Attachment 1

Secretary's Environmental Assessment Requirements

Peabody ENERGY

Resource Assessments

Contact: Brendan Liew
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23-33 Bridge Street
SYDNEY NSW 2000

Mr Jamie Lees
Director Sustainable Development
Peabody Energy Australia
100 Melbourne Street
SOUTH BRISBANE QLD 4101

Dear Mr Lees

State Significant Development - Secretary's Requirements
Wilpinjong Extension Project (SSD 6764)

I have attached the Secretary's requirements for the preparation of an Environmental Impact Statement (EIS) for the Wilpinjong Extension Project.

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

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

Your proposal may require separate approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Please confirm whether such an approval is required as soon as possible. If an EPBC Act approval is required, then the Commonwealth approval process is likely to be integrated with the NSW approval process under the current assessment bilateral, and the Department will need to issue supplementary requirements for the project.

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

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

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

Yours sincerely

DKitto 9/12/14

David Kitto
Acting Executive Director
Resource Assessments
as the Secretary's delegate

Secretary's Environmental Assessment Requirements

State Significant Development

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

Application Number	SSD 6764
Proposal	The Wilpinjong Extension Project, which includes: • extending open cut mining operations beyond the footprint of existing open cut pits with an additional pit in the Slate Gully area; • increasing output of product coal to a maximum of 13 million tonnes per annum (Mtpa) coal for up to 28 years; • utilising existing associated infrastructure to support mining operations; • transporting product coal from the site by rail; and • progressively rehabilitating the site.
Location	Approximately 45 kilometres north-east of Mudgee
Applicant	Wilpinjong Coal Pty Ltd
Date of Issue	9 December 2014
General Requirements	The Environmental Impact Statement (EIS) for the development must comply with the requirements in Clauses 6 and 7 of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000.* In particular, the EIS must include: • a full description of the development, including: – 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, rejects, tailings, etc.) management strategy having regard to the EPA's requirements (see Attachment 2); – a water management strategy, having regard to the EPA's and DPI's, requirements (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 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: – a description of the existing environment likely to be affected by the development, using sufficient baseline data; – an assessment of the likely impacts of all stages of the development, including any cumulative impacts, taking into consideration any relevant laws, environmental planning instruments, guidelines, policies, plans and industry codes of practice; – a description of the measures that would be implemented to mitigate and/or offset the likely impacts of the development, and an assessment of: o whether these measures are consistent with industry best practice, and represent the full range of reasonable and feasible mitigation measures that could be implemented; o the likely effectiveness of these measures, including

	performance measures where relevant; and ○ 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 *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007);* and • the reasons why the development should be approved having regard to biophysical, economic and social considerations. 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 developments, including the principles of ecologically sustainable development.. In addition to the matters set out in Schedule 1 of the *Environmental Planning and Assessment Regulation 2000*, the development application must be accompanied by a signed report from a suitably qualified and experienced person that includes an accurate estimate of the: • capital investment value (as defined in Clause 3 of the *Environmental Planning and Assessment Regulation 2000*) of the development, including details of all the assumptions and components from which the capital investment value calculation is derived; and • jobs that would be created during each stage of the development.
Specific Issues	The EIS must address the following specific issues: • **Noise** – including: - an assessment of the likely operational noise impacts of the development (including construction noise) the *NSW Industrial Noise Policy*, paying particular attention to the obligations in chapters 8 and 9 of the policy; - if a claim is made for specific construction noise criteria for certain activities, then this claim must be justified and accompanied by an assessment of the likely construction noise impacts of these activities under the *Interim Construction Noise Guideline*; - an assessment of the likely road noise impacts of the development under the *NSW Road Noise Policy*; and - an assessment of the likely rail noise impacts of the development under the *Rail Infrastructure Noise Guideline*; • **Air** – including: - an assessment of the likely air quality impacts of the development, in accordance with the *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW* and having regard to the EPA's additional requirements (see Attachment 2); and - an assessment of the likely greenhouse gas impacts of the development, having regard to the EPA's requirements (see Attachment 2); • **Water** – including: - 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 OEH's, EPA's and DPI's requirements (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 likely flooding impacts of the development;

	• **Biodiversity** – including: - an assessment of the likely biodiversity impacts of the development, having regard to the OEH's requirements (see Attachment 2); - a comprehensive offset strategy to ensure the development maintains or improves the biodiversity values of the region in the medium to long term; • **Heritage** – including an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the development, having regard to the OEH's requirements (see Attachment 2); • **Transport** – including: - a detailed investigation of the potential options for securing access to the NSW rail network, including the potential to share infrastructure with other mines in the region, and the relative costs and benefits of each of these options; and - an assessment of the likely transport impacts of the development on the capacity, condition, safety and efficiency of the local and State road and rail network, having regard to the RMS's and Mid-Western Regional Council's requirements (see Attachment 2); • **Land** – including: - an assessment of the likely impacts of the development on the soils and land capability of the site and surrounds, and having regard to the EPA's, DRE's and DPI's requirements (see Attachment 2); - an assessment of the likely agricultural impacts of the development; - an assessment of the likely impact of the development on landforms (topography), including: o cliffs, rock formations and steep slopes; and o 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 *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007,* paying particular attention to the agricultural, viticultural and equine industry land uses in the region; • **Visual** – including an assessment of the likely visual impacts of the development on private landowners in the vicinity of the development, key vantage points in the public domain, paying particular attention to the creation of any new landforms (bunds, etc.), and minimising the lighting impacts of the development; • **Public Safety** – 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; • **Social & Economic** – including: - an assessment of the likely social impacts of the development; and - an assessment of the likely economic impacts of the development, paying particular attention to: o the significance of the resource; o economic costs and benefits of the project; and o the demand for the provision of local infrastructure and services, having regard to Mid-Western Region Council's requirements (see Attachment 2).
Consultation	During the preparation of the EIS, you must consult with relevant local, State or Commonwealth Government authorities, infrastructure and 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.

ATTACHMENT 1

Environmental Planning Instruments, Policies, Guidelines & Plans

Noise	
	NSW Industrial Noise Policy (EPA)
	Interim Construction Noise Guideline (EPA)
	NSW Road Noise Policy (EPA)
	Rail Infrastructure Noise Guideline (EPA)
	Voluntary Land Acquisition and Mitigation Policy: For State Significant Mining, Petroleum and Extractive Industry Developments (NSW Government)
Air	
	Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW (EPA)
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (EPA)
	Coal Mine Particulate Matter Control Best Practice – Site Specific Determination Guideline (EPA)
	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)
	National Greenhouse Accounts Factors (Commonwealth)
	Voluntary Land Acquisition and Mitigation Policy: For State Significant Mining, Petroleum and Extractive Industry Developments (NSW Government)
Water	
Water Sharing Plans	Hunter Unregulated and Alluvial Water Sources 2009
	Hunter Regulated River Water Source 2003
Groundwater	NSW State Groundwater Policy Framework Document (NOW)
	NSW State Groundwater Quality Protection Policy (NOW)
	NSW State Groundwater Quantity Management Policy (NOW)
	NSW Aquifer Interference Policy 2012 (NOW)
	Australian Groundwater Modelling Guidelines 2012 (Commonwealth)
	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC)
	Guidelines for the Assessment & Management of Groundwater Contamination (EPA)
Surface Water	Hunter River Salinity Trading Scheme (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	
	NSW Biodiversity Offset Policy for Major Projects (OEH)
	Environmental Offsets Policy (Commonwealth DoE)
	NSW State Groundwater Dependent Ecosystem Policy (NOW)
	Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW)
	State Environmental Planning Policy No. 44 – Koala Habitat Protection
Heritage	
	The Burra Charter (The Australia ICOMOS charter for places of cultural significance)
	Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation (DP&E)
	Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (OEH)
	Code of Practice for Archaeological Investigations of Objects in NSW (OEH)
	Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (OEH)
	NSW Heritage Manual (OEH)
	Statements of Heritage Impact (OEH)
Transport	
	Guide to Traffic Generating Development (RTA)
	Road Design Guide (RMS) & relevant Austroads Standards
Land	
	Agfact AC25: Agricultural Land Classification (NSW Agriculture)
	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)
Public Safety	
	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
	Hazardous and Offensive Development Application Guidelines – Applying SEPP 33
	Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis
Resource	
	Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 (JORC)
Waste	
	Waste Classification Guidelines (DECC)
Rehabilitation	
	Mine Rehabilitation – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth)
	Mine Closure and Completion – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth)
	Strategic Framework for Mine Closure (ANZMEC-MCA)

Environmental Planning Instruments - General
State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007
State Environmental Planning Policy (State and Regional Development) 2011
State Environmental Planning Policy (Infrastructure) 2007
Mid-Western Regional Local Environmental Plan 2012

ATTACHMENT 2

AGENCIES' CORRESPONDENCE

NSW EPA

Your reference :
Our reference : EF133856/ & DOC14/259697-01
Contact : Ms Sheridan Ledger (02) 6332 7608

Mr Brendan Liew
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

13 November 2014

Dear Mr Liew

REQUEST FOR SEARS – WILPINJONG EXTENSION PROJECT (SSD 6764)

I refer to your email of 3 November 2014 requesting the Environment Protection Authority (EPA) provide Secretary's Environmental Assessment Requirements (SEARs) for the proposed "Wilpinjong Extension Project" (SSD 6764) ("the Project").

Environmental Assessment

Based on the Preliminary Environmental Assessment (PEA), the EPA requires that impacts related to the following environmental issues need to be assessed, quantified and reported on:

- Air Quality;
- Noise and vibration;
- Water quantity and quality (surface and groundwater), including the requirement for offsite discharges of excess water;
- Waste management (waste rock, sewage, chemical waste, general solid and putrescibles waste);
- Soils and contamination; and
- Offsite impacts from the relocation, replacement and/or addition of power lines and roads.

The EPA requires the Environmental Impact Statement (EIS) prepared for the Project to address the specific requirements outlined in Attachment 1 under each heading provided and assess impacts in accordance with the relevant guidelines mentioned.

A full list of relevant guidelines is at Attachment 2.

It is the EPA's expectation that a copy of these SEARs will be provided to the proponent for the Project.

Licensing requirements

On the basis of the information submitted, the proposal is a scheduled activity, being "Mining for Coal" under the *Protection of the Environment Operations Act 1997* (POEO Act) and if approval is granted, Wilpinjong Coal Mine ("the Mine") will be required to submit a section 58 licence variation application to alter the existing environment protection licence (licence) for the Mine.

PO Box 1388 Bathurst NSW 2795
Level 2, 203 – 209 Russell Street Bathurst NSW 2795
Tel: (02) 6332 7600 Fax: (02) 6332 7630
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As such, the EIS should also 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 conditions for the licence.

Should you have any enquiries regarding this matter, please contact me at the Bathurst office of the EPA on (02) 6332 7608.

Yours sincerely

DARRYL CLIFT
Head Central West Unit
Environment Protection Authority

Attachment 1 – Wilpinjong Extension Project – EPA Secretary's Environmental

Description of proposal and premises

The Proposal

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

- the size and type of the operation;
- the nature of the processes and the products, by-products and wastes produced;
- the use or disposal of products;
- the anticipated level of performance in meeting required environmental standards and cleaner production principles;
- the staging and timing of the proposal; and
- the proposal's relationship to any other industry or facility.

The Premises

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

- the location of the proposed facility and details of the surrounding environment including the affected environment to place the proposal in its local and regional environmental context. This should include surrounding land uses, planning zonings, potential sensitive receptors, catchments and adjoining sensitive areas, surface and sub-surface areas, features of conservation significance and environmental sensitivity (associated maps to be included);
- the proposed layout of the site(associated maps to be included); ;
- ownership details of any residence and/or land likely to be affected by the proposed facility;
- maps/diagrams showing the location of residences and properties likely to be affected and other industrial developments, conservation areas, wetlands, etc in the locality that may be affected by the facility;
- all equipment proposed for use at the site;
- chemicals, including fuel, used on the site and proposed methods for their transportation, storage, use and emergency management;
- waste generation and disposal;
- methods to mitigate any expected environmental impacts of the development; and
- site rehabilitation following termination of the development.

Site Layout

The EIS should:

1. Provide maps, at an appropriate scale, which clearly identifies the proposed site layout relevant to environmental features such as drainage lines, terrain etc, over the life of the Project.
2. Provide maps which show land ownership information, the proposed site layout and impact assessment information at an appropriate scale.

Assessment of the environmental impacts of the project

The potential environmental impacts related to the following environmental issues need to be assessed, quantified and reported on. It should be noted that the following requirements apply to all aspects of the Project, which may include offsite works, including but not necessarily limited to, the relocation of infrastructure eg roads, railway crossings and lines, electricity transmission lines and services, and the establishment of access roads to the Project site.

Air Quality

The goal should be to maintain existing rural air quality and protect sensitive receptors, both on and off site from adverse impacts of dust and odour and other relevant air pollutants. Background ambient air levels should be identified to inform the assessment.

Dust is of primary concern with potential emissions from general mining activities, onsite roads, conveyors, transfer points, loading facilities, coal stockpiles, overburden emplacements etc.

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

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 heath and amenity.

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

3. Describe the receiving environment in detail. The proposal must be contextualised within the receiving environment (local, regional and inter-regional as appropriate). The description must include but need not be limited to:
    a. meteorology and climate – a minimum of 12 months data obtained from the meteorological station located at the Mine must be provided ;
    b. topography;
    c. surrounding land-use; receptors; and
    d. ambient air quality.

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. Include a detailed process diagram/flowchart of the proposal specifying all air inputs, air outputs and air discharge points.

5. Identification and location of all fixed and mobile sources of dust/air emissions from the development, including rehabilitation, needs to be provided. The location of all emission sources should be clearly marked on a plan for key years of the mine development. The EIS needs to identify all pollutants of concern and estimate emissions by quantity (and size of particles), source(s) and discharge point(s).

    Note: emissions can be classed as either:
    a. point (eg emissions from stack or vent), or
    b. fugitive (from wind erosion, leakages or spillages, associated with loading or unloading, crushing/screening, conveyors, storage facilities, plant and yard operation, vehicle movements [dust from road, exhausts, loss from load], land clearing and construction works).

Fugitive emissions include coal dust emissions and leaks and spills of coal during rail transport to port facilities (as influenced by management methods and procedures employed by the proposal).

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

   This assessment should include the following parameters:
   a. dust deposition;
   b. total suspended particles;
   c. PM_{10} and $PM_{2.5}$ particulate matter.

7. Demonstrate the projects ability to comply with the relevant regulatory framework, specifically the *Protection of the Environment Operations Act 1997* and the *Protection of the Environment Operations (Clean Air) Regulation 2002*.

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

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

   a. All emission control techniques/practices must be benchmarked against best practice process design and emission control. For coal mines this must be assessed by applying the procedure outlined in in *Coal Mine Particulate Matter Control Best Practice - Site-specific determination guideline* (November 2011). http://www.environment.nsw.gov.au/resources/air/20110813coalmineparticulate.pdf

   b. Nominated controls must be explicitly linked to calculated emission reductions adopted in the air quality impact assessment emissions inventory, with all assumptions documented and justified.

10. Detail emission control techniques/practices that will be employed by the proposal, including the development of real-time monitoring/management procedures, response (adverse weather) trigger levels and predictive meteorological monitoring/modelling for dust management.

11. Assess the potential for spontaneous combustion of coal stockpiles, and any other stockpiles, and provide the management measures that will be implemented should it be determined that there is a propensity for combustion of stockpiled materials.

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

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

Noise and Vibration

Potential impacts on the noise amenity of the surrounding area should be assessed in accordance with the NSW Government's Industrial Noise Policy (INP) and other relevant guidelines mentioned below, accounting for all noise sources associated with the project. In particular, seasonality assessments are to be undertaken to assess the impact of temperature inversions and wind conditions.

A noise and vibration impact assessment for both construction and operational scenarios should be undertaken as part of the EIS. The assessment should consider the issues outlined below, and identify noise mitigation measures to be implemented to meet project specific noise levels developed for the proposal.

The noise assessment must include (but not be limited to) an assessment of the C-weighted noise (low frequency) as well as A-weighted noise.

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

General

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

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

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

5. If blasting is required for any reasons during the construction or operational stage of the proposed development, blast impacts should be demonstrated to be capable of complying with the guidelines contained in *Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration* (ANZEC, 1990). http://www.environment.nsw.gov.au/noise/blasting.htm

Road

6. Noise on public roads from increased road traffic generated by land use developments should be assessed using the *NSW Road Noise Policy* (DECCW, 2011). http://www.environment.nsw.gov.au/noise/traffic.htm

7. Noise from new or upgraded public roads should be assessed using the *NSW Road Noise Policy* (DECCW, 2011). http://www.environment.nsw.gov.au/noise/traffic.htm

Rail

8. Noise from new or upgraded railways (other than railways on private premises) should be assessed using the *Interim Guideline for the Assessment of Noise from Rail Infrastructure Projects* (DECC, 2007). http://www.environment.nsw.gov.au/noise/railinfranoise.htm

9. Noise from increased rail traffic on the NSW Rail Network resulting from rail traffic generating development (e.g. an extractive industry) should be assessed using the *Environmental assessment*

requirements for rail traffic-generating developments available at http://www.environment.nsw.gov.au/noise/railnoise.htm

10. The EIS needs to clearly document the ownership arrangements of the rail line from the development to the public system managed by ARTC or Rail Corp.
11. Noise from new or upgraded railways (other than railways on private premises) should be assessed using the *Rail Infrastructure Noise Guideline* (EPA, 2013). http://www.environment.nsw.gov.au/noise/railnoise.htm

12. Noise from increased rail traffic on the NSW Rail Network resulting from rail traffic generating development (e.g. an extractive industry) should be assessed using the guidance in Appendix 2 of the *Rail Infrastructure Noise Guideline* available at http://www.environment.nsw.gov.au/noise/railnoise.htm

13. Describe the noise monitoring system in detail, including the development and implementation of a monitoring program that:

    - uses a combination of predictive meteorological forecasting and real-time noise monitoring, supplemented with attended monitoring measures to evaluate the performance of the mine complex;
    - adequately supports the proactive and reactive noise management system on site;
    - includes a protocol for determining exceedances of the conditions imposed on the project;
    - evaluates and reports on the effectiveness of the noise management system on site;
    - provides for the annual validation of the noise model for the mine complex.

14. Describe the system that will be implemented to enable the community to access up-to-date information regarding the proposed blasting schedule.

Waste

The EIS should identify all wastes to be generated by all aspects of the project and identify procedures for the handling and management of all wastes produced. The handling of rejects, tailings and overburden material are important aspects for consideration.

The EIS should:

1. Identify, characterise and classify all waste that will be generated onsite through excavation, demolition or construction activities, including proposed quantities of the waste.

2. Demonstrate how waste will be managed in accordance with the waste hierarchy, established under the *Waste Avoidance and Resource Recovery Act 2001*, which aims to that ensures that resource management options are considered against the following priorities:

    - *Avoidance* including action to reduce the amount of waste generated by households, industry and all levels of government

    - *Resource* recovery including reuse, recycling, reprocessing and energy recovery, consistent with the most efficient use of the recovered resources

- *Disposal* including management of all disposal options in the most environmentally responsible manner.

3. Include a detailed plan for in-situ classification of waste material, including the sampling locations and sampling regime that will be employed to classify the waste, particularly with regards to the identification of contamination hotspots in accordance with the EPA's *Waste Classification Guidelines.*

4. Provide details of the quantity and type of both liquid and non-liquid waste generated, handled, processed or disposed of at the premises. Wastes must be classified according to the Waste Classification Guidelines (DECC 2008).

5. Details of procedures for the assessment, handling, storage, transport and disposal of all hazardous waste used, stored, processed or disposed of at the site, in addition to the requirements for liquid and non-liquid wastes.

6. 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. All waste must be classified in accordance with *EPA's Waste Classification Guidelines.*

7. Provide, where relevant, the methods which will be utilised to ensure compliance with any approved Resource Recovery General Exemption for the offsite disposal of waste either generated onsite and disposed of offsite, or received from offsite and disposed of onsite. Resource Recovery General Exemptions may only be utilised where the waste is land applied for use as fuel of a waste material is a genuine, fit for purpose, reuse of the waste rather than another path to waste disposal.

8. Identify the management and disposal methods for recovered fines from the CHPP, including actions to prevent potential impacts to groundwater, surface water or any other environmental aspect which may occur as a result of the management technique utilised. All waste must be classified in accordance with *EPA's Waste Classification Guidelines.*

9. Assess the potential for acid mine drainage from acid forming materials and identify the management /mitigation measures which will utilised should PAF material be identified.

10. 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 spontaneous combustion.
- 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) Provide details of waste rock emplacement areas with particular attention to:

- The quantity of waste rock likely to be generated;
- Proposed strategies for the handling, reuse/recycling and disposal of waste rock;
- Identification of the history of the waste rock and whether there is any likelihood of contaminated material or material that has a propensity to combust, and if so, measures for the management of any contaminated material or material that has a propensity to combust; and
- Designation of transport routes for the transport of waste rock.

Chemicals and Hazardous Materials

The EIS should:

1. Provide details of the types and quantity of any chemical substances, including but not necessarily limited to, hydrocarbons (oils and fuels), hazardous or dangerous materials (eg explosives etc) to be used or stored onsite.

2. Provide details of procedures for the assessment, handling, storage, transport and disposal of all chemical substances, hazardous or dangerous materials used, stored, processed or disposed of at the site, in addition to the requirements for liquid and non-liquid wastes.

3. Outline pollution control measures relating to storage of wastes, materials, possibility of accidental spills (eg. Preparation of contingency plans), appropriate disposal methods and management of contaminated stormwater.

Soils

The EIS should include:

1. An assessment of potential impacts on soil and land resources should be undertaken, being guided by *Soil and Landscape Issues in Environmental Impact Assessment* (DLWC 2000). The nature and extent of any significant impacts should be identified. Particular attention should be given to:

    - 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).
    - Urban and regional salinity – guidance given in the Local Government Salinity Initiative booklets which includes *Site Investigations for Urban Salinity* (DLWC, 2002).

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

3. Where required, add any specific assessment requirements relevant to the Project.

Water

The environmental outcomes of the project in relation to water should be:

- There is no pollution of waters (including surface and groundwater); and

- Polluted water (including process/tailings waters, wash down waters, polluted stormwater or sewerage) is captured onsite and collected, treated and beneficially reused, where safe and practical to do so.

The EIS should document the measures that will achieve the above outcomes in the construction, operation and post operations phases of the project. Construction activities will need to demonstrate best practice sediment and erosion control and management in accordance with the reference document *Managing Urban Stormwater: Soils and Construction (NSW Landcom)*

The EIS should:

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

2. Describe any drainage lines, creeks lines etc that will be impacted by the project.

3. Provide a water balance for the including water requirements (quantity, quality and source(s)) and proposed storm and wastewater disposal, including type, volumes, proposed treatment and management methods and re-use options.

4. Describe the Project including position of any intakes and discharges, volumes, water quality and frequency of all water discharges (e.g. surface water discharge to a river/creek, groundwater, irrigation of waste water etc).

5. Assess the nature and degree of impact that any proposed discharges may have on the receiving environment. Assessment for discharge to surface waters should be guided by *Using the ANZECC Guidelines and Water Quality Objectives in NSW* (DEC, 2006) using local Water Quality Objectives determined from the *NSW Water Quality and River Flow Objectives* (DEC, 2006). 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. Where the proponent intends to undertake the assessment using site-specific water quality trigger values, detail the water quality of a reference site that has been selected based on the site-specific considerations outlined in ANZECC (2000).

7. Identify potential impacts on watercourses and the management/mitigation measures that will be implemented where mining activities occur in proximity to or within a watercourse.

8. Identify whether any discharge, or the location of the Project, will cause erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.

9. If the discharge requires treatment prior to disposal, any treatment measures should be described and the predicted water quality outcomes documented. Include a detailed process diagram/flowchart of the proposal specifying all water inputs, outputs and discharge points

10. Demonstrate that all practical options to avoid discharge have been investigated and implemented and outline measures that have been taken to reduce the pollutant load of the discharge so that the environmental impact is minimised where a discharge is necessary.

11. Describe how stormwater will be managed both during and after construction including a layout of the proposed stormwater system in accordance with *Managing Urban Stormwater, Soils and Construction – Volume 1* (Landcom, 2004) and *Volumes 2A to 2E* (DECC, 2008), The EIS should:

    - Provide the proposed general location of all water management structures. These should be clearly indicated on appropriately scaled maps.
    - Demonstrate how clean, dirty and contaminated water will be managed (separated) on site throughout the life of the Project.
    - Provide detailed water management strategies for all disturbance areas including the management of channel and overland flows into and within the disturbance area.
    - Provide the proposed sizing of all water storage dams, sediment dams and other dams as required and justification for the sizing utilised.
    - Identify contingency measure which may be implemented during extreme rainfall events.

12. Where the management of sediment basins requires the use of flocculants the EIS should include information about the type, toxicity and management of flocculants proposed to treat captured water before discharge.

13. 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.

14. State the indicators and associated trigger values or criteria for the identified environmental values. This information should be sourced from the ANZECC (2000) Guidelines for Fresh and Marine Water Quality (http://www.mincos.gov.au/publications/australian_and_new_zealand_guidelines_for_fresh_and_marine_water_quality).

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

16. Assess impacts on groundwater and groundwater dependent ecosystems. The assessment should be guided by the principles in *The NSW State Groundwater Policy Framework Document* (DLWC,1997). *Assessment and Management of Groundwater Contamination* (DEC, 2007) provides guidance on assessing and managing groundwater contamination. Assess impacts against relevant water quality guidelines for:
    - potentially impacted environmental values and beneficial uses using local Water Quality Objectives;
    - contamination, such as investigation levels specified in *National Environment Protection Measure Guideline on the Investigation Levels for Soil and Groundwater* (EPHC, 1999).

17. Provide plans for any proposed relocation/realignment of all creeks and/or drainage lines including design, timelines and completion criteria and sufficient evidence to demonstrate that the proposed plans are achievable/sustainable, reasonable and feasible in the short and the long term.

18. Assess any irrigation areas proposed for wastewaters produced in accordance with the EPA Guideline "The Use of Effluent by Irrigation".

19. Describe how predicted impacts on surface water, groundwater and aquatic ecosystems will be monitored and assessed over time, including monitoring locations, relevant parameters, and sampling frequency. The EIS should:

- Include a Trigger Action Response Plan, or similar response management plan, to identify appropriate trigger values and criteria and provide appropriate response actions if impacts are identified through the monitoring program.
- Identify the process for identifying any trends in the monitoring data obtained.

Note: Water quality monitoring should be undertaken in accordance with the *Approved Methods for the Sampling and Analysis of Water Pollutant in NSW* (DEC, 2004). *Groundwater Sampling and Analysis: Field Guide* (Geosciences Australia, 2009) provides guidance on the design of a groundwater sampling program.

Monitoring, Assurance and Reporting Programs

1. The EIS should include a detailed assessment of any noise, air quality, water quality or waste monitoring required during the construction phase and on-going operation of the facility to prevent or minimise any adverse environmental impacts from the development.

2. Appropriate baseline data requirements are to be identified as part of the EIS, to form the basis for baseline and ongoing monitoring of environmental parameters.

3. It must be demonstrated that the proposed methods for baseline and subsequent monitoring are scientifically robust and statistically sound.

4. The EIS must also identify and describe monitoring programs, compliance assurance programs and reporting requirements and arrangements that will demonstrate the effectiveness of proposed management measures in meeting applicable requirements.

5. The EIS must, in addition to outlining proposed programs, clearly identify what is to be monitored and audited and why. This should include identification of monitoring locations, parameters to be monitored, sample analysis methods, the level of reporting proposed. The EIS should also include information on frequency and type of audits proposed to assure compliance with applicable requirements,

6. The EIS should demonstrate monitoring and audit programs must be designed appropriately, according to best practice, to provide objective evidence regarding activities associated with the development and have regard to whether these activities are adversely impacting on the environment in the short, medium and/or long term.

Cumulative impacts

The EIS should provide an assessment of the cumulative impacts of the project during construction and operation of the proposal with regard to noise, air quality, water quality or waste Assessment of cumulative impacts must consider past, current and future activities in the area surrounding the project, impacts associated with internal components of this project (where relevant – e.g. a project involving construction throughout a precinct or similar), as well as the construction impacts of any projects recently completed.

Attachment 2 – Guidance Material

Title	Web address
	Relevant Legislation
Environmental Planning and Assessment Act 1979	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
Fisheries Management Act 1994	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N
National Parks and Wildlife Act 1974	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
Protection of the Environment Operations Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N
Threatened Species Conservation Act 1995	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+101+1995+cd+0+N
Water Management Act 2000	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
	Licensing
DECCW Guide to Licensing	www.environment.nsw.gov.au/licensing/licenceguide.htm
	Air Issues
Air Quality	
Approved methods for modelling and assessment of air pollutants in NSW (2005)	http://www.environment.nsw.gov.au/resources/air/ammodelling05361.pdf
POEO (Clean Air) Regulation 2010	http://www.legislation.nsw.gov.au/maintop/view/inforce/subordleg+428+2010+cd+0+N
	Noise and Vibration
Interim Construction Noise Guideline (DECC, 2009)	http://www.environment.nsw.gov.au/noise/constructnoise.htm
Assessing Vibration: a technical guideline (DEC, 2006)	http://www.environment.nsw.gov.au/noise/vibrationguide.htm
Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration (ANZEC, 1990)	http://www.environment.nsw.gov.au/noise/blasting.htm
Industrial Noise Policy Application Notes	http://www.environment.nsw.gov.au/noise/traffic.htm
Environmental Criteria for Road Traffic Noise (EPA, 1999)	http://www.environment.nsw.gov.au/noise/traffic.htm
Interim Guideline for the Assessment of Noise from Rail Infrastructure Projects (DECC, 2007)	http://www.environment.nsw.gov.au/noise/railinfranoise.htm
Environmental assessment requirements	http://www.environment.nsw.gov.au/noise/railnoise.htm

Title	Web address
for rail traffic-generating developments	

Waste, Chemicals and Hazardous Materials and Radiation

Waste

Environmental Guidelines: Solid Waste Landfills (EPA, 1996)	http://www.environment.nsw.gov.au/resources/waste/envguidlns/solidlandfill.pdf
Draft Environmental Guidelines - Industrial Waste Landfilling (April 1998)	http://www.environment.nsw.gov.au/resources/waste/envguidlns/industrialfill.pdf
Waste Classification Guidelines (DECC, 2008)	http://www.environment.nsw.gov.au/waste/envguidlns/index.htm
DECCW Resource recovery exemption	http://www.environment.nsw.gov.au/waste/RRecoveryExemptions.htm

Water and Soils

Acid sulphate soils

Acid Sulfate Soils Planning Maps	http://canri.nsw.gov.au/download/ Manual available for purchase from: http://www.landcom.com.au/whats-new/the-blue-book.aspx Chapters 1 and 2 are on DoP'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:
Acid Sulfate Soils Manual (Stone et al. 1998)	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.

Contaminated Sites Assessment and Remediation

Managing land contamination: Planning Guidelines – SEPP 55 Remediation of Land	http://www.planning.nsw.gov.au/DevelopmentAssessments/RegisterofDevelopmentAssessmentGuidelines/tabid/207/language/en-US/Default.aspx
Guidelines for Consultants Reporting on Contaminated Sites (EPA, 2000)	http://www.environment.nsw.gov.au/resources/clm/97104consultantsglines.pdf
Guidelines for the NSW Site Auditor Scheme - 2nd edition (DEC, 2006)	http://www.environment.nsw.gov.au/resources/clm/auditorglines06121.pdf
Sampling Design Guidelines (EPA, 1995)	Available by request from DECCW's Environment Line
National Environment Protection (Assessment of Site Contamination) Measure 1999 (or update)	http://www.ephc.gov.au/taxonomy/term/44

Title	Web address
Soils – general	
Soil and Landscape Issues in Environmental Impact Assessment (DLWC 2000)	http://www.dnr.nsw.gov.au/care/soil/soil_pubs/pdfs/tech_rep_34_new.pdf
Managing urban stormwater: soils and construction, vol. 1 (Landcom 2004) and vol. 2 (A. Installation of services; B Waste landfills; C. Unsealed roads; D. Main Roads; E. Mines and quarries) (DECC 2008)	Vol 1 - Available for purchase at http://www.landcom.com.au/whats-new/publications-reports/the-blue-book.aspx Vol 2 - http://www.environment.nsw.gov.au/stormwater/publications.htm
Landslide risk management guidelines	http://www.australiangeomechanics.org/resources/downloads/
Site Investigations for Urban Salinity (DLWC, 2002)	http://www.environment.nsw.gov.au/resources/salinity/booklet3siteinvestigationsforurbansalinity.pdf
Local Government Salinity Initiative Booklets	http://www.environment.nsw.gov.au/salinity/solutions/urban.htm
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	http://www.mincos.gov.au/publications/australian_and_new_zealand_guidelines_for_fresh_and_marine_water_quality
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf

From:	Wayne Jones
To:	Brendan Liew
Subject:	Wilpinjong Extension Project [SSD_6764] SEARs
Date:	Tuesday, 25 November 2014 2:04:11 PM

Hi Brendan

Please see following draft DPI response to above project. Formal letter should follow shortly.

Regards
Wayne

OUT14/38888

Mr Brendan Liew
Mining Projects
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Brendan.Liew@planning.nsw.gov.au

Dear Mr Liew,

Wilpinjong Extension Project [SSD_6764]
Request for input into Secretary's Environmental Assessment Requirements

I refer to your email dated 3 November 2014 to the Department of Primary Industries in respect to the above matter.

Comment by NSW Office of Water

The NSW Office of Water (Office of Water) has reviewed the supporting documentation accompanying the request for Secretary's Environmental Assessment Requirements (SEARs) and provides the following comments below, and further detail in **Attachment A**.

It is recommended that the EIS be required to include:

- Details of water proposed to be taken (including through inflow and seepage) from each surface and groundwater source as defined by the relevant water sharing plan, for the proposed extension.
- 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 proposed extension. Confirmation that water can be sourced from an appropriately authorised and reliable supply. This is to include an assessment of the current market depth where water entitlement is required to be purchased.
- A detailed and consolidated site water balance.
- A detailed assessment against the NSW Aquifer Interference Policy (2012) using the NSW Office of 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.
- Proposed surface and groundwater monitoring activities and methodologies.
- Proposed management and disposal of produced or incidental water.
- Details surrounding 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) 6701 9652 or at christie.jackson@water.nsw.gov.au.

Comment by Agriculture NSW

A land and soil assessment is requested to assess the impact of this extension on land that is cleared and may have some agricultural potential. An Agricultural Impact Statement (AIS) is not required due to the area of cleared land involved, and the level of agricultural production that may be being conducted from this area. It is noted that the site also has no biophysical strategic agricultural land on the site, nor in the nearby area.

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

Attachment A

Wilpinjong Extension Project [SSD_6764]
Request for Input into Secretary's Environmental Assessment Requirements
Additional Comment by NSW Office of Water

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

For further information visit the NSW Office of Water website, www.water.nsw.gov.au

Key Relevant Legislative Instruments

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

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

Water Management Act 2000 (WMA 2000)

Key points:

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

Water Act 1912 (WA 1912)
Key points:

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

Water Management (General) Regulation 2011
Key points:

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

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

Access Licence Dealing Principles Order 2004

Harvestable Rights Orders

Water Sharing Plans

The proposal is located within the area covered by the **Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2009**. 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.

Please note any water take from the Hard Rock Aquifers would be licenced under the *Water Act 1912*.

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 State Groundwater Policy Framework Document (1997)
- NSW State Groundwater Quality Protection Policy (1998)
- NSW State Groundwater Dependent Ecosystems Policy (2002)
- NSW Water Extraction Monitoring Policy (2007)
- 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)

Office of 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:

- 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 the Office of Water by submitting a "Form A" template. The Office of 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. t 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)

The Environmental Impact Statement report should 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.

End Attachment A

Regards
Wayne

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

NSW GOVERNMENT Resources & Energy

OUT14/38638

Mr Brendan Liew
Planning Officer
Mining Projects
Department of Planning & Environment
GPO Box 39
SYDNEY 2001

Email: brendan.liew@planning.nsw.gov.au

Dear Mr Liew

Wilpinjong Extension Project
Secretary's Environmental Requirements (SSD 6764)

I refer to your email of 3 November 2014 requesting comments from NSW Trade & Investment, Regional Infrastructure & Services, Division of Resources & Energy (DRE) and suggestions of issues for the inclusions in the Secretary's Environment Assessment Requirements in the preparation of an Environmental Impact Statement (EIS) for the proposed Wilpinjong Extension Project.

DRE has reviewed the preliminary environmental assessment report for this proposal and provides the following comments which are directed at specific areas of DRE's responsibility.

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

For mining purposes as prescribed by the 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).

The proponent must demonstrate that the proposal has sufficient title over the project area to satisfy the requirements of section 380AA of the *Mining Act 1992*.

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.*

Where a proposal includes Crown Land the proponent is required to comply with the *Commonwealth Native Title Act 1993* and undertake the right to negotiate process for the Crown Lands within the area of its mining lease application area(s) if proof of extinguishment cannot be determined.

PROJECT DESCRIPTION

So that the project and its environmental interactions can 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 project.

RESOURCE AND RESERVE STATEMENT

The EIS is to include a resource/reserve statement that has been prepared in accordance with the current version of the Joint Ore Reserve Committee Code (JORC code) to a minimum of Indicated Resource level of confidence. It is preferred that at least some of the resource estimate is to a higher confidence level (measured/ proved/ probable). The statement must include resource and reserve estimates for each coal seam proposed to be mined. The statement must include the coal quality parameters for each seam including product specifications and yields.

DRE understands that it may not be feasible to convert the majority of an Inferred Resource to Indicated (or higher) level of confidence, however, the proponent needs to demonstrate that there are sufficient resources to support the majority of the initial life of mine production schedule. Any contribution from Inferred Resource(s) to the schedule needs to be justified.

LIFE OF MINE PRODUCTION SCHEDULE

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

- details of run-of-mine coal and waste rock tonnage planned to be extracted for each year and for the life of the project, and an estimate of the saleable product produced for each year and the life of the project;
- in terms of text, plans or charts, an EIS must clearly show the proposed extent and sequence of the development and;
- an estimate of which market segment that product tonnes would be sold into e.g. export/domestic thermal/metallurgical coal.

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

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 the progressive final rehabilitation schedule. Primarily the final rehabilitation schedule should be mapped against key production milestones (i.e. ROM tonnes) before being equated to indicative timeframes throughout the mine life.
- Coal crushing and handling, washery rejects handling and disposal management activities
- Infrastructure facilities and storage requirements
- Surface and groundwater 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 of current rehabilitation techniques and performance against meeting the proposed rehabilitation objectives and completion criteria
- An assessment of the potential 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.
- 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.
    - 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(s).

REHABILITATION AND MINE CLOSURE

DRE'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) are 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; 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.

Should you have any enquires regarding this matter please contact Vince Fallico, Project Officer, Industry Coordination on 8281 7340.

Yours sincerely

ADRIAN DELANY
A/DIRECTOR INDUSTRY COORDINATION

21.11.14

Office of Environment & Heritage

Your reference:	SSD 6764
Our reference:	DOC14/259901-01
Contact:	Terry Mazzer 02 6883 5302
Date:	18 November 2014

Brendan Liew
Planning Officer
NSW Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Liew

RE: SEARs for Wilpinjong Extension Project (SSD 6764)

I refer to your e-mail dated 3 November 2014 seeking input into the Department of Planning and Environment Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Assessment (EIS) for the Wilpinjong Extension Project (SSD 6764).

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

OEH recommends the EIS needs to appropriately address the following:

1. Biodiversity and offsetting
2. Proximity to NPWS managed land, particularly Munghorn Gap Nature Reserve
3. Aboriginal cultural heritage
4. Water and soils
5. Flooding
6. Cumulative Impact

OEH notes that there are a number of Endangered Ecological Communities, Endangered Populations and threatened species potentially affected by the development, and that there is high potential that Aboriginal cultural heritage items will also be present.

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.

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If you have any questions regarding this matter further please contact Terry Mazzer on 02 6883 5302.

Yours sincerely,

SONYA ARDILL
Senior Team Leader Planning
North West Region

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

Biodiversity
1. Biodiversity impacts related to the proposed Wilpinjong 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 *Threatened Species Conservation Act 1995.*
Aboriginal cultural heritage
2. The EIS must identify and describe the tangible and intangible Aboriginal cultural heritage values that exist across the whole area that will be affected by the Wilpinjong 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.
3. Where Aboriginal cultural heritage values are identified, consultation with Aboriginal people must be undertaken and documented in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the EIS.
4. Impacts on Aboriginal cultural heritage values are to be assessed and documented in the EIS. The EIS must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment will be documented and notified to OEH.
Water and soils
5. The EIS must map the following features relevant to water and soils including: a. Acid sulfate soils (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Planning Map). b. Rivers, streams, wetlands, estuaries (as described in Appendix 2 of the Framework for Biodiversity Assessment). c. Groundwater. d. Groundwater dependent ecosystems. e. Proposed intake and discharge locations.
6. The EIS must describe background conditions for any water resource likely to be affected by the Wilpinjong Extension Project , including: a. Existing surface and groundwater. b. Hydrology, including volume, frequency and quality of discharges at proposed intake and discharge locations. c. Water Quality Objectives (as endorsed by the NSW Government http://www.environment.nsw.gov.au/ieo/index.htm) including groundwater as appropriate that represent the community's uses and values for the receiving waters. d. Indicators and trigger values/criteria for the environmental values identified at (c) in accordance with the ANZECC (2000) Gudielines for Fresh and Marine Water Quality and/or local objectives, criteria or targets endorsed by the NSW Government.

7. The EIS must assess the impacts of the Wilpinjong Extension Project on water quality, including:
   a. The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the Wilpinjong 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 Wilpinjong 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

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 Wilpinjong 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 Wilpinjong 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 or flood risk (based upon the probable maximum flood or an equivalent extreme flood event). These matters are to be discussed with and have the support of Council and the SES. j. Any impacts the development may have on the social and economic costs to the community as consequence of flooding.

Attachment B – Project Specific Environmental Assessment Requirements

Biodiversity

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

B. The EIS must identify:
   a. In the case of a project that adjoins, is in the immediate vicinity of a park or upstream, the assessment of impacts must address the matters to be considered outlined in the *Guidelines for developments adjoining land and water managed by DECCW* (DECCW 2010) and include:
      i. The nature of the impacts, including direct and indirect impacts.
      ii. The extent of the direct and indirect impacts.
      iii. The duration of the direct and indirect impacts.
      iv. The objectives of the reservation of the land.
   b. Measures proposed to prevent, control, abate, minimise and manage the direct and indirect impacts including an evaluation of the effectiveness and reliability of the proposed measures.
   c. Residual impacts.

Aboriginal cultural heritage

C. In relation to Standard Requirement 1, the Proponent must consider any intangible cultural values that have been documented for the broader Wilpinjong, Moolarben and Ulan coal precinct and whether those values are potentially at threat from the proposed extension.

Cumulative Impact

D. 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 *Environmental Planning and Assessment Act 1979.*

   This should include the cumulative impact of the proponent's existing and proposed development and associated infrastructure (such as access tracks etc) as well as the cumulative impact of other developments located in the vicinity such as Moolarben Coal Project, including the effect on habitat connectivity in the area. This assessment should include consideration of both construction and operational impacts.

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

Class	Scientific Name	Common Name	NSW status	Comm. status
EEC	*Fuzzy Box Woodland on alluvial Soils of the South Western Slopes, Darling Riverine Plains and Brigalow Belt South Bioregions*	Fuzzy Box Woodland on alluvial Soils of the South Western Slopes, Darling Riverine Plains and Brigalow Belt South Bioregions	E3	
EEC	*Hunter Floodplain Red Gum Woodland in the NSW North Coast and Sydney Basin Bioregions*	Hunter Floodplain Red Gum Woodland in the NSW North Coast and Sydney Basin Bioregions	E3	
EEC	*Hunter Valley Weeping Myall Woodland of the Sydney Basin Bioregion*	Hunter Valley Weeping Myall Woodland of the Sydney Basin Bioregion	E3	CE
EEC	*White Box Yellow Box Blakely's Red Gum Woodland*	White Box Yellow Box Blakely's Red Gum Woodland	E3	CE
Flora (Endangered Population)	*Acacia pendula*	Acacia pendula population in the Hunter catchment	E2	
Flora (Endangered Population)	*Eucalyptus camaldulensis*	Eucalyptus camaldulensis population in the Hunter catchment	E2	
Flora (Endangered Population)	*Cymbidium canaliculatum*	Cymbidium canaliculatum population in the Hunter Catchment	E2,P,2	
Amphibia	*Mixophyes iteratus*	Giant Barred Frog	E1,P,2	E
Aves	*Lophoictinia isura*	Square-tailed Kite	V,P,3	
Aves	*Anthochaera phrygia*	Regent Honeyeater	E4A,P	E
Flora	*Ozothamnus tesselatus*		V,P	V
Flora	*Acacia ausfeldii*	Ausfeld's Wattle	V,P	
Flora	*Eucalyptus cannonii*	Capertee Stringybark	V,P	
Flora	*Homoranthus darwinioides*		V,P	V
Flora	*Diurus tricolor*	Pine Donkey Orchid	V,P,2	

Flora	*Prasophyllum sp. Wybong*		P	CE

Attachment D – Guidance material

Title	Web address
Relevant Legislation	
Coastal Protection Act 1979	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+13+1979+cd+0+N
Commonwealth Environment Protection and Biodiversity Conservation Act 1999	http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
Environmental Planning and Assessment Act 1979	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
Fisheries Management Act 1994	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N
Marine Parks Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+64+1997+cd+0+N
National Parks and Wildlife Act 1974	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
Protection of the Environment Operations Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N
Threatened Species Conservation Act 1995	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+101+1995+cd+0+N
Water Management Act 2000	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
Wilderness Act 1987	http://www.legislation.nsw.gov.au/viewtop/inforce/act+196+1987+FIRST+0+N
Biodiversity	
NSW Biodiversity Offsets Policy for Major Projects (OEH, 2013)	http://www.environment.nsw.gov.au/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
Aboriginal Cultural Heritage	
Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010)	http://www.environment.nsw.gov.au/resources/cultureheritage/commconsultation/09781ACHconsultreq.pdf
Code of Practice for the Archaeological	http://www.environment.nsw.gov.au/resources/cultureheritage/107

Title	Web address
Investigation of Aboriginal Objects in New South Wales (DECCW, 2010)	83FinalArchCoP.pdf
Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH 2011)	http://www.environment.nsw.gov.au/resources/cultureheritage/20110263ACHguide.pdf
Aboriginal Site Recording Form	http://www.environment.nsw.gov.au/resources/parks/SiteCardMainV1_1.pdf
Aboriginal Site Impact Recording Form	http://www.environment.nsw.gov.au/resources/cultureheritage/120558asirf.pdf
Aboriginal Heritage Information Management System (AHIMS) Registrar	http://www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm
Care Agreement Application form	http://www.environment.nsw.gov.au/resources/cultureheritage/20110914TransferObject.pdf
Water and Soils	
Acid sulphate soils	
Acid Sulfate Soils Planning Maps	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

Title	Web address
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf

Transport
Roads & Maritime
Services

WST07/00118/05

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

Attention: Mr Brendan Liew

Dear Mr Liew

SSD6764: Wilpinjong Extension Project;
Request for input into Secretary's Environmental Requirements (SEARs)

Thank you for your email on 3 November 2014 requesting input into SEARs for the Wilpinjong Extension Project from Roads and Maritime Services.

The Project Summary and Preliminary Environmental Assessment have been reviewed and it is noted that the proposal includes the following:

- Extension to the approved life of mine from 21 years to 28 years (ending 2034).
- Increase coal production rate from 27.5 million tonnes per annum to 28.6 million tonnes per annum.
- Increase operational work force from 550 personnel to 625 personnel (peak), plus contract staff (up to 100 personnel).
- Coal will continue to be transported from the site by rail. Existing daily average of 6 trains (maximum of 10) transporting coal from the site will be maintained.
- Relocation/realignment of existing electricity lines and Ulan-Wollar Road to accommodate proposed expanded mining operations.

Roads and Maritime has identified and provides the following key issues which need to be addressed in the Environmental Impact Assessment:

- A traffic impact study prepared in accordance with the methodology set out in Section 2 of the *RTA's Guide to Traffic Generating Developments* and including:
    - Hours and days of construction and operation for each stage of the project and how proposed operations will interact with other road users including all modes and local, regional and mine related traffic.

Roads and Maritime Services

51 - 55 Currajong Street Parkes NSW 2870
PO Box 334 Parkes NSW 2870
www.rms.nsw.gov.au | 13 17 82

- Road and rail transport volumes and types broken down into origin and destination, travel routes and peak hours for the construction, operation and decommissioning of the project. The study shall provide details of projected transport operations including volumes of traffic and tonnage to be transported. Volumes should also include mine input related traffic generation (e.g. fuel deliveries, potable water deliveries, maintenance, services) and impacts of mine related traffic generation on public roads.
- An assessment of cumulative impacts during construction and operation of the project. In particular, the cumulative impacts of project related traffic and traffic generated by existing operations at Wilpinjong, Moolarben and Ulan Coal Mines and background regional and local traffic.
- Any over size and over mass vehicles and loads expected for the construction, operation and decommissioning of the project. The shortest and least trafficked route should be given priority for the movement of construction materials and machinery to minimise the risk and impact to other motorists so far as is reasonably practicable.
- Temporary and permanent staff numbers (including employees *and* contractors) and staff parking arrangements during construction, operation and decommissioning of the project. Modes and volumes of transportation of mining staff (including contractors) to and from the site, details of measures proposed to minimise staff commuter traffic on the local and classified road network and measures to improve commuter safety shall also be included.
- The impact of generated traffic and measures employed to ensure efficiency and safety on the public road network during construction, operation and decommissioning of the project.
- Any mitigating measures required to address expected traffic generation.

- Proposed access treatments shall be identified and be in accordance with *Austroads Guide to Road Design* and Roads and Maritime Supplements including safe intersection sight distance.
- Details of road and electrical infrastructure realignments and confirmation that new work will achieve minimum vertical and horizontal clearances.
- Preliminary information states that the applicant will be seeking removal of annual limits of coal transportation by rail and instead request a daily maximum limit consistent with existing operations (maximum 10/average of 6 trains per day). Roads and Maritime assumes that this will allow for an increase in annual train movements to and the site. The applicant needs to clarify their reasoning for this request and, should Roads and Maritime's assumption be correct, provide an assessment of the impact of additional train movements on the local and classified road network including expected additional delays to road traffic.

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

Should you require further information please contact Andrew McIntyre on (02) 6861 1453.

Yours faithfully

Susie Mackay
Network & Safety Manager
Western
18/11/14

PO BOX 156
MUDGEE NSW 2850

86 Market Street MUDGEE
109 Herbert Street GULGONG
77 Louee Street RYLSTONE

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A0420169

20 November 2014

Department of Planning & Environment
Attn: Brendan Liew
GPO Box 39
SYDNEY NSW 2001

Dear Mr Liew

WILPINJONG EXTENSION PROJECT – (SSD 6764)

I refer to the above proposal for which Council has been invited to provide input into the Secretary's Environmental Assessment Requirements (SEARs). As previously discussed, Council has been provided with an extension until Thursday 20 November to provide its comments into the proposal.

TRAFFIC AND TRANSPORT

Council requests that a detailed analysis should be carried out on the impact of all traffic movements (type and frequency) that are anticipated both during the construction phase of the extensions and the ongoing operation of the mine. This should include commuter traffic and transport of equipment and materials.

A road dilapidation report should also be prepared assessing the condition of the road prior to the commencement of construction and again after extension works are completed. Council will also be seeking assurances that any damage to the road caused as a result of increased vehicle movements associated with the construction and operation of the mine will be funded by the developer and not Council.

In addition, an assessment should be undertaken on the potential impact on the road network including increased traffic on Ulan Road.

Any relocated/reconstructed sections of Ulan-Wollar road should be required to be sealed and constructed to the relevant AustRoads Standards.

NOISE

The SEAR's should include a requirement that independent modelling be undertaken by NSW Environmental Protection Authority (EPA) and that suitable mitigation measures be identified to ensure that the mine has minimal impact on the village of Wollar and any sensitive noise receptors in the locality.

FLORA AND FAUNA

Council is concerned regarding the proposed extensions into areas directly adjacent to Munghorn Gap Nature Reserve. The Flora and Fauna Assessment will need to address whether there is any additional impact on the Nature Reserve and include mitigation measures and alternative actions for any impacts identified. Council is unlikely to support any further vegetation removal as there is a lack of similar habitat in the area which limits the potential for the provision of any offset vegetation areas.

GROUND AND SURFACE WATER

Council has no specific requirements regarding impact on surface and ground water as these issues should be addressed in the requirements provided by NSW Office of Water and the EPA.

AIR QUALITY

There have been a number of concerns raised from residents in the locality regarding the adequacy of the current measures used to mitigate impacts from coal dust.

The SEARs should include a requirement that independent monitoring be undertaken by the EPA and revised mitigation measures be implemented to reduce the impact of the proposed extensions.

SPONTANEOUS COMBUSTION

Due to previous issues with spontaneous combustion and the adverse impact this has on air quality, Council requests that the SEARs include a requirement for a test-work programme to be undertaken to ascertain the risks associated with the proposal and include mitigation measures to prevent and reduce the impacts from such events.

CUMULATIVE IMPACTS

The numerous modifications over the years have had a significant impact on the village of Wollar and a significant reduction in the number of residents. Wilpinjong has purchased a significant amount of land in the area to provide buffers zones around the mine and reduce the number of sensitive receivers. Council requests that the cumulative impact on all remaining sensitive receptors is adequately addressed to protect the amenity of residents in the locality.

Should you have any queries in relation to this matter please contact Catherine Van Laeren on (02) 6378 2850.

Yours faithfully

CATHERINE VAN LAEREN
DIRECTOR - DEVELOPMENT

NSW RURAL FIRE SERVICE

PCU057073

Director General
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Your reference: SSD 6764
Our reference: S14/0030
DA14110494500 KV
19 November 2014

Attention: Brendan Liew

Dear Sir/Madam

Part 3A Development for Wilpinjong Extension Project

I refer to your letter dated 03 November 2014 seeking comments regarding bush fire protection for the above Part 3A Development in accordance with section 75F (4) of the *Environmental Planning and Assessment Act 1979.*

The NSW Rural Fire Service (NSW RFS) notes that the proposal seeks to extend Wilpinjong Coal Mine including both physical extensions to the mine footprint to gain access to additional ROM coal reserves and an extension to the approved life of the mine.

The following comments regarding bush fire protection are provided:

- Any future construction or relocation of infrastructure and supporting facilities located within 100 metres from bush fire prone vegetation retained on site or off site needs to consider the bush fire risk posed by the unmanaged vegetation and address the provision of adequate bush fire protection measures including Asset Protection Zones (APZs) to minimise the risk in accordance with *Planning for Bush Fire Protection 2006.*

- The preparation or updating of a Bush Fire Risk Management and Emergency/Evacuation Plan is recommended for the subject site. The emergency/evacuation plan shall include the proposed extension to the existing mine and relocation/rehabilitation of vegetation and shall be consistent with the NSW Rural Fire Service document *Guidelines for the Preparation of Emergency/Evacuation plan*.

For any queries regarding this correspondence please contact Kalpana Varghese on 1300 NSW RFS.

Yours sincerely

Catherine Ryland
Team Leader, Development Assessment and Planning
Customer Service Centre East

Postal address
NSW Rural Fire Service
Locked Bag 17
GRANVILLE NSW 2142

Street address
NSW Rural Fire Service
15 Carter Street
LIDCOMBE NSW 2141

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Guidelines for preparing Assessment Documentation relevant to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

These Guidelines are intended to inform the development of Assessment Documentation for projects assessed under an assessment bilateral agreement. If a separate chapter is not provided in the Assessment Documentation, the Table at Attachment 1 detailing where the information is located must be completed.

References:

- *Environment Protect and Biodiversity Conservation Act 1999* - section 51-55, section 96A(3)(a)(b), 101A(3)(a)(b), section 136, section 527E;
- Environment Protect and Biodiversity Conservation Regulations 2000 - Division 3.2, 3.02(a)(b)(ii)(iii), Division 5.2, Schedule 4;
- Bilateral Agreements - Item 18.1, Item 18.5, Schedule 1; and
- Policy - *Environment Protect and Biodiversity Conservation Act 1999* Environmental Offsets Policy October 2012

1 BACKGROUND AND DESCRIPTION OF THE ACTION

The Assessment Documentation must provide background to the action and describe in detail all components of the action for example (but not limited to), the construction, operation and (if relevant) decommissioning components of the action. This must include the precise location 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).

The description of the action must also include details on how the works are to be undertaken (including stages of development and their timing) and design parameters for those aspects of the structures or elements of the action that may have relevant impacts.

The Assessment Documentation must include how the action relates to any other actions (of which the proponent should reasonably be aware) that have been, or are being, taken or that have been approved in the region affected by the action.

The Assessment Documentation must also provide details on the current status of the action, alternatives to the action, as well as the consequences of not proceeding with the action.

2 THE ENVIRONMENT INCLUDING MNES

The Assessment Documentation must include a description of the environment and management practices of the proposal site and the surrounding areas and other areas that may be affected by the action. Include all relevant MNES protected by controlling provisions of Part 3 of the EPBC Act (see Attachment 2 for MNES specific to the project):

(a) A description of the World Heritage values of the World Heritage property relevant to the action.

    a. Including Outstanding Universal Value, relevant plans

(b) A description of the National Heritage values of the National Heritage Place relevant to the action.

a. Including any relevant plans

(c) A description of the ecological character of the Ramsar Wetland relevant to the action.

a. Including any relevant plans

(d) Listed threatened species and communities (including suitable habitat) that are or are likely to be present in the vicinity of the site, including the following details:

i. Details of the scope, timing/effort (survey season/s) and methodology for studies or surveys used to provide information on the listed species/community/habitat at the site (and in areas that may be impacted by the project). Include details of:

- best practice survey guidelines are applied; and
- how they are consistent with (or a justification for divergence from) published Australian Government guidelines and policy statements.

ii. Include any relevant plans/agreements

(e) Listed migratory species (including suitable habitat) that are or are likely to be present in the vicinity of the site, including the following details:

i. Details of the scope, timing/effort (survey season/s) and methodology for studies or surveys used to provide information on the listed species/habitat at the site (and in areas that may be impacted by the project). Include details of:

a. best practice survey guidelines are applied;

b. how these are consistent with (or a justification for divergence from) published Australian Government guidelines and policy statements.

ii. Include any relevant plans/agreements

(f) A description of the environment relevant to the nuclear action.

(g) A description of the Great Barrier Reef Marine Park environment relevant to the action.

a. Including Outstanding Universal Value

(h) A description of the water resource environment relevant to the coal seam gas development or large coal mining development.

a. Refer to the Independent Expert Scientific Committee's (IESC) Information Guidelines for Proposals Relating to the Development of Coal Seam Gas and Large Coal Mines where there is a Significant Impact on Water Resources, available at http://www.iesc.environment.gov.au/publications/information-guidelines-independent-expert-scientific-committee-advice-coal-seam-gas

b. Note: Advice will be requested from the IESC in regards to the proposal.

(i) A description of the environment relevant for part of the Commonwealth Marine (for actions outside the Commonwealth marine area that may impact the environment in the Commonwealth marine area).

a. Note: whole of the environment must be considered –refer to the Significant Impact Guidelines 1.2 – Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies.

(j) A description of the environment relevant for Commonwealth Land (for actions outside Commonwealth Land that may impact on the environment on Commonwealth Land).

a. Note: whole of the environment must be considered –refer to the Significant Impact Guidelines 1.2 – Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies.

3 IMPACTS

(a) The Assessment Documentation must include a description of all of the relevant impacts of the action on MNES (identified in Section 2). Impacts during the construction, operational and (if relevant) the decommissioning phases of the project must be addressed, and the following information provided:

i. a description of the relevant impacts of the action;

ii. a detailed analysis of the nature and extent of the likely direct, indirect and consequential impacts relevant to MNES, including likely short-term and long-term impacts – refer to the Significant Impact Guidelines 1.1 - Matters of National Environmental Significance for guidance on the various types of impact that need to be considered;

iii. a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible;

iv. any technical data and other information used or needed to make a detailed assessment of the relevant impacts;

v. an explanation of how Indigenous stakeholders' views of the action's impacts to biodiversity and cultural heritage have been sought and considered in the assessment. Including where relevant, how guidelines published by the Commonwealth in relation to consulting with Indigenous peoples for proposed actions that are under assessment have been considered and applied; and

vi. where the proposal is a coal seam gas development or large coal mining development and likely to significantly impact on a water resource – refer to the IESC's Information Guidelines for Proposals Relating to the Development of Coal Seam Gas and Large Coal Mines where there is a Significant Impact on Water Resources, available at http://www.iesc.environment.gov.au/publications/information-guidelines-independent-expert-scientific-committee-advice-coal-seam-gas

(b) The Assessment Documentation should identify and address cumulative impacts, where potential project impacts are in addition to existing impacts of other activities (including known potential future expansions or developments by the proponent and other proponents in the region and vicinity).

(c) The Assessment Documentation should also provide a detailed assessment of any likely impact that this proposed action may facilitate on the relevant MNES at the local, regional, state and national scale.

4 AVOIDANCE AND MITIGATION MEASURES / ALTERNATIVES

Avoidance and Mitigation Measures

The Assessment Documentation must provide information on all proposed avoidance and mitigation measures to manage the relevant impacts of the action on MNES.

The Assessment Documentation also must take into account relevant agreements and plans that cover impacts on MNES including but not limited to:

- any recovery plan, conservation advice for the species or community;
- any threat abatement plan for a process that threatens the species;
- any wildlife conservation plan for the species;
- any management plan for a Ramsar wetland;
- any management plan for a World Heritage property and National Heritage place;
- any Marine Bioregional Plans;
- any Strategic Assessment;
- Outstanding Universal Value; and
- the IESC Information Guidelines for Proposals Relating to the Development of Coal Seam Gas and Large Coal Mines where there is a Significant Impact on Water Resources available at http://www.iesc.environment.gov.au/publications/information-guidelines-independent-expert-scientific-committee-advice-coal-seam-gas

The Assessment Documentation must include, and substantiate, specific and detailed descriptions of the proposed avoidance and mitigation measures, based on best available practices and must include the following elements:

(a) A consolidated list of avoidance and mitigation measures proposed to be undertaken to prevent or minimise for the relevant impacts of the action on MNES, including:

i. a description of proposed avoidance and mitigation measures to deal with relevant impacts of the action, including mitigation measures proposed to be taken by State/Territory governments, local governments or the proponent;

ii. assessment of the expected or predicted effectiveness of the mitigation measures, including the scale and intensity of impacts of the proposed action and the on-ground benefits to be gained through each of these measures;

iii. a description of the outcomes that the avoidance and mitigation measures will achieve;

iv. any statutory or policy basis for the mitigation measures; and

v. the cost of the mitigation measures.

(b) A detailed outline of a plan for the continuing management, mitigation and monitoring of relevant MNES impacts of the action, including a description of the outcomes that will be achieved and any provisions for independent environmental auditing.

Where appropriate, each project phase (construction, operation, decommission) must be addressed separately. It must state the environmental outcomes, performance criteria, monitoring, reporting, corrective action, contingencies, responsibility and timing for each environmental issue.

(c) the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program.

Alternatives

The Assessment Documentation must include any feasible alternatives to the action to the extent reasonably practicable, including:

(a) if relevant, the alternative of taking no action;

(b) a comparative description of the impacts of each alternative on the triggered MNES protected by controlling provisions of Part 3 of the EPBC Act for the action; and

(c) sufficient detail to make clear why any alternative is preferred to another.

Short, medium and long-term advantages and disadvantages of the options must be discussed.

5 RESIDUAL IMPACTS / OFFSETS

The Assessment Documentation must provide details of:

(a) the likely residual impacts on MNES that are likely to occur after the proposed activities to avoid and mitigate all impacts are taken into account.

i. Include the reasons why avoidance or mitigation of impacts is not reasonably achieved; and

ii. Identify the significant residual impacts on MNES.

Offset Package (if relevant)

The Assessment Documentation must include details of an offset package proposed to be implemented to compensate for the residual significant impact of the project, as well as an analysis about how the offset meets the requirements in the Department's *Environment Protect and Biodiversity Conservation Act 1999* Environmental Offsets Policy October 2012 (EPBC Act Offset Policy), or an endorsed state offsets policy (see www.environment.gov.au/protection/environment-assessments/bilateral-agreements/condition-setting-assessment). .

The offset package can comprise a combination of direct offsets and other compensatory measures, so long as it meets the requirements of the EPBC Act Offset Policy, or an endorsed offsets policy. Offsets should align with conservation priorities for the impacted protected matter and be tailored specifically to the attribute of the protected matter that is impacted in order to deliver a conservation gain.

Offsets should compensate for an impact for the full duration of the impact.

Offsets must directly contribute to the ongoing viability of the MNES impacted by the project and deliver an overall conservation outcome that improves or maintains the viability of the MNES as compared to what is likely to have occurred under the status quo, that is if neither the action not the offset had taken place.

Note offsets do not make an unacceptable impact acceptable and do not reduce the likely impacts of a proposed action. Instead, offsets compensate for any residual significant impact.

The Assessment Documentation must provide:

(a) Details of the offset package to compensate for significant residual impacts on MNES; and

(b) An analysis of how the offset package meets the requirements of the EPBC Act Offsets Policy, a discussion on the feasibility and the workings outlined in Attachment 3; or

(c) Details of how the offset meets an endorsed state offsets policy.

6 ENVIRONMENTAL RECORD OF PERSON(S) PROPOSING TO TAKE THE ACTION

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:

(a) the person proposing to take the action; and

(b) for an action for which a person has applied for a permit, the person making the application.

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.

7 ECONOMIC AND SOCIAL MATTERS

The economic and social impacts of the action, both positive and negative, must be analysed. Matters of interest include:

(a) details of any public consultation activities undertaken, and their outcomes;

(b) details of any consultation with Indigenous stakeholders.

(c) projected economic costs and benefits of the project, including the basis for their estimation through cost/benefit analysis or similar studies;

(d) employment opportunities expected to be generated by the project (including construction and operational phases).

Economic and social impacts should be considered at the local, regional and national levels. Details of the relevant cost and benefits of alternative options to the proposed action, as identified in Section 4 above, should also be included.

Identification of affected parties is required, including a statement mentioning any communities that may be affected and describing their views.

8 INFORMATION SOURCES PROVIDED IN THE ASSESSMENT DOCUMENTATION

For information given in the Assessment Documentation, state:

(a) the source of the information;

(b) how recent the information is;

(c) how the reliability of the information was tested;

(d) what uncertainties (if any) are in the information; and

(e) what guidelines, plans and/or policies did you consider.

9 CONCLUSION

An overall conclusion as to the environmental acceptability of the proposal on each MNES, including:

(a) a discussion on the consideration with the requirements of the EPBC Act, including the objects of the EPBC Act, the principles of ecologically sustainable development and the precautionary principle;

(b) reasons justifying undertaking the proposal in the manner proposed, including the acceptability of the avoidance and mitigation measures; and

(c) if relevant, a discussion of residual impacts and any offsets and compensatory measures proposed or required for significant residual impacts on MNES, and the relative degree of compensation and acceptability.

Attachment 1 – Reference Table for EPBC Act Assessment Documentation

Table 1: Assessment Requirements addressed in proponent Assessment Documentation (e.g. EIS) [only include this table if a separate chapter on MNES is not applied]

Assessment Requirements Section no.	Requirement	Section in Assessment Documentation
1	Background and Description	
2	The Environment including MNES	
(a)	World Heritage	

ATTACHMENT 2 – Controlling provisions for the Wilpinjong open cut coal mine extension project

The Wilpinjong Mine Extension Project was determined to be a controlled action under section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on 12 March 2015.

The controlled action is likely to have a direct and indirect impact on matters of national environment significance, in particular, threatened species and ecological communities (sections 18 and 18A), and a water resource, in relation to coal seam gas development and large coal mine development (sections 24D and 24E).

Relevant matters of national environmental significance that have been identified as potentially impacted by the proposed action include, but are not limited to:

Threatened species and ecological communities, including:

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (Box Gum Woodland) – Critically Endangered
- *Anthochaera phrygia* (Regent Honeyeater*)* – Endangered
- *Ozothamnus tesselatus* - Vulnerable
- *Lathamus discolor* (Swift Parrot) - Endangered
- *Dasyurus maculatus maculatus* (Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll: southeastern mainland population) - Endangered
- *Chalinolobus dwyeri* (Large-eared Pied Bat, Large Pied Bat) – Vulnerable
- *Nyctophilus corbeni* (South-eastern Long-eared Bat) - Vulnerable

Water resources:

- Impacts to the surface water quality and/or hydrology of Wollar, Wilpinjong and Cumbo Creek.
- Impacts to Groundwater, Groundwater Users and Groundwater Dependant Ecosystems
- Cumulative impacts on water resources.

Attachment 3 - Offset calculator and workings (remove tables if irrelevant)

[Inset calculator spreadsheet]

Table 1 - EPBC Act Offsets Assessment Guide – *Area of Community* or *Area of Habitat*

Threatened species or ecological community	**Listing status**
Insert species or community	*Insert listing status*

Impact Site - *Area of Habitat* or *Area of Community*

Size (ha)	*Insert the area in ha of the proposed impact*	
Description	*Insert a brief description of the impact site*	
Guide component	*Assessed value*	*Discussion*
Quality	*1 - 10*	*Outline the basis for the quality score on the impact site. This should include an outline of the **condition**, **context** and **stocking rates** for the site and relative weightings for each of these features if a published quality framework is not available.* *Include specific references to justify the assessed value.*

Offset Site - *Area of Habitat* or *Area of Community*

Size (ha):	*Insert the area in ha of the proposed offset*
Description	*Insert a brief description of the proposed offset*

Averted loss Component		
Guide component	*Assessed value*	*Discussion*
Time over which loss is averted	*0 – 20 years (max)*	*Describe the duration of the proposed offset.* *Include specific references to justify the assessed value.*
Risk of loss without offset: (0 – 100%)	*0 – 100%*	*Outline the key information for calculating risk of loss. Information should provide a greater understanding about the level of development intent on the target site and the likelihood of this leading to measurable impacts in the foreseeable future. Key risk of loss indicators include: background rates of loss; geophysical, economic or social data that indicates likely destruction of the offset site; zoning, leases and broad planning instruments that demonstrate possible development intent; and development applications / approvals over the offset site.*

		Degradation to the quality of a site due to current management practices and use should not be incorporated into the risk of loss. These factors should be incorporated in the 'future quality' scores. *Include specific references to justify the assessed value.*
Guide component	*Assessed value*	*Discussion*
Risk of loss with offset (0 – 100%)	*0 – 100%*	*Outline information regarding tenure treatments that reduce any risks referred to in the* ***Risk of loss without offset****.* *Where relevant, this should include information on the legal mechanism that is being used to secure the offset and the types of anthropogenic activities that this legal mechanism will prevent. For example, a conservation covenant may protect a site from timber extraction, but may not treat the risk of the site being used for mineral resource extraction. The difference between the* ***Risk of loss without offset*** *and this value is a function of the legal mechanism to reliably reduce the risk posed to a site.* *Include specific references to justify the assessed value.*
Confidence (Risk related)	*0 – 100%*	*Outline the confidence in the risk of loss scores. Confidence is a measure of certainty and probability of success. Where there is high uncertainty as to the basis of a risk assessment, confidence should be low. The opposite applies for robust evidence and high certainty.* *Include specific references to justify the assessed value.*

Quality Improvement Component		
Guide component	*Assessed value*	*Discussion*
Time until ecological benefit	*0 – 200+*	*Describe the time it will take for the quality to change from the start quality to the proposed future quality with offset.* *Include specific references to justify the assessed value.*
Start quality (0 – 10)	*0 – 10*	*Outline the basis for the quality score on the offset site at present. This should outline the* ***condition****,* ***context*** *and* ***stocking rates*** *for the site and relative weightings for each where a published quality framework is not available*. *Include specific references to justify the assessed value.*

Future quality without offset (0 – 10)	*0 – 10*	*Outline the basis for the future quality without offset score on the offset site over the time until ecological benefit. This is an assessment of the value of the site in the absence of the offset occurring. This score could remain static or could capture natural degradation impacts on habitat where there are known degrading threats – such as increasing prevalence of ferals and weeds.* *Development impacts from clearing of a site should be captured in the averted loss component.* *Include specific references to justify the assessed value.*
Future quality with offset (0 – 10)	*0 – 10*	*Outline the future quality score on the offset site over the* ***time until ecological benefit*** *as a direct result of the proposed offset. This improvement should outline how the habitat on the offset site will be maintained or improved, noting the* ***condition****,* ***context*** *and* ***stocking rates*** *for the site. Quality improvements may result from management interventions such as weed control, erosion control or revegetation.* *Include specific references to justify the assessed value.*
Confidence (Quality related)	*0 – 100%*	*Outline the confidence in the quality improvement being realised. Confidence scores are a measure of evidence, certainty and probability of success. Where there is limited evidence of a management action being effective or high uncertainty as to an ecological outcome, confidence should be low. The opposite applies for robust evidence and high certainty.* *Include specific references to justify the assessed value.*

Summary

Final % of impact offset	*Insert the % of impact offset score.*
Cost of offset ($)	*Insert the value of the proposed offset. Include specific references to justify the cost.*
Other compensatory measures (if proposed)	*Outline any other compensatory measures that are proposed by the proponent, including information on how these address key priorities for threatened species or ecological communities.* *Where these measures involve the funding by the proponent of a third party, include a brief description of how this funding will be managed – including governance arrangements, relevant milestone and timeframes etc.* *Include specific references to justify the assessed value.*

References

Provide a consolidated list of all references used as sources in the tables above.

Table 2 - EPBC Act Offsets Assessment Guide – *Number of Individuals/Features*

Threatened species	**Listing status**
Insert species	*Insert listing status*

Impact – *Number of Individuals/Features*

Impact	*Insert the number of individual/features that will be impacted*
Source	

Offset – *Number of Individuals/Features*

Description	*Insert a brief description of the proposed offset*	
Guide component	*Assessed value*	*Discussion*
Time horizon	*0 – 200+*	*Describe the time it will take for the proposed number of individuals/features to be created under the proposed offset* *Include specific references to justify the assessed value.*
Start value	*0 – 200+*	*Identify the number of individuals/features on the offset site at present, if any.* *Include specific references to justify the assessed value.*
Future value without offset	*0 – 200+*	*Identify the number of individuals/features on the offset site, if any, without the proposed offset, at the nominated time horizon. Outline the basis for this score. This score could remain static or could capture natural degradation impacts on habitat where there are known degrading threats – such as increasing prevalence of invasive species.* *Include specific references to justify the assessed value.*
Future value with offset	*0 – 200+*	*Identify the future number of individuals/features on the offset site at the nominated time horizon, as a direct result of the proposed offset. Outline how this increase will occur. The increase may result from propagation, captive breeding and release programs or other management interventions.* *Include specific references to justify the assessed value.*
Confidence	*0 – 100%*	*Outline the confidence in the proposed increase in individuals/features on the offset site at the nominated time horizon being realised. Confidence scores are a measure of evidence, certainty and probability of success. Where there is limited evidence of an action being effective or high*

		uncertainty as to an ecological outcome, confidence should be low. The opposite applies for robust evidence and high certainty. *Include specific references to justify the assessed value.*

Summary

Final % of impact offset	*Insert the % of impact offset score*
Cost of offset ($)	*Insert the value of the proposed offset*
Other compensatory measures (if proposed)	*Outline any proposed other compensatory measures that are proposed by the proponent, including information on how these address key priorities for the relevant threatened species.* *Where these measures involve the funding by the proponent of a third party, include a brief description of how this funding will be managed – including governance arrangements, relevant milestone and timeframes etc.* *Include specific references to justify the assessed value.*

References

Provide a consolidated list of all references used as sources in the tables above.

Table 3 - EPBC Act Offsets Assessment Guide – *Condition of habitat*

Threatened species or Ecological Community	**Listing status**
Insert species or ecological community	*Insert listing status*

NB: The 'condition of habitat' row does not currently account for differences in area between the impact site and the offset site. Where the impact site is of a different size to the offset site, the final offset requirement should be calculated by multiplying the '% of impact offset' score by the ratio of the offset site area to impact site area (eg where the impact site is 200ha and the offset site is 100ha, the '% of impact offset' score should be multiplied by 50%).

Impact – *Change in condition (% benchmark)*

Impact	*Insert the condition at the impact site which is predicted as a result of the proposed action, as a % of the site's original condition (ie the condition benchmark)*
Source	

Offset – *Change in condition (% benchmark)*

Description	*Identify the projected increase in condition resulting from the proposed offset. Insert a brief description of how this increase in quality will be achieved.*	
Guide component	*Assessed value*	*Discussion*
Time horizon	*0 – 200+*	*Describe the time it will take for the proposed increase of quality at the offset site to be realised.* *Include specific references to justify the assessed value.*
Start value	*0 – 100+ %*	*Outline the start condition of the offset site as a % of the condition benchmark.* *Include specific references to justify the assessed value.*
Future value without offset	*0 – 100+ %*	*Outline the modelled future condition of the offset site at the time horizon as a % of the condition benchmark in the absence of any offset occurring.* *Include specific references to justify the assessed value.*
Future value with offset	*0 – 100+ %*	*Outline the modelled future condition of the offset site at the time horizon as a % of the condition benchmark with the offset being implemented.* *Include specific references to justify the assessed value.*
Confidence	*0 – 100%*	*Outline the confidence in the modelled changes in condition at the offset site being realised over the nominated time horizon. Confidence scores are a measure of evidence, certainty and probability of success. Where there is limited evidence of an action being effective or high uncertainty as to an ecological outcome, confidence should be low. The opposite applies for robust evidence and high certainty.* *Include specific references to justify the assessed value.*

Summary

Final % of impact offset	*Insert the % of impact offset score*
Cost of offset ($)	*Insert the value of the proposed offset*
Other compensatory measures (if proposed)	*Outline any proposed other compensatory measures that are proposed by the proponent, including information on how these address key priorities for threatened species or ecological communities.* *Where these measures involve the funding by the proponent of a third party, include a brief description of how this funding will be managed – including governance*

	arrangements, relevant milestone and timeframes etc. *Include specific references to justify the assessed value.*

References

Provide a consolidated list of all references used as sources in the tables above.

EPBC Act Offsets Assessment Guide – *Birth rate/mortality rate*

Threatened species	**Listing status**
Insert species	*Insert listing status*

Impact – *Birth rate/mortality rate*

Impact	*Insert the projected % change in rate for the impacted population*
Source	

Table 4 - Offset – *Birth rate/mortality rate*

Description	*Insert a brief description of how the % change in rate will be achieved for the offset. Where the % change in rate will be affecting a different population from the impacted population, it is important to demonstrate that any difference in the relative sizes of the two populations has been adequately considered in quantifying the required scale of the offset (eg a reduction in birth rate of 10% for a population of 2000 would be equivalent to a reduction of 20% for a population of 1000).*	
Guide component	*Assessed value*	*Discussion*
Time horizon	*0 – 200+*	*Specify the amount of time required before the projected % change in rate is achieved.* *Include specific references to justify the assessed value.*
Start value	*1-100+%*	*Identify the existing rate for the population to be affected by the proposed offset. The percentage in this cell should represent the existing offset rate as a function of the population.* *Include specific references to justify the assessed value.*

Future value without offset	*1-100+%*	*Identify the rate for the targeted population without the proposed offset, at the nominated time horizon. Outline the basis for this score. This score could remain static or could capture natural degradation impacts on habitat where there are known degrading threats – such as increasing prevalence of invasive species.* *Include specific references to justify the assessed value.*
Future value with offset	*1-100+%*	*Identify the future rate on the offset site at the nominated time horizon, as a result of the proposed offset. Outline how this change will occur.* *Include specific references to justify the assessed value.*
Confidence	*0 – 100%*	*Outline the confidence in the change in rate being realised for the offset population at the nominated time horizon. Confidence scores are a measure of evidence, certainty and probability of success. Where there is limited evidence of an action being effective or high uncertainty as to an ecological outcome, confidence should be low. The opposite applies for robust evidence and high certainty.* *Include specific references to justify the assessed value.*

Summary

Final % of impact offset	*Insert the % of impact offset score*
Cost of offset ($)	*Insert the value of the proposed offset*
Other compensatory measures (if proposed)	*Outline any proposed other compensatory measures that are proposed by the proponent, including information on how these address key priorities for the relevant threatened species.* *Where these measures involve the funding by the proponent of a third party, include a brief description of how this funding will be managed – including governance arrangements, relevant milestone and timeframes etc.* *Include specific references to justify the assessed value.*

References

Provide a consolidated list of all references used as sources in the tables above.