



15 July 2021

The Manager
Department of Planning Industry & Environment
Locked Bag 5022
PARRAMATTA NSW 2124

Attention: Robert Hodgkins

PAE-22505335 – PROPOSED EXTENSION TO GLENELLA QUARRY, LOT 106 DP752935 & LOTS 1 & 2 DP795553, BATTERY ROAD, COWRA.

I refer to correspondence forwarded to Transport for NSW (TfNSW) requesting the provision of key issues and assessment requirements to be included in the Secretary's Environmental Assessment Requirements.

TfNSW has reviewed the Background paper for the Glenella Quarry extension. From the information provided it is understood that the proposal is for the expansion of the existing quarry operation on Lot 106 DP752935 & Lots 1-2 DP795553. TfNSW notes that the expansion of the quarry and an increase in the maximum annual extraction rate from 200,000 tonnes to 500,000 tonnes per annum.

TfNSW has completed an assessment of the application, based on the information provided and focussing on the impact to the state road network. TfNSW notes for this application:

- TfNSW input is requested by the Secretary under the Environmental Planning and Assessment Regulation 2000;
- This proposal represents an extension to an existing approved quarry operation;
- The subject site has frontage to Battery Road which is classed as a local road; and
- The site is remote from the classified road network. The nearest classified road is the Lachlan Valley Way;
- The scoping report states that "Battery Road links the site to Reids Flat Road. Reids Flat Road in turn provides access to Morongla Road, which links to Lachlan Valley Way. The intersection of Morongla Road with the Lachlan Valley Way needs to be addressed as part of any submission.

TfNSW is interested in the characteristics of the traffic generated by the development and in the impact of the development on the safety and efficiency of the road network. To provide for an informed assessment of the traffic implications of the development proposal a Traffic Impact Assessment (TIA) is to be prepared. For guidance in the preparation of the TIA the applicant is referred to the Austroads publications, particularly the Austroads Guide to Traffic Management Part 12 - Traffic Impacts of Development and Part 3 - Traffic Studies and Analysis and the "Guide to Traffic Generating Developments" prepared by the RTA and similar documentation.

Any Traffic Impact Assessment needs to address the impacts of traffic generated by this

development upon the nearby road network, particularly intersections. The TIA shall outline measures to address and manage traffic related issues generated by the development. The documentation submitted should address, but not be limited to:

- The potential impacts on the road network associated with the development during the lifetime of the project;
- The existing and anticipated additional traffic generation on the surrounding road network, vehicle types and volumes, peak traffic volumes;
- Travel and haulage routes for vehicles to and from the development site;
- Consideration of the cumulative impacts of the potential traffic generation when added to existing traffic volumes upon the surrounding road network shall be undertaken;
- The works required within the road network to accommodate the development;
- The measures to be implemented to maintain the standard and safety of the road network, and the procedures to monitor and ensure compliance;
- A Transport Management Plan and Driver Code of Conduct may be required to outline measures to manage traffic related issues generated by the development.

In particular the TIA shall address, and provide recommendations for any mitigation measures necessary to address traffic related impacts generated by this development upon the surrounding road network during the lifetime of the project. Note that if works are required strategic designs shall be prepared to clarify the scope of works, demonstrate the works can be constructed within the road reserve and allow for consideration of the environmental impacts of the works:

TfNSW emphasises the need to appropriately consider and minimise the impacts of the total traffic generation due to the development on the existing road infrastructure and maintain the safety, efficiency and standard of maintenance along the existing road network through the design, construction and operation of the development and any road works required to support the operation of the development.

Any enquiries regarding this correspondence may be referred to Cam O’Kane, TfNSW (South Region), phone (02) 6923 6582.

Yours faithfully



Maurice Morgan
Team Leader, Development Services South



Department of Planning, Industry and Environment

Via Email: Robert.Hodgkins@planning.nsw.gov.au

Attention: Robert Hodgkins

Notice Number 1610207
Date 12-Jul-2021

RE: Request for SEARs Glenella Quarry Expansion - SSD-22474767 (PAE -22505341)

I refer to your request for the Environment Protection Authority's (EPA) Secretary's Environmental Assessment Requirements (SEARs) to assist with the preparation of an Environmental Assessment in regard to the above proposal received by EPA on 15 June 2021.

Based on the information provided the EPA understands the proponent is seeking approval for an increase in overall production from 200,000 tonnes to 500,000 tonnes per annum inside their existing development consent boundary. The site is currently regulated under Environment Protection Licence 20632 ('the licence'). The Proponent should identify whether the project can comply with this EPL or whether a variation to the EPL conditions is required.

The EPA has considered the details of the proposal as provided by Department of Planning, Industry and Environment to the Environment (DPIE) and has identified the information it requires to issue its general terms of approval in **Attachment A**. In summary, the EPA's key information requirements for the proposal include an adequate assessment of:

- 1. Noise management** for proposed quarry operations, accounting for the NSW Noise Policy for Industry, and potential impacts of blasting operations;
- 2. Surface and groundwater management**, including water quality, erosion and sediment controls. This should include how all pollution controls, such as sediment control dams, will be operated and maintained to prevent pollution of waters;
- 3. Air quality management**, accounting for all activities, including both proposed quarry and transport operations, at the premises that may generate emissions, including dust, odours and fumes;
- 4. Waste management**;



5. Dangerous goods, chemical storage and bunding;

6. Cumulative impacts.

In carrying out the assessment, the proponent should refer to the relevant guidelines as listed in **Attachment B** and any relevant industry codes of practice and best practice management guidelines. Pollution control measures should not be proposed if they are impractical, unrealistic or beyond the financial viability of the development. It is important that all conclusions are supported by adequate data.

It is important that all assumptions and conclusions made in the environmental assessment are supported by adequate data. The proponent should also be aware that any commitments made in the environmental assessment may be formalised as approval conditions and/or environment protection licence conditions.

Should project approval be granted, the development must comply with the POEO Act and associated regulations at all times. The proponent may need to make a separate application to the EPA for a variation to the existing EPL 2552.

If you have any questions about this matter, please contact Sharon Peters on 02 62297002 or by email to EPA.Southopsregional@epa.nsw.gov.au

Yours sincerely

A handwritten signature in blue ink, which appears to read 'Carlie Armstrong', is written over a horizontal dotted line.

Carlie Armstrong

Acting Unit Head

Environment Protection Authority

(by Delegation)

ATTACHMENT A:

EPA's Recommended Secretary's Environmental Assessment Requirements for Glenella Quarry Expansion SSD-22474767

How to use these requirements

The EPA requirements have been structured in accordance with relevant guidelines, as follows. It is suggested that the EIS follow the same structure:

- A. Executive summary
- B. The proposal
- C. The location
- D. Identification and prioritisation of issues
- E. The environmental issues
- F. List of approvals and licences
- G. Compilation of mitigation measures
- H. Justification for the proposal

The EIS should address the specific requirements outlined under each heading below and assess impacts in accordance with the relevant guidelines/standards at **Attachment B**.

A Executive summary

The document's executive summary should include a discussion of the proposed development, the key environmental risks, the identified mitigation measures, and an overall conclusion and justification for the proposal.

B The proposal

1. Objectives of the proposal

- The objectives of the proposal should be clearly stated and refer to:
 - a) the size and type of the operation, the nature of the processes and the products, by-products and wastes produced
 - b) a life cycle approach to the production, use or disposal of products
 - c) the anticipated level of performance in meeting required environmental standards and cleaner production principles
 - d) the staging and timing of the proposal and any plans for future expansion
 - e) the proposal's relationship to any other industry or facility.

2. Description of the proposal

General

- Outline the production process including:
 - a) the environmental "mass balance" for the process – quantify in-flow and out-flow of materials, any points of discharge to the environment and their respective destinations (sewer, stormwater, atmosphere, recycling, landfill etc)
 - b) any life-cycle strategies for the products.
- Outline cleaner production actions, including:
 - a) measures to minimise waste (typically through addressing source reduction)
 - b) proposals for use or recycling of by-products
 - c) proposed disposal methods for solid and liquid waste
 - d) air management systems including all potential sources of air emissions, proposals to re-use or treat emissions, emission levels relative to relevant standards in regulations, discharge points
 - e) water management system including all potential sources of water pollution, proposals for re-use, treatment etc, emission levels of any wastewater discharged, discharge points, summary of options explored to avoid a discharge, reduce its frequency or reduce its impacts, and rationale for selection of option to discharge.
 - f) soil contamination treatment and prevention systems.
- Outline construction works including:
 - a) actions to address any existing soil contamination

- b) any earthworks or site clearing; re-use and disposal of cleared material (including use of spoil on-site)
- c) construction timetable and staging; hours of construction; proposed construction methods
- d) environment protection measures, including noise mitigation measures, dust control measures and erosion and sediment control measures.
- Include a site diagram showing the site layout and location of environmental controls.

Air

- Identify all sources or potential sources of air emissions from the development.
Note: emissions can be classed as either:
 - *point (e.g. emissions from stack or vent) or*
 - *fugitive (from wind erosion, leakages or spillages, associated with loading or unloading, conveyors, storage facilities, plant and yard operation, vehicle movements (dust from road, exhausts, loss from load), land clearing and construction works).*
- Provide details of the project that are essential for predicting and assessing air impacts including:
 - a) the quantities and physio-chemical parameters (e.g. concentration, moisture content, bulk density, particle sizes etc) of materials to be used, transported, produced or stored
 - b) an outline of procedures for handling, transport, production and storage
 - c) the management of solid, liquid and gaseous waste streams with potential to generate emissions to air.

Noise and vibration

- Identify all noise sources or potential sources from the development (including both construction and operation phases). Detail all potentially noisy activities including ancillary activities such as transport of goods and raw materials.
- Specify the times of operation for all phases of the development and for all noise producing activities.
- For projects with a significant potential traffic noise impact provide details of road alignment (include gradients, road surface, topography, bridges, culverts etc), and land use along the proposed road and measurement locations – diagrams should be to a scale sufficient to delineate individual residential blocks.

Water

- Provide details of the project that are essential for predicting and assessing impacts to waters including:
 - a) the quantity and physio-chemical properties of all potential water pollutants and the risks they pose to the environment and human health, including the risks they pose to Water Quality Objectives in the ambient waters (as defined on <http://www.environment.nsw.gov.au/ieo/index.htm>, using technical criteria derived from *the Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, ANZG 2018)
 - b) the management of discharges with potential for water impacts



- c) drainage works and associated infrastructure; land-forming and excavations; working capacity of structures; and water resource requirements of the proposal.
- Outline site layout, demonstrating efforts to avoid proximity to water resources (especially for activities with significant potential impacts e.g. effluent ponds) and showing potential areas of modification of contours, drainage etc.
- Outline how total water cycle considerations are to be addressed showing total water balances for the development (with the objective of minimising demands and impacts on water resources). Include water requirements (quantity, quality and source(s)) and proposed storm and wastewater disposal, including type, volumes, proposed treatment and management methods and re-use options.

Waste and chemicals

Provide details of the quantity and type of both liquid waste and non-liquid waste generated, handled, processed or disposed of at the premises. Waste must be classified according to the EPA's *Waste Classification Guidelines 2014 (as amended from time to time)*.

- Provide details of liquid waste and non-liquid waste management at the facility, including:
 - a) the transportation, assessment and handling of waste arriving at or generated at the site
 - b) any stockpiling of wastes or recovered materials at the site
 - c) any waste processing related to the facility, including reuse, recycling, reprocessing (including composting) or treatment both on- and off-site
 - d) the method for disposing of all wastes or recovered materials at the facility
 - e) the emissions arising from the handling, storage, processing and reprocessing of waste at the facility
 - f) the proposed controls for managing the environmental impacts of these activities.
- Provide details of spoil disposal with particular attention to:
 - a) the quantity of spoil material likely to be generated
 - b) proposed strategies for the handling, stockpiling, reuse/recycling and disposal of spoil
 - c) the need to maximise reuse of spoil material in the construction industry
 - d) identification of the history of spoil material and whether there is any likelihood of contaminated material, and if so, measures for the management of any contaminated material
 - e) designation of transportation routes for transport of spoil.
- Provide details of procedures for the assessment, handling, storage, transport and disposal of all hazardous and dangerous materials used, stored, processed or disposed of at the site, in addition to the requirements for liquid and non-liquid wastes.
- Provide details of the type and quantity of any chemical substances to be used or stored and describe arrangements for their safe use and storage.



- Reference should be made to the guidelines: EPA's *Waste Classification Guidelines 2014 (as amended from time to time)*

ESD

- Demonstrate that the planning process and any subsequent development incorporates objectives and mechanisms for achieving ESD, including:
 - a) an assessment of a range of options available for use of the resource, including the benefits of each option to future generations
 - b) proper valuation and pricing of environmental resources
 - c) identification of who will bear the environmental costs of the proposal.

3. Rehabilitation

- Outline considerations of site maintenance, and proposed plans for the final condition of the site (ensuring its suitability for future uses).

4. Consideration of alternatives and justification for the proposal

- Consider the environmental consequences of adopting alternatives, including alternative:
 - a) sites and site layouts
 - b) access modes and routes
 - c) materials handling and production processes
 - d) waste and water management
 - e) impact mitigation measures
 - f) energy sources
- Selection of the preferred option should be justified in terms of:
 - a) ability to satisfy the objectives of the proposal
 - b) relative environmental and other costs of each alternative
 - c) acceptability of environmental impacts and contribution to identified environmental objectives
 - d) acceptability of any environmental risks or uncertainties
 - e) reliability of proposed environmental impact mitigation measures
 - f) efficient use (including maximising re-use) of land, raw materials, energy and other resources.

C The location

1. General

- Provide an overview of the affected environment to place the proposal in its local and regional environmental context including:



- a) meteorological data (e.g. rainfall, temperature and evaporation, wind speed and direction)
- b) topography (landform element, slope type, gradient and length)
- c) surrounding land uses (potential synergies and conflicts)
- d) geomorphology (rates of landform change and current erosion and deposition processes)
- e) soil types and properties (including erodibility; engineering and structural properties; dispersibility; permeability; presence of acid sulfate soils and potential acid sulfate soils)
- f) ecological information (water system habitat, vegetation, fauna)
- g) availability of services and the accessibility of the site for passenger and freight transport.

2. Air

- Describe the topography and surrounding land uses. Provide details of the exact locations of dwellings, schools and hospitals. Where appropriate provide a perspective view of the study area such as the terrain file used in dispersion models.
- Describe surrounding buildings that may effect plume dispersion.
- Provide and analyse site representative data on following meteorological parameters:
 - a) temperature and humidity
 - b) rainfall, evaporation and cloud cover
 - c) wind speed and direction.

3. Noise and vibration

- Identify any noise sensitive locations likely to be affected by activities at the site, such as residential properties, schools, churches, and hospitals. Typically the location of any noise sensitive locations in relation to the site should be included on a map of the locality.
- Identify the land use zoning of the site and the immediate vicinity and the potentially affected areas.

4. Water

- Describe the catchment including proximity of the development to any waterways and provide an assessment of their sensitivity/significance from a public health, ecological and/or economic perspective. The Water Quality and River Flow Objectives on the website: <http://www.environment.nsw.gov.au/ieo/index.htm> should be used to identify the agreed environmental values and human uses for any affected waterways. This will help with the description of the local and regional area.

5. Soil Contamination Issues

- Provide details of site history – if earthworks are proposed, this needs to be considered with regard to possible soil contamination, for example if the site was previously a landfill site or if irrigation of effluent has occurred.

D Identification and prioritisation of issues / scoping of impact assessment

- Provide an overview of the methodology used to identify and prioritise issues. The methodology should take into account:
 - a) relevant NSW government guidelines
 - b) industry guidelines
 - c) EISs for similar projects
 - d) relevant research and reference material
 - e) relevant preliminary studies or reports for the proposal
 - f) consultation with stakeholders.
- Provide a summary of the outcomes of the process including:
 - a) all issues identified including local, regional and global impacts (e.g. increased/ decreased greenhouse emissions)
 - b) key issues which will require a full analysis (including comprehensive baseline assessment)
 - c) issues not needing full analysis though they may be addressed in the mitigation strategy
 - d) justification for the level of analysis proposed (the capacity of the proposal to give rise to high concentrations of pollution compared with the ambient environment or environmental outcomes is an important factor in setting the level of assessment)

E The environmental issues

1. General

- The potential impacts identified in the scoping study need to be assessed to determine their significance, particularly in terms of achieving environmental outcomes, and minimising environmental pollution.
- Identify gaps in information and data relevant to significant impacts of the proposal and any actions proposed to fill those information gaps so as to enable development of appropriate management and mitigation measures. This is in accordance with ESD requirements.

Note: The level of detail should match the level of importance of the issue in decision making which is dependent on the environmental risk.

Describe baseline conditions

- Provide a description of existing environmental conditions for any potential impacts.

Assess impacts

- For any potential impacts relevant for the assessment of the proposal provide a detailed analysis of the impacts of the proposal on the environment including the cumulative impact of the proposal on the receiving environment especially where there are sensitive receivers.



- Describe the methodology used and assumptions made in undertaking this analysis (including any modelling or monitoring undertaken) and indicate the level of confidence in the predicted outcomes and the resilience of the environment to cope with the predicted impacts.
- The analysis should also make linkages between different areas of assessment where necessary to enable a full assessment of environmental impacts e.g. assessment of impacts on air quality will often need to draw on the analysis of traffic, health, social, soil and/or ecological systems impacts; etc.
- The assessment needs to consider impacts at all phases of the project cycle including: exploration (if relevant or significant), construction, routine operation, start-up operations, upset operations and decommissioning if relevant.
- The level of assessment should be commensurate with the risk to the environment.

Describe management and mitigation measures

- Describe any mitigation measures and management options proposed to prevent, control, abate or mitigate identified environmental impacts associated with the proposal and to reduce risks to human health and prevent the degradation of the environment. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.
- Proponents are expected to implement a 'reasonable level of performance' to minimise environmental impacts. The proponent must indicate how the proposal meets reasonable levels of performance. For example, reference technology based criteria if available, or identify good practice for this type of activity or development. A 'reasonable level of performance' involves adopting and implementing technology and management practices to achieve certain pollutant emissions levels in economically viable operations. Technology-based criteria evolve gradually over time as technologies and practices change.
- Use environmental impacts as key criteria in selecting between alternative sites, designs and technologies, and to avoid options having the highest environmental impacts.
- Outline any proposed approach (such as an Environmental Management Plan) that will demonstrate how commitments made in the EIS will be implemented. Areas that should be described include:
 - a) operational procedures to manage environmental impacts
 - b) monitoring procedures
 - c) training programs
 - d) community consultation
 - e) complaint mechanisms including site contacts
 - f) strategies to use monitoring information to improve performance
 - g) strategies to achieve acceptable environmental impacts and to respond in event of exceedences.

Air

Describe baseline conditions

- Provide a description of existing air quality and meteorology, using existing information and site representative ambient monitoring data. This description should include the following parameters:
 - a) Dust deposition;



b) Air particulates total suspended particles (TSP), PM₁₀, PM_{2.5}.

Assess impacts

- Identify all pollutants of concern and estimate emissions by quantity (and size for particles), source and discharge point.
- Estimate the resulting ground level concentrations of all pollutants. Where necessary (e.g. potentially significant impacts and complex terrain effects), use an appropriate dispersion model to estimate ambient pollutant concentrations. Discuss choice of model and parameters with the EPA.
- Describe the effects and significance of pollutant concentration on the environment, human health, amenity and regional ambient air quality standards or goals.
- Describe the contribution that the development will make to regional and global pollution, particularly in sensitive locations.
- For potentially odorous emissions provide the emission rates in terms of odour units (determined by techniques compatible with EPA procedures). Use sampling and analysis techniques for individual or complex odours and for point or diffuse sources, as appropriate.
Note: With dust and odour, it may be possible to use data from existing similar activities to generate emission rates.
- Reference should be made to <list relevant guidelines e.g. *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (DEC, 2016); *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* (DEC, 2007); *Assessment and Management of Odour from Stationary Sources in NSW* (DEC, 2006).

Describe management and mitigation measures

- Outline specifications of pollution control equipment (including manufacturer's performance guarantees where available) and management protocols for both point and fugitive emissions. Where possible, this should include cleaner production processes.

7. Noise and vibration

Describe baseline conditions

- Determine the existing background (LA90) and ambient (LAeq) noise levels, as relevant, in accordance with the *NSW Noise Policy for Industry*.
- Determine the existing road traffic noise levels in accordance with the *NSW Road Noise Policy*, where road traffic noise impacts may occur.
- The noise impact assessment report should provide details of all monitoring of existing ambient noise levels including:
 - a) details of equipment used for the measurements
 - b) a brief description of where the equipment was positioned



- c) a statement justifying the choice of monitoring site(s), including the procedure used to choose the site(s), having regards to Fact Sheets A and B of the *NSW Noise Policy for Industry*.
- d) details of the exact location of the monitoring site and a description of land uses in surrounding areas
- e) a description of the dominant and background noise sources at the site
- f) day, evening and night assessment background levels for each day of the monitoring period
- g) the final Rating Background Level (RBL) value
- h) graphs of the measured noise levels for each day should be provided
- i) a record of periods of affected data (due to adverse weather and extraneous noise), methods used to exclude invalid data and a statement indicating the need for any re-monitoring.

Assess impacts

- Determine the project noise trigger levels for the site. For each identified potentially affected receiver, this should include:
 - a) determination of the project intrusive noise level for each identified potentially affected receiver
 - b) selection and justification of the appropriate amenity category for each identified potentially affected receiver
 - c) determination of the project amenity noise level for each receiver
 - d) determination of the appropriate maximum noise level event assessment (sleep disturbance) trigger level.
- Maximum noise levels during night-time period (10pm-7am) should be assessed to analyse possible affects on sleep. Determine expected noise level and noise character likely to be generated from noise sources during:
 - a) site establishment
 - b) construction
 - c) operational phases
 - d) transport including traffic noise generated by the proposal
 - e) other services.

Note: The noise impact assessment report should include noise source data for each source in 1/1 or 1/3 octave band frequencies including methods for references used to determine noise source levels. Noise source levels and characteristics can be sourced from direct measurement of similar activities or from literature (if full references are provided).

- Determine the noise levels likely to be received at the reasonably most affected location(s) (these may vary for different activities at each phase of the development).
- The noise impact assessment report should include:
 - a) a plan showing the assumed location of each noise source for each prediction scenario
 - b) a list of the number and type of noise sources used in each prediction scenario to simulate all potential significant operating conditions on the site



- c) any assumptions made in the predictions in terms of source heights, directivity effects, shielding from topography, buildings or barriers, etc
 - d) methods used to predict noise impacts including identification of any noise models used.
 - e) the weather conditions considered for the noise predictions
 - f) the predicted noise impacts from each noise source as well as the combined noise level for each prediction scenario
 - g) for developments where a significant level of noise impact is likely to occur, noise contours for the key prediction scenarios should be derived
 - h) an assessment of the need to include modification factors as detailed in Fact Sheet C of the *NSW Noise Policy for Industry*.
- Discuss the findings from the predictive modelling and, where relevant noise criteria have not been met, recommend additional feasible and reasonable mitigation measures.
 - The noise impact assessment report should include details of any mitigation proposed including the attenuation that will be achieved and the revised noise impact predictions following mitigation.
 - a) Where relevant noise/vibration levels cannot be met after application of all feasible and reasonable mitigation measures the residual level of noise impact needs to be quantified
 - For the assessment of existing and future traffic noise, details of data for the road should be included such as assumed traffic volume; percentage heavy vehicles by time of day; and details of the calculation process. These details should be consistent with any traffic study carried out in the EIS.
 - Where blasting is intended an assessment in accordance with the *Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration* (ANZECC, 1990) should be undertaken. The following details of the blast design should be included in the noise assessment:
 - a) bench height, burden spacing, spacing burden ratio;
 - b) blast hole diameter, inclination and spacing;
 - c) type of explosive, maximum instantaneous charge, initiation, blast block size, blast frequency.

Describe management and mitigation measures

- Determine the most appropriate noise mitigation measures and expected noise reduction including both noise controls and management of impacts for both construction and operational noise. This will include selecting quiet equipment and construction methods, noise barriers or acoustic screens, location of stockpiles, temporary offices, compounds and vehicle routes, scheduling of activities, etc.
- For traffic noise impacts, provide a description of the ameliorative measures considered (if required), reasons for inclusion or exclusion, and procedures for calculation of noise levels including ameliorative measures. Also include, where necessary, a discussion of any potential problems associated with the proposed ameliorative measures, such as overshadowing effects from barriers. Appropriate ameliorative measures may include:
 - a) use of alternative transportation modes, alternative routes, or other methods of avoiding the new road usage
 - b) control of traffic (eg: limiting times of access or speed limitations)
 - c) resurfacing of the road using a quiet surface



- d) use of (additional) noise barriers or bunds
- e) treatment of the façade to reduce internal noise levels buildings where the night-time criteria is a major concern
- f) more stringent limits for noise emission from vehicles (i.e. using specially designed 'quite' trucks and/or trucks to use air bag suspension
- g) driver education
- h) appropriate truck routes
- i) limit usage of exhaust brakes
- j) use of premium muffles on trucks
- k) reducing speed limits for trucks
- l) ongoing community liaison and monitoring of complaints
- m) phasing in the increased road use.

4. Water

Describe baseline conditions

- Describe existing surface and groundwater quality – an assessment needs to be undertaken for any water resource likely to be affected by the proposal and for all conditions (e.g. a wet weather sampling program is needed if runoff events may cause impacts).
Note: Methods of sampling and analysis need to conform with an accepted standard (e.g. Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC 2004) or be approved and analyses undertaken by accredited laboratories).
- Provide site drainage details and surface runoff yield.
- State the ambient Water Quality and River Flow Objectives for the receiving waters. These refer to the community's agreed environmental values and human uses endorsed by the Government as goals for the ambient waters. These environmental values are published on the website: <http://www.environment.nsw.gov.au/ieo/index.htm>. The EIS should state the environmental values listed for the catchment and waterway type relevant to your proposal. NB: A consolidated and approved list of environmental values are not available for groundwater resources. Where groundwater may be affected the EIS should identify appropriate groundwater environmental values and justify the choice.
- State the indicators and associated trigger values or criteria for the identified environmental values. This information should be sourced from the ANZG 2018 *Guidelines for Fresh and Marine Water Quality* NB: While specific guidelines for groundwater are not available, the ANZG 2018 endorse the application of the trigger values and decision trees as a tool to assess risk to environmental values in groundwater.
- State any locally specific objectives, criteria or targets, which have been endorsed by the government e.g. the Healthy Rivers Commission Inquiries or the NSW Salinity Strategy (DLWC, 2000) (<http://www.environment.nsw.gov.au/salinity/government/nswstrategy.htm>).
- Where site specific studies are proposed to revise the trigger values supporting the ambient Water Quality and River Flow Objectives, and the results are to be used for regulatory purposes (e.g. to assess whether a licensed discharge impacts on water quality objectives), then prior agreement from the EPA on the approach and study design must be obtained.



- Describe the state of the receiving waters and relate this to the relevant Water Quality and River Flow Objectives (i.e. are Water Quality and River Flow Objectives being achieved?). Proponents are generally only expected to source available data and information. However, proponents of large or high risk developments may be required to collect some ambient water quality / river flow / groundwater data to enable a suitable level of impact assessment. Issues to include in the description of the receiving waters could include:
 - a) lake or estuary flushing characteristics
 - b) specific human uses (e.g. exact location of drinking water offtake)
 - c) sensitive ecosystems or species conservation values
 - d) a description of the condition of the local catchment e.g. erosion levels, soils, vegetation cover, etc
 - e) an outline of baseline groundwater information, including, but not restricted to, depth to watertable, flow direction and gradient, groundwater quality, reliance on groundwater by surrounding users and by the environment
 - f) historic river flow data where available for the catchment.

Assess impacts

- No proposal should breach clause 120 of the *Protection of the Environment Operations Act 1997* (i.e. pollution of waters is prohibited unless undertaken in accordance with relevant regulations).
- Identify and estimate the quantity of all pollutants that may be introduced into the water cycle by source and discharge point including residual discharges after mitigation measures are implemented.
- Include a rationale, along with relevant calculations, supporting the prediction of the discharges.
- Describe the effects and significance of any pollutant loads on the receiving environment. This should include impacts of residual discharges through modelling, monitoring or both, depending on the scale of the proposal. Determine changes to hydrology (including drainage patterns, surface runoff yield, flow regimes, wetland hydrologic regimes and groundwater).
- Describe water quality impacts resulting from changes to hydrologic flow regimes (such as nutrient enrichment or turbidity resulting from changes in frequency and magnitude of stream flow).
- Identify any potential impacts on quality or quantity of groundwater describing their source.
- Identify potential impacts associated with geomorphological activities with potential to increase surface water and sediment runoff or to reduce surface runoff and sediment transport. Also consider possible impacts such as bed lowering, bank lowering, instream siltation, floodplain erosion and floodplain siltation.
- Identify impacts associated with the disturbance of acid sulfate soils and potential acid sulfate soils.
- Containment of spills and leaks shall be in accordance with EPA's guidelines section 'Bunding and Spill Management' at <http://www.epa.nsw.gov.au/mao/bundingspill.htm> and the most recent versions of the Australian Standards referred to in the Guidelines. Containment should be designed for no-discharge.
- The significance of the impacts listed above should be predicted. When doing this it is important to predict the ambient water quality and river flow outcomes associated with the proposal and to demonstrate whether these are acceptable in terms of achieving protection of the Water Quality and River Flow Objectives. In particular the following questions should be answered:



- a) will the proposal protect Water Quality and River Flow Objectives where they are currently achieved in the ambient waters; and
- b) will the proposal contribute towards the achievement of Water Quality and River Flow Objectives over time, where they are not currently achieved in the ambient waters.
- Consult with the EPA as soon as possible if a mixing zone is proposed (a mixing zone could exist where effluent is discharged into a receiving water body, where the quality of the water being discharged does not immediately meet water quality objectives. The mixing zone could result in dilution, assimilation and decay of the effluent to allow water quality objectives to be met further downstream, at the edge of the mixing zone). The EPA will advise the proponent under what conditions a mixing zone will and will not be acceptable, as well as the information and modelling requirements for assessment.
Note: The assessment of water quality impacts needs to be undertaken in a total catchment management context to provide a wide perspective on development impacts, in particular cumulative impacts.
- Where a licensed discharge is proposed, provide the rationale as to why it cannot be avoided through application of a reasonable level of performance, using available technology, management practice and industry guidelines.
- Where a licensed discharge is proposed, provide the rationale as to why it represents the best environmental outcome and what measures can be taken to reduce its environmental impact.
- Reference should be made to *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004) and the ANZG 2018.

Describe management and mitigation measures

- Outline stormwater management to control pollutants at the source and contain them within the site. Also describe measures for maintaining and monitoring any stormwater controls.
- Outline erosion and sediment control measures directed at minimising disturbance of land, minimising water flow through the site and filtering, trapping or detaining sediment. Also include measures to maintain and monitor controls as well as rehabilitation strategies.
- Describe waste water treatment measures that are appropriate to the type and volume of waste water and are based on a hierarchy of avoiding generation of waste water; capturing all contaminated water (including stormwater) on the site; reusing/recycling waste water; and treating any unavoidable discharge from the site to meet specified water quality requirements.
- Outline pollution control measures relating to storage of materials, possibility of accidental spills (e.g. preparation of contingency plans), appropriate disposal methods, and generation of leachate.
- Describe hydrological impact mitigation measures including:
 - a) site selection (avoiding sites prone to flooding and waterlogging, actively eroding or affected by deposition)
 - b) minimising runoff
 - c) minimising reductions or modifications to flow regimes
 - d) avoiding modifications to groundwater.
- Describe groundwater impact mitigation measures including:
 - a) site selection



- b) retention of native vegetation and revegetation
- c) artificial recharge
- d) providing surface storages with impervious linings
- e) monitoring program.
- Describe geomorphological impact mitigation measures including:
 - a) site selection
 - b) erosion and sediment controls
 - c) minimising instream works
 - d) treating existing accelerated erosion and deposition
 - e) monitoring program.
- Any proposed monitoring should be undertaken in accordance with the *Approved Methods for the Sampling and Analysis of Water Pollutants in NSW* (DEC 2004).

5. Soils and contamination

Describe baseline conditions

- Provide any details (in addition to those provided in the location description - Section C) that are needed to describe the existing situation in terms of soil types and properties and soil contamination.

Assess impacts

- Identify any likely impacts resulting from the construction or operation of the proposal, including the likelihood of:
 - a) disturbing any existing contaminated soil
 - b) contamination of soil by operation of the activity
 - c) subsidence or instability
 - d) soil erosion
 - e) disturbing acid sulfate or potential acid sulfate soils.
- Reference should be made to *Contaminated Sites – Guidelines for Consultants Reporting on Contaminated Sites* (OEH, 2011); *Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997* (EPA, 2015).

Describe management and mitigation measures

- Describe and assess the effectiveness or adequacy of any soil management and mitigation measures during construction and operation of the proposal including:
 - a) erosion and sediment control measures



- b) proposals for site remediation – see *Managing Land Contamination, Planning Guidelines SEPP 55 – Remediation of Land* (Department of Urban Affairs and Planning and Environment Protection Authority, 1998)
- c) proposals for the management of these soils – see *Acid Sulfate Soil Manual* (Acid Sulfate Soil Advisory Committee 1998) and *Acid Sulfate Soils Assessment Guidelines* (Acid Sulfate Soil Advisory Committee 1998).

6. Waste and chemicals

Describe baseline conditions

- Describe any existing waste or chemicals operations related to the proposal.

Assess impacts

- Assess the adequacy of proposed measures to minimise natural resource consumption and minimise impacts from the handling, transporting, storage, processing and reprocessing of waste and/or chemicals.
- Reference should be made to: the EPA's *Waste Classification Guidelines 2014 (as in force from time to time)*
- If the proposal is an energy from waste facility it must:
 - demonstrate that the proposed operation will comply with the NSW EPA's Energy from Waste Policy Statement;
 - describe of the classes and quantities of waste that would be thermally treated at the facility;
 - demonstrate that waste used as a feedstock in the waste to energy plant would be the residual from a resource recovery process that maximises the recovery of material;
 - detail procedures that would be implemented to control the inputs to the waste to energy plant, including contingency measures that would be implemented if inappropriate materials are identified;
 - detail the location and size of stockpiles of unprocessed and processed recycled waste at the site;
 - demonstrate any waste material (e.g. biochar, ash) produced from the waste to energy facility for land application is fit-for-purpose and poses minimal risk of harm to the environment in order to meet the requirements for consideration of a resource recovery order and /or exemption by the EPA;
 - detail procedures for the management of other solid, liquid and gaseous waste streams;
 - describe how waste would be treated, stored, used, disposed and handled on site, and transported to and from the site, and the potential impacts associated with these issues, including current and future offsite waste disposal methods; and
 - identify the measures that would be implemented to ensure that the development is consistent with the aims, objectives and guidance in the *NSW Waste Avoidance and Resource Recovery Strategy 2014-21*.

Describe management and mitigation measures

- Outline measures to minimise the consumption of natural resources.

- Outline measures to avoid the generation of waste and promote the re-use and recycling and reprocessing of any waste.
- Outline measures to support any approved regional or industry waste plans.

7. Cumulative impacts

- Identify the extent that the receiving environment is already stressed by existing development and background levels of emissions to which this proposal will contribute.
- Assess the impact of the proposal against the long term air, noise and water quality objectives for the area or region.
- Identify infrastructure requirements flowing from the proposal (e.g. water and sewerage services, transport infrastructure upgrades).
- Assess likely impacts from such additional infrastructure and measures reasonably available to the proponent to contain such requirements or mitigate their impacts (e.g. travel demand management strategies).

F. List of approvals and licences

- Identify all approvals and licences required under environment protection legislation including details of all scheduled activities, types of ancillary activities and types of discharges (to air, land, water).

G. Compilation of mitigation measures

- Outline how the proposal and its environmental protection measures would be implemented and managed in an integrated manner so as to demonstrate that the proposal is capable of complying with statutory obligations under EPA licences or approvals (e.g. outline of an environmental management plan).
- The mitigation strategy should include the environmental management and cleaner production principles which would be followed when planning, designing, establishing and operating the proposal. It should include two sections, one setting out the program for managing the proposal and the other outlining the monitoring program with a feedback loop to the management program.

H. Justification for the Proposal

- Reasons should be included which justify undertaking the proposal in the manner proposed, having regard to the potential environmental impacts.

ATTACHMENT B: GUIDANCE MATERIAL

Title	Web address
Relevant Legislation	
<i>Contaminated Land Management Act 1997</i>	http://www.legislation.nsw.gov.au/#/view/act/1997/140
<i>Environmentally Hazardous Chemicals Act 1985</i>	http://www.legislation.nsw.gov.au/#/view/act/1985/14
<i>Environmental Planning and Assessment Act 1979</i>	http://www.legislation.nsw.gov.au/#/view/act/1979/203
<i>Protection of the Environment Operations Act 1997</i>	http://www.legislation.nsw.gov.au/#/view/act/1997/156
<i>Water Management Act 2000</i>	http://www.legislation.nsw.gov.au/#/view/act/2000/92
Licensing	
Guide to Licensing	www.epa.nsw.gov.au/licensing/licenceguide.htm
Air Issues	
Air Quality	
Approved methods for modelling and assessment of air pollutants in NSW (2016)	http://www.epa.nsw.gov.au/air/appmethods.htm
POEO (Clean Air) Regulation 2010	http://www.legislation.nsw.gov.au/#/view/regulation/2010/428
Noise and Vibration	
NSW Noise Policy for Industry	http://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/noise-policy-for-industry-(2017)
Interim Construction Noise Guideline (DECC, 2009)	http://www.epa.nsw.gov.au/noise/constructnoise.htm
Assessing Vibration: a technical guideline (DEC, 2006)	http://www.epa.nsw.gov.au/noise/vibrationguide.htm
NSW Road Noise Policy (DECCW, 2011)	http://www.epa.nsw.gov.au/your-environment/noise/transport-noise
NSW Rail Infrastructure Noise Guideline (EPA, 2013)	http://www.epa.nsw.gov.au/your-environment/noise/transport-noise
Human Health Risk Assessment	

Environmental Health Risk Assessment: Guidelines for assessing human health risks from environmental hazards (enHealth, 2012)	http://www.eh.org.au/documents/item/916
Waste, Chemicals and Hazardous Materials and Radiation	
Waste	
Environmental Guidelines: Solid Waste Landfills (EPA, 2016)	http://www.epa.nsw.gov.au/waste/landfill-sites.htm
Draft Environmental Guidelines - Industrial Waste Landfilling (April 1998)	http://www.epa.nsw.gov.au/resources/waste/envguidlns/industrialfill.pdf
EPA's Waste Classification Guidelines 2014	http://www.epa.nsw.gov.au/wasteregulation/classify-guidelines.htm
Resource recovery orders and exemptions	http://www.epa.nsw.gov.au/wasteregulation/orders-exemptions.htm
European Unions Waste Incineration Directive 2000	http://ec.europa.eu/environment/archives/air/stationary/wid/legislation.htm
EPA's Energy from Waste Policy Statement	http://www.epa.nsw.gov.au/wastestrategy/energy-from-waste.htm
NSW Waste Avoidance and Resource Recovery Strategy 2014-2021	http://www.epa.nsw.gov.au/wastestrategy/warr.htm
Chemicals subject to Chemical Control Orders	
Chemical Control Orders (regulated through the EHC Act)	http://www.epa.nsw.gov.au/pesticides/CCOs.htm
National Protocol - Approval/Licensing of Trials of Technologies for the Treatment/Disposal of Schedule X Wastes - July 1994	Available in libraries
National Protocol for Approval/Licensing of Commercial Scale Facilities for the Treatment/Disposal of Schedule X Wastes - July 1994	Available in libraries
Water and Soils	
Acid sulphate soils	
Coastal acid sulfate soils guidance material	http://www.environment.nsw.gov.au/acidsulfatesoil/ and http://www.epa.nsw.gov.au/mao/acidsulfatesoils.htm
Acid Sulfate Soils Planning Maps	http://www.environment.nsw.gov.au/acidsulfatesoil/riskmaps.htm
Contaminated Sites Assessment and Remediation	
Managing land contamination: Planning Guidelines – SEPP 55 Remediation of Land	http://www.epa.nsw.gov.au/clm/planning.htm

Guidelines for Consultants Reporting on Contaminated Sites (EPA, 2000)	http://www.epa.nsw.gov.au/resources/clm/20110650consultantsglines.pdf
Guidelines for the NSW Site Auditor Scheme - 2nd edition (DEC, 2006)	http://www.epa.nsw.gov.au/resources/clm/auditorglines06121.pdf
Sampling Design Guidelines (EPA, 1995)	http://www.epa.nsw.gov.au/resources/clm/95059samppgdline.pdf
National Environment Protection (Assessment of Site Contamination) Measure 1999 (or update)	http://www.scew.gov.au/nepms/assessment-site-contamination
Soils – general	
Managing land and soil	http://www.environment.nsw.gov.au/soils/landandsoil.htm
Managing urban stormwater for the protection of soils	http://www.environment.nsw.gov.au/stormwater/publications.htm
Landslide risk management guidelines	http://australiangeomechanics.org/admin/wp-content/uploads/2010/11/LRM2000-Concepts.pdf
Site Investigations for Urban Salinity (DLWC, 2002)	http://www.environment.nsw.gov.au/resources/salinity/booklet3siteinvestigationsforurbansalinity.pdf
Local Government Salinity Initiative Booklets	http://www.environment.nsw.gov.au/salinity/solutions/urban.htm
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZG 2018 Guidelines for Fresh and Marine Water Quality	https://www.waterquality.gov.au/anz-guidelines/about
Applying Goals for Ambient Water Quality Guidance for Operations Officers - Mixing Zones	Contact the EPA on 131555
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf



OUT21/8069

Robert Hodgkins
Planning and Assessment Group
NSW Department of Planning, Industry and Environment

robert.hodgkins@planning.nsw.gov.au

Dear Mr Hodgkins

**Glenella Quarry Expansion (SSD-22474767)
Comment on the Secretary's Environmental Assessment Requirements (SEARs)**

I refer to your email of 15 June 2021 to the Department of Planning, Industry and Environment (DPIE) Water and the Natural Resources Access Regulator (NRAR) about the above matter.

The following recommendations are provided by DPIE Water and NRAR.

The SEARS should include:

- The identification of an adequate and secure water supply for the life of the project. This includes confirmation that water can be sourced from an appropriately authorised and reliable supply. This is also to include an assessment of the current market depth where water entitlement is required to be purchased.
- A detailed and consolidated site water balance.
- Assessment of impacts on surface and ground water sources (both quality and quantity), related infrastructure, adjacent licensed water users, basic landholder rights, watercourses, riparian land, and groundwater dependent ecosystems, and measures proposed to reduce and mitigate these impacts.
- Proposed surface and groundwater monitoring activities and methodologies.
- Consideration of relevant legislation, policies and guidelines, including the NSW Aquifer Interference Policy (2012), the Guidelines for Controlled Activities on Waterfront Land (2018) and the relevant Water Sharing Plans (available at <https://www.industry.nsw.gov.au/water>).

Any further referrals to DPIE Water and NRAR can be sent by email to landuse.enquiries@dpie.nsw.gov.au. or to the following coordinating officer within DPIE Water:

Alistair Drew, Project Officer
E: Alistair.drew@dpie.nsw.gov.au
M: 0417 626 567

Yours sincerely

A handwritten signature in black ink, appearing to read 'Alistair Drew'.

Alistair Drew
Project Officer, Assessments
Water – Knowledge Office
18 June 2021



Our ref: DOC21/560692-2
Senders ref: SSD22474767

Mr Robert Hodgkins
Team Leader
Energy Resource Assessment
Robert.hodgkins@planning.nsw.gov.au

Dear Robert,

Request for SEARs - Glenella Quarry Expansion – SSD22474767

I refer to your email dated 15 June 2021 seeking input into the Department of Planning, Industry and Environment Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Assessment (EIS) for the Glenella Quarry Expansion (SSD 22474767).

The Biodiversity, Conservation and Science Directorate (BCS) understands that the development currently extracts basalt, clay, gravel and some gold, and are proposing to increase the overall extraction from the quarry from the current limit of 200,000tpa to 500,000tpa within the existing development consent boundary. Glenella Quarry are not proposing to alter the operational profile of the quarry.

BCS notes within the scoping report prepared, the proponent has indicated the intention of applying for a Biodiversity Development Assessment Report (BDAR) Waiver for the project. This is given that the project is not expected to require the clearing of native vegetation and is considered unlikely to result in a significant impact to biodiversity values.

Section 7.9(2) of the *Biodiversity Conservation Act 2016* (BC Act) provides that applications for State Significant Development are to be accompanied by a BDAR unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values. The preliminary environmental assessment indicates that this project may be eligible for the requirement for a BDAR to be waived.

Should the proponent wish to apply for a waiver a standalone request will need to be submitted. The request must be accompanied by supporting information that adequately demonstrates the proposal is not likely to have any significant impact on biodiversity values.

BCS has considered your request and provides SEARs for the proposed development in **Attachments A and B**.

BCS recommends the EIS needs to appropriately address the following:

1. Biodiversity and offsetting
2. Water and soils
3. Flooding

Please note the following;

1. The Biodiversity Assessment Method 2020 came into effect on 22 October 2020. There are transitional arrangements in place to minimise the impacts that amendments to the BAM

may have on proponents and landholders. **Attachment A** provides details of the transitional arrangements.

If you have any questions about this advice, please do not hesitate to contact Helen Knight, Conservation Assessment Data Officer, via helen.knight@environment.nsw.gov.au or (02) 6883 5327

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Ben Ellis', is positioned below the closing text.

Ben Ellis
Acting Senior Team Leader Planning North West
Biodiversity, Conservation and Science Directorate

12 July 2021

Attachment A - Environmental Assessment Requirements

Attachment B - Guidance Material

Standard Environmental Assessment Requirements

BCS	Biodiversity, Conservation and Science Directorate of the NSW Department of Planning, Industry and Environment, formerly OEH
The Department	NSW Department of Planning, Industry and Environment
NPWS	National Parks and Wildlife Service

Transitional arrangements for the *Biodiversity Assessment Method 2020*

Clause 6.31 of the *Biodiversity Conservation Regulation 2017* provides that when the BAM is amended, a BAR may be prepared based on the prior version of the BAM for the following designated periods;

- 12 months for a BDAR in respect of SSD/SSI or standard biocertification,
- 12 months or longer if approved by the Minister for a BDAR in respect of strategic biocertification,
- 6 months for BARs in respect of all other development or stewardship applications

A BAR prepared under these arrangements must state that it has been prepared based on the prior version.

This means that from 22 October 2020 until the end of the relevant designated transition period a BAR may be prepared using **either** the BAM 2017 **or** the BAM 2020, but not a combination of both.

If an Accredited Assessor has commenced preparing a BAR in accordance with the BAM 2017, it is recommended that they discuss the transition options with the proponent/landholder. If opting to continue using the BAM 2017, the BAR must be prepared within the relevant designated period and must include a statement that it has been prepared based on the BAM 2017. In addition, because BOAMs has been updated to reflect the BAM 2020 settings, an assessor continuing to prepare a BAR under the BAM 2017 should consult the [Release Notes](#) to ensure the correct BAM-C settings are applied.

Where an assessor proposes to apply BAM 2017 to a scattered tree (formerly paddock tree) or small area streamlined assessment, the assessor must contact BAM Support for guidance on how to use the BAM Calculator to apply the transitional arrangements. However, if the applicant or assessor proposes to apply BAM 2017 to a BSSAR, the applicant or assessor must contact the Biodiversity Conservation Trust to discuss use of this option.

Biodiversity

1. Biodiversity impacts related to the proposed [development/project] are to be assessed in accordance with [Section 7.9 of the Biodiversity Conservation Act 2016](#) the [Biodiversity Assessment Method](#) and documented in a [Biodiversity Development Assessment Report \(BDAR\)](#). The BDAR must include information in the form detailed in the *Biodiversity Conservation Act 2016* (s6.12), *Biodiversity Conservation Regulation 2017* (s6.8) and [Biodiversity Assessment Method](#), unless the Department determines that the proposed development is not likely to have any significant impacts on biodiversity values.

2. The BDAR must document the application of the avoid, minimise, and offset framework; including assessing all direct, indirect, and prescribed impacts in accordance with the [Biodiversity Assessment Method](#).
3. The BDAR must include details of the measures proposed to address the offset obligation as follows:
 - a. The total number and classes of biodiversity credits required to be retired for the development/project;
 - b. The number and classes of like-for-like biodiversity credits proposed to be retired;
 - c. The number and classes of biodiversity credits proposed to be retired in accordance with the variation rules;
 - d. Any proposal to fund a [biodiversity conservation action](#);
 - e. Any proposal to conduct ecological rehabilitation (if a mining project);
 - f. Any proposal to make a payment to the Biodiversity Conservation Fund.

If seeking approval to use the variation rules, the BDAR must contain details of the [reasonable steps](#) that have been taken to obtain requisite like-for-like biodiversity credits.
4. The BDAR must be submitted with all spatial data associated with the survey and assessment as per Appendix 11 of the BAM.
5. The BDAR must be prepared by a person accredited in accordance with the Accreditation Scheme for the Application of the Biodiversity Assessment Method Order 2017 under s6.10 of the *Biodiversity Conservation Act 2016*.

Water and soils

6. The EIS must map the following features relevant to water and soils including:
 - a. Acid sulfate soils (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Planning Map);
 - b. Rivers, streams, wetlands, estuaries (as described in s4.2 of the Biodiversity Assessment Method);
 - c. Wetlands as described in s4.2 of the Biodiversity Assessment Method;
 - d. Groundwater;
 - e. Groundwater dependent ecosystems;
 - f. Proposed intake and discharge locations.
7. The EIS must describe background conditions for any water resource likely to be affected by the development, including:
 - a. Existing surface and groundwater;
 - b. Hydrology, including volume, frequency and quality of discharges at proposed intake and discharge locations;
 - c. Water Quality Objectives ([as endorsed by the NSW Government](#)) including groundwater as appropriate that represent the community's uses and values for the receiving waters;
 - d. Indicators and trigger values/criteria for the environmental values identified at (c) in accordance with the [ANZECC \(2000\) Guidelines for Fresh and Marine Water Quality](#) and/or local objectives, criteria or targets endorsed by the NSW Government;
 - e. [Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions](#).
8. The EIS must assess the impacts of the development on water quality, including:
 - a. The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the development protects the Water Quality Objectives where they are currently being achieved, and contributes towards achievement of the Water Quality Objectives over time where they are currently not

<p>being achieved. This should include an assessment of the mitigating effects of proposed stormwater and wastewater management during and after construction;</p> <p>b. Identification of proposed monitoring of water quality.</p>
<p>9. The EIS must assess the impact of the development on hydrology, including:</p> <p>a. Water balance including quantity, quality and source;</p> <p>b. Effects to downstream rivers, wetlands, estuaries, marine waters and floodplain areas;</p> <p>c. Effects to downstream water-dependent fauna and flora including groundwater dependent ecosystems;</p> <p>d. Impacts to natural processes and functions within rivers, wetlands, estuaries and floodplains that affect river system and landscape health such as nutrient flow, aquatic connectivity and access to habitat for spawning and refuge (e.g. river benches);</p> <p>e. Changes to environmental water availability, both regulated/licensed and unregulated/rules-based sources of such water;</p> <p>f. Mitigating effects of proposed stormwater and wastewater management during and after construction on hydrological attributes such as volumes, flow rates, management methods and re-use options;</p> <p>g. Identification of proposed monitoring of hydrological attributes.</p>
<p>Flooding</p>
<p>10. The EIS must map the following features relevant to flooding as described in the Floodplain Development Manual 2005 including:</p> <p>a. Flood prone land;</p> <p>b. Flood planning area, the area below the flood planning level;</p> <p>c. Hydraulic categorisation (floodways and flood storage areas);</p> <p>d. Flood hazard.</p>
<p>11. The EIS must describe flood assessment and modelling undertaken in determining the design flood levels for events, including a minimum of the 5% Annual Exceedance Probability (AEP), 1% AEP, flood levels and the probable maximum flood, or an equivalent extreme event.</p>
<p>12. The EIS must model the effect of the proposed development (including fill) on the flood behaviour under the following scenarios:</p> <p>a. Current flood behaviour for a range of design events as identified in 14 above. This includes the 0.5% and 0.2% AEP year flood events as proxies for assessing sensitivity to an increase in rainfall intensity of flood producing rainfall events due to climate change.</p>
<p>13. Modelling in the EIS must consider and document:</p> <p>a. Existing council flood studies in the area and examine consistency to the flood behaviour documented in these studies;</p> <p>b. The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood, or an equivalent extreme flood;</p> <p>c. Impacts of the development on flood behaviour resulting in detrimental changes in potential flood affection of other developments or land. This may include redirection of flow, flow velocities, flood levels, hazard categories and hydraulic categories;</p> <p>d. Relevant provisions of the NSW Floodplain Development Manual 2005.</p>
<p>14. The EIS must assess the impacts on the proposed development on flood behaviour, including:</p>

- a. Whether there will be detrimental increases in the potential flood affectation of other properties, assets and infrastructure;
- b. Consistency with Council floodplain risk management plans;
- c. Consistency with any Rural Floodplain Management Plans;
- d. Compatibility with the flood hazard of the land;
- e. Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land;
- f. Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site;
- g. Whether there will be direct or indirect increase in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of riverbanks or watercourses;
- h. Any impacts the development may have upon existing community emergency management arrangements for flooding. These matters are to be discussed with the NSW SES and Council;
- i. Whether the proposal incorporates specific measures to manage risk to life from flood. These matters are to be discussed with the NSW SES and Council;
- j. Emergency management, evacuation and access, and contingency measures for the development considering the full range of flood risk (based upon the probable maximum flood or an equivalent extreme flood event). These matters are to be discussed with and have the support of Council and the NSW SES;
- k. Any impacts the development may have on the social and economic costs to the community as consequence of flooding.

Guidance Material

Title	Web address
<u>Relevant Legislation</u>	
<i>Biodiversity Conservation Act 2016</i>	https://www.legislation.nsw.gov.au/view/html/inforce/current/act-2016-063
<i>Environment Protection and Biodiversity Conservation Act 1999</i>	https://www.legislation.gov.au/Details/C2014C00140/Download
<i>Environmental Planning and Assessment Act 1979</i>	https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1979-203
<i>Fisheries Management Act 1994</i>	https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1994-038
<i>National Parks and Wildlife Act 1974</i>	https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1974-080
<i>Protection of the Environment Operations Act 1997</i>	https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1997-156
<i>Water Management Act 2000</i>	https://www.legislation.nsw.gov.au/view/html/inforce/current/act-2000-092
<i>Wilderness Act 1987</i>	https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1987-196
<u>Biodiversity</u>	
Biodiversity Assessment Method (OEH, 2020)	https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-2020
BAM 2020 Operational Manual Stage 1	https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-manual-2020-operational-manual-stage-1
BAM Operational Manual Stage 2	https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-operational-manual-stage-2
BAM 2020 Operational Manual Stage 3	https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-operational-manual-stage-3
BAM Calculator User Guide	https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-user-guide
Serious and irreversible impacts of development on biodiversity	https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/biodiversity-offsets-scheme/serious-and-irreversible-impacts
Practice Note - Guidance for assessors and decision makers in applying modified benchmarks to assessments of vegetation integrity: Biodiversity Assessment Method	https://www.environment.nsw.gov.au/research-and-publications/publications-search/guidance-assessors-decision-makers-applying-modified-benchmarks-to-assessments-vegetation-integrity
Guidance and Criteria to assist a decision maker to determine a serious and irreversible impact (OEH, 2017)	https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-

Title	Web address
	plants/Biodiversity/guidance-decision-makers-determine-serious-irreversible-impact-190511.pdf
Accreditation Scheme for Application of the Biodiversity Assessment Method Order 2017	https://www.legislation.nsw.gov.au/view/pdf/asmade/sl-2017-471
Ancillary rules: Biodiversity conservation actions	https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/ancillary-rules-biodiversity-conservation-actions-170496.pdf
Ancillary rules: Reasonable steps to seek like-for-like biodiversity credits for the purpose of applying the variation rules	https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/ancillary-rules-reasonable-steps-like-for-like-biodiversity-credits-170498.pdf
Ancillary rules: Impacts on threatened species and ecological communities excluded from application of variation rules	https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/ancillary-rules-impacts-on-threatened-entities-excluded-from-variation-170497.pdf?la=en&hash=C38840BFF49F012433532DF72E3D90C741E4DAC1
The Department's Threatened Species Website	https://www.environment.nsw.gov.au/topics/animals-and-plants/threatened-species
NSW BioNet (Atlas of NSW Wildlife)	www.bionet.nsw.gov.au/
Surveying Threatened Plants and their Habitats - NSW Survey Guide For The Biodiversity Assessment Method (DPIE 2020).	https://www.environment.nsw.gov.au/research-and-publications/publications-search/surveying-threatened-plants-and-their-habitats-survey-guide-for-the-biodiversity-assessment-method
Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - November 2004	https://www.environment.nsw.gov.au/surveys/BiodiversitySurveyGuidelinesDraft.htm
Threatened species survey and assessment guidelines: field survey methods for fauna – amphibians	https://www.environment.nsw.gov.au/research-and-publications/publications-search/threatened-species-field-survey-methods-for-fauna-amphibians
NSW Survey Guide for Threatened Frogs	https://www.environment.nsw.gov.au/research-and-publications/publications-search/nsw-survey-guide-for-threatened-frogs
Surveying 'species credit' threatened bats and their habitats – NSW survey guide for the Biodiversity Assessment Method	https://www.environment.nsw.gov.au/research-and-publications/publications-search/species-credit-threatened-bats-nsw-survey-guide-for-biodiversity-assessment-method
Bat calls of NSW - region-based guide to the echolocation calls of Microchiropteran bats	https://www.environment.nsw.gov.au/surveys/Batcalls.htm
Community Biodiversity Survey Manual	https://www.environment.nsw.gov.au/surveys/CommunityBiodiversitySurveyManual.htm
BioNet Vegetation Classification - NSW Plant Community Type (PCT) database	www.environment.nsw.gov.au/research/VegetationInformationsystem.htm
The Departments Data Portal (access to online spatial data)	http://data.environment.nsw.gov.au/

Title	Web address
Fisheries NSW policies and guidelines	https://www.dpi.nsw.gov.au/fishing/habitat/publications/pubs/fish-habitat-conservation
List of national parks	https://www.nationalparks.nsw.gov.au/conservation-and-heritage/national-parks
Revocation, recategorisation and road adjustment policy (OEH, 2012)	https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-policies/revocation-recategorisation-and-road-adjustment
Guidelines for consent and planning authorities for Developments adjacent to National Parks and Wildlife Service Land (NPWS, 2020)	https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Parks-reserves-and-protected-areas/Development-guidelines/developments-adjacent-npws-lands-200362.pdf
<u>Water and Soils</u>	
Acid sulphate soils	
Acid Sulfate Soils Planning Maps via Data.NSW	https://data.nsw.gov.au/data/dataset/acid-sulphate-soils-ass-planning-maps
Acid Sulfate Soils Manual (Stone et al. 1998)	https://www.environment.nsw.gov.au/resources/epa/Acid-Sulfate-Manual-1998.pdf
Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al. 2004)	http://www.environment.nsw.gov.au/resources/soils/acid-sulfate-soils-laboratory-methods-guidelines.pdf This replaces Chapter 4 of the Acid Sulfate Soils Manual above.
Flooding	
Floodplain development manual	https://www.environment.nsw.gov.au/topics/water/floodplains/floodplain-manual
Floodplain Risk Management Guidelines	http://www.environment.nsw.gov.au/topics/water/coasts-and-floodplains/floodplains/floodplain-guidelines
NSW Climate Impact Profile	http://climatechange.environment.nsw.gov.au/
Climate Change Impacts and Risk Management	https://www.environment.gov.au/climate-change/adaptation/publications/climate-change-impact-risk-management
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC & ARMCANZ (2000) Water Quality Guidelines	https://www.waterquality.gov.au/anz-guidelines/resources/previous-guidelines/anzecc-armcanz-2000
Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones	http://deccnet/water/resources/AWQGuidance7.pdf
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf

Robert Hodgkins
Team Leader
Energy Resource Assessment

Via: Major Project Portal

Dear Mr Hodgkins

Re. Request for SEARs - Glenella Quarry Expansion Request for SEARs

I refer to your request of 15 June 2021 for advice regarding the Glenella Quarry Expansion request for SEARs. The Resources Regulator has reviewed the request.

Assessment

Based on the review of the request for SEARs and supporting documents, the Resources Regulator recommends that the standard SEARs are applied in this instance with the following environmental assessment requirements to be addressed in the development application.

It should be noted that the environmental assessment that accompanies the development application must include a separate section entitled 'Rehabilitation Strategy' which addresses the following matters where relevant.

Final land use(s)	Identification and assessment of final (i.e. post-mining) land use options. Identification and justification of the preferred final land use outcome(s), including a discussion of how the final land use(s) are aligned with relevant local and regional strategic land use objectives and surrounding land uses. Identification of how the rehabilitation of the project will relate to the rehabilitation strategies of any neighbouring mines within the region, with a particular emphasis on the coordination of rehabilitation activities along common boundary areas.
Rehabilitation objectives and domains	Inclusion of a set of project rehabilitation objectives that clearly define the outcomes required to achieve the final (post-mining) land use for each mining domain. Each mining domain must have a stated final land use and rehabilitation objectives (which describe the desired features and/or characteristics of the final land use domain). Rehabilitation objectives must include, where relevant, target vegetation communities.
Progressive rehabilitation	The expected time frames for progressive rehabilitation. Mine layout and scheduling, including maximising opportunities for progressive final rehabilitation. The final rehabilitation

	<p>schedule should be mapped against key production milestones (i.e. ROM tonnes) of the mine layout sequence before being translated to indicative timeframes for each stage of rehabilitation throughout the mine life. The mine plan should maximise opportunities for progressive rehabilitation.</p>
Conceptual final landform design	<p>Inclusion of drawings at appropriate scales identifying key attributes of the final landform, including final landform contours, section views, significant water management features/structures, the location of the proposed final land use(s) and integration with existing and surrounding landforms.</p>
Barriers or limitations to effective rehabilitation	<p>Identification and description of those aspects of the site or operations that may present barriers or limitations to effective rehabilitation, including an assessment of high-risk rehabilitation landforms (such as high walls, steep slopes, waste rock dumps, etc). This should include (as relevant):</p> <ul style="list-style-type: none"> • an assessment and life of mine management strategy of the potential for geochemical constraints to rehabilitation (e.g. acid metalliferous drainage, spontaneous combustion etc.), particularly associated with the management of overburden/interburden and reject material. This assessment should utilise any relevant data from previous exploration programs to characterise the geochemical properties of the materials and identify appropriate management strategies. This should include any emplacement strategies (e.g. how materials are emplaced to minimise oxidation and leachate), capping strategies, the source of capping materials, associated volume of capping materials required, routine sampling and testing; • the processes that will be implemented throughout the mine life to design and ensure the long-term stability of the rehabilitated landforms, including how characteristics of the existing and surrounding landform can be incorporated into the final landform design. This should include identifying and adopting geomorphic design principles to achieve a natural and stable landform outcome. It should also include a constraints and opportunities analysis of alternative final landforms giving consideration to geotechnical stability, geomorphic stability (soil types, soil erosion, etc), water management, integration with the characteristics of the surrounding natural landform and minimising sterilisation of land post-mining. For large and complex sites, there should be a commitment to undertake landform evolution modelling throughout the mine life to address long-term erosion and stability risks; • a life of mine tailings management strategy, which details measures to be implemented to avoid the exposure of tailings material that may cause environmental risk, as well as to ensure the geotechnical and geomorphic stability of the rehabilitated landform of the tailings storage facility. This should include any capping strategies, the source of capping materials and associated volume of capping materials required. It should also include a constraints and opportunities analysis of different tailings management techniques (e.g. co-disposal, dewatering tailings, integrated landforms, etc) and of alternative techniques to reduce the amount of tailings and reliance on conventional tailing

	storage facilities. Justification of the proposed tailings management strategy should be provided to demonstrate that it is the most feasible and environmentally sustainable option.
Voids	Where a void, is proposed to remain as part of the final landform, include: <ul style="list-style-type: none"> • a constraints and opportunities analysis of final void options, including backfilling, to justify that the proposed design is the most feasible and environmentally sustainable option to minimise the sterilisation of land post-mining; • a preliminary geotechnical assessment to identify the likely long-term stability risks associated with the proposed remaining high wall(s) and low wall(s) along with associated measures that will be required to minimise potential risks to public safety; and • outcomes of the surface and groundwater assessments in relation to the likely final water level in the void. This should include an assessment of the potential for fill and spill along with measures required be implemented to minimise associated impacts to the environment and downstream water users.
Ecological land use	Where an ecological land use is proposed, demonstrate how the revegetation strategy (e.g. seed mix, habitat features, corridor width, aspect, etc.) has been developed in consideration of the target vegetation community(s).
Agricultural land use	Where the intended land use is agriculture, demonstrate that the landscape, vegetation and soil is capable of supporting this land use. In addition, demonstrate that the proposed location of the rehabilitated agricultural area is not isolated within the landscape and that there is ready access to water and relevant infrastructure (e.g. power, roads etc.) to support agricultural activities.

Relevant policies and guidelines

Consider the following relevant policies and guidelines.

- *Mine Rehabilitation* (Leading Practice Sustainable Development Program for the Mining Industry, Australian Government, 2016)
- *Mine Closure* (Leading Practice Sustainable Development Program for the Mining Industry, Australian Government, 2016)
- *Strategic Framework for Mine Closure* (ANZMEC-MCA, 2000)
- *Guidelines on Tailings Dams – Planning, Design, Construction, Operation And Closure – Revision 1* (ANCOLD, July 2019)
- *Integrated Mine Closure: Good Practice Guide* (ICMM, 2019)

Regulatory requirements if approved

The proponent will be required to comply with rehabilitation requirements under the mining authorisation(s) when undertaking works associated with the proposal.

The Resources Regulator may undertake assessments of the mine operators' proposed mining activities under the *Work Health and Safety (Mines and Petroleum Sites) Act 2013* and Regulation as well as other WHS regulatory obligations.

Background

The Mining Act Inspectorate within the Resources Regulator undertake risk-based compliance and enforcement activities in relation to obligations under the *Mining Act 1992*.

This includes undertaking assessment and compliance activities in relation to mine rehabilitation activities and determination of security deposits.

The Mine Safety Inspectorate within the Resources Regulator is responsible for ensuring the mine operators' compliance with the Work Health and Safety (WHS) legislation, in particular the effective management of risks associated with the principal hazards as specified in the *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014*.

Contact

Should you require any further information or clarification, please contact the Office of the Executive Director (ED.ResourcesRegulator@planning.nsw.gov.au)

Yours sincerely,



Garvin Burns
Executive Director
Resources Regulator

14 July 2021



Nagindar Singh
Senior Environmental Assessment Officer
Energy Resource Assessment
Department of Planning, Industry and Environment
Email: Nagindar.Singh@planning.nsw.gov.au

Our reference: DOC21/489642-2

Advice uploaded via the Major Project Portal

Dear Nagindar

**HERITAGE NSW – ABORIGINAL CULTURAL HERITAGE REGULATION
SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS (SEARS)**

Project: Glenella Quarry Expansion – Proposed Production Increase
SSD/SSI application no: SSD-22474767

Thank you for requesting our input on the draft Planning Secretary's Environmental Assessment Requirements (SEARs) for the above state significant project. We note the request for SEARs was originally referred to us on 15 June 2021 and again on 14 July 2021.

Heritage NSW has reviewed the supporting documentation and provides SEARs for the proposed development in relation to Aboriginal cultural heritage matters in **Attachment A**.

We note the Scoping Report, dated 1 June 2021, includes a Desktop Heritage Adequacy Assessment (OzArk 2021) which recognises that a number of known Aboriginal sites/objects occur across the Glenella property with AHIMS site 44-4-0346 occurring within the study area itself. According to our records and the information provided, AHIMS site 44-4-0007 also occurs within close proximity to the disturbance footprint and we note there is some degree of uncertainty regarding its true location owing to potential site projection/mapping issues.

Heritage NSW considers there may be some risk of harm to Aboriginal cultural heritage occurring across the subject area through increased quarry activity (including intensified blasting, drilling, excavation, stockpiling, and vehicle movements) and advise that the Environmental Impact Statement (EIS) still needs to consider and document the Aboriginal cultural heritage values that exist across the whole area that will be affected by the increase in overall production from 200,00 tonnes to 500,000 tonnes per annum as part of the environmental assessment. This includes outlining measures to mitigate impacts (direct or indirect) and/or undertake ongoing management of the Aboriginal cultural heritage values on the site.

We do note the Scoping Report (page 33) incorrectly refers to consultation to be undertaken with the Department of Environment and Climate Change. We advise that this Department no longer exists and all references to consultation on Aboriginal cultural heritage regulation matters needs to refer to Heritage NSW within the Department of Premier and Cabinet.

If you have any questions regarding these SEARs please contact me on (02) 6229 7089 or via email at jackie.taylor@environment.nsw.gov.au.

Yours sincerely



Jackie Taylor
Senior Team Leader, Aboriginal Cultural Heritage Regulation - South
Heritage NSW
15 July 2021

Enclosure – Attachment A: Recommended Aboriginal Cultural Heritage SEARs for SSD-22474767

ATTACHMENT A: HERITAGE NSW – Aboriginal Cultural Heritage - SEARs

Project Name: Glenella Quarry Expansion – Proposed Production Increase

SSDI #: SSD-22474767

1. The EIS must identify and describe the Aboriginal cultural heritage values that exist across the whole area that will be affected by the development and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation. The identification of cultural heritage values must be conducted in accordance with the [Code of Practice for Archaeological Investigation in NSW](#) (DECCW 2010), and be guided by the [Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales](#) (OEH 2011) and consultation with Heritage NSW.
2. Consultation with Aboriginal people must be undertaken and documented in accordance with the [Aboriginal Cultural Heritage Consultation Requirements for Proponents](#) (DECCW 2010). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the ACHAR.
3. Impacts on Aboriginal cultural heritage values are to be assessed and documented in the ACHAR. The ACHAR must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to Heritage NSW.
4. The assessment of Aboriginal cultural heritage values must include a surface survey undertaken by a qualified archaeologist. The result of the surface survey is to inform the need for targeted test excavation to better assess the integrity, extent, distribution, nature and overall significance of the archaeological record. The results of surface surveys and test excavations are to be documented in the ACHAR.
5. The ACHAR must outline procedures to be followed if Aboriginal objects are found at any stage of the life of the project to formulate appropriate measures to manage unforeseen impacts.
6. The ACHAR must outline procedures to be followed in the event Aboriginal burials or skeletal material is uncovered during construction to formulate appropriate measures to manage the impacts to this material.

NOTE: The process described in the *Due Diligence Code of Practice for the protection of Aboriginal objects in NSW* (DECCW 2010) is not sufficient to assess the impacts on Aboriginal cultural heritage of Major Projects.



Robert Hodgkins
Planner
Department of Planning Industry & Environment
GPO BOX 404
PARRAMATTA NSW 2124

By email: Robert.Hodgkins@planning.nsw.gov.au

Dear Mr Hodgkins

Request for Secretary's Environmental Assessment Requirements (SEARS) for Glenella Quarry Expansion (SSD 22474767)

Thank you for your referral dated 15 June 2021 inviting SEARS input from the Heritage Council of NSW on the above State Significant Development proposal.

The subject site is not listed on the State Heritage Register (SHR), nor is it in the immediate vicinity of any SHR items. Further, the site does not contain any known historical archaeological relics. Therefore, no heritage comments are required. The Department does not need to refer subsequent stages of this proposal to the Heritage Council of NSW.

If you have any questions regarding the above advice, please contact Gary Hinder, A/Senior Customer Strategies Officer, at Gary.Hinder@environment.nsw.gov.au or on 9873 8547.

Yours sincerely

Anna London
A/Senior Team Leader Customer Strategies
Heritage NSW
Department of Premier and Cabinet
As Delegate of the Heritage Council of NSW
23 June 2021



OUT21/8078

Mr Robert Hodgkins
Department of Planning Industry and Environment.
Major Planning Portal

Dear Mr Hodgkins

**Environmental Assessment Requirements– Glenella Quarry Expansion (SSD-22474767)
(Cowra and Hilltops Councils)**

Thank you for your correspondence dated 15 June 2021 requesting Environmental Assessment Requirements (EARs) for the above proposal.

The NSW Department of Primary Industries (NSW DPI) Agriculture is committed to the protection and growth of agricultural industries, and the land and resources upon which these industries depend. Important issues for extractive industries are the potential impact on limited agricultural resources and the ability to rehabilitate the land to enable continued agricultural investment.

NSW DPI Agriculture provides EARs (Attachment 1) and a range of publications to assist consent authorities, proponents and the community in addressing the recommended EARs (Attachment 2). These have been modified to recognise the current operation and the proposed expansion.

Should you require clarification on any of the information contained in this response, please contact me on phone 0427949987 or by email at landuse.ag@dpi.nsw.gov.au

Yours sincerely

Mary Kovac
Agricultural Land Use Planning Officer
Central and Far West

17 June 2021

Attachment 1: Environmental Assessment Requirements

Issue	Environmental Assessment Requirements for the Environmental Impact Statement
Site Suitability	<ul style="list-style-type: none"> ● Include a Land Use Conflict Risk Assessment (LUCRA) to identify potential land use conflict with sensitive receptors including surrounding agricultural land uses as a result of the expansion. The LUCRA is to address separation distances and management practices to minimise odour, dust and noise impacts on sensitive receptors including surrounding agricultural land uses. A LUCRA is described in the DPI Land Use Conflict Risk Assessment Guide. ● Include a map, to scale, showing the above operational and infrastructure details including separation distances from sensitive receptors including surrounding agricultural land uses.
Consideration of impacts on agricultural resources and land	<p>Characteristics of Agricultural Land</p> <ul style="list-style-type: none"> ● Describe the soil, slope, land capability, past agricultural productivity, land characteristics and the history of agricultural land uses on the expansion site. ● Describe the current and historical agricultural land uses on surrounding land in the locality including the land capability and agricultural productivity of the surrounding land. <p>Impacts on Agricultural Land, Resources and Land Uses</p> <ul style="list-style-type: none"> ● Detail the potential impacts from the proposed expansion on agricultural land and agricultural land uses on the site and in the locality. ● Detail the location and areas of land to be temporarily removed from agricultural use, and those areas which are to be returned to agricultural use on completion of the development. ● Consider possible cumulative impacts on surrounding agricultural enterprises and landholders. ● Assess impacts on agricultural support services, processing and value adding industries <p>Measures to Mitigate Impacts on Agricultural Land</p> <ul style="list-style-type: none"> ● Demonstrate that all significant impacts on current and potential agricultural developments and resources can be reasonably avoided or adequately mitigated. ● Detail the expected life span of the proposed development.
Suitable and secure water supply	<ul style="list-style-type: none"> ● Detail the estimated water demand and water availability and the source of water and any sanitisation methods proposed. ● Outline any impacts to water use for agriculture and measures to mitigate against these impacts.
Biosecurity	<ul style="list-style-type: none"> ● Include a biosecurity (pests, weeds and disease) risk assessment outlining the likely plant, animal and community risks. The relevant weed or pest animals for a region are addressed in the regional plans or strategies issued by NSW Local Lands Services. ● Include details of how the proposal will deal with identified biosecurity risks as well as contingency plans for any failures. Include monitoring and mitigation measures for weed and pest management.

Traffic movements	<ul style="list-style-type: none"> ● Detail the volume and route of traffic movements for the proposed expansion and how potential impacts on surrounding agricultural land uses are proposed to be mitigated (e.g. noise, dust, and volume of traffic). This should include consideration of Travelling Stock Reserves (TSR) and the movement of livestock or farm vehicles along / across the affected roads.
Land stewardship	<ul style="list-style-type: none"> ● Describe the final proposed land use and land form. ● Detail the proposed rehabilitation and decommissioning/closure measures to achieve this land use including the expected timeline for the rehabilitation program. ● Outline the monitoring and mitigation measures to be adopted for rehabilitation remedial actions.
Community Consultation	<ul style="list-style-type: none"> ● Consult with the owners / managers of affected and adjoining agricultural operations in a timely and appropriate manner about; the proposal, the likely impacts and suitable mitigation measures or compensation.
Emergency Management	<ul style="list-style-type: none"> ● The proposal is to detail contingency plans to enable the operation to deal with emergency situations. The proposal is to detail Emergency Management procedures and responsibilities for responding to bushfire threats in the area.

Attachment 2: Guidelines for assessment

Title	Location
Land Use Conflict Risk Assessment Guide	https://www.dpi.nsw.gov.au/agriculture/lup/development-assessment2/lucra
Agricultural Issues for Extractive i Industry Development	https://www.dpi.nsw.gov.au/agriculture/lup/development-assessment2/extractive-industries

17/06/2021

Re: Request for input into Secretary's Environmental Assessment Requirements (SEARs) for Glenella Quarry Expansion (SSD-22474767)

DPI Fisheries are responsible for ensuring that fish stocks are conserved and that there is “no net loss” of key fish habitats upon which they depend. To achieve this, the Department ensures that developments comply with the requirements of the *Fisheries Management Act 1994* (namely the aquatic habitat protection and threatened species conservation provisions in Parts 7 and 7A of the Act respectively) and the associated *Policy and Guidelines for Fish Habitat Conservation and Management (Update 2013)*.

The Environmental Assessment should specifically address any impacts on the aquatic ecology of Key Fish Habitats (3rd order or larger, Strahler Stream Order system) and controls to be established for easements, access routes, waterway crossings in Key Fish Habitat as proposed below.

Aquatic Ecological Assessment

The aquatic ecological environmental assessment should include the following information;

- A recent aerial photograph (preferably colour) of the locality (or reproduction of such a photograph) should be provided.
- Area which may be affected either directly or indirectly by the development or activity should be identified and shown on appropriately scaled maps.
- Identification of sensitive surface waterways may be achieved using the Classification of Waterways for Fish Passage which classifies Key Fish Habitat based on habitat features, this can be found in the *Policy and Guidelines for Fish Habitat Conservation and Management (Update 2013)*.
- Description of aquatic and riparian vegetation should be presented and mapped.
- The extent of aquatic habitat removal or modification which may result from the proposed development,
- Details of the location of any waterways crossings, including any access tracks, road upgrades and pipelines crossing key fish habitat, timetable for construction of the proposal with details of various phases of construction,
- Aspects of the management of the proposal, both during construction and after completion, which relate to impact minimisation eg Environment Management Plans.

Key Issues

Waterway crossings and Fish Passage

DPI Fisheries need to be consulted with regards to the crossing methodology and site specific mitigation measures for watercourses that are considered to be *Key Fish Habitat*. The design and construction of permanent or temporary access tracks across all waterways should be undertaken in accordance with the Department's *Policy and Guidelines for Fish Habitat Conservation and Management (Update 2013)*.

DPI Fisheries need to be consulted with regards to any temporary measures that will result in blocking fish passage. This includes coffer dams, temporary access tracks or redirecting flows whilst works are conducted.

Loss of Riparian Vegetation

The degradation of native riparian vegetation has been listed as a Key Threatening Process under the provisions of the *Fisheries Management Act 1994*. DPI Fisheries have a 'no net loss' policy to ensure that that fish stocks are conserved and the key fish habitats upon which fish depend on is conserved. Minimum riparian buffer zones should be maintained adjacent to waterways as per the *Policy and Guidelines for Fish Habitat Conservation and Management (Update 2013)*.

Where a loss of riparian habitat occurs there needs to be a Riparian Rehabilitation Plan incorporated within the Environmental Management Plan.

Threatened Species, populations and ecological communities– *Fisheries Management Act 1994*

The EA should include a threatened aquatic species assessment to address whether there are likely to be any significant impacts on listed threatened species, populations or ecological communities scheduled under the *Fisheries Management Act 1994*. Please note that the current mapping for all threatened species is located on the website: <http://www.dpi.nsw.gov.au/fishing/species-protection/threatened-species-distributions-in-nsw/freshwater-threatened-species-distribution-maps>.

Should you require further clarification on the above issues, please contact Evan Knoll Fisheries Manager on 0418 204 207 or via email evan.knoll@dpi.nsw.gov.au



Cowra Council

Cowra Shire Council
116 Kendal Street
Private Bag 342
Cowra NSW 2794
Phone: 02 6340 2000
Fax: 02 6340 2011
council@cowra.nsw.gov.au
www.cowracouncil.com.au

Our Ref: DW:ka
DA: 73/2007
File: 15-483

13 July 2021

Department of Planning, Industry and Environment
NSW Planning Portal

Att: Robert Hodgkins

Email: Robert.hodgkins@planning.nsw.gov.au

Dear Mr Hodgkins,

Major Project SEARS

Description: Glenella Quarry proposed Production Increase

Property: LOT: 44 DP: 752935 and LOT: 35 DP: 752935, 483 Battery Road, Cowra

Please accept the following on Cowra Council's submission to the SEARS process.

Cowra Council and Glenella Quarry have been and are currently working through some existing consent conditions in relation to road works. It is suggested that these noncompliance issues with the existing consent need to be noted in this SEARS and subsequent EIS, unless they are completed prior to this process which is the preferred option.

Whilst Council views the proposed expansion positively and has no major concerns with the proposal, Council notes that there are outstanding conditions of consent which require finalisation to Council's satisfaction. It is noted that the noncompliance is encouraging complaints regarding road safety from the other road users and questions in relation to compliance action taken against the Quarry by Council.

It is acknowledged that the proprietors of the Quarry have been working steadily with Council since the original development consent issued in 2007, however it is now time to bring these discussions to a close and finalise the works.

For further information please contact me on 02 6340 2090.

Yours faithfully

Kate Alberry
Director Environmental Services



Your Ref: SSD-2247476
Contact Person: Andrew Raines

13 July 2021

Energy, Resources & Compliance
Department of Planning, Industry and Environment
4 Parramatta Square, 12 Darcy Street
Parramatta NSW 2150

Attention: Mr Robert Hodgkins

Dear Sir

Glenella Quarry Expansion - Request for SEARs

I refer to your emails dated 15 June 2021 and 13 July 2021 inviting comments on the scoping report prepared by InSitu Advisory Pty Ltd for the proposed quarry expansion at 483 Battery Road, Cowra. Council appreciates the opportunity for comment.

The existing quarry at the subject property has development consent (DA117/2006) issued by the former Boorowa Shire Council for part of its operations. A separate consent issued by Cowra Shire Council covers the balance of the operations. These consents should be reviewed and consolidated where possible.

The proposed quarry area is identified on the Boorowa Local Environmental Plan 2012 Groundwater Vulnerability Map and Riparian Lands and Watercourses Map. A soil and land capability impact assessment must support the EIS that considers the specific requirements of the quarry, the likely pre and post quarry soil impacts and detail measures to address such impacts. The EIS is to address soil management, rehabilitation and give consideration to post quarrying agricultural suitability.

The proposed quarry area is also identified on the Boorowa Local Environmental Plan 2012 Biodiversity Map. The EIS must detail the extent of any vegetation to be cleared on site. This is to include an assessment of the likely biodiversity impacts of the development, undertaken in accordance with the Biodiversity Assessment Method, and include a strategy to offset any impacts of the development in accordance with the Biodiversity Offset Scheme.

Vehicular access to the development site will be via Battery Road and regional roads. Any traffic impact assessment must detail traffic movements and impacts on the surrounding road network and consider the cumulative impact of the quarry with existing and approved developments in the locality.

Council notes the Boorowa Shire Council Section 7.12 Contribution Plan applies to the land. Council is open to entering into a Planning Agreement with the Applicant for the ongoing road maintenance.

MAILING ADDRESS

Locked Bag 5,
Young NSW 2594
www.hilltops.nsw.gov.au

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Boorowa NSW 2586
P 1300HILLTOPS / 1300 445 586

HARDEN OFFICE

3 East Street,
Harden NSW 2587

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Young NSW 2594



F 02 6384 2576 E mail@hilltops.nsw.gov.au



With noting the concerns above, generally the EIS must contain reports which outline and give due consideration to:

- Noise and vibration (including blasting frequency and methods)
- Air quality (dust control)
- Ecology (flora and fauna)
- Aboriginal heritage
- Traffic and haulage routes
- Surface water and water balance (including water demand and supply)
- Soils (including topsoil restoration/stockpiling)
- Groundwater
- Rehabilitation plans

Such reports must take into consideration the cumulative impacts of the proposal and surrounding developments, including approved major developments in the locality.

Kind regards

A handwritten signature in black ink, appearing to read 'Andrew Raines', is written over a light blue horizontal line. The signature is stylized and cursive.

Andrew Raines
Senior Land Use Planner



MINING, EXPLORATION & GEOSCIENCE ADVICE RESPONSE

Nagindar Singh
Senior Environmental Officer
Planning & Assessment Group
Department of Planning, Industry and Environment
Locked Bag 5022
PARRAMATTA NSW 2150

nagindar.sigh@planning.nsw.gov.au

Dear Nagindar

Project: Glenella Quarry Expansion
Stage: Secretary's Environmental Assessment Requirements – Amendment request
Development Application: SSD-22474767

I refer to your correspondence dated 30 August 2021 inviting the Department of Regional NSW – Mining, Exploration & Geoscience (MEG) to provide comments on the Glenella Quarry Expansion (the Project) Secretary Environmental Assessment Requirements (SEARs) requested by Glenella Quarry Pty Ltd (the Proponent).

The relevant units internal to MEG have been consulted in generating this advice. The Department of Planning, Industry and Environment – Energy, Resources & Compliance Division and the Proponent should be aware that matters concerning subsidence, subsidence management, mine operator, safety, rehabilitation and environmental impacts of final landform design are assessed by the Resources Regulator advice should be sought separately.

Please note that MEG recently incorporated the Resources Regulator to form a larger agency. Advice will continue to be provided separately reflecting functional responsibilities.

MEG has reviewed the information supplies in relation to the abovementioned Project and requires that the Project's Environmental Impact Statement (EIS) refers to and includes all requirements set out in the Department of Regional NSW – Mining, Exploration & Geoscience Secretary's Environmental Assessment Requirements for the Project provided in Attachment 1 (DOC21/757951).

For further advice concerning this matter, please contact the Mining Concierge on 02 4063 6534 or assessment.coordination@planning.nsw.gov.au.

Yours sincerely



Scott Anson
Manager
Industry Development
Department of Regional NSW – Mining, Exploration & Geoscience
3 September 2021

for
Anthony Keon
Executive Director Strategy, Performance & Industry Development
Department of Regional NSW – Mining, Exploration & Geoscience

Mining, Exploration & Geoscience Secretary's Environmental Assessment Requirements

for proposed significant state development applications requiring consultation
under Schedule 2 Part 2(3) of the Environmental Planning & Assessment Regulation 2000

Project	Glenella Quarry Expansion
Reference Number:	DOC21/755951
Issue date of SEARs:	2 September 2021
Type of Approval:	Mining operation - open cut
Proponent:	Glenella Quarry Pty Ltd
DA Number:	SSD-22474767, DA73/2007 Cowra Shire Council, DA117/2006 Boorowra Council (now Hilltops Shire Council)
LGA:	Cowra Shire Council and Hilltops Council
Mineral:	Clay/Shale, Gold, Kaolin, Ores of Silicon, Structural Clay, Corundum, Diamond, Ruby, Sapphire, Ilmenite, Leucosene, Monazite, Rutile, Zircon

In preparing the environmental assessment requirements concerning an application for Significant State Development, the Planning Secretary must consult relevant public authorities and have regard to the need for the requirements to assess any key issues raised by those public authorities.

This development may require approval under the *Mining Act 1992* to be issued by the Department of Regional NSW – Mining, Exploration & Geoscience (MEG). The proponent must apply to MEG for the relevant approval (mining lease) during the development assessment process, or once consent has been granted, and before the commencement of any mining or ancillary activity.

A development application under the *Environmental Planning and Assessment Act 1979* must be approved before a mining lease can be granted. A mining lease will only be granted for activities specified in the development consent.

Environmental Impact Statement (EIS) requirements for mining

1. Project description

The Proponent is to supply a comprehensive overview and description of all aspects of the Project, including:

- (a) Location map showing the project area, mining titles, nearest town/s, major roads etc.
- (b) Status of all titles (including mining and exploration), and development consents in place and/or timeline to obtain necessary approvals.
- (c) Any relationships between the resource and existing mines or other infrastructure.
- (d) Nature of operation (e.g. underground, open cut) and ore mineral/s to be extracted.

2. Geology

The Proponent is to supply a summary of the geological components of the mineral resource, including:

- (a) A summary of the regional and local geology, including information of the stratigraphic unit or units within which the resource is located.
- (b) Document the physical dimensions of the mineral resource. Plans and cross-sections showing the location of drill holes and the area proposed for extraction. Relevant supporting documentation such as drill logs should be included or appended.

3. Mineral Resources and Ore Reserves

The Proponent is to provide a basic resource/reserve statement appropriate to the type of deposit and based on a simple volume/density and/or quality estimation. This should include anticipated tonnage and grades for the Project. This should include tonnages and grades of basalt, clay, quartz pebbles sand etc. At a minimum, an estimate of then expected quantities of secondary mineral(s) (including gold) should be stated.

4. Resource extraction

The Proponent is to supply evidence that the resource extraction is sustainable and maximised. Such evidence will include:

- (a) A summary of resources that may be sterilised or excluded, with justification.
- (b) A description of how the proposed mine plan and extraction method maximises resource recovery. Specify why the mine design has been chosen (noting other resource, design, commercial/economic constraints) and why this is the best outcome; detailing the options considered in arriving at the final landform design.
- (c) A summary of the processing and recovery methods.
- (d) List all economic, environmental, geological, geotechnical and other constraints to the recovery of the resource/reserve impacting the Project.

5. Life of mine schedule

The Proponent must supply a life of mine production schedule for each year of operation of the mine and for the life of the Project. The production schedule is to include:

- (a) Details of run-of-mine ore and waste rock tonnage planned to be extracted for each year and for the life of the Project, and an estimate of the saleable product produced for each year and the life of the Project.
- (b) In terms of text, plans or charts, the EIS must clearly show the proposed extent and sequence of the development.

6. Project economics and target market

The Proponent is to supply an assessment of project economics including:

- (a) Price forecasts by product type used by the Proponent. MEG requires these forecasts to analyse the Proponent's calculations of royalty value and export value.
- (b) CAPEX & OPEX necessary for the Project broken down into the various sub-categories and equipment type. Include any changes that the Project will have on existing mine infrastructure and broader ex-mine infrastructure - rail, CHPP etc.
- (c) Estimates of employment generation broken down into direct, indirect, ongoing, construction and contract workers.
- (d) Relationship and interaction with other mines. Detailing the Project impacts on the existing mine and surrounding mines.
- (e) Provide project funding source and assurance of ongoing project and operations funding from the proponent or parent. MEG is seeking the proponent's commitment to advancing this project.

MEG understands that an estimate of product split into individual market segments is difficult to estimate at a point in time and is dependent on market conditions as the life of the Project progresses, however MEG requires the Proponent to provide its best estimate of their market mix at the initial stages of the Project.

7. Royalty generated

Total royalty generated to the state over the life of the Project.

All above information should be summarised in the EIS, with full documentation appended. If deemed commercial-in-confidence, the resource summary included in the EIS must commit to providing MEG with full resource documentation via MEG's Resource and Economic Assessment process.

Additional matters for attention

Resource and Economic Assessment

The Resource and Economic Assessment (REA) is designed to review the resource/reserve estimates stated in the submitted EIS and supporting material. The REA also examines whether the project will deliver significant social and economic benefits to NSW from the efficient development of the resource, by optimising resource recovery and mine design and minimising waste. It also aims to ensure an appropriate return to the state from developing the resource. This process commences two months prior to lodgement of the EIS, the proponent is to contact the Assessment Coordination Unit.

Biodiversity offsets

MEG requests that the Proponent consider potential resource sterilisation in relation to any proposed biodiversity offsets areas. Biodiversity offsets have the potential to preclude access for future resource discovery and extraction and could also potentially permanently sterilise access to mineral resources.

The EIS must therefore clearly illustrate the location (including offsite locations) of any biodiversity offsets being considered for the project and their spatial relationship to known and potential mineral and construction material resources and existing mining & exploration titles.

MEG requests consultation with both the Geological Survey of NSW – Land Use Assessment team and holders of existing mining and exploration authorities affected by planned biodiversity offsets. Evidence of consultation should be included in the EIS.

Mining Titles

MEG notes that this Project, as it currently stands, is located within the existing operations area of Mining Lease 1692 (Act 1992) (ML 1692) (Clay/Shale, Gold, Kaolin, Ores of Silicon, Structural Clay) held by Glenella Quarry Pty Ltd.

As the additional minerals sought (Corundum, Diamond, Ruby, Sapphire, Ilmenite, Leucoxene, Monazite, Rutile, Zircon) are prescribed mineral(s) under the Mining Act 1992, the Proponent must obtain the appropriate mining authority(s), from MEG allowing for mineral extraction. This may take the form of an application for “Addition of a Mineral to a Mining Lease” under section 77 of the Act or a new mining lease application over the entire (expanded area) to include all minerals sought.

Where a proposal includes Crown Land the proponent is required to comply with the Commonwealth *Native Title Act 1993* and undertake the right to negotiate process for the Crown Lands within the current exploration licence area(s) if proof of extinguishment cannot be determined.

For ancillary mining activities as, in so far as the ancillary activities are to be carried out in connection with and in the immediate vicinity of a mining lease in respect of a mineral, the proponent is required to hold a Mining Lease for ancillary mining activities or an ‘off title’ designated ancillary mining activity as defined by clause 7 of the Mining Regulation 2016 (the Regulation).

There is a subset of ancillary mining activity that the legislation defines as ‘designated ancillary mining activity’ (defined in section 6(6) of the *Mining Act 1992*).

A proponent seeking to undertake a designated ancillary mining activity outside a mining area, but in the immediate vicinity of and that directly facilitates the mining lease in respect of mineral(s), must apply for one of the following:

1. A separate mining lease for the designated ancillary mining activity which authorises the carrying out of the activity. (This provides the holder with the right to access the mining area to undertake the ancillary mining activity, however does not provide the holder with the right to mine).
2. A condition on an existing mining lease that regulates the carrying out of the designated ancillary mining activity in an off-title area. (See section 6(2) of the *Mining Act 1992*). The ancillary mining activity condition will include the survey plan of the designated ancillary mining activity area on which the designated ancillary mining activity is (or is proposed to be) located.

The EIS for a project should clearly identify existing mineral titles, mineral title applications and the final proposed mining lease area(s) for the project site and areas surrounding the proposed project area and address the environmental impacts and management measures for the mining and mining purpose activities as licensed under the *Mining Act 1992*.

A development application under the *Environmental Planning and Assessment Act 1979* must be approved before a mining lease can be granted. A mining lease will only be granted for activities specified in the development consent.

Royalty

The holder of a mining lease is also liable to pay a royalty for both publicly and privately-owned minerals (refer to section 282-285 of the Act).

Approvals

Position	Approval	Date
Endorsing Officer: Adam W. Banister Senior Advisory Officer Industry Development (02) 4063 6534	Approved in CM9	3 September 2021
Approving Officer: Scott Anson Manager Industry Development (02) 4063 6534	Approved in CM9	2 September 2021