



Planning & Infrastructure

Major Projects Assessment

Mining & Industry Projects

Contact: Alice Smith

Phone: 9228 6336

Fax: 9228 6466

Email: alice.smith@planning.nsw.gov.au

Our Ref: 13/19007

Mr Neil Hargraves
Oberon Quarries Pty Ltd
PO Box 3575
ROUSE HILL NSW 2155

Dear Mr Hargraves

State Significant Development - Director-General's Requirements Langley Heights Quarry Project (SSD-6333)

I have attached a copy of the Director General's environmental assessment requirements (DGRs) for the preparation of an Environmental Impact Statement (EIS) for the Langley Heights Quarry Project.

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 two years of the date of issue of these DGRs. The Department will review the EIS for the project carefully before putting it on public exhibition, and will require you to submit an amended EIS if it does not adequately address the DGRs.

These requirements have been prepared based on the information you have provided to date and in consultation with the relevant government agencies and Oberon Council. Their comments, which you should consider and address appropriately in preparing the EIS, are also attached (see Attachment 1). Your project may require separate approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The Department encourages you to confirm whether such an approval will be required as soon as possible. If an EPBC Act approval is required, I would appreciate it if you would advise the Department accordingly, as the Commonwealth approval process may be integrated into the NSW approval process, and supplementary DGRs may need to be issued.

I would appreciate it if you would contact the Department at least two weeks before you propose to submit the development application and EIS for your 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 number of copies (hard-copy and CD-ROM) of the EIS required for review.

If you have any enquiries about these requirements, please contact Alice Smith at the details listed above.

Yours sincerely

 18/12/13

David Kitto
Director, Mining Projects
As delegate for the Director-General

Director General's Environmental Assessment Requirements

Section 78A(8A) of the *Environmental Planning and Assessment Act 1979*

State Significant Development

Application Number	SSD 6333
Development	The Langley Heights Quarry Project, which includes: • expanding an existing hard rock quarry to extract and process up to 400,000 tonnes of hard rock a year for up to 30 years; • upgrades of the quarry processing and transport infrastructure; • transporting product from the site via road; and • rehabilitating the site.
Location	Langley Heights, Oberon Quarry Road, in the Oberon LGA
Applicant	Oberon Quarries Pty Ltd
Date of Issue	18 December 2013
General Requirements (refer Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>)	The Environmental Impact Statement (EIS) for the proposal must include: • an executive summary; • a detailed description of the proposal, including: – identification of the resource; – description of the site; – a history of previous quarrying operations on the site; – the proposed works (including rehabilitation works); – the duration and intensity of extraction operations; – any likely interactions between the proposed operations and existing/approved development and land use in the area; and – a detailed justification for the proposal. • consideration of all relevant environmental planning instruments, including Part 3 of the <i>Mining, Petroleum Production and Extractive Industry State Environmental Planning Policy 2007</i>, and identification and justification of any inconsistencies with these instruments; • risk assessment of the potential environmental impacts of the proposal, identifying the key issues for further assessment; • detailed assessment of the key issues specified below, and any other significant issues identified in this risk assessment, which includes: – a description of the existing environment, using sufficient baseline data; – an assessment of the potential impacts of all stages of the proposal, including any cumulative impacts, taking into consideration relevant guidelines, policies, plans and statutes; and – a description of the measures that would be implemented to avoid, minimise and if necessary, offset the potential impacts of the proposal; and • a conclusion justifying the proposal on economic, social and environmental grounds, taking into consideration whether the proposal is consistent with the objects of the <i>Environmental Planning and Assessment Act 1979</i>; and • a signed declaration from the author of the EIS, certifying that the information contained within the document is neither false nor misleading.

Key issues	The EIS must also assess the potential impacts of the proposal during the establishment, operation and decommissioning of the proposal. The EIS must describe what measures would be implemented to avoid, minimise, mitigate, offset, manage and/or monitor the potential impacts on: • Land Resources – including a detailed assessment of the potential impacts on: - soils and land capability, including an assessment of activities that would cause erosion and the measures proposed to minimise erosion and sedimentation; - landforms and topography, including cliffs, rock formations, steep slopes, etc; and - land use, including agricultural, forestry, conservation lands. • Water Resources – including: - identification of any licensing requirements or other approvals under the <i>Water Act 1912</i> and/or <i>Water Management Act 2000</i>; - an assessment of the potential impacts on the quality and quantity of existing surface and ground water resources; - a description of the measures proposed to ensure that the proposal can operate in accordance with the requirements of any relevant Water Sharing Plan or water source embargo; - an annual site water balance for representative years of the proposed life of the project; and - a detailed description of the proposed water management system, water monitoring program and other measures to mitigate surface and groundwater impacts; • Air Quality – including a quantitative assessment of potential: - construction and operational impacts, with a particular focus on dust emissions (including PM₁₀ emissions, and dust generation from transport of quarry products), as well as diesel and blast fume emissions; - reasonable and feasible mitigation measures to minimise dust, diesel and blast fume emissions, including evidence that there are no such measures available other than those proposed; and - monitoring and management measures, in particular air quality monitoring; • Noise, Vibration & Blasting – including a quantitative assessment of potential: - construction, operational and off-site transport noise impacts; - blasting impacts on people, livestock and property; - reasonable and feasible mitigation measures, including evidence that there are no such measures available other than those proposed; and - monitoring and management measures; • Biodiversity – including: - accurate estimates of any vegetation clearing on site or for any road upgrades; - a detailed assessment of potential impacts of the proposal on any threatened species or populations or their habitats, endangered ecological communities and groundwater dependent ecosystems; and - a detailed description of the measures to maintain or improve the biodiversity values within the site in the medium to long term; • Traffic & Transport – including: - accurate predictions of the road traffic generated by the project; - an assessment of potential traffic impacts on the safety and efficiency of the road network; and - a detailed description of the measures that would be implemented to maintain and/or improve the capacity, efficiency and safety of the road network in the surrounding area over the life of the project; • Heritage – including: - an Aboriginal cultural heritage assessment (addressing both cultural and archaeological significance) which must demonstrate effective consultation with Aboriginal communities in determining and assessing
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	impacts, and developing and selecting mitigation options and measures; • Visual – including: - a detailed assessment of the: - o changing landforms on the site during the various stages of the project; and - o potential visual impacts of the project on private landowners in the surrounding area as well as key vantage points in the public domain, including lighting impacts; and - a detailed description of the measures that would be implemented to minimise the visual impacts of the project; • Waste – including: - accurate estimates of the quantity and nature of the potential waste streams of the proposal, including reject material and the overburden emplacement strategy; and - a description of measures that would be implemented to minimise production of other waste, and ensure that that waste is appropriately managed; • Hazards – paying particular attention to public safety, including bushfires and transport or storage of any dangerous goods; and • Social & Economic – including an assessment of the: - potential direct and indirect economic benefits of the project for local and regional communities and the State; - potential impacts on local and regional communities, including: - o increased demand for local and regional infrastructure and services; and - o impacts on social amenity; - a detailed description of the measures that would be implemented to minimise the adverse social and economic impacts of the project, including any infrastructure improvements or contributions and/or voluntary planning agreement or similar mechanism; and - a detailed assessment of the costs and benefits of the proposal as a whole, and whether it would result in a net benefit for the NSW community; 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.
Environmental Planning Instruments	The EIS must assess the proposal against the relevant environmental planning instruments, including (but not limited to): • <i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>; • <i>State Environmental Planning Policy (Infrastructure) 2007</i>; • <i>State Environmental Planning Policy No. 33 – Hazardous and Offensive Development</i>; • <i>State Environmental Planning Policy No. 44 – Koala Habitat Protection</i>; • <i>State Environmental Planning Policy No. 55 – Remediation of Land</i>; • <i>Oberon Local Environmental Plan 1998</i>; and • relevant development control plans and section 94 plans, strategies and management plans.
Guidelines	The EIS must take into account relevant State Government policies and guidelines, in particular the <i>Industrial Noise Policy</i> (EPA 2001), <i>Aquifer Interference Policy</i> (DPI 2012), <i>Soils and Construction: Managing Urban Stormwater</i> (Landcom 2004), <i>Guidelines for Fresh and Marine Water Quality and Guidelines for Water Quality Monitoring and Reporting</i> (ANZECC), <i>Using the ANZECC Guideline and Water Quality Objectives in NSW</i> (DEC), <i>Approved Methods for the Modelling and Assessment of Air Pollutants</i> (DEC), <i>Approved</i>

	<i>Methods for Sampling and Analysis of Air Pollutants</i> (DEC), <i>Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities – Working Draft</i> (DECC 2004), <i>The Threatened Species Assessment Guideline – The Assessment of Significance</i> (DECC 2007), <i>Draft Guidelines for the Assessment of Aquatic Ecology in EIA</i> (DUAP 1998), <i>Guide to investigation, assessing and reporting on Aboriginal cultural heritage in NSW</i> (OEH 2011), <i>Code of Practice of the Archaeological Investigation of Aboriginal Objects in New South Wales</i> (DECCW 2010), <i>Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010</i> (DECCW 2010), <i>Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation</i> (DEC 2005), <i>Guide to Traffic Generating Development</i> (RTA), <i>Road Design Guide</i> (RTA) or latest versions.
Consultation	During the preparation of the EIS, you must consult with Council and should consult with the relevant local, State and Commonwealth government authorities, service providers and community groups, and address any issues they may raise in the EIS. In particular, you should consult surrounding landowners and occupiers that are likely to be impacted by the proposal. Details of the consultations carried out and issues raised must be included in the EIS.
Further consultation after 2 years	If you do not lodge a DA and an EIS for the proposal within 2 years of the issue date of these DGRs, you must consult further with the Director-General in relation to the requirements for lodgement.

ATTACHMENT 1
Agency Input into Key Assessment Issues



Your reference :
Our reference : EF13/3382; DOC13/88477
Contact : Mr Andrew Helms; (02) 6332 7604

Mr Howard Reed
Mining Projects – Development Assessment Systems and Approvals
Department of Planning & Infrastructure
GPO Box 39
SYDNEY, NSW, 2001

Attention: Ms Alice Smith

3 December 2013

Dear Mr Reed

**LANGLEY HEIGHTS QUARRY – CONTINUED OPERATIONS PROJECT
EPA DIRECTOR GENERAL REQUIREMENTS**

I refer to an email from Ms Alice Smith of the Department of Planning & Infrastructure (DP&I) to the Environment Protection Authority (EPA) dated 15 November 2013 seeking Director General Requirements (DGR's) for the proposed Langleigh Heights Quarry (or Oberon Quarry) project.

The EPA has reviewed the document titled "*Oberon Quarries – Proposed Extended Life of Operations and Modifications to Oberon Quarry – Preliminary Environmental Assessment*" dated November 2013, that accompanied the abovementioned email, and has identified the information that it requires to adequately assess the proposal in Attachment A. General Guidance material is provided in Attachment B. In summary, the EPA's key information requirements for the proposal include an adequate assessment of:

- Air quality impacts;
- Noise impacts;
- Water Management including site water management;
- Management of chemicals & wastes.

The Langleigh Heights Quarry is currently a scheduled activity (Extractive Activities) under the *Protection of the Environment Operations Act 1997* (POEO Act) and holds an Environment Protection Licence (licence) with the EPA. Should project approval be granted, the proponent may need to make an application to the EPA to vary the licence to capture any relevant conditions of project consent issued by DP&I.

Should you have any further enquiries in relation to this matter please contact Mr Andrew Helms at the Central West (Bathurst) Office of the EPA by telephoning (02) 6332 7604.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Darryl Clift'.

DARRYL CLIFT
Head Central West Unit
Environment Protection Authority

Enclosures Attachment 1 – EPA's requirements for EIS
Attachment 2 – General Guidance Material

ATTACHMENT A

EPA's RECOMMENDED DIRECTOR GENERAL REQUIREMENTS (November 2013)

1. Environmental impacts of the project

Environmental Impact Statements (EIS) should address the specific requirements outlined under each heading below and assess impacts in accordance with the relevant guidelines mentioned. A full list of guidelines is at **Attachment 2**.

2. Air issues

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

1. Identify all potential discharges of fugitive and point source emissions of pollutants including dust for all stages of the proposal and assess the risk associated with those emissions. 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. Assessment of risk relates to environmental harm, risk to human health and amenity.
2. Justify the level of assessment undertaken on the basis of risk factors, including but not limited to:
 - a. proposal location;
 - b. characteristics of the receiving environment; and
 - c. type and quantity of pollutants emitted.
3. 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:
 - a. meteorology and climate;
 - b. topography;
 - c. surrounding land-use; receptors; and
 - d. ambient air quality.
4. Include a consideration of 'worst case' emission scenarios and impacts at proposed emission limits.
5. Account for cumulative impacts associated with existing emission sources as well as any currently approved developments linked to the receiving environment.
6. Include air dispersion modelling where there is a risk of adverse air quality impacts, or where there is sufficient uncertainty to warrant a rigorous numerical impact assessment. Air dispersion modelling must be conducted in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (2005) <http://www.environment.nsw.gov.au/resources/air/ammodelling05361.pdf>.
7. Demonstrate the proposal's ability to comply with the relevant regulatory framework, specifically the *Protection of the Environment Operations (POEO) Act (1997)* and the *POEO (Clean Air) Regulation (2010)*.
8. Provide an assessment of the project in terms of the priorities and targets adopted under the NSW State Plan 2010 and its implementation plan Action for Air.
9. Detail emission control techniques/practices that will be employed by the proposal.

3. Noise and vibration

In relation to noise, the following matters should be addressed (where relevant) as part of the Environmental Assessment.

1. Construction noise associated with the proposed development should be assessed using the *Interim Construction Noise Guideline* (DECC, 2009). <http://www.environment.nsw.gov.au/noise/constructnoise.htm>
2. Operational noise from all industrial activities (including private haul roads and private railway lines) to be undertaken on the premises should be assessed using the guidelines contained in the *NSW Industrial Noise Policy* (EPA, 2000) and *Industrial Noise Policy Application Notes*. <http://www.environment.nsw.gov.au/noise/industrial.htm>
3. Noise on public roads from increased road traffic generated by land use developments should be assessed using the guidelines contained in the *Environmental Criteria for Road Traffic Noise* (EPA, 1999). <http://www.environment.nsw.gov.au/noise/traffic.htm>
4. Noise from new or upgraded public roads should be assessed using the *Environmental Criteria for Road Traffic Noise* (EPA, 1999). <http://www.environment.nsw.gov.au/noise/traffic.htm>

In relation to blasting and blast vibration, the following matters should be addressed (where relevant) as part of the Environmental Assessment.

5. Vibration from all activities (including construction and operation) to be undertaken on the premises should be assessed using the guidelines contained in the *Assessing Vibration: a technical guideline* (DEC, 2006). <http://www.environment.nsw.gov.au/noise/vibrationguide.htm>
6. If blasting is required for any reasons during the construction or operational stage of the proposed development, blast impacts should be demonstrated to be capable of complying with the guidelines contained in *Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration* (ANZEC, 1990). <http://www.environment.nsw.gov.au/noise/blasting.htm>

4. Waste, chemicals and hazardous materials and radiation

The EIS should:

1. Identify, characterise and classify all waste that will be generated onsite through excavation, demolition or construction activities, including proposed quantities of the waste.
Note: All waste must be classified in accordance with *DECCW's Waste Classification Guidelines*.
2. Identify, characterise and classify all waste that is proposed to be disposed of to an offsite location, including proposed quantities of the waste and the disposal locations for the waste. This includes waste that is intended for re-use or recycling.
Note: All waste must be classified in accordance with *DECCW's Classification Guidelines*.
3. Include a commitment to retaining all sampling and classification results for the life of the project to demonstrate compliance with *DECCW's Waste Classification Guidelines*.
4. Provide details of how waste will be handled and managed onsite to minimise pollution, including:
 - a) Stockpile location and management

- Labelling of stockpiles for identification, ensuring that all waste is clearly identified and stockpiled separately from other types of material (especially the separation of any contaminated and non-contaminated waste).
 - Proposed height limits for all waste to reduce the potential for dust and odour.
 - Procedures for minimising the movement of waste around the site and double handling.
 - Measures to minimise leaching from stockpiles into the surrounding environment, such as sediment fencing, geofabric liners etc.
- b) Erosion, sediment and leachate control including measures to be implemented to minimise erosion, leachate and sediment mobilisation at the site during works. The EIS should show the location of each measure to be implemented. The Proponent should consider measures such as:
- Sediment traps
 - Diversion banks
 - Sediment fences
 - Bunds (earth, hay, mulch)
 - Geofabric liners
 - Other control measures as appropriate

The Proponent should also provide details of:

- how leachate from stockpiled waste material will be kept separate from stormwater runoff;
 - treatment of leachate through a wastewater treatment plant (if applicable); and
 - any proposed transport and disposal of leachate off-site.
6. Provide details of how the waste will be handled and managed during transport to a lawful facility. If the waste possesses hazardous characteristics, the Proponent must provide details of how the waste will be treated or immobilised to render it suitable for transport and disposal.
 7. Include details of all procedures and protocols to be implemented to ensure that any waste leaving the site is transported and disposed of lawfully and does not pose a risk to human health or the environment.
 8. Include a statement demonstrating that the Proponent is aware of OEH's requirements with respect to notification and tracking of waste as appropriate.
 9. Include a statement demonstrating that the Proponent is aware of the relevant legislative requirements for disposal of the waste, including any relevant Resource Recovery Exemptions, as gazetted by the EPA from time to time.
 10. Outline contingency plans for any event that affects operations at the site that may result in environmental harm, including (but not limited to) excessive stockpiling of waste and the detection of asbestos in waste materials brought on to the site.

5. Water and soils

5.1 Soil issues

The EIS should include:

1. An assessment of potential impacts on soil and land resources should be undertaken, being guided by *Soil and Landscape Issues in Environmental Impact Assessment* (DLWC 2000). The nature and extent of any significant impacts should be identified. Particular attention should be given to:
 - a. Soil erosion and sediment transport - in accordance with *Managing urban stormwater: soils and construction*, vol. 1 (Landcom 2004) and vol. 2 (A. Installation of services; B Waste landfills; C. Unsealed roads; D. Main Roads; E. Mines and quarries) (DECC 2008).
 - b. Mass movement (landslides) – in accordance with *Landslide risk management* guidelines presented in Australian Geomechanics Society (2007).
 - c. Urban and regional salinity – guidance given in the Local Government Salinity Initiative booklets which includes *Site Investigations for Urban Salinity* (DLWC, 2002).
2. A description of the mitigation and management options that will be used to prevent, control, abate or minimise identified soil and land resource impacts associated with the project. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.

5.2 Water Issues

The EIS should:

1. Describe water usage for the proposal including the position of any intakes and discharges, volumes, water quality and frequency of all water discharges.
2. Demonstrate that all practical options to avoid discharge have been implemented and environmental impact minimised where discharge is necessary.
3. Where relevant include a water balance for the development including water requirements (quantity, quality and source(s)) and proposed storm and wastewater disposal, including type, volumes, proposed treatment and management methods and re-use options.
4. Describe existing surface and groundwater quality. An assessment needs to be undertaken for any water resource likely to be affected by the proposal.
5. State the Water Quality Objectives for the receiving waters relevant to the proposal. These refer to the community's agreed environmental values and human uses endorsed by the NSW Government as goals for ambient waters (<http://www.environment.nsw.gov.au/ieo/index.htm>). Where groundwater may be impacted the assessment should identify appropriate groundwater environmental values.
6. State the indicators and associated trigger values or criteria for the identified environmental values. This information should be sourced from the ANZECC (2000) Guidelines for Fresh and Marine Water Quality (http://www.mincos.gov.au/publications/australian_and_new_zealand_guidelines_for_fresh_and_marine_water_quality).
7. State any locally specific objectives, criteria or targets which have been endorsed by the NSW Government.
8. Describe the nature and degree of impact that any proposed discharges will have on the receiving environment.
9. Assess impacts against the relevant ambient water quality outcomes. Demonstrate how the proposal will be designed and operated to:
 - protect the Water Quality Objectives for receiving waters where they are currently being achieved; and

- contribute towards achievement of the Water Quality Objectives over time where they are not currently being achieved.
10. Where a discharge is proposed that includes a mixing zone, the proposal should demonstrate how wastewater discharged to waterways will ensure the ANZECC (2000) water quality criteria for relevant chemical and non-chemical parameters are met at the edge of the initial mixing zone of the discharge, and that any impacts in the initial mixing zone are demonstrated to be reversible.
 11. Assess impacts on groundwater and groundwater dependent ecosystems.
 12. Describe how stormwater will be managed both during and after construction.
 13. Describe how predicted impacts will be monitored and assessed over time.

ATTACHMENT B: EPA GUIDANCE MATERIAL

Title	Web address
<u>Relevant Legislation</u>	
<i>Contaminated Land Management Act 1997</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+140+1997+cd+0+N
<i>Environmentally Hazardous Chemicals Act 1985</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+14+1985+cd+0+N
<i>Environmental Planning and Assessment Act 1979</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
<i>Protection of the Environment Operations Act 1997</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N
<u>Licensing</u>	
EPA Guide to Licensing	www.environment.nsw.gov.au/licensing/licenceguide.htm
<u>Air Issues</u>	
Air Quality	
Approved methods for modelling and assessment of air pollutants in NSW (2005)	http://www.environment.nsw.gov.au/resources/air/ammodelling05361.pdf
POEO (Clean Air) Regulation 2002	http://www.legislation.nsw.gov.au/maintop/view/inforce/subordleg+642+2002+cd+0+N
<u>Noise and Vibration</u>	
Interim Construction Noise Guideline (DECC, 2009)	http://www.environment.nsw.gov.au/noise/constructnoise.htm
Assessing Vibration: a technical guideline (DEC, 2006)	http://www.environment.nsw.gov.au/noise/vibrationguide.htm
Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration (ANZEC, 1990)	http://www.environment.nsw.gov.au/noise/blasting.htm
Industrial Noise Policy Application Notes	http://www.environment.nsw.gov.au/noise/traffic.htm
Environmental Criteria for Road Traffic Noise (EPA, 1999)	http://www.environment.nsw.gov.au/noise/traffic.htm
Interim Guideline for the Assessment of Noise from Rail Infrastructure Projects (DECC, 2007)	http://www.environment.nsw.gov.au/noise/railfranoise.htm
Environmental assessment requirements for rail traffic-generating developments	http://www.environment.nsw.gov.au/noise/railnoise.htm

Title	Web address
<u>Waste, Chemicals and Hazardous Materials and Radiation</u>	
Waste	
Environmental Guidelines: Solid Waste Landfills (EPA, 1996)	http://www.environment.nsw.gov.au/resources/waste/envguidlns/solidlandfill.pdf
Draft Environmental Guidelines - Industrial Waste Landfilling (April 1998)	http://www.environment.nsw.gov.au/resources/waste/envguidlns/industrialfill.pdf
Waste Classification Guidelines (DECC, 2008)	http://www.environment.nsw.gov.au/waste/envguidlns/index.htm
EPA Resource recovery exemptions	http://www.environment.nsw.gov.au/waste/RRecoveryExemptions.htm
<u>Water and Soils</u>	
Soils – general	
Soil and Landscape Issues in Environmental Impact Assessment (DLWC 2000)	http://www.dnr.nsw.gov.au/care/soil/soil_pubs/pdfs/tech_rep_34_new.pdf
Managing urban stormwater: soils and construction, vol. 1 (Landcom 2004) and vol. 2 (A. Installation of services; B Waste landfills; C. Unsealed roads; D. Main Roads; E. Mines and quarries) (DECC 2008)	Vol 1 - Available for purchase at http://www.landcom.com.au/whats-new/publications-reports/the-blue-book.aspx Vol 2 - http://www.environment.nsw.gov.au/stormwater/publications.htm
Landslide risk management guidelines	http://www.australiangeomechanics.org/resources/downloads/
Site Investigations for Urban Salinity (DLWC, 2002)	http://www.environment.nsw.gov.au/resources/salinity/booklet3siteinvestigationsforurbansalinity.pdf
Local Government Salinity Initiative Booklets	http://www.environment.nsw.gov.au/salinity/solutions/urban.htm
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	http://www.mincos.gov.au/publications/australian_and_new_zealand_guidelines_for_fresh_and_marine_water_quality
Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones	http://deccnet/water/resources/AWQGuidance7.pdf
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf

Alice Smith - RE: Langley Heights Quarry - Continued Operations - Input into DGRs

From: Gary Wallace <Gary.Wallace@oberon.nsw.gov.au>
To: 'Alice Smith' <Alice.Smith@planning.nsw.gov.au>
Date: 12/5/2013 2:40 PM
Subject: RE: Langley Heights Quarry - Continued Operations - Input into DGRs

Alice

Council has investigated the information provided and indicates from initial information provided Council has no additional comment to make in relation to the Pre EA.

Council advises that it will provide formal comment during the exhibition period of the application.

Council thanks the department for including Council in the pre EA process

Regards

Gary Wallace

From: Alice Smith [mailto:Alice.Smith@planning.nsw.gov.au]
Sent: Friday, 15 November 2013 3:08 PM
To: Andrew.Helms@epa.nsw.gov.au; council; development.western@rms.nsw.gov.au; info@sca.nsw.gov.au; landuse.enquiries@dpi.nsw.gov.au; landuse.minerals@industry.nsw.gov.au; planning.matters@environment.nsw.gov.au
Cc: cressida.gilmore@industry.nsw.gov.au; Gary Wallace; greg.paine@industry.nsw.gov.au; referrals@water.nsw.gov.au; Sonya.Ardill@environment.nsw.gov.au
Subject: Langley Heights Quarry - Continued Operations - Input into DGRs

Dear all,

**Langley Heights Quarry - Continued Operations Project
 Request for Input into Director-General's Requirements**

Oberon Quarries has requested DGRs for the continued operations of the Langley Heights Quarry, near Oberon in the Oberon local government area.

The proposal involves:

- the extension of the life of the quarry for an additional 30 years to allow for continued extraction of the remaining 10 Mt of basalt reserves within the approved extraction area;
- 1 hectare extension of the existing extraction area, within the project footprint;
- removal of the ten year annual average production limitation;
- installation of a second diesel fuel storage tank;
- replacement of some of the existing screening plant, reconfiguration of the alignment of the screens

- and the inclusion of an additional cone crusher; and
- production and supply of manufactured sand.

Further information on the proposal is included in the Preliminary Environmental Assessment (see attached).

The development is a State Significant Development under Part 4 of the *Environmental Planning and Assessment Act 1979*. You are invited to provide input into the drafting of the DGRs for an Environmental Impact Statement for the development.

It would be greatly appreciated if you would please provide your input into the DGRs by **Friday 6 December 2013**.

Please contact me if you have any enquiries on this matter.

Kind regards

Alice

Alice Smith

Environmental Planning Officer | Mining Projects
Department of Planning & Infrastructure
23-33 Bridge Street SYDNEY 2000 | GPO Box 39 SYDNEY 2001
ph: 02 9228 6336 | e: alice.smith@planning.nsw.gov.au



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Your reference:
Our reference: DOC13/90874
Contact: Terry Mazzer
02 6683 5313

Alice Smith
Environmental Planning Officer
NSW Department of Planning & Infrastructure
GPO Box 39
Sydney NSW 2001

Dear Alice

RE Request for input into DGRs for Langley Heights Quarry Continued Operations (SSD)

Thank you for your email (dated 15th November 2013) seeking the requirements of the Office of Environment and Heritage (OEH) for the preparation of an Environmental Impact Statement (EIS) for the above proposal.

In summary, the OEH's key information requirements for the proposal include an adequate assessment of:

1. Impacts to Aboriginal cultural heritage objects; and
2. Impacts on flora, fauna, threatened species, populations, communities and their habitats.

OEH can provide advice on the EIS where the EIS deals with natural and cultural heritage conservation issues. OEH may also comment on the legitimacy of the conclusions reached regarding the significance of impacts by the proposed development to these components of the environment.

The *Environmental Planning and Assessment Act 1979* (EP&A Act) requires that the EIS should fully describe the proposal, the existing environment and impacts of the proposal.

This letter directs you primarily to our generic guidance material. However, please note that it is up to the proponent (and later the consent authority after appropriate consultation) to determine the detail and comprehensiveness of the surveys and level of assessment required to form legally defensible conclusions regarding the impact of the proposal. The scale and intensity of the proposed development should dictate the level of investigation. It is important that all conclusions are supported by adequate data.

The OEH has responsibilities under the:

- *National Parks and Wildlife Act 1974* - namely the protection and care of Aboriginal objects and places, the protection and care of native flora and fauna and the protection and management of reserves,
- *Threatened Species Conservation Act 1995* which aims to conserve threatened species of flora and fauna, populations and ecological communities to promote their recovery and manage processes that threaten them,

- *Native Vegetation Conservation Act 2003* – ensuring compliance with the requirements of this legislation.

It is the responsibility of the proponent and consent authority to adequately consider the requirements under the *Environmental Planning and Assessment Act 1979* (EP&A Act), including flora, fauna, threatened species, populations and ecological communities and their habitats, and cultural heritage.

OEH understands from the correspondence that the proposed activity is a State Significant Development application pursuant to Part 4 of the *EP&A Act 1979*. As such OEH only has a statutory role in assessing such an activity if the determining authority determines that the activity is likely to significantly affect a threatened species, population, ecological community, or its habitat, as listed under the *Threatened Species Conservation (TSC) Act 1995*.

Flora, Fauna and Threatened Species

As this proposal may impact on a number of threatened species and their habitat it is important that the EIS include a comprehensive flora and fauna report. following the requirements of the Environmental Assessment Guidelines included in attachment B.

These guidelines address requirements under the *Environmental Planning and Assessment Act 1979* and OEH's areas of responsibility relating to flora, fauna and threatened species, populations and ecological communities and their habitats.

Cultural Heritage

The importance of protecting Aboriginal Cultural Heritage is reflected in the provisions under Part 6 of the *NP&W Act 1974*, as amended. That Act clearly establishes that Aboriginal objects and places are protected and may not be harmed, disturbed or desecrated without appropriate authorisation.

Under the *NP&W Act 1974*, it is the responsibility of each individual proposing to conduct ground disturbance works to ensure that they have conducted a due diligence assessment to avoid harming Aboriginal objects by the proposed activity. OEH has produced a generic due diligence process, which is not mandatory to follow, however any alternative process followed must be able to demonstrate their process was reasonable and practicable in attempts to avoid harm to Aboriginal objects.

Consultation must also be in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010) as set by OEH if impact to cultural heritage is unavoidable.

Further advice regarding Aboriginal cultural heritage can be found on the OEH web-site at: <http://www.environment.nsw.gov.au/licences/achregulation.htm>. and within guidance documents listed in Attachment C.

Should you require further information on flora, fauna or cultural heritage please contact Terry Mazzer, Conservation Planning Officer on (02) 6883 5302 or terry.mazzer@environment.nsw.gov.au.

Yours sincerely,



SONYA ARDILL
Senior Team Leader Planning, North West Region
Regional Operations

ATTACHMENT A: EIS REQUIREMENTS FOR THE LANGLEY HEIGHTS QUARRY CONTINUED OPERATION (SSD)

1 Environmental impacts of the project

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

- Aboriginal cultural heritage
- Biodiversity

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

2. Aboriginal cultural heritage

The EIS report should contain:

- A description of the Aboriginal objects and declared Aboriginal places located within the area of the proposed development.
- A description of the cultural heritage values, including the significance of the Aboriginal objects and declared Aboriginal places, that exist across the whole area that will be affected by the proposed development, and the significance of these values for the Aboriginal people who have a cultural association with the land.
- A description of how the requirements for consultation with Aboriginal people as specified in clause 80C of the National Parks and Wildlife Regulation 2009 have been met.
- The views of those Aboriginal people regarding the likely impact of the proposed development on their cultural heritage. If any submissions have been received as a part of the consultation requirements, then the report must include a copy of each submission and your response.
- A description of the actual or likely harm posed to the Aboriginal objects or declared Aboriginal places from the proposed activity, with reference to the cultural heritage values identified.
- A description of any practical measures that may be taken to protect and conserve those Aboriginal objects or declared Aboriginal places.
- A description of any practical measures that may be taken to avoid or mitigate any actual or likely harm, alternatives to harm or, if this is not possible, to manage (minimise) harm.
- A specific Statement of Commitment that the proponent will complete an Aboriginal Site Impact Recording Form and submit it to the Aboriginal Heritage Information Management System (AHIMS) Registrar, for each AHIMS site that is harmed through the proposed development.

In addressing these requirements, the proponent must refer to the following documents:

- a) *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010) - <http://www.environment.nsw.gov.au/licences/consultation.htm>. This document further explains the consultation requirements that are set out in clause 80C of the National Parks and Wildlife Regulation 2009. The process set out in this document must be followed and documented in the Environmental Assessment Report.

- b) *Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010) <http://www.environment.nsw.gov.au/licences/archinvestigations.htm>. The process described in this Code should be followed and documented where the assessment of Aboriginal cultural heritage requires an archaeological investigation to be undertaken.

Notes:

1. An Aboriginal Site Impact Recording Form (<http://www.environment.nsw.gov.au/licences/DECCAHIMSSiteRecordingForm.htm>) must be completed and submitted to the Aboriginal Heritage Information Management System (AHIMS) Registrar, for each AHIMS site that is harmed through archaeological investigations required or permitted through these environmental assessment requirements.
2. Under section 89A of the *National Parks and Wildlife Act* 1974, it is an offence for a person not to notify OEHS of the location of any Aboriginal object the person becomes aware of, not already recorded on the Aboriginal Heritage Information Management System (AHIMS). An AHIMS Site Recording Form should be completed and submitted to the AHIMS Registrar (<http://www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm>), for each Aboriginal site found during investigations.

3 Biodiversity

Biodiversity impacts can be assessed using **either** the BioBanking Assessment Methodology (scenario 1) or a detailed biodiversity assessment (scenario 2). The requirements for each of these approaches are detailed below.

The BioBanking Assessment Methodology can be used **either** to obtain a BioBanking statement, or to assess impacts of a proposal and to determine required offsets without obtaining a statement. In the latter instances, if the required credits are not available for offsetting, appropriate alternative options may be developed in consultation with OEHS officers and in accordance with the 'NSW OEHS interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects.'

Scenario 1 - Where a proposal is assessed using the BioBanking Assessment Methodology (BBAM)

1. Where a BioBanking Statement is being sought under Part 7A of the *Threatened Species Conservation Act* 1995 (TSC Act), the assessment must be undertaken by an accredited BioBanking assessor (as specified under Section 142B (1)(c) of the TSC Act 1995) and done in accordance with the [BioBanking Assessment Methodology and Credit Calculator Operational Manual](#) (DECCW, 2008). To qualify for a BioBanking Statement a proposal must meet the 'improve or maintain' standard.
- 1a. The Environmental Impact Statement (EIS) should include a specific Statement of Commitments that reflects all requirements of the BioBanking Statement including the number of credits required and any DG approved variations to impact on Red Flags.
2. Where the BioBanking Assessment Methodology is being used to assess impacts of a proposal and to determine required offsets, and a BioBanking Statement is not being obtained, the EIS should contain a detailed biodiversity assessment and all components of the assessment must be undertaken in accordance with the [BioBanking Assessment Methodology and Credit Calculator Operational Manual](#) (DECCW, 2008).
- 2a. The EIS should include a specific Statement of Commitments which:
 - is informed by the outcomes of the proposed BioBanking assessment offset package;

- sets out the ecosystem and species credits required by the BioBanking Assessment Methodology and how these ecosystem and/or species credits will be secured and obtained;
 - if the ecosystem or species credits cannot be obtained, provides appropriate alternative options to offset expected impacts, noting that an appropriate alternative option may be developed in consultation with OEH officers and in accordance with OEH policy;
 - demonstrates how all options have been explored to avoid red flag areas; and
 - includes all relevant 'BioBanking files (e.g. *.xml output files), data sheets, underlying assumptions (particularly in the selection of vegetation types from the vegetation types database), and documentation (including maps, aerial photographs, GIS shape files, other remote sensing imagery etc.) to ensure that the OEH can conduct an appropriate review of the assessment.
3. Where the 'NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects' is being used then the proponent must stipulate which level(s) of offset is being offered in relation to each of the vegetation communities and threatened species that require species credits. In accordance with the interim policy, justification must be provided as to why it is appropriate to apply the Tier 2 ('no net loss') or Tier 3 ('mitigated net loss') outcomes. In considering whether the mitigated net loss standard is appropriate, justification must be provided on: (i) whether the credits required by the calculator are available on the market; (ii) whether alternative offset sites (other than credits) are available on the market; and (iii) the overall cost of the offsets and whether these costs are reasonable given the circumstances'. This must be to satisfaction of, and in consultation with, OEH.
 4. Where appropriate, likely impacts (both direct and indirect) on any adjoining and/or nearby OEH estate reserved under the *National Parks and Wildlife Act 1974* or any marine and estuarine protected areas under the *Fisheries Management Act 1994* or the *Marine Parks Act 1997* should be considered. Please refer to the [Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water](#) (DECCW, 2010).
 5. With regard to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, the assessment should identify and assess any relevant Matters of National Environmental Significance and whether the proposal has been referred to the Commonwealth or already determined to be a controlled action.

Scenario 2 - Where a proposal is assessed outside the BioBanking Assessment Methodology:

1. The EIS should include a detailed biodiversity assessment, including assessment of impacts on threatened biodiversity, native vegetation and habitat. This assessment should address the matters included in the following sections.
2. A field survey of the site should be conducted and documented in accordance with relevant guidelines, including :
 - the [Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna - Amphibians](#) (DECCW, 2009);
 - [Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft](#) (DEC, 2004); and
 - Threatened species survey and assessment guideline information on www.environment.nsw.gov.au/threatenedspecies/surveyassessmentgdlns.htm.
 - Commonwealth survey requirements (birds, bats, reptiles, frogs, fish and mammals): <http://www.environment.gov.au/epbc/publications/guidelines.html>. These are relevant when species or communities listed under the *Environment Protection and Biodiversity Conservation Act* are present.

It is preferable for proponents to use the Interim Vegetation Mapping Standard data form to collect the vegetation plot data for the project site, and any offset site associated with the project. This will

provide data that is useful for vegetation mapping as well as in the BioBanking Assessment Methodology. This is available at <http://www.environment.nsw.gov.au/research/VISplot.htm>.

If a proposed survey methodology is likely to vary significantly from the above methods, the proponent should discuss the proposed methodology with the OEH prior to undertaking the EIS, to determine whether the OEH considers that it is appropriate.

Recent (less than five years old) surveys and assessments may be used. However, previous surveys should not be used if they have:

- been undertaken in seasons, weather conditions or following extensive disturbance events when the subject species are unlikely to be detected or present, or
- utilised methodologies, survey sampling intensities, timeframes or baits that are not the most appropriate for detecting the target subject species,

unless these differences can be clearly demonstrated to have had an insignificant impact upon the outcomes of the surveys. If a previous survey is used, any additional species listed under the TSC Act since the previous survey took place, must be surveyed for.

Determining the list of potential threatened species for the site must be done in accordance with the [*Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft*](#) (DEC, 2004) and the *Guidelines for Threatened Species Assessment* (Department of Planning, July 2005).

The OEH Threatened Species website <http://www.environment.nsw.gov.au/threatenedspecies/> and the *Atlas of NSW Wildlife* database must be the primary information sources for the list of threatened species present.

The BioBanking Threatened Species Database, the Vegetation Types databases (available on OEH website at <http://www.environment.nsw.gov.au/biobanking/biobankingtsdpd.htm> and <http://www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm>, respectively) and other data sources (e.g. PlantNET, Online Zoological Collections of Australian Museums (<http://www.ozcam.org/>), previous or nearby surveys etc.) may also be used to compile the list.

3. The EIS should contain the following information as a minimum:
 - a. The requirements set out in the *Guidelines for Threatened Species Assessment* (Department of Planning, July 2005);
 - b. Description and geo-referenced mapping of study area (and associated spatial data files), e.g. overlays on topographic maps, satellite images and/or aerial photos, including details of map datum, projection and zone, all survey locations, vegetation communities (including classification and methodology used to classify), key habitat features and reported locations of threatened species, populations and ecological communities present in the subject site and study area. Separate spatial files (.shp format) to be provided to the OEH should include, at a minimum, shapefiles of the project site, impact footprint, vegetation mapping and classification for both the impact and any offset site(s);
 - c. Description of survey methodologies used, including timing, location and weather conditions;
 - d. Detailed description of vegetation communities (including classification and methodology used to classify) and including all plot data. Plot data should be supplied to the OEH in electronic format (eg MS-Excel) and organised by vegetation community;
 - e. Details, including qualifications and experience of all staff undertaking the surveys, mapping and assessment of impacts as part of the EIA;
 - f. Identification of national and state listed threatened biota known or likely to occur in the study area and their conservation status;
 - g. Description of the likely impacts of the proposal on biodiversity and wildlife corridors, including direct and indirect and construction and operation impacts. Wherever possible, quantify these impacts such as the amount of each vegetation community or species habitat to be cleared or impacted, or any fragmentation of a wildlife corridor;

- h. Identification of the avoidance, mitigation and management measures that will be put in place as part of the proposal to avoid or minimise impacts, including details about alternative options considered and how long term management arrangements will be guaranteed;
 - i. Description of the residual impacts of the proposal. If the proposal cannot adequately avoid or mitigate impacts on biodiversity, then a biodiversity offset package is expected (see the requirements for this at point 6 below); and
 - j. Provision of specific Statement of Commitments relating to biodiversity.
4. An assessment of the significance of direct and indirect impacts of the proposal must be undertaken for threatened biodiversity known or considered likely to occur in the study area based on the presence of suitable habitat. This assessment must take into account:
- a. the factors identified in s.5A of the EP&A Act; and
 - b. the guidance provided by *The Threatened Species Assessment Guideline – The Assessment of Significance* (DECCW, 2007) which is available at:
<http://www.environment.nsw.gov.au/resources/threatenedspecies/tsaguide07393.pdf>
5. Where an offsets package is proposed by a proponent for impacts to biodiversity (and a BioBanking Statement has not been sought) this package should:
- a) Meet either the OEH's *Principles for the use of biodiversity offsets in NSW*¹, which are available at: www.environment.nsw.gov.au/biocertification/offsets.htm, or the 'NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects.'
 - b) Identify the conservation mechanisms to be used to ensure the long term protection and management of the offset sites; and
 - c) Include an appropriate Management Plan (such as vegetation or habitat) that has been developed as a key amelioration measure to ensure any proposed compensatory offsets, retained habitat enhancement features within the development footprint and/or impact mitigation measures (including proposed rehabilitation and/or monitoring programs) are appropriately managed and funded.
6. Where appropriate, likely impacts (both direct and indirect) on any adjoining and/or nearby OEH estate reserved under the *National Parks and Wildlife Act 1974* or any marine and estuarine protected areas under the *Fisheries Management Act 1994* or the *Marine Parks Act 1997* should be considered. Refer to the [Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water](#) (DECC, 2010).
7. With regard to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, the assessment should identify any relevant Matters of National Environmental Significance and whether the proposal has been referred to the Commonwealth or already determined to be a controlled action.

¹ Please note that the OEH's *Principles for the use of biodiversity offsets in NSW* ('the Principles') and the NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects ('the Interim policy') require offsets to be based on a quantitative assessment of the loss in biodiversity from the proposal and the gain in biodiversity from the offset. The methodology must be based on the best available science, be reliable, and used for calculating both the impact and offset sites. Even where a proponent does not intend to use the BioBanking Assessment Methodology and Credit Calculator (Scenario 1), use of a suitable alternative metric, justified in the EA, is necessary to demonstrate that the proposal is consistent with the Principles or the Interim policy. Ultimately the proponent is expected to demonstrate quantitatively that the biodiversity losses associated with the project will be adequately compensated for by the improvement in vegetation condition and security expected from the offset site. This cannot be properly determined by a hectare comparison alone.

ATTACHMENT B: EIA REQUIREMENTS - FLORA AND FAUNA

INTRODUCTION

The *Environmental Planning and Assessment Act (1979)* (*EP&A Act*) requires that proponents of a development/activity and the Consent/Determining Authorities adequately assess the impact of a development or activity in any Environmental Impact Assessment (EIA) documents. These EIA documents include:

- Statement of Environmental Effects (SoEE), or
- Review of Environmental Factors (REF), or
- Environmental Impact Statement (EIS).

These are introductory, generic specifications of the Office of Environment and Heritage (OEH) for an adequate assessment of the impacts of a development proposal on native flora and fauna (ie including protected and threatened species). However, OEH recognises that the scale and complexity of the project will to some extent, dictate the level of information that is required to address the questions posed below. Consequently, flora and fauna assessments need to be tailored to suit the proposal. For example, a development which is proposed on land which has already been totally (or substantially) cleared should address the issues raised below but the amount of work required to address these issues may be substantially less than if the area comprised undisturbed bushland and, therefore, of more significant wildlife habitat value. A preliminary assessment, including a desktop investigation and a preliminary site inspection, may indicate the need for a detailed survey of the site.

It is up to the proponent (and later the consent and/or determining authorities after appropriate consultation) to determine the detail and comprehensiveness of assessment required to form legally defensible conclusions regarding the impact of the proposal. The scale and intensity of the proposed development should dictate the detail of investigation.

It is important that all conclusions are supported by adequate data and that these data are clearly presented in EIA documentation.

OEH will consider the following issues when reviewing an EIA document:

1. **Concerns** - What are OEH's concerns regarding the conservation of natural and cultural heritage in accordance with the relevant legislation? Is the proposal likely to affect natural and cultural heritage? How?
2. **Provision of Information** - Is adequate information provided for a valid assessment of the impacts?
3. **Validity of Conclusions** - Has the proponent arrived at valid conclusions as a result of the assessment of impacts?
4. **Recommended Conditions to Consent** - Should Consent or Approval be granted, what conditions (if any) are required to ensure that the project is developed, and thereafter managed in accordance with natural and cultural heritage conservation and the provisions of legislation administered by OEH?

Thus the EIA document should fully describe the existing environment including flora and fauna, so that future impacts can be properly assessed and then reviewed (eg during the public participation phase).

FLORA

Background

The Australian flora comprises many endemic taxa and is therefore unique in the world.

OEH is concerned at the extent to which vegetation has been cleared and otherwise modified in north-western NSW. This high level of modification has been highlighted in the National State of the Environment Reports (1996 and 2001). Evidence strongly suggests that many plant species and communities are threatened with extinction.

Although the proposed site may be disturbed by various landuses, any remnants of native vegetation are of significant natural heritage value, including riparian and wetland areas. The area of vegetation and habitat at the proposed site may provide an area of high biological diversity, high conservation value or may not be well represented or protected elsewhere. It may also act as a corridor or migratory route for wildlife, drought refuge habitat or have other important values.

The NSW community places a high value on those areas of native vegetation that remain. OEH is committed to the protection, appropriate management, and where necessary, rehabilitation of native vegetation. For these reasons, OEH considers that careful planning should precede any development that involves further vegetation clearance or other significant impact within areas of remnant vegetation.

Negative impacts to native vegetation (eg clearing) should be avoided where possible. Where impacts cannot be avoided, the EIA should detail how a “maintain or improve” outcome for biodiversity will be achieved. Biobanking provides a voluntary mechanism through which this can be achieved. The Biobanking assessment methodology allows quantification of impacts and assessment of the value of offset areas and associated management regimes for those areas. The biobanking scheme provides an alternative path for proponents to the current threatened species assessment of significance process.

Information about Biobanking is located on OEH’s website at <http://www.environment.nsw.gov.au/biobanking/>

Report Requirements

The EIA documentation should include a report on the flora that includes the following:

- detailed location map and identification of the area surveyed (including the location of photographs, transects, areas of significance etc),
- at least one of the following: a land satellite image, vegetation communities map, aerial photograph, or a remnant vegetation map,
- A map identifying the vegetation communities located in the study area and the areas of each vegetation community to be impacted.
- a complete plant list (including scientific names of those plants) of all tree, shrub, ground cover and aquatic species, categorised according to country of origin (ie., native versus exotic),
- a detailed description of vegetation structure (in terms of a scientifically accepted classification system) and spatial distribution (i.e. plant densities and patterning) on the site, including a vegetation map,
- describe the condition and integrity of the vegetation including a description of any past disturbance,
- an account of the likely original vegetation communities (pre-, or at early settlement), and an assessment of the likely regional distribution of the original communities,
- an assessment of whether the plant communities are adequately represented in conservation reserves or otherwise protected,

- an account of the hydrology of the area and how this relates to the dynamics of the vegetation communities,
- a list of **known** and **likely** threatened species as listed under Schedules 1 & 2 (*Threatened Species Conservation Act 1995*) which might occur at the site. The OEH database needs to be accessed and the likelihood of occurrence of threatened flora species determined,
- an assessment of the impacts of the proposal on flora, on-site and off-site (eg siltation, water availability or drainage changes) and measures to mitigate these impacts,
- an assessment of the significance of the impact of the development at both the site and at the regional scale,
- a detailed rehabilitation/management plan including a list of the plant species to be used during rehabilitation (if required),
- detail methodologies used and a list of the reference literature cited, and
- any other issues that may be considered relevant.

The above guidelines will provide some of the information necessary to conduct an Assessment of Significance required for threatened flora and fauna under Section 5a of the *EP&A Act*, should threatened species be likely or known to occur in the locality of the subject development proposal. Similarly, it will provide some of the information required if an application is found to be necessary under the *Native Vegetation Act (2003)*. However the above relates mostly to the specific environmental assessment processes under the *EP&A Act* and does not constitute an Assessment of Significance.

Similarly, the above guidelines will provide some of the information required for Biobanking, but may not be sufficient for Biobanking offset calculations. Please refer to the Biobanking website or contact OEH for specific information relating to Biobanking assessment requirements. The Biobanking scheme provides an alternative path for proponents to the current threatened species assessment of significance process.

FAUNA

Background

Evidence suggests that Western NSW has suffered the highest extinction rate for indigenous mammals of any region in the world. Many other vertebrate species are currently threatened. One of the major reasons for such a high level of extinction has been the destruction of habitat. Native vegetation including wetland, riparian and remnant environments are very significant areas of fauna habitat. Therefore any development in such areas should fully consider the impact on fauna and its habitat.

Report Requirements

The EIA document should include a report on the fauna (including protected and threatened species), that includes the following:

- detailed location map and identification of the area surveyed (including the location of photographs, transects, areas of significance etc),
- at least one of the following: a land satellite image, vegetation communities map, aerial photograph, or a remnant vegetation map,
- a complete list of all **known** and **likely** terrestrial and aquatic species (eg birds, mammals, reptiles and amphibians including scientific names). It is suggested that invertebrates also be considered as they form part of the food chain for many fauna species,

- those species which are protected, threatened or listed under any international agreements, as well as introduced species,
- those species known or likely to breed in the area,
- any species which have specific habitat requirements found within the project area,
- those species or populations which may be near the limit of their geographic range or are a disjunct/isolated population,
- assessment of the importance or otherwise of the location as a corridor, migratory route or drought refuge, in relation to other remnant vegetation, riparian and wetland areas or habitat in the region,
- assessment of the impacts of the proposal on all fauna and its habitat, at both the site and at the regional scale,
- identification of any mitigation measures proposed to limit or ameliorate the impact of the proposal,
- detailed methodologies used and a list of the reference literature cited, and,
- any other issues that may be considered relevant.

Again, the above guidelines will provide some of the information required for the Threatened Species component of Biobanking, but may not be sufficient for Biobanking offset calculations. Please refer to the Biobanking website or contact OEH for specific information relating to Biobanking assessment requirements

SEPP No. 44 - Koala Habitat Protection

The Shire may be listed in Schedule 1 of SEPP No. 44 - Koala Habitat Protection. If so, the requirements of the SEPP regarding Koala habitat protection should be considered by the proponents.

THREATENED SPECIES OF FAUNA AND FLORA

Background

Apart from the need to consider the impact on protected species, the proponent will need to address the requirements of legislation that currently governs threatened species protection and impact assessment in NSW.

The *Threatened Species Conservation Act (1995) (TSC Act)* protects all threatened flora and fauna native to NSW (excluding fish and marine plants). The proponent will need to consider the provisions of this Act.

The *TSC Act* contains lists of threatened species, which are divided into a number of categories – those presumed extinct, endangered species, critically endangered species and vulnerable species. It also contains lists of endangered populations, endangered ecological communities, critically endangered ecological communities and vulnerable ecological communities. This Act also allows for the declaration of critical habitat, key threatening processes and the preparation of both Recovery Plans and Threat Abatement Plans. These listings and plans must be considered as part of the EIA process.

If an activity or development is proposed in a locality likely or known to be occupied by a threatened species, population, ecological community or critical habitat, any potential impact to that threatened species must be taken into account during the development assessment process. However under the *EP&A Act*, some types of development are not required to go through approval processes. Please note that a licence may still be required under the *TSC Act* if such a development/activity is likely to harm a threatened species, population or ecological community.

Proponents can voluntarily use BioBanking to minimise and offset their impacts on biodiversity. The scheme provides an alternative path for proponents to the current threatened species assessment of significance process.

Assessment of Significance & Species Impact Statements

If during the flora or fauna assessment or survey, threatened species are **found** or are **likely** to occur in the area, the proponents must undertake an Assessment of Significance as outlined in section 5A of the *EP&A Act* to determine whether or not the development would be likely to have a significant impact upon threatened species.

The Assessment of Significance is a statutory mechanism which allows decision makers to assess whether a proposed development or activity is likely to have a significant effect on threatened species, populations or ecological communities, or their habitats.

The Assessment of Significance is contained within section 5A of the *EP&A Act* and consists of seven factors which need to be addressed for informed decisions to be made regarding the effect of a proposed development or activity on threatened species, populations or ecological communities, or their habitats. A copy of OEH's *Threatened species assessment guidelines: The assessment of significance* can be obtained from the OEH website at:

<http://www.environment.nsw.gov.au/resources/threatenedspecies/tsaguide07393.pdf>

Following threatened species assessment via the Assessment of Significance, it may be necessary to prepare a Species Impact Statement (SIS). The proponent will need to prepare a SIS in the following circumstances:

- If (after having addressed Section 5A) the flora/fauna assessment concludes that there is likely to be a significant impact to threatened species, or
- The proposed development is likely to affect critical habitat declared under the TSC Act.

If a SIS is required, the proponent (not the consultant) must write to OEH for any formal requirements for the SIS that he might deem appropriate. The SIS must then be prepared in accordance with these requirements and provided to the OEH. In some instances the Minister for the Environment will also need to be consulted for approval.

Methods to reduce the impact on the protected and threatened species should be considered fully, and are considered an integral requirement within any SIS document.

The OEH advises that conducting an Assessment of Significance or an SIS according to the provisions of the *EP&A Act* and the *TSC Act* is a complex task and should be undertaken by suitably qualified person(s).

AVAILABLE DATA

OEH can supply, at the standard cost, fauna prediction data and recorded fauna sightings data (Wildlife Atlas of NSW) to help in the investigation. The following information on site recordings of Flora and Fauna is available from OEH:

- A general search for flora and fauna records can be conducted through the Atlas of NSW Wildlife at: <http://www.bionet.nsw.gov.au/>

Please note that not all the information associated with the individual records is available on this website. You can apply to the Office of Environment and Heritage for more detailed information about individual sightings (terms and conditions apply). Contact the Wildlife Data Unit for more information on (02) 9995 5000.

- Detailed information relating to threatened species, populations, ecological communities and their habitats can be obtained from the OEH Threatened Species website at:

<http://www.threatenedspecies.environment.nsw.gov.au/index.aspx>

Other reference literature may be available for the subject locality/region. The proponent should explore this possibility thoroughly.

ATTACHMENT C – GUIDANCE MATERIAL

Title	Web Address
<i>Commonwealth Environment Protection & Biodiversity Conservation Act 1999</i>	http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
<i>Environmental Planning and Assessment Act 1979</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
<i>Fisheries Management Act 1994</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N
<i>National Parks and Wildlife Act 1974</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
<i>Threatened Species Conservation Act 1995</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+101+1995+cd+0+N
<i>Water Management Act 2000</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N

Aboriginal Cultural Heritage

Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (2005)	Available from DoP.
Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010)	http://www.environment.nsw.gov.au/licences/consultation.htm
Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010)	http://www.environment.nsw.gov.au/licences/archinvestigations.htm
Due Diligence Code for the Protection of Aboriginal Objects in NSW (DECCW 2010)	http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf
Aboriginal Site Impact Recording Form	http://www.environment.nsw.gov.au/licences/DECCAHiMSSiteRecordingForm.htm
Aboriginal Heritage Information Management System (AHIMS) Registrar	http://www.environment.nsw.gov.au/contact/AHiMSRegistrar.htm

Biodiversity

BioBanking Assessment Methodology (DECC, 2008)	http://www.environment.nsw.gov.au/resources/biobanking/08385bbassessmethod.pdf
BioBanking Assessment Methodology and Credit Calculator Operational Manual (DECCW, 2008)	http://www.environment.nsw.gov.au/biobanking/calculator.htm
Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna –Amphibians (DECCW, 2009)	http://www.environment.nsw.gov.au/resources/threatenedspecies/09213amphibians.pdf
Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities – Working Draft (DEC, 2004)	http://www.environment.nsw.gov.au/resources/nature/TBSAGuidelinesDraft.pdf

Survey requirements (birds, bats, reptiles, frogs, fish and mammals) for species listed under the EPBC Act

<http://www.environment.gov.au/epbc/publications/guidelines.html>

DECCW Threatened Species website

<http://www.environment.nsw.gov.au/threatenedspecies/>

Atlas of NSW Wildlife

<http://www.environment.nsw.gov.au/wildlifeatlas/about.htm>

BioBanking Threatened Species Database

http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/home_species.aspx

Vegetation Types databases

<http://www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm>

PlantNET

<http://plantnet.rbgsyd.nsw.gov.au/>

Online Zoological Collections of Australian Museums

<http://www.ozcam.org/>

Threatened Species Assessment Guideline - The Assessment of Significance (DECCW, 2007)

<http://www.environment.nsw.gov.au/resources/threatenedspecies/tsaguide07393.pdf>

Principles for the use of biodiversity offsets in NSW

<http://www.environment.nsw.gov.au/biocertification/offsets.htm>

Alice Smith - Langley Heights Quarry - DGR's

From: Wayne Jones <wayne.jones@dpi.nsw.gov.au>
To: <alice.smith@planning.nsw.gov.au>
Date: 12/6/2013 3:15 PM
Subject: Langley Heights Quarry - DGR's

Hi Alice
 Please see following draft DPI comment on the above project. Formal response should follow soon.
 Regards
 Wayne
 OUT13/36251
 Ms Alice Smith
 Mining Projects
 NSW Department of Planning and Infrastructure
 GPO Box 39
 SYDNEY NSW 2001
 Dear Ms Smith,

**Langley Heights Quarry
 Request for input into Director General Requirements**

I refer to your email dated 15 November 2013 to the Department of Primary Industries in respect to the above matter.

Comment by NSW Office of Water

NSW Office of Water provides detailed comment and recommendations in Attachment A, and general requirements in Attachment B.

For further information please contact Tim Baker, Senior Water Regulation Officer (Dubbo Office) on 6841 7403 or at tim.baker@water.nsw.gov.au.

Comment by Agriculture NSW

Agriculture NSW refers the proponent to the guideline *Agriculture Issues for Extractive Industry Development* available at the following link; <http://www.dpi.nsw.gov.au/agriculture/resources/lup/development-assessment/extractive-industries>.

For further information contact Mary Kovac, Resource Management Officer (Dubbo Office) on 6881 1250 or at mary.kovac@industry.nsw.gov.au.

Comment by Crown Lands

Crown Lands advise that there are 2 crown roads affected by the extension. The proponent will need to arrange closure of the roads or transfer to Council who can then approve any works to be undertaken on the roads.

For further information please contact Paul Crain, Property Management Project Officer, (Orange Office) on 6391 4312 or at paul.crain@lands.nsw.gov.au.

Comment by Fisheries NSW

Fisheries NSW advise no issues.

For further information please contact David Ward, Fisheries Conservation Manager (Tamworth office) on 6763 1255 or at: david.ward@industry.nsw.gov.au.

**Attachment A
 Langley Heights Quarry
 Request for Input into Director General Requirements
 Comment by NSW Office of Water**

The NSW Office of Water has reviewed the Preliminary Environmental Assessment and provides the following advice to be addressed in preparation of the Environmental Impact Statement (EIS).

1. Key Issues

NSW Office of Water requires the EIS for the proposal to demonstrate the following:

1. Adequate and secure water supply for the proposal. Confirmation that water supplies for construction and operation are sourced from an appropriately authorised and reliable supply.
2. Identification of site water demands, water sources (surface and groundwater), water disposal methods and water storage structures in the form of a water balance. The water balance is to outline the proposed water management on the site and to also include details of any water reticulation infrastructure that supplies water to and within the site.
3. Assessment of modification requirements to existing surface water management controls and an impact assessment where amendments are required. Details are requested on the size of water management infrastructure capturing runoff and identification of dirty and clean water catchments. Final landform in terms of the potential for surface water capture is also requested.

4. An impact assessment on adjacent licensed water users (surface and groundwater), riparian ecosystems and groundwater-dependent ecosystems.
5. An assessment of the potential to intercept groundwater and predicted maximum annual dewatering volumes, water quality and disposal/retention methods. This is to also include the groundwater take requirements for a number of stages both during quarry operations and post quarry life until an equilibrium is achieved.
6. An impact assessment of any proposed works within or adjacent to watercourses and adequate provision of buffer requirements. This is to include the proposed road duplication and any requirements for additional infrastructure. Ability to achieve the principles of the *Water Management Act 2000* and the requirements of the *Guidelines for Controlled Activities on Waterfront Land* will be required. The relevant guidelines can be accessed at the following link: <http://www.water.nsw.gov.au/Water-Licensing/Approvals/Controlled-activities/default.aspx>
7. Existing and proposed water licensing requirements in accordance with the *Water Act 1912* and *Water Management Act 2000* (whichever is relevant). This is to demonstrate that existing licences (include licence numbers) and licensed uses are appropriate, and to identify where additional licences are proposed.
8. Adequate mitigating and monitoring requirements to address surface water and groundwater impacts.

A general list of environmental assessment requirements to be addressed in the EIS is provided in Attachment B. The proposal is located within the Lachlan Fold Belt MDB Groundwater Source of the Water Sharing Plan for the NSW Murray Darling Basin Fractured Rock Groundwater Sources and the Fish River Water Source of the Water Sharing Plan for the Macquarie Bogan Unregulated and Alluvial Water Source. Any requirement for additional groundwater or surface water entitlement will need to be obtained through purchase and trade in accordance with these plans. These plans can be accessed at the following link: <http://www.water.nsw.gov.au/Water-management/Water-sharing/default.aspx>

Attachment B

Langley Heights Quarry Request for Input into Director General Requirements General Environmental Assessment Requirements - NSW Office of Water

Relevant Legislation

The assessment is required to take into account the requirements of the following legislation (administered by the Office of Water), as applicable:

- *Water Management Act 2000 (WMA 2000)*.
- *Water Act 1912*.

In particular, proposals and management plans should be consistent with the Objects (s.3) and Water Management Principles (s.5) of the WMA.

Water Sharing Plans

Gazetted Water Sharing Plans (WSPs) prepared under the provisions of the WMA establish rules for access to, and the sharing of water between the environmental needs of the surface or groundwater source and water users. If the proposal is within a gazetted WSP area the assessment is required to demonstrate how the proposal is consistent with the relevant access and trading rules of the WSP. Refer to: <http://www.water.nsw.gov.au/Water-Management/Water-sharing/default.aspx> The following WSPs are relevant to the site.

- *Water Sharing Plan for the NSW Murray-Darling Basin Fractured Rock Groundwater Sources 2012*
- *Water Sharing Plan for the Macquarie-Bogan Unregulated and Alluvial Water Sources 2012*

Relevant Policies

The assessment is required to take into account the following NSW Government policies, as applicable:

1. *NSW Aquifer Interference Policy (2012)*
2. *NSW Groundwater Policy Framework Document – General (August 1997)*
3. *NSW Groundwater Quality Protection Policy (1998)*
4. *NSW State Groundwater Dependent Ecosystem Policy (2002)*
5. *NSW State Rivers and Estuaries Policy (1993)*
6. *NSW Sand and Gravel Extraction Policy for Non-Tidal Rivers (1992)*
7. *NSW Wetlands Policy (2010)*

These documents can be found at:

<http://www.water.nsw.gov.au/Water-Management/Law-and-Policy/Key-policies/default.aspx>

Guidelines

The assessment is required to take into account the following guidelines as applicable:

1. *Australian Groundwater Modelling Guidelines (2012)*
2. *MDBC Guidelines on Groundwater Flow Modelling (2000)*
3. *Guidelines for the Assessment and Management of Groundwater Contamination (2007)*

4. Guidelines for Controlled Activities on Waterfront Land:

- a. Riparian corridors (and associated Vegetation Management Plans)
- b. Watercourse crossings
- c. Laying pipes and cables in watercourses
- d. Outlet structures
- e. In-stream works

These documents can be found at:

<http://www.water.nsw.gov.au/Water-Licensing/Approvals/Controlled-activities/default.aspx>

<http://archive.nwc.gov.au/library/waterlines/82>

Groundwater

The Office of Water is responsible for the management of groundwater resources so they can sustain environmental, social and economic uses for the people of New South Wales.

Groundwater Source

The assessment is required to identify groundwater issues and potential degradation to the groundwater source and provide the following:

- (i) Details of the predicted highest groundwater table at the development site.
- (ii) Details of any works likely to intercept, connect with or result in pollutants infiltrating into the groundwater sources.
- (iii) Details of any proposed groundwater extraction, including purpose, location and construction details of all proposed bores and expected annual extraction volumes.
- (iv) Describe the flow directions and rates and the physical and chemical characteristics of the groundwater source.
- (v) Details of the predicted impacts of any final landform on the groundwater regime.
- (vi) Details of the existing groundwater users within the area (including the environment) and include details of any potential impacts on these users.
- (vii) Assessment of the quality of the groundwater for the local groundwater catchment.
- (viii) Details of how the proposed development will not potentially diminish the current quality of groundwater, both in the short and long term.
- (ix) Details on preventing groundwater pollution so that remediation is not required.
- (x) Quantification of impacts on groundwater dependent ecosystems (GDEs).
- (xi) Details on protective measures to minimise any impacts on groundwater dependent ecosystems.
- (xii) Details of proposed methods of the disposal of waste water and approval from the relevant authority.
- (xiii) Assessment of the potential for saline intrusion of the groundwater and measures to prevent such intrusion into the groundwater aquifer.
- (xiv) Details of the results of any models or predictive tools used to predict groundwater drawdown, inflows to the site and impacts on affected water sources.

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

- Details of any proposed monitoring programs, including water levels and quality data.
- Reporting procedures for any monitoring program including mechanism for transfer of information.
- Description of the remedial measures or contingency plans proposed.

Licensing

- All proposed groundwater works, including bores for the purpose of investigation, extraction, dewatering, testing or monitoring must be identified in the proposal and an approval obtained from the Office of Water prior to their installation. Approved SSD and SSI projects may be excluded from the requirement for approvals due to Section 89J and 115ZG of the *Environmental Planning and Assessment Act 1979*.
- All predicted groundwater take must be accounted for through adequate licensing.

Groundwater Dependent Ecosystems (GDEs)

The assessment is required to identify any impacts on GDEs. GDEs are ecosystems which have their species composition and natural ecological processes wholly or partially determined by groundwater. GDEs represent a vital component of the natural environment. GDEs can vary dramatically in how they depend on groundwater from having occasional or no apparent dependence through to being entirely dependent. GDEs occur across both the surface and subsurface landscapes ranging in area from a few metres to many kilometres. Increasingly, it is being recognised that surface and groundwaters are often interlinked and aquatic ecosystems may have a dependence on both.

Ecosystems that can depend on groundwater and that may support threatened or endangered species, communities and populations, include:

- (i) Terrestrial vegetation that show seasonal or episodic reliance on groundwater.
- (ii) River base flow systems which are aquatic and riparian ecosystems in or adjacent to streams/rivers dependent on the input of groundwater to base flows.
- (iii) Aquifer and cave ecosystems.
- (iv) Wetlands.

- (v) Estuarine and near-shore marine discharge ecosystems.
- (vi) Fauna which directly depend on groundwater as a source of drinking water or that live within water which provide a source.

The *NSW Aquifer Interference Policy* and the *NSW Groundwater Dependent Ecosystem Policy* provides guidance on the protection and management of GDEs. It sets out management objectives and principles to:

- (i) Ensure the most vulnerable and valuable ecosystems are protected.
- (ii) Manage groundwater extraction within defined limits thereby providing flow sufficient to sustain ecological processes and maintain biodiversity.
- (iii) Ensure sufficient groundwater of suitable quality is available to ecosystems when needed.
- (iv) Ensure the *precautionary principle* is applied to protect GDEs, particularly the dynamics of
- (v) flow and availability and the species reliant on these attributes.

A number of gazetted WSPs list and map priority GDEs and set out the management strategies and actions for sharing and protecting groundwater quality, quantity and dependent ecosystems. As indicated above, any GDEs that may be affected significantly need to be clearly identified and the impacts quantified to enable proper assessment.

Surface Water

The Office of Water is responsible for the management of rivers, estuaries, wetlands and adjacent riverine plains so they can sustain environmental, social and economic uses for the people in New South Wales.

Watercourse/Riparian

The assessment is required to consider the impact of the proposal on the watercourses and associated riparian vegetation within the site and provide the following:

1. Identify the sources of surface water.
2. Details of stream order (using the Strahler System).
3. Details of any proposed surface water extraction, including quantity, purpose, location of existing pumps, dams, diversions, cuttings and levees.
4. Details of available surface water licences that could be purchased to account for any proposed extractions.
5. Detailed description of any proposed development or diversion works including all construction, clearing, draining, excavation and filling.
6. An assessment of the impacts of the proposed methods of excavation, construction and material placement on the watercourse and associated vegetation.
7. A detailed description of all potential water related environmental impacts of any proposed development in terms of riparian vegetation, sediment movement, water quality and hydrologic regime.
8. A description of the design features and measures to be incorporated into any proposed development to guard against anything more than minimal long term actual and potential environmental disturbances, particularly in respect of maintaining the natural hydrologic regime and sediment movement patterns and the identification of riparian buffers. (See note below)
9. Details of the impact on water quality and remedial measures proposed to address more than minimal adverse effects.

Riparian corridors form a transition zone between terrestrial and aquatic environments and perform a range of important environmental functions. The protection or restoration of vegetated riparian areas is important to maintain or improve the geomorphic form and ecological functions of watercourses through a range of hydrologic conditions in normal seasons and also in extreme events. Refer to NSW Office of Water *Guidelines for Controlled Activities (July 2012)* - available via: <http://www.water.nsw.gov.au/Water-Licensing/Approvals/Controlled-activities/default.aspx>

Water Management Structures/Dams

The Office of Water is responsible for the management and licensing of these structures under water legislation. If the proposal includes existing or proposed water management structures/dams, the assessment should provide information on the following:

- (i) Date of construction (for existing structure/s).
- (ii) Details of the legal status/approval for existing structure/s.
- (iii) Details of any proposal to change the purpose of existing structure/s.
- (iv) Details if any remedial work is required to maintain the integrity of the existing structure/s.
- (v) Clarification if the structure/s is on a watercourse.
- (vi) Details of the purpose, location and design specifications for the structure/s.
- (vii) Size and storage capacity of the structure/s.
- (viii) Calculation of the Maximum Harvestable Right Dam Capacity (MHRDC) for the site.
- (ix) Details if the structure/s is affected by flood flows.
- (x) Details of any proposal for shared use, rights and entitlement of the structure/s.
- (xi) Details if the proposed development/subdivision has the potential to bisect the structure/s.

NSW Office of Water's Farm Dams Assessment Guide provides details on harvestable rights and the calculation of the MHRDC. Refer to: <http://www.water.nsw.gov.au/Water-Licensing/Basic-water-rights/Harvesting-runoff/Harvesting-runoff/default.aspx>.

Basic Landholder Rights

The WMA identifies Basic Landholder Rights (BLRs) for access to water whereby landholders over an aquifer

or with river or lake frontage can access water for domestic (household) purposes or to water stock without the need for a water licence (although a works approval may still be required for a bore utilising BLR). Pipeline constructions and easements may therefore affect existing BLR users and therefore all potentially affected BLR users need to be identified and the impacts quantified.

Sustainable Water Supply

Competition for water in NSW is extremely high. With the commencement of each Water Sharing Plan (WSP), a long term average extraction limit has been established which constrains overall growth in extractions in an area. In these areas there are limited types of new licenses that can be issued, for example for aboriginal cultural purposes or growth in town water supplies. Therefore in most instances new enterprises are required to enter the water market to purchase adequate water licences to meet their water demand requirements.

The onus is on the proponent to identify the potential sources of water of an appropriate reliability and quantity to meet their water supply requirements. The water supply requirements and potential water available should be identified in the EIS to enable NOW to assess the viability of the water supply required. Assurances should also be made that the proponent will enter the water market as required.

Therefore the assessment is required to address the issue of provision of a sustainable water supply for any project proposal. The assessment should include Water Management Plans detailing how a sustainable water supply can be sourced and implemented. Through the implementation of BASIX, Integrated Water Cycle Management and Water Sensitive Urban Design, any proposed development should also exhibit high water use efficiency.

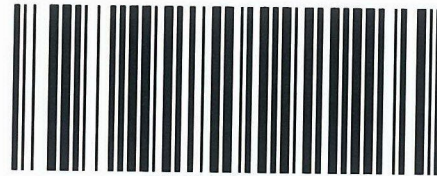
End Attachment B

Wayne Jones | Land Use Planning Coordinating Officer
 Department of Primary Industries
 Level 48, MLC Centre, 19 Martin Place Sydney NSW 2000
 T:02 9338 6708 | E: wayne.jones@dpi.nsw.gov.au

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**Resources
& Energy**

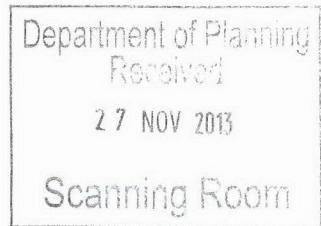


PCU049707

File: OUT13/35049

25 November 2013

Alice Smith
Environmental Planning Officer, Mining Projects
Department of Planning & Infrastructure
GPO Box 39
Sydney NSW 2001



Dear Ms Smith

RE: Langley Heights (Oberon) Quarry – continued operations - DGRs request

Thank you for the opportunity to provide advice on this matter.

This is a response from NSW Trade & Investment, incorporating advice from its Agriculture, Fisheries, and Mineral Resources Branches. Specific Fisheries or Forests issues arising may be provided in separate correspondence.

Mineral Resources Issues

Hard rock aggregate is not a prescribed mineral under the Mining Act, 1992. Therefore, DTIRIS – Mineral Resources Branch has no statutory role in authorising or regulating the extraction of this commodity, apart from its role under the *Work Health & Safety Act 2011* and associated regulations and the Mine Health and Safety Act 2004 and associated regulations, for ensuring the safe operations of mines and quarries.

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

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

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

DTIRIS - Mineral Resources Branch collects data on the quantity and value of construction materials produced annually throughout the State. Forms are sent to all operating quarries at the end of each financial year for this purpose. The statistical data thus collected is of great value to Government and industry in planning and resource management, particularly as a basis for analysing trends in production and for

NSW Department of Trade and Investment, Regional Infrastructure and
Services

RESOURCES & ENERGY DIVISION

PO Box 344 Hunter Region Mail Centre NSW 2310

Tel: 02 4931 6666 Fax: 02 4931 6726

ABN 51 734 124 190

www.dtiris.nsw.gov.au

estimating future demand for particular commodities or in particular regions. In order to assist in the collection of construction material production data, the proponent should be required to provide annual production data for the subject site to DTIRIS - Mineral Resources Branch as a condition of any new or amended development consent.

Future requests for advice in relation to this matter should be directed to the MRB Land Use team at landuse.minerals@industry.nsw.gov.au.

Agricultural Issues for Extractive Industries (Quarries)

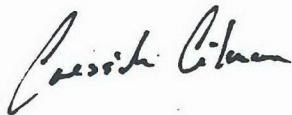
The relevant agricultural issues to consider when preparing and also when assessing extractive industry proposals are set out in the Departments' Guideline: *Agricultural issues for Extractive Industries* available on our website; <http://www.dpi.nsw.gov.au/environment/landuse-planning/agriculture/extractive-industries>.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

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

Fisheries Issues

General issues are summarised in Attachment B.

Yours sincerely



Cressida Gilmore
Team Leader Land Use

Encl. Attachments "A to B"

ATTACHMENT A

**TRADE & INVESTMENT NSW
RESOURCES & ENERGY DIVISION (Mineral Resources Branch)**

**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, grain size, 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 grain size and mineralogy, nature and extent of weathering or alteration, and amount and type of deleterious minerals, if any.

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

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

4. An assessment of the quality of the material and its suitability for the anticipated range of applications should be given.
5. The amount of material anticipated to be produced annually should be indicated. If the proposal includes a staged extraction sequence, details of the staging sequence needs to be provided. The intended life of the operation should be indicated.
6. If the proposal is an extension to an existing operation, details of history and past production should be provided.
7. An assessment of alternative sources to the proposal and the availability of these sources. The impact of not proceeding with the proposal should be addressed.
8. Justification for the proposal in terms of the local and, if appropriate, the regional context.
9. Information on the location and size of markets to be supplied from the site.
10. Route(s) used to transport quarry products to market.
11. Disposal of waste products and the location and size of stockpiles.
12. Assessment of noise, vibration, dust and visual impacts, and proposed measures to minimise these impacts.
13. Proposed rehabilitation procedures during, and after completion of, extraction operations, and proposed final use of site.
14. Assessment of the ecological sustainability of the proposal.

Health and Safety Issues

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

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

2. The mine holder must nominate the mine operator in writing on the prescribed form to the Chief Inspector as required by the *Mine Health & Safety Act 2004* Section 22 prior to the commencement of extraction.
3. The operator of the mine must appoint a production manager as required by the *Mine Health & Safety Regulation 2007* Clause 16 and the operator must notify the Chief Inspector of the appointment in writing as required by the *Mine Health & Safety Regulation 2007* Clause 18 prior to the commencement of extraction.
4. Any blasting operations carried out by the mine operator must comply with the *Explosives Act 2003* and the *Explosives Regulations 2005*.

Mineral Ownership

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

Construction materials such as *sand (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, Trade & Investment NSW has no statutory responsibility for authorising or regulating the extraction of these commodities, apart from its role under the *Mine Health and Safety Act 2004* with respect to the safe operation of mines and quarries. However, the Department is the principal government authority responsible for assessing the State's resources of construction materials and for advising State and local government on their planning and management.

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

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

ATTACHMENT B

Primary Industries Division - Aquatic Habitat Protection Requirements

Matters to be Addressed

Definitions

The definitions given below are relevant to these requirements:

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

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

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

1. General Requirements

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

DREDGING AND RECLAMATION ACTIVITIES

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

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

ACTIVITIES THAT DAMAGE MARINE VEGETATION

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

ACTIVITIES THAT BLOCK FISH PASSAGE

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

THREATENED SPECIES

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

FISHING AND AQUACULTURE

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

2. Initial Assessment

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

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

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

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

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

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

Fisheries Management Act 1994

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

Animal Research Act 1985:

- Animal Research Authority to undertake fauna surveys.

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

3. Assessment of Likely Impacts

The EIS must:

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

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

4. Ameliorative Measures

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

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

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

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

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

Useful Information

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

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

WST13/00140

The Manager
Mining Projects
Department of Planning & Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attention: Ms Alice Smith

Dear Ms Smith

**Langley Heights Quarry; Continued Operations Project
Request for input into Director-General's Requirements (DGRs)**

Thank you for your email on 15 November 2013 requesting input into DGRs for the continued operations of Langley Heights Quarry from Roads and Maritime Services. The key concern for Roads and Maritime Services is potential for impacts upon the safety and efficiency of the classified road network.

Roads and Maritime has identified the following key issues which need to be addressed in the Environmental Assessment being prepared in support of the project:

- A traffic impact study prepared in accordance with the methodology set out in Section 2 of the *RTA Guide to Traffic Generating Developments* and including:
 - road transport volumes and types broken down into origin and destination, travel routes, times of travel, peak vehicle movements and how proposed operations will interact with other road users. The study should provide details of projected transport operations including volumes of traffic and tonnage to be transported. Volumes should also include quarry input related traffic generation (e.g. fuel deliveries, potable water deliveries, maintenance, services) and impacts of quarry related traffic generation on public roads. The traffic study should address internal traffic movements and parking facilities;
 - any oversize and over-mass vehicles and loads expected for the construction, operation or decommissioning of the project;
 - temporary and permanent staff numbers (including employees and contractors) during construction and operation of the project;
 - the impact of generated traffic and measures employed to ensure efficiency and safety on the public road network during construction and operation of the project;
 - local climate conditions that may affect road safety for vehicles used during construction and operation of the project (e.g. dust, fog, wet weather, etc).

Roads and Maritime Services

- Proposed intersection treatments should be identified and be in accordance with *Austroroads Guide to Road Design 2010* and Roads and Maritime Supplements, including safe intersection sight distance;
- Details of required infrastructure works to support any increased demand on the road network as a result of the project.

Roads and Maritime appreciates the opportunity to contribute to the DGRs and requests that a copy of the DGRs be forwarded to Roads and Maritime at the same time they are sent to the applicant.

Should you require further information please contact Fiona Francis on (02) 6861 1688.

Yours faithfully



5 DEC 2013

Tony Hendry
Network & Safety Manager
Western