NSW GOVERNMENT | Department of Primary Industries

OUT15/30428

Ms Genevieve Seed
Resource Assessments
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Genevieve.Seed@planning.nsw.gov.au

Dear Ms Seed,

Eagleton Hard Rock Quarry (SSD_7332)
Request for input into Secretary's Environmental Assessment Requirements

I refer to your email dated 15 October 2015 to the Department of Primary Industries in respect to the above matter.

Comment by DPI Agriculture
Agriculture NSW advise that no specific Secretary Environmental Assessment Requirements (SEARs) to address potential Agriculture impacts are required for this Project. A fact sheet on Agricultural Issues for Extractive Industries has been developed to help guide any areas of concern. This is available on our website at http://www.dpi.nsw.gov.au/agriculture/resources/lup

For further information please contact Helen Squires, Resource Management Officer (Tamworth Office) on 6763 1270 or at helen.squires@dpi.nsw.gov.au.

Comment by DPI Water
DPI Water has reviewed the supporting documentation accompanying the request for Secretary's Environmental Assessment Requirements (SEARs) and provides the following comments, and further detail in **Attachment A**.

It is recommended that the EIS be required to include:

- 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.
- Assessment of any volumetric water licensing requirements (including those for ongoing water take following completion of the project).
- The identification of an adequate and secure water supply for the life of the project. Confirmation that water can be sourced from an appropriately

authorised and reliable supply. This is to include an assessment of the current market depth where water entitlement is required to be purchased.

- A detailed and consolidated site water balance.
- A detailed assessment against the NSW Aquifer Interference Policy (2012) using DPI Water's assessment framework.
- 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.
- Full technical details and data of all surface and groundwater modelling, and an independent peer review.
- Proposed surface and groundwater monitoring activities and methodologies.
- Proposed management and disposal of produced or incidental water.
- Details of the final landform of the site, including final void management (where relevant) and rehabilitation measures.
- Details on buffer requirements to watercourses in accordance with the requirements of DPI Water's Guidelines for Controlled Activities on Waterfront Land (2012).
- Assessment of any potential cumulative impacts on water resources, and any proposed options to manage the cumulative impacts.
- Consideration of relevant policies and guidelines.
- A statement of where each element of the SEARs is addressed in the EIS (i.e. in the form of a table).

Specific Comments

The preliminary assessment notes in Section 3.7 that 'the Eagleton Quarry can be designed to be self-sufficient in terms of water supply'. However the EIS will be required to quantify the water requirements for the site, inclusive of dust suppression and state the source of a secure water supply.

DPI Water advises until the commencement of the Water Sharing Plan for the Porous and Fractured Rock Groundwater Sources, regulation of groundwater in the area of the proposed quarry is under the *Water Act 1912*. As such, licensing under Part 5 of this legislation would be required for the excavation and take of groundwater.

The proponent should also be aware that in contrast to the third paragraph of section 4.2.7, section 89J of the Environmental Planning and Assessment Act 1979 does not exempt a state significant development from requiring an aquifer interference approval. Aquifer interference approvals however are yet to be enacted under the *Water Management Act 2000* and as detailed in the previous point interception of groundwater at this site is currently managed under the *Water Act 1912*.

Additionally although state significant developments are exempt from requiring a controlled activity approval, DPI Water Guidelines for works on water front land should still be followed. It is noted that in Figure 3 the water course buffers have been measured from the water course centre line. The proponent must be aware

that buffers for the vegetated riparian zones must be measured from the highest bank of the water course and not the centre line. The relevant guideline is the "*Guidelines for Riparian Corridors on Waterfront Land*" which can be accessed at the following link:
http://www.water.nsw.gov.au/__data/assets/pdf_file/0004/547222/licensing_approvals_controlled_activities_riparian_corridors.pdf

For further information please contact Hannah Grogan, Water Regulation Officer (Newcastle West office) on 4904 2516 or at hannah.grogan@dpi.nsw.gov.au.

DPI Fisheries and DPI Lands advise no issues.

Yours sincerely

Mitchell Isaacs
Director, Planning Policy & Assessment Advice
30/10/2015

Attachment A

Eagleton Hard Rock Quarry (SSD_7332)
Request for Input into Secretary's Environment Assessment Requirements
DPI Water - General Assessment Requirements for quarries and non-coal mines

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The following detailed assessment requirements are provided to assist in adequately addressing the assessment requirements for this proposal.

For further information visit the DPI Water website, www.water.nsw.gov.au

Key Relevant Legislative Instruments

This section provides a basic summary to aid proponents in the development of an Environmental Impact Statement (EIS), and should not be considered a complete list or comprehensive summary of relevant legislative instruments that may apply to the regulation of water resources for a project.

The EIS should take into account the objects and regulatory requirements of the *Water Act 1912* (WA 1912) and *Water Management Act 2000* (WMA 2000), and associated regulations and instruments, as applicable.

Water Management Act 2000 (WMA 2000)
Key points:

- Volumetric licensing in areas covered by water sharing plans.
- Works within 40m of waterfront land.
- SSD & SSI projects are exempt from requiring water supply work approvals and controlled activity approvals as a result of the *Environmental Planning & Assessment Act 1979 (EP&A Act)*.
- No exemptions for volumetric licensing apply as a result of the *EP&A Act*.
- Basic landholder rights, including harvestable rights dams.
- Aquifer interference activity approval and flood management work approval provisions have not yet commenced and are regulated by the *Water Act 1912.*
- Maximum penalties of $2.2 million plus $264,000 for each day an offence continues apply under the *WMA 2000.*

Water Act 1912 (WA 1912)
Key points:

- Volumetric licensing in areas where no water sharing plan applies.
- Monitoring bores.
- Aquifer interference activities that are not regulated as a water supply work under the *WMA 2000*.
- Flood management works.
- No exemptions apply to licences or permits under the *WA 1912* as a result of the *EP&A Act*.
- Regulation of water bore driller licensing.

Water Management (General) Regulation 2011
Key points:

- Provides various exemptions for volumetric licensing and activity approvals
- Provides further detail on requirements for dealings and applications.

Water Sharing Plans – these are considered regulations under the *WMA 2000*

Access Licence Dealing Principles Order 2004

Harvestable Rights Orders

Water Sharing Plans

It is important that the proponent understands and describes the ground and surface water sharing plans, water sources, and management zones that apply to the project. The relevant water sharing plans can be determined spatially at www.ourwater.nsw.gov.au. Multiple water sharing plans may apply and these must all be described.

The *Water Act 1912* applies to all water sources not yet covered by a commenced water sharing plan.

The EIS is required to:

- Demonstrate how the proposal is consistent with the relevant rules of the Water Sharing Plan including rules for access licences, distance restrictions for water supply works and rules for the management of local impacts in respect of surface water and groundwater sources, ecosystem protection (including groundwater dependent ecosystems), water quality and surface-groundwater connectivity.
- Provide a description of any site water use (amount of water to be taken from each water source) and management including all sediment dams, clear water diversion structures with detail on the location, design specifications and storage capacities for all the existing and proposed water management structures.
- Provide an analysis of the proposed water supply arrangements against the rules for access licences and other applicable requirements of any relevant WSP, including:
    - Sufficient market depth to acquire the necessary entitlements for each water source.
    - Ability to carry out a "dealing" to transfer the water to relevant location under the rules of the WSP.
    - Daily and long-term access rules.
    - Account management and carryover provisions.
- Provide a detailed and consolidated site water balance.
- Further detail on licensing requirements is provided below.

Relevant Policies and Guidelines

The EIS should take into account the following policies (as applicable):

- NSW Guidelines for Controlled Activities on Waterfront Land (NOW, 2012)
- NSW Aquifer Interference Policy (NOW, 2012)
- Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW, 2012)
- Australian Groundwater Modelling Guidelines (NWC, 2012)
- NSW State Rivers and Estuary Policy (1993)
- NSW Wetlands Policy (2010)
- NSW State Groundwater Policy Framework Document (1997)
- NSW State Groundwater Quality Protection Policy (1998)
- NSW State Groundwater Dependent Ecosystems Policy (2002)
- NSW Water Extraction Monitoring Policy (2007)

DPI Water policies can be accessed at the following links:
http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/default.aspx
http://www.water.nsw.gov.au/Water-licensing/Approvals/Controlled-activities/default.aspx

An assessment framework for the NSW Aquifer Interference Policy can be found online at: http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/Aquifer-interference.

Licensing Considerations

The EIS is required to provide:

- Identification of water requirements for the life of the project in terms of both volume and timing (including predictions of potential ongoing groundwater take following the cessation of operations at the site – such as evaporative loss from open voids or inflows).
- Details of the water supply source(s) for the proposal including any proposed surface water and groundwater extraction from each water source as defined in the relevant Water Sharing Plan/s and all water supply works to take water.
- Explanation of how the required water entitlements will be obtained (i.e. through a new or existing licence/s, trading on the water market, controlled allocations etc.).
- Information on the purpose, location, construction and expected annual extraction volumes including details on all existing and proposed water supply works which take surface water, (pumps, dams, diversions, etc.).
- Details on all bores and excavations for the purpose of investigation, extraction, dewatering, testing and monitoring. All predicted groundwater take must be accounted for through adequate licensing.
- Details on existing dams/storages (including the date of construction, location, purpose, size and capacity) and any proposal to change the purpose of existing dams/storages
- Details on the location, purpose, size and capacity of any new proposed dams/storages.
- Applicability of any exemptions under the *Water Management (General) Regulation 2011* to the project.

Water allocation account management rules, total daily extraction limits and rules governing environmental protection and access licence dealings also need to be considered.

The Harvestable Right gives landholders the right to capture and use for any purpose 10% of the average annual runoff from their property. The Harvestable Right has been defined in terms of an equivalent dam capacity called the Maximum Harvestable Right Dam Capacity (MHRDC). The MHRDC is determined by the area of the property (in hectares) and a site-specific run-off factor. The MHRDC includes the capacity of all existing dams on the property that do not have a current water licence. Storages capturing up to the harvestable right capacity are not required to be licensed but any capacity of the total of all storages/dams on the property greater than the MHRDC may require a licence.

For more information on Harvestable Right dams, including a calculator, visit: http://www.water.nsw.gov.au/Water-licensing/Basic-water-rights/Harvesting-runoff/Harvesting-runoff

Dam Safety

Where new or modified dams are proposed, or where new development will occur below an existing dam, the NSW Dams Safety Committee should be consulted in relation to any safety issues that may arise. Conditions of approval may be recommended to ensure safety in relation to any new or existing dams.

See www.damsafety.nsw.gov.au for further information.

Surface Water Assessment

The predictive assessment of the impact of the proposed project on surface water sources should include the following:

- Identification of all surface water features including watercourses, wetlands and floodplains transected by or adjacent to the proposed project.
- Identification of all surface water sources as described by the relevant water sharing plan.
- Detailed description of dependent ecosystems and existing surface water users within the area, including basic landholder rights to water and adjacent/downstream licensed water users.
- Description of all works and surface infrastructure that will intercept, store, convey, or otherwise interact with surface water resources.
- Assessment of predicted impacts on the following:
    - flow of surface water, sediment movement, channel stability, and hydraulic regime,
    - water quality,
    - flood regime,
    - dependent ecosystems,
    - existing surface water users, and
    - planned environmental water and water sharing arrangements prescribed in the relevant water sharing plans.

Groundwater Assessment

To ensure the sustainable and integrated management of groundwater sources, the EIS needs to include adequate details to assess the impact of the project on all groundwater sources including:

- Works likely to intercept, connect with or infiltrate the groundwater sources.
- Any proposed groundwater extraction, including purpose, location and construction details of all proposed bores and expected annual extraction volumes.
- Bore construction information is to be supplied to DPI Water by submitting a “Form A” template. DPI Water will supply “GW” registration numbers (and licence/approval numbers if required) which must be used as consistent and unique bore identifiers for all future reporting.
- A description of the watertable and groundwater pressure configuration, flow directions and rates and physical and chemical characteristics of the groundwater source (including connectivity with other groundwater and surface water sources).
- Sufficient baseline monitoring for groundwater quantity and quality for all aquifers and GDEs to establish a baseline incorporating typical temporal and spatial variations.
- The predicted impacts of any final landform on the groundwater regime.
- The existing groundwater users within the area (including the environment), any potential impacts on these users and safeguard measures to mitigate impacts.
- An assessment of groundwater quality, its beneficial use classification and prediction of any impacts on groundwater quality.
- An assessment of the potential for groundwater contamination (considering both the impacts of the proposal on groundwater contamination and the impacts of contamination on the proposal).

- Measures proposed to protect groundwater quality, both in the short and long term.
- Measures for preventing groundwater pollution so that remediation is not required.
- Protective measures for any groundwater dependent ecosystems (GDEs).
- Proposed methods of the disposal of waste water and approval from the relevant authority.
- The results of any models or predictive tools used.

Where potential impact/s are identified the assessment will need to identify limits to the level of impact and contingency measures that would remediate, reduce or manage potential impacts to the existing groundwater resource and any dependent groundwater environment or water users, including information on:

- Any proposed monitoring programs, including water levels and quality data.
- Reporting procedures for any monitoring program including mechanism for transfer of information.
- An assessment of any groundwater source/aquifer that may be sterilised from future use as a water supply as a consequence of the proposal.
- Identification of any nominal thresholds as to the level of impact beyond which remedial measures or contingency plans would be initiated (this may entail water level triggers or a beneficial use category).
- Description of the remedial measures or contingency plans proposed.
- Any funding assurances covering the anticipated post development maintenance cost, for example on-going groundwater monitoring for the nominated period.

Groundwater Dependent Ecosystems

The EIS must consider the potential impacts on any Groundwater Dependent Ecosystems (GDEs) at the site and in the vicinity of the site and:

- Identify any potential impacts on GDEs as a result of the proposal including:
  - the effect of the proposal on the recharge to groundwater systems;
  - the potential to adversely affect the water quality of the underlying groundwater system and adjoining groundwater systems in hydraulic connections; and
  - the effect on the function of GDEs (habitat, groundwater levels, connectivity).
- Provide safeguard measures for any GDEs.

Watercourses, Wetlands and Riparian Land

The EIS should address the potential impacts of the project on all watercourses likely to be affected by the project, existing riparian vegetation and the rehabilitation of riparian land. It is recommended the EIS provides details on all watercourses potentially affected by the proposal, including:

- Scaled plans showing the location of:
  - wetlands/swamps, watercourses and top of bank;
  - riparian corridor widths to be established along the creeks;
  - existing riparian vegetation surrounding the watercourses (identify any areas to be protected and any riparian vegetation proposed to be removed);
  - the site boundary, the footprint of the proposal in relation to the watercourses and riparian areas; and
  - proposed location of any asset protection zones.
- Photographs of the watercourses/wetlands and a map showing the point from which the photos were taken.

- A detailed description of all potential impacts on the watercourses/riparian land.
- A detailed description of all potential impacts on the wetlands, including potential impacts to the wetlands hydrologic regime; groundwater recharge; habitat and any species that depend on the wetlands.
- A description of the design features and measures to be incorporated to mitigate potential impacts.
- Geomorphic and hydrological assessment of water courses including details of stream order (Strahler System), river style and energy regimes both in channel and on adjacent floodplains.

Drill Pad, Well and Access Road Construction

- Any construction activity within 40m of a watercourse, should be designed by a suitably qualified person, consistent with the NSW *Guidelines for Controlled Activities on Waterfront Land* (July 2012).
- Construction of all wells must be undertaken in accordance with the *Minimum Construction Requirements for Water Bores in Australia* (3rd edition 2012) by a driller holding a bore drillers' licence valid in New South Wales.
- The length of time that a core hole is maintained as an open hole should be minimised.

Landform rehabilitation (including final void management)

Where significant modification to landform is proposed, the EIS must include:

- Justification of the proposed final landform with regard to its impact on local and regional surface and groundwater systems;
- A detailed description of how the site would be progressively rehabilitated and integrated into the surrounding landscape;
- Outline of proposed construction and restoration of topography and surface drainage features if affected by the project;
- Detailed modelling of potential groundwater volume, flow and quality impacts of the presence of an inundated final void (where relevant) on identified receptors specifically considering those environmental systems that are likely to be groundwater dependent;
- An outline of the measures to be put in place to ensure that sufficient resources are available to implement the proposed rehabilitation; and
- The measures that would be established for the long-term protection of local and regional aquifer systems and for the ongoing management of the site following the cessation of the project.

Consultation and general enquiries

General licensing enquiries can be made to Advisory Services: water.enquiries@dpi.nsw.gov.au, 1800 353 104.

Assessment or state significant development enquiries, or requests for review or consultation should be directed to the Strategic Stakeholder Liaison Unit, water.referrals@dpi.nsw.gov.au.

A consultation guideline and further information is available online at:
www.water.nsw.gov.au/water-management/law-and-policy/planning-and-assessment

End Attachment A

Department of Industry
Resources & Energy

30 October 2015

Genevieve Seed
Planning Officer
Department of Planning & Environment
GPO Box 39
Sydney NSW 2001

Emailed: genevieve.seed@planning.nsw.gov.au

Your Reference: SSD 15_7332
Our Reference: OUT15/30291

Dear Ms Seed,

Re: Request for Secretary's Environmental Assessment Requirements Proposal – Eagleton Hard Rock Quarry Project (SSD 15_7332)

Thank you for the opportunity to provide advice on the subject proposal.

This is a response from NSW Department of Industry – Division of Resources & Energy (DRE), incorporating advice from the Agriculture and Fisheries Branches. Specific Fisheries or Forests issues arising may be provided in separate correspondence.

The building and construction industries in NSW require ongoing replacement of supplies as sources are exhausted. The development of new quarries and the expansion of existing quarries (subject to environmental assessment), helps to ensure a continued supply of material for a range of building and construction uses in NSW. The resource in the subject area represents a regionally important source of hard rock aggregate and coarse aggregate for the Greater Hunter area.

Mineral Resources Issues
Hard rock aggregate and coarse aggregate are not prescribed minerals under the *Mining Act 1992*. Therefore, DRE has no statutory role in authorising or regulating the extraction of this commodity, apart from its role under the *Work Health & Safety Act 2011* and associated regulations and the *Mine Health and Safety Act 2004* and associated regulations, for ensuring the safe operation of mines and quarries.

All environmental reports (EISs or similar) accompanying Development Applications for extractive industry lodged under the *Environmental Planning & Assessment Act 1979* should include a resource assessment **(as detailed in Attachment A)** 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.**

Applications to modify, expand, extend or intensify an existing consent that has already been adequately reported using the above protocol in publicly available documents, may restrict detailed documentation to the additional resources to be used, if accompanied by a summary of past resource assessments and of past production.

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

Queries regarding the above information, and future requests for advice in relation to this matter, should be directed to the DRE – Geological Survey of New South Wales Land Use team at landuse.minerals@industry.nsw.gov.au

Agricultural Issues for Extractive Industries (Quarries)

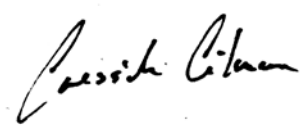
The relevant agricultural issues to consider when preparing and also when assessing extractive industry proposals are set out in the Departments' Guideline: *Agricultural issues for Extractive Industries* available on our website; http://www.dpi.nsw.gov.au/agriculture/resources/lup/development-assessment. The guideline also documents recommended project design and mitigatory responses.

The guideline is part of a series designed to help consent authorities identify potential agricultural impacts, and assess whether such proposals can avoid conflict with existing agricultural developments; and protect valuable food and fibre production resources. The guidelines can similarly help consultants and proponents and are available from the Department of Primary Industries land use planning web portal: http://www.dpi.nsw.gov.au/agriculture/resources/lup/development-assessment .

Fisheries Issues

General issues are summarised in **Attachment B**.

Yours sincerely



Cressida Gilmore
Team Leader Land Use

Encl. Attachments "A to B"

ATTACHMENT A

NSW Department of Industry
RESOURCES & ENERGY DIVISION

ENVIRONMENTAL and WORK HEALTH & SAFETY ASSESSMENT REQUIREMENTS FOR CONSTRUCTION MATERIAL QUARRY PROPOSALS

It is in the best interests of both the proponent and the community to fully assess the resources which are to be extracted. This means that a thorough geological assessment should be undertaken to determine the nature, quality and extent of the resource. Failure to undertake such an assessment could lead to operational problems and possibly even failure of the proposal.

The following issues need to be addressed when preparing an environmental assessment (EA) or environmental impact statement (EIS) for a proposed construction materials (extractive materials) quarry:

Resource Assessment

1. A summary of the regional and local geology including information on the stratigraphic unit or units within which the resource is located.

2. The amount of material to be extracted and the method or methods used to determine the size of the resource (e.g. drilling, trenching, geophysical methods). Plans and cross-sections summarising this data, at a standard scale, showing location of drillholes and/or trenches, and the area proposed for extraction, should be included in the EA or EIS. Relevant supporting documentation such as drill logs should be included or appended. Major resource proposals should be subject to extensive drilling programs to identify the nature and extent of the resource.

3. Characteristics of the material or materials to be produced:
   a) For structural clay/shale extraction proposals, ceramic properties such as plasticity, drying characteristics (e.g. dry green strength, linear drying shrinkage), and firing characteristics (e.g. shrinkage, water absorption, fired colour) should be described.
   b) For sand extraction proposals, properties such as composition, grainsize, grading, clay content and contaminants should be indicated. The inclusion of indicative grading curves for all anticipated products as well as the overall deposit is recommended.
   c) For hard rock aggregate proposals, information should be provided on properties such as grainsize and mineralogy, nature and extent of weathering or alteration, and amount and type of deleterious minerals, if any.

d) For other proposals, properties relevant to the range of intended uses for the particular material should be indicated.

Details of tests carried out to determine the characteristics of the material should be included or appended. Such tests should be undertaken by NATA registered testing laboratories.

4. An assessment of the quality of the material and its suitability for the anticipated range of applications should be given.

5. The amount of material anticipated to be produced annually should be indicated. If the proposal includes a staged extraction sequence, details of the staging sequence needs to be provided. The intended life of the operation should be indicated.

6. If the proposal is an extension to an existing operation, details of history and past production should be provided.

7. An assessment of alternative sources to the proposal and the availability of these sources. The impact of not proceeding with the proposal should be addressed.

8. Justification for the proposal in terms of the local and, if appropriate, the regional context.

9. Information on the location and size of markets to be supplied from the site.

10. Route(s) used to transport quarry products to market.

11. Disposal of waste products and the location and size of stockpiles.

12. Assessment of noise, vibration, dust and visual impacts, and proposed measures to minimise these impacts.

13. Proposed rehabilitation procedures during, and after completion of, extraction operations, and proposed final use of site.

14. Assessment of the ecological sustainability of the proposal.

Health and Safety Issues

In relation to the health & safety of mining and quarrying operations, the following issues should be addressed:

1. All operations are to comply with the following Acts & Regulations
   a. *Work Health & Safety Act 2011*
   b. *Work Health & Safety Regulations 2011*
   c. *Mine Health & Safety Act 2004*
   d. *Mine Health & Safety Regulations 2007*

2. The mine holder must nominate the mine operator in writing on the prescribed form to the Chief Inspector as required by the *Mine Health & Safety Act 2004* Section 22 prior to the commencement of extraction.

3. The operator of the mine must appoint a production manager as required by the *Mine Health & Safety Regulation 2007* Clause 16 and the operator must notify the Chief Inspector of the appointment in writing as required by the *Mine Health & Safety Regulation 2007* Clause 18 prior to the commencement of extraction.

4. Any blasting operations carried out by the mine operator must comply with the *Explosives Act 2003* and the *Explosives Regulations 2005*.

Mineral Ownership

The *Mining Act 1992* applies to those commodities prescribed by the regulations of the Act (Schedule 2, *Mining Regulation 2003*). Most construction materials are not prescribed minerals under the *Mining Act 1992*. In general terms, this means these materials are owned by the Crown where they occur on Crown land and by the landowner in the case of freehold land. A Mining Title is not required for their extraction although a Crown Lands licence is required where they occur on Crown land.

Construction materials such as s*and (other than marine aggregate), loam, river gravel, and coarse aggregate materials such as basalt, sandstone, and granite* are not prescribed minerals under the *Mining Act 1992*. Therefore, NSW Department of Industry has no statutory responsibility for authorising or regulating the extraction of these commodities, apart from its role under the *Mine Health and Safety Act 2004* with respect to the safe operation of mines and quarries. However, the Department 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.

Some commodities, notably *structural clay (ie clay for brick, tile and pipe manufacture), dimension stone (except for sandstone), quartzite, kaolin, limestone and marine aggregate* are prescribed minerals under the *Mining Act 1992*. Minerals which are prescribed as minerals under the terms of the Mining Act may, in some cases belong either to the Crown or to the landowner, depending on a number of factors including the date on which the mineral was proclaimed and the date of alienation of the land. The proponent needs to determine whether the material is privately owned or Crown mineral (publicly owned). If it is privately owned, then either a notification under Section 8 of the *Mining Act 1992* or, alternatively, a mining lease or mineral claim would be required. If it is a Crown mineral, an application for a mining lease or mineral claim will have to be lodged.

If you are unsure whether a mining title is required for your proposal you should contact NSW Department of Industry, Resources & Energy Division.

Department of Industry
Resources & Energy

ATTACHMENT B

Primary Industries Division - Aquatic Habitat Protection Requirements

Matters to be Addressed

Definitions

The definitions given below are relevant to these requirements:

Fish means any part of marine, estuarine or freshwater fish or other aquatic animal life at any stage of their life history (whether alive or dead). This includes aquatic molluscs, crustaceans, echinoderms, worms, aquatic insect larvae and other macroinvertebrates .

Marine vegetation means any species of plant that at any time in its life must inhabit water (other than fresh water).

Waters refers to all waters including tidal waters as well as flowing streams, irregularly flowing streams, gullies, rivers, lakes, coastal lagoons, wetlands and other forms of natural or man made water bodies on both private and public land.

1. General Requirements

- Area which may be affected either directly or indirectly by the development or activity should be identified and shown on an appropriately scaled map (1:25000) and aerial photographs.
- All waterbodies and waterways within the proposed area of development are to be identified.
- Description and maps of aquatic vegetation, snags, gravel beds and any other protected, threatened or dominant habitats should be presented. Description should include area, density and species composition.
- A survey of fish species should be carried out and results included. Existing data should be used only if collected less than 5 years previously.
- Identification of recognised recreational and commercial fishing grounds, aquaculture farms and/or other waterways users.
- Details of the location of all component parts of the proposal, including any auxiliary infrastructure, timetable for construction of the proposal with details of various phases of construction
- Aspects of the management of the proposal, both during construction and after completion, which relate to impact minimisation and site rehabilitation eg Environment Management Plans, Rehabilitation Plans, Compensatory offsets
- For each freshwater body identified on the plan, the plan should include, either by annotation or by an accompanying table, hydrological and stream morphology information such as: flow characteristics, including any seasonal variations, bed substrate, and bed width
- For each marine or estuarine area identified on the plan, the plan should include, either by annotation or by an accompanying table, hydrological and stream morphology information such as: tidal characteristics, bed substrate, and depth contours

DREDGING AND RECLAMATION ACTIVITIES

- Purpose of works
- Type(s) and distribution of marine vegetation in the vicinity of the proposed works
- Method of dredging to be used

- Timing and Duration of works
- Dimension of area of works including levels and volume of material to be extracted or placed as fill
- Nature of sediment to be dredged, including Acid Sulphate Soil, contaminated soils etc
- Method of marking area subject to works
- Environmental safeguards to be used during and after works
- Measures for minimising harm to fish habitat under the proposal
- Spoil type and source location for reclamation activities
- Method of disposal of dredge material
- Location and duration of spoil stockpiling, if planned

ACTIVITIES THAT DAMAGE MARINE VEGETATION

- Type of marine vegetation to be harmed
- Map and density distribution of marine vegetation
- Reasons for harming marine vegetation
- Methods of harming marine vegetation
- Construction details
- Duration of works/activities
- Measures for minimising harm to marine vegetation under the proposal and details of compensatory habitat development to replace lost vegetation.
- Method and location of transplanting activities or disposal of marine vegetation

ACTIVITIES THAT BLOCK FISH PASSAGE

- Type of activity eg works in a stream that change flow or morphological characteristics of the stream, including culvert and causeway construction, sediment and erosion control measures, stormwater diversion structures.
- Length of time fish passage is to be restricted, whether permanent or temporary
- Timing of proposed restriction. Should be timed to avoid interfering with migratory movements of fish.
- Remediation or compensatory works to offset any impacts

THREATENED SPECIES

- Threatened aquatic species assessment (Section 5c, EP&A Act 1979). This must be addressed even if there are no Threatened Species present on the site.
- Seven Part Test

FISHING AND AQUACULTURE

- Outline and document commercial, recreational and indigenous fishing activities that may be affected by the activity, including regular commercial fishing grounds, popular recreational fishing sites, recognised indigenous harvesting sites.
- Will the activity interfere with or cause an impact on the continuing operation and viability of nearby aquaculture or mariculture ventures.

2. Initial Assessment

A list of threatened species, endangered populations and endangered ecological communities must be provided. In determining these species, consideration must be given to the habitat types present within the study area, recent records of threatened species in the locality and the known distributions of these species.

In describing the locality in the vicinity of the proposal, discussion must be provided in regard to the previous land and water uses and the effect of these on the proposed site. Relevant historical events may include land clearing, agricultural activities, water

abstraction/diversion, dredging, de-snagging, reclamation, siltation, commercial and recreational activities.

A description of habitat including such components as stream morphology, in-stream and riparian vegetation, water quality and flow characteristics, bed morphology, vegetation (both aquatic and adjacent terrestrial), water quality and tide/flow characteristics must be given. The condition of the habitat within the area must be described and discussed, including the presence and prevalence of introduced species. A description of the habitat requirements of threatened species likely to occur in the study area must be provided.

In defining the proposal area, discussion must be provided in regard to possible indirect effects of the proposal on species/habitats in the area surrounding the subject site: for example, through altered hydrological regimes, soil erosion or pollution. The study area must extend downstream and/or upstream as far as is necessary to take all potential impacts into account.

Please Note: Persons undertaking aquatic surveys may be required to hold or obtain appropriate permits or licences under relevant legislation. For example:

Fisheries Management Act 1994
- Permit to take fish or marine vegetation for research or other authorised purposes (Section 37)
- Licence to harm threatened (aquatic) species, and/or damage the habitat of a threatened species (Section 220ZW).

Animal Research Act 1985:
- Animal Research Authority to undertake fauna surveys.

It is recommend that, prior to any field survey activities taking place, those persons proposing to undertake those activities give consideration to their obligation to obtain appropriate permits or licences which may be required in the specific context of the proposed survey activities.

3. Assessment of Likely Impacts

The EIS must:
- describe and discuss significant habitat areas within the study area;
- outline the habitat requirements of threatened species likely to occur in the study area;
- indicate the location, nature and extent of habitat removal or modification which may result from the proposed action;
- discuss the potential impact of the modification or removal of habitat;
- identify and discuss any potential for the proposal to introduce barriers to the movement of fish species; and
- describe and discuss any other potential impacts of the proposal on fish species or their habitat.

For all species likely to have their lifecycle patterns disrupted by the proposal to the extent that individuals will cease to occupy any location within the subject site, the EIS must describe and discuss other locally occurring populations of such species. The relative significance of this location for these species in the general locality must be discussed in terms of the extent, security and viability of remaining habitat in the locality.

4. Ameliorative Measures

The EIS must consider how the proposal has been or may be modified and managed to conserve fisheries habitat on the subject site and in the study area.

In discussing alternatives to the proposal, and the measures proposed to mitigate any effects of the proposal, consideration must be given to developing long term management strategies to protect areas within the study area which are of particular importance for fish species. This may include proposals to restore or improve habitat.

Any proposed pre-construction monitoring plans or on-going monitoring of the effectiveness of the mitigation measures must be outlined in detail, including the objectives of the monitoring program, method of monitoring, reporting framework, duration and frequency.

In the event of a request for concurrence or consultation of the Secretary of NSW Department of Industry, one (1) copy of the EIS should be provided to NSW Department of Industry in order for the request to be processed.

It should be noted that NSW Department of Industry has no regulatory or statutory role to review draft EISs unless they are accompanied by or are requested as part of a licence application under Part 7A of the FM Act. However, NSW Department of Industry is available to provide advice to consent and determining authorities regarding Fisheries' opinion as to whether the requirements have been met if requested, pending the availability of resources and other statutory priorities.

Useful Information

To help you in the preparation of an EIS, the publication "*Guidelines for the Assessment of Aquatic Ecology in EIA"* (Draft 1998) produced by the Department for Urban Affairs and Planning may prove useful in outlining appropriate procedures and methodologies for conducting aquatic surveys.

Should you require any further information on these requirements please contact the Aquatic Habitat Protection Office at Port Stephens on 4916 3931.

Our reference: DOC15/410871-01; EF15/16586
Contact: Rebecca Akhurst (02) 4908 6807

Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Ms Genevieve Seed

Dear Ms Seed

REQUEST FOR ENVIRONMENT PROTECTION AUTHORITY (EPA) INPUT INTO SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS (SEARs)
EAGLETON HARD ROCK QUARRY SSD 15_7332

I refer to your request for the Environment Protection Authority's (EPA) requirements for the preparation of an Environmental Impact Statement (EIS) for the proposed Eagleton Hard Rock Quarry at Barleigh Ranch Way, Eagleton (the premises). Your request was received by the EPA on 15 October 2015. I also refer to the document titled "*Preliminary Environmental Assessment Report, Barleigh Ranch Way, Eagleton Hard Rock Quarry, October 2015*" (PEA) prepared by JBA Urban Planning Consultants Pty Ltd for Eagleton Rock Syndicate Pty Ltd (the proponent).

The EPA is aware that project is to be assessed as State Significant Development (SSD) and requires development consent under section Part 4, division 4.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The EPA understands that the project comprises:

- Extraction and processing of up to 600,000tpa of hard rock over a 30 year quarry life;
- Transportation of processed material to market via truck along local roads (primarily via Italia Road);
- Quarry operations – extraction activities 7am-7pm Monday to Friday and 7am-6pm Saturday, and processing activities 7am-6pm Monday to Friday;
- Up to 15,000 heavy vehicles per year (approximately 192 two way truck movements per day), 6 days per week between 5am-10pm Monday to Friday and 6am-12pm Saturday;
- Blasting activities 7am – 6pm Monday to Friday and Saturday 7am-12pm;
- Construction of on-site infrastructure including internal site access roads, a new bridge over Six Mile Creek, water containment structures, administration buildings, weighbridge, workshop and processing area infrastructure (including mobile crushers, screening plant, fine aggregate wash plant and pug mill); and
- Clearing of approximately 30ha of native vegetation.

The EPA also understands that the proposed quarry is located on land that is partly occupied by the Port Stephens Gardenland landscape supply facility. The PEA states the Gardenland facility is separate from the proposed Eagleton quarry site. The EIS must clearly identify the boundary of the premises to which the

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proposed quarry is to occupy and on which any scheduled activities defined in Schedule 1 of the *Protection of the Environment Operations (POEO) Act* 1997 are to occur.

The EPA has considered the PEA and has identified in **Attachment A** the information it requires to assess the project. In summary, the EPA's key information requirements for the project include an adequate description and assessment of:

1. Air quality impacts including a description of all emissions and a specific description of proposed dust management strategies;
2. Noise and vibration impacts associated with the proposed hours of operation including vehicle movements, blasting, crushing, screening and washing activities, and impacts on sensitive receivers;
3. Water management onsite including process and stormwater management, sedimentation ponds, potential for discharge and the sensitivity of the receiving environment particularly given the location within the Grahamstown drinking water catchment. Attention will also need to be given to preventing pollution from haul roads particularly rights of carriageways not owned by the proponent and unsealed roads per se;
4. Waste generation, source location, classification, quantities, reuse and management measures for activities undertaken at the premises, including the proposed reuse of existing reject ceramic tile fragments;
5. A proposed monitoring plan to assess the impact on the environment and surrounding receivers over time;
6. An assessment of the cumulative impacts associated with this proposal and other activities (e.g. neighbouring Seaham Quarry and Kings Hill land release area rezoned for up to 4,500 residential lots) in the local area; and
7. Actions that will be taken to avoid or mitigate impacts or compensate for unavoidable impacts associated with proposed quarry operations.

In carrying out the assessment, the proponent should refer to the relevant guidelines listed in **Attachment B** and any relevant industry codes of practice and best practice management guidelines.

If the necessary information is not adequately provided in the EIS then delays in the development application process may occur.

The proponent should also be aware that any commitments made in the EIS may be formalised as approval and subsequently environment protection licence conditions. Pollution control measures should not be proposed if they are impractical, unrealistic or beyond the financial viability of the development. It is important that all conclusions are supported by adequate data.

The EPA requests that a copy of the EIS be provided to our electronic mailbox hunter.region@epa.nsw.gov.au or if the file size is too large, that an electronic copy (CD) be sent to the Regional Manager - Hunter, Environment Protection Authority, PO Box 488G NEWCASTLE NSW 2300.

Please contact Rebecca Akhurst on (02) 4908 6807 if you require further information regarding this matter.

Yours sincerely

P. Jamieson 29-10-15

PETER JAMIESON
Head Regional Operations Unit – Hunter
Environment Protection Authority

Encl: Attachment A – EPA's Recommenced Secretary's Environmental Assessment Requirements (SEARs) – Eagleton Hard Rock Quarry Expansion Project SSD 15_7332
Attachment B – Guidance Material.

ATTACHMENT A

EPA's Recommended Secretary's Environmental Assessment Requirements (SEARs) – Sancrox Quarry Expansion Project SSD 15_7293.

1 Environmental impacts of the project

Impacts related to the following environmental issues need to be assessed, quantified and reported on:

- Air Quality
- Noise and Vibration
- Water and Soil Quality and Management
- Waste Management
- Dangerous Goods, Chemical Storage and Bunding

The Environmental Impact Statement (EIS) should address the specific requirements outlined under each heading below and assess impacts in accordance with the relevant guidelines mentioned. A full list of guidelines is at Attachment B.

2 Licensing requirements

Based on the information provided in the PEA, it appears the proposal is a scheduled activity (land-based extractive activity and crushing/grinding/separating) under the *Protection of the Environment Operations Act 1997* (POEO Act) and will therefore require an Environment Protection Licence (EPL) if approval is granted. The EIS should address the requirements of Section 45 of the POEO Act determining the extent of each impact and providing sufficient information to enable EPA to determine appropriate limits for the EPL.

Should project approval be granted, the proponent will need to make a separate application to EPA for an EPL for the proposed facility prior to undertaking any on site works. Additional information is available through EPA's *Guide to Licensing* document (www.environment.nsw.gov.au/licensing/licenceguide.htm).

General information on licence requirements can also be obtained from EPA's Environment Line on 131 555 during office hours, or can be found at the EPA web site at: http://www.epa.nsw.gov.au/licensing/

3 The Proposal and Premises

The objectives of the proposal should be clearly stated and refer to:

- The size and type of the operation;
- The nature of the processes and the products, by-products and wastes produced;
- The types and quantities of any chemicals to be used and stored onsite;
- Proposed operational hours, including any heavy vehicle movements;
- Proposed maximum and average annual extraction and processing rate that will occur at the premises; and
- Proposed staging and timing of the proposal.

The EIS will need to fully identify all of the processes and activities intended for the site over the life of the development. This will include details of:

- The location of the proposed facility and details of the surrounding environment;
- The proposed layout of the site;
- Appropriate land use zoning;

- Ownership details of any residence and/or land likely to be affected by the proposed operations;
- Maps/diagrams showing the location of residences and properties likely to be affected and other industrial developments, conservation areas, wetlands, etc. in the locality that may be affected by the facility;
- All equipment proposed for use at the site;
- Chemicals, including fuel, used on the site and proposed methods for their transportation, storage, use and emergency management;
- Clearly detail the boundary of the quarry premises as separate to the adjacent Port Stephens Gardenland landscape supply facility; and
- Methods to mitigate any expected environmental impacts of the development.

4 Air Issues

4.1 Air quality

The EIS should include a details air quality impact assessment (AQIA). THE AQIA should:

- Assess the risk associated with potential discharges of fugitive and point source emissions for all stages of the proposal. Assessment of risk relates to environmental harm, risk to human health and amenity.

- Justify the level of assessment undertaken on the basis of risk factors, including but not limited to:
  - proposal location;
  - characteristics of the receiving environment; and
  - type and quantity of pollutants emitted.

- Describe the receiving environment in detail. The receiving environment should also include the Kings Hill residential release area. The proposal must be contextualised within the receiving environment (local, regional and inter-regional as appropriate). The description must include but need not be limited to:
  - meteorology and climate;
  - topography;
  - surrounding land-use; receptors; and
  - ambient air quality.

- Include a detailed description of the proposal. All processes that could result in air emissions must be identified and described. Sufficient detail to accurately communicate the characteristics and quantity of all emissions must be provided.

- Include a consideration of 'worst case' emission scenarios and impacts at proposed emission limits.

- Detail contractual arrangements for access and dust control on "rights of carriageway" where the quarry operator will not be the owner/occupier.

- Account for cumulative impacts associated with existing emission sources as well as any currently approved developments linked to the receiving environment.

- Include air dispersion modelling where there is a risk of adverse air quality impacts, or where there is sufficient uncertainty to warrant a rigorous numerical impact assessment. Air dispersion modelling must be conducted in accordance with the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (2005) http://www.environment.nsw.gov.au/resources/air/ammodelling05361.pdf.

- Demonstrate the proposal's ability to comply with the relevant regulatory framework, specifically the *Protection of the Environment Operations* (POEO) *Act* (1997) and the POEO (Clean Air) Regulation (2010).

- Provide an assessment of the project in terms of the priorities and targets adopted under the NSW State Plan 2010 and its implementation plan Action for Air.

- Detail emission control techniques/practices that will be employed by the proposal.

5 Noise and Vibration

The following matters should be addressed in relation to noise and vibration impacts associated with the proposed hours of operation. This includes assessment of activities such as vehicle movements, blasting, crushing, screening and washing activities, and impacts on sensitive receivers. The receiving environment should also include the Kings Hill residential release area. The following matters should be addressed as part of the EIS.

General

- Construction noise associated with the proposed development should be assessed using the Interim Construction Noise Guideline (DECC, 2009). http://www.environment.nsw.gov.au/noise/constructnoise.htm

- Vibration from all activities (including construction and operation) to be undertaken on the premises should be assessed using the guidelines contained in the Assessing Vibration: a technical guideline (DEC, 2006). http://www.environment.nsw.gov.au/noise/vibrationguide.htm

- Blast impacts should be demonstrated to be capable of complying with the guidelines contained in Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration (ANZEC, 1990). http://www.environment.nsw.gov.au/noise/blasting.htm The EIS should justify the proposed blasting hours as the blasting hours suggested in the PEA may be unnecessary and unrealistic.

Industry

- Operational noise from all industrial activities (including private haul roads) to be undertaken on the premises should be assessed using the guidelines contained in the NSW Industrial Noise Policy (EPA, 2000) and Industrial Noise Policy Application Notes. http://www.environment.nsw.gov.au/noise/industrial.htm

Road

- Noise on public roads from increased road traffic generated by land use developments should be assessed using the guidelines contained in the NSW Road Noise Policy (DECCW, 2011). http://www.epa.nsw.gov.au/resources/noise/2011236nswroadnoisepolicy.pdf

- Noise from new or upgraded public roads should be assessed using the NSW Road Noise Policy (DECCW, 2011). http://www.epa.nsw.gov.au/resources/noise/2011236nswroadnoisepolicy.pdf

Monitoring

- Detail monitoring that will be conducted to assess the impacts of the proposal.

6 Water and Soils

6.1 Water Quality

Describe Proposal

- Describe the proposal including position of any intakes and discharges, volumes, water quality and frequency of all water discharges.

- Demonstrate that all practical options to avoid discharge have been implemented and environmental impact minimised where discharge is necessary.

- Where relevant include a water balance for the development including 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.

Background Conditions

- Describe existing surface and groundwater quality. An assessment needs to be undertaken for any water resource likely to be affected by the proposal. Issues to be discussed should include but are not limited to:
  - a description of any impacts from existing industry or activities on water quality
  - a description of the condition of the local catchment e.g. erosion, soils, vegetation cover, etc.
  - an outline of baseline groundwater information, including, for example, depth to watertable, flow direction and gradient, groundwater quality, reliance on groundwater by surrounding users and by the environment
  - historic river flow data

- State the Water Quality Objectives for the receiving waters relevant to the proposal. These refer to the community's agreed environmental values and human uses endorsed by the NSW Government as goals for ambient waters (http://www.environment.nsw.gov.au/ieo/index.htm). Where groundwater may be impacted the assessment should identify appropriate groundwater environmental values.

- State the indicators and associated trigger values or criteria for the identified environmental values. This information should be based on the ANZECC (2000) Guidelines for Fresh and Marine Water Quality as a minimum but should also be based on advice from Hunter Water Corporation given the sensitive receiving environment of Grahamstown Dam water supply (http://www.mincos.gov.au/publications/australian_and_new_zealand_guidelines_for_fresh_and_marine_water_quality).

- State any locally specific objectives, criteria or targets which have been endorsed by the NSW Government.

Impact Assessment

- Describe the nature and degree of impact that any proposed discharges will have on the receiving environment, both surface water and groundwater.

- Detail contractual and other arrangements that will be put in place to prevent pollution from haul roads and unsealed roads per se, particularly rights of carriageways not owned by the proponent.

- Assess impacts against the relevant ambient water quality outcomes. Demonstrate how the proposal will be designed and operated to:

  - protect the Water Quality Objectives for receiving waters where they are currently being achieved; and
  - contribute towards achievement of the Water Quality Objectives over time where they are not currently being achieved.

- Where a discharge is proposed that includes a mixing zone, the proposal should demonstrate how wastewater discharged to waterways will ensure the ANZECC (2000) water quality criteria for relevant chemical and non-chemical parameters are met at the edge of the initial mixing zone of the discharge, and that any impacts in the initial mixing zone are demonstrated to be reversible.

- Propose water quality limits for any discharge(s) that adequately protects the receiving environment.

- Assess impacts on groundwater and groundwater dependent ecosystems.

- Describe how stormwater will be managed both during and after construction.

Monitoring

- Describe how predicted impacts will be monitored and assessed over time.

6.2 Soil

The EIS should include:

- An assessment of potential impacts on soil and land resources should be undertaken, being guided by Soil and Landscape Issues in Environmental Impact Assessment (DLWC 2000). The nature and extent of any significant impacts should be identified. Particular attention should be given to:
  - Soil erosion and sediment transport - in accordance with Managing urban stormwater: soils and construction, vol. 1 (Landcom 2004) and vol. 2 (A. Installation of services; B Waste landfills; C. Unsealed roads; D. Main Roads; E. Mines and quarries) (DECC 2008).
  - Mass movement (landslides) – in accordance with Landslide risk management guidelines presented in Australian Geomechanics Society (2007).
  - Urban and regional salinity – guidance given in the Local Government Salinity Initiative booklets which includes Site Investigations for Urban Salinity (DLWC, 2002).

- A description of the mitigation and management options that will be used to prevent, control, abate or minimise identified soil and land resource impacts associated with the project. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.

7 Waste

The EIS should:

- Include a detailed plan for in-situ classification of waste material, including the sampling locations and sampling regime that will be employed to classify the waste, particularly with regards to the identification of contamination hotspots.

- Identify, quantify, characterise and classify all waste that currently exists at the site. Identify the intended end use, for example reuse or disposal, and the end use location(s) for the waste. Also specify the mechanism under which waste will be reused or disposed, such as a Resource Recovery Exemption. Note: All waste must be classified in accordance with EPA's Classification Guidelines.

- Identify, characterise and classify all waste that will be generated onsite through excavation, demolition or construction activities, including proposed quantities of the waste.
  Note: All waste must be classified in accordance with EPA's Waste Classification Guidelines.

- Identify, characterise and classify all waste that is proposed to be disposed of to an offsite location, including proposed quantities of the waste and the disposal locations for the waste. This includes waste that is intended for re-use or recycling.
  Note: All waste must be classified in accordance with EPA's Classification Guidelines.

- Include a commitment to retaining all sampling and classification results for the life of the project to demonstrate compliance with EPA's Waste Classification Guidelines.

- Provide details of how waste will be handled and managed onsite to minimise pollution, including:

  a) Stockpile location and management
     - Labelling of stockpiles for identification, ensuring that all waste is clearly identified and stockpiled separately from other types of material (especially the separation of any contaminated and non-contaminated waste).
     - Proposed height limits for all waste to reduce the potential for dust and odour.
     - Procedures for minimising the movement of waste around the site and double handling.
     - Measures to minimise leaching from stockpiles into the surrounding environment, such as sediment fencing, geofabric liners etc.

  b) Erosion, sediment and leachate control including measures to be implemented to minimise erosion, leachate and sediment mobilisation at the site during works. The EIS should show the location of each measure to be implemented. The Proponent should consider measures such as:
     - Sediment traps
     - Diversion banks
     - Sediment fences
     - Bunds (earth, hay, mulch)
     - Geofabric liners
     - Other control measures as appropriate

     The Proponent should also provide details of:
     - how leachate from stockpiled waste material will be kept separate from stormwater runoff;
     - treatment of leachate through a wastewater treatment plant (if applicable); and
     - any proposed transport and disposal of leachate off-site.

- Provide details of how the waste will be handled and managed during transport to a lawful facility. If the waste possesses hazardous characteristics, the Proponent must provide details of how the waste will be treated or immobilised to render it suitable for transport and disposal.

- Include details of all procedures and protocols to be implemented to ensure that any waste leaving the site is transported and disposed of lawfully and does not pose a risk to human health or the environment.

- Include a statement demonstrating that the Proponent is aware of EPA's requirements with respect to notification and tracking of waste.

- Include a statement demonstrating that the Proponent is aware of the relevant legislative requirements for disposal of the waste, including any relevant Resource Recovery Exemptions, as gazetted by EPA from time to time.

- Outline contingency plans for any event that affects operations at the site that may result in environmental harm, including: excessive stockpiling of waste, volume of leachate generated exceeds the storage capacity available on-site etc.

8 Dangerous Goods, Chemical storage and Bunding

- The EIS must outline all details regarding the transport, handling, storage and use of dangerous goods, chemicals and products, including fuel, both on site and with ancillary activities and describe the measures proposed to minimise the potential for leakage or the migration of pollutants into the soil/waters or from the site.

- The EIS should identify any fuel or chemical storage areas proposed for the site.

- The EIS should consider compliance with the following legislation, standards and guidelines where relevant:
  - Australian Standard AS1692:1989 Tanks for Flammable and combustible liquids;
  - The DECC's "Bunding and Spill Management" Technical Guideline (November 1997)
  - Australian Standard AS 1940:2004 The Storage and Handling of Flammable and Combustible Liquids
  - Australia Standard AS 4452-1997: The Storage and Handling of Toxic Substances;
  - Australian/New Zealand Standard AS/NZS 4452:1997: The Storage and Handling of Mixed Classes of Dangerous Goods in Packages and Intermediate Bulk Containers; and
  - Road and Rail Transport (Dangerous Goods) Act 1997

9 Monitoring Programs

The EIS should include a detailed assessment of any noise, air quality, water or waste monitoring required during the on-going operation of the site to ensure that the development achieves a satisfactory level of environmental performance. The evaluation should include a detailed description of the monitoring locations, sample analysis methods and the level of reporting proposed.

Attachment B – Guidance Material

Title	Web address
Relevant Legislation	
Environmentally Hazardous Chemicals Act 1985	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+14+1985+cd+0+N
Environmental Planning and Assessment Act 1979	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+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
Licensing	
Guide to Licensing	www.environment.nsw.gov.au/licensing/licenceguide.htm
Air Issues	
Air Quality	
Approved methods for modelling and assessment of air pollutants in NSW (2005)	http://www.environment.nsw.gov.au/resources/air/ammodelling05361.pdf
POEO (Clean Air) Regulation 2010	http://www.legislation.nsw.gov.au/maintop/view/inforce/subordleg+428+2010+cd+0+N
Noise and Vibration	
Interim Construction Noise Guideline (DECC, 2009)	http://www.environment.nsw.gov.au/noise/constructnoise.htm
Assessing Vibration: a technical guideline (DEC, 2006)	http://www.environment.nsw.gov.au/noise/vibrationguide.htm
Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration (ANZEC, 1990)	http://www.environment.nsw.gov.au/noise/blasting.htm
NSW Industrial Noise Policy	http://www.epa.nsw.gov.au/resources/noise/ind_noise.pdf
NSW Road Noise Policy (DECCW, 2011)	http://www.epa.nsw.gov.au/resources/noise/2011236nswroadnoisepolicy.pdf
Waste	
Waste	
Waste Classification Guidelines (EPA, 2014)	http://www.epa.nsw.gov.au/wasteregulation/classify-guidelines.htm
Resource recovery exemption	http://www.epa.nsw.gov.au/wasteregulation/recovery-exemptions.htm

Title	Web address
Water and Soils	
Soils – general	
Soil and Landscape Issues in Environmental Impact Assessment (DLWC 2000)	http://www.dnr.nsw.gov.au/care/soil/soil_pubs/pdfs/tech_rep_34_new.pdf
Managing urban stormwater: soils and construction, vol. 1 (Landcom 2004) and vol. 2 (A. Installation of services; B Waste landfills; C. Unsealed roads; D. Main Roads; E. Mines and quarries) (DECC 2008)	Vol 1 - Available for purchase at http://www.landcom.com.au/whats-new/publications-reports/the-blue-book.aspx Vol 2 - http://www.environment.nsw.gov.au/stormwater/publications.htm
Landslide risk management guidelines	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.mincos.gov.au/publications/australian_and_new_zealand_guidelines_for_fresh_and_marine_water_quality
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

From: Nina Pollock
To: Gen Seed
Subject: Request for SEARS - SSD 15_7332
Date: Thursday, 29 October 2015 11:07:14 AM

Hi Genevieve

Thank you for inviting the Heritage Council to input into the SEARs for the above State Significant Development.

A search of our records indicates that the proposed location is not in the vicinity of any State Heritage Listed sites. As such, consultation with the Heritage Council is not required.

You may wish to seek further advice from the Regional Operations Unit of the Office of Environment and Heritage for input regarding aboriginal archaeology.

Kind regards

Nina Pollock
B.Des (Arch), M. Herit.Cons.
A/ Senior Heritage Planning Officer
Heritage Division
Office of Environment and Heritage
Locked Bag 5020 PARRAMATTA NSW 2124

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E: nina.pollock@environment.nsw.gov.au
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NSW GOVERNMENT | Office of Environment & Heritage

DOC15/410357-1
SSD 15-7332

Ms Genevieve Seed
Planning Officer
Resource Assessments / Planning Services
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Ms Seed

RE: INPUT INTO SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS FOR AN ENVIRONMENTAL IMPACT STATEMENT FOR EAGLETON HARD ROCK QUARRY, EAGLETON (SSD 15-7332)

I refer to your email dated 15 October 2015 inviting the Office of Environment and Heritage (OEH) to provide input into the Secretary's Environmental Assessment Requirements (SEARs) for the proposed Eagleton Hard Rock Quarry, on Barleigh Ranch Way, Eagleton. This project is located within the Port Stephens local government area.

OEH understands that Eagle Rock Syndicate Pty Ltd are proposing a hard rock quarry at Eagleton which involves the extraction and processing of up to 600,000 tpa of hard rock, the clearing of approximately 30 hectares of native vegetation and associated loss of biodiversity (on a staged basis), and the construction of on-site facilities to support the quarry activities. OEH understands that the proposal is State Significant Development under the *Environmental Planning and Assessment Act 1979*.

OEH has reviewed the 'Preliminary Environmental Assessment Report – Request for Secretary's Environmental Assessment Requirements: Hard Rock Quarry, Barleigh Ranch Way, Eagleton' (dated October 2015) and has prepared Standard SEARs which are presented in **Attachment A**. Project Specific SEARs for biodiversity, Aboriginal cultural heritage and flooding have been provided in **Attachment B**.

The Framework for Biodiversity Assessment was released on 1 October 2014. This project is to be assessed under this policy and must be conducted by a person accredited in accordance with section 142B(1)(c) of the *Threatened Species Conservation Act 1995* (TSC Act). Given that the Framework for Biodiversity Assessment is a new state wide policy, the consultant is welcome to contact OEH (see contact officer below) with any questions they may have regarding the methodology.

The proponent will need to ensure that the biodiversity assessment is fully consistent with requirements of the Framework for Biodiversity Assessment. Guidance documents to assist with this process are provided in **Attachment C**. OEH notes that the application report, the OEH's 'Atlas of NSW Wildlife'

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database and/or recent records indicates that the following threatened species (as per Schedules under the TSC Act) have been recorded within the development footprint (* : recorded on site) or near the study area (within a two kilometre radius): *Grevillea parviflora* subsp. *parviflora*, *Pterostylis chaetophora*, Brown Treecreeper (eastern subspecies)*, Brush-tailed Phascogale, Eastern Bent-wing Bat, Eastern False Pipistrelle*, Eastern Freetail-bat*, Eastern Pygmy Possum, Glossy Black Cockatoo, Greater Broad-nosed Bat, Grey-crowned Babbler, Koala*, Large-eared Pied Bat*, Little Bent-wing Bat*, Little Cave Bat*, Powerful Owl, Scarlet Robin*, Southern Myotis*, Spotted-tail Quoll, Squirrel Glider and Yellow-bellied Glider. These species must be considered in your assessment (though not just restricted to these).

OEH also notes (based on vegetation mapping) that the following vulnerable ecological community may be present on the development site: Lower Hunter Valley Dry Rainforest in the Sydney Basin and NSW North Coast Bioregions.

With respect to threatened biodiversity, OEH considers that under the Framework for Biodiversity Assessment any impacts to *Pterostylis chaetophora* is a matter that requires further consideration.

If you have any further questions in relation to this matter, please contact Steve Lewer, Regional Biodiversity Conservation Officer, on 4927 3158.

Yours sincerely

29 OCT 2015

RICHARD BATH
Senior Team Leader Planning, Hunter Central Coast Region
Regional Operations

Enclosure: Attachments A, B and C

Attachment A – Standard Environmental Assessment Requirements

Biodiversity
1. Biodiversity impacts related to the proposed development are to be assessed and documented in accordance with the Framework for Biodiversity Assessment, unless otherwise agreed by OEH, by a person accredited in accordance with s142B(1)(c) of the *Threatened Species Conservation Act 1995.*
Aboriginal cultural heritage
2. The EIS must identify and describe Aboriginal cultural heritage values that exist across the whole area that will be affected by the development and document these in the EIS. This may include the need for surface survey and test excavation. The identification of cultural heritage values should be guided by the *Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW* (DECCW, 2011) and consultation with OEH regional officers.
3. Where Aboriginal cultural heritage values are identified, consultation with Aboriginal people must be undertaken and documented in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the EIS.
4. Impacts on Aboriginal cultural heritage values are to be assessed and documented in the EIS. The EIS 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 OEH.
Historic heritage
5. The EIS must provide a heritage assessment including but not limited to an assessment of impacts to *State and local heritage* including conservation areas, natural heritage areas, places of Aboriginal heritage value, buildings, works, relics, gardens, landscapes, views, trees should be assessed. Where impacts to State or locally significant heritage items are identified, the assessment shall: a. outline the proposed mitigation and management measures (including measures to avoid significant impacts and an evaluation of the effectiveness of the mitigation measures) generally consistent with the NSW Heritage Manual (1996), b. be undertaken by a suitably qualified heritage consultant(s) (note: where archaeological excavations are proposed the relevant consultant must meet the NSW Heritage Council's Excavation Director criteria), c. include a statement of heritage impact for all heritage items (including significance assessment), d. consider impacts including, but not limited to, vibration, demolition, archaeological disturbance, altered historical arrangements and access, landscape and vistas, and architectural noise treatment (as relevant), and e. where potential archaeological impacts have been identified develop an appropriate archaeological assessment methodology, including research design, to guide physical archaeological test excavations (terrestrial and maritime as relevant) and include the results of these test excavations.

Water and soils

6. The EIS must map the following features relevant to water and soils including:
   a. Acid sulfate soils (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Planning Map).
   b. Rivers, streams, wetlands, estuaries (as described in Appendix 2 of the Framework for Biodiversity Assessment.
   c. Groundwater.
   d. Groundwater dependent ecosystems.
   e. Proposed intake and discharge locations.

7. The EIS must describe background conditions for any water resource likely to be affected by the development, including:
   a. Existing surface and groundwater.
   b. Hydrology, including volume, frequency and quality of discharges at proposed intake and discharge locations.
   c. Water Quality Objectives (as endorsed by the NSW Government 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.

8. The EIS must assess the impacts of the development on water quality, including:
   a. The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the development protects the Water Quality Objectives where they are currently being achieved, and contributes towards achievement of the Water Quality Objectives over time where they are currently not 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.

9. The EIS must assess the impact of the development 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 and coastal erosion

10. 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).
11. 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.
12. The EIS must model the effect of the proposed development (including fill) on the flood behaviour under the following scenarios:
    a. Current flood behaviour for a range of design events as identified in 8) above. 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.
13. 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.
14. The EIS must assess the impacts on the proposed development 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 B – Project Specific Requirements

1. Biodiversity

A. Impacts on the following species will require further consideration and provision of the information specified in s9.2 of the Framework for Biodiversity Assessment:

***Pterostylis chaetophora* (Tall Rustyhood)** – This is a widespread, though rarely recorded, vulnerable orchid species is known from Taree to the Hunter (including the Port Stephens local government area).It is currently known from *c.* 18 scattered locations in a relatively small area; in an area between Taree and Kurri Kurri, extending to the south-east towards Tea Gardens and west into the Upper Hunter, with additional records near Denman and Wingen. Specific details on its habitat and distribution are poorly known, though it is known from seasonally moist, dry sclerophyll forest with a grass and shrub understorey. The species has been recorded to the east of the proposal (< 1.5 km) in the Grahamstown Dam area; which represents the largest known population ('*hundreds of plants*'). This collection represents the eastern most limit of the species known geographic range in NSW. As such any potential loss could significantly reduce the viability and genetic diversity of this species, and therefore OEH specifically requires that this species is considered (in accordance Section 9 of the FBA).

Given its known habitat preferences and close proximity, OEH is of the opinion this species has the potential to occur on the proposed development site. As such OEH expects appropriately targeted sampling to be undertaken during its known flowering period (September to November [Bishop 2000]) and samples sent to the NSW Herbarium for identification and/or confirmation. OEH will provide assistance with details of the nearby location to assist with the targeted sampling. OEH notes that at present this species details in the OEH Threatened Species Database are incomplete (including the BioBanking credit calculator) due to its recent listing. OEH are in the process of rectifying this though recommend consultation with us in determining appropriately sampling strategies and offset requirements (if encountered).

References:

Bishop, T. (2000) *Field Guide to the Orchids of New South Wales and Victoria*. Second Edition, University of New South Wales Press Ltd., UNSW, Sydney.

2. Aboriginal cultural heritage

B. The assessment of cultural heritage values must include a surface survey undertaken by a qualified archaeologist in areas with potential for subsurface Aboriginal deposits. 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 EIS.

C. The EIS must outline procedures to be followed if Aboriginal objects are found at any stage of the life of the [development/project] to formulate appropriate measures to manage unforseen impacts.

D. The EIS 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.

3. Flooding (Including Hunter Valley Flood Mitigation Scheme requirements)

OEH generally notes that site is located on a west to east spur between Seven Mile Creek and a minor tributary of Seven Mile Creek both of which are intermittent water courses. With the exception the proposed road crossing for Seven Mile Creek (, located within the site,) the site is unlikely to be flood affected. Nevertheless, OEH notes the following issues that need to be addressed:

E. The proposal involves significant removal of vegetation and changes to site slope which will affect the catchment response to rainfall events. Though it is proposed to capture site runoff for reuse in storage dams for aggregate washing and dust suppression, OEH is of the opinion a full water balance for the site including the operation of sediment/silt dams will need to be carried out. OEH notes that required water and wastewater management on site may affect water availability in the Hunter Water Catchment area together with the method and timing of discharge to Seven Mile Creek.

F. Silt basins are also proposed to be constructed on site to manage waste from the wash process.Risk analysis will be required for these basins to ensure that water is not redirected in flood events to adjoining properties. The risk analysis should be carried out for events up to the Probable Maximum Flood (PMF) to ensure that failure/overflow of these basins does not have downstream flooding effects, especially given the site is located within a drinking water catchment area. The effect of the quarrying operations on runoff quality will need to be addressed. In addition the risk of re-suspension of sediment on the quality of water flowing to Seven Mile Creek will need to be addressed. These will need to be addressed by referral to Hunter Water and the Environmental Protection Authority.

   As stated above, a risk analysis is required for the on-site silt basins for rainfall/flood events up to the Probable Maximum Precipitation/PMF to assess the effect of failure/overflow of these basins on flows to Seven Mile Creek and the minor tributary of Seven Mile Creek. It should be ensured that the flood behaviour in the watercourses downstream are not altered by the works on the site, or the potential failure of these works.

G. Changes to water flows on site as result of changed topography or water management techniques must not have an adverse effect on flooding of the downstream waterway.

Attachment C – Guidance material

Title	Web address
Relevant Legislation	
Coastal Protection Act 1979	www.legislation.nsw.gov.au/maintop/view/inforce/act+13+1979+cd+0+N
Commonwealth Environment Protection and Biodiversity Conservation Act 1999	www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
Environmental Planning and Assessment Act 1979	www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
Fisheries Management Act 1994	www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N
Marine Parks Act 1997	www.legislation.nsw.gov.au/maintop/view/inforce/act+64+1997+cd+0+N
National Parks and Wildlife Act 1974	www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
Protection of the Environment Operations Act 1997	www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N
Threatened Species Conservation Act 1995	www.legislation.nsw.gov.au/maintop/view/inforce/act+101+1995+cd+0+N
Water Management Act 2000	www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
Wilderness Act 1987	www.legislation.nsw.gov.au/viewtop/inforce/act+196+1987+FIRST+0+N
Biodiversity	
NSW Biodiversity Offsets Policy for Major Projects (OEH, 2013)	www.environment.nsw.gov.au/resources/biodiversity/140672biopolicy.pdf
Framework for Biodiversity Assessment (OEH, 2013)	www.environment.nsw.gov.au/resources/biodiversity/140675fba.pdf
Fisheries NSW policies and guidelines	www.dpi.nsw.gov.au/fisheries/habitat/publications/policies,-guidelines-and-manuals/fish-habitat-conservation
List of national parks	www.environment.nsw.gov.au/NationalParks/parksearchatoz.aspx
Revocation, re-categorisation and road adjustment policy (OEH, 2012)	www.environment.nsw.gov.au/policies/RevocationOfLandPolicy.htm
Guidelines for developments adjoining land and water managed by OEH (DECCW, 2010)	www.environment.nsw.gov.au/resources/protectedareas/10509devadjdeccw.pdf
Heritage	
The Burra Charter (The Australia ICOMOS charter for places of cultural significance)	http://australia.icomos.org/wp-content/uploads/The-Burra-Charter-2013-Adopted-31.10.2013.pdf
Statements of Heritage Impact 2002 (HO & DUAP)	www.environment.nsw.gov.au/resources/heritagebranch/heritage/hmstatementsofhi.pdf
NSW Heritage Manual (DUAP) 1996	www.environment.nsw.gov.au/Heritage/publications/index.htm#G-I

Aboriginal Cultural Heritage	
Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010)	www.environment.nsw.gov.au/resources/cultureheritage/commconsultation/09781ACHconsultreq.pdf
Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010)	www.environment.nsw.gov.au/resources/cultureheritage/10783FinalArchCoP.pdf
Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH 2011)	www.environment.nsw.gov.au/resources/cultureheritage/20110263ACHguide.pdf
Aboriginal Site Recording Form	www.environment.nsw.gov.au/resources/parks/SiteCardMainV1_1.pdf
Aboriginal Site Impact Recording Form	www.environment.nsw.gov.au/resources/cultureheritage/120558asirf.pdf
Aboriginal Heritage Information Management System (AHIMS) Registrar	www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm
Care Agreement Application form	www.environment.nsw.gov.au/resources/cultureheritage/20110914TransferObject.pdf
Water and Soils	
Acid sulphate soils	
Acid Sulfate Soils Planning Maps via 'The NSW Natural Resource Atlas'	www.nratlas.nsw.gov.au/
Acid Sulfate Soils Manual (Stone et al. 1998)	www.planning.nsw.gov.au/rdaguidelines/documents/NSW%20Acid%20Sulfate%20Soils%20Planning%20Guidelines.pdf
Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al. 2004)	www.advancedenvironmentalmanagement.com/Reports/Savannah/Appendix%2015.pdf This replaces Chapter 4 of the Acid Sulfate Soils Manual above.
Flooding and Coastal Erosion	
Reforms to coastal erosion management	www.environment.nsw.gov.au/coasts/coastalerosionmgmt.htm
Floodplain development manual	www.environment.nsw.gov.au/floodplains/manual.htm
Guidelines for Preparing Coastal Zone Management Plans	Guidelines for Preparing Coastal Zone Management Plans www.environment.nsw.gov.au/resources/coasts/130224CZMPGuide.pdf
NSW Climate Impact Profile	NSW Climate Impact Profile
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	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)	www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf

NSW GOVERNMENT | Office of Environment & Heritage

Our reference: DOC15/305538
Contact: Emmanuel Fewquandie

Mr. Warren Martin
Senior Natural Resource Management Officer
Crown Lands
Department of Primary Industries
PO Box 2185
DANGAR NSW 2309

North Hill, Armidale Aboriginal Place nomination

Dear Mr Martin

I write to you regarding a nomination received by the Office of Environment and Heritage (OEH) for the North Hill area in Armidale to be declared an Aboriginal Place under section 84 of the *National Parks and Wildlife Act 1974*. The North Hill area was a former Aboriginal camp and is considered a place of significance for many Aboriginal people. The Aboriginal Place (AP) nomination applies to the following land parcels: Lot 9650 D.P 1141028, Lot 965 DP 755808, Lot 970 DP 755808, Lot 693, DP 755808, and Lot 1173 DP 748415.

Aboriginal Places are a way of legally recognising and protecting Aboriginal cultural heritage on public and private land. The declaration of an Aboriginal Place does not change the status of the land or effect ownership rights. OEH staff have undertaken an initial assessment of the North Hill Aboriginal Place nomination in accordance with the *OEH Aboriginal Place Assessment Guidelines* and is satisfied that North Hill has the potential to meet the requirements for declaration as an Aboriginal Place. A more complete assessment will be undertaken as part of the declaration process in consultation with the landowners, the nominees and other relevant stakeholders.

I am aware that a member of my staff, Emmanuel Fewquandie, has been consulting with the local Aboriginal Community, and would like to arrange to meet with you to discuss the North Hill Aboriginal Place nomination with Crown lands staff.

Further information regarding Aboriginal places can be found at:
http://www.environment.nsw.gov.au/conservation/AboriginalPlacesNSW.htm

To discuss this matter in greater detail please contact Emmanuel Fewquandie, Heritage Information Officer, on 66598294 or myself on 02 49273129. OEH look forward to continuing working with Crown Lands in the protection of this place of special significance to Aboriginal culture.

Yours sincerely

Sonia Limeburner
Senior Team Leader, North East Listings (Aboriginal Places and State Heritage Register)
Heritage Division
Office of Environment and Heritage
Ph: 02 49273129
sonia.limeburner@environment.nsw.gov.au

PORT STEPHENS
COUNCIL

Telephone enquiries:
MR B D GARDINER
File No: 25-2015-5-1
Parcel No: 42578
Your Ref: SSD 15_7332

DEPARTMENT OF PLANNING AND ENVIRONMENT
ATT: GENEVIEVE SEED
GPO BOX 39
SYDNEY NSW 2001

Dear Genevieve,

Re: **Request for input into SEARs for Eagleton Hard Rock Quarry (SSD 15_7332)**
Property: **LOT: 2 DP: 1108702**
13 Barleigh Ranch Way EAGLETON

Reference is made to your correspondence dated 15 October 2015 requesting Council's comments in relation to the issuing of Secretary's Environmental Assessment Requirements (SEARs) for the proposed Eagleton Hard Rock Quarry at the abovementioned property.

It is acknowledged that at this stage the applicant has only prepared a preliminary Environmental Assessment. Additional investigations will be required to be undertaken to allow a full assessment of the proposal. Council provides the following comments in relation to the proposal for incorporation into the SEARs. It is noted that Council's response relates to the preliminary Environmental Assessment only.

General Assessment Requirements

Legislation, Policies and Strategies

1. The Environmental Impact Statement (EIS) should address Council's local strategic plans including the Lower Hunter Regional Strategy. Whilst the Port Stephens Planning Strategy and Rural Lands Strategy do not specifically relate to the proposed land use, the application should address the overarching principles contained in the strategies including:
    a. Ensuring adequate infrastructure provision;
    b. Conservation of the natural environment;
    c. Maintenance of the natural landscape;
    d. The significance of agricultural land; and
    e. Economic growth.

2. The requirements of the Port Stephens Section 94 Plan 2007 should be applied to the subject development and require levying of a contribution toward maintenance of local roads impacted by the development.

3. Any new buildings proposed as part of the development will be required to meet the requirements of the Building Code of Australia.
4. The EIS should address the impacts of the development on the surrounding properties with particular attention to the other users of the right of carriageway.
5. The EIS should address the internal amenity of the development including:
    a. Adequate provision for car parking
    b. Disabled access,
    c. Provision of essential services,
    d. Staff facilities.

Engineering Requirements

6. The application should address the requirements of the following legislation, policies, strategies and manuals:
    a. Port Stephens Council Infrastructure Specification – Design and Construction;
    b. Port Stephens Council Urban Stormwater and Rural Water Quality Management Plan;
    c. AustRoads – Guide to Road Design;
    d. AustRoads – Guide to Pavement Technology;
    e. AustRoads – Guide to Bridge Technology;
    f. Australian Standard AS2890 – Parts 1, 2 and 6;
    g. RMS Supplements for AustRoads and Australian Standards;
    h. Australian Rainfall and Runoff;
    i. Australian Runoff Quality;
    j. National Water Quality Management Strategy – Water Quality Guidelines;
    k. Protection of the Environment Operations Act 1997;
    l. Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2014;
    m. Roads Act 1993;
    n. National Parks and Wildlife Act 1974;
    o. Threatened Species Conservation Act 1995; and
    p. Hunter Water Act 1991.

7. The Preliminary Environmental Assessment Report has offered to provide a number of supporting reports, investigations and management plans. These reports must be developed in accordance with the reference documents above (at point 6), and specific minimum inclusions are noted below:

    a. Water management

i. Surface water and hydrology is discussed within section 5.2 of the JBA report, and commits to the design and construction of water management system. Details of the proposed channels, catch drains, (dirty) water management dams and sediment dams must be provided for assessment. Details are to include the basis for their sizing and location, size, capacities, assumptions, operation and maintenance summary and construction methodology. Functional electronic copies of any models and spreadsheets used are requested to be provided to aid assessment.

ii. The assumed preliminary design storm for the containment dam has been identified as the 10 year ARI 24 hour storm event.This appears to be inadequate on initial assessment. The subject site is located within the Grahamstown Dam drinking water catchment and water discharging from this catch dam must be treated to a high quality. Council notes that another development within the same catchment has been required to provide a diversion channel catering for the 500 year ARI storm event to preserve water quality within the Grahamstown Dam. Furhter, Council strongly recommends that the application be formally referred to Hunter Water Corporation for their consideration in setting the appropriate design criteria.

iii. A detailed Water Balance Analysis is discussed within the submitted documentation. It is noted that this shall seek to meet process water and site dust suppression, with retained/detained surface water. Details of the Water Balance Analysis are to be provided for assessment, including consideration of environmental flow release. Functional electronic copies of any models and spreadsheets used should be provided with the Development Application.

iv. Council notes that anticipated retention dam size is expected to exceed the harvestable right of the land and referral to Department of Primary Industries – NSW Office of Water is recommended to determine/discuss licensing requirements associated with the proposed development.

v. The development could cause groundwater contamination and surface water contamination. It is recommended that the application be referred to Department of Primary Industries – NSW Office of Water is and the Office of Environment and Heritage.

vi. The Water Management System submitted with the development proposal must consider stream bed and bank stability must be discussed within the site and should include the impacts on the riparian, ecological, and geomorphological values.

vii. The surface water that comes in contact with the Underground Petroleum Storage System (UPSS) must be pretreated in accordance with the *Protection of the Environment (Underground Petroleum Storage System) Regulation 2014* (POEO (UPSS) Reg) prior to discharge to the storm water management system.

viii. Council considers that there are conflicting and competing priorities in relation to water management at the site. Opportunities for efficient

infrastructure delivery also arise. The applicant should submit an Integrated Water Management Plan to collectively consider the implications of stormwater conveyance, water quality, flooding, potable water conservation, stream bed and bank stability, process water balance, ground water interactions/impacts and any others matters that may become apparent through detailed site investigation.

b. Access, Transport and Traffic

i. Access, transport and traffic impacts of the development are discussed in Section 5.1 of the JBA report, which commits to a Traffic and Transport Impact Assessment report. The items for consideration are noted as improvements to: (a)Barleigh Ranch Way and Italia Road; (b) intersections of Italia Road/Pacific Hwy, (c) Italia Road/Right of Carriageway; and (c) the cumulative impact with other proposed development in the locality. Council requires that the Traffic and Transport Impact Assessment be accompanied by preliminary designs for road and intersection upgrades. The application should also be supported by a Preliminary Design Stage Road Safety Audit. Additional considerations for the Traffic and Transport Impact Assessment report include:

- Intersection treatments required at the Italia Road/Right of Carriageway. It is noted that the reference to Figure 3.1 of the Off-street parking Standard AS2890.2 does not adequately consider intersection treatments and assumes conservative road formations. The applicant should select, design and construct the intersection treatment in accordance with AustRoads – Guide to Road Design.
- Adequacy of sight distance and discussion of mitigation options. In this regard, particular concern is raised at the Italia Road/Right of Carriageway intersection. The applicant should address acceleration and deceleration lanes to the east, and Stop sign control.
- Barleigh Ranch Way must be upgraded to a public road standard. This would require a minimum 8 metre wide pavement formation and minimum 5.5 metre central seal.
- Council recommends Right of Carriageway formation upgrades to mirror those provided for Barleigh Ranch Way.
- Council would require that the intersection upgrade to Italia Road/Right of Carriageway and road formation upgrades to Barleigh Ranch Way. Further, that the Right of Carriageway must be completed prior to the physical commencement of works on site to provide safe construction access.

ii. The application should be referred to Roads and Maritime Service (RMS) for their consideration regarding the impacts of the state road network, and in particular the intersection of Italia Road/Pacific Highway;

iii. The applicant should be advised that internal roadways, parking and maneuvering are to comply with Australian Standard for off-street parking AS2890 – Parts 1, 2 and 6;

iv. The applicant should be advised that all works which are located in public roads (including road reserve) are subject to approval under section 138 of the *Roads Act 1993.* Engineering details in accordance with Council's Design and Construction Specification. Policies and Standards must be submitted with a Roads Act application form and then approved by Port Stephens Council prior to commencement of these works;

v. The following items are also required to be approved by Council prior to approval being granted to commence works:

- Traffic control plans in accordance with the Roads and Traffic Authority - Traffic Control at Worksites Manual.
- Payment of fees and bonds (same Principle Certifying Authority fees. inspection fees and maintenance bonds as relevant).
- Contractors public liability insurances to a minimum value of $10 million. =Construction Management Plan.

vi. The applicant should be advised that any approval issued should be conditioned to ensure that the developer shall restore, replace or reconstruct any damage caused to road pavements, surfaces, street furniture, roadside drainage, street lighting or underground facilities on the haulage routes used for the construction of the proposed development. The developer will bear all of the associated costs involved in these works.

Natural Resource Management Requirements

8. Appropriate survey design and effort for determining Plant Community Types (PCTs) and threatened species are required to ensure impacts to threatened species and Endangered Ecological Communities (EECs) are appropriately considered in a Biodiversity Assessment Report (BAR). The investigations are to inform the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (the EPBC Act) considerations to ensure appropriate mitigation measures are identified and the potential Biodiversity Offset Strategy (BOS) is fully commensurate with the loss. Council considers that targeted survey effort is essential for the Grey Crowned Babbler, the Long Nosed Potaroo, the Spotted Tailed Quoll, the Phascogale, *Asperula astheneas, Cynanchum elegans, Grevillia parviflora subsp parviflora* and the Koala.

9. The EIS should address the potential impacts of dewatering of groundwater on Seven Mile Creek groundwater dependent ecosystems (GDEs) that is likely to occur as a result of the development.

10. A comprehensive rehabilitation plan should be provided for within the EIS. The Rehabilitation plan is required for rehabilitation of the site post extraction as well as a plan for the management of eventual offset lands to ensure assumed biodiversity

values are maintained or achieved in the case of management actions resulting in credits.

Environmental Health Requirements

11. Details of the on-site sewage management requirements for the development should be included within the EIS. The proposed site is classified high hazard according to Councils on-site sewage management system (OSMS) hazard Class Mapping. The applicant should engage an appropriately qualified and experienced wastewater practitioner to undertake a comprehensive on-site wastewater management investigation for the proposed development. The report must include a sufficiently detailed and documented site, soil and environmental assessment such that a determination on suitability for on-site treatment and disposal can be considered. Other report elements shall include, but not be limited to; system selection and design, all system design calculations, assumptions and scenarios, defined effluent management areas (EMA), detailed site plans including but not limited to identified EMA's and 2metre contours, complex cumulative impact assessment, soil borehole logs and soil analysis certificates. The prior approval from Council will be required for the installation and operation of On-site Sewage Management Systems in accordance with *Local Government Act 1993 (*section68). The applicant should give regards to the following legislation, policies, framework and standards:
    a. *Local Government Act 1993*;
    b. *Local Government (General) Regulation 2005*;
    c. *Hunter Water Act 1991*;
    d. *Hunter Water Regulation 2015*;
    e. Port Stephens Council On-site Sewage Management Policy;
    f. Port Stephens Council On-site Sewage Management Development Assessment Framework; and
    g. Australian Standard AS1547:2012.

12. The EIS must adequately addresses proposed solid and liquid trade waste management requirements for the development. It is suggested that a comprehensive environmental aspect and impact register be completed as a part of the environmental assessment process.

13. A detailed assessment is to be undertaken of the potential impact of the development upon:
    a. The quantity and quality of regional water supplies, and in particular the supply of water to the Hunter Water Corporation.
    b. Regional water supply infrastructure, including Grahamstown Dam.
    c. Affected licensed water users and basic landholder rights (including downstream water users).
    d. Potential impacts on the riparian, ecological, geomorphological and hydrological values of watercourses, including environmental flows.

e. A detailed site water balance, including a description of the quantity and quality of site water demands, water disposal methods (inclusive of volume and frequency of any water discharges), water supply infrastructure and water storage structures.
f. Identification of any licensing requirements or other approvals under the *Water Act 1912*, and/or *Water Management Act 2000* or *Hunter Water Act 1991*.
g. Demonstration that water for the construction and operation of the development can be obtained from an appropriately authorised and reliable supply in accordance with the operating rules of any relevant Water Sharing Plan (WSP) or water source embargo.
h. A description of the measures proposed to ensure the development can operate in accordance with the requirements of any relevant WSP or *Hunter Water Regulation 2015*.
i. A detailed description (with detailed figures) of the proposed water management system (including sewage), water monitoring program and other measures to mitigate surface and groundwater impacts.

14. Comprehensive assessment is to be undertaken of the potential impacts of the proposed activities on surface and ground water resources and adjoining properties including:
    a. Potential impacts on intermittent watercourses and dams on neighbouring properties from stormwater flows including an assessment of potential water discharge quantities and quality against receiving water and flow objectives.
    b. Assessment of sediment and erosion control requirements as part of a broader and documented sediment and erosion control strategy.
    c. Detailed description of proposed water management and monitoring measures designed to mitigate surface water and groundwater impacts.
    d. A detailed site water balance including a description of the site water demands, water disposal methods, water supply infrastructure and water storage structures.
    e. The requirements of the following legislation, policies and documents:
        i. *Protection of the Environment Operations Act 1997*;
        ii. Managing Urban Stormwater, Soils and Construction – Volume 2E Mines and Quarries (DECC 2008);
        iii. National Water Quality Management Strategy: Australian Guidelines for Fresh and Marine Water Quality (ANZECC);
        iv. National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia;
        v. NSW Aquifer Interference Policy;
        vi. NSW State Groundwater Policy Framework;
        vii. NSW State Groundwater Quality Protection Policy; and
        viii. NSW State Groundwater Quality Management Policy.

15. Comprehensive assessments, including quantitative assessment, must be undertaken that address:
    a. Noise and vibration generated during the construction phase of the development.
    b. Operational noise impacts from all industrial activities including the operation of drilling, crushing and screening equipment.
    c. Noise impacts from transport and mobile equipment relating to on-site and off-site mobile and transport activities.
    d. Vibration from all activities likely to have an impact on residents, livestock and property.
    e. Mitigation measures to minimise impacts.
    f. Monitoring and management measures.
    g. The requirements of the following legislation, policies and documents:
        i. *Protection of the Environment (Noise Control) Regulation 2008*;
        ii. NSW Industrial Noise Policy (EPA 2000);
        iii. Interim Construction Noise Guideline (DECC 2009);
        iv. Assessing Vibration: A Technical Guideline (EPA 2006);
        v. Technical Basis for Guidelines to Minimise Annoyance Due to Blasting Overpressure and Ground Vibration (ANZECC 1990);
        vi. NSW Road Noise Policy (EPA 2011); and
        vii. Environmental Criteria for Road Traffic Noise (EPA 1999)

16. The EISshould address potential impacts from hazardous materials and activities that may be undertaken during construction or operation. This may include activities and materials associated with mechanical workshop activities, on-site re-fuelling of plant and equipment, storage of fuels and use and storage of other hazardous materials.

17. The EIS should address potential impacts, including cumulative impacts, of the proposed activities on air quality from dust, diesel fumes and blasting emissions on residents, livestock and property likely to occur during both the construction and operational phases. The EIS should include particular attention to the impact on residents and livestock that are reliant on non-reticulated water supplies such as roof captured water and dam water. Increased dust and particulate levels have the potential to impact on the usability of those water supplies. Additional information should be included that addresses;
    a. Mitigation measures to minimise dust, diesel fumes and blast emissions and measures to minimise impacts on resident and livestock water supplies;
    a. Management and monitoring measures; and
    b. The following legislation and documentation:
        i. *Protection of the Environment Operations (Clean Air) Regulation 2010*;
        ii. The Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW (DEC, 2005a); and

iii. Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC).

Key Issues

1. Council's internal conservation assessment tool finds that the subject land parcel has a high to very high conservation value. Preliminary survey effort has been undertaken by the proponent that has established that a number of threatened species are known to occur or potentially occur within the site and locality.

2. Councils GIS indicates that the subject land potentially contains vegetation communities commensurate with the Endangered Ecological Community (EEC) Lower Hunter Valley Dry Rainforest.

3. The subject site contains significant numbers of *Eucalyptus punctate*. The Port Stephens Comprehensive Koala Plan of Management (CKPoM) does not list *Eucalyptus punctata* as a preferred Koala feed species thus the CKPoM has not identified Preferred Koala habitat onsite. However since it's 2002 acknowledgement of this tree species as being important, it is now commonly accepted by council staff, the CKPoM Steering Committee and local experts that Koalas are known to use both *Eucalyptus tereticornis* and *Eucalyptus punctata* in this area and koalas have been located on this site and surrounds.

4. The preliminary investigation has suggested that the site contains Spotted Gum-Ironbark Dry Sclerophyll Forest that is not an EEC under the *Threatened Species Conservation Act 1995* (NSW) ('TSC Act') or a Threatened Ecological Community under the EPBC Act (Cth). Further consideration and justification is required to confirm the absence or expected presence of Lower Hunter Spotted Gum Ironbark Forest and the rainforest EECs listed under the TSC Act.

5. The preliminary environmental assessment describes residential zoned land within the Kings Hill Urban Release Area as being approximately 4km away, however Councils GIS indicates that the development is within 1km of land zoned R1 General Residential within the Kings Hills Urban Release Area.

6. The subject land is bushfire prone and the application should address bushfire safety.

7. The subject land is located within the Hunter Water Special Catchment Area (Grahamstown Dam) and the impacts of the development on the drinking water catchment should be included in the assessment.

Conclusion

The above comments and recommendations are provided in response to the information supplied to Council. Council requests these matters are taken into consideration in preparation of the SEARs, and that a copy of the SEARs is provided to Council on issue to the applicant.

Should you require any further information in relation to this matter or have any questions, please contact me on the details below and I will be happy to help.

Yours faithfully

Brett Gardiner
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Transport
Roads & Maritime
Services

29 October 2015

CR2015/004934
SF2012/041993
KAP

Manager - Resource Assessments
Planning Services
NSW Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Dear Genevieve Seed,

PROPOSAL – EAGLETON HARD ROCK QUARRY PROJECT, BARLEIGH RANCH WAY, EAGLETON (LOT 2 DP 1108702), SEARS INPUT REQUEST SSD 15_7332

Reference is made to Department of Planning and Environment's email dated 15 October 2015, requesting Roads and Maritime Service's (Roads and Maritime) requirements under Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* for the Preliminary Environmental Assessment Report, prepared by JBA Urban Planning Consultants P/L, dated October 2015 for the proposed rock quarry at Barleigh Ranch Way, Eagleton.

Roads and Maritime understands that the current proposal is similar to a request made for Director-Generals Requirements in 2010 under Part 3A of the *Environmental Planning and Assessment Act 1979* where an extraction rate of 750,000tpa was proposed. The current proposal seeks to extract 600,000tpa. Access to the site is still proposed to be from Barleigh Ranch Way via a right-of-carriageway to Italia Road and onto / from the Pacific Highway. Operating hours are proposed between 5:00am to 10:00pm Mondays to Fridays and 6:00am to midday Saturdays.

Roads and Maritime response and requirements

Roads and Maritime has reviewed the information provided, including the Preliminary Environmental Assessment Report, and raises no objection to or requirements for the proposed development, subject to the following requirements:

- The EIS should include reference to Section 2 'Traffic Impact Studies' within RTA's *Guide to Traffic Generating Developments 2000* with regard to the traffic and transport impacts of the proposed development.

- A traffic and transport study shall be prepared in accordance with the RMS *Guide to Traffic Generating Developments 2000* and is to include, but not be limited to, the following:

    - Assessment of all relevant vehicular traffic routes and intersections for access to / from the subject area during the construction and operational phases.

    - Current traffic counts (over 3 days) for all the traffic routes and intersections.

    - Identification and justification of anticipated additional vehicular traffic generated from the proposed development and associated trip distribution on the road network during both the construction and operational phases.

    - The cumulative impacts on road safety and traffic efficiency at the intersection of the Pacific Highway and Italia Road as a result of the vehicular movements to/from the proposed quarry, the Boral Quarry, and other existing / future-known land uses.

      Comment: It is expected that an upgrade of the intersection is likely and that all costs associated with an upgrade will be at the developer's expense.

    - Identify the necessary road network infrastructure upgrades that are required to maintain existing levels of service on both the local and classified road network. In this regard, concept drawings shall be submitted with the Environmental Assessment for any identified road infrastructure upgrades. However, it should be noted that any identified road infrastructure upgrades will need to be to the satisfaction of Council and Roads and Maritime.

- A road safety risk assessment of the Pacific Highway / Italia Road intersection post-development. This assessment should identify and evaluate potential measures to improve road safety at this intersection.

Comment: RMS is aware of road safety concerns arising from limited sight distance for heavy vehicle operators at the subject intersection. A number of complaints have been received from Boral workplace health and safety representatives regarding the safety of the right turn out of Italia Road. Additional heavy vehicle movements at this intersection are likely to increase the road safety risks.

- A Construction Traffic Management Plan should be provided addressing construction traffic impacts resulting from development/s on-site.

- Intersection analysis (such as SIDRA) shall be submitted to determine the need for intersection and road capacity upgrades. The intersection analysis shall include (but not limited to) the following:

    - Current traffic counts and 10 year traffic growth projections;
    - 95th percentile back of queue lengths;
    - Delays and level of service on all legs for the relevant intersection/s;
    - Electronic input/output data files for Roads and Maritime to review.

Roads and Maritime will provide further comment / requirements on the subject proposal during the public exhibition stage of a formal application and receipt of the abovementioned documentation.

On determination of this matter, please forward a copy of the SEARs to Roads and Maritime for record and / or action purposes. Should you require further information please contact Kellee McGilvray on 4924 0688 or by email at development.hunter@rms.nsw.gov.au.

Yours sincerely

29/10/15

Kevin Webster
Network and Safety Manager
Hunter