

VICKERY EXTENSION PROJECT

ENVIRONMENTAL IMPACT STATEMENT

ATTACHMENT 1

SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

Environmental Assessment Requirements

State Significant Development

Section 4.12(8) of the *Environmental Planning and Assessment Act 1979*

Application Number	SSD 16_7480
Proposal	<p>The Vickery Extension Project, which includes:</p> <ul style="list-style-type: none">• a physical extension to the approved Vickery Coal Mine footprint to gain access to additional coal reserves;• an increase in the approved run-of-mine coal mining rate; and• construction and operation of an on-site coal handling and preparation plant, train load-out facility, water supply borefield and pipeline, and rail spur.
Location	Blue Vale Road, Boggabri
Applicant	Vickery Coal Pty Ltd
Date of Issue	19 July 2018
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">• a full description of the development, including:<ul style="list-style-type: none">– the resource to be extracted, demonstrating efficient resource recovery within environmental constraints;– the mine layout and scheduling;– minerals processing;– surface infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process);– a waste (overburden, tailings, etc.) management strategy;– a water management strategy, having regard to the EPA's and DPI Water's requirements and recommendations (see Attachment 2);– a rehabilitation strategy, having regard to DRE's requirements (see Attachment 2); and– the likely interactions between the development and any other existing, approved or proposed mining related development in the vicinity of the site;• a list of any approvals that must be obtained before the development may commence;• an assessment of the likely impacts of the development on the environment, focusing on the specific issues identified below, including:<ul style="list-style-type: none">– a description of the existing environment likely to be affected by the development, using sufficient baseline data;– an assessment of the likely impacts of all stages of the development, including any cumulative impacts, taking into consideration any relevant legislation, environmental planning instruments, guidelines, policies, plans and industry codes of practice;– a description of the measures that would be implemented to mitigate and/or offset the likely impacts of the development, and an assessment of:<ul style="list-style-type: none">○ whether these measures are consistent with industry best practice, and represent the full range of reasonable and feasible mitigation measures that could be implemented;○ the likely effectiveness of these measures, including performance measures where relevant; and

	<ul style="list-style-type: none"> ○ whether contingency plans would be necessary to manage any residual risks; – a description of the measures that would be implemented to monitor and report on the environmental performance of the development if it is approved; • a consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS; • consideration of the development against all relevant environmental planning instruments (including Part 3 of the <i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>); and • the reasons why the development should be approved, having regard to environmental, economic and social considerations, including the principles of ecologically sustainable development. <p>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>In addition to the matters set out in Schedule 1 of the <i>Environmental Planning and Assessment Regulation 2000</i>, the development application must be accompanied by a signed report from a suitably qualified and experienced person that includes an accurate estimate of the capital investment value (as defined in Clause 3 of the <i>Environmental Planning and Assessment Regulation 2000</i>) of the development, including details of all the assumptions and components from which the capital investment value calculation is derived.</p>
<p>Specific Issues</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"> - an assessment of the likely impacts of the development on the quantity and quality of the region’s surface and groundwater resources, having regard to the EPA’s and DPI’s requirements and recommendations (see Attachment 2); - an assessment of the likely impacts of the development on aquifers, watercourses, riparian land, water-related infrastructure, and other water users; and - an assessment of the potential flooding impacts of the development; • Noise – including: <ul style="list-style-type: none"> - an assessment of the likely operational noise impacts of the development (including construction noise) under the <i>Noise Policy for Industry</i> (EPA); - if a claim is made for specific construction noise criteria for certain activities, then this claim must be justified and accompanied by an assessment of the likely construction noise impacts of these activities under the <i>Interim Construction Noise Guideline</i>; - an assessment of the likely road noise impacts of the development under the <i>NSW Road Noise Policy</i>; • Air – including: <ul style="list-style-type: none"> - an assessment of the likely air quality impacts of the development in accordance with the <i>Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW</i>, having regard to EPA’s requirements (see Attachment 2); and - an assessment of the likely greenhouse gas impacts of the development; • Biodiversity – including: <ul style="list-style-type: none"> • an assessment of the likely biodiversity impacts of the development, in accordance with the Framework for Biodiversity Assessment, by a person accredited in accordance with s142(B)(1)(c) of the <i>Threatened Species Conservation Act 1995</i>, and having regard to OEH’s and DPI’s requirements and recommendations (see Attachment 2); and

	<ul style="list-style-type: none"> • a strategy to offset any residual impacts of the development in accordance with the <i>NSW Biodiversity Offsets Policy for Major Projects</i>; • Land – including: <ul style="list-style-type: none"> - an Agricultural Impact Statement, prepared in accordance with DPI's Agricultural Impact Statement: Technical Notes, to assess the likely impacts of the development on the soils and land capability of the site and surrounds, paying particular attention to any Biophysical Strategic Agricultural Land (BSAL) and having regard to DPI's requirements (see Attachment 2); - an assessment of the likely impact of the development on landforms (topography), including the long term geotechnical stability of any new landforms; - an assessment of the compatibility of the development with other land uses in the vicinity of the development in accordance with the requirements of Clause 12 of <i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>, paying particular attention to the agricultural land uses in the region; • Heritage – including an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the development, having regard to OEH's requirements (see Attachment 2); • Transport – including an assessment of the likely transport impacts of the development on the capacity, condition, safety and efficiency of the local and State road network and the rail network, having regard to Transport for NSW's and RMS's requirements (see Attachment 2); and • Visual and Light – 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, paying particular attention to the creation of any new landforms and minimising the lighting impacts of the development, with particular consideration of impacts on the Siding Springs Observatory; • Hazards - including an assessment of the likely risks to public safety, paying particular attention to potential subsidence risks, bushfire risks, and the handling and use of any dangerous goods; and • Social & Economic – including: <ul style="list-style-type: none"> - an assessment of the likely social impacts of the development on the local and regional community generally in accordance with the <i>Social Impact Assessment Guidelines for State Significant Mining, Petroleum Production and Extractive Industry Development (2017)</i>; and - an assessment of the likely economic impacts of the development, paying particular attention to: <ul style="list-style-type: none"> ○ the significance of the resource; ○ economic benefits of the project for the State and region and the demand for the provision of local infrastructure and services, having regard to Gunnedah Shire Council's and Narrabri Shire Council's requirements (see Attachment 2).
Consultation	<p>During the preparation of the EIS, you must consult with relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. 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

Environmental Planning Instruments, Policies, Guidelines & Plans

Land	
	Guideline for Agricultural Impact Statements (DP&E)
	Agricultural Impact Statement: Technical Notes (DPI)
	Agfact AC25: Agricultural Land Classification (NSW Agriculture)
	Interim Protocol for Site Verification & Mapping of Biophysical Strategic Land (OEH)
	Soil and Landscape Issues in Environmental Impact Assessment (NOW)
	State Environmental Planning Policy No. 55 – Remediation of Land
	Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC)
Water	
Water Sharing Plans	Water Sharing Plan for the Upper and Lower Namoi Groundwater Sources 2003; Water Sharing Plan for the NSW Murray Darling Basin Porous Rock Water Sources 2011; Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Sources 2003; Water Sharing Plan for the Namoi Unregulated and Alluvial Water Sources 2012; and any other relevant Water Sharing Plans
	NSW State Groundwater Policy Framework Document (NOW)
Groundwater	NSW State Groundwater Quality Protection Policy (NOW)
	NSW State Groundwater Quantity Management Policy (NOW)
	NSW Aquifer Interference Policy 2012 (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)
	National Water Quality Management Strategy: Guidelines for Sewerage Systems – Effluent Management (ARMCANZ/ANZECC)
	National Water Quality Management Strategy: Guidelines for Sewerage Systems – Use of Reclaimed Water (ARMCANZ/ANZECC)
	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)	
Environmental Guidelines: Use of Effluent by Irrigation (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	<p>Framework for Biodiversity Assessment (OEH)</p> <p>NSW Biodiversity Offsets Policy for Major Projects (OEH)</p> <p>Threatened Species Assessment Guidelines (OEH)</p> <p>Policy and Guidelines for Aquatic Habitat Management and Fish Conservation (Fisheries NSW)</p> <p>NSW State Groundwater Dependent Ecosystem Policy (NOW)</p> <p>Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW)</p> <p>State Environmental Planning Policy No. 44 – Koala Habitat Protection</p>
Heritage	<p>The Burra Charter (The Australia ICOMOS charter for places of cultural significance)</p> <p>Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation (DP&E)</p> <p>Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (OEH)</p> <p>Code of Practice for Archaeological Investigations of Objects in NSW (OEH)</p> <p>Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (OEH)</p> <p>NSW Heritage Manual (OEH)</p> <p>Statements of Heritage Impact (OEH)</p>
Noise	<p>Noise Policy for Industry (EPA)</p> <p>Interim Construction Noise Guideline (EPA)</p> <p>NSW Road Noise Policy (EPA)</p> <p>Assessing Vibration: a Technical Guideline (EPA)</p> <p>Voluntary Land Acquisition and Mitigation Policy (DP&E)</p>
Air	<p>Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW (EPA)</p> <p>Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (EPA)</p> <p>Coal Mine Particulate Matter Control Best Practice – Site Specific Determination Guideline (EPA)</p> <p>Generic Guidance and Optimum Model Settings for the CALPUFF Modelling System for Inclusion in the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)</p> <p>Voluntary Land Acquisition and Mitigation Policy (DP&E)</p> <p>National Greenhouse Accounts Factors (Commonwealth)</p>
Transport	<p>Guide to Traffic Generating Development (RTA)</p> <p>Road Design Guide (RMS) & relevant Austroads Standards</p>
Public Safety	<p>State Environmental Planning Policy No. 33 – Hazardous and Offensive Development</p> <p>Hazardous and Offensive Development Application Guidelines – Applying SEPP 33</p> <p>Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis</p>
Resource	<p>Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 (JORC)</p>
Waste	<p>Waste Classification Guidelines (EPA)</p>
Rehabilitation	<p>Mine Rehabilitation – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth)</p> <p>Mine Closure and Completion – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth)</p>

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

State Environmental Planning Policy No. 44 – Koala Habitat Protection

Gunnedah Local Environmental Plan 2012

Narrabri Local Environmental Plan 2012

ATTACHMENT 2

AGENCIES' CORRESPONDENCE



OUT16/7000

Mr Matthew Riley
Resource Assessments
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Matthew.Riley@planning.nsw.gov.au

Dear Mr Riley,

**Vickery Coal Extension Project (SSD_7480)
Request for Secretary's Environmental Assessment Requirements**

I refer to your email dated 28 January 2016 to the Department of Primary Industries requesting Secretary's Environmental Assessment Requirements (SEARs) in respect to the above project. Comments have been sought from DPI Water, Fisheries, Agriculture and Lands and are provided below. Any further referrals to DPI can be sent by email to landuse.enquiries@dpi.nsw.gov.au.

Comment by DPI Water

DPI Water has reviewed the supporting documentation accompanying the request for SEARs and provides the following comments, and further detail in **Attachment A**.

It is recommended that the EIS be required to include:

- Annual volumes of surface water and groundwater proposed to be taken by the activity (including through inflow and seepage) from each surface and groundwater source as defined by the relevant water sharing plan.
- Assessment of any volumetric water licensing requirements (including those for ongoing water take following completion of the project).
- The identification of an adequate and secure water supply for the life of the project. Confirmation that water can be sourced from an appropriately authorised and reliable supply. This is to include an assessment of the current market depth where water entitlement is required to be purchased. The EIS should outline current licences obtained for the mine, including volumes of water and licences required for the expansion.
- An updated detailed and consolidated site water balance for the expansion.
- A detailed assessment against the NSW Aquifer Interference Policy (2012) using DPI Water's assessment framework.
- Assessment of impacts on surface and ground water sources (both quality and quantity), related infrastructure, adjacent licensed water users, basic

landholder rights, watercourses, riparian land, wetlands, and groundwater dependent ecosystems, and measures proposed to reduce and mitigate these impacts.

- Full technical details and data of all surface and groundwater modelling, and an independent peer review of the groundwater model.
- Proposed surface and groundwater monitoring activities and methodologies. The EIS should include a spreadsheet outlining all monitoring bores currently monitored for the site.
- Proposed management and disposal of produced or incidental water.
- Details of the final landform of the site, including final void management (where relevant) and rehabilitation measures.
- Assessment of any potential cumulative impacts on water resources, and any proposed options to manage the cumulative impacts.
- Consideration of relevant policies and guidelines.
- Assessment of whether the activity may have a significant impact on water resources, with reference to the Commonwealth Department of Environment Significant Impact Guidelines.
- If the activity may have a significant impact on water resources, then provision of information in accordance with the Information Guidelines for Independent Expert Scientific Committee advice on coal seam gas and large coal mining development proposals, including completion of the information requirements checklist.
- A statement of where each element of the SEARs is addressed in the EIS (i.e. in the form of a table).

For further information please contact Christie Jackson, Water Regulation Officer, (Tamworth office) on (02) 6763 1426 or at christie.jackson@dpi.nsw.gov.au.

Comment by DPI Lands

Following a review of the preliminary Environmental Assessment, the following items will need to be addressed in the Environmental Assessment for the project to satisfy DPI-Lands requirements.

General:

The Preliminary EA includes commentary in Section 2.5 relating to Environmentally Sensitive Areas and makes the following statement: “No land reserved or dedicated under the Crown Lands Act, 1989 for the preservation of flora, fauna, geological formations or for other environmental protection purposes occur within the Development Application area”. On review of the lands comprised within the Development Application area, it should be noted that Reserve 96445 (41/754929) is Reserved from Sale for Environmental Protection Purposes. The Environmental Assessment for the project should be revised accordingly.

Attachment A – Preliminary Schedule of Lands

2/1018347 is listed as being held by the Local Government Authority. This is incorrect and is freehold land held by Whitehaven Coal Mining.

3/1018347 is listed as being held by the Local Government Authority. This is incorrect and is freehold land held by Whitehaven Coal Mining.

5/1182289 is listed as being held by the Crown. This is incorrect and is freehold land held by Whitehaven Coal Mining.

4/1182289 is listed as being held by the Crown. This is incorrect and is freehold land held by Whitehaven Coal Mining.

11/1182290 is listed as being held by the Crown. This is incorrect and is freehold land held by Whitehaven Coal Mining.

Comments in relation to Mining, Overburden area and Infrastructure area:

The Environmental Assessment will need to address the impacts on Crown reserves and how the proponent will resolve access and occupation of these areas. This will need to include how it will address Native Title interests and any existing Aboriginal Land Claims present over the impacted area.

From review of the impact area from mining activities, the following Crown reserves will be impacted:

Reserve 20814 for Travelling Stock (7301/1136461);
Reserve 52886 for Travelling Stock (7300/1136461);
Reserve 1112 for Travelling Stock (7304/1136474);
Reserve 96445 for Environmental Protection (41/754929);
Reserve 52882 for Camping, Travelling Stock and Water (7003/1059335);

It is also noted that the proposed open cut and overburden emplacements will impact on existing public road networks including Shannon Harbour Road, Braymont Road and Hoad Lane. The Environmental Assessment will need to detail how this will be managed under the provisions of the Roads Act, 1993. It is also noted that the intended realignment of Blue Vale Road may result in construction of a Crown road north of 2/1102940. The Environmental Assessment will need to detail if this Crown road is to be constructed and if it is intended that the constructed road be placed under Council control.

Comments in relation to Rail Investigation Corridors:

The land ownership map appears to depict Lots 5 & 6 DP 115191 as Whitehaven Coal owned land. This land is held by Nandewar Pty Ltd and is in the area of impact from the Western rail spur investigation corridor. This may be an issue related to map scale.

The proposed rail spur investigation area will intersect numerous Crown roads. The Environmental Assessment will need to detail the proponent's intention with regard to facilitating access to the rail corridor lands, including any arrangements for crown road closure applications where those roads are intersected by the rail corridor.

The proposed rail spur will intersect numerous formed public roads. The Environmental Assessment will need to detail how those impacts will be managed under the Roads Act, 1993, and the proposed treatments to ensure continued public access. The public roads that will be impacted include Edwards Road, Braymont Road, Hoad Lane, Rangari Road, Goonbri Road, Johnstone Road, Kamilaroi Highway, Leard Forest Road.

The proposed rail spur will intersect numerous Travelling Stock Reserves. The Environmental Assessment will need to detail how continuity of access will be maintained for travelling stock at these locations, and how the proponent intends to consider the implications of any native title claims and interests, or Aboriginal Land Claims associated with those lands. The Travelling Stock Reserves potentially impacted include:

Reserve 1112 for Travelling Stock (7303 & 7304/1136474);
Reserve 52882 for Camping, Travelling Stock and Water (7003/1059335);
Reserve 31105 for Travelling Stock (7004/1029299).

The proposed rail spur will intersect Reserve 96445 for Environmental Protection purposes (41/754929). The Environmental Assessment will need to consider the impacts of the proposed rail corridor on the environmental protection values of this land, and identify how the proponent will consider any native title claims and interests on this land.

The proposed rail spur will cross the Namoi River. The Environmental Assessment will need to address any issues associated with construction within the bed and bank of the river, and also give consideration to any native title rights and interests in this land.

Should you have any queries in relation to these comments please contact Danny Young, Area Manager North West on 6763 3001 or at danny.young@crowland.nsw.gov.au.

Comment by DPI Fisheries

DPI Fisheries have reviewed the preliminary EA and offer the following comments. The EA should specifically address the impacts on the waterway crossings, and riparian buffer zones as proposed below;

Waterway Crossings

DPI Fisheries should be consulted with regards to the crossing methodology and site specific mitigation measures for construction of new culverts or bridges in watercourses that are considered to be *Key Fish Habitat* within the rail spur investigation corridors. The design and construction of bridges, culverts, and temporary access tracks across all waterways should be undertaken in accordance with the Department's *Policy and Guidelines for Fish Habitat Conservation and Management (Update 2013)*. The EA should provide details on methods of dredging, duration and timing of works, and the proposed mitigation measures to protect riparian and aquatic habitat. DPI Fisheries should be consulted with regards to any temporary measures that will result in blocking fish passage. This includes coffer dams, temporary access tracks or redirecting flows whilst works are conducted in *Key Fish Habitat*.

Riparian Buffer Zones

DPI Fisheries policy advocates the use of terrestrial buffer zones as per the *Policy and Guidelines for Fish Habitat Conservation and Management (Update 2013)* available on the Department's website at <http://www.dpi.nsw.gov.au/fisheries/habitat/publications/policies,-guidelines-and-manuals/fish-habitat-conservation> which states that "NSW DPI will generally require

riparian buffer zones to be established and maintained for developments or activities in or adjacent to TYPE 1 or 2 habitats or CLASS 1-3 waterways.” The department anticipate that adequate riparian buffer zones will be maintained adjacent to watercourses as part of this project.

For further information please contact David Ward, Fisheries Regional Assessment Officer, (Tamworth office) on 6763 1255, 0429 908856 or at: david.ward@dpi.nsw.gov.au.

Comment by DPI Agriculture

DPI requests that an Agricultural Impact Statement (AIS) be included in the Environmental Impact Statement (EIS) that incorporates both the approved mine and extension area. Specific guidance on satisfying the requirements for the AIS should be taken from the Department of Primary Industries, Agricultural Impact Statement Technical Notes which are available at:

<http://www.dpi.nsw.gov.au/agriculture/resources/lup/development-assessment>

The SEARs should specifically include:

- The requirement of a comprehensive Agricultural Impact Statement using the guidelines described above that includes the previous approved area and examination of the extension, to provide an overall comprehensive review of agricultural impact of the whole proposed operation (that also includes socio-economic assessment).
- Detailed advice regarding rehabilitation, including the location of the activities, soil management, methodologies and time-frames for implementation for the approved and proposed extension area.

For further information please contact Liz Rogers, Manager Agricultural Land Planning on 6391 3644 or at: liz.rogers@dpi.nsw.gov.au.

Yours sincerely



Mitchell Isaacs
Director, Planning Policy & Assessment Advice
12/02/2016

Attachment A

Vickery Coal Extension Project (SSD_7480) Request for Input into Secretary's Environment Assessment Requirements DPI Water - General Assessment Requirements for Coal and Petroleum projects

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

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

Key Relevant Legislative Instruments

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

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

Water Management Act 2000 (WMA 2000)

Key points:

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

Water Act 1912 (WA 1912)

Key points:

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

Water Management (General) Regulation 2011

Key points:

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

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

Access Licence Dealing Principles Order 2004

Water Sharing Plans

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

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

The EIS is required to:

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

Relevant Policies and Guidelines

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

- NSW Guidelines for Controlled Activities on Waterfront Land (NOW, 2012)
 - NSW Aquifer Interference Policy (NOW, 2012)
 - Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW, 2012)
 - Australian Groundwater Modelling Guidelines (NWC, 2012)
 - Information Guidelines for Independent Expert Scientific Committee advice on coal seam gas and large coal mining development proposals (IESC, 2014)
 - Significant Impact Guidelines 1.3: Coal seam gas and large coal mining developments - impacts on water resources (Australian Govt. 2014)
 - NSW State Rivers and Estuary Policy (1993)
 - NSW Wetlands Policy (2010)
 - NSW State Groundwater Policy Framework Document (1997)
 - NSW State Groundwater Quality Protection Policy (1998)
 - NSW State Groundwater Dependent Ecosystems Policy (2002)
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- NSW Water Extraction Monitoring Policy (2007)
- Groundwater Monitoring and Modelling Plans - Information for prospective mining and petroleum exploration activities (NOW, 2014)
- NSW Code of Practice for Coal Seam Gas Well Integrity (DTIRIS 2012)
- NSW Code of Practice for Coal Seam Gas Fracture Stimulation (DTIRIS 2012)

DPI Water policies can be accessed at the following links:

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

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

An assessment framework for the NSW Aquifer Interference Policy can be found online at:

<http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/Aquifer-interference>.

Licensing Considerations

The EIS is required to provide:

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

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

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

For more information on Harvestable Right dams, including a calculator, visit:

<http://www.water.nsw.gov.au/Water-licensing/Basic-water-rights/Harvesting-runoff/Harvesting-runoff>

Dam Safety

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

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

Surface Water Assessment

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

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

Groundwater Assessment

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

- The known or predicted highest groundwater table at the site.
- Works likely to intercept, connect with or infiltrate the groundwater sources.
- Any proposed groundwater extraction, including purpose, location and construction details of all proposed bores and expected annual extraction volumes.
- Bore construction information is to be supplied to DPI Water by submitting a “Form A” template. DPI Water will supply “GW” registration numbers (and licence/approval numbers if required) which must be used as consistent and unique bore identifiers for all future reporting.
- A description of the watertable and groundwater pressure configuration, flow directions and rates and physical and chemical characteristics of the groundwater source (including connectivity with other groundwater and surface water sources).

- Sufficient baseline monitoring for groundwater quantity and quality for all aquifers and GDEs to establish a baseline incorporating typical temporal and spatial variations.
- The predicted impacts of any final landform on the groundwater regime.
- The existing groundwater users within the area (including the environment), any potential impacts on these users and safeguard measures to mitigate impacts.
- An assessment of groundwater quality, its beneficial use classification and prediction of any impacts on groundwater quality.
- An assessment of the potential for groundwater contamination (considering both the impacts of the proposal on groundwater contamination and the impacts of contamination on the proposal).
- Measures proposed to protect groundwater quality, both in the short and long term.
- Measures for preventing groundwater pollution so that remediation is not required.
- Protective measures for any groundwater dependent ecosystems (GDEs).
- Proposed methods of the disposal of waste water and approval from the relevant authority.
- The results of any models or predictive tools used.

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

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

Groundwater Dependent Ecosystems

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

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

Watercourses, Wetlands and Riparian Land

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

- Scaled plans showing the location of:
 - wetlands/swamps, watercourses and top of bank;
 - riparian corridor widths to be established along the creeks;
 - existing riparian vegetation surrounding the watercourses (identify any areas to be protected and any riparian vegetation proposed to be removed);
 - the site boundary, the footprint of the proposal in relation to the watercourses and riparian areas; and
 - proposed location of any asset protection zones.
- Photographs of the watercourses/wetlands and a map showing the point from which the photos were taken.
- A detailed description of all potential impacts on the watercourses/riparian land.
- A detailed description of all potential impacts on the wetlands, including potential impacts to the wetlands hydrologic regime; groundwater recharge; habitat and any species that depend on the wetlands.
- A description of the design features and measures to be incorporated to mitigate potential impacts.
- Geomorphic and hydrological assessment of water courses including details of stream order (Strahler System), river style and energy regimes both in channel and on adjacent floodplains.

Drill Pad, Well and Access Road Construction

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

Landform rehabilitation (including final void management)

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

- Justification of the proposed final landform with regard to its impact on local and regional surface and groundwater systems;
- A detailed description of how the site would be progressively rehabilitated and integrated into the surrounding landscape;
- Outline of proposed construction and restoration of topography and surface drainage features if affected by the project;

- Detailed modelling of potential groundwater volume, flow and quality impacts of the presence of an inundated final void (where relevant) on identified receptors specifically considering those environmental systems that are likely to be groundwater dependent;
- An outline of the measures to be put in place to ensure that sufficient resources are available to implement the proposed rehabilitation; and
- The measures that would be established for the long-term protection of local and regional aquifer systems and for the ongoing management of the site following the cessation of the project.

Consultation and general enquiries

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

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

A consultation guideline and further information is available online at:

www.water.nsw.gov.au/water-management/law-and-policy/planning-and-assessment

End Attachment A



BN16/900

Mr Matthew Riley
Senior Planning Officer
Resource Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Email: matthew.riley@planning.nsw.gov.au

Dear Mr Riley

Vickery Extension Project – (SSD 7480) SEARs Input Request

I refer to your email of 28 January 2016 regarding the Whitehaven Coal Operations Limited application to modify the development consent for the Vickery Mine to include:

- a physical extension to the approved mine footprint to gain access to additional run of mine (ROM) coal reserves;
- an increase in the footprint of waste rock emplacement areas;
- an increase in the approved ROM coal mining rate; and
- construction and operation of an onsite Coal Handling and Preparation Plant (CHPP), train load-out facility and rail spur.

The Department of Industry, Skills and Regional Development, Division of Resources and Energy (the Division), has reviewed the *Vickery Extension, Project Description and Preliminary Environmental Assessment (PEA)*, January 2016.

Comments based on the Division's standard Secretary's Environmental Assessment Requirements (SEARs) for mining proposals are enclosed for your consideration.

Should you have any enquires regarding this matter please contact Steve Cozens, Senior Project Officer, Royalty and Advisory Services on (02) 9842 8573.

Yours sincerely

K Hargreaves 12.2.16

Kylie Hargreaves
Deputy Secretary
Resources & Energy

Encl.

DEPARTMENT OF INDUSTRY, SKILLS AND REGIONAL DEVELOPMENT

DIVISION OF RESOURCES AND ENERGY

COMMENTS

Vickery Extension

Project Description and Preliminary Environmental Assessment (PEA)

January 2016.

The following comments are based on the Division's standard Secretary's Environmental Assessment Requirements (SEARs) for mining proposals.

MINING TITLE

As [the mineral(s)] is a prescribed mineral under the *Mining Act 1992*, the proponent is required to hold an appropriate mining title(s) from the Division in order to mine the mineral.

For mining purposes as prescribed by section 6 of the *Mining Act 1992*, in so far as the mining purposes are to be carried out in connection with and in the immediate vicinity of a mining lease in respect of a mineral, the proponent is required to hold an appropriate mining title(s).

Any Environmental Impact Statement (EIS) for this project should clearly identify existing mineral titles, mineral title applications and the final proposed mining lease area(s) for the project site and areas surrounding the proposed project area and address the environmental impacts and management measures for the mining and mining purpose activities as licensed under the *Mining Act 1992*.

PROJECT DESCRIPTION

To enable the project and its environmental interactions to be understood, the EIS should provide a comprehensive description of all aspects (including the mineral extraction and mining purposes) of the project. In terms of text, plans or charts, it must also clearly show the proposed extent and sequence of the development.

DESCRIPTION OF EXISTING ENVIRONMENT, IDENTIFICATION OF IMPACTS AND CONSTRAINTS

All areas affected by the proposal should be shown in the context of the natural and built environments. This should be in sufficient detail to enable an understanding of the scale of impacts and gauge the effectiveness of proposed control measures.

The EIS should state the interaction between the proposed mining activities and the existing environment and so include a comprehensive description of the following activities and their impacts:

- 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.

- Mineral processing and handling, washery rejects handling and disposal management activities.
- Infrastructure facilities and storage requirements.
- Surface and groundwater usage and management.
- Mine closure, including rehabilitation and decommissioning activities.

Impacts associated with the operational and post closure stages of the project must also be identified in detail and control management strategies outlined. The identification and description of impacts must draw out those aspects of the site that may present barriers or limitations to effective rehabilitation and which may limit the mine closure potential of the land. The following are the key issues to be addressed in the EIS that are likely to have a bearing on rehabilitation and mine closure.

- An evaluation and options analysis of how the current Canyon operations, (including the void) are going to be incorporated into the proposed Vickery Extension Project.
- An evaluation of current rehabilitation techniques and performance against meeting existing rehabilitation objectives and completion criteria.
- 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. Based on this assessment, the EIS is to document 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.
- A life of mine tailings management strategy, which is to detail measures to be implemented to avoid the exposure of potentially environmentally sensitive tailings material, as well as promote geotechnical stability of the rehabilitated landform.
- 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 the key geomorphological characteristics evident in stable landforms within the natural landscape can be adapted to the materials and other constraints associated with the site.
- Where a void is proposed to remain as part of the final landform, the assessment is to provide details in regards to the following:
 - 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
 - A preliminary geotechnical assessment to identify the likely long term stability risks associated with the proposed remaining highwall(s) and lowwall(s) along with associated measures that will be required to minimise potential risks to public safety
 - 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 to be implemented to minimise associated impacts to the environment and downstream water users.

- Surface water flow and flooding regimes and how these will be impacted and mitigated by the project, both during and after mining has ceased. This is to include an evaluation of potential impacts from the final void on both surface and groundwater quality and flow regimes. An assessment of the biological resources associated with the proposed disturbance area and how they can be practically salvaged for utilisation in rehabilitation (i.e. topsoil, seed banks, tree hollows and logs, native seed etc). This should include an evaluation of how topsoil/subsoil of suitable quality can be direct-returned for use in rehabilitation.
- The flora, fauna and ecological attributes of the disturbed area should be recorded and placed in a regional context.
- An evaluation of current land capability class and associated condition. The EIS should characterise soils across the proposed area of surface disturbance and assess their value and identify opportunities and constraints for use in rehabilitation.
- Where an agricultural land use is proposed, the EIS should:
 - demonstrate how Agricultural Suitability Class in the rehabilitated landscape would be returned to the existing Class/es or better;
 - where the intended land use is likely to be grazing, the existing capacity in terms of Dry Sheep Equivalent or similar must be calculated and a timeframe from vegetation establishment be given for the return to agricultural production to at least the existing stock capacity; and
 - provide information on how soil would be developed in order to achieve the proposed stock capacity.
- Where an ecological land use is proposed, the EIS should demonstrate that the revegetation strategy (e.g. seed mix, habitat features, corridor width etc) has been developed in consideration of the target vegetation community/ies.

REHABILITATION AND MINE CLOSURE

The Division's role focuses on ensuring that mined land in NSW is effectively rehabilitated and returned to beneficial post mining land uses. This is undertaken by requiring mine operators to have strategies in place to ensure the rehabilitation of all mined land, and strategies for an orderly transition from a mining land use to an agreed stable and beneficial post mining use. At the EIS stage, the strategies may be conceptual in nature.

Each of the following aspects of rehabilitation planning should be addressed in the strategy:

Post Mining Land Use – the proponent must identify and assess post mining land use options and provide a statement of the preferred post mining land use outcome in the EIS. This should include a discussion of how the final land use(s) is aligned with relevant local and regional strategic land use objectives, as well as the benefits of the post mining land to the surrounding environment, a subsequent landowner, the local community and the state of NSW.

Rehabilitation Objectives and Domains – a set of project rehabilitation objectives and completion criteria must be included that clearly define the environmental outcomes required to achieve the final land use for each domain. The completion criteria must be specific, measurable, achievable, realistic and time-bound.

If necessary, objective criteria may be presented as ranges rather than finite indicator levels. Subjective criteria may also apply where a gap in technical knowledge is experienced. Further refinement of these criteria will be undertaken and included in the Rehabilitation Management Plan (RMP).

Conceptual Final Landform Design – a drawing at an appropriate scale with final landform contours should be provided. This drawing should identify the following attributes of the final landform; vegetation types, habitat features, contaminated areas, final voids, drainage infrastructure, access and internal roads, fencing design, and other remaining infrastructure such as sheds, dams, bores and pipelines.

Scope of Rehabilitation and Decommissioning Activities - the EIS is to include a detailed description of the scope of decommissioning and rehabilitation activities required to meet the nominated closure objectives and completion criteria for each domain. The scope of these activities must be developed in consideration of the existing environment, identification of impacts and constraints as listed above,

Monitoring and Research - outline the proposed monitoring programs that will be implemented to assess how rehabilitation is trending towards the nominated land use objectives and completion criteria. This should include details of the process for triggering intervention and adaptive management measures to address potential adverse results, as well as continuously improve rehabilitation practices.

In addition, an outline of proposed rehabilitation research programs and trials, including objectives, are to be included in the EIS. 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 - Describe 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 closure objectives and completion criteria in a timely manner.



Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Matthew Riley - matthew.riley@planning.nsw.gov.au

Notice Number 1537724
File Number EF14/4230
Date 09-Feb-2016

SSD 7480 - Vickery Coal Extension Project - Request for Secretary's Environmental Assessment Requirements

I refer to your request for the Environment Protection Authority's (EPA) requirements for the environmental assessment (EA) in regard to the above proposal received by EPA on 28 January 2016.

The EPA has considered the details of the proposal as provided by the Department of Planning and Environment and has identified the information it requires to issue its general terms of approval in **Attachment A**.

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

1. **Air** - dust generation and management of potential impacts on adjacent rural residences during the construction and operational phases;
2. **Noise** - noise generation and management of potential impacts on adjacent rural residences during construction and operational phases;
3. **Water** - water management systems and the protection of surface and groundwater;
4. **Cumulative impacts**.

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

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

Based on the information provided to the EPA, the applicant will require an environment protection licence (EPL) for carrying out a scheduled activity. Should the proposal be granted the applicant will need to make a separate application to the EPA to obtain this licence. General information on licence requirements can be obtained from Environment Line on 131 555 or on the EPA website at www.epa.nsw.gov.au/licensing/licencePOEO.htm



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

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

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

If you have any further questions with respect to this matter, please contact Ms Jessica Creed, Senior Regional Operations Officer, by telephoning 02 6773 7000.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Robert O'Hern'.

.....
Robert O'Hern
Head Regional Operations Unit
North - Armidale
(by Delegation)

ATTACHMENT A: Environmental Assessment Requirements for the proposed Vickery Coal Expansion Project – Whitehaven Coal Limited – SSD 7480

1. Environmental impacts of the project

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

- Air quality, including dust generation and odour management
- Noise and vibration
- Waste including general water, hazardous materials and radiation
- Water and Soils
 - Soils - general
 - Water quality and quantity, including groundwater and surface waters, catchment description and water balance

1.2 The Environmental Assessment (EA) 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 Licensing requirements

2.1 On the basis of the information submitted to date, it appears the proposal is a scheduled activity under the *Protection of the Environment Operations Act 1997* (POEO Act) and will therefore require an Environment Protection Licence (EPL) if approval is granted. The EA should address the requirements of Section 45 of the POEO Act determining the extent of each impact and providing sufficient information to enable the EPA to determine appropriate limits for the EPL.

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

SPECIFIC ISSUES

3 Air issues

The EA should include an air quality impact assessment (AQIA). The AQIA should:

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

3.2 Justify the level of assessment undertaken on the basis of risk factors, including but not limited to:

- proposal location;
- characteristics of the receiving environment; and
- type and quantity of pollutants emitted.

3.3 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:

- meteorology and climate;
- topography;
- surrounding land-use;
- receptors; and

- ambient air quality.

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

3.5 Include a consideration of 'worst case' emission scenarios and impacts at proposed emission limits. Justification for the 'worst case' must also be included.

3.6 Account for cumulative impacts associated with existing emission sources as well as any currently approved developments linked to the receiving environment. This includes adjoining mining operations and general ambient rural dust levels.

3.7 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.epa.nsw.gov.au/resources/air/ammodelling05361.pdf>.

3.8 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 (2002)*. Particular consideration should be given to section 129 of the POEO Act concerning control of "offensive odour".

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

3.10 Include an assessment of the air impacts from the movements of coal in uncovered wagons by rail.

4 Noise and Vibration

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

General

4.1 Construction noise associated with the proposed development should be assessed using the *Interim Construction Noise Guideline* (DECC, 2009) available at <http://www.epa.nsw.gov.au/noise/constructnoise.htm>

4.2 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), available at <http://www.epa.nsw.gov.au/noise/vibrationguide.htm>

4.3 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), available at <http://www.epa.nsw.gov.au/noise/blasting.htm>

4.4 Sleep disturbance as a result of mine activities, including road/rail movements on the private premises need to be fully assessed.

4.5 Modifying factor adjustments as outlined in section 4 of the INP need to be fully considered, particularly low frequency noise from locomotive operation and coal handling and preparation plant, impulse and tonal noise sources.

4.6 Impacts of increased rail movements along the rail network to Newcastle needs to be evaluated against the noise objectives set in the ARTC rail network licence (EPL No 3142) and the guideline "*Rail Infrastructure Noise Guidelines*" (EPA 2013). Rail movement along any private rail spur also needs to be evaluated using the "*Rail Infrastructure Noise Guidelines* (EPA 2013)".

4.7 A key issue in the Gunnedah basin area is that an adequate assessment of impacts of inversions be undertaken, using if available, real temperature lapse rate data as outlined in section E of the INP. Anecdotal evidence from existing mining operations in the Gunnedah Basin suggests that inversions greater than the default of 3oC/100m are a feature of the area exacerbating noise impacts. This issue needs to be fully evaluated in the EA.

Industry Activities

4.8 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*, available at <http://www.epa.nsw.gov.au/noise/industrial.htm>

Road

4.9 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), available at <http://www.epa.nsw.gov.au/noise/traffic.htm>

5 Waste, chemicals and hazardous materials and radiation

5.1 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 the *EPA's Waste Classification Guidelines*.

5.2 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 the *EPA's Classification Guidelines*.

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

5.4 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 EA 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

5.5. 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.

5.6 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.

5.7 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.

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

5.9 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.

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

6 Water and soils

6.1 Soils

The EA should include:

6.1.1 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).

6.1.2 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. Where required, add any specific assessment requirements relevant to the project.

6.2 Water

Describe Proposal

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

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

6.2.3 Where relevant include a water balance that models water management through the life cycle of the mine and that includes water requirements (quantity, quality and source(s)) and proposed storm and wastewater disposal, including type, volumes, proposed treatment and management methods and re-use options.

Background Conditions

6.2.4 Describe existing surface and groundwater quality. An assessment needs to be undertaken for any water resource likely to be affected by the proposal.

Proponents are generally only expected to source available data and information. However, proponents of relatively large and/or high risk developments may be required to collect some ambient water quality / river flow / groundwater data to enable a suitable level of impact assessment. Issues to include in the description of the receiving waters could also include, for example:

- water chemistry
- a description of receiving water processes, circulation and mixing characteristics and hydrodynamic regimes
- lake or estuary flushing characteristics
- sensitive ecosystems or species conservation values
- specific human uses (e.g. fishing, proximity to recreation areas)
- a description of any impacts from existing industry or activities on water quality
- a description of the condition of the local catchment e.g. erosion, soils, vegetation cover, etc.
- an outline of baseline groundwater information, including, for example, depth to watertable, flow direction and gradient, groundwater quality, reliance on groundwater by surrounding users and by the environment
- historic river flow data

6.2.5 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.

6.2.6 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.environment.gov.au/water/policy-programs/nwgms/>).

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

Impact Assessment

6.2.8 Describe the nature and degree of impact that any proposed discharges will have on the receiving environment. Estimates of the frequency and volumes of discharges must be included along with estimates of the likely water quality discharges for key pollutants including, but not limited to,

- total dissolved and suspended solids
- heavy metals
- grease and oils
- nutrients
- pH
- total organic carbons, and
- conductivity.

Depending on the nature, scale and/or risk of the proposal, this could include specific requirements to consider impacts on, for example:

- water circulation, current patterns, water chemistry and other appropriate characteristics such as clarity, temperature, nutrient and toxicants
- changes to hydrology (including drainage patterns, surface runoff yield, flow regimes, and groundwater)
- disturbance of acid sulphate soils and potential acid sulfate soils
- stream bank stability and impacts on macro invertebrates

Depending on the nature, scale and/or risk of the proposal, modelling, monitoring, or both, may need to be undertaken to assess the potential impact of discharges on the receiving environment. If modelling is required to assess the potential impact of any discharge(s), this could include, for example:

- a range of scenarios that encompass any variations in discharge quality and quantity as well as the relevant range of environmental conditions of the receiving waters. The scenarios could describe a set of worst-case conditions and typical conditions to ensure that both acute and chronic impacts are assessed,
- assumptions used in the modelling, including identification and discussion of the limitations and assumptions to ensure full consideration of all factors, including uncertainty in predictions.

6.2.9 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.

6.2.10 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.

6.2.11 Assess impacts on groundwater and groundwater dependent ecosystems.

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

6.2.13 Any discharges from the site must be characterised with respect to their location, frequency, volume and likely water quality.

Monitoring

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

For relatively large and/or high risk developments, proponents should develop a water quality and aquatic ecosystem monitoring program to monitor the responses for each component or process that affects the Water Quality Objectives that includes, for example:

- adequate data for evaluating compliance with water quality standards and/or Water Quality Objectives,
- measurement of pollutants identified or expected to be present in any discharge.

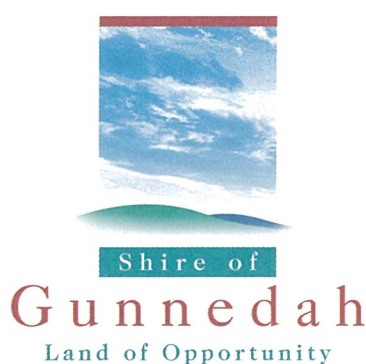
Water quality monitoring should be undertaken in accordance with the *Approved Methods for the Sampling and Analysis of Water Pollutant in NSW* (2004), available at <http://www.epa.nsw.gov.au/resources/legislation/approvedmethods-water.pdf>.

Attachment 2 – Guidance Material

Title	Web Address
<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
<i>Water Management Act 2000</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
Licensing	
EPA Guide to Licensing	www.epa.nsw.gov.au/licensing/licenceguide.htm
Air Issues	
Approved methods for modelling and assessment of air pollutants in NSW (2005)	http://www.epa.nsw.gov.au/resources/air/ammodelling05361.pdf
POEO (Clean Air) Regulation 2010	http://www.legislation.nsw.gov.au/maintop/view/inforce/subordleg+428+2010+cd+0+N
Noise and Vibration	
Interim Construction Noise Guideline (DECC, 2009)	http://www.epa.nsw.gov.au/noise/constructnoise.htm
Assessing Vibration: a technical guideline (DEC, 2006)	http://www.epa.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.epa.nsw.gov.au/noise/blasting.htm
Industrial Noise Policy Application Notes	http://www.epa.nsw.gov.au/noise/traffic.htm
Environmental Criteria for Road Traffic Noise (EPA, 1999)	http://www.epa.nsw.gov.au/noise/traffic.htm
Interim Guideline for the Assessment of Noise from Rail Infrastructure Projects (DECC, 2007)	http://www.epa.nsw.gov.au/noise/railinfranoise.htm
Environmental assessment requirements for rail traffic-generating developments	http://www.epa.nsw.gov.au/noise/railnoise.htm

Waste, Chemicals and Hazardous Materials and Radiation

Environmental Guidelines: Solid Waste Landfills (EPA, 1996)	http://www.epa.nsw.gov.au/resources/waste/envguidlns/solidlandfill.pdf
Draft Environmental Guidelines - Industrial Waste Landfilling (April 1998)	http://www.epa.nsw.gov.au/resources/waste/envguidlns/industrialfill.pdf
Waste Classification Guidelines (DECC, 2008)	http://www.epa.nsw.gov.au/waste/envguidlns/index.htm
EPA Resource recovery exemption	http://www.epa.nsw.gov.au/waste/RRecoveryExemptions.htm
Water and Soils	
Soil and Landscape Issues in Environmental Impact Assessment (DLWC 2000)	http://www.environment.nsw.gov.au/resources/stormwater/08207soilsconstorm2d.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 Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	http://environment.gov.au/water/policy-programs/nwqms/index.html
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



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

ATTENTION: M Riley – Senior Planning Officer

12 February 2016

Dear Sir

**RE: Submission - Request for Input into Secretary's Environmental Assessment Requirements
Proposed Vickery Extension Project
(Application Number SSD 7480)**

Thank you for the opportunity to table this Submission on the proposed Vickery Extension Project.

The project will be located, in part, within the Gunnedah LGA and has physical and socio-economic consequences for Gunnedah Shire Council ('Council') to manage.

In analysing the proposal, Council is keen to ensure that the development is in accord with the definition of Ecological Sustainable Development and adopts the Precautionary Principle.

Council notes the significant nature of the development and its proposed life of approximately 25 years. As a consequence, any impacts, whether they are immediate or cumulative must be addressed as part of the assessment process.

Council believes the proposal has merit however its ultimate support is contingent upon prior agreement being reached with the Proponent, Whitehaven Coal Limited, on several key issues, including, inter alia:

- a) That the scope and funding of road upgrading works are agreed to with Council prior to any planning consent being granted;
- b) That the safeguards to be included in any planning consent are sufficiently comprehensive and robust to protect Council and landholders situated adjacent to the mine site from adverse environmental, social and economic impacts;
- c) That the operational workforce will be at least 75% 'local' and that the Proponent will support apprenticeships and a housing development program; and
- d) That the Proponent makes a fair and equitable financial contribution to Council reflective of the impacts of the development on local infrastructure and services.

The Submission elaborates on these matters.

Project Plans

The plans of the proposed development contained within the Project Description and Preliminary Environmental Assessment do not clearly illustrate the location of the approved Vickery Coal Project and the proposed Extension Project. The application documentation should clarify the location of the approved Vickery Coal Project and the proposed Extension Project.

Two rail spur lines are identified on the Rail Spur Investigation Corridors plan, with no confirmation as to which line will be utilised. This should be confirmed within the application documentation.

Road Infrastructure

The Project requires realignment of sections of Blue Vale Road and Shannon Harbour Road where they are located within the Extension Project disturbance area. The Blue Vale Road realignment is proposed to be constructed adjacent to the western and southern boundaries of the Vickery State Forest, and around the Eastern Emplacement and Mine Infrastructure Area (MIA) to allow continued public access around the Project. Closure of the southern section of Braymont Road is also proposed which is utilised by local traffic.

Council is the Road Authority for this local road network. Council requires all realignments, adjustments and proposed closures of the public road network in the environs of the project to be completed as part of the construction phase of the project and to be funded by the Proponent and designed and constructed subject to Council's approval. The traffic impact assessment should also provide a detailed analysis of the impact of the proposed road closure on local traffic movements.

Kamilaroi Highway Overpass

The project states that coal will be transported by rail, with the rail spur to be constructed during the first year of the Project. However, Table 1 notes a private haul road and Kamilaroi Highway overpass to be constructed if the combined road transport was to exceed 3.5Mtpa. Council requires clarifications as to the proposed transportation of coal.

Depending on the method of transportation, the application documentation should detail the traffic implications, including intersection works and road designs.

Road Maintenance Agreement

The public roads to be used by the development will vary from those currently covered under the existing Road Maintenance Agreement with Whitehaven Coal Limited. The Agreement would be dependent upon the timing of the construction of the rail spur and on-site CHPP. Consequently, the Road Maintenance Agreement needs to be reviewed and renegotiated prior to any planning consent being issued.

Financial Contributions to Gunnedah Shire Council

The Proponent has expressed a desire to enter in to a Voluntary Planning Agreement (VPA) with the two affected Councils. Council welcomes this interest.

It is highlighted that Council hasn't progressed with the draft VPA for the Vickery Coal Project, with the last correspondence being in August 2015. It is understood that the Vickery Coal Project consent will remain valid and consequently, the VPA for this development must be finalised and will remain active whilst ever the consent remains operative subject to the terms and conditions of the VPA. Consequently, a new VPA will be required to be negotiated for this Vickery Extension Project.

Other Impacts

In addition to the above, the impacts of the proposed development should also address the following:

- Population and Housing – including accommodation impacts
- Workforce and Training – including training programs, workforce supply
- Air Quality Monitoring and involvement with the Regional Quality Monitoring Network
- Environmental impacts on family farms and homes in the vicinity of the mine
- Surface and Groundwater
- Cumulative impacts

If you have any queries regarding the abovementioned matters please don't hesitate to contact the Council's Director Planning & Environment, Mr Michael Silver on (02) 67402100.

Yours faithfully

Michael J Silver
ACTING GENERAL MANAGER

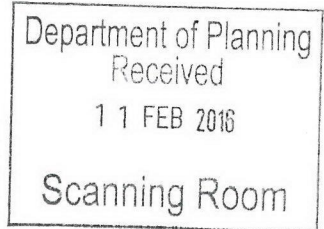
Contact: 67402100
Reference: 934730



Our Reference: ID342162:TM:LF:MR
Your Reference: EARs – SSD7480
Contact Name: Mr Luke Flood
Telephone: (02) 67996852

8 February 2016

Mr Matthew Riley
Senior Planning Officer
Resource Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001



Dear Mr Riley,

Re: Secretary's Environmental Assessment Requirements (SEARs) for Vickery Extension Project (SSD7480)

I refer to your recent email correspondence received by Narrabri Shire Council 29 January 2016 requesting input into the Secretary's Environmental Assessment Requirements (SEARs) for the Vickery Extension Project (SSD 7480).

Council has reviewed the project description and preliminary SEARs and provides the following comments for consideration in the drafting of the SEARs, to be included in the Environmental Impact Statement (EIS), for the proposed development:

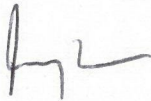
- 1) Likely and potential impacts on Council infrastructure, in particular Council's road network and any consequent need for upgrades or increased maintenance, and how this will be managed and funded.
- 2) Likely and potential impact on underground water supplies specifically, the impact that the proposed increased use of groundwater, as a direct result of the proposal, will have on the Boggabri Bore Town Water Supply. In addition, the cumulative impact that increased groundwater usage will have on underground aquifers specifically, any impact that the proposal will have on the availability of underground water supplies for other users, notably surrounding residential properties and agricultural enterprises. Finally, how the identified impacts will be continually monitored and managed to ensure extraction of underground water is fair and equitable to all users.
- 3) Likely and potential economic and social impacts within the locality and the wider Narrabri Local Government Area specifically, in relation to employment and housing. Council refers to a report prepared by Whitehaven Coal, titled *23rd Annual Leveraged Finance Conference*, specifically page 20, where it is stated "*Whitehaven has a policy of employing locally and over 75% of its employees live in the region around its mines and operations*". To help ensure the future economic stability of the Narrabri Local Government Area and better social outcomes through greater mining related employment opportunities, Narrabri Shire Council would like to see Whitehaven Coal uphold the standards of this policy and their continued commitment to the community.
- 4) Likely and potential impacts of the proposed extension on neighbouring properties and the wider local government area as a result of the impact of dust from mining and related activities.

Narrabri Shire Council requests that Whitehaven Coal implements appropriate dust mitigation procedures and provides continual local and regional dust monitoring and reporting.

- 5) Council requests that the proponent ensures that cultural heritage is assessed and reported on with appropriate sensitivity and regard for the private nature of traditional and cultural sites. The proponent should not only consider the impact of the development on artefacts and specific sites but also on the wider landscape context of those sites.
- 6) Council request that the Environmental Assessment provides a clear and thorough outline of proposed rehabilitation techniques that will be implemented in order that disturbed lands are returned to a state that is equal to that identified prior to commencement of the mining activities, at the completion of the mine life.

Council appreciates being given the opportunity to comment during this stage of the development process and advises that should you require further information about the content of this letter please contact Council's Town Planner, Mr Luke Flood on 02 67996852.

Yours sincerely,



Mr Tony Meppem

DIRECTOR DEVELOPMENT AND ECONOMIC GROWTH



Our Ref: DOC16/52551
Your Ref: SSD_7480

Mr Matthew Riley
Senior Planning Officer
Resource Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Matthew

RE: Vickery Extension Project SSD 7480 request for input into SEARs

We refer to your email dated 28 January 2016 inviting input into the Department of Planning and Environment Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Statement (EIS) for a proposed extension to the Vickery coal project.

The Office of Environment and Heritage (OEH) understands that the proposal involves an increase in ROM coal production from 4.5 Mtpa to 10 Mtpa with an extension of approximately 970 hectares to the open cut mining operations. This includes an extension to the Vickery open cut, creation of the Blue Vale open cut and extension of the western emplacement. A primary mine infrastructure area is proposed to the west of the historic Canyon Mine that would include an on-site coal handling and preparation plant. The approved infrastructure area located to the south of the eastern emplacement would not change its footprint. We understand that construction and operation of train load-out facilities and a rail spur and loop are proposed, with two rail corridor options under investigation – the northern and western corridors. The construction of new dams, channels, dewatering bores and other measures would manage surface and groundwater resources.

OEH has considered your request and provides SEARs for the proposed development in Attachments A, B and C. Guidance material has been provided in Attachment D.

OEH recommends the EIS needs to appropriately address the following if applicable:

1. Biodiversity and offsetting
2. Aboriginal cultural heritage
3. Water and soils
4. Flooding

Please note that the NSW Biodiversity Offsets Policy for Major Projects (<http://www.environment.nsw.gov.au/resources/biodiversity/140672biopolicy.pdf>) is now being implemented. The policy provides a standard method for assessing impacts of major projects on biodiversity and determining offsetting arrangements. The policy is underpinned by the Framework for Biodiversity Assessment (FBA) (<http://www.environment.nsw.gov.au/resources/biodiversity/140675fba.pdf>) which contains the assessment methodology that is adopted by the policy to quantify and describe the impact

assessment requirements and offset guidance that applies to major projects. The FBA must be used by a proponent to assess all biodiversity values on the development site.

OEH notes that vegetation clearance has been listed as a potential impact of the proposal but no detail has been provided. OEH is aware of a number of threatened species and endangered ecological communities listed under the *Threatened Species Conservation Act 1995* that occur within and adjacent to the project site. One such species is *Lepidium monoplocoides* (Winged Peppergrass). We are aware that 420 individuals have been fenced off and are being managed in-perpetuity to the west of the Canyon Coal mine site. The EIS should detail any impacts on this population as a result of the proposed extension project.

The proponent proposed a range of Local Biodiversity Enhancement Measures for the Vickery coal project (SSD_5000) including:

- South Creek/Box-Gum Woodland EEC management area
- Driggle Draggle Creek management area and
- corridor enhancement and plantings

The EIS for the extension project should detail how these biodiversity measures will be included and managed.

Finally we note that condition 34 of the development consent for the Vickery coal project (SSD_5000) requires that:

The Applicant shall make suitable arrangements to provide appropriate long term security of the offset areas:

- (a) by the end of June 2015 unless otherwise agreed by the Secretary, for the Willeroi East Offset Area and Offset Areas 2, 3, 4 and 5...*

OEH requests an update regarding whether an extension of time has been granted by the Secretary, or whether this condition has been fulfilled.

If you have any questions regarding this matter please contact Renee Shepherd, Conservation Planning Officer, at renee.shepherd@environment.nsw.gov.au or 02 6883 5355.

Yours sincerely



LIZ MAZZER
Acting Senior Team Leader Planning
North West Region

Date: 11 February 2016

Contact officer: RENEE SHEPHERD
 02 6883 5355

Enclosure: Attachment A – Standard Environmental Assessment Requirements
 Attachment B – Project Specific Environmental Assessment Requirements
 Attachment C – Species/Populations/Ecological Communities which require further consideration
 Attachment D – Guidance material

Attachment A – Standard Environmental Assessment Requirements

<p>Biodiversity</p>
<p>1. Biodiversity impacts related to the proposed Vickery Extension Project are to be assessed and documented in accordance with the Framework for Biodiversity Assessment, unless otherwise agreed by OEH, by a person accredited in accordance with s142B(1)(c) of the <i>Threatened Species Conservation Act 1995</i>.</p>
<p>Aboriginal cultural heritage</p>
<p>2. The EIS must identify and describe the tangible and intangible Aboriginal cultural heritage values that exist across the whole area that will be affected by the Vickery Extension Project and document these in the EIS. This may include the need for surface survey and test excavation. The identification of cultural heritage values should be guided by the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011) and consultation with OEH regional officers.</p>
<p>3. Where Aboriginal cultural heritage values are identified, consultation with Aboriginal people must be undertaken and documented in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the EIS.</p>
<p>4. Impacts on Aboriginal cultural heritage values are to be assessed and documented in the EIS. The EIS must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment will be documented and notified to OEH.</p>
<p>Water and soils</p>
<p>5. The EIS must map the following features relevant to water and soils including:</p> <ol style="list-style-type: none"> a. Acid sulfate soils (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Planning Map). b. Rivers, streams, wetlands, estuaries (as described in Appendix 2 of the Framework for Biodiversity Assessment). c. Groundwater. d. Groundwater dependent ecosystems. e. Proposed intake and discharge locations.
<p>6. The EIS must describe background conditions for any water resource likely to be affected by the Vickery Extension Project, including:</p> <ol style="list-style-type: none"> a. Existing surface and groundwater. b. Hydrology, including volume, frequency and quality of discharges at proposed intake and discharge locations. c. Water Quality Objectives (as endorsed by the NSW Government http://www.environment.nsw.gov.au/ieo/index.htm) including groundwater as appropriate that represent the community's uses and values for the receiving waters. d. Indicators and trigger values/criteria for the environmental values identified at (c) in accordance with the ANZECC (2000) Guidelines for Fresh and Marine Water Quality and/or local objectives, criteria or targets endorsed by the NSW Government.
<p>7. The EIS must assess the impacts of the Vickery Extension Project on water quality, including:</p>

- a. The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the Vickery Extension Project protects the Water Quality Objectives where they are currently being achieved, and contributes towards achievement of the Water Quality Objectives over time where they are currently not being achieved. This should include an assessment of the mitigating effects of proposed stormwater and wastewater management during and after construction.
- b. Identification of proposed monitoring of water quality.

8. The EIS must assess the impact of the Vickery Extension Project on hydrology, including:
- a. Water balance including quantity, quality and source.
 - b. Effects to downstream rivers, wetlands, estuaries, marine waters and floodplain areas.
 - c. Effects to downstream water-dependent fauna and flora including groundwater dependent ecosystems.
 - d. Impacts to natural processes and functions within rivers, wetlands, estuaries and floodplains that affect river system and landscape health such as nutrient flow, aquatic connectivity and access to habitat for spawning and refuge (eg. river benches).
 - e. Changes to environmental water availability, both regulated/licensed and unregulated/rules-based sources of such water.
 - f. Mitigating effects of proposed stormwater and wastewater management during and after construction on hydrological attributes such as volumes, flow rates, management methods and re-use options.
 - g. Identification of proposed monitoring of hydrological attributes.

Flooding and coastal erosion

9. The EIS must map the following features relevant to flooding as described in the Floodplain Development Manual 2005 (NSW Government 2005) including:
- a. Flood prone land
 - b. Flood planning area, the area below the flood planning level.
 - c. Hydraulic categorisation (floodways and flood storage areas).
10. The EIS must describe flood assessment and modelling undertaken in determining the design flood levels for events, including a minimum of the 1 in 10 year, 1 in 100 year flood levels and the probable maximum flood, or an equivalent extreme event.
11. The EIS must model the effect of the proposed Vickery Extension Project (including fill) on the flood behaviour under the following scenarios:
- a. Current flood behaviour for a range of design events as identified in 8) above. The 1 in 200 and 1 in 500 year flood events as proxies for assessing sensitivity to an increase in rainfall intensity of flood producing rainfall events due to climate change.
12. Modelling in the EIS must consider and document:
- a. The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood.
 - b. Impacts of the development on flood behaviour resulting in detrimental changes in potential flood affection of other developments or land. This may include redirection of flow, flow velocities, flood levels, hazards and hydraulic categories.
 - c. Relevant provisions of the NSW Floodplain Development Manual 2005.

13. The EIS must assess the impacts on the proposed Vickery Extension Project on flood behaviour, including:
 - a. Whether there will be detrimental increases in the potential flood affectation of other properties, assets and infrastructure.
 - b. Consistency with Council floodplain risk management plans.
 - c. Compatibility with the flood hazard of the land.
 - d. Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land.
 - e. Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site.
 - f. Whether there will be direct or indirect increase in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.
 - g. Any impacts the development may have upon existing community emergency management arrangements for flooding. These matters are to be discussed with the SES and Council.
 - h. Whether the proposal incorporates specific measures to manage risk to life from flood.
 - i. Emergency management, evacuation and access, and contingency measures for the development considering the full range of flood risk (based upon the probable maximum flood or an equivalent extreme flood event). These matters are to be discussed with and have the support of Council and the SES.
 - j. Any impacts the development may have on the social and economic costs to the community as consequence of flooding.

Attachment B – Project Specific Environmental Assessment Requirements

<p>Biodiversity</p> <p>A. Impacts on the species/populations/ecological communities listed in Attachment C will require further consideration and provision of the information specified in s9.2 of the Framework for Biodiversity Assessment</p>
<p>Aboriginal cultural heritage</p> <p>B. The assessment of cultural heritage values must include a surface survey undertaken by a qualified archaeologist in areas with potential for subsurface Aboriginal deposits. The result of the surface survey is to inform the need for targeted test excavation to better assess the integrity, extent, distribution, nature and overall significance of the archaeological record. The results of surface surveys and test excavations are to be documented in the EIS.</p> <p>C. The EIS must outline procedures to be followed if Aboriginal objects are found at any stage of the life of the Narrabri Solar Farm to formulate appropriate measures to manage unforeseen impacts.</p> <p>D. The EIS must outline procedures to be followed in the event Aboriginal burials or skeletal material is uncovered during construction to formulate appropriate measures to manage the impacts to this material.</p>
<p>Cumulative Impact</p> <p>E. The cumulative impacts from all clearing activities and operations, associated edge effects and other indirect impacts on cultural heritage, biodiversity and OEH Estate need to be comprehensively assessed in accordance with the <i>Environmental Planning and Assessment Act 1979</i>.</p> <p>This should include the cumulative impact of the Vickery Extension Project and associated infrastructure (such as access tracks, railway corridors, 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.</p>

Attachment C – Species/Populations/Ecological Communities which require further consideration

Class	Scientific Name	Common Name	NSW status	Comm. status
Fauna	<i>Ephippiorhynchus asiaticus</i>	Black-necked Stork	Endangered	
Fauna	<i>Petrogale penicillata</i>	Brush-tailed Rock-wallaby	Endangered	Vulnerable
Fauna	<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat	Vulnerable	Vulnerable
Fauna	<i>Vespadelus troughtoni</i>	Eastern Cave Bat	Vulnerable	
Flora	<i>Tylophora linearis</i>		Vulnerable	Endangered
Flora	<i>Dichanthium setosum</i>	Bluegrass	Vulnerable	Vulnerable
Flora	<i>Digitaria porrecta</i>	Finger Panic Grass	Endangered	
Flora	<i>Homopholis belsonii</i>	Belson's Panic	Endangered	Vulnerable
Flora	<i>Polygala linariifolia</i>	Native Milkwort	Endangered	
Flora	<i>Pomaderris queenslandica</i>	Scant Pomaderris	Endangered	
Flora	<i>Thesium australe</i>	Austral Toadflax	Vulnerable	Vulnerable
Flora	<i>Cadellia pentastylis</i>	Ooline	Vulnerable	Vulnerable
EEC	<i>Brigalow within the Brigalow Belt South, Nandewar and Darling Riverine Plains Bioregions</i>	Brigalow within the Brigalow Belt South, Nandewar and Darling Riverine Plains Bioregions	EEC	Endangered
EEC	<i>Fuzzy Box Woodland on alluvial Soils of the South Western Slopes, Darling Riverine Plains and Brigalow Belt South Bioregions</i>	Fuzzy Box Woodland on alluvial Soils of the South Western Slopes, Darling Riverine Plains and Brigalow Belt South Bioregions	EEC	
EEC	<i>Native Vegetation on Cracking Clay Soils of the Liverpool Plains</i>	Native Vegetation on Cracking Clay Soils of the Liverpool Plains	EEC	CEEC
EEC	<i>White Box Yellow Box Blakely's Red Gum Woodland</i>	White Box Yellow Box Blakely's Red Gum Woodland	EEC	CEEC
EEC	<i>Carbeen Open Forest Community in the Darling Riverine Plans and Brigalow Belt South Bioregions</i>	Carbeen Open Forest Community in the Darling Riverine Plans and Brigalow Belt South Bioregions	EEC	

Attachment D - Guidance material

Title	Web address
<u>Relevant Legislation</u>	
<i>Coastal Protection Act 1979</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+13+1979+cd+0+N
<i>Commonwealth Environment Protection and 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>Marine Parks Act 1997</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+64+1997+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>Protection of the Environment Operations Act 1997</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+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
<i>Wilderness Act 1987</i>	http://www.legislation.nsw.gov.au/viewtop/inforce/act+196+1987+FIRST+0+N
<u>Biodiversity</u>	
NSW Biodiversity Offsets Policy for Major Projects (OEH, 2013)	http://www.environment.nsw.gov.au/biodivoffsets/1480biofpolmp.htm
Framework for Biodiversity Assessment (OEH, 2013)	http://www.environment.nsw.gov.au/biodivoffsets/1480biofpolmp.htm
Fisheries NSW policies and guidelines	http://www.dpi.nsw.gov.au/fisheries/habitat/publications/policies.-guidelines-and-manuals/fish-habitat-conservation
List of national parks	http://www.environment.nsw.gov.au/NationalParks/parksearchatoz.aspx
Revocation, recategorisation and road adjustment policy (OEH, 2012)	http://www.environment.nsw.gov.au/policies/RevocationOfLandPolicy.htm
Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water (DECCW, 2010)	http://www.environment.nsw.gov.au/resources/parks/policyRevocations.pdf
<u>Aboriginal Cultural Heritage</u>	
Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010)	http://www.environment.nsw.gov.au/resources/cultureheritage/comconsultation/09781ACHconsultreq.pdf
Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010)	http://www.environment.nsw.gov.au/resources/cultureheritage/10783FinalArchCoP.pdf

Title	Web address
Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH 2011)	http://www.environment.nsw.gov.au/resources/cultureheritage/20110263ACHguide.pdf
Aboriginal Site Recording Form	http://www.environment.nsw.gov.au/resources/parks/SiteCardMainV1_1.pdf
Aboriginal Site Impact Recording Form	http://www.environment.nsw.gov.au/resources/cultureheritage/120558asirf.pdf
Aboriginal Heritage Information Management System (AHIMS) Registrar	http://www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm
Care Agreement Application form	http://www.environment.nsw.gov.au/resources/cultureheritage/20110914TransferObject.pdf
<u>Water and Soils</u>	
Acid sulphate soils	
Acid Sulfate Soils Planning Maps	http://canri.nsw.gov.au/download/
Acid Sulfate Soils Manual (Stone et al. 1998)	Manual available for purchase from: http://www.landcom.com.au/whats-new/the-blue-book.aspx Chapters 1 and 2 are on DPI's Guidelines Register at: Chapter 1 Acid Sulfate Soils Planning Guidelines: http://www.planning.nsw.gov.au/rdaguidelines/documents/NSW%20Acid%20Sulfate%20Soils%20Planning%20Guidelines.pdf Chapter 2 Acid Sulfate Soils Assessment Guidelines: http://www.planning.nsw.gov.au/rdaguidelines/documents/NSW%20Acid%20Sulfate%20Soils%20Assessment%20Guidelines.pdf
Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al. 2004)	http://www.derm.qld.gov.au/land/ass/pdfs/lmg.pdf This replaces Chapter 4 of the Acid Sulfate Soils Manual above.
Flooding and Coastal Erosion	
Reforms to coastal erosion management	http://www.environment.nsw.gov.au/coasts/coastalerosionmgmt.htm
Floodplain development manual	http://www.dnr.nsw.gov.au/floodplains/manual.shtml
Guidelines for Preparing Coastal Zone Management Plans	Guidelines for Preparing Coastal Zone Management Plans http://www.environment.nsw.gov.au/resources/coasts/101019GdlnsCZMPs.pdf
NSW Climate Impact Profile	NSW Climate Impact Profile
Climate Change Impacts and Risk Management	Climate Change Impacts and Risk Management: A Guide for Business and Government, AGIC Guidelines for Climate Change Adaptation
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	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



Mr Matthew Riley
Senior Planning Officer
Resource Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Riley

**Vickery Extension Project (SSD 7480)
Request for Input into Secretary's Environmental Assessment Requirements**

Thank you for your correspondence dated 12 February 2016 requesting Transport for NSW (TfNSW) to provide input into the Secretary's Environmental Assessment Requirements (SEARs) to be addressed in the Environmental Impact Statement (EIS) for the subject proposal.

Roads and Maritime Services will be submitting a separate response.

TfNSW has reviewed supporting preliminary scoping document and recommends that the assessments and requirements detailed in **TAB A** be included in the SEAR's and addressed in the EIS for the proposed development.

Thank you again for the opportunity of providing advice for the subject proposal. If you require clarification on requirements issue raised, please don't hesitate to contact Edmond Platon, Transport Planner on 8202 2557 or edmond.platon@transport.nsw.gov.au

Yours sincerely

15/2/16

Mark Ozinga
**Manager, Land Use and Transport Planning
Planning and Programs**

CD16/01243

TAB A – SEAR’s

The following assessments requirements should be addressed in the EIS for the proposed Vickery Extension Project.

Environmental Planning Instruments, Policies and Guidelines

Address the relevant provisions, goals and strategic objectives in the following:

- State Environmental Planning Policy (Infrastructure) 2007
- Roads Act 1993
- NSW State Priorities
- NSW Long Term Transport Master Plan (TfNSW 2012)
- NSW Freight and Ports Strategy (TfNSW 2013)
- Guide to Traffic Generating Developments (RTA 2002)
- Rail Infrastructure Noise Guidelines (EPA 2013)
- NSW Industrial Noise Policy (EPA 2000)
- New England North West Regional Transport Plan (TfNSW 2013)
- Construction of New Level Crossing Policy (TfNSW)
- Australian Standards, Austroads Guidelines and RMS Supplements

Project Description

Provide details of the project including:

- Likely staging of the development, including construction and operational stages.
- The resource to be extracted, demonstrating efficient resource recovery within environmental constraints.
- Minerals processing and transport.
- Proposed infrastructure and facilities (including any existing infrastructure or infrastructure that would be required for the development, but the subject of a separate approvals process).
- The proposed interactions between the development and the approved operations at the Vickery Mine.
- The likely interactions between the development and any other existing approved or proposed mining development in the vicinity of the site.

Transport and Accessibility:

Undertake a transport and accessibility assessment, which details:

Rail

- Detailed design and engineering drawings of the proposed rail spur, rail loop and other associated infrastructure, including staging likely works of construction and operation.
- Details of train operating plans, including likely rail routes and destinations, train size and configuration, service frequency, anticipated train path requirements, expected ramp up periods and peak demand.
- Demonstrated engagement with and confirmation from all relevant rail network owners and coal terminals regarding train path availability and future network enhancements which may be required to support the proposed operations and maintain sufficient capacity for other rail network users over the life of the project.

- Detailed assessment of the proposed project on the capacity, efficiency and safety of the rail networks, including level crossings.
- Assessment of the noise impacts of rail and siding operations in line with relevant NSW noise policy and guidelines.

Road

- Accurate predictions of the road traffic generated by the development during construction and operation, including details of transport routes and types of vehicles likely to be used, and expected ramp up period.
- The daily and peak vehicle movements impact on nearby intersections, with consideration of the cumulative impacts from other approved developments in the vicinity, and the need/associated funding for upgrading or road improvement works (if required).
- Details on access to the site from the road network, including intersection location, design and sight distance.
- An assessment of potential traffic impacts on the safety and efficiency of the road network and public transport services, including railway crossings that would be impacted and detail of measures to mitigate any impacts.
- A description and plans of any road upgrades required for the development.
- Detailed plans of the proposed layout of the internal road network and parking on site in accordance with the relevant Australian standards.
- Service vehicle access, delivery and loading arrangements and estimated service vehicle movements (including vehicle type and the likely arrival and departure times), with particular regard to dangerous goods (explosives, fuel and chemicals).
- Traffic and transport impacts during construction and how these impacts will be mitigated for any associated traffic, public transport, road safety, active transport and railway including the preparation of a draft Construction Traffic Management Plan to demonstrate the proposed management of any impact. Active and public transport, access and facilities should be maintained at all times. Should closure of these facilities be required, adequate safety and diversion measures should be put in place to limit time delay and detour distances.
- An assessment of the likely road noise impacts of the development under the *NSW Road Noise Policy*.

Consultation:

Undertake an appropriate level of consultation with Council and State government agencies including:

- Transport for NSW
- NSW Trains
- Roads and Maritime Services
- Australian Rail Track Corporation



File No: NTH11/00158/06
Your Ref: SSD_7480

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

Attention: Matthew Riley – Senior Planning Officer

Dear Sir / Madam,

Secretary's Environmental Assessment Requirements – Vickery Extension Project (SSD_7480)

I refer to your email of 28 January 2016 requesting input to the Secretary's Environmental Assessment Requirements (EARs) for the abovementioned state significant development.

Roles and Responsibilities

The key interests for Roads and Maritime are the safety and efficiency of the road network, traffic management, the integrity of infrastructure assets and the integration of land use and transport.

The Kamilaroi Highway is a classified (state) road. Gunnedah and Narrabri Shire Councils are the 'Roads Authority' for public roads in their respective local government areas pursuant to Section 7 of the *Roads Act 1993*. Roads and Maritime has responsibilities for classified roads in accordance with the Act.

Roads and Maritime is given the opportunity to review and provide comment on the subject development under Clause 16 of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*.

Roads and Maritime Response

It is noted that the proposed development is an extension of the approved Vickery Coal Project (SSD_5000).

The Preliminary Environmental Assessment identifies that the development does not propose to increase the current volume of coal to be transported on public roads but will increase the number of staff and service vehicle movements and will likely have a further impact on the road network due to the proposed rail investigation corridors

Roads and Maritime requests that the Environmental Assessment be supported by a Traffic Impact Assessment (TIA) prepared by a suitably qualified person in accordance with Austroads Guide to Traffic Management Part 12, the complementary Roads and Maritime Supplement and RTA Guide to Traffic Generating Developments. The TIA is to address the following;

- The total impact of existing and proposed development on the road network with consideration for a 10 year horizon.
- The volume and distribution of traffic generated by the proposed development.

- Intersection sight distances at key intersections along the primary haul route.
- Existing and proposed site access standards.
- Details of proposed improvements to affected intersections.
- Impact of rail corridors on the road network and details of proposed interface treatments.
- Details of servicing and parking arrangements.
- Impact on public transport (public and school bus routes) and consideration for alternative transport modes such as walking and cycling.
- Impacts of road traffic noise and dust generated along the primary haul route/s.
- Consideration for Clause 16(1) of the Mining SEPP regarding;
 - Impact on school zones and residential areas.
 - Code of Conduct for haulage operators
 - Road safety assessment of key haulage route/s

Should Council wish to condition the preparation of a Code of Conduct for haulage operators, this could include, but not be limited to;

- a. A map of the primary haulage routes highlighting critical locations.
- b. Safety initiatives for haulage through residential areas and/or school zones.
- c. An induction process for vehicle operators & regular toolbox meetings.
- d. A complaint resolution and disciplinary procedure.
- e. Any community consultation measures for peak haulage periods.

Where road safety concerns are identified at a specific location along the identified haulage route/s, Roads and Maritime suggests that the TIA be supported by a targeted Road Safety Audit undertaken by suitably qualified persons.

The current Austroads Guidelines, Australian Standards and Roads and Maritime Supplements are to be adopted for any proposed works on the classified road network.

The Developer would be required to enter into a 'Works Authorisation Deed' (WAD) with Roads and Maritime for any works deemed necessary on the classified road network. The developer would be responsible for all costs associated with the works and administration for the WAD

Further information on undertaking private developments adjacent to classified roads can be accessed at:

<http://www.rms.nsw.gov.au/projects/planning-principles/index.html>

Advice to the Consent Authority

Roads and Maritime highlights the Consent Authority is responsible for considering the environmental impacts of any road works which are ancillary to the development. This includes any works which form part of the proposal and/or any works deemed necessary to include as requirements in the conditions of development consent.

If you have any further enquiries regarding the above comments please contact Liz Smith, Manager Land Use Assessment on (02) 6640 1362 or via email at: development.northern@rms.nsw.gov.au

Yours faithfully



19 February 2016

for Monica Sirol
Network & Safety Manager, Northern Region

**Assessment Requirements relevant to the
*Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)***

Vickery Extension Project (EPBC 2016/7649) (SSD 7480)

1. On 14 April 2016 it was determined that the Vickery Extension Project would impact upon the following matters of national environmental significance (MNES) protected under the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*:
 - threatened species and communities; and
 - a water resource, in relation to coal seam gas development and large coal mining development.
2. The project will be assessed in accordance with the NSW Assessment Bilateral Agreement (2015) and as such is required to be assessed in the manner specified in Schedule 1 to that Agreement including, addressing the matters outlined in Schedule 4 of the *Environment Protection and Biodiversity Conservation Regulations 2000*. These guidelines do not stand alone but are a supplement to the Environmental Assessment Requirements issued on 19 February 2016 and must be addressed in conjunction with these requirements.
3. The Applicant must undertake an assessment of all the protected matters that may be impacted by the development under the controlling provisions identified in paragraph 1. A list of protected matters that the Department of the Environment considered likely to be significantly impacted is provided at [Attachment A](#) to these requirements. Note that this may not be a complete list and it is the responsibility of the proponent to ensure any protected matters under this controlling provision, likely to be significantly impacted, are assessed for the Commonwealth decision-maker's consideration.

General Requirements

The EIS must address the following issues:

4. the precise location and description of all works to be undertaken (including associated offsite works and infrastructure), structures to be built or elements of the action that may have impacts on matters of national environmental significance (MNES);
5. how the works are to be undertaken and design parameters for those aspects of the structures or elements of the action that may have relevant impacts on MNES;
6. an assessment of the relevant impacts of the action on (i) threatened species and communities and (ii) water resources; including:
 - a description and detailed assessment of the nature and extent of the likely direct, indirect and consequential impacts, including short term and long term relevant impacts;
 - a statement whether any relevant impacts are likely to be known, unpredictable or irreversible; analysis of the significance of the relevant impacts;
 - any technical data and other information used or needed to make a detailed assessment of the relevant impacts; and
 - a comparative description of the impacts of alternatives, if any, on the threatened species and communities.
7. Information on proposed avoidance and mitigation measures to manage the relevant impacts of the action including:
 - a description of the proposed avoidance and mitigation measures to deal with the relevant impacts of the action;
 - assessment of the expected or predicted effectiveness of the mitigation measures;

- the cost of the mitigation measures;
- a description of the outcomes that the avoidance and mitigation measures will achieve; and
- a description of the offsets proposed to address the residual adverse significant impacts and how these offsets will be established.

Key Issues – Biodiversity

8. The EIS must address the following issues in relation to Biodiversity including separate:

- identification of each EPBC Act listed threatened species and community likely to be significantly impacted by the development. Provide evidence why other EPBC Act listed threatened species and communities likely to be located in the project area or in the vicinity will not be significantly impacted. in accordance with the Matters of National Environmental Significance - Significant Impact Guidelines 1.1 Environment Protection and Biodiversity Conservation Act 1999 (Significant Impact Guidelines).

9. For each of the relevant EPBC Act listed threatened species and communities likely to be significantly impacted by the development the EIS must provide a separate:

- description of the habitat and habits (including identification and mapping of suitable breeding habitat, suitable foraging habitat, important populations and habitat critical for survival), with consideration of, and reference to, any relevant Commonwealth guidelines and policy statements including listing advice, conservation advice and recovery plans, threat abatement plans and wildlife conservation plans; and
- details of the scope, timing and methodology for studies or surveys used and how they are consistent with (or justification for divergence from) published Australian Government guidelines and policy statements.
- description of the impacts of the action having regard to the full national extent of the species or community's range.

[Note: the relevant guidelines and policy statements for each species and community are available from the Department of the Environment Species Profiles and Threats Database.<http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>]

10. For each of the relevant EPBC Act listed threatened species and communities likely to be significantly impacted by the development the EIS must provide a separate:

- identification of significant residual adverse impacts likely to occur after the proposed activities to avoid and mitigate all impacts are taken into account.
- details of how the current published NSW Framework for Biodiversity Assessment (FBA) has been applied in accordance with the objects of the EPBC Act to offset significant residual adverse impacts;
- details of the offset package to compensate for significant residual impacts including details of the credit profiles required to offset the development in accordance with the FBA and/or mapping and descriptions of the extent and condition of the relevant habitat and/or threatened communities occurring on proposed offset sites.

[Note: For the purposes of approval under the EPBC Act, it is a requirement that offsets directly contribute to the ongoing viability of the specific protected matter impacted by a proposed action i.e. 'like for like'. In applying the FBA, residual impacts on EPBC Act listed threatened ecological communities must be offset with Plant Community Type(s) (PCT) that are ascribed to the specific EPBC listed ecological community. PCTs from a different vegetation class will not generally be acceptable as offsets for EPBC listed communities.]

11. Any significant residual impacts not addressed by the FBA may need to be addressed in accordance with the Environment Protection and Biodiversity Conservation Act 1999 Environmental Offset Policy. <http://www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy>. [Note if the EPBC

Act Environmental Offset Policy is used to calculate proposed offsets for a threatened species or community you may wish to seek further advice from the Department of Planning and Environment.]

Key Issues – water resources

12. The EIS should provide a description of the location, extent and ecological characteristics and values of the identified water resources potentially affected by the project.
13. The assessment of impacts should include information on:
 - any substantial and measurable changes to the hydrological regime of the water resource, for example a substantial change to the volume, timing, duration or frequency of ground and surface water flows;
 - the habitat or lifecycle of native species, including invertebrate fauna and fish species, dependent upon the water resource being seriously affected; and
 - substantial and measurable change in the water quality and quantity of the water resource—for example, a substantial change in the level of salinity, pollutants, or nutrients in the wetland; or water temperature that may adversely impact on biodiversity, ecological integrity, social amenity or human health.
14. The EIS must provide adequate information to allow the project to be reviewed by the The Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development, as outlined in the *Information Guidelines for Independent Expert Scientific Committee advice on coal seam gas and large coal mining development proposals (2015)*.

Environmental Record of person proposing to take the action

15. The information provided must include details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against the person proposing to take the action; and for an action for which a person has applied for a permit, the person making the application.
16. If the person proposing to take the action is a corporation, details of the corporation's environmental policy and planning framework must also be included.

REFERENCES

1. *Environment Protect and Biodiversity Conservation Act 1999* - section 51-55, section 96A(3)(a)(b), 101A(3)(a)(b), section 136, section 527E
2. *NSW Assessment Bilateral Agreement (2015)* - Item 18.1, Item 18.5, Schedule 1
3. *Matters of National Environmental Significance - Significant impact guidelines 1.1 (2013)* EPBC Act
4. *Environment Protect and Biodiversity Conservation Act 1999* Environmental Offsets Policy (October 2012)
5. *Information Guidelines for Independent Expert Scientific Committee advice on coal seam gas and large coal mining development proposals (IESC, October 2015)*

Attachment A

The Department of the Environment's Environment Reporting Tool (ERT) identifies that 20 listed threatened species and 5 listed ecological communities may occur within 5 km of the proposed action. Based on the information in the referral documentation, the location of the action, species records and likely habitat present in the area, the Department of the Environment considers that there are likely to be significant impacts to:

- *Regent Honeyeater (Anthochaera phrygia) – Critically Endangered*
- *Swift Parrot (Lathamus discolor) – Endangered*
Koala (Phascolarctos cinereus) – Vulnerable

The Department of the Environment considers there is some risk that there may be significant impacts on the matters listed below. In the circumstance that the proponent considers that these species and communities are not likely to be significantly impacted, this must be supported by evidential-based information and in accordance with the *Matters of National Environmental Significance: Significant Impact Guidelines 1.1* (Dept of the Environment, 2013).

- *Corben's Long-eared Bat (Nyctophilus corbeni) – Vulnerable*
- *Large-eared Pied Bat, Large Pied Bat (Chalinolobus dwyeri) – Vulnerable*
- *Murray cod (Maccullochella peelii) – Vulnerable*
- *Weeping Myall Woodlands – Endangered*
- *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland – Critically Endangered*