Planning Services
Resource Assessments
Contact: Tertius Greyling
Phone: 9274 6402
Email: tertius.greyling@planning.nsw.gov.au

Mr Robert MacQueen
Project Manager
Sydney Trains
Level 2, 36-46 George Street
Burwood NSW 2134

Dear Mr MacQueen

State Significant Development - Secretary's Requirements
Sydney Trains' Dunmore Hard Rock Quarry (SSD 17_8603)

I have enclosed the Secretary's requirements for the preparation of an Environmental Impact Statement (EIS) for the Sydney Trains' Dunmore Hard Rock Quarry.

These requirements are based on the information you have provided to date, and have been prepared in consultation with the relevant government agencies. The agencies' comments are attached for your information (see Attachment 2). You must have regard to these comments in the preparation of the EIS.

Please note that the Department may alter these requirements at any time, and that you must consult further with the Department if you do not lodge a development application and EIS for the project within the next two years.

You should establish whether the proposal requires a separate approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) as soon as possible. If such an approval is required, please notify the Department immediately, as the Commonwealth approval process is likely to be integrated with the NSW approval process (under the bilateral agreement), and supplementary requirements will need to be issued.

Please contact the Department at least two weeks before you plan to submit the development application and EIS for the project. This will enable the Department to:

- confirm the applicable fee (see Division 1AA, Part 15 of the *Environmental Planning and Assessment Regulation 2000*); and
- determine the required number of copies of the EIS (hard copy and digital).

It is important for you to recognise that the Department will review the EIS for the project carefully before putting it on public exhibition. If it fails to adequately address these requirements, then you will be required to submit an amended EIS.

If you have any enquiries about these requirements, please contact Tertius Greyling on the details listed above.

Yours sincerely

Howard Reed 3.8.17
Howard Reed
Director
Resource Assessments
as the Secretary's delegate

Secretary's Environmental Assessment Requirements

State Significant Development

Section 78A(8A) of the *Environmental Planning and Assessment Act 1979*
Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*

Application Number	SSD 17_8603
Proposal	The Sydney Trains' Dunmore Hard Rock Quarry Project, which involves: • establishing a quarry to extract and process up to 1 million tonnes of hard rock per annum for up to 30 years; • constructing associated site infrastructure and amenities; • transporting material off-site via public roads and rail; and • progressively rehabilitating the site.
Location	Tabbita Road, Dunmore 2529 (Lot 1 DP 1002951)
Applicant	Sydney Trains
Date of Issue	3 August 2017
General Requirements	The Environmental Impact Statement (EIS) for the development must comply with the requirements in Clauses 6 and 7 of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000.* In particular, the EIS must include: • a stand-alone executive summary; • a full description of the development, including: – the resource to be extracted, including the amount, type and composition; – the site layout and extraction plan, including cross-sectional plans; – the production process and processing activities, including the in-flow and out-flow of materials and points of discharge to the environment; – surface infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process); – a waste (overburden, rejects, tailings etc.) management strategy; – a water management strategy; – a rehabilitation strategy to apply during, and after completion of, extraction operations, and proposed final use of site; and – the likely interactions between the development and any existing, approved or proposed development in the vicinity of the site; • a strategic justification of the development focusing on site selection and the suitability of the proposed site; • a list of any approvals that must be obtained before the development may commence; • an assessment of the likely impacts of the development on the environment, focussing on the key issues identified below, including: – a description of the existing environment likely to be affected by the development, using sufficient baseline data; – an assessment of the likely impacts of all stages of the development, including any cumulative impacts, taking into consideration any relevant laws, environmental planning instruments, guidelines, policies, plans and industry codes of practice; – a description of the measures that would be implemented to avoid, minimise, mitigate and/or offset the likely impacts of the development, and an assessment of: o whether these measures are consistent with industry best practice, and represent the full range of reasonable and feasible mitigation

	measures that could be implemented; o the likely effectiveness of these measures; and o whether contingency measures would be necessary to manage any residual risks; and – a description of the measures that would be implemented to monitor and report on the environmental performance of the development; • a consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS; • consideration of the development against all relevant environmental planning instruments (including Part 3 of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007)*; • the reasons why the development should be approved, having regard to: – relevant matters for consideration under the *Environmental Planning and Assessment Act 1979*, including the objects of the Act; – the biophysical, economic and social impacts of the project, including the principles of ecologically sustainable development; – the suitability of the site with respect to potential land use conflicts with existing and future surrounding land uses; – feasible alternatives to the development (and its key components), including the consequences of not carrying out the development; • a signed declaration from the author of the EIS, certifying that the information contained within the document is neither false nor misleading. While not exhaustive, Attachment 1 contains a list of some of the environmental planning instruments, guidelines, policies, and plans that may be relevant to the environmental assessment of this development. In addition to the matters set out in Schedule 1 of the *Environmental Planning and Assessment Regulation 2000*, the development application must be accompanied by a signed report from a suitably qualified expert that includes an accurate estimate of the capital investment value (as defined in Clause 3 of the *Environmental Planning and Assessment Regulation 2000*) of the development, including details of all the assumptions and components from which the capital investment value calculation is derived.
Key Issues	The EIS must address the following key issues: • **Noise & Blasting** – including: - a detailed assessment of the likely construction, operational and off-site transport noise impacts of the development in accordance with the *Interim Construction Noise Guideline*, *NSW Industrial Noise Policy* and the *NSW Road Noise Policy* respectively, and having regard to the *Voluntary Land Acquisition and Mitigation Policy*; - if a claim is made for specific construction noise criteria for certain activities, then this claim must be justified and accompanied by an assessment of the likely construction noise impacts of these activities under the *Interim Construction Noise Guideline*; - proposed blasting hours, frequency and methods; - a detailed assessment of the likely blasting impacts of the development (including noise, vibrations, overpressure, visual and odour) on people, animals, buildings, infrastructure and significant natural features, having regard to the relevant ANZEC guidelines; - reasonable and feasible mitigation measures to minimise noise emissions; and - monitoring and management measures, in particular real-time and attended noise monitoring; • **Air Quality** – including: - a detailed assessment of potential construction and operational impacts, in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW,* and with a particular focus on dust emissions including $PM_{2.5}$ and PM_{10}, and having regard to the *Voluntary Land Acquisition and Mitigation Policy*; - an assessment of potential dust and other emissions generated from processing, operational activities and transportation of quarry products; - reasonable and feasible mitigation measures to minimise dust and

emissions; and
- monitoring and management measures, in particular, real-time air quality monitoring;

- **Water** – including:
  - a detailed site water balance, including a description of site water demands, water disposal methods (inclusive of volume and frequency of any water discharges), water supply infrastructure and water storage structures;
  - identification of any licensing requirements or other approvals under the *Water Act 1912* and/or *Water Management Act 2000*;
  - 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);
  - a description of the measures proposed to ensure the development can operate in accordance with the requirements of any relevant WSP;
  - an assessment of any likely flooding impacts of the development;
  - an assessment of the likely impacts on the quality and quantity of existing surface and ground water resources, including a detailed assessment of proposed water discharge quantities and quality against receiving water quality and flow objectives;
  - an assessment of the likely impacts of the development on aquifers, watercourses, riparian land, water-related infrastructure, and other water users; and
  - a detailed description of the proposed water management system (including sewage), water monitoring program and other measures to mitigate surface and groundwater impacts;
- **Biodiversity** – including:
  - accurate predictions of any vegetation clearing on site;
  - a detailed assessment of the likely biodiversity impacts of the development, paying particular attention to threatened species, populations and ecological communities and groundwater dependent ecosystems, and having regard to the *NSW Biodiversity Offsets Policy for Major Projects* and the *Framework for Biodiversity Assessment*; and
  - a strategy to offset any residual impacts of the development in accordance with the *NSW Biodiversity Offsets Policy for Major Projects*, including evidence that the appropriate type and quantum of offsets will be available;
- **Heritage** – including:
  - an assessment of the potential impacts on Aboriginal heritage (cultural and archaeological), including evidence of appropriate consultation with relevant Aboriginal communities/parties and documentation of the views of these stakeholders regarding the likely impact of the development on their cultural heritage; and
  - identification of historic heritage in the vicinity of the development and an assessment of the likelihood and significance of impacts on heritage items, having regard to the relevant policies and guidelines listed in Attachment 1;
- **Traffic & Transport** – including:
  - accurate predictions of the road traffic generated by the construction and operation of the development, including a description of the types of vehicles likely to be used for transportation of quarry products;
  - a detailed assessment of potential traffic impacts on the capacity, condition, safety and efficiency of the local and State road network (as identified above); and
  - a description of the measures that would be implemented to mitigate any impacts, including concept plans of any proposed upgrades, developed in consultation with the relevant road and rail authorities (if required);
- **Land Resources** – including a detailed assessment of:
  - potential impacts on soils and land capability (including potential erosion and land contamination) and the proposed mitigation, management and remedial measures (as appropriate);
  - potential impacts on landforms (topography), paying particular attention to

	the long term geotechnical stability of any new landforms (such as overburden dumps, bunds etc.); and - the compatibility of the development with other land uses in the vicinity of the development in accordance with the requirements in Clause 12 of *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries)* 2007, paying particular attention to the agricultural land use in the region; • **Waste** – including estimates of the quantity and nature of the waste streams that would be generated or received by the development and any measures that would be implemented to minimise, manage or dispose of these waste streams; • **Hazards** – including an assessment of the likely risks to public safety, paying particular attention to potential bushfire risks and the transport, handling and use of any hazardous or dangerous goods; • **Visual** – including a detailed assessment of the likely visual impacts of the development on private landowners in the vicinity of the development and key vantage points in the public domain, paying particular attention to any new landforms, and to minimising the lighting impacts of the development; • **Social & Economic** – including: - a detailed assessment of the likely social impacts of the development on the local and regional community; and - a detailed assessment of the likely economic impacts of the development, paying particular attention to: o the significance of the resource; o the costs and benefits of the project; identifying whether the development as a whole would result in a net benefit to NSW, including consideration of fluctuation in commodity markets and exchange rates; and o the demand for the provision of local infrastructure and services; • **Cumulative Impacts** - including an assessment of likely cumulative impacts of the proposed quarry operating in combination with other established quarries in the locality, paying particular attention to likely impacts on water resources, land capability and shared infrastructure; and • **Rehabilitation** – including the proposed rehabilitation strategy for the site having regard to the key principles in the *Strategic Framework for Mine Closure*, including: - rehabilitation objectives, methodology, monitoring programs, performance standards and proposed completion criteria; - nominated final land use, having regard to any relevant strategic land use planning or resource management plans or policies; and - the potential for integrating this strategy with any other rehabilitation and/or offset strategies in the region.
Consultation	During the preparation of the EIS, you must consult with relevant local, State and Commonwealth Government authorities, service providers, Aboriginal stakeholders, community groups and affected landowners. You must: • consult with: – affected landowners; – community groups; – Shellharbour City Council; – Office of Environment and Heritage (including the Heritage Branch); – Environment Protection Authority; – Division of Resources and Geoscience within the Department; – Department of Primary Industries (including the DPI Water, NSW Forestry, Agriculture and Fisheries sections and Crown Lands division); – South East Local Land Services; – Roads and Maritime Services; and – NSW Rural Fire Service; and • establish a Community Consultative Committee for the project in accordance with the *Community Consultative Committee Guidelines for*

	State Significant Projects, and consult with the committee during the preparation of the EIS; and The EIS must: • describe the consultation process used and demonstrate that effective consultation has occurred; • describe the issues raised by public authorities, service providers, community groups and landowners; • identify where the design of the development has been amended in response to issues raised; and otherwise demonstrate that issues raised have been appropriately addressed in the assessment.
Further consultation after 2 years	If you do not lodge a development application and EIS for the development within 2 years of the issue date of these requirements, you must consult further with the Secretary in relation to the preparation of the EIS.

ATTACHMENT 1

Environmental Planning Instruments, Policies, Guidelines & Plans

Air	
	Voluntary Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Developments (DP&E)
	Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (EPA)
	National Greenhouse Accounts Factors (Commonwealth)
Noise & Blasting	
	Voluntary Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Developments (DP&E)
	NSW Industrial Noise Policy (EPA)
	Interim Construction Noise Guideline (DECC)
	NSW Road Noise Policy (EPA)
	Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration (ANZEC)
Water	
Groundwater	NSW State Groundwater Policy Framework Document (NOW)
	NSW State Groundwater Quality Protection Policy (NOW)
	NSW State Groundwater Quantity Management Policy (NOW)
	NSW Aquifer Interference Policy 2012 (NOW)
	Office of Water Guidelines for Controlled Activities (2012)
	Groundwater Monitoring and Modelling Plans – Information for prospective mining and petroleum exploration activities (NOW)
	Australian Groundwater Modelling Guidelines 2012 (Commonwealth)
	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC)
	Guidelines for the Assessment & Management of Groundwater Contamination (EPA)
Surface Water	NSW Government Water Quality and River Flow Objectives (EPA)
	Using the ANZECC Guideline and Water Quality Objectives in NSW (EPA)
	National Water Quality Management Strategy: Australian Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Guidelines for Sewerage Systems – Effluent Management (ARMCANZ/ANZECC)
	NSW Water Conservation Strategy (2000)
	State Water Management Outcomes Plan
	NSW State Rivers and Estuary Policy (1993)
	Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (EPA)
	Managing Urban Stormwater: Soils & Construction (Landcom) and associated Volume 2E: Mines and Quarries (EPA)
	Managing Urban Stormwater: Treatment Techniques (EPA)
	Managing Urban Stormwater: Source Control (EPA)
	Technical Guidelines: Bunding & Spill Management (EPA)
	Environmental Guidelines: Use of Effluent by Irrigation (EPA)
	A Rehabilitation Manual for Australian Streams (LWRRDC and CRCCH)
	NSW Guidelines for Controlled Activities on Waterfront Land (NOW)
Land	
	Soil and Landscape Issues in Environmental Impact Assessment (NOW)

	Agfact AC.25: Agricultural Land Classification (NSW Agriculture)
	Agricultural Issues for Extractive Industries (NSW Trade and Investment)
	State Environmental Planning Policy No. 55 – Remediation of Land
	Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC)
	State Environmental Planning Policy No. 71 – Coastal Protection
	State Environmental Planning Policy (Coastal Management) 2016
Traffic	
	Guide to Traffic Generating Development (RMS)
	Road Design Guide (RMS) & relevant Austroads Standards
Biodiversity	
	Framework for Biodiversity Assessment (OEH)
	NSW Biodiversity Offsets Policy for Major Projects (OEH)
	Guidelines for Threatened Species Assessment (DP&E)
	NSW State Groundwater Dependent Ecosystem Policy (NOW)
	Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW)
	State Environmental Planning Policy No. 44 – Koala Habitat Protection
	State Environmental Planning Policy No. 14 – Coastal Wetlands
Heritage	
	The Burra Charter (The Australia ICOMOS charter for places of cultural significance)
	Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation (DP&E)
	Aboriginal Cultural Heritage Consultation Requirements for Proponents (OEH)
	Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (OEH)
	Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH)
	NSW Heritage Manual (OEH)
	Statements of Heritage Impact (OEH)
Hazards	
	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
	Hazardous and Offensive Development Application Guidelines – Applying SEPP 33
	Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis
	Planning for Bushfire Protection 2006
Waste	
	Waste Classification Guidelines (EPA)
Rehabilitation	
	Mine Rehabilitation – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth)
	Mine Closure and Completion – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth)
	Strategic Framework for Mine Closure (ANZMEC-MCA)
Environmental Planning Instruments - General	
	State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007
	State Environmental Planning Policy (State and Regional Development) 2011
	State Environmental Planning Policy (Infrastructure) 2007
	Shellharbour Local Environmental Plan 2013

ATTACHMENT 2

Agency Correspondence

Shellharbour CITY COUNCIL

Administration Centre
Lamerton House, Lamerton Crescent
Shellharbour City Centre
NSW 2529

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DX 26402 Shellharbour City Centre

25.07.2017

Tertius Greyling
Senior Environmental Assessment Officer
NSW Department of Planning & Environment
320 Pitt Street Sydney NSW 2001

Recommendations for SEARs requirements for proposed Sydney Trains' Dunmore Hard Rock Quarry State Significant Development (SSD 17_8603)

Dear Tertius,

Thank you for the opportunity to comment on the requirements for the preparation of an Environmental Impact Assessment (EIA) for the Sydney Trains Dunmore Hard Rock Quarry proposal. It is understood that the recommendations provided by Shellharbour City Council (SCC) will inform the Department of Planning in their development of the Secretary's Environmental Assessment Requirements (SEARs) for the proposed State Significant Development.

After a review of the Preliminary Environmental Assessment – Sydney Trains' Dunmore Hard Rock Quarry provided by Transport for NSW (July 2017) the minimum requirements recommended for the EIA are outlined in the following paragraphs.

It is imperative that the EIA considers the potential direct, indirect and cumulative impacts for the proposed mining area and all associated ancillary works including, but not limited to the Mining and Processing area, Option 1 and 2 Haul Roads, Option 1 Stockpiling, Option 1 Loading, Option 2 Stockpiling and Loading and the proposed Railway Line Extension. Assessment of impacts for all environmental factors is required to be undertaken for all on site works on Lot 1 DP 1002951; Lot 3 DP 1030504 and Lot 4 DP 571406 and an assessment of the cumulative impacts of the adjacent Boral Dunmore Quarry and the nearby Dunmore Sand and Soil operation be included. Any subsequent indirect impacts to the downstream Rockflow Creek Catchment should also be analysed.

The EIA should provide the final location, including updated mapping for all proposed infrastructure. Mapping provided should also indicate how all works are proposed to be located within the RU1 – Primary Production land zoning and avoid the E2 – Environmental Conservation zoned land as outlined in the *Shellharbour Local Environmental Plan* 2013 (LEP) land use mapping.

Relevant state and federal legislation to be addressed in the EIA includes:

- NSW
  - *Protection of the Environment Operations Act 1997.*
  - *Water Management Act 2000.*
  - *Roads Act 1993.*

- *Heritage Act 1977.*
- *Fisheries Management Act 1994.*
- *Threatened Species Act 1995 (to be repealed and replaced)*
- *Biodiversity Conservation Act 2016 (not yet commenced).*
- *State Environmental Planning Policy No. 71 – Coastal Protection.*
- *Draft Coastal Management SEPP 2016*

- Commonwealth
  - *Environment Protection and Biodiversity Conservation Act 1999*

The following biodiversity factors should be considered and assessed within the EIA:

- A comprehensive ecological impact assessment should be included to identify the presence and condition of all Endangered Ecological Communities (EECs), threatened flora and fauna species and their habitat within the area to be disturbed. Both direct and indirect impacts must be considered i.e. assessing the potential impacts of the proposed mining sites, all ancillary developments and the accumulative impacts of the three mining areas.

- This assessment should specifically target EECs including Tall Melaleuca Scrubland, Illawarra Subtropical Rainforest and Coastal Floodplain Wetland. Targeted surveys for Illawarra Zieria *Zieria granulata*, Illawarra Irene *Irenepharsus trypherus*, Illawarra Socketwood *Daphnandra sp. C* and White Flowered Wax Plant *Cynanchum elegans* should also be undertaken. All other terrestrial threatened species and ecological communities known to occur within a 10km radius of the site should also be assessed.

- Appropriate design and operational safeguards to avoid and mitigate the potential impacts of the proposal on matters of ecological significance should also be included.

- As the project is a State Significant Development, all significant impacts on legislatively listed matters will require formal offsetting under the NSW Biodiversity Offsets Policy for Major Projects. Where impacts cannot be avoided and/or appropriately mitigated Sydney Trains will need to undertake a Biobanking Assessment under the *Biodiversity Assessment Methodology 2014* to understand their offsetting requirements. The subsequent Biobanking Assessment Report should be included in the EIA.

  It is noted however, that the NSW Biodiversity Offset Policy does not cover impacts on biodiversity that are not associated with clearing of vegetation. An additional report must be prepared that addresses additional impacts on biodiversity with the potential to result from the proposal.

- Sydney Trains will also be required to submit a referral to the Commonwealth Department of the Environment and Energy specifically for any listed threatened species and/or ecological community that may be impacted by the proposal that is listed as a matter of national significance under the EPBC Act. The Ministers response should be included in the EIA.

- A Vegetation Management Plan (VMP) should be included in the EIA that maps native and exotic species present within the study area. The VMP should

outline appropriate management actions to be implemented by the applicant throughout the life of the project, and the land owner thereafter. The VMP must cover all areas not included in a Biobanking (or equivalent) agreement.

- Key Fish Habitat is mapped within the creekline that runs along the southern boundary of subject site. The EIE should include an assessment of the potential direct and indirect impacts of the proposal on this Key Fish Habitat under the *Fisheries Management Act 1994.*

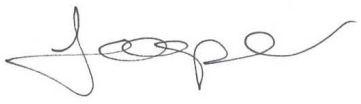
- The proposed stockpiling and loading Option 1 and Option 2 fall within the Draft *Coastal Management SEPP 2016* and Option 1 falls within the NSW Coastal Zone. For this reason the EIA should include an assessment of the proposed options under the *State Environmental Planning Policy No. 71 – Coastal Protection.*

- *Additional issues that must be addressed in the EIA include but are not limited to:*
    - *Additional impacts on terrestrial and aquatic biodiversity including fish passage*
    - *Bushfire Assessment*
    - *Contamination*
    - *Air quality*
    - *Noise*
    - *Vibration*
    - *Water quality – surface water quality within the site & downstream as well as groundwater.*

This response has been prepared by Jodie Cooper and Tuesday Heather of the Environment Team at Shellharbour City Council. Additional recommendations may be made by the Planning and Development Assessment Teams at a later date.

Please contact Jodie Cooper, Environment Officer on (02) 4221 6111 should you require any further information.

Yours sincerely



Jodie Cooper

Environment Officer

SHELLHARBOUR CITY COUNCIL

FILE NOTE

SUBJECT: **City Development Referral – Recommendations for SEARs requirements for proposed Sydney Trains' Dunmore Hard Rock Quarry State Significant Development (SSD 17_8603)**

DATE: **27 July 2017**

Dear Tertius,

Thank you for the opportunity to comment on the Sydney Trains Dunmore Hard Rock Quarry proposal. It is understood that the recommendations provided by Shellharbour City Council (SCC) will inform the Department of Planning in their development of the Secretary's Environmental Assessment Requirements (SEARs) for the proposed State Significant Development.

After a review of the Preliminary Environmental Assessment – Sydney Trains' Dunmore Hard Rock Quarry provided by Transport for NSW (July 2017) the following comments are made in addition to the matters raised by Council's Environmental Department (response dated 18 July 2017):

It is imperative that proposal considers the effects of intensification and new operations within the site. While elements of the existing Boral mine are to be scaled down the potential direct, indirect and cumulative impacts for the proposed mining area and all associated ancillary works will be required to be investigated. The effect of extraction operations on the Dunmore township are of particular concern in regards to noise, visual intrusion, vibration, ground water and dust generation. It is unclear in the Preliminary Environmental Assessment whether the internal roads will require upgrading to deal with the increase in activity as it is assumed that the proposed works will run parallel with existing operations for a period of time.

The NSW Department of Planning (southern Region), the then NSW Department of Environment and Climate change, and Shellharbour and Kiama Council's participated in a steering committee that undertook a review of Hard Rock Resources in the Shellharbour and Kiama LGA's. Reports on visual assessment (as well as flora and fauna and groundwater) were completed in 2006/7. The findings of these reports should be included in the EIA for this proposal.

Land on the eastern side of the Princes Hwy at Dunmore has in the past year been rezoned to a residential zoning which also through consultation with the NSW Department of Industry and Resources had the quarry buffer removed. The proposed expansion of the quarry will move closer towards these residential areas and also to an existing educational establishment. The potential impacts of this issue will also need to be addressed.

Additional issues that must be addressed in the EIA include but are not limited to:

- *Additional impacts on terrestrial and aquatic biodiversity including fish passage*
- *Bushfire Assessment*
- *Contamination*
- *Air quality*
- *Noise*
- *Residential zone proximity within buffer zones*
- *Existing internal support infrastructure*
- *Vibration*
- *Water quality – surface water quality within the site & downstream as well as groundwater*

This response has been prepared by James Douglas of the City Development Team at Shellharbour City Council.

Yours sincerely

James Douglas
Senior Development Assessment Officer r

Department of Primary Industries

OUT17/27642

Mr Tertius Greyling
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Tertius.greyling@planning.nsw.gov.au

Dear Mr Greyling

Sydney Trains' Dunmore Hard Rock Quarry (SSD 8603)
Request for Secretary's Environmental Assessment Requirements

I refer to your email of 6 July 2017 to the Department of Primary Industries (DPI) in respect to the above matter. Comment has been sought from relevant branches of DPI. Views were also sought from NSW Department of Industry - Lands that are now a division of the broader Department and no longer within NSW DPI.
Any further referrals to DPI can be sent by email to landuse.enquiries@dpi.nsw.gov.au.

DPI has reviewed the application recommends the following considerations be included in the SEARs, with further detail in **Attachment A**:

- The EIS should:
  - Include an assessment of impacts to surface and groundwater sources including water use, water licensing arrangements, impacts on water users, waterfront land and aquifers, as well as compliance with relevant policies. Specific attention should be given to water quality impacts on the Minnamurra River estuary, and SEPP14 wetlands, immediately downstream of the Princes Highway.
  - Indicate the maximum sized rainfall event (in mm) that the water quality protection measures would be designed to cope with and should indicate how water quality measures for the new quarry will be integrated with measures for the existing quarry to ensure minimal cumulative impact.
  - Demonstrate that all significant impacts on current and potential agricultural developments and resources can be reasonably avoided or adequately mitigated.
  - Detail consultation with the owners / managers of affected and adjoining neighbours and agricultural operations in a timely and appropriate manner about; the proposal, the likely impacts and suitable mitigation measures or compensation.

Yours sincerely

Mitchell Isaacs
Director, Planning Policy & Assessment Advice
20 July 2017

DPI appreciates your help to improve our advice to you. Please complete this three minute survey about the advice we have provided to you, here:
https://goo.gl/o8TXWz

Attachment A

Project Name **(Project Number)**
Request for Secretary's Environment Assessment Requirements
Detailed comments – Water

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.
- 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.
- Proposed surface and groundwater monitoring activities and methodologies.
- Provide groundwater contour maps for any shallow or deep aquifers showing the groundwater table elevation and flow directions in the vicinity of the site.
- 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).

End Attachment A

Planning & Environment
Resources & Geoscience

13th July 2017

Tertius Greyling
Senior Environmental Assessment Officer
Department of Planning & Environment
GPO Box 39
Sydney NSW 2001

Emailed: tertius.greyling@planning.nsw.gov.au

Your Reference: SSD 17_8603
Our Reference: OUT17/28233

Dear Tertius,

Re: Request for Secretary's Environmental Assessment Requirements Proposal – Sydney Trains' Dunmore Hard Rock Quarry - SSD 17_8603

Thank you for the opportunity to provide advice on the subject proposal. I refer to your email of 6th July 2017. Thank you for the opportunity to provide advice on the above matter. This is a response from NSW Department of Planning & Environment – Division of Resources & Geoscience, Geological Survey of New South Wales (GSNSW).

The building and construction industries in NSW require ongoing replacement of supplies as sources are exhausted. 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 material required by Sydney Trains for high quality rail ballast and other aggregates.

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.

Hard rock aggregate (Latite) is not a prescribed mineral under the *Mining Act 1992*. Therefore, the Department has no statutory role in authorising or regulating the extraction of this commodity, apart from its role under the *Work Health and Safety Act 2011* and associated regulations and the *Work Health and Safety (Mine and Petroleum Sites) Act 2013* and associated regulations, for ensuring 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.

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

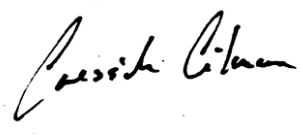
The above information should be summarised in the EIS, with full documentation appended. If deemed commercial-in-confidence, the resource assessment summary included in the EIS should commit to providing DRE with full resource assessment documentation separately. Applications to modify, expand, extend 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 of construction materials produced annually throughout the State. Forms are sent to all operating quarries at the end of each financial year for this purpose. The statistical data collected is of great value to Government and industry in planning and resource management, particularly as a basis for analysing trends in production and for estimating future demand for particular commodities or in particular regions. Production data may be published in aggregated form, however production data for individual operations is kept strictly confidential.

In order to assist in the collection of construction material production data, the proponent should be required to provide annual production data for the subject site to the NSW Division of Resources and Geoscience 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 Division of Resources & Geoscience - Land Use team at landuse.minerals@industry.nsw.gov.au.

Yours sincerely



Cressida Gilmore
Team Leader Land Use

Encl. Attachments "A"

ATTACHMENT A

NSW Department of Planning & Environment
RESOURCES & GEOSCIENCE 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 and safety of mining and quarrying operations, the following must be addressed:

1. All mining operations are to comply with the following legislation:
    a. *Work Health and Safety Act 2011*
    b. *Work Health and Safety Regulation 2011*
    c. *Work Health and Safety (Mine and Petroleum Sites) Act 2013*
    d. *Work Health and Safety (Mine and Petroleum Sites) Regulation 2014*
    e. *Explosives Act 2003*
    f. *Explosives Regulation 2013*.

2. The mine holder must appoint a mine operator and notify the Department in writing as required by clause 7 of the *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014* before commencing any mining operations.

3. Other duties and notification and reporting requirements exist under the WHS laws and duty holders must ensure they understand and comply with these requirements.

Mineral Ownership

The *Mining Act 1992* applies to those commodities prescribed by the regulations of the Act (Schedule 2, *Mining Regulation 2016*). 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 Planning & Environment has no statutory responsibility for authorising or regulating the extraction of these commodities, apart from its role under the WHS laws 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 an individual, 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 mining lease or mining (mineral owner) lease would be required. If it is a Crown mineral, an application for a mining lease will have to be lodged.

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

DOC17/361120-02:MF
SSD 17_8603

Ms Tertius Greyling
Senior Environmental Assessment Officer
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Greyling

Sydney Trains Dunmore Hard Rock Quarry – SSD 17_8603
Tabbita Road, Dunmore

I refer to your email to the Environment Protection Authority (EPA) dated 6 July 2017 requesting input for the Secretary's Environmental Assessment Requirements (SEARs) for the above project. This project involves a proposed new quarry within/adjacent to the existing Dunmore Quarry operated by Boral Resources (NSW) Pty Ltd. The proposal would allow extraction of up to 1 million tonnes of resource per annum.

Based on a review of the submitted information, please find attached our key requirements (**Attachment A**). These relate to:

- General Planning Matters
- Environment Protection Licence
- Air Quality
- Water Quality
- Noise
- Waste Management
- Contaminated Land Management

These should be assessed in accordance with any relevant guidelines/documents listed in **Attachment B**.

The Preliminary Environmental Assessment (PEA) shows the Sydney Trains proposal relative to the existing Boral Dunmore quarry operation (see Figure 6.1 Local Setting). Figure 3.2 shows the overlap in quarry boundaries, stockpiling/loading areas, and haul roads. The PEA states Sydney Trains and Boral have a deed agreement that describes reciprocal access rights to their respective holdings. The Sydney Trains PEA has components, stockpiling and loading operations, on land wholly owned by Boral. Prior to the preparation of the EIS the Deed of Agreement and any other arrangements in place between the parties should be clearly understood and documented. This includes how these arrangements will allow the project to be adequately regulated under a planning approval and Environment Protection Licences (if approved), and not prevent the project from proceeding.

PO Box 513, Wollongong NSW 2520
Level 3, 84 Crown Street Wollongong NSW 2500
Tel: (02) 4224 4100 Fax: (02) 4224 4110
ABN 43 692 285 758
www.epa.nsw.gov.au

The EPA understands that Office of Environment and Heritage will comment separately on biodiversity considerations. The EPA wish to draw attention to the large amount of work previously completed with regards to the assessment and protection of vegetation communities and visual impacts in the area surrounding the proposal in the Dunmore/Shellharbour hills.

The *'Strategy for the Conservation and Management of Biodiversity in the Dunmore – Shellharbour Hills Area (2011)'* provides a long-term vision to maintain and improve biodiversity in the Dunmore area while recognising the significant mineral resources and agricultural productivity. The strategy drew upon work carried out by Department of Planning and Environment (DPE), Shellharbour City Council and Kiama Municipal Council. A cooperative effort by all landowners was at the heart of the strategy, and input by farmers and quarry representatives was key to the strategy development. DPE should consider this Strategy closely during its assessment of this development application and the preparation of the EIS.

If you have any comments regarding the above, please phone the contact officer on (02) 4224 4100.

Yours sincerely

20/07/17

PETER BLOEM
Manager Regional Operations Illawarra
Environment Protection Authority

Contact officer: MATT FULLER
(02) 4224 4100

Attachments A and B

ATTACHMENT A

KEY ENVIRONMENTAL IMPACT ASSESSMENT REQUIREMENTS

1. General Planning Matters

Details should be documented on the location of the proposed development including the affected environment to place the proposal in its local and regional environmental context. This should include but not be limited to details of land ownership, maps and/or aerial photographs showing surrounding land uses, planning zonings, potential sensitive receptors and catchments. Details should also be provided on the proposals relationship to any other industry or facility.

The Environmental Impact Statement (EIS) should describe mitigation and management options that will be used to prevent, control, abate or mitigate identified environmental impacts (including any cumulative impacts) associated with the project and to reduce risks to human health and prevent the degradation of the environment. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented. Appropriate Best Management Practices must be outlined.

2. Environment Protection Licence

The development must comply with the *Protection of the Environment Operations Act 1997* (POEO Act) and associated regulations at all times (if approved).

Boral Resources (NSW) Pty Ltd hold Environment Protection Licence (EPL) 77 for the Dunmore Quarry. A copy of EPL 77 can be found here: http://www.epa.nsw.gov.au/prpoeoapp/

Sydney Trains will be required to licensed under the POEO Act. Under the POEO Act scheduled activities that require an Environment Protection Licence (EPL) include, but are not limited to the following:

- ***land-based extractive activity***, involving the extraction, processing or storage of more than 30,000 tonnes per year of extractive materials either for sale or re-use, by means of excavation, blasting, tunneling, quarrying or other such land-based methods
- ***crushing, grinding or separating*** with a capacity to process more than 150 tonnes of materials per day or 30,000 tonnes of materials. Crushing, grinding or separating, means the processing of materials (including sand, gravel, rock or minerals, but not including waste of any description) by crushing, grinding or separating them into different sizes.

Except as expressly provided in an EPL, Section 120 of the POEO Act must be complied with at all times.

The PEA states Sydney Trains and Boral have a deed agreement that describes reciprocal access rights to their respective holdings. This includes sharing access and resources, such as haul roads and transport routes. This presents a regulatory challenge for the EPA, Boral and Sydney Trains in defining the environment protection requirements that would apply to respective licence holders. The EIS must provide adequate information to define the arrangements between licence holders to allow the project to be clearly and effectively regulated under both a planning approval and EPL (if approved).

Further guidance on licencing and type of information relevant to an EPL application that should be included in the EIS can be found in the *EPA Guide to Licensing.*

3. Air Quality

The environmental outcome for the project should ensure:

- emissions do not cause adverse impact upon human health or the environment
- no offensive odour beyond the boundary of the premises
- compliance with the requirements of the POEO Act and its associated regulations
- maintains or improves air quality to ensure National Environment Protection Measures for ambient air quality are not compromised
- all dust emissions from material handling, storage, processing, haul roads, transport and material transfer systems are prevented or minimised; and vehicular kilometres travelled are minimised.

The EIS should:

1. 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. Describe the receiving environment in detail. 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
   - ambient air quality.
2. Account for cumulative impacts.
3. 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.
4. Describe any proposed emission control techniques, monitoring and management measures the proponent intends to apply to ensure the above goals are satisfied.
5. Assess opportunities to minimise Vehicle Kilometres Travelled and measures to minimise the potential for air quality impacts associated with truck movements.
6. Demonstrate the proposal's ability to comply with the relevant regulatory framework, specifically the POEO Act 1997 and the *POEO (Clean Air) Regulation 2002*.

The EIS must include an Air Quality Impact Assessment (AQIA). The AQIA must identify and describe in detail all possible sources of air pollution and activities/processes with the potential to cause air pollutants including odours and fugitive dust emissions beyond the boundary of any premises proposed to be licensed by an EPL. This should cover both the construction and operational phases of the development. The AQIA should include cumulative impacts associated with existing developments and any developments having been granted development consent but which have not commenced.

The EIS should demonstrate that the facility will operate to minimise adverse effects on the amenity of local residents and sensitive land uses and to limit the effects of emissions on local, regional and inter-regional air quality.

The EIS must describe in detail the measures proposed to mitigate the impacts and quantify the extent to which the mitigation measures are likely to be effective in achieving the relevant environmental outcomes.

The AQIA must be prepared in accordance with the EPA's "*Approved Methods and Guidance for the Modelling & Assessment of Air Pollutants in NSW*". The AQIA must describe the methodology used and any assumptions made to predict the impacts. Air pollutant emission rates, ambient air quality data and meteorological data used in the assessment must be clearly stated and justified.

With extraction activities and processing increasing within the area of the existing quarry the EPA recommends that a site specific Best Management Practice determination be prepared as part of the AIA. This would assist in informing the adequacy and performance of existing dust mitigation measures. It would also assist in identifying the most practicable means to reduce any particle emissions associated with the existing and expanded operations and identify any additional reasonable and feasible dust mitigation measures. For your information, the Office of Environment and Heritage commissioned Katestone Environmental to work with the coal mining industry to review coal mining activities in the GMR of NSW. EPA considers that this study would assist the proponent in identifying best practice measures to prevent and/or minimise particle emissions from the proposed activities. A copy of this review can be obtained at:
http://www.epa.nsw.gov.au/resources/air/KE1006953volumeI.pdf.

4. Water Quality

The environmental outcome for the project should ensure:

- there is no pollution of waters (including surface and groundwater) except in accordance with any conditions contained in an EPL for the activity.
- polluted water (including process waters, wash down waters, polluted stormwater or sewage) is captured on the site and directed to reticulated sewer where available or else collected, treated and beneficially reused, where this is safe and practicable to do so.
- Promote integrated water cycle management that optimises opportunities for sustainable water supply, wastewater and stormwater management and reuse initiatives where it is safe and practicable to do so.
- bunding is designed in accordance with the EPA's Bunding and Spill Management guidelines.

The EIS should document how the above outcomes will be achieved.

The EIS should also include but not necessarily be limited to the following matters:

a) Details on the existing stormwater management system, its performance and whether it needs to be upgraded to meet current contemporary standards. This should include water management associated with activities including:
   - any process waters
   - any equipment and maintenance areas, including wash down facilities, oil and water separation
   - open stockpiles
   - unsealed/sealed areas
   - extraction areas
   - material processing and transfer areas
   - loading facilities
   - haul roads
   - onsite wastewater management
   - any associated treatment and reuse systems.

b) Provide a description of the receiving waters including surface and groundwater.

c) Provide information on any water discharges including location, volumes, water quality, monitoring programs and frequency of discharge.

d) Describe the nature and degree of any likely impacts that the proposed project may have on the receiving environment. This should include a characterisation of potential water pollutants at the site and any associated mitigation and management measures.

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

f) Describe how stormwater will be managed both during the construction phase.

The EIS should demonstrate how the stormwater management system will satisfy relevant contemporary guidelines such as *Managing Urban Stormwater - Soils and Construction - Volume 2E Mines and Quarries* (DECC June 2008).

5. Noise Impact

The environmental outcome of the project should be to minimise adverse impacts due to noise from the project. The EIS must clearly outline the noise mitigation, monitoring and management measures the proponent intends to apply to the project to minimise noise pollution.

A noise assessment should be undertaken in accordance with the *New South Wales Industrial Noise Policy*. It should include, but not necessarily be limited to:

- identification and assessment of all potential noise sources associated with the development
- the location of all noise sensitive receivers
- proposed hours of operation
- proposed noise mitigation measures
- assessment of cumulative noise impacts, having regard to existing surrounding industrial activities and development.

The assessment should also consider vibration from the proposed project in accordance with NSW *Industrial Noise Policy* (INP) and *Assessing Vibration: a technical guideline* (DEC, 2006) for assessing vibration.

The Interim Construction Noise Guideline (DECC 2009) states that noise from construction associated with mining is not covered by the Guideline. Noise from construction activities associated with new infrastructure should be assessed against INP noise objectives. All feasible and reasonable noise mitigation measures to be implemented for any construction noise that exceeds INP objectives should be identified.

The EIS must identify the transport route(s) to be used, the hours of operation and assess any potential road traffic noise impacts in accordance with the "*NSW Road Noise Policy*".

6. Waste Management

The goal of the development should be to ensure:

- All waste is managed in accordance with the principles of the waste hierarchy and cleaner production.
- the handling, processing and storage of all materials used at the premises does not have negative environmental or amenity impacts.
- land pollution is prevented.
- the beneficial reuse of all wastes generated at the premises are maximised where it is safe and practical to do so.
- no waste disposal occurs on site except in accordance with the conditions contained in any EPA Licence.

Any waste generated at the site should be assessed and classified in accordance with the *Waste Classification Guidelines* and documented in the EIS. Detail on this guideline is available in Attachment B.

The proponent should also consult NSW *EPA's Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities* (Dec 2012). This guideline provides information on better waste management practice in design, establishment, operation and ongoing management of waste services in commercial and industrial developments. This guideline can be accessed at: http://www.epa.nsw.gov.au/resources/managewaste/120960-comm-ind.pdf.

The EIS should also detail the type and quantity of any chemical substances to be used or stored at the site and describe arrangements for their safe use and storage in accordance with any legislative or EPA policy requirements.

7. Contaminated Land Management

The environmental outcome of the project should ensure any contaminated land is identified and appropriately managed for the purpose of reducing the risk of harm to human health or any other aspect of the environment.

The requirements of *State Environmental Planning Policy (SEPP) 55* will need to be satisfied and documented in the EIS. SEPP 55 states that as part of the development process, the following key considerations should be addressed:

- Whether the land is contaminated.
- If the land is contaminated whether it is suitable in its contaminated state (or will be suitable, after remediation) for all the purposes to which the land will be used.
- If the land requires remediation; will be made suitable for any purpose for which the land will be used.

In cases where land is potentially contaminated, the investigation and any remediation and validation work is to be carried out in accordance with the guidelines made or approved by the EPA under Section 105 of the *Contaminated Land Management Act 1997* and be in accordance with the requirements and procedures in the following:

- *Contaminated Land Management Act 1997*

- *Contaminated Land Management Regulation 2013*
- *SEPP 55 – Remediation of Land.*

ATTACHMENT B – GUIDANCE MATERIAL

Title	Web address
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
Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC 2007)	http://www.environment.nsw.gov.au/resources/air/07001amsaap.pdf
POEO (Clean Air) Regulation 2010	http://www.legislation.nsw.gov.au/maintop/view/inforce/subordleg+428+2010+cd+0+N
The Assessment and Management of Odour from Stationary Sources in NSW: Technical Framework	http://www.environment.nsw.gov.au/resources/air/20060440framework.pdf
The Assessment and Management of Odour from Stationary Sources in NSW: Technical Notes	http://www.environment.nsw.gov.au/resources/air/20060441notes.pdf
NSW Government Resource Efficiency Policy, (OEH 2014)	http://www.environment.nsw.gov.au/resources/government/140567NSWGREP.pdf
Noise and Vibration	
Interim Construction Noise Guideline (DECC, 2009) and Industrial Noise Policy Application Notes	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
Industrial Noise Policy (EPA, 2000) and Industrial Noise Policy Application Notes	http://www.environment.nsw.gov.au/noise/industrial.htm
NSW Road Noise Policy (EPA, 2011)	http://www.epa.nsw.gov.au/resources/noise/2011236nswroadnoisepolicy.pdf
Waste, Chemicals and Hazardous Materials and Radiation	
Waste Classification Guidelines (DECC, 2008)	http://www.environment.nsw.gov.au/waste/envguidlns/index.htm
Resource Recovery Exemptions	http://www.epa.nsw.gov.au/waste/RRecoveryExemptions.htm
EPA's Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities (Dec 2012)	http://www.epa.nsw.gov.au/warr/BPGuideCIFacilities.htm
Water and Soils	
Stormwater Management	
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	Vol 1 – Available for purchase at http://www.environment.nsw.gov.au/resources/water/BlueBookVol1.pdf Vol 2-

Title	Web address
Roads; E Mines and quarries (DECC 2008)	http://www.environment.nsw.gov.au/resources/stormwater/0801soilsconststorm2a.pdf
Wastewater	
National Water Quality Management Strategy: Guidelines for Sewerage Systems - Effluent Management (ARMCANZ/ANZECC 1997)	http://www.environment.gov.au/water/policy-programs/nwqms/
National Water Quality Management Strategy: Guidelines for Sewerage Systems – Use of Reclaimed Water (ARMCANZ/ANZECC 2000)	http://www.environment.gov.au/water/policy-programs/nwqms
Environmental Guidelines for the Utilisation of Treated Effluent by Irrigation (NSW DEC 2004)	http://www.environment.nsw.gov.au/resources/water/effguide.pdf
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf
NSW Government Water Quality and River Flow Environmental Objectives	http://www.environment.nsw.gov.au/ieo/)
Groundwater	
State Groundwater Policy Framework Document (DLWC 1997)	
The NSW State Groundwater Quality Protection Policy (DLWC 1998)	
NSW State Groundwater Dependent Ecosystems Policy (DLWC, 2002)	
National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ & ANZECC, 1995)	
Metropolitan Water Sharing Plan	http://www.water.nsw.gov.au/Water-management/Water-sharing-plans/Water-sharing
Bunding and Spill Management	
Storing and Handling Liquids: Environmental Protection - Participants Manual	http://www.environment.nsw.gov.au/resources/licensing/2007210liquidsManual.pdf
Environmental Compliance Report: Liquid Chemical Storage, Handling and Spill Management - Part B Review of Best Practice and Regulation	http://www.environment.nsw.gov.au/resources/licensing/ecrchemicalsb05590.pdf

NSW GOVERNMENT | Office of Environment & Heritage

Date: 19 July 2017
Your reference: SSD17 8603
Our reference: DOC17/379518
Contact: Calvin Houlison
4224 4179

Tertius Greyling
Senior Environmental Assessment Officer
NSW Department of Planning & Environment
GOP Box 39
SYDNEY NSW 2001
E-mail: tertius.greyling@planning.nsw.gov.au

Dear Mr Greyling

RE: OEH INPUT INTO SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS FOR PROPOSED SYDNEY TRAINS DUNMORE HARD ROCK QUARRY

Thank you for your e-mail dated 6 July 2017 inviting input from the Office of Environment & Heritage (OEH) for the Secretary's Environmental Impact Assessment Requirements (SEARs) for the above proposal.

We note that the project will be assessed as State Significant Development (SSD) under Part 4 Division 4.1 of the *Environmental Planning & Assessment Act 1979*.

We recommend that the Environmental Impact Statement (EIS) addresses the following:

1. Biodiversity
2. Aboriginal Cultural Heritage
3. Historic heritage
4. Water and soils

The EIS should assess the potential impacts on biodiversity, including threatened species, populations, ecological communities or their habitats likely to occur within or near the subject site in accordance with the Framework for Biodiversity Assessment (FBA) by a person accredited in accordance with s142B(1)(c) of the *Threatened Species Conservation Act 1995*. The offset strategy will be required to meet the minimum requirements outlined in the FBA. The transitional period for implementation of the Major Projects Offset Policy commenced in October 2014 and was recently extended to cover the intervening period leading up to commencement of the *Biodiversity Conservation Act 2016* in August.

The project team is welcome to contact OEH with any questions regarding the methodology. We note that the proponent has already indicated they will consult separately with the Commonwealth Department of Environment & Energy to ascertain their assessment and offsetting requirements for the project.

We note that the proposed extraction area would impact primarily on *Melaleuca armillaris* Tall Shrubland Endangered Ecological Community (EEC) under the NSW *Threatened Species Conservation Act 1995*, which has a small distribution occurring primarily within the Dunmore hills. We also note that the proposed Option 1 haul road would impact upon this EEC, as well as disturbing a Saving Our Species conservation site for the threatened plant Illawarra Zieria (*Zieria granulata*), Illawarra Subtropical Rainforest and Illawarra Lowland Grassy Woodland threatened ecological communities.

Action 4.2.2 of the Illawarra-Shoalhaven Regional Plan (ISRP)(2015) also encourages the investigation of biobanking in the Dunmore-Shellharbour area to provide suitable offsets for ongoing hard rock extraction. We recommend that the proponent investigate biobanking as a means of addressing the biodiversity impacts of this proposal.

An Aboriginal cultural heritage assessment is required. There are recorded Aboriginal cultural heritage sites within the Boral hard rock quarry area, and it is possible that further sites are present in the proposed Sydney Trains project area. In particular, the Option 1 haul road and Option 2 stockpile area appear to be in less disturbed land where there may be an increased potential for Aboriginal objects to be present. However, the entire impact area must be assessed for Aboriginal cultural heritage values.

The Aboriginal cultural heritage assessment must include archaeological assessment and consultation with the Aboriginal community as required under OEH guidelines. The archaeological assessment may require survey and test excavation. Appropriate management measures must be developed for all Aboriginal cultural heritage values identified. The results of the Aboriginal cultural heritage assessment should be used to develop an Aboriginal Heritage Management Plan (AHMP), as described in Table 6.1 of the Preliminary Environment Assessment. We request that this AHMP is referred to our office for comment prior to being finalised.

The impacts of the proposal on surface water flows, water quality, groundwater and potential impacts to receiving environments including Rocklow Creek and the Minnamurra River should also be assessed in the EIS.

The full list of standard and project specific OEH requirements to be addressed in the EIS are provided at **Attachments A and B** respectively. In preparing the EIS, the proponent should refer to the guidance material listed in **Attachment C**.

If you have any further queries in relation to this matter, please do not hesitate to contact Calvin Houlison, Senior Conservation Planning Officer, on 4224 4179 or calvin.houlison@environment.nsw.gov.au.

Yours sincerely

19.7.17

MICHAEL SAXON
Director
South East Branch
Regional Operations Division

Enclosures:

Attachment A – Standard Environmental Assessment Requirements
Attachment B – Project Specific Requirements
Attachment C – Guidance Material

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 as relevant, 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 the tangible and intangible 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 http://www.environment.nsw.gov.au/ieo/index.htm) including groundwater as appropriate that represent the community's uses and values for the receiving waters. d. Indicators and trigger values/criteria for the environmental values identified at (c) in accordance with the ANZECC (2000) Guidelines for Fresh and Marine Water Quality and/or local objectives, criteria or targets endorsed by the NSW Government.
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 (eg 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.

Attachment B – Project Specific Requirements

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:

- Melaleuca armillaris Tall Shrubland in the Sydney Basin Bioregion Endangered Ecological Community (EEC)
- Square Raspwort (*Haloragis exalata subsp. exalta*)

Attachment C – Guidance material

Title	Web address
Relevant Legislation	
Coastal Protection Act 1979	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+13+1979+cd+0+N
Commonwealth Environment Protection and Biodiversity Conservation Act 1999	http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
Environmental Planning and Assessment Act 1979	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
Fisheries Management Act 1994	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N
Marine Parks Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+64+1997+cd+0+N
National Parks and Wildlife Act 1974	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
Protection of the Environment Operations Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N
Threatened Species Conservation Act 1995	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+101+1995+cd+0+N
Water Management Act 2000	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
Wilderness Act 1987	http://www.legislation.nsw.gov.au/viewtop/inforce/act+196+1987+FIRST+0+N
Biodiversity	
NSW Biodiversity Offsets Policy for Major Projects (OEH, 2013)	http://www.environment.nsw.gov.au/resources/biodiversity/140672biopolicy.pdf
Framework for Biodiversity Assessment (OEH, 2013)	http://www.environment.nsw.gov.au/resources/biodiversity/140675fba.pdf
NSW Biodiversity Offsets Policy for Major Projects (Upland swamps impacted by longwall mining subsidence) addendum (OEH, 2016)	http://www.environment.nsw.gov.au/resources/biodiversity/swamp-addendum-biodiversity-offsets-policy-160766.pdf
Fisheries NSW policies and guidelines	http://www.dpi.nsw.gov.au/fisheries/habitat/publications/policies,-guidelines-and-manuals/fish-habitat-conservation
List of national parks	http://www.environment.nsw.gov.au/NationalParks/parksearchatoz.aspx
Revocation, recategorisation and road adjustment policy (OEH, 2012)	http://www.environment.nsw.gov.au/policies/RevocationOfLandPolicy.htm
Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water (DECCW, 2010)	http://www.environment.nsw.gov.au/resources/parks/policyRevocations.pdf
Heritage	

Title	Web address
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)	http://www.environment.nsw.gov.au/resources/heritagebranch/heritage/hmstatementsofhi.pdf
NSW Heritage Manual (DUAP) (scroll through alphabetical list to 'N')	http://www.environment.nsw.gov.au/Heritage/publications/index.htm#M-O
Aboriginal Cultural Heritage	
Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010)	http://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)	http://www.environment.nsw.gov.au/resources/cultureheritage/10783FinalArchCoP.pdf
Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH 2011)	http://www.environment.nsw.gov.au/resources/cultureheritage/20110263ACHguide.pdf
Aboriginal Site Recording Form	http://www.environment.nsw.gov.au/resources/parks/SiteCardMainV1_1.pdf
Aboriginal Site Impact Recording Form	http://www.environment.nsw.gov.au/resources/cultureheritage/120558asirf.pdf
Aboriginal Heritage Information Management System (AHIMS) Registrar	http://www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm
Care Agreement Application form	http://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)	Manual available for purchase from: http://www.landcom.com.au/whats-new/the-blue-book.aspx Chapters 1 and 2 are on DPI's Guidelines Register at: Chapter 1 Acid Sulfate Soils Planning Guidelines: http://www.planning.nsw.gov.au/rdaguidelines/documents/NSW%20Acid%20Sulfate%20Soils%20Planning%20Guidelines.pdf Chapter 2 Acid Sulfate Soils Assessment Guidelines: http://www.planning.nsw.gov.au/rdaguidelines/documents/NSW%20Acid%20Sulfate%20Soils%20Assessment%20Guidelines.pdf
Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al. 2004)	http://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	http://www.environment.nsw.gov.au/coasts/coastalerosionmgmt.htm
Floodplain development manual	http://www.environment.nsw.gov.au/floodplains/manual.htm
Guidelines for Preparing Coastal Zone	Guidelines for Preparing Coastal Zone Management Plans

Title	Web address
Management Plans	http://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	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	www.environment.gov.au/water/publications/quality/australian-and-new-zealand-guidelines-fresh-marine-water-quality-volume-1
Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones	http://deccnet/water/resources/AWQGuidance7.pdf
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf

NSW RURAL FIRE SERVICE

The Secretary
NSW Department of Planning & Environment
320 Pitt Street, GPO Box 39, Sydney
NSW 2001

Your reference: SSD 17_8603
Our reference: D17/2233

20/07/2017

Attention: Mr. Tertius Greyling

Dear Sir/Madam,

Proposal: Sydney Trains' Dunmore Hard Rock Quarry
Address: Tabbita Road, Dunmore 2529

Reference is made to correspondence dated 06/07/2017 seeking input regarding the preparation of Secretary's environmental assessment requirements for the above State Significant Development in accordance with the *Environmental Planning and Assessment Act 1979.*

The New South Wales Rural Fire Service (NSW RFS) has reviewed the information provided and advises that a bush fire assessment report shall be prepared which identifies the extent to which the proposed development conforms with or deviates from the relevant provision of *Planning for Bush Fire Protection 2006.*

If you have any queries regarding this advice, please contact Rohini Belapurkar, Development Assessment and Planning Officer, on 1300 NSW RFS.

Yours sincerely,

Jason Maslen
Team Leader, Development Assessment and Planning
Planning and Environment Services (East)

Postal address
NSW Rural Fire Service
Records Management
Locked Bag 17
GRANVILLE NSW 2141

Street address
NSW Rural Fire Service
Planning and Environment Services (East)
42 Lamb Street
GLENDENNING NSW 2761

T 1300 NSW RFS
F (02) 8741 5433
E pes@rfs.nsw.gov.au
www.rfs.nsw.gov.au

Our Ref: STH11/00218/03
Contact: Rachel McKay 4221 2570
Your Ref: SSD17_8603

Transport Roads & Maritime Services

21 July 2017

Tertius Greyling
Department of Planning & Environment
BY EMAIL: tertius.greyling@planning.nsw.gov.au

SECRETARY'S ENVIRONMENTAL PLANNING AND ASSESSMENT REQUIREMENTS – LOT 1 DP 1002951, TABBITA ROAD, DUNMORE – HARD ROCK QUARRY

Dear Tertius,

Roads and Maritime Services (RMS) refers to your email dated 6 July 2017 seeking the RMS requirements for the above State Significant Development (SSD).

RMS has reviewed the information provided and considers that the following information should be included in the Secretary's Environmental Assessment Requirements (SEARs):

- Traffic Impact Study: The requirement to provide a Traffic Impact Study (TIS). As a guide Table 2.1 of the RTA's Guide to Traffic Generating Developments outlines the key issues that should be considered in preparing a TIS. The TIS, in addition to the above, must address the following:
    - Details on road transport routes to be used to provide access to/from the site. This including vehicles travelling along the Princes Highway, wishing to travel to and from the development site;
    - Details on existing movements along the road network (including truck movements generated by Bombo Quarry) and likely additional movements to and from the development site onto Princes Highway, including the types of vehicles, peak hour movements and maximum daily movements;
    - The existing traffic volumes (based on survey) using the junction of the Princes Highway and Tabbita Road and the junction of Tabbita Road and the Quarry site. The traffic study needs to consider the likely impact of the additional traffic associated with the proposed development including the suitability of the existing junctions against Austroad standards, the associated need for upgrades and interruptions to traffic flow on the Princes Highway;
    - Cumulative impact of traffic from this development and other developments in this area reliant on heavy vehicle road transportation and the associated impacts on traffic efficiency, road safety, increased deterioration of road infrastructure due to higher use;
    - Details on the maximum quantity of quarry products to be despatched by road and rail (daily and yearly);

- The identification of suitable infrastructure required to ameliorate any traffic impacts and safety impacts associated with the development including the provision of supporting plans; and
- Details on time frames for the cessation of Bombo Quarry operation and commencement of Dunmore Hard Rock Quarry construction and operations.

- Modelling – Intersections: The requirement to undertake intersection modelling using SIDRA (e.g. for the junction of Princes Highway and Tabbita Road). This is required to demonstrate that an acceptable level of service is maintained at the intersections used as well as to assist in determining what intersection upgrade works are required. The intersection modelling needs to give consideration to the following:
  - Full development of the site
  - AM and PM peaks volumes and Saturday peak volumes.
  - Existing traffic volumes with and without development and 10 year projected volumes with and without the development.
  - The base SIDRA models must be calibrated with on-site observations in the AM and PM peak. This can be done by measuring existing queue lengths and delays; and
  - Electronic copies of all SIDRA files needs to be provided to RMS for review
- Consultation: Further consultation can be had with RMS during the preparation of the Environmental Impact Statement to discuss traffic and accessibility issues if required.

Should you require any further information in relation to the above please contact Rachel McKay on 4221 2570.

Please ensure that any further email correspondence is sent to development.southern@rms.nsw.gov.au.

Yours faithfully

Sharon Barbaro
A/Manager Land Use
Southern Region