Final terms of reference for an environmental impact statement (EIS)

Broughton Coal Mine Project

Prepared by: Impact Assessment and Operational Support Unit, Department of Environment and Heritage Protection

April 2015

Contents

Introduction

The proposed Broughton Coal Mine would be located in the Bowen Basin in central Queensland approximately 100 kilometres (km) west-south-west of Mackay and 27km north-west of the township of Nebo in the Isaac Regional Council local government area. The proponent, U & D Mining Industry (Australia) Pty Ltd, has applied for a new mining lease, ML70511, covering 2227 hectares (ha) within the existing exploration permit coal (EPC) 818. The latest mine planning indicates that another mining lease within EPC818 may be required for mine infrastructure, and if so, the environmental impact statement (EIS) will also address that area.

The mine would produce up to three million tonnes a year of run-of-mine (ROM) coal over 15 years. The proposed project would consist of:

- one open-cut pit
- an initial overburden stockpile and a large out of pit waste dump
- a haul road and ROM coal stockpile
- a coal handling and preparation plant, product coal stockpiles, and tailings dam
- rail line loop and train load out facility
- internal access roads (light vehicle)
- road diversion (Suttor Developmental Road)
- creek diversion and flood levees
- mine water management system
- water pipeline and power supply
- mine infrastructure area, magazine, workshops, office buildings, and crib rooms.

Mine operations would involve conventional truck and shovel open-cut mining techniques and progressive rehabilitation. When the open pit has reached its maximum depth, highwall augering may be used to maximise resource recovery.

The product coal would be transported on a dedicated haul road to a new train loading facility connected to the Hail Creek rail branch. The coal is currently proposed to be exported through the Dalrymple Bay Coal Terminal, south of Mackay

The proposed mining lease is bisected by the Suttor Developmental Road and a stock route.

An estimated 100 personnel would be employed during construction increasing to 200 during the operational phase. Accommodation options being considered for employees include the existing Hail Creek Mine accommodation camp, Nebo Junction accommodation village, or the Nebo accommodation village. On-site workers accommodation is not proposed.

Part A About these terms of reference

1. Statutory basis

The EIS process that will be followed for the assessment of the Broughton Coal Mine Project is set out in chapter 3, part 1 of the *Environmental Protection Act 1994* (EP Act)[1], which is administered by the Department of Environment and Heritage Protection (EHP). This section outlines the statutory information requirements for the EIS.

The key information requirements of the EP Act that must be addressed in this EIS are:

- the requirements of section 40, which specifies the purpose of an EIS and of the EIS process
- sections 125 and 126 which set out the general information requirements for applications for an environmental authority (EA).

Other matters that must be addressed include:

- Schedule 1 of the Environmental Protection Regulation 2008 (EP Regulation) – matters to be addressed by assessment under EIS
- the environmental objectives and performance outcomes specified in schedule 5, part 3, tables 1 and 2 of the EP Regulation.

Section 139 of the EP Act states that the information stage of the EA process does not apply if the EIS process under the EP Act is complete (unless there has been a subsequent change to the project). Consequently, if the project is to proceed, it is particularly important that the EIS provide all the information needed to enable the issuing of an EA for the project.

EHP has developed model conditions for mining projects, which should form the basis for draft EA conditions and general environmental protection commitments in the EIS. The EIS should discuss impact mitigation measures in the context of these model conditions. The model conditions are set out in the following guidelines:

- Guideline—Mining—Model mining conditions[2]
- Guideline—Resource activity—mining—Model water conditions for coal mines in the Fitzroy basin[3].

2. Accredited process for controlled actions under Commonwealth[4] legislation

The project is a 'controlled action' under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) because it may have a significant impact on matters of national environmental significance (MNES). The controlling provisions are sections 18 and 18A (listed threatened species and communities), sections 20 and 20A (listed migratory species) and sections 24D and 24E (a water resource, in relation to coal seam gas development and large coal mining development. The controlling provisions will be assessed by the state's EIS process accredited under the Bilateral Agreement. Consequently, the EIS must address the 'controlling provisions' for the project and all matters relating to them and describe the particular aspects of the environment leading to the controlled action declaration under the EPBC Act.

The assessment of the potential impacts, mitigation measures and any offsets for residual impacts must be dealt with in a stand-alone section of the EIS that fully addresses the matters relevant to the controlling provisions. The EIS must address the matters prescribed in section 6 and in Schedule 1 of the EP Regulation. More detailed requirements for the assessment of MNES are set out in Appendix 2 Matters of national environmental significance) of these TOR.

[1] See the EHP publication 'Guideline – The environmental impact statement process under the *Environmental Protection Act 1994*'.

[2] http://www.ehp.qld.gov.au/land/mining/pdf/model-mining-conditions-em944.pdf

[3] http://www.ehp.qld.gov.au/land/mining/pdf/model-water-conditions-mining-fitzroy-em288.pdf

[4] This section applies where the proponent has received confirmation from the Australian Government Environmental Agency that the project is a controlled action under the EPBC Act and that it is to be assessed under an EIS accredited under the bilateral agreement.

3. EIS guidelines

The TOR must be read in conjunction with the information guideline for an environmental impact statement under the EP Act[5], which contains links to other relevant guidelines and supporting information.

In addition, subject-specific policies and guidelines are referenced throughout the TOR. Refer to Appendix 1 of the TOR for a list of these policies and guidelines.

Part B Content of the EIS

1. General approach

1.1 For the purposes of the EIS process, 'environment' is defined in section 8 of the EP Act.

1.2 The EIS should give priority to the critical matters associated with the project, which are specified in section Part C, Section 4 of these TOR.

1.3 The detail in which the EIS deals with matters relevant to the project should be proportional to the scale of the impacts on environmental values. When determining the scale of an impact, consider its intensity, duration, cumulative effect, irreversibility, the risk of environmental harm, management strategies and offsets provisions.

1.4 Each impact assessment chapter of the EIS must include a summary of impacts and proposed mitigation measures.

1.5 Notwithstanding the requirements of these TOR, should a previously unidentified substantive issue be identified in the preparation of the EIS, this matter should be fully addressed in the EIS.

2. Mandatory requirements of an EIS

2.1. Describe the project (consistent with clause 6.1 below) including all aspects subject to this assessment. Provide details of the proponent of the project, including details of any joint venture partners. The project description should include all on and off lease activities relevant to the project including construction, operation and decommissioning activities. If the delivery of the project is to be staged, the nature and timing of the stages should be fully described.

2.2. Present feasible alternatives of the project's configuration (including individual elements) that may improve environmental outcomes. Discuss the consequences of not proceeding with the project.

2.3. For all the relevant matters, the EIS must identify and describe the environmental values[6] that must be protected. Environmental values are specified in the EP Act, the Environmental Protection Regulation 2008 (EP Regulation), environmental protection policies (EPPs) and relevant guidelines[7].

2.4. The assessment should cover both the short and long-term scenarios and state whether any relevant impacts are likely to be irreversible.

2.5. Provide all available baseline information relevant to the environmental risks of the project. Provide details about the quality of the information provided, in particular: the source of the information; how recent the information is; how the reliability of the information was tested; and any uncertainties in the information.

2.6. Demonstrate how the construction, operation and decommissioning (to the extent known) of the project would be consistent with best practice environmental management and would meet all statutory and regulatory requirements of the state, Commonwealth and local governments. The hierarchy for managing likely impacts is: (a) to avoid; (b) to minimise or mitigate; and (c) to offset.

[5] www.ehp.qld.gov.au/management/impact-assessment/eis-processes/eis-tor-support-guidelines.html
[6] Defined in section 125(l)(i)(A) of the EP Act.
[7] For example, the Queensland Water Quality Guidelines and the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (refer to Appendix 1 Policies and guidelines for details).

2.7. Avoidance and mitigation strategies and proposed management actions should be described in the context of EHP's model mining and model water conditions. The strategies should address all critical matters for the protection, or enhancement as desirable, of all relevant environmental values. Conditions should be outcome-focussed and written in a way that will allow the required outcome to be measured and audited.

2.8. Impact minimisation measures should include ongoing monitoring that will not only measure the success of achieving the required outcomes, but also be able to predict whether failure is likely.

2.9. The impact minimisation measures should allow for corrective actions to be undertaken if monitoring shows outcomes may not be achieved. The proposed measures should give confidence that, based on current technologies, the impacts can be effectively managed over the long-term.

2.10. If the project will involve a novel process, technology or activity, the EIS should describe how the project will meet, or improve, current best practice environmental management for the industry.

3. Further requirements of an EIS

3.1. The assessment and supporting information should be sufficient for the administering authority to decide whether an approval should be granted. Sufficient information should be included to enable EHP's model mining and model water conditions to be used to develop site-specific draft EA conditions for the project.

3.2. Using all available information of which the proponent should be reasonably aware, the assessment should predict the cumulative impact[8] of the project on environmental values over time and in combination with impacts created by the activities of other developments and landholders. This will inform the administering authority's decision on the EIS and the setting of conditions. The EIS should also outline ways in which the assessment and management of cumulative impacts could be updated progressively as the project proceeds.

3.3. Provide a consolidated list of all the proponent's commitments to implement management measures, including monitoring programs. Write the commitments in a way that can easily be used to develop measurable and auditable approval conditions.

3.4. Provide all geographical coordinates throughout the EIS in latitude and longitude against the Geocentric Datum of Australia 1994 (GDA94).

3.5. An appropriate public consultation program is essential to the impact assessment process. The proponent should consult with local, Queensland and Australian government authorities, and potentially affected local communities. An appendix to the EIS should describe the consultation that has taken place and how the responses from the community and agencies have been incorporated into the design and outcomes of the project.

3.6. Include a glossary of terms and a list of acronyms and abbreviations at the start of the EIS.

Part C Structure of the EIS

1. Executive summary

The executive summary should describe the project and convey the most important aspects and environmental management commitments relating to the project in a concise and readable form. It should use plain English, avoid jargon, be written as a stand-alone document and be structured to follow the EIS. It should be easy to reproduce and distribute on request to those who may not wish to read or purchase the whole EIS.

[8] Cumulative impact is defined as 'combined impacts from all relevant sources (developments and other activities in the area)'.

2. Introduction

Clearly explain the function of the EIS, why it has been prepared and what it sets out to achieve. Include an overview of the structure of the document.

2.1 Project proponent

Describe the proponent's business and experience, including:

- the designated proponent's full name, postal address and Australian Business Number, including details of any joint venture partners
- the nature and extent of business activities
- environmental record, including a list of any breach of relevant environmental laws during the previous 10 years
- the proponent's environmental, health, safety and community policies.

2.2 The environmental impact assessment process

2.2.1 The EIS should provide an outline of the environmental impact assessment process, including the role of the administering authority in the decision making process for the EIS. The information in this section is required to ensure readers are informed of the process to be followed and are aware of any opportunities for input and participation.

2.2.2 Inform the reader of the opportunities for their input, and how and when properly made submissions on the EIS will be addressed and taken into account in the decision-making process.

2.3 Project approvals process

Provide an outline of the approvals required to enable the project to be constructed and operated. Explain how the environmental impact assessment process (and the EIS itself) informs the issue of the leases/licences/permits/consents required by the proponent before construction and operation can commence. Provide a flow chart indicating the key approvals and opportunities for public comment. Guidance on typical associated approvals can be accessed from www.dsdip.qld.gov.au/coordinator-general.

3. Project description

3.1 Proposed development

3.1.1 The EIS must describe and illustrate at least the following specific information about the proposed project:

- the project's title
- the project's objectives
- the project's expected capital expenditure
- rationale for the project
- the nature and scale of activities to be undertaken, highlighting whether it is a greenfield or brownfield site
- the regional and local context of the project's footprint, with maps and aerial photographs at suitable scales
- relationship to other projects, including those planned or operated by other entities of which the proponent should reasonably be aware
- the workforce numbers to be employed by the project during its various phases, where personnel would be accommodated and, where relevant, the likely recruitment and rostering arrangements to be adopted
- the proposed construction staging and likely schedule of works.

3.2 Site description

3.2.1 Provide real property descriptions of the project land and adjacent properties; any easements; any underlying resource tenures; and identification number of any resource activity lease for the project land that is subject to application.

3.2.2 Describe and map key transport infrastructure, including state-controlled roads, rail, air, port/sea and other infrastructure in the region relevant to the project and to the site.

3.2.3 Describe and illustrate the topography of the project site and surrounding area, and highlight any significant features shown on the maps. Maps should have contours at suitable increments relevant to the scale, location, potential impacts and type of project, shown with respect to Australian height datum (AHD) and drafted to GDA94.

3.2.4 Describe and illustrate in plan and cross-sections the geology of the project area. Show geological structures, such as aquifers, faults and economic resources that could have an influence on, or be influenced by, the project's activities.

3.2.5 Describe, map and illustrate soil types and profiles of the project area at a scale relevant to the proposed project. Identify soils that would require particular management due to wetness, erosivity, depth, acidity, salinity or other feature.

3.3 Climate

Describe and illustrate the site's climate patterns that are relevant to the environmental assessment, with particular regard to discharges to water and air and the propagation of noise. Climate information should include long-term averages and extreme values, as necessary.

3.4 Proposed construction and operations

Describe and illustrate the following information about the proposal:

- existing infrastructure and easements on the potentially affected land
- the proposed extractive and processing methods, associated equipment and techniques
- the sequencing and staging of activities
- the capacity of operational plant and equipment, their chemical and physical processes, and chemicals or hazardous materials to be used
- the known locations of new or altered works and structures and infrastructure necessary for the project at all stages of its development, whether on or off the project lease(s) or rights of way
- any activity whether on or off the project lease(s) associated with the project that is consistent with a prescribed environmentally relevant activity.
- details of natural resource use efficiency (such as energy and water), integrated processing design, and any co-generation of power and by-product reuse as shown in a material/energy flow analysis.

4. Assessment of critical matters

The following matters have been identified as being of critical importance for assessment by this EIS.

4.1 Matters of national environmental significance

The Australian Government Minister for the Environment has determined that the project impacts on MNES. The relevant controlling provisions are:

- listed threatened species and communities (EPBC Act sections 18 and 18A)
- listed migratory species (EPBC Act sections 20 and 20A)
- a water resource, in relation to coal seam gas development and large coal mining development (EPBC Act sections 24D and 24E).

Refer to Appendix 2 for more detailed MNES requirements.

5. Assessment of routine matters

For each routine matter identified below, the level of detail should be proportional to the scale of potential impacts. As a minimum, the proponent should supply sufficient information that confirms the risks/impacts are not significant.

5.1 Land

Objectives and performance outcomes

The environmental objectives to be met are that the:

- activity is operated in a way that protects the environmental values of the land, including landforms, soils, and subsoils
- choice of the site, and positioning of the activity within the site, minimises environmental harm on land uses on the project site and at adjacent places
- location for the activity on a site protects all environmental values relevant to adjacent sensitive uses
- design of the facility permits the operation of the activity in accordance with best practice environmental management.

The performance outcomes corresponding to these objectives are in Schedule 5, Tables 1 and 2 of the EP Regulation. The proponent should supply sufficient evidence to show those outcomes can be achieved.

Information requirements—land use

5.1.1 Describe potential impacts of the project on existing land uses taking into consideration the proposed measures that would be used to avoid or minimise impacts. The impact prediction must address:

- landscape (including visual amenity) and land uses in and around the project area, referring to regional plans and local government planning schemes
- any existing mining, petroleum, geothermal and greenhouse gas storage tenures overlying or adjacent to the project site, and any to be applied for as part of this project
- any infrastructure proposed to be located within, or which may have impacts on, the Stock Route Network.

5.1.2 Address the requirements of the *Regional Planning Interests Act 2014* if the project impacts on SCL[9] or other areas of regional interest defined by the Act.

5.1.3 Describe the proposed land use during and after the project. Show how the landform during and after mining will be made stable over time.

5.1.4 For any underground mining likely to cause land subsidence, assess and provide comprehensive surface subsidence predictions using tools or techniques that enable the location, extent and scale of subsidence, and its effect, over time, on surface landforms and hydrology to be understood. Propose detailed mitigation measures for any significant impacts that would result from subsidence.

5.1.5 Detail any known or potential sources of contaminated land that could be impacted by the project. Describe how any proposed land use may result in land becoming contaminated.

5.1.6 Identify existing or potential native title rights and interests possibly impacted by the project and the potential for managing those impacts by an Indigenous Land Use Agreement or other measure.

[9] https://www.dnrm.qld.gov.au/land/accessing-using-land/strategic-cropping-land

Information requirements—rehabilitation

5.1.7 The EIS should describe the strategies and methods for progressive and final rehabilitation of the environment disturbed by the project. The strategies and methods should be based on legislative requirements, current best practice approaches, and relevant guidelines.

5.1.8 The EIS should describe how the amount of land disturbed at any one time would be minimised, and how the degradation of land and water bodies with ecological or productive value would be minimised.

5.1.9 Describe the decommissioning of project infrastructure and show the expected final topography of the site with any excavations, waste areas (including spoil dumps and final voids) and dam sites on suitably scaled maps. Illustrate the proposed final land uses.

5.1.10 Describe and illustrate where final voids, uncompacted overburden, spoil dumps, tailings dams (if required) and any residual mine infrastructure at the end of operations would lie in relation to flood levels up to and including the 'probable maximum flood level' based on the Bureau of Meteorology's 'probable maximum precipitation' forecast for the locality.

5.1.11 Describe rehabilitation success criteria that would be used to measure progress and completion.

5.1.12 Notwithstanding that management techniques may improve over the life of the project, and legislative requirements may change, the EIS needs to give confidence that all potential high-impact elements of the project (e.g. spoil dumps, voids, tailings and water management dams, creek diversions, subsidence areas, etc) are capable of being managed and rehabilitated to achieve acceptable land use capabilities and suitability, to be stable, and prevent contamination of surface water and/or groundwater.

5.2 Flora and fauna

Objectives and performance outcomes

The environmental objectives to be met are as follows:

- the activity is to be operated in a way that protects the environmental values of flora and fauna
- the choice of the site, at which the activity is to be carried out, minimises serious environmental harm on areas of high conservation value and special significance both on and off the project site.

The performance outcomes corresponding to these objectives are in schedule 5, tables 1 and 2 of the EP Regulation. The proponent should supply sufficient evidence through studies and proposed management measures that show these outcomes can be achieved.

Information requirements

5.2.1 Describe and quantify the existing and future condition of, and likely impacts on, the biodiversity and natural environmental values of affected areas arising from the construction, operation and eventual decommissioning of the project. Take into account any proposed avoidance and/or mitigation measures. The assessment should include, but not necessarily be limited to, the following key elements:

- regional ecosystems
- matters of national environmental significance and state environmental significance
- terrestrial and aquatic ecosystems (including groundwater-dependent ecosystems) and their interaction
- biological diversity including listed flora and fauna species
- the integrity of ecological processes, including habitats of threatened, near-threatened or special least-concern species
- the integrity of landscapes and places, including wilderness and similar natural places
- chronic, low-level exposure of terrestrial and aquatic ecosystems to contaminants or the bio-accumulation of contaminants from mine wastes and pollutants associated with mine affected surface water and groundwater
- impacts of waterway barriers on fish passage in all waterways mapped on the Queensland Waterways for Waterway Barrier Works spatial data layer.

5.2.2 Describe any actions of the project that require an authority under the *Nature Conservation Act 1992*, and/or would be assessable development for the purposes of the *Vegetation Management Act 1999*[10] and/or the *Fisheries Act 1994*.

5.2.3 Propose measures to protect or preserve any threatened or near-threatened species.

5.2.4 Specifically address any obligations imposed by state or Commonwealth legislation or policy or international treaty obligations.

5.2.5 Assess the need for buffer zones and the retention, rehabilitation or planting of movement corridors.

5.2.6 Propose measures that would avoid the need for waterway barriers, or propose measures to mitigate the impacts of their construction and operation.

5.2.7 Describe the methods to be used for progressive rehabilitation. Proposals for the rehabilitation of disturbed areas should incorporate, where appropriate, provision of nest hollows and ground litter. The measures proposed for the progressive rehabilitation of disturbed areas should include rehabilitation success criteria in relation to natural values that would be used to measure the progress.

5.2.8 Describe how the achievement of the rehabilitation objectives would be monitored and audited, and how corrective actions would be managed.

Offsets

5.2.9 Propose offsets for significant residual impacts as required by, and in accordance with, Commonwealth[11] and Queensland legislation[12], offset policies[13] and offset assessment guidelines[14].

5.3 Biosecurity

Objective

The construction and operation of the project should aim to ensure the following objectives are achieved:

- the spread of weeds, pest animals and disease is minimised
- existing weeds and pests are controlled.

Information requirements

5.3.1 Describe the presence and distribution of existing weeds, pest animals and diseases of significance in the project area. Make particular mention of weeds of national significance and declared plants and animals under the *Land Protection (Pest and Stock Route Management) Act 2002*, the *Plant Protection Act 1989* and the Land Protection (Pest and Stock Route Management) Regulation 2003.

5.3.2 Propose detailed measures to control and limit the spread of pests and weeds on the project site and to adjacent areas. Weed and pest animal management measures should be consistent with local government pest management priorities..

[10] This is notwithstanding that the *Vegetation Management Act 1999* does not apply to mining projects. Refer also to https://www.qld.gov.au/environment/land/vegetation/clearing/

[11] Refer to Appendix 2 of this final TOR

[12] *Environmental Offsets Act 2014*

[13] Queensland Environmental Offsets Policy 2014

[14] http://www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy

5.4 Water quality

Objective and performance outcomes

Operate the activity so that the following environmental objectives are met:

- minimise harm to the environmental values of waters
- protect the environmental values of wetlands
- protect the environmental values of groundwater and any associated surface ecological systems.

The performance outcomes corresponding to this objective are in Schedule 5, Table 1 of the EP Regulation. The proponent should supply sufficient evidence through studies and proposed management measures to show these outcomes can be achieved.

Information requirements

5.4.1 Detail the environmental values of waters within the area that may be affected by the project with reference to the Environmental Protection (Water) Policy 2009 and section 9 of the EP Act, including any human uses of the water and any cultural values.

5.4.2 Detail the chemical and physical characteristics of surface waters and groundwater within the area that may be affected by the project.

5.4.3 Identify the quantity, quality and location of all potential discharges of water and waste water from the project site, whether as point sources (such as controlled discharges from regulated dams) or diffuse sources (such as seepage from waste rock dumps or irrigation to land of treated sewage effluent). Assess the potential impacts of any discharges on the quality and quantity of receiving waters taking into consideration the assimilative capacity of the receiving environment and the practices and procedures that would be used to avoid or minimise impacts. Proposed management measures must be consistent with the management hierarchy and management intent under the Environmental Protection (Water) Policy 2009.

5.4.4 Detail the water quality objectives applicable to the environmental values and describe how these would be met.

5.4.5 Describe how the achievement of the objectives would be monitored and audited, and how corrective actions would be managed.

5.5 Water resources

Objectives

The construction and operation of the project should aim to meet the following objectives:

- equitable, sustainable and efficient use of water resources
- environmental flows, water quality, in-stream habitat diversity, and naturally occurring inputs from riparian zones (including groundwater dependent ecosystems) support the long term maintenance of the ecology of aquatic biotic communities
- the condition and natural functions of water bodies (e.g. lakes, springs, watercourses and wetlands) are maintained—including the stability of beds and banks of watercourses.

Information requirements

5.5.1 Provide details of any proposed impoundment, extraction, discharge, injection, use or loss of surface water or groundwater. Make particular mention of any action that would require approval or an allocation under the *Water Act 2000*.

5.5.2 Provide details of how stormwater run-off from unaffected areas of the site would be separated from mine affected water run-off.

5.5.3 Detail any significant watercourse diversion works. Include maps of suitable scale showing the location of diversions and other water-related infrastructure in relation to mining infrastructure. Provide a functional design of each proposed watercourse diversion[15].

5.5.4 Describe the options for supplying water to the project, and assess any potential consequential impacts in relation to the objectives of any water resource plan, resource operations plan and wild river declaration that may apply.

5.5.5 Develop hydrological models as necessary to describe the inputs, movements, exchanges and outputs of all significant quantities of surface water and groundwater that may be affected by the project. The models should address the range of climatic conditions that may be experienced at the site. Include a site water balance and adequately assess the potential impacts of the project on water resources.

5.5.6 The project's impacts at a local and regional scale should be described including:

- changes in flow regimes from diversions, water take (including dewatering) and discharges
- alterations to the health and stability of riparian vegetation and bank and channel morphology
- direct and indirect impacts on water resources arising from the development.

The Independent Expert Scientific Committee

5.5.7 The National Partnership Agreement on Coal Seam Gas and Large Coal Mining, to which Queensland is a signatory, specifies that all coal seam gas and large coal mining proposals that are likely to have a significant impact on water resources are to be referred to the Independent Expert Scientific Committee (IESC) for advice. The EIS must include a specific section responding to the information requirements contained in 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.

5.6 Flooding and regulated dams

Objective

The construction and operation of the project should aim to ensure the risk of, and the adverse impacts from flooding hazards or dam failure are avoided, minimised or mitigated to protect people, property and the environment.

Information requirements

5.6.1 Describe current flood risk for a range of annual exceedence probabilities up to the probable maximum flood, for potentially affected waterways, and assess (through flood modelling) how the project may potentially change flooding characteristics. The assessment should consider all infrastructure associated with the project including levees, roads and linear infrastructure and all proposed measures to avoid or minimise impacts.

5.6.2 List and describe all dams or levees proposed on the project site and undertake an assessment to determine the hazard category of each dam or levee (low, significant, or high), according to the criteria in the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures.

5.6.3 List the potential impacts of flooding on the structural integrity and stability of dams, levees and/or associated project infrastructure. The hazards and safety risks of flooding to persons should be addressed in section 8.13 Hazards and safety of the TOR.

[15] See DNRM Guideline: https://www.dnrm.qld.gov.au/__data/assets/pdf_file/0015/212424/guideline-watercourse-diversions.pdf

5.7 Air

Objectives and performance outcomes

The environmental objective to be met is that the activity will be operated in a way that protects the environmental values of air.

The performance outcomes corresponding to this objective are in Schedule 5, Table 1 of the EP Regulation. The proponent should supply sufficient evidence through studies and proposed management measures that show these outcomes can be achieved.

Information requirements

5.7.1 Provide a quantified emissions inventory, and fully describe the characteristics of the contaminants or materials that would be released to air when carrying out the activity, either as point source, diffuse or fugitive emissions. Describe emissions for all stages and potential situations, including construction, commissioning, upset conditions, operation and closure.

5.7.2 Predict the impacts of the releases to air from the activity on environmental values of the receiving environment using recognised, quality-assured methods. The description of impacts should take into consideration the assimilative capacity of the receiving environment and the practices and procedures that would be used to avoid or minimise impacts. The impact prediction must:

- describe and illustrate the locations of places or areas (e.g. existing residences, places of work, schools, and agricultural or ecologically significant species and habitats) that could be impacted by emissions from the project
- address residual impacts on the environmental values (including appropriate indicators and air quality objectives) of the receiving air environment, with reference to using recognised, quality-assured methods. This should include all relevant values potentially impacted by the activity, under the EP Act, EP Regulation and Environmental Protection (Air) Policy 2008 (EPP (Air))
- address the cumulative impact of the release with other known releases of contaminants, materials or wastes associated with existing development and possible future development
- quantify the human health risk and amenity impacts associated with emissions from the project for all contaminants whether or not they are covered by the National Environmental Protection (Ambient Air Quality) Measure or the EPP (Air).

5.7.3 Describe the proposed mitigation measures and how the proposed activity will be consistent with best practice environmental management. Where a government plan is relevant to the activity or site where the activity is proposed, describe the activity's consistency with that plan.

5.7.4 Describe how the achievement of the objectives would be monitored, audited and reported, and how corrective actions would be managed.

5.8 Noise and vibration

Objective and performance outcomes

The environmental objective to be met is that the activity will be operated in a way that protects the environmental values of the acoustic environment.

The performance outcomes corresponding to these objectives are in schedule 5, table 1 of the EP Regulation. The proponent should supply sufficient evidence (including through studies and proposed management measures) that show these outcomes can be achieved.

Information requirements

5.8.1 Describe and illustrate the locations of sensitive receptors[16] that could be impacted by noise emissions from the project.

5.8.2 Fully describe the characteristics of the noise and vibration sources that would be emitted when carrying out the activity (point source and general emissions). Describe noise and vibration emissions (including background sources) that may occur during construction, commissioning, upset conditions, operation and closure.

5.8.3 Predict the impacts of the noise emissions from the activity on the environmental values of the receiving environment, with reference to sensitive receptors, using recognised, quality-assured methods. Taking into account the practices and procedures that would be used to avoid or minimise impacts, the impact prediction must address:

- consistency of the proposed activity with relevant noise and vibration objectives
- seasonal variations, and weather related variations, such as wind and temperature inversions
- cumulative impact of the project noise with other emissions of noise associated with existing development and possible future development (as described by approved plans and existing project approvals)
- potential impacts of any low-frequency (<200 Hz) noise emissions
- potential sleep disturbance having regard to relevant World Health Organisation publications.

5.8.4 Describe how the proposed activity would be managed to be consistent with best practice environmental management for the activity. Where a government plan is relevant to the activity, or the site where the activity is proposed, describe the activity's consistency with that plan.

5.8.5 Describe how the achievement of the noise and vibration objectives would be monitored and audited, and how corrective actions would be managed.

5.9 Waste management

Objective and performance outcomes

The environmental objective to be met is that any waste generated, dumped, transported, or received as part of carrying out the activity is managed in a way that protects all environmental values.

The performance outcomes corresponding to these objectives are in schedule 5, table 1 of the EP Regulation. The proponent should supply sufficient evidence (including through studies and proposed management measures) that show these outcomes can be achieved.

Information requirements

5.9.1 Describe the quantity, form (liquid, solid, gas), hazard, and toxicity of each significant waste (including waste rock, tailings and coarse rejects generated during the mining and refining of the coal resource), any attributes that may affect its dispersal in the environment, and the associated risk of causing environmental harm during the construction, operational and decommissioning phases of the project.

5.9.2 Define and describe the objectives and practical measures for protecting or enhancing environmental values from impacts by wastes.

5.9.3 Assess the proposed management measures against the preferred waste management hierarchy, namely: avoid waste generation; cleaner production; recycle; reuse; reprocess and reclaim; waste to energy; treatment; disposal. This includes the generation and storage of waste.

5.9.4 Describe how nominated quantitative standards and indicators may be achieved for waste management, and how the achievement of the objectives would be monitored, audited and managed.

[16] sensitive receptor means an area or place where noise is measured

5.10 Cultural heritage

Objective

The construction and operation of the project should aim to ensure that the nature and scale of the project does not compromise the cultural heritage significance of a heritage place or heritage area.

Information requirements

5.10.1 Unless section 86 of the *Aboriginal Cultural Heritage Act 2003* (ACH Act) applies, the proponent must develop a Cultural Heritage Management Plan in accordance with the requirements of Part 7 of the ACH Act.

5.10.2 For non-Indigenous historical heritage, undertake a study of, and describe, the known and potential historical cultural and landscape heritage values of the area potentially affected by the project. Any such study should be conducted by an appropriately qualified cultural heritage practitioner. Provide strategies to mitigate and manage any negative impacts on non-Indigenous cultural heritage values and enhance any positive impacts.

5.11 Social and economic

Objectives

The construction and operation of the project should aim to:

- avoid or mitigate adverse social and economic impacts arising from the project
- capitalise on opportunities potentially available to affected communities.

Information requirements

5.11.1 In accordance with the Coordinator-General's guideline Social impact assessment guideline[17], describe the likely social impacts (positive and negative) on affected communities, including housing issues, taking into account proposed mitigation measures.

5.11.2 Identify the relevant stakeholders (local and regional) and the likely economic impacts arising from each key stage of the construction and operation of the project. Proponents should quantify economic impacts where suitable data and methodology can be applied. Otherwise, these impacts should be assessed qualitatively. Also, consider any stress related impacts on landowners associated with the progression of, project operations.

5.11.3 The economic analysis should consider, but not necessarily be limited to, potential impacts the project may have on:

- labour demand, including the ability for labour to be drawn from the existing local workforce, and the potential effects this may have on local businesses
- relevant prices, wages, input costs and/or household goods and services.

5.12 Transport

Objectives

The construction and operation of the project should aim to:

- maintain the safety and efficiency of all affected transport modes for the project workforce and other transport system users
- minimise and mitigate impacts on the condition of transport infrastructure
- ensure any required works are compatible with existing infrastructure and future transport corridors.

[17] www.dsdip.qld.gov.au/assessments-and-approvals/social-impact-assessment.html

Information requirements

5.12.1 The EIS should include a summary of all transport required during the construction and operational phases of the project, associated with transporting the workforce, and materials inputs and outputs. The proponent should choose modes of transport for materials and people that would maximise transport efficiency and minimise impacts on the community.

5.12.2 Assess the impacts of transportation in separate sections for each mode to be used by the project (such as road, rail, air and sea) with subsections for each phase of the project. Provide sufficient information to allow an independent assessment of how existing transport infrastructure will be affected by project transport at the local and regional level (e.g. local roads and state-controlled roads).

5.12.3 Use the following assessment methodologies:

- for impacts on roads: the road impact assessment report in accordance with the Guidelines for Assessment of Road Impacts of Development
- for impacts on rail level crossings: the Australian Level Crossing Assessment Model
- for impacts on maritime operations: the Maritime Safety Queensland Guidelines for major development proposals.

5.12.4 Discuss and recommend how identified impacts will be mitigated so as to meet the above objectives for each transport mode. Mitigation strategies may include works and contributions detailed in relevant management plans, prepared in close consultation with relevant transport authorities (including local government). Strategies should consider those transport authorities' works program and forward planning, and be in accordance with the relevant methodologies, guidelines and design manuals.

5.13 Hazards and safety

Objectives

The construction and operation of the project should aim to ensure:

- the risk of, and the adverse impacts from, natural and man-made hazards are avoided, minimised or mitigated to protect people and property
- the community's resilience to natural hazards is maintained or enhanced
- developments involving the storage and handling of hazardous materials are appropriately located, designed and constructed to minimise health and safety risks to communities and individuals and adverse effects on the environment.

Information requirements

5.13.1 Describe the potential risks to people and property that may be associated with the project in the form of a preliminary risk assessment for all components of the project and in accordance with relevant standards. The assessment should include the following matters:

- identification of potential hazards, accidents, spillages, fire and abnormal events that may occur during all stages of the project, including estimated probabilities of occurrence
- identification of all hazardous substances to be used, stored, processed or produced and the rate of usage
- a hazard analysis and risk assessment in accordance with AZ/NZS ISO 31000:2009 Risk Management – Principles and Guidelines and HB203:2006 Environmental Risk Management Principles and Processes
- identification of potential wildlife hazards, natural events (e.g. cyclone, flooding, bushfire) and implications related to climate change
- assessment of how the project may potentially affect hazards away from the project site (e.g. changing flooding characteristics).

5.13.2 Provide details on the safeguards that would reduce the likelihood and severity of hazards, consequences and risks to people, within and adjacent to the project area(s). Assess the residual risk that would follow the application of mitigation measures. Present an assessment of the overall acceptability of the impacts of the project in light of the residual uncertainties and risk profile.

5.13.3 Provide an outline of the proposed integrated emergency management planning procedures (including evacuation plans, if required) for the range of situations identified in the risk assessment developed in this section.

5.13.4 Outline any consultation undertaken with the relevant emergency management authorities, including the Local Disaster Management Group.

6 Appendixes to the EIS

6.1 Appendixes should provide the complete technical evidence used to develop assertions and findings in the main text of the EIS.

6.2 No significant issue or matter should be mentioned for the first time in an appendix—it must be addressed in the main text of the EIS.

6.3 Include a table listing the section of the EIS where each requirement of the TOR is addressed.

Acronyms and abbreviations

The following acronyms and abbreviations have been used in this document.

Acronym/abbreviation	Definition
ACH Act	*Aboriginal Cultural Heritage Act 2003*
AHD	Australian height datum
bilateral agreement	an agreement between the Commonwealth and the State of Queensland under section 45 of the *Environment Protection and Biodiversity Conservation Act 1999* relating to environmental assessment
EIS	environmental impact statement
EP Act	*Environmental Protection Act 1994*
EP Regulation	Environmental Protection Regulation 2008
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cwlth)
EPC	exploration permit for coal
EPP	Environmental Protection Policy (under the EP Act)
GDA94	Geocentric Datum of Australia 1994
IESC	Independent Expert Scientific Committee
ML	mining lease
MNES	matters of national environmental significance (under the EPBC Act)
ROM	run-of-mine
TOR	terms of reference

Appendix 1 Policies and guidelines

Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand 2000, *The Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, Australian Water Association (Artarmon) and NZ Water and Wastes Association (Auckland), viewed 18 June 2013, www.environment.gov.au/water/publications/quality/nwqms-guidelines-4-vol1.html

Australian Level Crossing Assessment Model (ALCAM), www.tmr.qld.gov.au/Travel-and-transport/Rail/Level-crossings/ALCAM.aspx

Commonwealth of Australia 2012, *Environment Protection and Biodiversity Conservation Act 1999, Environmental Offsets Policy 2012*, Canberra, ACT, http://www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy

Commonwealth of Australia 2013, *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*, Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development, Canberra, viewed 18 June 2013, www.environment.gov.au/coal-seam-gas-mining/publications.html

The Coordinator-General, 2013, Preparing an environmental impact statement: *Guideline for proponents*, Department of State Development, Infrastructure and Planning, Brisbane, viewed 18 June 2013, www.dsdip.qld.gov.au/fact-sheets-and-guidelines/coordinated-projects.html

The Coordinator-General, 2013, *Social impact assessment guideline*, Department of State Development, Infrastructure and Planning, Brisbane, www.dsdip.qld.gov.au/assessments-and-approvals/social-impact-assessment.html

Department of Agriculture, Fisheries and Forestry 2014, *Waterway Barrier Works Development Approvals Queensland Government*, Brisbane, https://www.daff.qld.gov.au/fisheries/habitats/fisheries-development/self-assessable-codes

Department of Environment and Heritage Protection 2014, Information guideline for an environmental impact statement, Queensland Government, Brisbane, http://www.ehp.qld.gov.au/management/impact-assessment/eis-processes/eis-tor-support-guidelines.html

Department of Environment and Heritage Protection 2012, *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures, November 2013*, Queensland Government, Brisbane, http://www.ehp.qld.gov.au/land/mining/pdf/mn-mi-assess-haz-cat-hyd-perfdams-em635.pdf

Department of Environment and Heritage Protection model conditions: www.ehp.qld.gov.au/land/mining/guidelines.html

Department of Environment and Heritage Protection 2014, *Queensland Environmental Offsets Policy (Version 1.1),* Queensland Government, Brisbane, http://www.ehp.qld.gov.au/assets/documents/pollution/management/offsets/offsets-policyv1-1.pdf

Department of Environment and Resource Management 2009, *Queensland Water Quality Guidelines*, *Version 3*, Department of Environment and Resource Management, Brisbane, viewed 18 June 2013, www.ehp.qld.gov.au/water/pdf/water-quality-guidelines.pdf

Department of Main Roads, Guidelines for Assessment of Road Impacts of Development, Department of Main Roads, Brisbane, 2006, viewed 26 March 2013, www.tmr.qld.gov.au/business-industry/Technical-standards-publications/Guidelines-for-assessment-of-road-impacts-of-development.aspx

Department of State Development, Infrastructure and Planning 2014, State Planning Policy, www.dsdip.qld.gov.au/about-planning/state-planning-policy.html, Department of State Development, Infrastructure and Planning, Brisbane, viewed July 2014

Queensland Resources Council 2013, *Queensland Resources and Energy Sector Code of Practice for Local Content*, Queensland Resources Council, Brisbane, viewed 18 June 2013, https://www.qrc.org.au/01_cms/details.asp?ID=3209

Appendix 2 Matters of national environmental significance

The project is a controlled action under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (EPBC 2014/7241). The relevant controlling provisions under the EPBC Act are:

- sections 18 and 18A of the EPBC Act (listed threatened species and communities)
- sections 20 and 20A of the EPBC Act (listed migratory species)
- sections 24D and 24E of the EPBC Act (a water resource, in relation to coal seam gas development and large coal mining development).

Prepare the EIS in accordance with to the bilateral agreement between the Australian and Queensland governments for the purposes of the Australian Government's assessment under part 8 of the EPBC Act. Address the potential impacts on the matters of national environmental significance (MNES) that were identified when the project was determined to be a controlled action.

Produce the MNES section of the EIS in a format suited to the assessment of impacts on MNES under the EPBC Act. It should be a stand-alone document that, if necessary, repeats assessments of impacts addressed in other chapters of the EIS (e.g. water resources, flora and fauna, cultural heritage, etc.), but focussing on MNES.

Initially assess the project in isolation, followed by an assessment of the cumulative impacts related to all known threats including potential impacts of proposed similar developments in the region with respect to each controlling provision.

Provide scientific evidence for the predictions of the extent of threats, impacts, and the benefits of any proposed mitigation measures, and provide an estimate of the reliability of predictions. Identify all sources of information relied upon.

The extent of any new field work, modelling or testing should be commensurate with potential impact to each controlling provision and should, when used in conjunction with existing information, provide sufficient confidence in predictions to allow well-informed decisions.

Include mapping at a scale suitable for identifying the distribution of relevant MNES, both on the proposal site and in a regional context.

1. Background and description of the action

1.1 The assessment documentation must provide background to the action and describe in detail all components of the action such as (but not necessarily limited to) the construction, operation and decommissioning components of the action. This must include the 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 MNES.

1.2 The description of the action must also include details of 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.

1.3 The assessment documentation must address how the action relates to any other actions in the region. Other actions to be considered are those that the proponent should reasonably be aware have been, are being, or will be, undertaken, particularly those that have been approved by some level of government.

1.4 The assessment documentation must also provide details of the current status of the action, and discuss the potential consequences of not proceeding with the action.

2. The environment including MNES

2.1. The assessment documentation must include a description of the environment and management practices of the proposed site, the surrounding areas, and other areas that may be affected by the action. The description must address the relevant MNES protected by controlling provisions of Part 3 of the EPBC Act including:

- listed threatened species and communities, and listed migratory species, (including suitable habitat) that are, or are likely to be, present in the vicinity of the site. The description should include the following details:
  - the scope, timing (survey seasons), methodology and effort for studies or surveys used to provide information on the listed species, community and/or habitat at the site and in other areas that may be impacted by the project
  - how surveys have been applied and are consistent with (or a justification for divergence from) published Australian Government guidelines and policy statements
  - relevant plans or agreements
- the detailed water resource environment relevant to the coal mining development, having regard to the Independent Expert Scientific Committee's (IESC) Information guidelines for proposals relating to the development of coal seam gas and large coal mines (http://www.iesc.environment.gov.au/publications/information-guidelines-independent-expert-scientific-committee-advice-coal-seam-gas).

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

3. Impacts

3.1. The assessment documentation must include a description of all of the relevant impacts of the action on MNES. Impacts during the construction, operational and decommissioning phases of the project must be addressed, and the following information provided:

- 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 (http://www.environment.gov.au/epbc/publications/significant-impact-guidelines-11-matters-national-environmental-significance)
- scenarios involving high risk impacts that are not completely understood at this stage and may be irreversible
- any technical data and other information used or needed to make a detailed assessment of the relevant impacts
- an explanation of how Indigenous stakeholders' views of the action's impacts on biodiversity and cultural heritage have been sought and considered in the assessment, with particular reference to guidelines published by the Commonwealth in relation to consulting with Indigenous peoples for proposed actions that are under assessment
- if the proposal is 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. (http://www.iesc.environment.gov.au/publications/information-guidelines-independent-expert-scientific-committee-advice-coal-seam-gas).

3.2. 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).

4. Avoidance, mitigation measures and alternatives

Avoidance and mitigation

4.1. The assessment documentation must provide information on measures proposed to avoid, mitigate and manage the relevant impacts of the action on MNES.

4.2. The assessment documentation also must take into account relevant agreements and plans that cover impacts on MNES including, but not necessarily limited to:

- any recovery plan or conservation advice for a species or community
- any threat abatement plan for a process that threatens a species
- any wildlife conservation plan for a species
- 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.

4.3. The assessment documentation must substantiate specific, detailed descriptions of the proposed avoidance and mitigation measures based on best available practices, and must include the following elements:

- a consolidated list of the measures proposed to be undertaken to prevent or minimise the relevant impacts of the action on MNES, identifying whether the measures will be undertaken by the proponent, the Queensland Government, local government or some other entity
- assessment of the expected effectiveness of the mitigation measures, considering the scale and intensity of impacts of the proposed action and the on-ground benefits to be gained through each of these measures
- a description of the outcomes that the avoidance and mitigation measures will achieve
- any statutory or policy basis for the mitigation measures
- a detailed plan for the continuing management, mitigation and monitoring of relevant MNES impacts of the action, including any provisions for independent environmental auditing. Each project phase (such as construction, operation, and decommissioning) must be addressed separately. The plan must state the environmental outcomes, performance criteria, monitoring, reporting, corrective action, contingencies, responsibility and timing for each environmental issue
- the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program.

Alternatives

4.4. The assessment documentation must include any feasible alternatives to the action to the extent reasonably practicable, including:

- a comparative description of the impacts of each alternative on the MNES protected by controlling provisions of Part 3 of the EPBC Act for the action
- sufficient detail to make clear why any alternative is preferred to another
- the alternative of taking no action.

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

5. Residual impacts and offsets

5.1. The assessment documentation must provide details of the residual impacts on MNES that are likely to occur after the proposed activities to avoid and mitigate all impacts are taken into account, including the:

- reasons why the avoidance or mitigation of impacts would not be fully achieved
- magnitude of significant residual impacts on MNES.

Offset package

5.2. If there would be significant residual impact from the action, the assessment documentation must include details of an offset package that would be implemented to compensate for the residual impact. The package must include an analysis of how the offset meets the requirements in the Department of the Environment's *Environment Protection and Biodiversity Conservation Act 1999* Environmental Offsets Policy October 2012 (EPBC Act Offset Policy). (http://www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy), or any updated version of the policy that is current at the time the EIS is submitted.

5.3. The offset package may comprise a combination of direct offsets and other compensatory measures, so long as it meets the requirements of the EPBC Act Offset Policy. Offsets should align with conservation priorities for the impacted protected matter.

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

5.5. 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 if neither the action not the offset had taken place.

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

6. Environmental record of person(s) proposing to take the action

6.1. The information provided must include details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:

- the person proposing to take the action
- for an action for which a person has applied for a permit, the person making the application.

6.2. 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

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

- details of any public consultation activities undertaken, and their outcomes
- details of any consultation with Indigenous stakeholders
- projected economic costs and benefits of the project, including the basis for their estimation through cost–benefit analysis or similar studies
- employment opportunities expected to be generated by the project separately for the construction and operational phases.

7.2. Economic and social impacts should be considered at the local, regional and national levels. Details of the relevant costs and benefits of alternative options to the proposed action should also be included.

7.3. Identify affected parties, and include a statement that mentions any communities that may be affected and describes their views.

8. Information sources provided in the assessment documentation

8.1. For information given in the assessment documentation, state:

- the source of the information
- how recent the information is
- how the reliability of the information was tested
- what uncertainties are in the information
- what guidelines, plans and/or policies were considered.

9. Conclusion

9.1. Provide an overall conclusion as to the environmental acceptability of the proposal on each MNES, including:

- a discussion of how the requirements and objects of the EPBC Act were considered together with the principles of ecologically sustainable development and the precautionary principle
- reasons justifying undertaking the proposal in the manner proposed, including the acceptability of the avoidance and mitigation measures
- a discussion of any residual impacts, offsets and compensatory measures proposed or required for residual significant impacts on MNES.

The Department of Environment and Heritage Protection
GPO Box 2454
Brisbane Qld 4001
Ph: 13 QGOV (13 74 68)
Fax: +61 7 3330 5875
Email: EIS@ehp.qld.gov.au

Approved by:

Lindsay Delzoppo	24 April 2015
Signature	**Date**

Lindsay Delzoppo
Director, Statewide Environmental Assessments
Department of Environment and Heritage Protection

Enquiries: EIS Coordinator
Ph. (07) 3330 5600
Fax. (07) 3330 5875