

APPENDIX A

SEARs

Lisa Thomson
VGT Pty Ltd
PO Box 2335
Greenhills NSW 2323

Dear Ms Thomson

**Secretary's Environmental Assessment Requirements
Andersons Clay Mine Extension (EAR 1146)**

I refer to your request for the Secretary's Environmental Assessment Requirements (EARs) for the above development, which is designated local development under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

I have attached a copy of the EARs for the Environmental Impact Statement (EIS) for the development. These requirements have been prepared in consultation with relevant government agencies and are based on the information your company has provided to date. I have also attached the agencies' input into the EARs, which you are also advised to consider closely when preparing the EIS. You must have regard to these comments in the preparation of the EIS.

In your request for EARs, you have also indicated that the proposal is classified as integrated development under section 91 of the EP&A Act. You are encouraged to consult with the Environment Protection Authority and the Mine Subsidence Board with respect to licence/approval requirements. If further integrated approvals are required, you must undertake your own consultation with the relevant public authorities, and address their requirements in the EIS.

When you lodge your DA with the consent authority, you must provide:

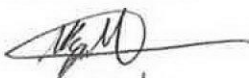
- one hard and one electronic copy of the EIS to the Department;
- one hard and one electronic copy of the EIS to any identified integrated approval authority; and
- a cheque for \$320 to each identified integrated approval authority, to offset costs involved in the review of the DA and EIS. No cheque is required for the Department as it is not an approval authority.

If your proposal contains any actions that could have a significant impact on matters of national environmental significance, then it will also require approval under the Commonwealth's *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act). This approval is in addition to any approvals required under NSW legislation. If you have any questions about the application of the EPBC Act to your proposal, you should contact the Department of the Environment and Energy in Canberra (6274 1111 or www.environment.gov.au).

You should contact the local Mine Safety Operations Branch of the Division of Energy, Water, Regulation and Portfolio Strategy within the NSW Department of Planning & Environment in regard to this and other matters relating to compliance with the *Work Health and Safety (Mines and Petroleum Sites) Act 2013*.

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

Yours sincerely,



18/05/17

Matthew Sprott
Acting Director
Resource Assessments
as the Secretary's delegate

Secretary's Environmental Assessment Requirements

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

Designated Development

EAR Number	EAR 1146
Proposal	Extension of an existing mine to extract and process a maximum of 100,000 tonnes of clay/shale in any year for a period of up to 30 years.
Location	253 Shaw St, Springdale Heights (Lot 2, DP856969)
Applicant	PGH Bricks & Pavers Pty Limited
Date of Issue	18 May 2017
Date of Expiry	18 May 2019
General Requirements	<p>The Environmental Impact Statement (EIS) for the development must comply with the requirements in Clauses 6 and 7 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>.</p> <p>In particular, the EIS must include:</p> <ul style="list-style-type: none"> • an executive summary; • a comprehensive description of the development, including: <ul style="list-style-type: none"> - a detailed site description and history of any previous quarrying on the site, including a current survey plan; - identification of the resource, including the amount, type, composition; - the layout of the proposed works and components (including any existing infrastructure that would be used for the development); - an assessment of the potential impacts of the development, as well as any cumulative impacts, including the measures that would be used to minimise, manage or offset these impacts; - a detailed rehabilitation plan for the site; - any likely interactions between the development and any existing/approved developments and land uses in the area, paying particular attention to potential land use conflicts with nearby residential development; - a list of any other approvals that must be obtained before the development may commence; - the permissibility of the development, including identification of the land use zoning of the site; - identification of sensitive receivers likely to be affected by the development using clear maps/plans, including key landform areas, such as conservation areas and waterways; • a conclusion justifying why the development should be approved, taking into consideration: <ul style="list-style-type: none"> - alternatives; - the suitability of the site; - the biophysical, economic and social impacts of the project, having regard to the principles of ecologically sustainable development; and - whether the project is consistent with the objects of the Environmental Planning and Assessment Act 1979; and • a signed declaration from the author of the EIS, certifying that the information contained within the document is neither false nor misleading.
Consultation	<p>In preparing the EIS for the development, you should consult with relevant local, State or Commonwealth Government authorities, infrastructure and service providers and any surrounding landowners that may be impacted by the development.</p> <p>The EIS must describe the consultation that was carried out, identify the issues raised during this consultation, and explain how these issues have been addressed in the EIS.</p>
Key Issues	<p>The EIS must assess the potential impacts of the proposal at all stages of the development, including the establishment, operation and decommissioning of the development.</p> <p>The EIS must address the following specific issues:</p> <ul style="list-style-type: none"> • Water – including: <ul style="list-style-type: none"> - a detailed site water balance and an assessment of any volumetric water licensing requirements, including a description of site water demands, water disposal

- methods (inclusive of volume and frequency of any water discharges), water supply infrastructure and water storage structures;
- identification of any licensing requirements or other approvals required under the *Water Act 1912* and/or *Water Management Act 2000*;
- demonstration that water for the construction and operation of the development can be obtained from an appropriately authorised and reliable supply in accordance with the operating rules of any relevant Water Sharing Plan (WSP)
- a description of the measures proposed to ensure the development can operate in accordance with the requirements of any relevant Water Sharing Plan or water source embargo; assessment of activities that could cause erosion or sedimentation issues, and the proposed measures to prevent or control these impacts;
- an assessment of activities that could cause erosion or sedimentation issues, and the proposed measures to prevent or control these impacts;
- an assessment of potential impacts on the quality and quantity of existing surface and ground water resources, including a detailed assessment of proposed water discharge quantities and quality against receiving water quality and flow objectives; and
- a detailed description of the proposed water management system, water monitoring program and other measures to mitigate surface and groundwater impacts;
- **Noise** – including a quantitative assessment of potential:
 - construction and operational noise and off-site transport noise impacts of the development in accordance with the *Interim Construction Noise Guideline, NSW Industrial Noise Policy and NSW Road Noise Policy* respectively;
 - reasonable and feasible mitigation measures to minimise noise emissions; and
 - monitoring and management measures;
- **Air** – including an assessment of the likely air quality impacts of the development in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW*. The assessment is to give particular attention to potential dust impacts on any nearby private receivers due to construction activities, the operation of the quarry and/or road haulage;
- **Biodiversity** – including:
 - accurate predictions of any vegetation clearing on site;
 - a detailed assessment of the potential biodiversity impacts of the development, paying particular attention to threatened species, populations and ecological communities and groundwater dependent ecosystems;
 - a detailed description of the proposed measures to maintain or improve the biodiversity values of the site in the medium to long term, as relevant; and
 - an assessment of whether a Species Impact Statement is required;
- **Heritage** – including:
 - an assessment of the potential impacts on Aboriginal heritage (cultural and archaeological), including evidence of appropriate consultation with relevant Aboriginal communities/parties and documentation of the views of these stakeholders regarding the likely impact of the development on their cultural heritage; and
 - identification of Historic heritage in the vicinity of the development and an assessment of the likelihood and significance of impacts on heritage items, having regard to the relevant policies and guidelines listed in Attachment 1;
- **Traffic & Transport** – including:
 - accurate predictions of the road traffic generated by the construction and operation of the development, including a description of the types of vehicles likely to be used for transportation of quarry products;
 - an assessment of potential traffic impacts on the capacity, condition, safety and efficiency of the local and State road networks, detailing the nature of the traffic generated, transport routes, traffic volumes and potential impacts on local and regional roads;
 - a description of the measures that would be implemented to maintain and/or improve the capacity, efficiency and safety of the road network (particularly the proposed transport routes) over the life of the development;
 - evidence of any consultation with relevant roads authorities, regarding the establishment of agreed contributions towards road upgrades or maintenance; and
 - a description of access roads, specifically in relation to nearby Crown roads and fire trails;
- **Land Resources** – including an assessment of:
 - potential impacts on soils and land capability (including potential erosion and land contamination) and the proposed mitigation, management and remedial measures (as appropriate);
 - potential impacts on landforms (topography), paying particular attention to the long-term geotechnical stability of any new landforms (such as overburden dumps, bunds etc); and
 - the compatibility of the development with other land uses in the vicinity of the development, in accordance with the requirements of Clause 12 of *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*;

	<ul style="list-style-type: none"> • Waste – including estimates of the quantity and nature of the waste streams that would be generated or received by the development and any measures that would be implemented to minimise, manage or dispose of these waste streams; • Hazards – including an assessment of the likely risks to public safety, paying particular attention to potential bushfire risks and the transport, storage, handling and use of any hazardous or dangerous goods; • Visual – including an assessment of the likely visual impacts of the development on private landowners in the vicinity of the development and key vantage points in the public domain, including with respect to any new landforms; • Social & Economic – an assessment of the likely social and economic impacts of the development, including consideration of both the significance of the resource and the costs and benefits of the project; and • Rehabilitation – including: <ul style="list-style-type: none"> - a detailed description of the proposed rehabilitation measures that would be undertaken throughout the development and during quarry closure; - a detailed rehabilitation strategy, including justification for the proposed final landform and consideration of the objectives of any relevant strategic land use plans or policies; and - the measures that would be undertaken to ensure sufficient financial resources are available to implement the proposed rehabilitation strategy, recognising that a rehabilitation bond will likely be required as a condition of any future development consent.
Environmental Planning Instruments	<p>The EIS must take into account all relevant State Government environmental planning instruments, guidelines, policies, and plans. While not exhaustive, Attachment 1 contains a list of some of the environmental planning instruments, guidelines, policies and plans that may be relevant to the environmental assessment of this development.</p> <p>During the preparation of the EIS you must also consult the Department's EIS Guideline – Extractive Industries – Quarries. This guideline is available at http://www.planning.nsw.gov.au/~media/Files/DPE/Guidelines/extractive-industries-quarries-eis-guideline-1996-10.ashx.</p> <p>In addition, the EIS must assess the development against the Albury Local Environmental Plan 2010 and any relevant development control plans/strategies.</p>
Consultation	<p>In preparing the EIS for the development, you should consult with relevant local, State or Commonwealth Government authorities, infrastructure and service providers and any surrounding landowners that may be impacted by the development.</p> <p>The EIS must describe the consultation that was carried out, identify the issues raised during this consultation, and explain how these issues have been addressed in the EIS.</p>

ATTACHMENT 1

The following guidelines may assist in the preparation of the Environmental Impact Statement. This list is not exhaustive and not all of these guidelines may be relevant to your proposal.

Many of these documents can be found on the following websites:

<http://www.planning.nsw.gov.au>

<http://www.bookshop.nsw.gov.au>

<http://www.publications.gov.au>

Environmental Planning Instruments, Policies, Guidelines & Plans

Environmental Planning Instruments - General

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

State Environmental Planning Policy (State and Regional Development) 2011

State Environmental Planning Policy (Infrastructure) 2007

Albury Local Environmental Plan 2010

Risk Assessment

AS/NZS 4360:2004 Risk Management (Standards Australia)

HB 203: 203:2006 Environmental Risk Management – Principles & Process (Standards Australia)

Land

State Environmental Planning Policy No. 55 – Remediation of Land

Agricultural Land Classification (DPI)

Rural Land Capability Mapping (OEH)

Soil and Landscape Issues in Environmental Impact Assessment (NOW)

Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC)

Guidelines for Consultants Reporting on Contaminated Sites (EPA)

Agricultural Issues for Extractive Industry Development (DPI)

Water

NSW Aquifer Interference Policy 2012 (NOW)

NSW State Groundwater Policy Framework Document (NOW)

NSW State Groundwater Quality Protection Policy (NOW)

NSW State Groundwater Quantity Management Policy (NOW)

Australian Groundwater Modelling Guidelines 2012 (Commonwealth)

National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC)

Guidelines for the Assessment & Management of Groundwater Contamination (EPA)

NSW State Rivers and Estuary Policy (NOW)

NSW Government Water Quality and River Flow Objectives (EPA)

Using the ANZECC Guideline and Water Quality Objectives in NSW (EPA)

National Water Quality Management Strategy: Australian Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ)

National Water Quality Management Strategy: Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC/ARMCANZ)

Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (EPA)

Managing Urban Stormwater: Soils & Construction (Landcom) and associated Volume 2E: Mines and Quarries (DECC)

Managing Urban Stormwater: Treatment Techniques (EPA)

Managing Urban Stormwater: Source Control (EPA)

Technical Guidelines: Bunding & Spill Management (EPA)

A Rehabilitation Manual for Australian Streams (LWRRDC and CRCCH)

NSW Guidelines for Controlled Activities (NOW)

Flooding

Floodplain Development Manual (OEH)

Floodplain Risk Management Guideline (OEH)

Biodiversity

BioBanking Assessment Methodology (OEH 2014)

	BioBanking Assessment Methodology and Credit Calculator Manual (DECC) 2008
	NSW Guide to Surveying Threatened Plants (OEH 2016)
	Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna – Amphibians (DECC 2009)
	Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities – Working Draft (DEC 2004)
	Threatened Species Assessment Guideline – The Assessment of Significance (DECC 2007)
	OEH principles for the use of biodiversity offsets in NSW
	NSW State Groundwater Dependent Ecosystem Policy (NOW)
Heritage	
	The Burra Charter (The Australia ICOMOS charter for places of cultural significance)
	Guide to investigation, assessing and reporting on Aboriginal cultural heritage in NSW (OEH) 2011
	Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation (DP&E)
	Aboriginal Cultural Heritage Consultation Requirements for Proponents (OEH)
	Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (OEH)
	Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (OEH)
	NSW Heritage Manual (OEH)
	Statements of Heritage Impact (OEH)
Noise	
	NSW Industrial Noise Policy (EPA)
	Interim Construction Noise Guideline (EPA)
	NSW Road Noise Policy (EPA)
Air	
	Protection of the Environment Operations (Clean Air) Regulation 2002
	Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (EPA)
	Assessment and Management of Odour from Stationary Sources in NSW (DEC)
	National Greenhouse Accounts Factors (Commonwealth)
Transport	
	Guide to Traffic Generating Development (RTA)
	Road Design Guide (RMS) & relevant Austroads Standards
Public Safety	
	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
	Hazardous and Offensive Development Application Guidelines – Applying SEPP 33
	Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis
Resource	
	Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 (JORC)
Waste	
	Waste Classification Guidelines (DECC)
	Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes 1999 (EPA)
Rehabilitation	
	Mine Rehabilitation – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth)
	Mine Closure and Completion – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth)
	Strategic Framework for Mine Closure (ANZMEC-MCA)

ATTACHMENT 2

AGENCIES' CORRESPONDENCE

20 April 2017

Secretary
NSW Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Dear Sir/Madam

**Subject: Extension of Existing Clay Mine, 253 Shaw Street (Lot 2 DP856969),
Springdale Heights**

I am writing in response to your request for AlburyCity's requirements in relation to the preparation of an Environmental Impact Statement (EIS) for the abovementioned development. Council thanks you for the opportunity to provide comment on the requirements for the preparation of this EIS.

The proponents are seeking approval to extend the operations of Andersons Clay Mine at Springdale Heights beyond the boundaries of Lot 35 DP1007803 (current operations under a Permanent Mining Agreement since 1969) onto adjacent Lot 2 DP856969. The proposal constitutes designated development and consequently an Environmental Impact Statement (EIS) is required to be prepared.

The Clay Mine is within land zoned E3 - Environmental Management and adjacent to an Asset Protection Zone with a 40m Inner Protection Area and a 10m Outer Protection Area. The property itself is also Bushfire Prone and considered to be a significant environmental area.

Despite the fact that the proponents (PGH Bricks & Pavers Pty Limited) have already submitted information through Environmental Consultants VGT Pty Limited, Council wishes to reiterate that the following issues should be considered and satisfactorily addressed:

- The EIS should clearly identify the proposed areas to be disturbed and amount of material to be extracted as well as the proposed life of the mine;
- Comprehensive details of all activities on site;
- The extent and progress of rehabilitation of all areas previously disturbed;
- The EIS should include an assessment of all potential impacts of the proposed development on the existing environment (including cumulative impacts where relevant and appropriate)
- Particular areas/issues of focus:

- Flora and Fauna impacts and management – with consideration of the E3 zoned land and any threatened species that may be impacted. A Flora and Fauna Report by a qualified ecologist/botanist is recommended;
 - Dust generation, management and mitigation;
 - Stormwater collection, management and disposal;
 - Continuous rehabilitation and remediation of disturbed areas;
 - Noise impacts – including blasting, traffic and other relevant sources;
 - Visual impact and consideration and management of potential amenity impact(s) on nearby residential development and residential areas;
 - Access and Traffic - consideration of generation and demands, access to and from the site including addressing the standard of the existing unsealed road as well as internal movement throughout the site;
 - Waste management including storage;
 - Water management including:
 - Current water quality on site - including leachate ponds
 - Surface water management
 - Ground water management
 - Wash Down bays for equipment
 - Chemical storage;
 - Potential site hazards – activities, materials or storage;
 - Remediation of contaminated land;
 - Stockpile management; and
 - Consideration of impact on Aboriginal Cultural Heritage
- Particular attention and reference is requested in regard to management of risks and activities on the site. This would likely include the development and promulgation of an Environmental Management Plan (EMP). The EMP should accurately define and detail expected actions and activities proposed to occur on the site and mitigating measures required to manage any potential impacts.

Should any further information be required, Council's Senior Town Planner, Marius Shepherd will be pleased to oblige on 02 6023 8125.

Yours faithfully



David Christy
Team Leader Town Planning
Planning and Environment

Alexander Grierson
Planning Officer
Resource Assessments & Planning Services
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Alexander.Grierson@planning.nsw.gov.au

Dear Alexander

**Andersons Clay Mine Extension EAR ID No.114 – PGH Bricks & Pavers Pty Limited
Request for Input into SEARs**

I refer to your email dated 11 April 2017 inviting the Division of Resources & Geoscience (the Division) to provide comments on the proposed Andersons Clay Mine Extension EAR ID No.114 submitted by VGT Pty Ltd, on behalf of PGH Bricks & Pavers Pty Limited (the proponent).

The Division has reviewed and assessed the adequacy of information in relation to the request for SEARs and provides the following advice.

GEOLOGY

The Environmental Impact Statement (EIS) is to include a brief description of the geological setting of the deposit. This should include specific details about the shape, physical dimensions and distribution of individual zones/lenses.

Supporting information including plans and cross-sections are to show the extent of the zones to be mined and those located adjacent/beneath planned mining voids which may be sterilised by planned activities. Where this may impact on resource utilisation and planned final voids, information such as grade and width/tonnes needs to be included.

RESOURCE AND RESERVE STATEMENT

The EIS is to include a resource/reserve statement appropriate to the type of deposit and based on a simple volume and/or quality estimation.

LIFE OF MINE PRODUCTION SCHEDULE

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

- details of run-of-mine ore, low grade ore-mineralised waste and waste rock tonnage planned to be extracted for each year and for the life of the project, and an estimate of the saleable product produced for each year and the life of the project.
- in terms of text, plans or charts, an EIS must clearly show the proposed extent and sequence of the development.
- an estimate of which market segment that product tonnes would be sold into, for example, export/domestic mineral product, Sydney construction materials, local/NSW or interstate.

The Division understands that an estimate of product tonnes split into a particular market segment is difficult to estimate at a particular point in time and is dependent on market conditions as the life of the mine progresses, however the Division requires the proponent to provide its best estimate of their market mix at the initial stages of the project.

The Division recommends that the standard mining development rehabilitation SEARs be applied to this project (enclosed) and requests that the proponent particularly consider the avoidance of potential resource sterilisation that may result from the proposed modification (including biodiversity offsets).

Should you have any enquires regarding this matter please contact Adam Banister, A/Senior Advisory Officer, Royalties & Advisory Services on 02 4931 6439.

| Yours sincerely

A handwritten signature in black ink, appearing to read 'Zane West', written over a horizontal line.

Zane West

Manager Royalties & Advisory Services

18 April 2017

ADVICE RESPONSE

Mining Development - Rehabilitation Standard Assessment Requirements

Post-mining land use

- (a) Identification and assessment of post-mining land use options;
- (b) Identification and justification of the preferred post-mining land use outcome(s), including a discussion of how the final land use(s) are aligned with relevant local and regional strategic land use objectives;
- (c) Identification of how the rehabilitation of the project will relate to the rehabilitation strategies of neighbouring mines within the region, with a particular emphasis on the coordination of rehabilitation activities along common boundary areas;

Rehabilitation objectives and domains

- (d) Inclusion of a set of project rehabilitation objectives and completion criteria that clearly define the outcomes required to achieve the post-mining land use for each domain. Completion criteria should be specific, measurable, achievable, realistic and time-bound. If necessary, objective criteria may be presented as ranges;

Rehabilitation Methodology

- (e) Details regarding the rehabilitation methods for disturbed areas and expected time frames for each stage of the rehabilitation process;
- (f) Mine layout and scheduling, including maximising opportunities for progressive final rehabilitation. The final rehabilitation schedule should be mapped against key production milestones (i.e. ROM tonnes) of the mine layout sequence before being translated to indicative timeframes throughout the mine life. The mine plan should maximise opportunities for progressive rehabilitation;

Conceptual Final Landform Design

- (g) Inclusion of a drawing at an appropriate scale identifying key attributes of the final landform, including final landform contours and the location of the proposed final land use(s);

Monitoring and Research

- (h) Outlining the monitoring programs that will be implemented to assess how rehabilitation is trending towards the nominated land use objectives and completion criteria;
- (i) Details of the process for triggering intervention and adaptive management measures to address potential adverse results as well as continuously improve rehabilitation practices;
- (j) Outlining any proposed rehabilitation research programs and trials, including their objectives. This should include details of how the outcomes of research are considered as part of the ongoing review and improvement of rehabilitation practices;

Post-closure maintenance

- (k) Description of how post-rehabilitation areas will be actively managed and maintained in accordance with the intended land use(s) in order to demonstrate progress towards meeting the rehabilitation objectives and completion criteria in a timely manner;

Barriers or limitations to effective rehabilitation

- (l) Identification and description of those aspects of the site or operations that may present barriers or limitations to effective rehabilitation, including:
 - (i) evaluation of the likely effectiveness of the proposed rehabilitation techniques against the rehabilitation objectives and completion criteria;
 - (ii) an assessment and life of mine management strategy of the potential for geochemical constraints to rehabilitation (e.g. acid rock drainage, spontaneous combustion etc.), particularly associated with the management of overburden/interburden and reject material;

- (iii) the processes that will be implemented throughout the mine life to identify and appropriately manage geochemical risks that may affect the ability to achieve sustainable rehabilitation outcomes;
 - (iv) a life of mine tailings management strategy, which details measures to be implemented to avoid the exposure of tailings material that may cause environmental risk, as well as promote geotechnical stability of the rehabilitated landform; and
 - (v) existing and surrounding landforms (showing contours and slopes) and how similar characteristics can be incorporated into the post-mining final landform design. This should include an evaluation of how key geomorphological characteristics evident in stable landforms within the natural landscape can be adapted to the materials and other constraints associated with the site.
- (m) Where a void is proposed to remain as part of the final landform, include:
- (i) a constraints and opportunities analysis of final void options, including backfilling, to justify that the proposed design is the most feasible and environmentally sustainable option to minimise the sterilisation of land post-mining;
 - (ii) a preliminary geotechnical assessment to identify the likely long term stability risks associated with the proposed remaining high wall(s) and low wall(s) along with associated measures that will be required to minimise potential risks to public safety; and
 - (iii) outcomes of the surface and groundwater assessments in relation to the likely final water level in the void. This should include an assessment of the potential for fill and spill along with measures required be implemented to minimise associated impacts to the environment and downstream water users.
- (n) Where the mine includes underground workings:
- (i) determine (with reference to the groundwater assessment) the likelihood and associated impacts of groundwater accumulating and subsequently discharging (e.g. acid or neutral mine drainage) from the underground workings post cessation of mining; and
 - (ii) consideration of the likely controls required to either prevent or mitigate against these risks as part of the closure plan for the site.
- (o) Consideration of the controls likely to be required to either prevent or mitigate against rehabilitation risks as part of the closure plan for the site;
- (p) Where an ecological land use is proposed, demonstrate how the revegetation strategy (e.g. seed mix, habitat features, corridor width etc.) has been developed in consideration of the target vegetation community(s);
- (q) Where the intended land use is agriculture, demonstrate that the landscape, vegetation and soil will be returned to a condition capable of supporting this; and
- (r) Consider any relevant government policies¹.

¹ The following government policies should be considered when addressing rehabilitation issues:

- Mine Rehabilitation (Leading Practice Sustainable Development Program for the Mining Industry, 2006)
- Mine Closure and Completion (Leading Practice Sustainable Development Program for the Mining Industry, 2006)
- Strategic Framework for Mine Closure (ANZMEC-MCA, 2000)



DOC17/221320-01

The Director Resource Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Alexander Grierson

Dear Mr Reid

Re EAR 1146 - Expansion of Andersons Clay Mine

I refer to your electronic mail dated 11 April 2017 to the Environment Protection Authority (EPA) seeking our requirements for the preparation of an Environmental Impact Statement (EIS) for the proposed expansion of the PGH Bricks and Pavers Pty Ltd (PGH) Andersons Clay Mine located at 253 Shaw Street, Springdale Heights.

The specific issues we consider critical to an assessment of the proposed development include noise, water management, air emissions (dust) and waste management.

Details of our specific requirements and guidance documents are provided at Attachments A and B respectively.

We recommend that during the preparation of the EIS that the proponent consult with the EPA to ensure the specific issues identified in the attachments are adequately addressed, particularly for the noise and dust assessments to ensure they are assessed in accordance with EPA requirements.

If you have any enquiries about this matter, please contact me by telephoning 02 6022 0609.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Chris Burton', followed by the date '12/4/2017'.

CHRIS BURTON
Acting Head Albury Unit
Environment Protection Authority

Enclosure

ATTACHMENT A

Potential environmental impacts of the project

The objectives of the proposal should be clearly stated and refer to and include the following.

- The size of the operation, the nature of the production process and the products, by-products and wastes produced.
- Details of any earthworks or site clearing; re-use and disposal of cleared material;
- Details of the staging of the extraction; hours of operation; proposed methods for extraction and screening of material; any plans for future expansion and the proposal's relationship to any other industry or facility
- Environment protection measures, including noise mitigation measures, dust control measures and erosion and sediment control measures.
- Mitigation and management options that will be used to prevent, control, abate or mitigate identified potential environmental impacts associated with the project and to reduce risks to human health and prevent the degradation of the environment. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.

Potential impacts on air quality

The goals of the project in relation to air quality should include mitigation of air quality impacts such that potential impacts on sensitive receptors are minimised in accordance with Environment Protection Authority (EPA) particulate matter and deposited dust criteria.

Dust is a concern with potential emissions including but not necessarily limited to construction, traffic movements, open exposed areas, material processing and handling, transfer points, and loading facilities. Details would need to be provided on the proposed measures to manage dust from these activities and their performance.

An assessment for dust as detailed in the *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in New South Wales* in conjunction with analysis of local meteorologic and terrain data would be sufficient to inform decisions about design and management options for the proposed development.

The EIS should identify any other existing impacts on air quality within the area and if necessary provide an assessment and commentary on the predicted cumulative impacts that may arise.

Potential impacts of noise

The goals of the project should include design, construction, operation and maintenance of the facility in accordance with relevant policies, guidelines and criteria, and in order to minimise potential impacts from noise.

Any potential noise sources should be assessed in accordance with the *Industrial Noise Policy* (INP) (EPA, 2000), and where required mitigation measures are proposed (e.g. appropriate equipment chosen to minimise noise levels). All residential or noise sensitive premises likely to be impacted by the development must be identified and included in the assessment.

The proposed development may see an increase in traffic movements associated with the transport of material. The number of traffic movements associated with the proposal should be quantified and potential noise impacts associated with these traffic movements need to be assessed in accordance with the NSW Road Noise Policy (DECCW, 2011).

Where blasting is proposed, the following details of the blast design should be included in the noise assessment.

- bench height, burden spacing, spacing burden ratio;
- blast hole diameter, inclination and spacing; and
- type of explosive, maximum instantaneous charge, initiation, blast block size, blast frequency.

Potential impacts on water quantity and quality

The EIS should provide details of the project that are essential for predicting and assessing impacts to waters including (but not limited to the following).

- The site layout with details of site drainage and any natural or artificial waters within or adjacent to the development.
- Drainage works and associated infrastructure showing areas of modification to contours and drainage, land-forming and excavations, working capacity of structures, and water resource requirements of the proposal. Total water cycle considerations are to be addressed showing total water balances 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.
- The quantity and physio-chemical properties of all potential water pollutants and the risks they pose to the environment and human health.
- The identification of any proposed water pollution control measures and their performance including how the proposal will avoid proximity to water resources and how materials will be stored to avoid the possibility of accidental spills.
- How containment of spills and leaks or discharges with potential for water or land impacts shall be managed in accordance with industry technical guidance and relevant Australian Standards in order to achieve project goals.
- A characterisation of potential water pollutants at the site should also be undertaken including the identification of any proposed water pollution controls and their performance. This should include details of the design and location of overburden disposal sites and any other wastewater treatment ponds.

Waste and chemicals

The goals of the project should address the following.

- It is in accordance with the principles of the waste hierarchy and cleaner production;
- Where potential impacts associated with the handling, processing and storage of all materials used at the premises are identified, these be mitigated by the development;
- The beneficial reuse of all wastes generated at the premises are maximised where it is safe and practical to do so; and
- No waste disposal occurs on site.

ATTACHMENT B

Guidance Material

Title	Web address
<u>Relevant Legislation</u>	
<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
<i>Water Management Act 2000</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
<u>Licensing</u>	
Guide to Licensing	http://www.epa.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
Assessment and management of odour from stationary sources in NSW (DEC, 2006)	Technical framework: http://www.environment.nsw.gov.au/resources/air/20060440framework.pdf Technical notes: http://www.environment.nsw.gov.au/resources/air/20060441notes.pdf
POEO (Clean Air) Regulation 2010	http://www.legislation.nsw.gov.au/maintop/view/inforce/subordleg+428+2010+cd+0+N
<u>Noise and Vibration</u>	
Interim Construction Noise Guideline (DECC, 2009)	http://www.epa.nsw.gov.au/noise/constructnoise.htm
Assessing Vibration: a technical guideline (DEC, 2006)	http://www.epa.nsw.gov.au/noise/vibrationguide.htm
Industrial Noise Policy (EPA, 2000)	http://www.epa.nsw.gov.au/noise/industrial.htm
Industrial Noise Policy Application Notes	http://www.epa.nsw.gov.au/noise/applicnotesindustnoise.htm
NSW Road Noise Policy (DECCW, 2011)	http://www.epa.nsw.gov.au/noise/traffic.htm
Road Noise Policy Application Notes	http://www.epa.nsw.gov.au/noise/roadnoiseappnotes.htm
<u>Waste</u>	
Waste	
Waste Classification Guidelines (EPA, 2014)	http://www.epa.nsw.gov.au/resources/wasteregulation/140796-classify-waste.pdf
Resource recovery orders and exemptions	http://www.epa.nsw.gov.au/wasteregulation/recovery-exemptions.htm

Title	Web address
<u>Water and Soils</u>	
Soils – general	
Soil and Landscape Issues in Environmental Impact Assessment (DLWC 2000)	Available for purchase at http://www.shop.nsw.gov.au/pubdetails.jsp?publication=839
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 and 2- http://www.environment.nsw.gov.au/stormwater/publications.htm
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	http://www.environment.gov.au/water/policy-programs/nwqms /
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf
NSW Groundwater Quality Protection Policy (DLWC, 1998)	http://www.water.nsw.gov.au/Water-Management/Water-quality/Groundwater/Groundwater/default.aspx
NSW Water Quality and River Flow Objectives (DEC 2006)	http://environment.nsw.gov.au/ieo/catchlist.htm
Managing Urban Stormwater: Soils and Construction – Volume 2C Unsealed roads	http://www.environment.nsw.gov.au/stormwater/publications.htm



Office of Environment & Heritage

Your reference: EAR No.1146
Our reference: DOC17/221241
Contact: Andrew Fisher
02 6022 0623

Mr Alexander Grierson
Planning Officer - Resource Assessments
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Grierson

RE: Andersons Clay Mine Extension - Albury LGA - EARs ID No. 1146

I refer to your email dated 11 April 2017 seeking the requirements of the Office of Environment and Heritage (OEH) for the preparation of an Environmental Impact Statement (EIS) for the above proposal. This response is in regard to statutory matters relating to application of the *National Parks and Wildlife Act 1974* and the *Threatened Species Conservation Act 1995*.

We have reviewed the information and offer the following comments. Details are provided in **Attachment A**. In summary, the OEH's key information requirements for the proposal include adequate assessment of:

1. **Impacts to Aboriginal cultural heritage**
2. **Impacts on native vegetation**
3. **Cumulative impact**

The assessment should also include details about the location, extent and activities undertaken for any infrastructure associated with the proposal. This assessment should also include consideration of direct and indirect impacts as a result of both construction and operation of the project. The EIS should also assess the cumulative impacts of this and other developments in the area.

There is potential for impact on Aboriginal cultural heritage (ACH) as excavation and native vegetation removal is proposed. While there are no known ACH objects identified within the subject area, this is likely to reflect a lack of survey rather than actual archaeological content. It is known from other studies, including some conducted recently, that low density dispersed lithic artefacts persist throughout much of the Albury Local Government Area. As such it would not be uncommon for ACH to occur within the subject area. OEH recommends that the proponent conduct a cultural heritage assessment of the potential impacts of the proposed development. Further details on the assessment requirements for ACH are provided in **Attachment A**. 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.

OEH notes that the site for this proposed development is within the Albury Biodiversity Certification area. This means that this development is taken to not be likely to have a significant impact on any threatened species, population, or ecological community or its habitat. However, as the site is zoned E3 Environmental Management, any removal of the open forest/woodland vegetation that is mapped as high condition on this site will need to be taken into account by Albury City Council in meeting its offset requirements as part of the biodiversity certification of the *Albury Local Environmental Plan 2010* (ALEP).

OEH notes that the subject land is listed as an additional permitted use under Schedule 1 of ALEP, meaning that development for the purpose of open cut mining or extractive industries is permitted with consent.

PO Box 544 Albury NSW 2640
Second Floor, Government Offices
512 Dean Street Albury NSW 2640
Tel: (02) 6022 0624 Fax: (02) 6022 0610
ABN 30 841 387 271
www.environment.nsw.gov.au

The Preliminary Environmental Assessment indicates that the White Box Yellow Box Blakely's Red Gum Woodlands and derived native grassland (Box-Gum Woodland) on the proposal site meets the definition of this community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. The biodiversity certification of the ALEP does not consider impacts on species and communities listed under federal legislation. Therefore, the assessment should consider this and any other relevant Matters of National Environmental Significance and whether the proposal has been referred to the Commonwealth or already determined to be a controlled action.

If you require further information about this matter please contact Andrew Fisher on 6022 0623 or at andrew.fisher@environment.nsw.gov.au.

Yours sincerely

 28/4/17

PETER EWIN
Senior Team Leader Planning
South West Region
Regional Operations
Office of Environment and Heritage

Enclosure: ATTACHMENT A – Detailed SEARs for Andersons Clay Mine Extension - Albury LGA

ATTACHMENT A – Detailed SEARs for Andersons Clay Mine Extension - Albury LGA

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

- **Aboriginal cultural heritage**
- **Biodiversity**
- **Cumulative impact**

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.

Aboriginal cultural heritage

OEH requires that the proponent undertake a cultural heritage assessment of the potential impacts of the proposed development. The EIS must 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 any declared Aboriginal places, which 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.
- In the event that harm to Aboriginal objects cannot be avoided then an application for an Aboriginal Heritage Impact Permit (AHIP) will be required to be submitted to OEH for consideration.

In addressing the above requirements, the proponent must comply with the processes described in the following documents:

- *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010) – 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.
- *Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010) – 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.
- *Guide to investigation, assessing and reporting on Aboriginal Cultural heritage in NSW* (OEH April 2011) – www.environment.nsw.gov.au/licences/investassessreport.htm. This document provides guidance on the process for investigating and assessing Aboriginal cultural heritage in NSW and OEH's requirements for an assessment report.
- *Applying for an Aboriginal Heritage Impact Permit: Guide for applicants* (OEH May 2011) – www.environment.nsw.gov.au/licences/applyforahip.htm. The aim of this guide is to assist in the preparation of an AHIP application. It should be read in conjunction with the *National Parks and Wildlife Act 1974* (NPW Act) and the *National Parks and Wildlife Regulation 2009*.

An Aboriginal Site Recording Form must be completed and submitted to the Aboriginal Heritage Information Management System (AHIMS) Registrar, for each Aboriginal site that is recorded during archaeological investigations completed for these environmental assessment requirements. The forms can be downloaded at www.environment.nsw.gov.au/licences/DECCAHMSSiteRecordingForm.htm.

Biodiversity

OEH notes that the site for this proposed development zoned E3 Environmental Management and is within the Albury Biodiversity Certification area. This means that this development is taken to not be likely to have a significant impact on any threatened species, population, or ecological community or its habitat.

OEH notes that the subject land is listed as an additional permitted use under Schedule 1 of the *Albury Local Environmental Plan 2010* (ALEP). This means that on Lot 2 DP 856969 development for the purpose of open cut mining or extractive industries is permitted with consent.

E3-zoned land is retained as 'Natural Areas' for the purpose of the Albury Biodiversity Certification, in which the protection and management of the environment are key objectives. These Natural Areas are intended to offset the potential loss of vegetation and habitat from 'Developable Zones'.

OEH mapping indicates that part of the native vegetation within the proposed expansion area is mapped as open forest/woodland in high condition. Any removal of this open forest/woodland vegetation will need to be taken into account by Albury City Council in meeting its offset requirements as part of the biodiversity certification of the ALEP.

Matters of National Environmental Significance

The Preliminary Environmental Assessment indicates that the White Box Yellow Box Blakely's Red Gum Woodlands and derived native grassland (Box-Gum Woodland) on the proposal site meets the definition of this community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. The assessment should identify this and any other relevant Matters of National Environmental Significance and whether the proposal has been referred to the Commonwealth or already determined to be a controlled action.

Cumulative Impact

The cumulative impacts from all clearing activities and operations, associated edge effects and other indirect impacts on Aboriginal cultural heritage and biodiversity need to be comprehensively assessed in accordance with the *Environmental Planning and Assessment Act 1979*.

This should include the cumulative impact of the proponent's existing and proposed development and associated infrastructure (such as access tracks etc.) as well as the cumulative impact of other developments located in the vicinity. This assessment should include consideration of both construction and operational impacts.

All communications to be addressed to:

Headquarters
15 Carter Street
LIDCOME NSW 2141

Headquarters
Locked Bag 17
GRANVILLE NSW 2142

Telephone: 1300 NSW RFS
e-mail: csc@rfs.nsw.gov.au

Facsimile: 8741 5433



Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Your Ref: EAR 1146

Our Ref: D17/1150

ATTENTION: Alexander Grierson

13 April 2017

Dear Sir/Madam,

**Request for SEARs for Andersons Clay Mine Extension 253 Shaw Street
Springvale Heights**

I refer to your email dated 11 April 2017 seeking the Secretary's Environmental Assessment Requirements for the preparation of an Environmental Impact Statement (EIS) in accordance with Schedule 2 of the *Environmental Planning and Assessment Act 1979*.

1. The NSW Rural Fire Service advises that the Environmental Impact Statement will need to address any bush fire protection measures adopted to ensure compliance with the Aims and Objectives identified in Clause 1.2 of "Planning for Bush Fire Protection 2006". The RFS acknowledges that the site will not be used for habitable purposes.
2. The NSW Rural Fire Service advises that the Environmental Impact Statement will need to address any fire mitigation measures adopted to ensure that a fire occurring within the site cannot escape the site.

For any enquiries regarding this correspondence please contact Deborah Dawson on (02) 4472 0600.

Yours faithfully,

Amanda Moylan

Team Leader Development Assessment and Planning

The RFS has made getting information easier. For information on Planning for Bush Fire Protection 2006, visit the RFS web page at www.rfs.nsw.gov.au and search under Planning for Bush Fire Protection 2006.

20 April 2017

SWT17/00042
SF2017/083105
MM

The Manager
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Alexander Grierson

EAR1146 - PROPOSED EXPANSION OF EXISTING QUARRY, LOT 2 DP856969, SHAW STREET, ALBURY.

I refer to correspondence forwarded to Roads and Maritime Services requesting the provision of Environmental Assessment Requirements to be addressed in the supporting documentation for submission of an application for the subject development.

From the information provided it is understood that the proposal represents the expansion of the extraction area and permissible extraction rate to 100,000 cubic metres of an existing quarry on the subject site. The subject site has access to Shaw Street, which is classed as a local road.

Road Authorities are interested in the characteristics of the traffic generated by the development and in the impact of the development on the safety and efficiency of the road network. A traffic assessment should be prepared to outline measures to address and manage traffic related issues generated by the development. The documentation submitted should address the potential impacts on the road network associated with the development during the lifetime of the project, the works required to the existing road infrastructure, the measures to be implemented to maintain the standard and safety of the road network including driveway access, and the procedures to monitor and ensure compliance. A transport management plan may be required to outline measures to manage traffic related issues generated by the development.

The level of detail required of the traffic assessment for the proposal is dependent on the level of impact resulting from traffic generated by the proposed quarry, the rate of extraction of material and the standard of construction of, and current usage characteristics of, the public roads servicing the proposed quarry sites. For road safety reasons the haulage route particularly intersections should be assessed for compliance with the Austroads criteria for intersection design.

For guidance in the preparation of the Traffic Impact Assessment (TIA) and any statement of commitment the applicant should refer to the "Guide to Traffic Generating Developments" prepared by the RTA and the Austroads publications, particularly the Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development. The TIA should contain information such as the expected traffic generation, vehicle numbers and types of vehicles, and travel routes for vehicles accessing the development site.

Roads and Maritime emphasises the need to minimise the impacts on the existing road network and maintain the level of safety, efficiency and maintenance along the existing road network. Any Traffic Impact Assessment needs to address the impacts of traffic generated by this development upon the nearby road network, particularly intersections.

Any enquiries regarding this correspondence may be referred to the Manager, Land Use for Roads and Maritime Services (South West Region), Maurice Morgan, phone (02) 6923 6611.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'Lindsay', with a stylized flourish at the end.

Per:
Mr Lindsay Tanner
Regional Manager
South West Region