Planning, Industry & Environment

Nagindar Singh

Senior Planning Officer
nagindar.Singh@planning.nsw.gov.au.

Our ref: DOC21/246147

Your ref: SSD12469087

30 March 2021

Dear Nagindar,

Subject: Major Projects – Request for advice Gunlake Quarry Continuation Project (SSD-12469087).

I refer to your request for Secretary's Environmental Assessment Requirements (SEARs) for the Gunlake Continuation project.

- Attachment 1 addressed the requirements for the Environmental Impact Statement (EIS) for the project,
- Attachment 2 lists the guidance material that will assist in the preparation of the EIS.

Biodiversity Conservation Division (BCD) notes this Modification seeks "to rectify the disturbance boundary (refer Figure 2.1 of Scoping Report) to include areas for which biodiversity offsets were provided under Project Approval 07_0074 and carried through to SSD7090, but which are outside of the SSD7090 disturbance boundary". BCD have reviewed the information provided seeks some clarification regarding the boundary adjustment and reference to previous biodiversity offsets being provided for this area.

If you wish to discuss this matter further, please contact Allison Treweek, Senior Team leader Planning on 6229 7082.

Yours sincerely,

for

MICHAEL SAXON

Director – South East

Biodiversity and Conservation Division

Enclosure: Attachment 1 – Secretary's Environmental Assessment Requirements for the Gunlake Continuation project (12469087). Attachment 2 – Guidance material

Attachment 1 - BCD Environmental Assessment Requirements for the proposed Gunlake Continuation project SSD12469087

Biodiversity
1. Biodiversity impacts related to the proposed the Gunlake Continuation project are to be assessed in accordance with 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. 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; • The total number and classes of biodiversity credits required to be retired for the development/project; • The number and classes of like-for-like biodiversity credits proposed to be retired; • The number and classes of biodiversity credits proposed to be retired in accordance with the variation rules; • Any proposal to fund a biodiversity conservation action; • Any proposal to conduct ecological rehabilitation (if a mining project); • 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 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
5. The EIS must map the following features relevant to water and soils including: a. Rivers, streams, wetlands, estuaries (as described in s4.2 of the Biodiversity Assessment Method). b. Wetlands as described in s4.2 of the Biodiversity Assessment Method. c. Groundwater. d. Groundwater dependent ecosystems. e. Proposed intake and discharge locations.
6. The EIS must describe background conditions for any water resource likely to be affected by the Gunlake Continuation project, 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 http://www.environment.nsw.gov.au/ieo/index.htm) 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.

7. The EIS must assess the impacts of the Gunlake Continuation project on water quality, including:
   a. The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the new primary school at Murrumbateman 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 being achieved. This should include an assessment of the mitigating effects of proposed stormwater and wastewater management during and after construction.
   b. Identification of proposed monitoring of water quality or required changes to existing monitoring programs.

8. The EIS must assess the impact of the Gunlake Continuation project on hydrology, including:
   a. Water balance including quantity, quality and source.
   b. Effects to downstream rivers, wetlands, estuaries, marine waters and floodplain areas.
   c. Effects to downstream water-dependent fauna and flora including groundwater dependent ecosystems.
   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).
   e. Changes to environmental water availability, both regulated/licensed and unregulated/rules-based sources of such water.
   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.
   g. Identification of proposed monitoring of hydrological attributes.

Flooding

9. The EIS must map the following features relevant to flooding as described in the Floodplain Development Manual 2005 (NSW Government 2005) including:
   a. Flood prone land.
   b. Flood planning area, the area below the flood planning level.

c. Hydraulic categorisation (floodways and flood storage areas).
10. The EIS must describe flood assessment and modelling undertaken in determining the design flood levels for events, including a minimum of the 1 in 10 year, 1 in 100 year flood levels and the probable maximum flood, or an equivalent extreme event.
11. The EIS must model the effect of the proposed Gunlake continuation project (including fill) on the flood behaviour under the following scenarios: a. Current flood behaviour for a range of design events as identified in 11 above. This includes the 1 in 200 and 1 in 500 year flood events as proxies for assessing sensitivity to an increase in rainfall intensity of flood producing rainfall events due to climate change.
12. Modelling in the EIS must consider and document: a. The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood. b. 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, hazards and hydraulic categories. c. Relevant provisions of the NSW Floodplain Development Manual 2005.
13. The EIS must assess the impacts on the proposed Gunlake continuation project on flood behaviour, including: 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. Compatibility with the flood hazard of the land. d. Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land. e. Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site. f. Whether there will be direct or indirect increase in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses. g. Any impacts the development may have upon existing community emergency management arrangements for flooding. These matters are to be discussed with the SES and Council. h. Whether the proposal incorporates specific measures to manage risk to life from flood. These matters are to be discussed with the SES and Council. i. Emergency management, evacuation and access, and contingency measures for the development considering the full range or 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 SES.

j. Any impacts the development may have on the social and economic costs to the community as consequence of flooding.

Attachment 2 - Guidance Material

Title	Web address
Relevant Legislation	
Biodiversity Conservation Act 2016	https://www.legislation.nsw.gov.au/#/view/act/2016/63/full
Coastal Management Act 2016	https://www.legislation.nsw.gov.au/#/view/act/2016/20/ful
Commonwealth Environment Protection and Biodiversity Conservation Act 1999	http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
Environmental Planning and Assessment Act 1979	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
Fisheries Management Act 1994	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N
Marine Parks Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+64+1997+cd+0+N
National Parks and Wildlife Act 1974	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
Protection of the Environment Operations Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N
Water Management Act 2000	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
Wilderness Act 1987	http://www.legislation.nsw.gov.au/viewtop/inforce/act+196+1987+FIRST+0+N
Biodiversity	
Biodiversity Assessment Method (OEH, 2020)	https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/biodiversity-assessment-method
Biodiversity Development Assessment Report	https://www.legislation.nsw.gov.au/#/view/act/2016/63/part6/div3/sec6.12
Guidance and Criteria to assist a decision maker to determine a serious and irreversible impact (OEH, 2017)	http://www.environment.nsw.gov.au/resources/bcact/guidance-decision-makers-determine-serious-irreversible-impact-170204.pdf
Accreditation Scheme for Application of the Biodiversity Assessment Method Order 2017	https://www.legislation.nsw.gov.au/regulations/2017-471.pdf
Biodiversity conservation actions	www.environment.nsw.gov.au/resources/bcact/ancillary-rules-biodiversity-actions-170496.pdf
Reasonable steps to seek like-for-like biodiversity credits for the purpose of applying the variation rules	www.environment.nsw.gov.au/resources/bcact/ancillary-rules-reasonable-steps-170498.pdf
OEH Threatened Species Website	www.environment.nsw.gov.au/threatenedspecies/

Title	Web address
NSW BioNet (Atlas of NSW Wildlife)	www.bionet.nsw.gov.au/
NSW guide to surveying threatened plants (OEH 2016)	www.environment.nsw.gov.au/resources/threatenedspecies/160129-threatened-plants-survey-guide.pdf
OEH threatened species survey and assessment guideline information	www.environment.nsw.gov.au/threatenedspecies/surveyassessmentgdlns.htm
BioNet Vegetation Classification - NSW Plant Community Type (PCT) database	www.environment.nsw.gov.au/research/Vegetationinformationsystem.htm
OEH Data Portal (access to online spatial data)	http://data.environment.nsw.gov.au/
Fisheries NSW policies and guidelines	http://www.dpi.nsw.gov.au/fisheries/habitat/publications/policies,-guidelines-and-manuals/fish-habitat-conservation
List of national parks	http://www.environment.nsw.gov.au/NationalParks/parksearchatoz.aspx
Revocation, recategorisation and road adjustment policy (OEH, 2012)	http://www.environment.nsw.gov.au/policies/RevocationOfLandPolicy.htm
Guidelines for developments adjoining land managed by the Office of Environment and Heritage (OEH 2013)	http://www.environment.nsw.gov.au/resources/protectedareas/development-land-adjoining-130122.pdf
Water and Soils	
Flooding and Coastal Erosion	
Floodplain development manual	http://www.environment.nsw.gov.au/floodplains/manual.htm
NSW Climate Impact Profile	http://climatechange.environment.nsw.gov.au/
Climate Change Impacts and Risk Management	Climate Change Impacts and Risk Management: A Guide for Business and Government, AGIC Guidelines for Climate Change Adaptation
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	www.environment.gov.au/water/publications/quality/australian-and-new-zealand-guidelines-fresh-marine-water-quality-volume-1
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

The Director-General
NSW Department of Planning & Environment
GPO Box 39
Sydney NSW 2001

Attention: Nagindar Singh

Notice Number	1605231
Date	29-Jan-2021

RE: "Gunlake Quarry Continuation Project"

I refer to your request for the Environment Protection Authority's (EPA) requirements for the environmental assessment (EA) in regard to the above proposal received by EPA on 19 January 2021.

The proposal involves the expansion of the existing quarry operations. The site is currently regulated under Environmental Protection Licence (EPL) 13012. The EPA has considered the details of the proposal as provided by Department of Planning, Industry and Environment and has identified the information it requires in order to properly assess the environmental impacts of the proposal in **Attachment A**. In summary, the EPA's key information requirements for the proposal include an adequate assessment of:

1. Air quality, including dust management; and

2. Noise and vibration impacts from site activities.

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.

Please note that this response does not cover biodiversity or Aboriginal cultural heritage issues, which are the responsibility of the Office of Environment and Heritage.

The Proponent should be made aware that any commitments made in the EA may be formalised as approval conditions and may also be placed as formal licence conditions.

The Proponent should be made aware that, consistent with provisions under Part 9.4 of the *Protection of the Environment Operations Act 1997* ("the Act") the EPA may require the provision of a financial assurance and/or assurances. The amount and form of the assurance(s) would be determined by the EPA and required as a condition of an Environment Protection Licence ("EPL").

In addition, as a requirement of an EPL, the EPA will require the Proponent to prepare, test and implement a Pollution Incident Response Management Plan and/or Plans in accordance with Section 153A of the Act.

Yours sincerely

.....

Janine Goodwin

Unit Head

Regional South - Queanbeyan

(by Delegation)

ATTACHMENT A: EIS REQUIREMENTS FOR

Gunlake Quarry Continuation Project

How to use these requirements

The EPA requirements have been structured in accordance with the DIPNR EIS 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

A Executive summary

The executive summary should include a brief discussion of the extent to which the proposal achieves identified environmental outcomes.

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.

- 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*, ANZECC 2000)
  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.

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.

- 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

  d) atmospheric stability class

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.

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.

3. 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, and
  b) Particulates, PM10.

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.

- Reference should be made to:
  a) Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (DEC, 2016), and
  b) Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC, 2007).

Copies of the above documents can be obtained from www.epa.nsw.gov.au/your-environment/air/industrial-emissions.

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.

4. 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. he 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.

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 ANZECC 2000 *Guidelines for Fresh and Marine Water Quality* (http://www.environment.gov.au/water/publications/quality/nwqms-guidelines-4-vol1.html) (Note that, as at 2004, the NSW Water Quality Objectives booklets and website contain technical criteria derived from the 1992 version of the ANZECC Guidelines. The Water Quality Objectives remain as Government Policy, reflecting the community's environmental values and long-term goals, but the technical criteria are replaced by the more recent ANZECC 2000 Guidelines). NB: While specific guidelines for groundwater are not available, the ANCECC 2000 Guidelines 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.

- Reference should be made to:

a) *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004), and

b) *Guidelines for Fresh and Marine Water Quality* (ANZECC 2000).

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).

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	
Contaminated Land Management Act 1997	http://www.legislation.nsw.gov.au/#/view/act/1997/140
Environmental Planning and Assessment Act 1979	http://www.legislation.nsw.gov.au/#/view/act/1979/203
Protection of the Environment Operations Act 1997	http://www.legislation.nsw.gov.au/#/view/act/1997/156
Water Management Act 2000	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 http://www.epa.nsw.gov.au/resources/air/ammodelling05361.pdf

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
Waste, Chemicals and Hazardous Materials and Radiation	
Waste	http://www.epa.nsw.gov.au/wastestrategy/warr.htm
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
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	
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 http://www.australiangeomechanics.org/resources/downloads/

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
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	http://www.environment.gov.au/water/publications/quality/nwqms-guidelines-4-vol1.html
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf

OUT21/618

Nagindar Singh
Planning and Assessment Group
NSW Department of Planning, Industry and Environment

nagindar.singh@planning.nsw.gov.au

Dear Mr Singh

Gunlake Quarry Continuation Project (SSD-12469087)
Comment on the Secretary's Environmental Assessment Requirements (SEARs)

I refer to your email of 19 January 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:

1. The identification of an adequate and secure water supply for each water year of the entire life of the project.
2. Annual volumes of surface water and groundwater proposed to be taken by the activity (including through inflow and seepage) from each surface and groundwater source as defined by the relevant Water Sharing Plan.
3. An annual site water balance for the duration over which the activity proposes to impact the natural water cycle.
4. The development of a thorough groundwater conceptual model with supporting cross section and extraction mining depth supported by field data.
5. 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.
6. Proposed surface and groundwater monitoring activities and methodologies.
7. Details of a proposed water management plan.
8. 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)

For detailed requirements of the above please see **Attachment A**.

Any further referrals to DPIE Water & NRAR can be sent by email to: landuse.enquiries@dpie.nsw.gov.au.

Yours sincerely

Alistair Drew,
Acting Senior Project Officer
Water – Knowledge Office
21 January 2021

ATTACHMENT A

Gunlake Quarry Continuation Project (SSD-12469087)
SEARs Detailed Requirements

1. **The identification of an adequate and secure water supply for each water year of the entire life of the project.**

This should include:

- Identification of any licensing requirements or other approvals required under the *Water Act 1912* and/or *Water Management Act 2000.*
- Confirmation that the required entitlements can be obtained prior to development approval from an appropriately authorised and reliable supply in accordance with the operating rules of any relevant Water Sharing Plan.
- An assessment of the current market depth where water entitlement is required to be purchased.

2. **Annual volumes of surface water and groundwater proposed to be taken by the activity (including through inflow and seepage) from each surface and groundwater source as defined by the relevant Water Sharing Plan.**

No further explanation required.

3. **An annual site water balance for the duration over which the activity proposes to impact the natural water cycle.**

This should include:

- All input and output volumes of each potentially connected surface water and groundwater source.
- Identification of each of the activity's water requirements and all proposed volumetric take (direct and indirect) from each water source.
- Cumulative volumetric take by neighbouring users.
- Complex three-dimensional numerical modelling as per the Australian Groundwater Modelling Guidelines (2012), with evidence-based conceptual modelling and testing (cf. Enemark et al. 2019), calibration, and numerical model uncertainty analysis (Middlemis & Peeters 2018).

4. **The development of a thorough groundwater conceptual model with supporting cross section and extraction mining depth supported by field data.**

This should include:

- A full description of hydrogeological settings, formation characteristics, baseline groundwater flow and groundwater quality, supporting environmental values. Description to be supported by maps and cross sections.
- An assessment of all potential hazards and consequences and processes associated with those impacts.

5. **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.**

This should:

- Be based on data that is demonstrated to be of adequate type, quality and quantity.

- Be informed by complex numerical hydrogeological modelling parameterised with suitably distributed and accurate site measurements, collected in accordance with relevant and current national or international standards.
- Include a geochemical impact assessment (static and kinetic testing of acid-base accounting and element mobility) of any bounding geological units, in accordance with AMIRA (2002), Inap (2009); Dear et al. 2014, Duap 1996, Shand et al. 2018, Simpson et al. 2018, and Tulau 2007.
- Modelled transportation of water-quality hazards (acidity, metals, nutrients, salinity, pathogens, site-used dangerous substances, pfas) toward the site, third-party registered groundwater users, and environmental assets.
- If forecasting any impact on water salinity, provide a salinity budget based on the numerical groundwater model.
- Identify and apply appropriate local community values and water-quality objectives as per Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2018 (ANZG).

6. Proposed surface and groundwater monitoring activities and methodologies.

No further explanation required.

7. Details of a proposed water management plan.

This should include:

- An appropriate data-quality assurance plan:
  - for water levels – see WMSTC (2019)
  - for water quality – see US EPA (2006) and Mueller (2015)
  - for other measurements – apply the most applicable industry standard available.
- Stakeholder consultation to define the community value (beneficial use category) of each water source as per ANZG (2018).
- Establishment and updating of baseline status as per ANZG (2018), with estimated uncertainty, and with respect to community values and identified risks, including:
  - water take
  - groundwater levels and circulation paths and rates
  - transportation of salinity, pathogens, dangerous substances, pfas
  - turbidity
  - oxidation state (redox, dissolved oxygen), acidity generation and release of metals, metalloids, nutrients
- Specification of water-quality target values, action-trigger parameters, water-quality assessment approach, and response strategy for the early positive detection of change, trends or other signatures relating to ecosystem condition and community value; to be established in accordance with ANZG (2018).
- Mitigation and management strategy. For acid sulphate soils refer to:
  - Dear et al. 2014,
  - DUAP 1996,
  - Shand et al. 2018,
  - Simpson et al. 2018,
  - Stone et al. 1998, and;
  - Tulau 2007.

8. 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)

No further explanation required.

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3 March 2021

Nagindar Singh
Senior Environmental Assessment Officer
Department of Planning, Industry and Environment
GPO Box 39
Sydney NSW 2001

Dear Nagindar

Subject: Gunlake Quarry Continuation Project (SSD-12469087)
Request for SEARs

A review of the Scoping Report prepared by EMM Consulting has been undertaken in relation to the above proposal and a report was considered at the 2 March 2021 Council Meeting. At this meeting, Council resolved:

That:

1. ***The report of the Director Planning and Environment be received.***
2. ***That a submission be made to the NSW Department of Planning Industry and Environment seeking to include the following matters as Council's input into the SEAR's for the proposed Gunlake Continuation Project:***

   a) ***An independent structural assessment of the haulage route pavement be carried out to determine the expected service life of the pavement, with Council endorsing the scoping brief and selection of an appropriately qualified consultant to produce a structural assessment report.***

   b) ***The independent structural report is to examine the centre of the travel lanes and the fog lines to identify areas which may be currently below a minimum 10 year service life expectancy, and detail the works required in order to achieve 10 year service life.***

   c) ***An independent road safety audit be carried out by a registered road safety auditors to assess the current and existing haulage route under current and proposed heavy vehicle volumes.***

   d) ***Removal of the fixed annual tonnage limit be further justified in order to provide clarity as to the full extent of site operations, and to enable the application of appropriate environmental compliance measures.***

   e) ***Consideration be made with regards to Council's recently adopted Urban and Fringe Housing Strategy, with justification required as to how additional site operations and haulage traffic will not have a detrimental effect on the amenity of both the established areas of Marulan, and areas that have been identified for future residential development.***

   f) ***That further investigation be undertaken in relation to the cumulative impact of an expanded State Significant-scale development will have on the Marulan and its surrounding district, and that any findings be presented as part of the Social Impact Assessment.***

3. Council commence a review of the current s7.11 contribution rate for heavy vehicle movements in order to ensure its adequacy in terms of ongoing maintenance and rehabilitation for extractive industry haulage routes.

If you require any further information, please contact me on (02) 4823 4480.

Yours sincerely

Scott Martin
Director Planning & Environment

Enclosed: Copy of report to 2 March 2021 Council Meeting

15.6 REQUEST FOR SEARS - GUNLAKE CONTINUATION PROJECT

Author: **Scott Martin, Director Planning & Environment**

Authoriser: **Warwick Bennett, General Manager**

Attachments: **Nil**

Link to Community Strategic Plan:	EN4 Maintain a balance between growth, development and environmental protection through sensible planning.
Cost to Council:	Nil
Use of Reserve Funds:	Nil

RECOMMENDATION

That:

1. The report of the Director Planning and Environment be received.
2. That a submission be made to the NSW Department of Planning Industry and Environment seeking to include the following matters as Council's input into the SEAR's for the proposed Gunlake Continuation Project:
   a) An independent structural assessment of the haulage route pavement be carried out to determine the expected service life of the pavement, with Council endorsing the scoping brief and selection of an appropriately qualified consultant to produce a structural assessment report.
   b) The independent structural report is to examine the centre of the travel lanes and the fog lines to identify areas which may be currently below a minimum 10 year service life expectancy, and detail the works required in order to achieve 10 year service life.
   c) An independent road safety audit be carried out by a registered road safety auditors to assess the current and existing haulage route under current and proposed heavy vehicle volumes.
   d) Removal of the fixed annual tonnage limit be further justified in order to provide clarity as to the full extent of site operations, and to enable the application of appropriate environmental compliance measures.
   e) Consideration be made with regards to Council's recently adopted Urban and Fringe Housing Strategy, with justification required as to how additional site operations and haulage traffic will not have a detrimental effect on the amenity of both the established areas of Marulan, and areas that have been identified for future residential development.
   f) That further investigation be undertaken in relation to the cumulative impact of an expanded State Significant-scale development will have on the Marulan and its surrounding district, and that any findings be presented as part of the Social Impact Assessment.
3. Council commence a review of the current s7.11 contribution rate for heavy vehicle movements in order to ensure its adequacy in terms of ongoing maintenance and rehabilitation for extractive industry haulage routes.

BACKGROUND

The Gunlake Quarry is located approximately 5km north of Marulan at 715 Brayton Road, Brayton. The quarry was originally approved as State Significant Development by the Minister for Planning in September 2008.

In June 2017, the Gunlake Quarry Extension Project was approved by the New South Wales Land and Environment Court. This consent approved an increase to the extraction rate of the quarry to 2 million tonnes per annum and an extension of the quarry footprint.

At the time, Council held concerns in relation to the heavy vehicle traffic volumes anticipated for the haulage route, however this was resolved following a series of negotiations that resulted in a significant upgrade to the haulage route.

At its meeting held 21 May 2019, Council considered a report for the Gunlake Quarry Extension Project (Modification 1) which sought to reduce the total vegetation offset area from 78.82 hectares to 39.55 hectares. At the time of writing this report, the Gunlake Quarry Extension Project (Modification 1) is yet to be determined, however it is expected to be resolved in February 2021.

On 23 December 2020, Council received formal notification from the Department of Planning Industry & Environment (DPIE) advising of Gunlake Quarries Pty Ltd (Gunlake) application to the Court for a further modification (Modification 2), primarily in relation to an increase in heavy vehicle movements along the designated haulage route, as well as a new State Significant Development (SSD) Application to be lodged with DPIE to seek a further increase in vehicle movements as well as changes to the way in which vehicle movements are calculated.

On February 2 2021, Council resolved to support Modification 2, which sought to:

- Increase daily truck movements:
    - from an average of 185 inbound and 185 outbound movements to an average of 220 inbound and 220 outbound movements;
    - from a maximum of 245 inbound and 245 outbound movements to a maximum of 295 inbound and 295 outbound movements.
- Change the truck movements averaging period from “averaged over the working days in each calendar month, except for the 2-monthly periods of November/December and January/February, during which it may be averaged over the working days in the relevant 2-monthly period” to be averaged over the working days in a year; and
- Remove the fixed annual tonnage limit so that the transport of saleable product is restricted by the approved truck movements only.

This report seeks to deal with a request for Secretary’s Environmental Assessment Requirements (SEAR’s) in relation to the new SSD application. The SEAR’s are used to inform the preparation of the Environmental Impact Statement.

REPORT

The Proposal

Council has received notification from DPIE relating to a new State Significant Development Application by Gunlake. It is noted that this application is separate to the recent Modification 2 addressed by Council.

The proposal is set out in detail in the attached Scoping Report, and in summary seeks to:

- Increase daily truck movements:
    - from an average of 185 inbound and 185 outbound movements to an average of **345** inbound and **345** outbound movements (**an increase of 86%**);
    - from a maximum of 245 inbound and 245 outbound movements to a maximum of **375** inbound and **375** outbound movements (**an increase of 53%**);.
- Changes to how the averages are calculated.

- Removing the fixed tonnage limit (currently 2 million tonnes per annum) so that the transport of saleable product is restricted by the approved truck movements only.
- Additional plant.
- The scaling of extraction and processing to dispatch requirements.
- Resetting the approval timeframe to 30 years from the date of the new approval.
- Changes to the boundary for the biodiversity disturbance area.

Previous Council Submissions

As documented in the agenda item relating to Gunlake's proposed Modification 2 presented to the Council Meeting held 2 February 2021, Council has historically expressed concern in relation to the volume of heavy vehicle traffic utilising local roads as part of the approved haulage route.

These concerns were generally addressed prior to the Land and Environment Court approving Gunlake's current operational consent. As a consequence 2 million tonnes per annum of quarried material can be exported using local roads.

Both Council and the community requested that a rail transport option be investigated, much in the same way that rail is utilised by Boral and Holcim for their hard rock quarries, also located in the Marulan district. Studies commissioned by Gunlake demonstrated that rail transport was not a viable option owing to a number of factors, largely driven by issues with distribution of product at the market (or Sydney) end.

This outcome was accepted by Council on the provision that the primary haulage route be upgraded to the Austroads Standard. Not only was this achieved, but further gains were made by the implementation of a widened centreline treatment that has proven successful in providing additional separation between traffic lanes, and therefore improving safety outcomes to all road users along the haulage route.

A further concern held by Council during the previous approval process was in relation to noise, particularly noise being generated by the crushing plant which had previously been a source of community complaint. Gunlake ultimately committed to enclosing the crushing plant which appears to have been successful, as in recent times fugitive noise has not been an issue.

Haulage Route

The Gunlake Quarry haulage route comprises a primary route, used for all northbound traffic (i.e. Sydney), and a secondary route utilised by all southbound traffic (i.e. Goulburn, Canberra, etc.).

Both routes are depicted in Figure 1 below:

Figure 1: Map indicating Gunlake Quarry haulage routes.

Source: Gunlake Quarry Extension Project - Environmental Impact Statement

In summary the use of the haulage route require the following vehicle movements:

- **Primary Haulage Route**: Heavy vehicles leaving the quarry first use Brayton Rd before making a left-hand turn onto Ambrose Rd prior to a final left-hand turn onto the Hume Highway before making their way towards Sydney. Traffic returning from Sydney must first pass Marulan before utilising the South Marulan interchange to make a u-turn, heading back past Marulan before making a left-hand turn onto Ambrose Road. A final right-hand turn is made onto Brayton Rd to complete the journey.

- **Secondary Haulage Route**: Heavy vehicles leave the site via Brayton Rd and continue into Marulan, making a left-hand turn to continue along Brayton Rd before crossing George St to enter the North Marulan interchange. As with the Primary route, all returning traffic must head past Marulan before making a left-hand turn onto Ambrose Rd. A final right-hand turn is made onto Brayton Rd to complete the journey.

There are no changes being proposed to overall layout of the existing haul route. In the Scoping Report Gunlake have indicated that a greater number of average and maximum heavy vehicle movements were assessed than were eventually approved. The upgrades achieved are considered a substantial improvement to the standard of the haulage route as previously experienced.

The existing haulage route has been operational since late 2013 (i.e. 7 years) and it is therefore reasonable to assume some structural deterioration. Increasing the volume of heavy vehicle should be done on the basis a structurally adequate pavement rather than a pavement that has been subject to 7 years of wear and tear.

Importantly, the Scoping Report also indicates that truck movements on the Primary Haulage Route will "*have the potential to change traffic conditions, road safety and the rate of road degradation*". It would therefore be reasonable to expect the EIS to contain a thorough assessment in relation to each of these matters. The scoping report states that this can be achieved through the undertaking of road safety and traffic assessments.

In relation to the road degradation however, it is noted that the SSD application is seeking to reset the approval timeframe to 30 years. On account of this is, it would be considered reasonable for Council to also seek a "resetting" of the clock in relation to expected life expectancy of the haulage route.

The Goulburn Mulwaree Development Control Plan 2009 (DCP) currently specifies a minimum 10 year lifespan. A specific independent report that provides a thorough assessment of the current life expectancy of the haulage route would therefore be required to satisfy Council. This report should also identify the necessary works required to bring the life expectancy of the asset into compliance with the DCP.

Whilst Gunlake have previously argued that the geometry of the haulage route meets, and in parts exceeds Austroads Standards, it is important to highlight that the haulage route is expected to experience a substantial increase in volume. Accordingly, the report considering the life expectancy of the haulage route should take into account the existing pavement depth/thickness and identify if areas require upgrading.

Given that the asset belongs to the community, Council should be afforded the opportunity to provide input into the scope of this report, as well as the opportunity to inform the selection of the relevant consultant.

In terms of ongoing maintenance, Gunlake currently pay contributions in accordance with Council's Section 94 (s7.11) Development Contribution Plan. The contribution is based on a cents per tonne per kilometre rate (currently $0.0504). Given the anticipated volumes that could be expected on Gunlake's haulage route, it is recommended that Council review the current contribution rate in order to ensure its adequacy in terms of ongoing maintenance and rehabilitation.

Operational Matters

Concerns are held in relation to the proposed removal of the annual fixed tonnage rate from the approval. The presence of a fixed tonnage rate is important for a number of reasons, primarily because a fixed and known rate would typically be required to project the full scale of extraction anticipated over the life expectancy of the approval. Without this in place, it is extremely difficult to forecast and therefore accurately calculate the cumulative impact of the proposal on the surrounding locality. Matters that require consideration in this space include:

a) The full extent of operations onsite, for example, the size and quantity of plant items, the size and scale of product stockpiles, overburden stockpiles and the frequency and size of blasting.

b) Rehabilitation requirements, and the calculation and subsequent application of appropriate environmental bonds by the relevant government agencies.

c) Biodiversity impacts.

d) Appropriate noise and air quality limits, and subsequently defining how to measure compliance.

DPIE would also need to be mindful of the precedent that the removal of a fixed tonnage rate would set for other mines and quarries, particularly given the prevalence of such operations in the Marulan district.

It is noted that Council have also recently endorsed an Urban and Fringe Housing Strategy for Goulburn and Marulan. The Primary Haulage Route abounds the northern investigation area for Marulan. Council notes that Gunlake went to great lengths to ensure the presence of the haulage route was recognised within the Strategy prior to its adoption, particularly in relation to the adoption of a 250m buffer between Ambrose Road and the investigation area. It is noted that the secondary haulage route does not possess the same protection.

In addition to the buffer, it is also noted that Clause 13 of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 provides an additional layer of protection for future development in close proximity to existing extractive industries. For example, if Council were to receive a development application for land adjoining the quarry or the haulage route, consideration is required to be given to the compatibility of the proposal with the existing quarry uses.

Unfortunately the Strategy and the SEPP don't take into consideration any potential for expansion of the quarry itself. When taking into consideration the cumulative impact of additional site operations, it is reasonable to question whether an increase in production and export traffic will cause an amenity issue (eg. operational noise, haulage route noise, dust, etc.) not only in the established areas of Marulan, but also those identified for potential residential uses in years to come.

Social Impact

It is acknowledged that Gunlake positively and actively contribute to the Marulan and Tallong communities through the creation of jobs, including indirectly via the use of local contractors. Furthermore Gunlake have been generous in their monetary sponsorship of a number of community events and infrastructure.

What is unclear however is the overall cumulative impact of State Significant-scale development in the Marulan locality, particularly in relation to extractive industries. It is therefore considered reasonable to require Gunlake to address this matter as part of a Social Impact Assessment.

Summary

Council are supportive of Gunlake and acknowledge the positive impact the operation has within the community through the creation of employment opportunities and the sponsorship of community events and infrastructure. The proposal at hand is a significant expansion, and therefore a deviation from the current approval. With this in mind Council has a responsibility to ensure that an appropriate balance is achieved between growth and community impact.

To ensure that community impact is minimised, it is recommended that Council's submission to DPIE in relation to the SEAR's identifies the following matters for inclusion in the EIS:

1. That an independent assessment of the haulage route be undertaken to determine the current expected life of the road pavement, with Council having input into the scoping of the report and selection of the consultant.

The report is to identify areas that are currently not expected to meet a minimum 10 year life expectancy, and detail the works required in order to achieve compliance.

2. That independent traffic and road safety assessments be carried out to demonstrate that the anticipated increase in haulage traffic will not have a detrimental effect on the useability and safety of local roads.

3. That removal of the fixed annual tonnage be further justified in order to provide clarity as to the full extent of site operations, and to enable the application of appropriate environmental compliance measures.

4. Consideration be made with regards to Council's recently adopted Urban and Fringe Housing Strategy, with justification required as to how additional site operations and haulage traffic will not have a detrimental effect on the amenity of both the established areas of Marulan, and areas that have been identified for future residential development.

5. That further investigation be undertaken in relation to the cumulative impact of an expanded State Significant-scale development will have on the Marulan and its surrounding district, and that any findings be presented as part of the Social Impact Assessment.

Regional NSW

Nagindar Singh
Senior Environmental Assessment Officer –
Energy Resource Assessments
Dept. of Planning, Industry and Environment
320 Pitt Street
Sydney NSW 2000

Our ref: DOC21/57812
Your ref: SSD-12469087

Emailed: via Major Projects portal

2 February 2021

Dear Mr Singh

Subject: Gunlake Quarry Continuation Project – SSD-12469087 - Request for Secretary's Environmental Assessment Requirements (SEARs).

Thank you for the opportunity to provide advice on the above matter. This is a response from the Department of Regional NSW, Mining, Exploration & Geoscience (MEG).

Hard rock aggregate is not a prescribed mineral under the *Mining Act 1992*. Therefore, the Division has no statutory role in authorising or regulating the extraction of this commodity. However, MEG is the principal government authority responsible for assessing the State's resources of construction materials and for advising State and local government on their planning and management.

All environmental reports (EIS or similar) accompanying Development Applications for extractive industry lodged under the *Environmental Planning & Assessment Act 1979* should include a resource assessment which:

- Documents the size and quality of the resource and demonstrates that both have been adequately assessed; and
- Documents the methods used to assess the resource and its suitability for the intended applications.

If deemed commercial-in-confidence, the resource assessment summary included in the EIS should commit to providing MEG with full resource assessment documentation separately.

MEG collects data on the quantity of construction materials produced annually throughout the state. Forms are sent to all operating quarries at the end of each financial year for this purpose. The statistical data collected is of great value to Government and industry in planning and resource management, particularly as a basis for analysing trends in production and for estimating future demand for particular commodities or in particular regions. Production data may be published in aggregated form, however production data for individual operations is kept strictly confidential.

In order to assist in the collection of construction material production data, the proponent should be required to provide annual production data for the subject site to MEG as a condition of any new or amended development consent.

MEG would appreciate the opportunity for early consultation in relation to the proposed location of any biodiversity offset areas (both on and off site) or any supplementary biodiversity measures to ensure there is no consequent reduction in access to prospective land for mineral exploration, or potential for sterilisation of mineral or extractive resources.

Queries regarding the above information should be directed to the MEG - Land Use team at landuse.minerals@geoscience.nsw.gov.au.

Yours sincerely,

Steven Palmer

Manager, Land Use Assessment

Geological Survey of NSW, Mining, Exploration & Geoscience

Our reference: DOC21/28575-2

Nagindar Singh
Senior Environmental Assessment Officer
Minerals Quarry Assessments
Department of Planning, Industry and Environment
email: nagindar.singh@planning.nsw.gov.au

Advice uploaded via the Major Project Portal

Dear Nagindar

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

Project: The Gunlake Quarry Continuation Project (Goulburn Mulwaree)
SSD/SSI application no: SSD- 12469087

Thank you for requesting our input on the draft Planning Secretary's Environmental Assessment Requirements (SEARs) for the above state significant project.

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 identifies that it is not proposed to prepare an Aboriginal heritage assessment. Heritage NSW advises 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 development as part of the environmental assessment. This includes outlining the measures proposed to mitigate impacts and/ or undertake ongoing management of the Aboriginal cultural heritage values on the site.

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
3 February 2021

Enclosure – Attachment A: Recommended Aboriginal Cultural Heritage SEARs for SSD-12469087

ATTACHMENT A: HERITAGE NSW – Aboriginal Cultural Heritage - SEARs

Project Name: The Gunlake Quarry Continuation Project (Goulburn Mulwaree)
SSD/I #: SSD-12469087

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.

Our ref: DOC21/28579

Nagindar Singh
Department of Planning, Industry and Environment
4 Parramatta Square, 12 Darcy Street
PARRAMATTA NSW 2150

By email: Nagindar.Singh@planning.nsw.gov.au

Dear Nagindar

Request for Secretary's Environmental Assessment Requirements (SEARS) for The Gunlake Quarry Continuation Project (SSD-12469087)

Thank you for your referral dated 19 January 2021 inviting SEARS input from the Heritage Council of NSW on the above State Significant Development (SSD) 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 deposits. Therefore, no environmental heritage comments are required. The Department does not need to refer subsequent stages of this proposal to the Heritage Council of NSW.

Comments pertaining to Aboriginal cultural heritage will be provided separately.

If you have any questions regarding the above advice, please contact Colleen Klingberg, A/Customer Strategies Officer, at Heritage NSW via on 9873 8566 or Colleen.klingberg@environment.nsw.gov.au

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
28 January 2021

Our ref: STH09/01940/25
Contact: Andrew Lissenden 0418 962 703
Your ref: SSD 12469087

11 February 2021

Nagindar Singh
Resource Assessments
Department of Planning, Industry and Environment
BY EMAIL: information@planning.nsw.gov.au

REQUEST FOR PLANNING SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS (SEARS) – THE GUNLAKE QUARRY CONTINUATION PROJECT - LOT 13 DP 1123374, MARULAN (SSD 12469087)

Dear Nagindar,

Transport for NSW (TfNSW) refers to your email dated 19 January 2021 regarding the above request for input into the SEAR's associated with State Significant Development (SSD) application 12469087.

TfNSW has completed a review of the information provided (Scoping Report prepared by EMM Report No. J190263 RP#5, Version. V1 Final, dated 18/12/2020) while focussing on the impact to the state road network. For this development, the key state/classified road is the Hume Highway to which the site has access via the local road network.

TfNSW notes:

- Input has been requested by the Secretary under Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*; and
- The development will generate additional traffic. The impact of this traffic needs to be considered and adequately mitigated.

Having regard for the above, TfNSW requests the matters outlined in **Attachment 1** be included in any SEAR's issued and subsequently addressed by the proponent in the Environmental Impact Statement (EIS) prepared for the development.

If you have any questions, please contact me on 0418 862 703. Please ensure any further email correspondence, if not lodged through the planning portal, is sent to development.southern@rms.nsw.gov.au.

Yours faithfully

Andrew Lissenden
Development Assessment Officer
Community and Place I South Region

Cc: Nagindar.Singh@planning.nsw.gov.au; and
Robert.Rutledge@transport.nsw.gov.au

1. *Traffic Impact Study (TIS):* A TIS is required to examine any potential transport/traffic related implications of the development. As a guide Table 2.1 of the *RTA's Guide to Traffic Generating Developments* outlines the key issues that should be considered in preparing a TIS.

   The TIS also needs to address the following:

   a) Details of all traffic types (both heavy and light vehicles) including a description of heavy vehicle types that will be used and the routes that will be taken to enable vehicles that are travelling from the north and south to gain access the site as well as details on the routes that vehicles wishing to leave the site to go north and/or south will take;

   b) Details on traffic volumes that are likely to be generated by the proposed development for all aspects of the operation (e.g. receipt of raw materials, the despatch of product, etc). This should include details on hourly numbers, for both vehicles arriving and departing, based on current operations and factoring in the requested growth and maximum daily movements for both heavy and light vehicles. It should also include details on the distribution of the traffic generated that will come from and going to the north and south; and

   c) Details on how compliance with the maximum hourly numbers and maximum daily numbers will be achieved noting that proposal is seeking to remove the fixed annual tonnage limits;

   d) An assessment of the impacts on the intersection of Red Hills Road and the Hume Highway. This including, but not limited to:

      i. The suitability of the existing deceleration lane for vehicles entering via Red Hills Road. This including an assessment of its compliance with current *Austroads Guide to Road Design* requirements based on a design speed of 10km/h over the posted speed;

      ii. The suitability of the existing acceleration lane for vehicles entering the Hume Highway from Red Hills Road. This including an assessment of its compliance with current *Austroads Guide to Road Design* requirements based on a design speed of 10km/h over the posted speed.

      iii. Measures that will be implemented to stop/prevent vehicles departing the Hume Highway via Red Hills Road cutting the corner (southern side of the Red Hills Road/Hume Highway intersection) and damaging existing infrastructure within the road reserve (e.g. existing pits, etc);

      iv. An assessment of the suitability of available lighting at the of the Red Hills Road/Hume Highway intersection inclusive of the deceleration and acceleration lanes and the need to provide lighting at these locations noting the increase in vehicle movements proposed and the 24/7 operation (e.g. does it comply with relevant standards). Ken Dingli, TfNSW Lead Electrical Designer (8837 0877) should be consulted to discuss lighting needs and associated technical standards.

      v. Need to upgrade the road pavement at the intersection of Red Hills Road/Hume Highway intersection (e.g. section that is current asphalt to concrete).

   e) Further details and justification on why a change is proposed to the truck movements averaging period (i.e. averaging over the working days in a year) and whether this change will facilitate additional truck movements to and from the site.

   f) What is meant by "*scale extraction and processing to meet product dispatch within the current approved hours*" (refer to page 2 of the Scoping Report)?

   g) Why, with such a significant increase in truck movements, there is no proposed change to "*the average and maximum number of approved truck movements along the Secondary Transport Route*".

   h) TfNSW is concerned that the removal the annual tonnage limit and modification of the truck movement conditions will result in a significant increase in development related vehicle movements on local roads, the Hume Highway and within Greater Sydney. As such, details are required on the maximum

tonnage and vehicle movements proposed from the site to destinations in Greater Sydney (north of Picton Road and the Hume Highway intersection) and locally within the Southern Highlands;

i) Details are required on how the operator will minimise the number of heavy vehicle movements through increased additional use of heavy vehicles that are enrolled under Safety, Productivity and Environment Construction Transport (SPECT) scheme (refer to the following link for additional details on the SPECT Scheme: https://www.rms.nsw.gov.au/business-industry/heavy-vehicles/schemes-programs/spects.html);

j) Based on the proposed change to road based operations, the proponent should assess a rail-based solution through a distribution centre in Sydney. As such, the proponent should conduct a 'Transport Options Review' which is consistent with the requirements as detailed in Schedule 3, Condition 29 of Land and Environment Court issued consent (Ref: Appeal No.2017/108663);

k) Details on any Drivers Code of Conduct and how that is managed/enforced including for drivers who are not employed by the proponent/quarry operator.

Please note the above relates only to potential impacts on the state road network. Discussions should be had with Goulburn Mulwaree Council in relation to the information they may require to be included in the TIS concerning local road impacts.

2. *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007:* The provisions of Part 3 Section 16 need to be addressed. This including details on why the transportation of some of the material is unable to be undertaken by rail.

3. *Existing Approvals:* Details are required on how this application will relate to already existing approvals (i.e. will the extension project approval be surrendered should this application be approved).

4. *Strategic/Concept Design:* Should it be identified as part of preparing the EIS or during the assessment of the application that mitigation measures are required that will impact a state/classified road then a concept design for the proposed works will need to be prepared and submitted. This is needed to clarify the scope of works, demonstrate the works can be constructed within the road reserve and allow the consent authority to consider any environmental impacts of the works as part of their assessment.

   The concept design submitted must include, but not be limited to, legal property boundaries (including the existing road reserve boundaries based on a survey), existing and proposed lane configurations and lane widths at a number of locations along the length of the proposed works, etc. The design provided should be based on a design speed which is 10km/h over the posted speed limit and should demonstrate compliance with the applicable requirements in *Austroads Guide to Road Design* and the relevant TfNSW supplements.

PO Box 398, Parramatta NSW 2124
Level 14, 169 Macquarie Street
Parramatta NSW 2150
www.waternsw.com.au
ABN 21 147 934 787

3 February 2021

Contact: *Miles Ellis*
Our Ref: *D2021/7350*

Nagindar Singh
Department of Planning, Industry and Environment
Locked Bag 5022
PARRAMATTA NSW 2124

Water NSW Input to SEARs – Gunlake Quarry Continuation Project (SSD 12469087)

Water NSW appreciates the opportunity to provide input into the Secretary's Environmental Assessment Requirements (SEARs) on the proposed Gunlake Quarry Continuation Project at Marulan.

Water NSW has reviewed the Project Scoping Report prepared by EMM (dated 18 December 2020) and has the following comments and recommendations for inclusion in the Environmental Impact Statement (EIS).

As the development is located within the Sydney Drinking Water Catchment, clauses 9(1), 9(2) and 10(1) and Clause 11A of the *State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011* (the SEPP) apply. The EIS must specifically address each of these clauses, in particular a clear description and justification as to how the development would achieve a neutral or beneficial effect on water quality.

Recommendations for SEARs

The full description of the development and existing environment should also include those aspects which have the potential to impact on the quality and quantity of surface water and groundwater at and adjacent to the site. This should include:

- a clear project description and maps showing the proposed project continuation boundary, the currently approved project boundary (under SSD 7090) and the previously approved project boundary (under MP 07_0074), and clarification about whether the footprint of the quarry pit will increase for the continuation project and whether any currently undisturbed watercourses will be impacted
- an assessment of existing erosion on the subject land and details of how areas will be managed, including maps showing biodiversity offsets and biobanking areas
- an assessment of the implications for existing section 88B restrictions (i.e. positive covenants in favour of WaterNSW) under the *Conveyancing Act 1919* in relation to existing erosion control issues, on-site wastewater management and the protection of riparian vegetation
- an assessment of any implications on the continuation project if MOD1 to the extension project (SSD 7090) is not approved i.e. biodiversity offset area are not reduced
- a detailed assessment, description, and location of existing and required on-site wastewater management systems, and
- the location, detailed design and operational management of any water quality management measures and structures, including measures to protect existing watercourses on the site.

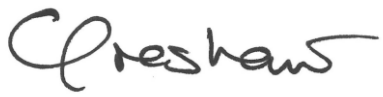
The following documents should be submitted as part of the EIS to enable a complete and accurate assessment of potential water quality impacts:

- an On-Site Wastewater Management Report detailing existing on-site wastewater and effluent management systems and detailed design of any required upgrade or replacement systems to carter for increased workforce,
- an updated Groundwater Impact Assessment Report to reflect the change in extraction rate,
- an updated Operational Environmental Management Plan(s) detailing the frequency and roles and responsibilities of maintenance of any surface and wastewater treatment and management measures,
- updated Soil and Water Management Plan(s), including detailed design, staging, operation and maintenance of any clean and dirty water conveyance or treatment structures, and
- updates to the Riparian Vegetation Management Plan, including details of implementation and staging.

Water NSW requests that it be listed as a stakeholder in any further consultation on this project and looks forward to reviewing the forthcoming Environmental Impact Statement.

If you wish to discuss this letter or the project more generally please do not hesitate to contact Miles Ellis via e-mail environmental.assessments@waternsw.com.au.

Yours sincerely



CLAY PRESHAW
Manager Catchment Protection