarry would operate with a one way internal traffic arrangement with the entry exit (access 1) already having been approved as part of the Glen Innes Wind Farm. The exit access (access2) was approved under Stage 1 of the Wattle Vale Quarry (DA 26/16-17 – Consent condition 17 January 2017) and is yet to be fully constructed.

No additional matters prescribed in the Regulations affect determination of this application.

3.6 Section 79C(b) Likely Impacts

Flora & Fauna

The updated *Flora and Fauna Impact Assessment* (Appendix H) has assessed the potential for impacts on ecological values, with particular emphasis on threatened ecological communities, populations and species listed under the *Threatened Species Conservation Act 1995*, and Matters of National Environmental Significance listed under the *Environment Protection and Biodiversity Conservation Act 1999*. The conclusion to the study states:

Overview

*The proposal involves the establishment of a quarry in a property that has been previously cleared for cattle grazing. The proposal will require the removal of up to 7.76 hectares of low condition EEC vegetation. There are minor infestations of Blackberry (*Rubus fruticosus*) across parts of the study area. Where possible, the proposal has been situated so as to avoid native vegetation and other sensitive ecological receptors such as riparian areas around ephemeral drainage lines within the study area.*

Areas north of the study area are predominately cleared agricultural grazing land and rural residential properties which support small stands of native vegetation. As such, they represent a significant movement barrier for many native fauna species apart from highly mobile, disturbance tolerant species such as birds, bats and macropods.

Impacts on State-listed Biota

*No threatened flora species were identified within the study area; however, potential habitat for two threatened flora species listed under the TSC Act will be impacted by the proposal. A total of 7.76 hectares of EEC vegetation which constitutes potential habitat for Austral Toadflax (*Thesium australe*) and *Dichanthium setosum* (Bluegrass) would be impacted by the proposal. An assessment of significance for this removal determined that the proposal is unlikely to result in a significant impact to these species.*

One threatened ecological community listed under the TSC Act was identified within the study area; Mountain Gum – Ribbon Gum Open Forest of Drainage Lines of the Southern New England Tablelands Region. An assessment of significance has been completed for direct impacts to 7.76 hectares of the community which determined that the proposal is unlikely to result in a significant impact within the locality.

No threatened fauna species were identified within or directly adjacent to the study area during field surveys. Habitat was identified for the Regent Honeyeater and the Swift Parrot. Assessments of significance were conducted for these species which determined that the proposal is unlikely to result in a significant impact to these species within the locality.

No threatened biota listed under the FM Act are likely to occur in the study area, or downstream of the study area. No assessments of significance were considered warranted for any threatened species, populations or communities listed under the FM Act. The proposal is not likely to have a significant effect on threatened species, populations or ecological communities listed under the TSC Act or FM Act, pursuant to s.5A of the EP&A Act. As such, a SIS is not required.

Environment Protection and Biodiversity Conservation Act

The proposal contains potential habitat for two threatened fauna species and five migratory bird species listed under the EPBC Act. There are no other MNES within the locality which would be affected by the proposal. It is considered unlikely that the proposal would result in a significant impact on any MNES (see below).

Threatened Species

Assessments to determine the likely significance of impacts pursuant to the EPBC Act significant impact guidelines (DotE 2013c) have been prepared for any flora and fauna species listed under the EPBC Act, as all species are also listed under the TSC Act and have been considered as part of the assessments of significance completed as per the EP&A Act in conjunction with the considerations outlined in the DotE (2013c) guidelines. On the basis of the assessments undertaken, the proposal is unlikely to impose a significant impact on any MNES and is therefore unlikely to be a controlled action.

Migratory Birds

Habitat was identified within the study area for five migratory species listed under the EPBC Act. These species have the potential to occur within the study area on an occasional or transient basis. The study area is not considered important habitat for any of these migratory species, according to the significant impact criteria for migratory species (DotE 2013c), and the proposal is therefore unlikely to impose “a significant effect” on any of the listed migratory fauna species predicted to occur within the locality.

Avoidance and Mitigation of Impacts

The proposal has been positioned during the detailed design phase in order to avoid sensitive ecological receptors such as threatened ecological communities and high value aquatic habitats.

Recommended mitigation measures are included in this report in order to minimise the impact of the proposal on native flora, fauna and ecological processes within the study area and adjacent land. These measures would be incorporated into an Environmental Management Plan for the proposal, and would include:

- *Pre-clearing surveys and clearing protocols to minimise risk of damage to resident fauna, minimise clearing of native vegetation and prevent encroachment into retained adjoining habitats.*

- *Standard environmental management measures to minimise the risk of indirect impacts on adjoining habitats through contaminated runoff, sedimentation, erosion, noise and vibration.*

Comment

The Office of Environment & Heritage have reviewed the EIS and have no objection to the issue of a development consent subject to conditions. See Section 3.5 for details.

A Property Vegetation Management Plan (PVP00545) was issued for Stage 1 in December 2016. This gave permission for native vegetation clearing and the establishment of an offset area in perpetuity. The PVP covered the full quarry site encompassing Stage 1 and 2.

Traffic, Roads & Access

A Traffic Impact Assessment was undertaken by Bitzios Consulting (Appendix I of the EIS). The Wattle Vale access identified as Access 1 within Figure 1.1 of the assessment has been previously approved for the Glen Innes Wind Farm (GIFWF) along the former alignment of the Gwydir Highway with a Short Channelised Right-Turn (CHR(s)) and a Short Auxiliary Left-Turn treatment.

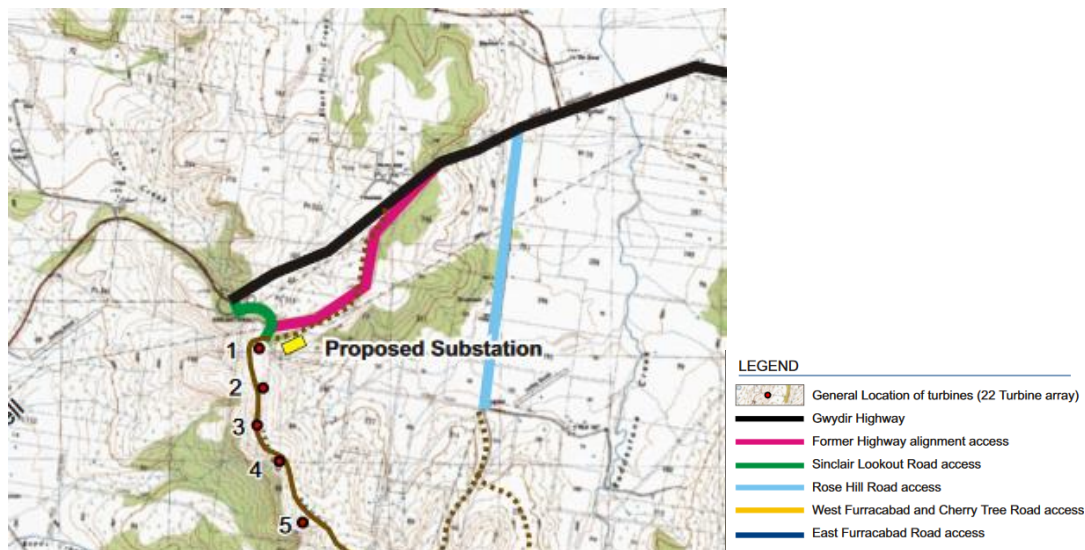


Source: Google Earth – NSW Globe

Figure 1.1: Indicative Quarry Location and Accesses

Source – Traffic Impact Assessment

The figure above is misleading with access 1 location not showing correctly. Below is an extract from the GIFWF approval documents showing the correct intersection location with the Gwydir Highway.



Source: NSW Major Projects Website – Environmental Assessment – Glen Innes Wind Farm

A current Traffic Management Plan (TMP) and associated Traffic Control Plans (TCPs) (dated: 30th September 2016) for Stage 1 of the Wattle Vale quarry utilising the Wattle Vale access in its current form (i.e. not upgraded) is in place currently. This is under a temporary access arrangement with traffic control measures being utilised. This TMP was for a total of 80 HV movements per day. This TMP has been approved by the RMS.

This development would require a revised TMP for an increase in Heavy Vehicle (HV) movements from 80 trips/day (40 IN:40 OUT) to 120 trips/day (60 IN:60 OUT). This would be subject to RMS and Council approval under Section 138 of the *Roads Act 1993*.

Access Arrangement

The quarry only will ultimately operate with a one-way internal traffic system comprising the following access arrangements:

- **Entry-only** via the approved Wattle Vale access following its upgrade as part of the GIWF. The GIWF will utilise the Wattle Vale access for entry and exit manoeuvres once it is operational and constructed to include the required turn treatments (CHR(s) and AUL(s)); and
- **Exit-only** via a newly proposed exit-only access to the Gwydir Highway located approximately 900m west of the Wattle Vale access. This will be utilised only by the operator of the quarry and not the GIWF.



Figure 2.1: One-Way Internal Access Arrangement

Source – Traffic Impact Assessment

All internal roadways linking the internal components of the site will be subject to further detailed investigations and design by a civil contractor.

The assessment concluded:

The key findings of the traffic impact assessment for the GISC Quarry development are as follows:

- *the proposed GISC Quarry will operate in two stages as described below:*
 - **Stage 1** – *in the short term, the GISC Quarry will supply material to the GIWFP and the SWFP via internal roadways and the Gwydir Highway respectively. All external trips associated with the GISC Quarry will be to / from the west; and*
 - **Stage 2** – *in the long term (i.e. post Wind Farm Project construction) the GISC Quarry will predominantly service the Glen Innes area with all external trips to / from the east.*
- *the proposed GISC Quarry will ultimately operate with two access locations:*
 - *entry via the approved Wattlevale access for the GIWFP to be constructed following completion of a WAD process with RMS. The access will incorporate CHR(s) and AUL(s) treatments ; and*
 - *a newly proposed exit-only access located approximately 900m west of the approved Wattlevale access.*
- *the traffic generation for the GISC Quarry in Stage 1 and Stage 2 is summarised below:*
 - **Stage 1** – *200 HV movements per day (i.e. 10 IN:10 OUT movements per hour) + 24 LV movements per day (i.e. 12 IN:12 OUT movements per peak hour); and*
 - **Stage 2** – *80 HV movements per day (i.e. 4 IN:4 OUT movements per hour) + 24 LV movements per day (i.e. 12 IN:12 OUT movements per peak hour).*
- *a review of the GIWFP traffic to utilise the Wattlevale access has been undertaken based on the expectation that 40% of HV movements will be undertaken internal to the site between the GISC Quarry and the GIWFP. The resultant volumes utilised for Stage 1 and Stage 2 are summarised below:*
 - **Stage 1** – *78 HV movements per day (i.e. 4 IN:4 OUT movements per hour) + 80 LV movements per day (i.e. 40 IN:40 OUT movements per peak hour); and*
 - **Stage 2** – *the GIWFP is not expected to generate a significant amount of traffic in the operational period. It has been conservatively assumed that a maximum of 2 IN: 2 OUT movements occur within the operational period.*

- a turn warrants assessment has been undertaken for the cumulative impact of the GISC Quarry and the GIWFP traffic on the Wattlevale access and determined that the existing approved configuration will sufficiently cater for the additional traffic; and
- based on the proposed access points and the turn warrants assessment above, the access configurations from a traffic perspective will sufficiently cater for the proposed traffic volumes. Sight distance assessments and the design of functional layouts have been undertaken separately by LEGS as attached at Appendix A and B. It is understood that the accesses have been designed to accommodate the maximum design vehicles.

We conclude that there should be no major adverse impacts to the Gwydir Highway as a result of traffic associated with the proposed GISC Quarry development and that the proposed access arrangements are sufficient to cater for the proposed traffic volumes.

Further the assessment recommended:

It is recommended that an access management plan be prepared and implemented for the GISC Quarry. It is also recommended that all truck drivers utilising the site are appropriately inducted in relation to traffic movements to / from the public road.

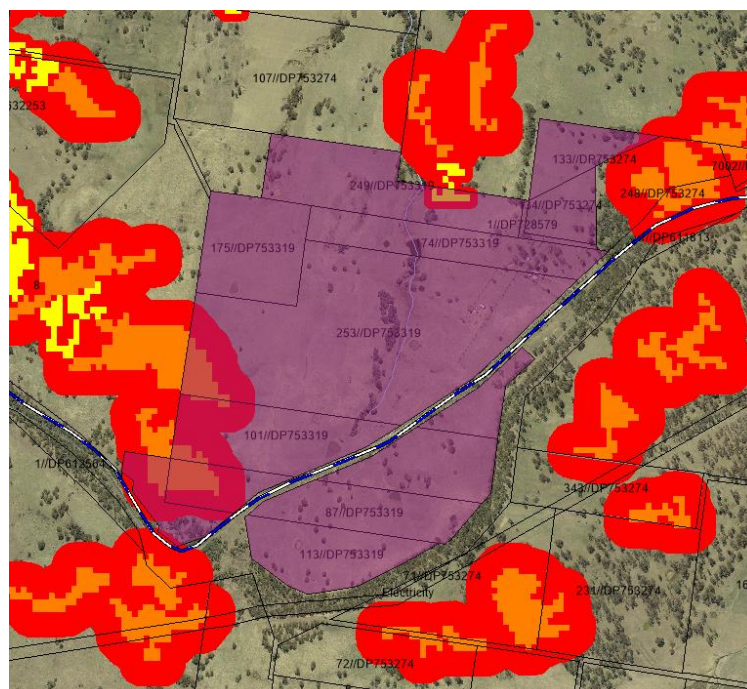
These have been captured within the draft development conditions.

Bushfire & Flooding

Bushfire

Part of the property is mapped as being bushfire prone, yet the extraction sites and proposed vehicle access are not mapped as bushfire prone. In the SEERS advice attached to the EIS the NSW Rural Fire Service state they have no objection and no requirements for the proposed hard rock quarry. The proponent intends to apply a BAL 29 level of protection to the site as per the provisions of *Planning for Bush Fire Protection 2006*. Mitigation measures to be incorporated include:

- Maintain the APZ in accordance with NSW RFS (2006)
- Maintain a dedicated water source for fire fighting purposes
- Establish an evacuation plan in case of a bushfire



Source: Glen Innes Severn Council GIS

Flooding

The site is not identified as being floodprone in the EIS and is not located in Councils mapped area for flood prone land.

An intermittent unnamed tributary of Back Plain Creek runs through the Development site. The tributary only flows following rainfall events although there are a number of small farm dams located throughout the Development site that hold water. Back Plain Creek is a tributary of the Wellingrove Creek, flowing into the Severn River to the north.

Erosion Control

An Environmental Management Plan (EMP) would be prepared prior to the construction phase of the development. The EMP would describe the measures to be implemented to manage soils and minimise the potential for erosion and sedimentation impacts. Where topsoil is to be disturbed, the following procedures will be implemented:

- Topsoil will be stripped prior to quarrying and stockpiled separately for later reuse in rehabilitation activities.
- Where topsoil stockpiles are expected to remain in place for longer than three (3) months they will be re-grassed with local native seed to inhibit erosion, dust and siltation.
- Where possible, freshly stripped topsoil will continue to be placed directly onto rehabilitated areas to reduce the potential for loss of soil structure and make best use of soil seed stores.
- Erosion and sediment controls will be implemented in accordance with *Managing Urban Stormwater Soils and Construction – Volume 2e Mines and quarries* (Landcom, 2004).
- Increase the size of the water supply basin by 1.2ML to act as a sediment basin.
- Extraction of the resource would be undertaken in stages to minimise the area of disturbance at any one time.

Waste Management

The types of waste generated by the development are not expected to be generated in significant quantities. Expected waste types are:

- Excavated material (topsoil and overburden not suitable for sale)
- Green waste
- Liquid waste
- Contaminated soil
- Wastewater from amenities and office
- Domestic waste (e.g. office paper and general rubbish)

All waste would be managed in accordance with the requirements of the *Waste Avoidance and Resource Recovery Act 2001*, the POEO Act, and the *Waste Classification Guidelines* (NSW EPA, 2014) and the principles of the waste management hierarchy with any waste generated by the development being managed by way of Council collection services or via appropriately licensed waste contractors. No on-site disposal of general waste would occur. Recycling would occur where possible. An Environmental Management Plan (EMP) is to be prepared and communicated to all employees and contractors during site induction, prior to commencing works at the site which includes measure taken for waste management including recycling.

Air Quality

An Air Quality Assessment was undertaken as part of the EIS (Appendix G of the EIS). It concluded:

An assessment of the potential construction and operational air quality impacts of dust from the development of Wattle Vale Quarry has been undertaken. This assessment has led to the following conclusions, which are subject to the limitations outlined in Section 1.4 and 1.6:

- *Existing conditions for a rural site with a high annual average wind speed are low; other environmental assessments in the area (for wind farm developments) were not required to consider background dust levels.*
- *Construction dust impacts are likely to be low due to the ad-hoc nature involved in clearing certain, limited sections without the full operational dust sources that would be higher; such as hauling and quarrying. It is anticipated that dust impacts will be below the threshold of human perception (for human health and ambient considerations) at all identified receptors, given the large separation distance between receptors and the construction works.*
- *The operational air quality assessment is considered to be conservative with maximum product quarrying, crushing and export occurring on every day modelled. Predicted marginal compliance is expected at only a limited distance beyond the southern site boundary but all human health (PM10) and amenity (dust fallout) impacts were found to be below the threshold of acceptable dust impacts at all identified sensitive receptors.*
- *No further recommendations above standard dust control measures are required to assist in minimising potential dust impacts.*
- *No adverse air quality impacts due to dust will affect people, livestock or pasture which are anticipated to result from dust emissions due to the Project.*

Due to the assessed dust impacts being low and within acceptable criteria, in-principle mitigation and management measures to reduce dust impacts, other than standard practices already included and air quality monitoring programmes are not required.

Water Resources

A Water Resources Assessment was undertaken as part of the EIS (Appendix F of the EIS). It concluded the following mitigation measures:

General

- *An environmental protection licence (EPL) will be obtained for the quarry. All relevant conditions relating to soil and water management will be implemented as required by the EPL.*
- *An Environmental Management Plan will be compiled for the works which will contain a Soil and Erosion Management Plan. Training will be provided to all quarry staff including relevant sub-contractors on erosion and sediment control practices and the requirements of the Plans through inductions, toolboxes and targeted training.*
- *If groundwater is intercepted, Water NSW is to be contacted and a groundwater water access licence (WAL) obtained. Based on the most likely estimate for groundwater inflow of 8.0 m³/day, an annual allocation of 2.9 ML/year will need to be licenced under the WM Act.*

Water Supply

A 4,000 m³ basin will be required for water supply. Where available, and of appropriate quality, the quarry operation will use recycled runoff for quarry activities.

Erosions and sediment control

- *Implement erosion and sediment controls in accordance with Managing Urban Stormwater Soils and Construction – Volume 2e Mines and quarries (Landcom, 2004).*
- *Increase the size of the water supply basin by 1.2ML to act as a sediment basin.*

Material storage and management

- *Designated impervious bunded facilities will be provided for cleaning and/or maintenance of vehicles, plant or equipment. These facilities will be located at least 20 metres away from natural and built drainage lines.*
- *All chemicals and fuels associated with the quarry will be stored in roofed and bunded areas. Spill kits will be provided at all chemical storage facilities/compound sites.*
- *Where refuelling is required onsite, the following management practices will be implemented:*
 - *Refuelling will be undertaken on level ground and at least 20 metres from drainage lines, waterways and/or environmentally sensitive areas*
 - *Refuelling will be undertaken within the designated refuelling areas with appropriate bunding and/or absorbent material*
 - *Refuelling will be via a designated refuelling truck*
 - *Refuelling will be attended at all times*
 - *Spill kits will be readily available and all personnel will be trained in their use. A spill kit will also be kept on the refuelling truck at all times*
 - *Hand tools will be refuelled within lined trays of site vehicles wherever possible*
 - *An emergency spill kit (such as oil absorbent material) will be available onsite at all times to contain and clean up any accidental hydrocarbon spill*
 - *Any contaminated material will be disposed at an appropriately licensed facility and used spill kit materials replaced.*
- *Regular checks of vehicles working at the quarry will be conducted to ensure that no oils or fuels are leaking.*

Monitoring

- *The basin is to be monitored to confirm it complies with the EPL and Managing Urban Stormwater Soils and Construction – Volume 2e Mines and quarries (Landcom, 2004) requirements.*
- *To confirm groundwater levels, a series of groundwater wells should be established around the quarry pit.*
- *A routine monitoring program should be established to include regular inspections and maintenance of erosion controls, especially after rain.*

These have been captured within the draft development conditions.

Ground water

The proposed pit is located on a ridgeline with ground water testing results indicating perched groundwater is present along the ridgeline. It is considered to be an isolated deposit of perched groundwater that is separate from the regional groundwater. The regional groundwater table is not expected to be intercepted by the quarry.

The mapped alluvial sediments are located outside the site boundary. The alluvial sediments lie at lower elevations along creek lines. The proposed extraction will not extract groundwater from the alluvial sediments.

Groundwater is likely to be present within the fractured basalt rock aquifer below the base of the pit.

Surface water

Based on the size of the basin, the quarry would have insufficient runoff volumes during an average and dry year to supply the operational demands of the quarry. The volume of external water required is estimated to be 0.15ML/year in an average year and 2.18ML/year in a dry year.

It is likely that the external water use would be even less than modelled within the EIS because water resources would be used more conservatively when the supply is limited. The model is also based on

a catchment area of six hectares. Diversion drains would be used to increase the catchment area, and the size of the basin could be increased to hold more runoff if onsite water is proving to be insufficient. As a last resort, the external water would be sourced from other dams on site or from the existing Glen Innes quarry. It is therefore considered the quarry would have access to sufficient water supply to operate.

Due to the quarry being located in the upper catchment the reduction in the volume of water is not expected to result in a significant volumetric impact on downstream waterways in comparison with natural flow regimes. This is supported by the maximum surface water harvestable rights.

The erosion and sediment control assessment indicated the rate of sediment generation from the quarry and access roads will be less than 150 cubic metres per year, meaning that a sediment basin is not required in accordance with Landcom (2004). However, a 1.2ML sediment basin has been proposed, in accordance with Landcom (2005), to collect water from the quarry pit. This would collect runoff up to the design rainfall event of 38 mm occurring over a five-day period.

Water quality runoff from the remainder of the site would be managed via controls in accordance with Landcom (2005).

Noise & Vibration

A Noise and Vibration Assessment was undertaken as part of the EIS (Appendix H of the EIS). It concluded:

An assessment of the potential construction and operational noise and vibration impacts from the development of Wattle Vale Quarry has been undertaken. This assessment has led to the following conclusions, which are subject to the limitations outlined in Section 1.4 and 1.5:

- *Existing noise levels in the area surrounding the site are low and typical of a rural environment, and were found to be less than 30 dB(A) at each of the three monitoring locations. The RBL for these locations has been set to 30 dB(A) as directed by the INP.*
- *A construction noise criterion of 40 dB(A) Leq(15 min) during standard construction hours and 35 dB(A) on a Saturday afternoon, outside of standard construction hours, was derived for all identified receivers.*
- *Construction noise was determined to be below the construction criteria, and construction vibration is anticipated to be below the threshold of human perception at all identified receivers, given the large separation distance between receivers and the construction works.*
- *An operational noise criterion of 35 dB(A) Leq(15 min) was adopted at all identified receivers.*
- *The operational noise assessment predicted compliance without the need of any specific noise mitigation measures, for all identified sensitive receivers. Operational vibration is expected to be below the threshold of human perception at all identified receivers.*
- *The predicted growth in traffic along public roads due to quarry traffic during peak production operations was investigated and was determined to be insignificant relative to the RNP criteria.*
- *Over pressure limits rather than vibration limits were found to be the controlling factor to determine blast design. Based on assumed site constants, predictions indicate that the ANZEC recommended over pressure limit of 115 dB peak approximately equates to a MIC of 120 kilograms at a receiver distance of 1600 m from the blast. It is recommended that initial blast monitoring be conducted to confirm the site constants and refine the blast predictions.*
- *Further recommendations have been provided in Section 7 to assist in minimising potential noise impacts.*

- *No noise or vibration impacts to people, livestock, heritage items or infrastructure are anticipated to result due to the Project.*

The recommendations listed below from Section 7 of the Noise and Vibration Assessment have been included in the draft conditions of consent in an attempt to mitigate operational noise. They are:

Work Ethics

All site workers would be sensitised to the potential for noise impacts on local residents and encouraged to take practical and reasonable measures to minimise the impact during the course of their activities. This would include:

- *Where practical, machines would be operated at low speed or power and switched off when not being used rather than left idling for prolonged periods.*
- *Keep truck drivers informed of designated vehicle routes, parking locations and delivery hours.*
- *Avoid dropping materials from height and avoid metal to metal contact on material.*
- *All engine covers would be kept closed while equipment is operating.*

Community Relations

Consultation and cooperation with the community would assist in minimising uncertainty, misconceptions and adverse reactions to noise. It is recommended the following community relation measures be implemented:

- *The quarry manager would erect a sign at the entrance of the quarry with a phone number and permanent site contact so that noise complaints can be received and addressed in a timely manner.*
- *Upon receipt of a noise complaint, noise monitoring would be undertaken and reported as soon as possible. If exceedances are detected, the situation would be reviewed in order to identify means to attempt to reduce the impact to acceptable levels.*

Blasting Mitigation Measures

It is recommended that all sensitive receivers be informed when blasting is to be undertaken. Reducing charge mass and increasing distance is the most effective way of reducing blasting impacts. Blasting should only occur from 9 am to 5 pm, Monday to Saturday and should not generally take place more than once per day.

Adverse meteorological conditions such as temperature inversions and wind direction can significantly increase airblast overpressure levels. Temperature inversions are most common during night and early morning periods, particularly during winter periods and therefore should not affect blasting during the recommended standard hours.

Due to variability in blasting impacts, it is recommended that monitoring be undertaken during initial blasts at the site to confirm predictions and assess compliance with the ground vibration and airblast overpressure limits.

Odour

The quarry is not expected to produce a source of odour that is detrimental to the surrounding environment.

Visual

The development site would only be visible from a very limited number of areas because of topography, vegetation and distance to sensitive receptors. In addition, the proposed amphitheatre shape of the quarry excavation would assist in screening from surrounding vantage points. Ancillary areas such as the site office, stockpiles and access roads would be visible from the Gwydir Highway. However, due to the relatively short distance and the speed limit on the Gwydir Highway, views of the quarry would be for approximately 36 seconds. Topography, roadside vegetation and remnant vegetation would also provide intermittent shielding along this one kilometre section of the Gwydir Highway. As a result, the overall impact of the development is considered low.

The following mitigation measures are proposed in the EIS to minimise future visual impacts:

- Maintenance of existing vegetation outside the extraction limit boundary for visual screening.
- Maintain the site in a clean and tidy condition at all times.
- Ensure that areas of disturbance are kept to the minimum practicable at any one point in time.
- Progressively revegetate all areas where quarrying is completed.
- Where possible, stockpiles, plant and equipment should be in positions which are naturally screened from views into the site.

These have been captured within the draft development conditions.

Heritage

European

No European assessment was provided. The property is not listed as an item of environmental heritage under the Glen Innes LEP. No historic heritage was located on the site.

Aboriginal

Everick Heritage Consultants Pty Ltd (Everick) prepared an *Aboriginal Cultural Heritage Assessment* (Everick, 2016) (Appendix D of the EIS) which included:

- A search of relevant Aboriginal heritage registers.
- An archaeological investigation of the Quarry area.
- A brief review of the archaeological and cultural heritage assessments pertinent to the potential heritage values associated with the Quarry area.
- A review historic aerial photographs of the Quarry area.
- Consultation with the Aboriginal Community via Glen Innes Local Aboriginal Land Council.
- Assessment of the potential for the Development Site to contain significant Aboriginal heritage and the impact on the Development may have on said heritage, consistent with the Office of Environment and Heritage Due Diligence Code for the Protection of Aboriginal Objects in NSW (2010).

They concluded:

The assessment of the proposed Wattle Vale Quarry included four pedestrian transects over the quarry area and the surrounding landscape which were determined to have the potential to contain archaeological sites. This survey was affected by grass growth, however grass cover was not considered to significantly constrain the survey.

Based on the distance of the Project site from water, the absence of archaeological materials at surface and the extent of historic land clearing the Project site is not considered to be a Potential Archaeological Deposit. No items of European heritage value were identified during the survey. As such, no further recommendations for historic heritage are required.

No items of European heritage value were identified during the survey. As such, no further recommendations for historic heritage are required.

The Consultant is of the opinion that the proposed works are unlikely to lead to harm to Aboriginal objects.

However as a precautionary measure the following recommendations are provided:

Recommendation 1: Aboriginal Object Find Procedure.

If it is suspected that Aboriginal material has been uncovered as a result of development activities within the Project site:

- a. work in the surrounding area is to stop immediately;*
- b. a temporary fence is to be erected around the site, with a buffer zone of at least 10 metres around the known edge of the site;*
- c. an appropriately qualified archaeological consultant is to be engaged to identify the material; and*
- d. if the material is found to be of Aboriginal origin, the Aboriginal community is to be consulted in a manner as outlined in the ACHCRP Guidelines (2010).*

Recommendation 2: Aboriginal Human Remains

Although it is unlikely that Human Remains will be located at any stage during earthworks within the Project site, should this event arise it is recommended that all works must halt in the immediate area to prevent any further impacts to the remains. The Site should be cordoned off and the remains themselves should be left untouched. The nearest police station (Glen Innes), the Glen Innes LALC and the OEH Regional Office (Coffs Harbour) are all to be notified as soon as possible. If the remains are found to be of Aboriginal origin and the police do not wish to investigate the Site for criminal activities, the Aboriginal community and the OEH should be consulted as to how the remains should be dealt with. Work may only resume after agreement is reached between all notified parties, provided it is in accordance with all parties' statutory obligations.

It is also recommended that in all dealings with Aboriginal human remains, the Proponent should use respectful language, bearing in mind that they are the remains of Aboriginal people rather than scientific specimens.

Recommendation 3: Conservation Principles

It is recommended that all effort must be taken to avoid any impacts on Aboriginal Cultural Heritage values at all stages during the development works. If impacts are unavoidable, mitigation measures should be negotiated between the Proponent, OEH and the Aboriginal community.

These recommendations have been taken up into the conditions of development consent.

Social & Economic

The potential social and economic impacts are as follows:

1. *Alteration of social activities or employment due to employment generation and capital expenditure* - The construction and operation of the development will require a workforce of approximately eight fulltime equivalent (FTE) personnel. Construction and operation of the development will generate the need for goods and services thereby creating opportunities for business development in the Glen Innes region. The expenditure on materials by the quarry during both the construction and operations phases is spread more widely than expenditure by employees.

2. *Perceived or real impacts on local amenity of neighbouring properties* – By implementing the mitigation measures outlined in the noise and vibration, air quality, traffic and access, and visual amenity sections of the EIS, any perceived impacts would be reduced to being minimal in nature.
3. *Reduction in property values due to the presence of the quarrying operation* - The surrounding area is relatively sparsely populated, with the closest residence lying approximately 1.5 kilometres to the east of the development site. Land uses surrounding the development site are associated with agricultural enterprises, with low connectivity of surrounding vegetation due to historical land clearing activities. Properties surrounding the development site are rural in nature. It is not expected that there would be any property devaluation based on the individual merits of this development.
4. *Implications of the increased workforce on the need for services and infrastructure* - The development will provide a valuable resource for an anticipated short and medium term demand for aggregate products for the construction of major wind farm projects in the region. The close proximity of the site to the Glen Innes Wind Farm, located to the immediate south of the development site, and the proximity to the Gwydir Highway is also a benefit to the wider community because it avoids transporting materials over a longer distance and potentially impacting on a greater number of people.

This site was chosen for the extent of resource available, ownership and location to the end use. The development site strategically placed to provide a supply of aggregate material for use in public road construction and maintenance, but would also fulfil an anticipated short and medium term demand for aggregate products for the construction of major wind farm projects in the region. It is considered that the proposal would provide a very minor social and economic impact when considering employment generation. The land is not prime crop or pasture land and the site will be rehabilitated in accordance with the rehabilitation plan and the local government requirements.

Cumulative Impact

The assessment of the development did not identify any cumulative impacts associated with the operation relating to traffic, loss of vegetation, amenity and noise. All have been addressed and will be managed effectively with any potential impact being mitigated.

Ecological Sustainable Development

The EIS has addressed Ecological Sustainable Development (ESD), and it is considered that the siting of this proposal and the haulage to end use maximizes best ESD ideology. The mitigation measures in the EIS and the assessment has shown that ESD is being implemented and is considered satisfactory for this proposal.

3.7 Section 79C(c) Site Suitability

The proposal is in a rural environment with the closest residential dwellings being 1.5km away. The proposed quarry site is approximately 13 kilometres west of Glen Innes. It is considered the size and shape of the land is suitable for the siting of the proposed development.

It is generally considered the development will not reduce access to views or sunlight to neighbouring property or the scenic quality of the locality and that vegetative screening will ensure the quarrying operations and built features are not readily visible.

The proposed land use is considered to be an appropriate use in the locality, subject to impact mitigation measures and conditions of consent.

3.8 Section 79C(d) Submissions

Public Submission

The development proposal was placed on public exhibition in accordance with legislative requirements. The exhibition period was from 26 January to 20 February 2016. Notification of the proposal was given to landowners adjoining the subject site as well as advertisements placed in the local newspaper. Further, Council released a media advice in regard to the proposed development on 7 February 2017. A copy of these advertisements and the media release are contained within Appendix E.

One submission was received in response to the public exhibition of the proposal. The following list is the major issues that were raised by the submissions. All of these issues have been discussed within the body of the report.

Submission Maker	Don and Deborah Anderson - Objection
Issue: Need for a Quarry	
<p>Comment: The Wattle Vale Quarry will provide a long term supply of good quality aggregate for the Glen Innes Severn LGA. The Glen Innes Quarry has a limited supply of better quality hard rock aggregate ideally used for local concrete and bitumen aggregate. By establishing the Wattle Vale Quarry, and utilising its aggregate where possible, it will extend the life of the Glen Innes Quarry which has the better aggregate quality. Utilising the two quarries together is considered to be a better management of finite hard rock resource within the LGA.</p> <p>In regard to the sale of the extracted material to the neighbouring wind farms. This is a short term commercial activity to be undertaken by Council, with the proceeds to be used for community benefit. The sale of the extracted aggregate in the short term will contribute heavily towards the cost of the pit establishment that otherwise would be borne solely by the community at a later date if the short term wind farm construction market as such was not available.</p> <p>It is an assumption of the submission maker that Council's are not able to operate a gravel pit economically is subjective and cannot be taken into account as part of this assessment. The costs of the operation of the gravel pit is up to the operator of the gravel, and is based on demand.</p>	
Issue: Traffic	
<p>Comment: The entry access to the Wattle Vale Quarry is to utilise already approved access to the GIWF. The exit access was approved under the Stage 1 of the Wattle Vale Quarry.</p> <p>The RMS have considered this application and have provided advice on suitable design and construction standards to provide safe entry and exit into the quarry site and for traffic in general when there is turning vehicles. This has been translated into the draft conditions of consent.</p> <p>Care has been taken when siting the access and entry points to the proposed quarry. The actual truck movements to haul the aggregate to the GIWF will not access the Gwydir Highway but rather will utilise the GIWF internal roads. Thus the actual location of the proposed quarry is quite convenient in providing safer hauling routes to the GIWF construction sites without having a major impact on the traffic on the Gwydir Highway.</p>	
Issue: Rehabilitation Impact	
<p>Comment: It is felt that the rehabilitation as proposed is adequate for this development. See Section 1.7 of this report and Appendix D which contains the Rehabilitation Concept Plan. .</p>	

Issue: Visual Impact

Comment: The development site would only be visible from a very limited number of areas because of topography, vegetation and distance to sensitive receptors. In addition, the proposed amphitheatre shape of the quarry excavation would assist in screening from surrounding vantage points. See Section 3.6 of this report.

State Agency Submission

This has been dealt with in Section 3.5.

Glen Innes Severn Engineering Assessment

Council's Manager Technical Services in his report dated 20 February 2017 highlighted no issues with the proposed development that were not identified either within the EIS or by state agency advice. A number of draft conditions of development consent were put forward as being suitable for this development.

In relation to Stage 1 of the operations, it should be noted that it was recommended that this development consent DA 26/16-17 should be surrendered as part of any development consent for this proposal to remove any ambiguity over vehicle access and other operating conditions. To avoid ambiguity in vehicle access and operating conditions, as both consents share common land. If it is determined that the access should not form part of the development approval for this development, the access can be determined under Part V of the EP&A Act with the same relevant environmental considerations. This would negate the need to submit an additional development application for the access construction.

This report is contained within Appendix J.

3.9 Section 79C(e) Public Interest

The development is in the public interest as it will:

1. Provide a high quality supply of construction materials into the Glen Innes district to meet an identified need for these materials.
2. Support continued development of the area through supply of high quality construction materials.
3. Prolong the life of the Glen Innes Quarry which has the higher quality aggregate.
4. Provide for the employment of up to eight quarry personnel, with additional support of employment in relation to road transport drivers; resulting in positive flow on economic effects to the local and regional economy.
5. Provide direct economic benefits in the form of \$500,000 in CIV, plus expenditure associated with quarry operations and labour, providing an ongoing contribution to the local economy.

The public submission and agency referrals made in response to the proposal have been acknowledged and addressed. The interests of the public have been considered in relation to the proposal and it is considered, on its merits and subject to appropriate conditions of approval, the proposal is not contrary to the public interest.

3.10 Other Matters

Project Justification

Based on current extraction and production rates, the existing quarry east of Glen Innes has less than 10 years' capacity remaining. It has a high hard rock aggregate quality suited for local concrete and bitumen purposes. The lower quality aggregate from the Wattle Vale Quarry would help to prolong the life of the finite higher quality aggregate if solely used for these purposes within the Glen Innes Severn LGA.

The development is therefore important and well positioned to cater for the predicted demand for quarry products, given its location in close proximity to the Gywdir Highway and Glen Innes. It will provide access to a total of up to approximately 2.1 million tonnes of aggregate materials.

The development site is strategically placed to provide a supply of aggregate material for use in public road construction and maintenance, but would also fulfil an anticipated short and medium term demand for aggregate products for the construction of major wind farm projects in the region. The demand from the wind farms, which has been reported to be in the order of 400,000 tonnes during construction. With limited quarries with approved extraction rates in the local area available to meet this demand, establishing this quarry will assist the development of the GIWF.

This development will also provide for the employment of up to eight quarry personnel, with additional support of employment in relation to road transport drivers; resulting in positive flow on economic effects to the local and regional economy.

Section 94A Contribution

A Contribution is applicable under the Glen Innes Severn Section 94A Development Contributions Plan 2014. This is calculated at a levy of 1% of the proposed cost of development. The estimated cost of development is \$500,000 therefore the levy applicable is \$5,000.

Stage 1 Development Consent Compliance

Stage 1 was approved by Council on 17 January 2017. This proposal was for the extraction of up to 30,000 m³ (75,000 tonnes) per annum, with a total disturbance area of less than 2 hectares. (Development Consent DA26/16-17 - Appendix B). A review has been undertaken and the quarry is operating within the parameters set by the development consent conditions.

4. RECOMMENDATION

4.1 Recommendation

This proposal is for the operation of Stage Two of the Wattle Vale hard rock quarry. The proposed quarry will extract up to 300,000 tonnes per annum (tpa) and 3,000 tonnes per day over 30 years, with a total disturbance area of approximately eight hectares for use on the upgrade and maintenance of local roads but also to provide a resource as required for the construction of nearby wind farms projects

The development/proposal is designated development and an EIS was submitted to identify all potential impacts. It is considered that the EIS has been prepared in accordance with the Director Generals requirements issued by NSW Planning and Environment and all relevant legislation for the assessment of the development and the identified impacts are assessed within this report.

The development application was processed and advertised in accordance with the provisions of the *Environmental Planning and Assessment Act 1979* and the *Environmental Planning and Assessment Regulations 2000* and Environmental Planning Instruments thereunder.

Based on the Section 79C assessment, it is recommended to the Northern JRPP that the development application for an Extractive Industry on Lot 113 in DP 753319 known as 1323 Gwydir Highway Matheson be approved subject to the conditions below.

Prescribed Conditions (under Environmental Planning & Assessment Regulation 2000)

Nil

General Conditions

As Requested by Glen Innes Severn Council

1. The proposed development being carried out strictly in accordance with the details set out on the application form and any other information submitted with the application.

Note: Any proposal to modify the terms or conditions of this consent, whilst still maintaining substantially the same development to that approved, will require the submission of a formal application under Section 96 of the Environmental Planning and Assessment Act 1979 for Council's consideration. If amendments to the design result in the development not remaining substantially the same as that approved by this consent, a new development Application will have to be submitted to Council.

2. Glen Innes Severn Council development consent number 26/16-17, is to be surrendered prior to quarry production exceeding 30,000 cubic metres per year of extractive materials.
3. Annual production from the quarry is not to exceed 300,000 tonnes per year of extractive materials. Any increase in production or alteration to operations is to be the subject of a further Development Application.

4. The extractive industry is to be carried out so that a total surface area of not more than eight (8) hectares of land is disturbed as a result of clearing or excavating; or constructing dams, ponds or roads; or storing or depositing overburden, extractive materials or tailings.
5. The developer shall nominate a contact person and telephone number for the benefit of adjoining neighbours and establish a complaints register that includes records of nature, time and date of complaint, climatic conditions such as wind direction and speed and the action taken to address complaint. The register shall be made available to Council upon request.

The developer shall notify all residents within a 2.0 kilometre distance of the boundary of the development site of the contact details and associated information.

6. The use and occupation of the site including construction plant and equipment installed thereon, shall not give rise to any offensive noise or vibration within the meaning of the Protection of the Environment Operations Act, 1997.
7. All conditions of the Property Vegetation Management Plan are to be complied with.
8. The applicant is to prepare a Quarry Management Plan for the site to summarise NSW Government legislative requirements, guidelines, and the conditions of this development consent. The Quarry Management Plan shall identify operational requirements relating to matters such as noise, water and erosion, air quality, vibration, blasting, access, traffic, transport, bushfires, hazardous materials, noxious weeds, rehabilitation, land care, community relations, monitoring and auditing, and waste; including measures to mitigate any adverse impacts to the environment, nearby residents and road users.
9. An Environmental Management Plan is to be prepared and submitted to Council prior to commencement and on an annual basis. This is to include all monitoring and measuring of environmental performance undertaken.
10. All recommendations and mitigation measures contained within the following assessments are to be complied with:
 - Resource
 - Aboriginal Cultural Heritage
 - Flora and Fauna Impact
 - Water Resources
 - Air Quality Impact
 - Noise & Vibration Impact
 - Traffic Impact
11. The visual impact mitigation measures as stated within the Statement of Environmental Effects are to be complied with. These include:
 - a) Maintenance of existing vegetation outside the extraction limit boundary for visual screening.
 - b) Maintain the site in a clean and tidy condition at all times.
 - c) Ensure that areas of disturbance are kept to the minimum practicable at any one point in time.
 - d) Progressively revegetate all areas where quarrying is completed.

- e) Where possible, stockpiles, plant and equipment should be located in positions which are naturally screened from views into the site.
12. Erosion and sediment controls are to be designed and implemented in accordance with the publication "Managing Urban Stormwater, Soils and Construction, Volume 2E Mines and Quarries" published by the NSW Department of Environment and Climate Change in 2008.
 13. Upon completion of each stage of quarrying activities, all disturbed areas are to be promptly topsoiled and rehabilitated in accordance with NSW Government best practice guidelines.
 14. Compliance with all requirements of the NSW Environmental Protection Authority and SafeWork NSW in relation to the transport, storage and handling of dangerous goods associated with the development.
 15. The use and occupation of the site including construction plant and equipment installed thereon, shall not give rise to any offensive noise or vibration within the meaning of the Protection of the Environment Operations Act, 1997.
 16. The registered proprietor of the land shall;
 - a) Repair, or pay the full costs associated with repairing any private or public infrastructure that is damaged as a result of carrying out the extractive industry; and
 - b) Relocate, or pay the full costs associated with relocating any public infrastructure that needs to be relocated as a result of the development.
 17. The applicant is to make contact with the local 'Inspector of Mines', NSW Department of Industry, Mine Safety Operations Branch, prior to the commencement of operations or activities at the quarry.
 18. Applicant to maintain a register of sales of aggregate and provide this to Council upon request for verifying quantities transported; or that operator conducts annual aerial surveys to verify total disturbed area and annual production; or that Council be provided reasonable access to conduct aerial surveys to verify same;
 19. Any outdoor lighting is to be shielded and all portable buildings are to be constructed from materials having low reflectivity indices, to minimise visual impact of quarry site.
 20. A copy of all the approved documents related to this consent, shall be kept by the operator at all times and shall be made available upon inspection by Council or an authorised government agency.
 21. The design and construction of an intersection with the Gwydir Highway for all inbound traffic through Travelling Stock Route 67474. All work is to comply with Roads and Maritime Services (RMS), Australian Standards and Austroads CHR/S and AUL/S guidelines.

Note: All works within the Travelling Stock Reserve are to be approved by Local Land Services (LLS) prior to the commencement of works.

22. The design and construction of an intersection with the Gwydir Highway for all outbound quarry traffic, to be located approximately 850 metres west of the ingress location. All work is to comply with Roads and Maritime Services (RMS), Australian Standards and Austroads BAL guidelines.

Notes:

1. *Vehicle egress is to be suspended from this intersection during periods of fog when sight distances are restricted, in which case egress may occur during the ingress location.*
 2. *The existing property access at 1493 Gwydir Highway is to be fully decommissioned and fenced upon creation of the new egress location.*
23. A road opening permit application is to be submitted to Council and approved prior to any works within a public road reservation.

Note: *Works within the Gwydir Highway road reservation require concurrence from NSW Roads and Maritime Services (RMS) prior to any Council approval. The applicant will be required to enter into a Works Authorisation Deed with the RMS and comply with all RMS requirements.*

**Conditions to be Completed Prior to Operation Commencing
As Requested by Environment Protection Authority**

As Requested by Glen Innes Severn Council

24. The design, construction and maintenance of a two-way heavy vehicle access roadway from the Gwydir Highway entrance to the proposed quarry entrance at Lot 113 DP753319. All work is to comply with Austroads guidelines and Council's Development Design and Construction Manual, and be completed prior to the commencement of extraction from the quarry site.

Note: *All works within the shared road reserve are to be approved by Council and Local Land Services (LLS) prior to the commencement of works.*

The provision of vehicle parking and manoeuvring areas within the development in accordance with AS/NZS 2890: Parking Facilities, and the following:

- a) The construction of at least fifteen (15) designated car parking spaces on the subject land;
- b) Heavy vehicle standing areas are to be provided to allow queueing fully within the site;
- c) Disabled car parking spaces are to be provided as required by the Building Code of Australia;
- d) All parking and manoeuvring areas are to be clearly marked and surfaced with a hard standing material, and must be maintained in a satisfactory condition;
- e) All vehicles are to enter and exit the site in a forward direction at all times;
- f) Parking and manoeuvring areas shall not be used for the storage of goods and equipment;
- g) The separation of heavy vehicle and light vehicle movements as far as feasible;

Appropriate signage and delineation to clearly delineate to motorists the means of access, parking and circulation within the site.

25. The vehicle ingress and egress are to be constructed prior to any traffic generation on the Gwydir Highway associated with the quarry extractive industry.

As Requested by Environment Protection Authority

26. A Groundwater Management Plan is to be implemented that addresses, at a minimum, the contingency measures for a lack of onsite water, using farm dams or water from another quarry, the feasibility or suitability of these waters for use within operation, the implications this may have on environmental controls such as dust suppression, management options for the handling or disposal of waters generated from pit inflow during high recharge years and includes the local groundwater monitoring around the periphery of the pit, as outlined in the EIS, prior to the commencement of operations at Stage 2 of the Quarry.

As Requested by NSW Roads & Marine Services

27. All ingress to the quarry development shall be via the shared access with the Glen Innes Wind Farm (GIWF). GIWF is responsible for constructing a shortened channelised right-turn treatment (CHR/S) and a shortened auxiliary left-turn treatment (AUL/S). Where the access is not constructed by the GIWF, the quarry developer will be required to determine an appropriate access treatment in consultation with Roads and Maritime Service and construct the access prior to the commencement of traffic generated by the quarry.
28. All quarry trucks are restricted from accessing the site from the west unless written consent is obtained from NSW Roads and Maritime Services.
29. The proposed egress to the Gwydir Highway shall comply with an Austroads basic left-turn (BAL) treatment and appropriate regulatory signage to restrict ingress movements.
30. The developer will be required to enter into a Works Authorisation Deed (WAD) with Roads and Maritime for all works deemed necessary on the classified (State) road (Gwydir Highway). The developer will be responsible for all costs associated with the works and administration for the WAD.
31. Prior to the commencement of quarry traffic movements a Driver Code of Conduct for heavy vehicle operators should be prepared to include, but not be limited to;
- A map of the primary haulage route/s highlighting critical locations;
 - Safety initiatives for haulage along school bus routes and through residential areas and/or school zones;
 - An induction process for vehicle operators and regular toolbox meetings;
 - A complaint resolution and disciplinary procedure; and
 - Any community consultation measures for peak haulage

As Requested by NSW Office of Environment & Heritage

32. A separate application is to be made for the construction of Access 2. This is to include a full environmental review of biodiversity value.
33. Environmental Management Plan is to be provided which includes the mitigation measures listed in Section 7.2.2 of the Flora and Fauna Impact Assessment by GHD, dated May 2017, as well as any other requirements listed by Council. The Environmental Management Plan is to be prepared to the satisfaction of the consent authority and submitted prior to site works commencing for Stage 2 works.
34. A surveyed plan of the Wattle Vale Quarry Operational Area is to be provided representing the operational limit of this consent. The plan must include, but not be limited to, the extraction area, location and area of occupation of proposed site sheds, compounds and weighbridge, roads, parking areas, fuel storage, dams, temporary drainage, restrictive fencing, overburden and stockpile areas. The surveyed plan is to be prepared to the satisfaction of the consent authority and submitted prior to commencement of Stage 2 works.
35. A Flora and Fauna Management Sub-plan is to be prepared in consultation with the NSW Office of Environment & Heritage. The plan is to contain the recommended mitigation measures listed in Section 7.2.3 of the of the Flora and Fauna Impact Assessment by GHD, dated May 2017, as well as:
 - a) Identify trees to be removed and trees to be retained within the Wattle Vale Quarry Operational Area. Trees to be retained are to be protected in accordance the Australian Standard 4970-2009 Protection of trees on development sites. The retained trees and their management requirements are to be included in the Sensitive Areas Plan.
 - b) Identify and include areas of high environmental value on a Sensitive Areas Plan, and provide management actions to ensure protection. This may include but not be limited to drainage lines, areas of endangered ecological communities or hollow bearing trees within and/or adjacent to the quarry operational area.
 - c) Include reporting requirements to ensure management of threatened species if detected during the pre-clearing surveys. Include the procedure to adjust the calculated offsets required for the loss of threatened species and their habitat with the Biodiversity offset Strategy.
 - d) Include fauna welfare and clearing procedures for the felling of habitat trees (hollowbearing) and removal of ground based woody material.
 - e) Identify opportunities to relocate habitat resources removed from the quarry operational areas, and included as part of the nominated Biodiversity Offset Strategy area.
 - f) Set the performance criteria and reporting requirements used to assess compliance with the recommended mitigation measures.

36. A Biodiversity Offset Strategy is to be prepared to address the loss of the endangered ecological community Ribbon Gum, Mountain Gum - Snow Gum grassy forest/woodland of the New England Tableland Bioregion. The Biodiversity Offset Strategy is to be drafted in consultation with the NSW Office of Environment & Heritage, and to the satisfaction of the consent authority prior to commencement of works.

The Biodiversity Offset Strategy must:

- a) Include Wattle Vale Quarry Operational Area (surveyed plan) as the accurate extent of impact, and the calculated area of impact be included as part of the offset calculation.
- b) Use the NSW BioBanking Assessment Methodology to determine the quantum of offsets required to compensate for the loss of endangered ecological community.
- c) Accord with the OEH offsetting principles in the selection of the offset site. These principles are found on the NSW Office of Environment & Heritage website at <http://www.environment.nsw.gov.au/biodivoffsets/oehoffsetprincip.htm>.
- d) Identify conservation mechanisms to be used to ensure the in-perpetuity protection and management of the proposed offsets.
- e) Identify management actions to improve the site, performance criteria used to measure completion of the proposed actions, and reporting requirements.

Conditions Relating to Ongoing Operations

As Requested by Glen Innes Severn Council

38. An annual return showing gravel extraction for the preceding 12 month period is to be submitted to Council and the NSW Department of Industry, Resources and Energy Division, within 30 days after the end of each financial year until rehabilitation has been completed.

As Requested by NSW Industry, Resources & Energy

39. Production data from this 6 month project is to be included with the annual production data from the longer term future development of Wattle Vale Quarry.

As Requested by NSW Office of Environment & Heritage

40. A detailed rehabilitation plan is to be prepared in accordance with the Figure 1-1 Concept Rehabilitation Plan prepared by GHD dated 30 March 2017. The plan is to be provided by a suitably qualified person with documented experience in environmental restoration within 12 months from the date of this consent. The plan must be prepared to the satisfaction of the consent authority.
41. The management actions and recommendations listed in the Flora and Fauna Management Sub-plan and Biodiversity Offset Strategy are to be implemented.
42. Biodiversity reporting is to occur in accordance with the reporting framework as set out in the Flora and Fauna Management Sub-plan and Biodiversity Offset Strategy.

Conditions Prior to Lapse of Consent

As Requested by NSW Office of Environment & Heritage

43. A final Biodiversity Offset Strategy implementation report is to be drafted in consultation with NSW Office of Environment & Heritage and submitted to the consent authority prior to the lapse of this consent.

Integrated General Terms of Approval as Part of this Consent

These conditions are issued pursuant with Section 91A(2) of the Environmental Planning & Assessment Act 1979 by the NSW Environment Protection Authority.

Administrative conditions

Note: Mandatory conditions for all general terms of approval

44. **A1. Information supplied to the EPA**

A1.1 Except as expressly provided by these general terms of approval, works and activities must be carried out in accordance with the proposal contained in:

- the development application for Wattle Vale Stage 2 – Extractive Industry – 300,000 tonne/annum located at 1323 Gwydir Highway, Matheson.
- any environmental impact statement titled ‘Glen Innes Severn Council Wattle Vale Quarry’ dated December 2016 relating to the development; and
- all additional documents supplied to the EPA in relation to the development.

45. **A2. Fit and Proper Person**

A2.1 The applicant must, in the opinion of the EPA, be a fit and proper person to hold a licence under the Protection of the Environment Operations Act 1997, having regard to the matters in s.83 of that Act.

Limit Conditions

46. **L1. Pollution of waters**

L1.1 Except as may be expressly provided by a licence under the Protection of the Environment Operations Act 1997 in relation of the development, section 120 of the Protection of the Environment Operations Act 1997 must be complied with in and in connection with the carrying out of the development.

47. **L2. Concentration limits**

L2.1 For each discharge point or utilisation area specified in the table/s below, the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentrations limits specified for that pollutant in the table.

L2.2 Where a pH quality limit is specified in the Table, the specified percentage of samples must be within the specified ranges.

L2.3 To avoid any doubt, this condition does not authorise the discharge or emission of any other pollutants.

L2.4 The Total Suspended Solids concentration limits specified in Table 1 may be exceeded for water discharged from the sediment basin provided that:

- the discharge occurs solely as a result of rainfall measured at the premises that exceeds 47.4 millimetres over any consecutive five day period immediately prior to the discharge occurring, and
- all practical measures have been implemented to dewater all sediment dams within 5 days of rainfall such that they have sufficient capacity to store run off from a 47.4 millimetre, 5 day rainfall event.

Table 1 – DISCHARGE POINTS: Overflow from the spillway of water sediment basin [exact location to be confirmed]

Pollutant	Units of measure	50% concentration limit	90% concentration limit	3DGM concentration limit	100% concentration limit
(Data provided as example only)					
Oil & Grease	Mg/L				10
pH	pH units			5	6.5-8.5
Total Suspended Solids	Mg/L				50

48. **L3. Waste**

L3.1 The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence under the Protection of the Environment Operations Act 1997.

L3.2 This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires an environment protection licence under the Protection of the Environment Operations Act 1997.

***Note:** Condition L3.2 is included to ensure that a premises based activity is not used as a waste facility (unless that scheduled activity is permitted by another condition).*

49. **L4. Noise Limits**

L4.1 Noise generated at the premises must not exceed the noise limits in the table below.

		NOISE LIMITS (Dba)
Name	Location – address, lot and deposited plan	Day
		Leq (15 minute)
Non project related residence	All non project related residences	35
Safari	259 Malboona Road, Glen Innes Lot 11 DP753274	35
Beaufort	39 Malboona Road, Glen Innes Lot 156 DP753274	35
8 Pitlochry Road	8 Pitlochry Road, Matheson Lot 3 DP632253	35
Girrahween	160 Rose Hill Road, Glen Innes Lot 4 DP707843	35

L4.2 For the purpose of condition L4.1:

- Day is the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and Public Holidays.
- Evening is the period from 6pm to 10pm.
- Night is the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sunday and Public Holidays.

L4.3 The noise limits set out in condition L4.1 apply under all meteorological conditions except for the following:

- Wind speeds greater than 3 metres/second at 10 metres above ground level; or
- Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or
- Stability category G temperature inversion conditions.

L4.4 For the purposes of condition L4.3:

- Data recorded by the meteorological station identified as EPA Identification Point M5.1 must be used to determine meteorological conditions ; and
- Temperature inversion conditions (stability category) are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.

L4.5 To determine compliance:

- with the Leq(15 minute) noise limits in condition L4.1, the noise measurement equipment must be located:
 - approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or
 - within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable

- within approximately 50 metres of the boundary of a National Park or a Nature Reserve.
- b) with the LA1(1 minute) noise limits in condition L4.1, the noise measurement equipment must be located within 1 metre of a dwelling façade.
- c) with the noise limits in condition L4.1, the noise measurement equipment must be located:
 - at the most affected point at a location where there is no dwelling at the location; or
 - at the most affected point within an area at a location prescribed by conditions L4.5(a) or L4.5(b).

L4.6 A non-compliance of condition L4.1 will still occur where noise generated from the premises in excess of the appropriate limit is measured:

- at a location other than an area prescribed by conditions L4.5(a) and L4.5(b); and/or
- at a point other than the most affected point at a location.

L4.7 For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.

50. **L5 Hours of operation**

L5.1 Activities permitted by this licence must only be carried out between the hours of 7am to 5pm, Monday to Friday and 8am to 4pm Saturday, excluding public holidays.

L5.2 This condition does not apply to the delivery of material outside the hours of operation permitted by condition L5.1, if that delivery is required by police or other authorities for safety reasons; and/or the operation or personnel or equipment are endangered. In such circumstances, prior notification is provided to the EPA and affected residents as soon as possible, or within a reasonable period in the case of emergency

L5.3 The hours of operation specified in conditions L5.1 may be varied with written consent if the EPA is satisfied that the amenity of the residents in the locality will not be adversely affected.

51. **L6 Blasting**

Airblast overpressure level

L6.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

L6.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

52. **Ground vibration level**

L6.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

L6.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

53. **Blasting hours**

L6.5 Blasting at the premises may only take place between 9.00am-5:00pm Monday to Friday. Blasting is not permitted on public holidays.

L6.6 Blasting outside of the hours specified in L6.5 can only take place with the written approval of the EPA.

54. **Frequency of blasting**

L6.7 Blasting at the premises is limited to 1 blast each day on which blasting is permitted.

55. **L7. Production Limit**

L7.1 Extraction from the premises must not exceed 300,000 tonnes during any consecutive 12 month period.

L7.2 For the purposes of determining compliance with this condition, a tally of trucks and trailers carrying loads from the quarry must be maintained by the applicant, to enable production to be calculated for any consecutive 12 month period by multiplying the number of truck and trailer loads for each vehicle type by the known capacity of each relevant vehicle.

Operating Conditions

56. **O1. Odour**

Note: The POEO Act states that no offensive odour may be emitted from particular premises unless potentially offensive odours are identified in the licence and the odours are emitted in accordance with conditions specifically directed at minimising the odours are permitted. Where it is appropriate for a licence to identify and control offensive odours, conditions for the licence should be developed in consultation with Air Policy.

57. **O2. Dust**

O2.1 Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises.

O2.2 Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading.

O2.3 Any activity carried out in or on the premises must be carried out by such practical means as to prevent dust or minimise the emission of dust.

02.4 Any plant operated in or on the premises must be operated by such practical means to prevent or minimise dust or other air pollutants.

02.5 All trafficable areas and vehicle manoeuvring areas in or on the premises must be maintained, at all times, in a condition that will minimise the emission of dust from the premises.

58. **03. Stormwater/sediment control - Construction Phase**

03.1 A Soil and Water Management Plan (SWMP) must be prepared and implemented. The plan must describe the measures that will be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction activities. The SWMP should be prepared in accordance with requirements for such plans outlined in *Managing Urban Stormwater: Soils and Construction* (available from the Department of Housing).

59. **04. Stormwater/sediment control - Operation Phase**

04.1 A Stormwater Management Scheme must be prepared for the development and must be implemented.

Implementation of the Scheme must mitigate the impacts of stormwater run-off from and within the premises following the completion of construction activities. The Scheme should be consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the Scheme should be consistent with the guidance contained in *Managing Urban Stormwater: Council Handbook* (available from the EPA).

60. **05. Emergency Response**

05.1 The licensee must maintain, and implement as necessary, a current emergency response plan for the premises. The licensee must keep the emergency response plan on the premises at all times. The emergency response plan must document systems and procedures to deal with all types of incidents (e.g. spills, explosions or fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment. If a current emergency response plan does not exist at the date on which this condition is attached to the licence, the licensee must develop an emergency response plan within three months of that date.

Monitoring and recording conditions

61. M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with the load calculation protocol must be recorded and retained as set out in conditions M1.2 and M1.3.

M1.2 All records required to be kept by the licence must be:

- in a legible form, or in a form that can readily be reduced to a legible form;
- kept for at least 4 years after the monitoring or event to which they relate took place; and
- produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected: the date(s) on which the sample was taken;

- the time(s) at which the sample was collected;
- the point at which the sample was taken; and
- the name of the person who collected the sample.

62. M2. Requirement to monitor concentration of pollutants discharged

M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the applicant must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The applicant must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

Pollutant	Units of measure	Frequency	Sampling Method
Oil and Grease	mg/L	Special Frequency 1	Representative sample
pH	pH	Special Frequency 1	Representative sample
Total Suspended Solids	mg/L	Special Frequency 1	Representative sample

Note: For the purposes of this condition, Special Frequency 1 means as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing and prior to any controlled discharge from the sedimentation basin to demonstrate compliance with the concentration limits defined in condition L2.1

63. **M3. Requirement to monitor volume or mass**

M3.1 For each discharge point or utilisation area specified below, the applicant must monitor:

- the volume of liquids discharged to water or applied to the area;
- the mass of solids applied to the area;
- the mass of pollutants emitted to the air,

over the interval, at the frequency and using the method and units of measure, specified below.

Point	Interval for	Frequency	Units of Measure	Sampling Method
1	24 hours	Daily during controlled release	Litres	To be negotiated

64. **M4. Testing methods - concentration limits**

M4.1 Monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area required by condition **M2** must be done in accordance with:

the Approved Methods Publication; or

if there is no methodology required by the Approved Methods Publication or by the general terms of approval or in the licence under the Protection of the Environment Operations Act 1997 in relation to the development or the relevant load calculation protocol, a method approved by the EPA in writing before any tests are conducted, unless otherwise expressly provided in the licence.

65. **M5 Weather Monitoring**

Note: Licensee to negotiate with EPA prior to issuing of licence to determine an appropriate location for the weather monitoring referred to in Conditions M5.1 to and M5.2

M5.1 The meteorological weather station must be maintained so as to be capable of continuously monitoring the parameters specified in condition M5.2.

M5.2 For each monitoring point specified in the table below the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.

Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method
Air temperature	°C	Continuous	1 hour	AM-4
Wind direction	°	Continuous	15 minute	AM-2 & AM-4
Wind Speed	m/s	Continuous	15 minutes	AM-2 & AM-4
Sigma theta	°	Continuous	15 minutes	AM-2 & AM-4
Rainfall	mm	Continuous	15 minute	AM-4
Relative humidity	%	Continuous	1 hour	AM-4

Reporting conditions

66. **R1.1** The applicant must provide an annual return to the EPA in relation to the development as required by any licence under the Protection of the Environment Operations Act 1997 in relation to the development. In the return the applicant must report on the annual monitoring undertaken (where the activity results in pollutant discharges), provide a summary of complaints relating to the development, report on compliance with licence conditions and provide a calculation of licence fees (administrative fees and, where relevant, load based fees) that are payable. If load based fees apply to the activity the applicant will be required to submit load based fee calculation worksheets with the return.

Additions to Definition of Terms of the licence

- NSW Industrial Noise Policy - the document entitled "New South Wales Industrial Noise Policy" published by the Environment Protection Authority in January 2000.
- Noise – "sound pressure levels" for the purposes of conditions L6.1 to L6.7.
- "Noise sensitive locations" includes buildings used as a residence, hospital, school, child care centre, places of public worship and nursing homes. A noise sensitive location includes the land within 30 metres of the building.

General Conditions

Administrative conditions

67. Other activates

(To be used on licences with ancillary activities)

This licence applies to all other activates carried on at the premises, including:

- **Not Applicable**

Operating Conditions

68. Activates must be carried out in a competent manner

Licensed activates must be carried out in a competent manner.

This includes:

- a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
- b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

69. Maintenance of plant and equipment

All plant and equipment installed at the premises or used in connection with the licensed activity:

- a) must be maintained in a proper and efficient condition; and
- b) must be operated in a proper and efficient manner.

Monitoring and recording conditions

70. Recording of pollution complaints

The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

The record must include details of the following:

- the date and time of complaint;
- the method by which the complaint was made;
- any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
- the nature of the complaint;
- the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
- if no action was taken by the licensee, the reasons why no action was taken.

The record of a complaint must be kept for at least 4 years after the complaint was made.

The record must be produced to any authorised officer of the EPA who asks to see them.

71. Telephone complaints line

The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

This condition does not apply until 3 months after this condition takes effect.

Reporting conditions

72. Annual Return documents

What documents must an Annual Return contain?

The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

- a) Statement of Compliance; and
- b) Monitoring and Complaints Summary.

A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

73. Period covered by Annual Return

An Annual Return must be prepared in respect of each reporting, except as provided below

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

Where this licence is transferred from the licensee to a new licensee,

- a) The transferring licensee must prepare an annual return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
- b) The new licensee must prepare an annual return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an annual return in respect of the period commencing on the first day of the reporting period and ending on

- a) In relation to the surrender of a licence – the date when notice in writing of approval of the surrender is given; or
- b) In relation to the revocation of the licence – the date from which notice revoking the licence operates.

74. Deadline for Annual Return

The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

75. Notification where actual load cannot be calculated

(Licences with assessable pollutants)

Where the licensee is unable to complete a part of the Annual Return by the due date because the licensee was unable to calculate the actual load of a pollutant due to circumstances beyond the licensee's control, the licensee must notify the EPA in writing as soon as practicable, and in any event not later than the due date.

The notification must specify:

- a) The assessable pollutants for which the actual load could not be calculated; and
- b) The relevant circumstances that were beyond the control of the licensee

76. Licensee must retain copy of Annual Return

The licensee must retain a copy of the annual return supplied to the EPA for a period of at least 4 years after the annual return was due to be supplied to the EPA.

77. Certifying of Statement of Compliance and Signing of Monitoring and Complaints Summary

Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

- a) The licence holder; or
- b) By a person approved in writing by the EPA to sign on behalf of the licence holder.

A person who has been given written approval to certify a Statement of Compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review this licence.

78. Notification of environmental harm

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act

Notifications must be made by telephoning the EPA's Pollution Line service on 131 555.

The Licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

79. Written report

Where an authorised officer of the EPA suspects on reasonable grounds that:

- a) where this licence applies to premises, an event has occurred at the premises: or
- b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,

And the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

The request may require a report which includes any or all of the following information:

- a) the cause, time and duration of the event;
- b) the type, volume and concentration of every pollutant discharged as a result of the event;
- c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; and
- d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
- e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
- f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event;
- g) any other relevant matters

The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified.

General conditions

80. Copy of licence kept at the premises or on the vehicle or mobile plant

A copy of this licence must be kept at the premises or on the vehicle or mobile plant to which the licence applies.

The licence must be produced to any authorised officer of the EPA who asks to see it.

The Licence must be available for inspection by any employee or agent of the licensee working at the premises or operating the vehicle or mobile plant.

4.2 Reasons for Conditions

1. To confirm and clarify the terms of Council's approval.
2. To comply with all relevant legislation.
3. So that the impacts of any increase in the scale or duration of operations may be assessed and controlled as appropriate. Section 19 (1) (b) of the *Environmental Planning & Assessment Regulation 2000*, as amended.
4. To prevent and/or minimise the likelihood of environmental harm and public nuisance.
5. To ensure the rehabilitation of the site.
6. To ensure that adequate arrangements have been made for compliant mining operations at the site.
7. To minimise the impact of the development on the natural environment.

8. To ensure appropriate environmental monitoring, pollution prevention, and the implementation of best practice.
9. As requested by State Agencies.
10. To ensure any impacts associated with the operation of the development are dealt with by the registered proprietor.
11. To ensure compliance with work health and safety regulations, and minimise risks to people arising from the proposed development.
12. To ensure all documents are available on inspection.
13. To provide for the safe entry, passage and exit of vehicles to the subject land and to provide for the convenience of motorists on the Gwydir Highway.

4.3 Assessing Officer Statement

I confirm that I am familiar with the relevant heads of consideration under the *Environmental Planning & Assessment Act 1979* and have considered them in the assessment of this application.

I certify that I have no pecuniary or non-pecuniary interest in this application.

Additional notes and supporting documentation are attached in Appendix A through to Appendix K.

- Diagrams – Locality Map, Quarry Layout, Concept Rehabilitation Plan
- DA Consent 26/2016 – Stage 1
- Submission
- General Term of Approval – Environment Protection Authority
- State Agency Referral Responses
- Engineering Assessment
- Revised Flora and Fauna Assessment

Signed: 

Date: 7 June 2017