

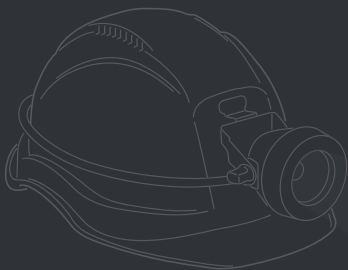
Wallarrah 2 Coal Project

Environmental Impact Statement

April 2013

Appendix B

Regulatory Correspondence





Planning & Infrastructure

Major Projects Assessment**Mining & Industry Projects**

Contact: Carl Dumpleton

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Our Ref: 11/18834

Mr Kerry Heywood
General Manager
Wyong Areas Coal Joint Venture Group
PO Box 3039
TUGGERAH 2259

Dear Mr Heywood

**State Significant Development - Director-General's Requirements
Wallahah 2 Coal Project (SSD-4974)**

The Director General's environmental assessment requirements (DGRs) for the preparation of an Environmental Impact Statement (EIS) for the proposed Wallarah 2 Coal Project are attached.

These requirements are based on the information you have provided to date and have been prepared in consultation with relevant government agencies and the affected councils. Their comments, which you should address appropriately in preparing the EIS, are also attached (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 two years of the date of issue of these DGRs. The Department will review the EIS for the project carefully before putting it on public exhibition, and will require you to submit an amended EIS if it does not adequately address the DGRs.

The Department is aware that your project has been previously declared to be a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The Department understands that the Commonwealth Department of Sustainability, Environment, Water, Population and Communities (DSEWPAC) is currently considering whether a new referral of your revised project is necessary. After the status of your project as a controlled action is clarified, I would appreciate it if you would advise the Department accordingly, as the Commonwealth approval process may be integrated into the NSW approval process, and supplementary DGRs may need to be issued.

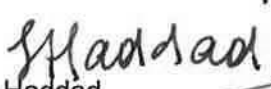
I would particularly like to require you to ensure comprehensive and genuine community consultation during the preparation of the EIS. Clear evidence must be presented to demonstrate that all issues raised during consultation (particularly issues raised by the community) have been addressed, in order for the EIS to be accepted as adequate for exhibition purposes.

I would appreciate it if you would contact the Department at least two weeks before you propose to submit the development application and EIS for your project. This will enable the Department to:

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

If you have any enquiries about these requirements, please contact either Carl Dumpleton at the details listed above, or Howard Reed on 9228 6308.

Yours sincerely


Sam Haddad
Director-General
12/1/2012

Director General's Environmental Assessment Requirements

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

State Significant Development

Application Number	SSD 4974
Development	<p>The Wallarah Coal Project, which includes:</p> <ul style="list-style-type: none"> • developing a new underground mining operation to extract up to 5 million tonnes of coal a year for 28 years; • constructing and operating a range of associated infrastructure including a rail spur, coal stockpiles, ventilation shafts, and a gas drainage and capture system; • transporting coal from the mine by rail; and • rehabilitating the site.
Location	Approximately 5km northwest of Wyong
Applicant	Wyong Areas Coal Joint Venture Group
Date of Issue	12 January 2012
General Requirements	<p>The Environmental Impact Statement (EIS) for the development must meet the form and content requirements in Clauses 6 and 7 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>.</p> <p>In addition, the EIS must include a:</p> <ul style="list-style-type: none"> • detailed description of the development, including: <ul style="list-style-type: none"> – need for the proposed development; – justification for the proposed mine plan, including efficiency of coal resource recovery, mine safety, and environmental protection; – likely staging of the development - including construction, operational stage/s and rehabilitation; – likely interactions between the development and existing, approved and proposed mining operations in the vicinity of the site; – plans of any proposed building works; • consideration of all relevant environmental planning instruments, including identification and justification of any inconsistencies with these instruments; • risk assessment of the potential environmental impacts of the development, identifying the key issues for further assessment; • detailed assessment of the key issues specified below, and any other significant issues identified in this risk assessment, which includes: <ul style="list-style-type: none"> – a description of the existing environment, <u>using sufficient baseline data</u>; – an assessment of the potential impacts of all stages of the development, including any cumulative impacts, taking into consideration relevant guidelines, policies, plans and statutes; and – a description of the measures that would be implemented to avoid, minimise and if necessary, offset the potential impacts of the development, including proposals for adaptive management and/or contingency plans to manage any significant risks to the environment; and • consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS.
Key Issues	<p>The EIS must address the following specific issues:</p> <ul style="list-style-type: none"> • Subsidence – including a detailed quantitative and qualitative assessment of the potential conventional and non-conventional subsidence impacts of the development that includes: <ul style="list-style-type: none"> - the identification of the natural and built features (both surface and sub-surface) within the area that could be affected by subsidence, and an

	<p>assessment of the respective values of these features using any relevant statutory or policy documents;</p> <ul style="list-style-type: none"> - accurate predictions of the potential subsidence effects and impacts of the development, including a robust sensitivity analysis of these predictions; - a detailed assessment of the potential environmental consequences of these effects and impacts on both the natural and built environment, paying particular attention to those features that are considered to have significant economic, social, cultural or environmental values; and - a detailed description of the measures that would be implemented to avoid, minimise, remediate and/or offset subsidence impacts and environmental consequences (including adaptive management and proposed performance measures); <ul style="list-style-type: none"> • Land Resources – including a detailed assessment of the potential impacts on: <ul style="list-style-type: none"> - soils and land capability (including contamination); - landforms and topography, including cliffs, rock formations, steep slopes, etc; - land use, including forestry, conservation and recreational use, with particular reference to Wyong State Forest – including impacts on forestry resources and forestry activities and consideration of appropriate compensation in relation to forestry production; and - agricultural resources and/or enterprises in the local area, including: <ul style="list-style-type: none"> o any change in land-use arising from requirements for biodiversity offsets; o a detailed description of the measures that would be implemented to avoid and/or minimise the potential impacts of the project on agricultural resources and/or enterprises; and o justification for any significant long term changes to agricultural resources, particularly if highly productive agricultural resources (eg alluvial lands) are proposed to be affected by the project. • Water Resources – including: <ul style="list-style-type: none"> - detailed assessment of potential impacts on the quality and quantity of existing surface and ground water resources, including: <ul style="list-style-type: none"> o detailed modelling of potential groundwater impacts; o impacts on riparian, ecological, geo-morphological and hydrological values of watercourses, including environmental flows; - a detailed assessment of the potential impacts of the project on: <ul style="list-style-type: none"> o the quantity and quality of regional water supplies, and in particular the supply of water to the Gosford-Wyong Water Supply Scheme; o regional water supply infrastructure; and o affected licensed water users and basic landholder rights (including downstream water users); - a detailed site water balance, including a description of site water demands, water disposal methods (inclusive of volume and frequency of any water discharges), water supply infrastructure and water storage structures; - identification of any licensing requirements or other approvals under the <i>Water Act 1912</i> and/or <i>Water Management Act 2000</i>; - demonstration that water for the construction and operation of the development can be obtained from an appropriately authorised and reliable supply in accordance with the operating rules of any relevant Water Sharing Plan (WSP) or water source embargo; - a description of the measures proposed to ensure the development can operate in accordance with the requirements of any relevant WSP; - a detailed description of the proposed water management system (including sewage), water monitoring program and other measures to mitigate surface and groundwater impacts; and - a detailed flood impact assessment, which identifies impacts on local and regional flood regimes and resultant impacts on agricultural land use, transport, services, habitability and public safety, including any measures proposed to mitigate potential flood impacts;
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- **Biodiversity** – including:
 - measures taken to avoid, reduce or mitigate impacts on biodiversity;
 - accurate estimates of proposed vegetation clearing;
 - a detailed assessment of potential impacts of the development on any:
 - o terrestrial or aquatic threatened species or populations and their habitats, endangered ecological communities and groundwater dependent ecosystems (including the following threatened species: *Angophora inopina*, *Cryptostylis hunteriana*, *Mixophyes iterates* – the Giant Barred Frog, *Mixophyes balbus* – the Stuttering Frog, *Litoria littlejohnni* – the Littlejohns tree Frog);
 - o migratory bird species listed under CAMBA, JAMBA and/or ROKAMBA; and
 - o regionally significant remnant vegetation, or vegetation corridors;
 - impacts on Jilliby State Conservation Area – including impacts on the conservation and recreational values of the reserve and landowner consent issues; and
 - a comprehensive offset strategy to ensure the development maintains or improves the terrestrial and aquatic biodiversity values of the region in the medium to long term;
- **Heritage** – including:
 - an Aboriginal cultural heritage assessment (including both cultural and archaeological significance) which must:
 - o demonstrate effective consultation with Aboriginal communities in determining and assessing impacts, and developing and selecting mitigation options and measures;
 - o outline any proposed impact mitigation and management measures (including an evaluation of the effectiveness and reliability of the measures); and
 - a Historic heritage assessment (including archaeology) which must:
 - o include a statement of heritage impact (including significance assessment) for any State significant or locally significant historic heritage items; and,
 - o outline any proposed mitigation and management measures (including an evaluation of the effectiveness and reliability of the measures);
- **Air Quality** – including a quantitative assessment of potential:
 - construction and operational impacts, with a particular focus on dust emissions including PM_{2.5} and PM₁₀ emissions and the dust generation from coal transport;
 - reasonable and feasible mitigation measures to minimise dust emissions, including evidence that there are no such measures available other than those proposed; and
 - monitoring and management measures, in particular real-time air quality monitoring;
- **Greenhouse Gases** – including:
 - a quantitative assessment of potential Scope 1, 2 and 3 greenhouse gas emissions;
 - a qualitative assessment of the potential impacts of these emissions on the environment; and
 - an assessment of reasonable and feasible measures to minimise greenhouse gas emissions and ensure energy efficiency;
- **Noise** – including a quantitative assessment of potential:
 - construction, operational and transport noise impacts;
 - offsite road noise impacts; and
 - reasonable and feasible mitigation measures, including evidence that there are no such measures available other than those proposed; and
 - monitoring and management measures, in particular real-time and attended noise monitoring;
- **Traffic & Transport** – including:
 - a detailed assessment of the project on the capacity, efficiency and safety of the:
 - o rail network, having regard to the strategic objectives for passenger

	<p>and freight rail network (such as the Northern Sydney Freight Rail Corridor project); and</p> <ul style="list-style-type: none"> ○ local road network, with particular regard to the Wallarah interchange (F3 Freeway and Sparks Road), Motorway Link Road / Tooheys Road intersection and the Sparks Road / Hue Hue Road intersection; and - a description of the measures that would be implemented to maintain and/or improve the capacity, efficiency and safety of the road and rail networks in the surrounding area over the life of the project; <ul style="list-style-type: none"> • Human Health – including a detailed Human Health Risk Assessment addressing how the project's environmental impacts (particularly in relation to air quality, noise and drinking water quality) may impact on the health of the local community. The assessment should address both direct and indirect impacts, such as may result from additional rail and road movements; • Visual – including: <ul style="list-style-type: none"> - a detailed assessment of the: <ul style="list-style-type: none"> ○ changing landforms on site during the various stages of the project; and ○ potential visual impacts of the project on private landowners in the surrounding area as well as key vantage points in the public domain, and particularly the proposed Warnervale Town Centre, Wyong Employment Zone, and the major elements of the public domain linking these two areas; - a detailed description of the measures that would be implemented to minimise the potential visual impacts of the project; • Waste – including: <ul style="list-style-type: none"> - accurate estimates of the quantity and nature of the potential waste streams of the development, including tailings and coarse reject; - a tailings and coarse reject disposal strategy; and - a description of measures that would be implemented to minimise production of other waste, and ensure that that waste is appropriately managed; • Hazards – paying particular attention to public safety, and including bushfires; • Social & Economic – including an assessment of the: <ul style="list-style-type: none"> - potential direct and indirect economic benefits of the project for local and regional communities and the State; - potential impacts on local and regional communities, including: <ul style="list-style-type: none"> ○ increased demand for local and regional infrastructure and services (such as housing, childcare, health, education and emergency services); and ○ impacts on social amenity; - a detailed description of the measures that would be implemented to minimise the adverse social and economic impacts of the project, including any infrastructure improvements or contributions and/or voluntary planning agreement or similar mechanism; and - a detailed assessment of the costs and benefits of the development as a whole, and whether it would result in a net benefit for the NSW community; and • Rehabilitation – including the proposed rehabilitation strategy for the site, having regard to the key principles in the Strategic Framework for Mine Closure, including: <ul style="list-style-type: none"> - rehabilitation objectives, methodology, monitoring programs, performance standards and proposed completion criteria; - nominated final land use, having regard to any relevant strategic land use planning or resource management plans or policies; and - the potential for integrating this strategy with any other rehabilitation and/or offset strategies in the region.
Plans and Documents	The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the <i>Environmental</i>

	<i>Planning and Assessment Regulation 2000</i> . These documents should be included as part of the EIS rather than as separate documents.
Consultation	<p>During the preparation of the EIS, you must consult with relevant local, State and Commonwealth Government authorities, service providers, community groups and affected landowners.</p> <p>In particular you must consult with the:</p> <ul style="list-style-type: none"> • Commonwealth Department of Sustainability, Environment, Water, Population and Communities; • Office of Environment and Heritage (including the Heritage Branch); • Environment Protection Authority; • Division of Resources and Energy within the Department of Trade and Investment, Regional Infrastructure and Services; • Department of Primary Industries (including the NSW Office of Water, NSW Forestry, Agriculture and Fisheries sections, Catchments and Lands (Crown Lands Division)); • NSW Health; • Transport for NSW (including the Centre for Transport Planning, Roads and Maritime Services); • Australian Rail Track Corporation, and downstream coal chain operators including Railcorp, Newcastle Ports Corporation and the Hunter Valley Coal Chain Co-ordinator; • Mine Subsidence Board; • Gosford-Wyong Councils Water Authority; • Hunter Central Rivers Catchment Management Authority; • Wyong Shire Council; and • Lake Macquarie City Council. <p>The EIS must:</p> <ul style="list-style-type: none"> • describe the consultation process used and demonstrate that effective consultation has occurred; • describe the issues raised by public authorities, service providers, community groups and landowners; • identify where the design of the development has been amended in response to issues raised; and • otherwise demonstrate that issues raised have been appropriately addressed in the assessment.
Further consultation after 2 years	If you do not lodge a DA and an EIS for the development within 2 years of the issue date of these DGRs, you must consult further with the Director-General in relation to the requirements for lodgement.
References	The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, Attachment 1 contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this development.

ATTACHMENT 1 Technical and Policy Guidelines

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

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

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

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

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

Policies, Guidelines & Plans

Risk Assessment	
	AS/NZS 4360:2004 Risk Management (Standards Australia)
	HB 203: 2006 Environmental Risk Management – Principles & Process (Standards Australia)
Biodiversity	
	Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna – Amphibians (DECCW 2009)
	Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities – Working Draft (DECC 2004)
	Guidelines for Threatened Species Assessment (DoP 2005)
	BioBanking Assessment Methodology and Credit Calculator Operational Manual (DECCW 2008)
	The Threatened Species Assessment Guideline – The Assessment of Significance (DECC 2007)
	NSW State Groundwater Dependent Ecosystem Policy (DLWC)
	Policy & Guidelines - Aquatic Habitat Management and Fish Conservation (NSW Fisheries)
	State Environmental Planning Policy No. 44 – Koala Habitat Protection
Water Resources	
	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)
	Using the ANZECC Guideline and Water Quality Objectives in NSW (DEC)
	State Water Management Outcomes Plan
	Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2009
Surface Water	NSW Government Water Quality and River Flow Objectives (DECC)
	Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC)
	Managing Urban Stormwater: Soils & Construction (Landcom) and associated Volume 2E: Mines and Quarries.
	Managing Urban Stormwater: Treatment Techniques (DECC)
	Managing Urban Stormwater: Source Control (DECC)
	Floodplain Development Manual (DIPNR)
	Floodplain Risk Management Guideline (DECC)
	A Rehabilitation Manual for Australian Streams (LWRRDC and CRCCH)
	Technical Guidelines: Bunding & Spill Management (DECC)
	Environmental Guidelines: Use of Effluent by Irrigation (DECC)

<i>Groundwater</i>	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC)
	NSW State Groundwater Policy Framework Document (DLWC, 1997)
	NSW State Groundwater Quality Protection Policy (DLWC, 1998)
	NSW State Groundwater Quantity Management Policy (DLWC, 1998)
	Murray-Darling Basin Groundwater Quality. Sampling Guidelines. Technical Report No 3 (MDBC)
	Murray-Darling Basin Commission. Groundwater Flow Modelling Guideline (Aquaterra Consulting Pty Ltd)
	Guidelines for the Assessment & Management of Groundwater Contamination (DECC, 2007)
	Any relevant Water Sharing Plan for groundwater and surface water resources
Air Quality	
	Protection of the Environment Operations (Clean Air) Regulation 2002
	Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (DEC)
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC)
Noise & Blasting	
	NSW Industrial Noise Policy (DECC)
	Environmental Noise Management – Assessing Vibration: a technical guide (DEC)
	NSW Road Noise Policy (DECCW)
	Interim Guidelines for the Assessment of Noise From Rail Infrastructure Projects (DECC)
	Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration (ANZECC)
Land Resources	
	Draft Agricultural Impact Assessment Guidelines 2011 (DP&I)
	Agfact AC25: Agricultural Land Classification (NSW Agriculture)
	Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC)
Traffic & Transport	
	Guide to Traffic Generating Development (RTA)
	Road Design Guide (RTA)
Heritage	
<i>Aboriginal</i>	Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation (DEC 2005)
	The Burra Charter (The Australia ICOMOS charter for places of cultural significance)
<i>Historic</i>	NSW Heritage Manual (NSW Heritage Office)
	The Burra Charter (The Australia ICOMOS charter for places of cultural significance)
Greenhouse Gases	
	National Greenhouse Accounts Factors (Australian Department of Climate Change (DCC))
	Guidelines for Energy Savings Action Plans (DEUS)
Waste	
	Waste Classification Guidelines (DECC)
Hazards	
	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

Rehabilitation

Mine Rehabilitation – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth of Australia)

Mine Closure and Completion – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth of Australia)

Strategic Framework for Mine Closure (ANZMEC-MCA)

Socio-Economic

Draft Economic Evaluation in Environmental Impact Assessment (DoP)

Techniques for Effective Social Impact Assessment: A Practical Guide (Office of Social Policy, NSW Government Social Policy Directorate)

ATTACHMENT 2

Agency Input into Key Assessment Issues



**Planning &
Infrastructure**

**Major Projects Assessment
Mining & Industry**

Contact: Carl Dumpleton

Phone: (02) 9228 6283

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Email: carl.dumpleton@planning.nsw.gov.au

Mr Kerry Heywood
General Manager
Wyong Areas Coal Joint Venture Group
PO Box 3039
TUGGERAH 2259

Dear Mr Heywood

**Wallarah 2 Coal Project (SSD-4974)
Supplement to the Director-General's Requirements**

I refer to the Director-General's requirements issued for the Wallarah 2 Coal Project, 12 January 2012.

As you are aware, this project has been declared a controlled action under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. The Department of Sustainability, Environment, Water, Population and Communities has accredited the NSW Part 4 State Significant Development assessment process for the project.

To ensure that sufficient information is provided to enable an appropriate level of assessment of relevant matters of National Environmental Significance, the Director-General has issued supplementary requirements for the Environmental Impact Statement (EIS) under section 78A(8A) of the *Environmental Planning and Assessment Act 1979*. A copy of the supplementary requirements is attached.

You must ensure that the EIS adequately addresses the Director-General's requirements issued on 12 January 2012, as well as the attached supplementary requirements.

To speed up the assessment process, it is recommended that the EIS for the project include separate appendices dealing with State and Commonwealth biodiversity matters. However, the main report should deal with these matters in an integrated manner.

If you have any enquiries about these requirements, please contact Carl Dumpleton on the details above.

Yours sincerely

David Kitto 11/7/12

David Kitto
Director
Mining & Industry Projects
as delegate for the Director-General

Supplementary Director-General's Requirements

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

A delegate for the Commonwealth Minister for Sustainability, Environment, Water, Population and Communities has determined the Wallarah 2 Coal Project (EPBC 2012/6388), involving the development and operation of the Wallarah 2 underground coal mine, 4.7 kilometres north-west of Wyong, NSW, to be a controlled action under section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The action is likely to have a significant impact on the EPBC Act listed threatened species including Charmhaven Apple (*Angophora inopina*) and Black-eyed Susan (*Tetratheca juncea*); listed as vulnerable under the Act, and Spotted-tailed Quoll (*Dasyurus maculates maculatus*) and Giant Barred Frog (*Mixophyes iteratus*), listed as endangered under the Act. Significant impacts are also considered possible for a number of other species protected by the EPBC Act including, but not limited to, those listed in Appendix A.

In accordance with the one-off accredited assessment process for this project, the environmental assessment of the impacts of the controlled action must be assessed under the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The assessment should include enough information about the action and its relevant impacts to allow the Minister for Sustainability, Environment, Water, Population and Communities to make an informed decision on whether or not to approve the action under the EPBC Act.

The following assessment requirements concerning matters in the EPBC Act and schedule 4 of the *Environment Protection and Biodiversity Conservation Regulations 2000* should be integrated into the assessment requirements of the EP&A Act.

General information

1. The background of the action, including:

- a. the title of the action;
- b. the full name and postal address of the designated proponent;
- c. a clear outline of the objective of the action;
- d. the location of the action;
- e. the background to the development of the action;
- f. 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;
- g. the current status of the action; and
- h. the consequences of not proceeding with the action.

Description of the controlled action

2. A description of the action, including:

- a. all the components of the action;
- b. the precise location of any works to be undertaken, structures to be built or elements of the action that may have relevant impacts;
- c. how the works are to be undertaken and design parameters for those aspects of the structures or elements of the action that may have relevant impacts;
- d. the timing and duration of the works to be undertaken; and

- e. to the extent reasonably practicable, a description of any feasible alternatives to the controlled action that have been identified through the assessment, and their likely impact, including:
 - i. if relevant, the alternative of taking no action;
 - ii. a comparative description of the impacts of each alternative on the matters protected by the controlling provisions for the action;
 - iii. sufficient detail to clarify why any alternative is preferred to another.

Description of the existing environment

3. A description of the existing environment of the proposal location and the surrounding areas that may be affected by the action, including but not limited to:
 - a. surveys using accepted methodology for targeting EPBC listed threatened species and their respective habitat, including but not limited to OEH's *Survey and assessment guidelines* (2009), available at:
<http://www.environment.nsw.gov.au/threatenedspecies/surveymethodsfauna.htm>
 and the Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) species-specific survey guidelines for nationally threatened species, available at:
<http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>
 - b. a description of the distribution and abundance of threatened species, as well as suitable habitat (including breeding, foraging, roosting habitat, habitat critical to the survival of threatened species) within the site and in surrounding areas that may be impacted by the proposal. Specifically, this must include but not be limited to the Charmhaven Apple (*Angophora inopina*), Black-eyed Susan (*Tetratheca juncea*), Spotted-tailed Quoll (*Dasyurus maculatus maculatus*) and Giant Barred Frog (*Mixophyes iteratus*);
 - c. the regional distribution and abundance of suitable and potential habitat for EPBC listed threatened species surrounding the site.

Description of the relevant impacts of the controlled action

4. An assessment of all relevant impacts¹ with reference to the *EPBC Act Policy Statement 1.1 Significant Impact Guidelines Matters of National Environmental Significance* (2009) that the controlled action has, will have or is likely to have on: relevant threatened species and/or threatened ecological communities listed under sections 18 and 18A of the EPBC Act. This includes relevant impacts such as vegetation removal, ground subsidence and alteration of hydrological processes on species including but not limited to Charmhaven Apple (*Angophora inopina*), Black-eyed Susan (*Tetratheca juncea*), Spotted-tailed Quoll (*Dasyurus maculatus maculatus*) and Giant Barred Frog (*Mixophyes iteratus*). Information must include:
 - a. a description of the relevant impacts of the action on matters of national environmental significance;
 - b. a detailed assessment of the nature and extent of the likely short term and long term relevant impacts;
 - c. a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible;
 - d. analysis of the significance of the relevant impacts;

¹ The term "relevant impact" is defined in section 82 of the EPBC Act.

- e. any technical data and other information used or needed to make a detailed assessment of the relevant impacts.
5. A description of the relevant impacts on the Charmhaven Apple (*Angophora inopina*) should include an analysis of the current distribution on the site, as well as the methods by which this was determined. It should also include direct, indirect, cumulative and facilitative impacts on the:
- a. extent of the Charmhaven Apple population, including connectivity of the species on the site and surrounding areas (specify quantity or area covered by the species in hectares or number of individuals);
 - b. quality or integrity of the Charmhaven Apple population including, but not limited to impacts such as, vegetation removal, assisting invasive species that are harmful to the species to become established, causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the habitat that may kill or inhibit the growth of species, or alteration of vegetation communities resulting in increased competition or shading of the species;
 - c. abiotic (non-living) factors (such as water, nutrients or soil) necessary for the survival of the Charmhaven Apple, including, but not limited to impacts such as, soil disturbance, alteration of shading/light levels, altering groundwater levels, or substantial alteration of surface water drainage patterns.

These impacts should be described for both the construction and operational phases of the controlled action.

6. A description of the relevant impacts on the Giant Barred Frog (*Mixophyes iteratus*) should include an analysis of the current and potential habitat on the site, as well as the methods by which this was determined. It should also include direct, indirect, cumulative and facilitative impacts on the:
- a. extent of the Giant Barred Frog population, including connectivity with other populations;
 - b. quality or integrity of the Giant Barred Frog population;
 - c. abiotic (non-living) factors (such as water, nutrients or soil) necessary for the survival of the Giant Barred Frog, including, but not limited to impacts such as, ground subsidence, altering groundwater levels, water quality or substantial alteration of surface water drainage patterns.
 - i. impacts associated with ground subsidence and alteration to ground and surface hydrology should be ascertained through adequate assessment and modelling studies.

These impacts should be described for both the construction and operational phases of the controlled action.

Proposed safeguards and mitigation measures

7. A description of feasible mitigation measures, changes to the action or procedures, which have been proposed by the proponent or suggested in public submissions, and which are intended to prevent or minimise relevant impacts. Information must include:
- a. a description of the mitigation measures that will be undertaken to prevent or minimise the relevant impacts of the action. These mitigation measures should be justified and based on best available practices;
 - b. an assessment of the expected or predicted effectiveness of the mitigation measures including the effect on abundance and condition of species, suitable habitat and ecological communities;
 - c. any statutory or policy basis for the mitigation measures;

- d. the cost of the mitigation measures;
- e. an environmental management plan that sets out the framework for continuing management, mitigation and monitoring programs (including any relevant thresholds for corrective actions) for the relevant impacts of the action. Include the person or agency responsible for implementing these programs and the effectiveness of all mitigation measures, including any provisions for independent environmental auditing;
- f. the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program;
- g. identification of mitigation measures proposed to be undertaken by State governments, local governments or the proponent;
- h. any changes to the action which prevent or minimise relevant impacts on listed threatened species and communities.

Offsets

8. Should any residual impact exist that cannot be mitigated it may be necessary for offset measures to be considered in order to ensure the protection of matters of national environmental significance in perpetuity. If required, the department may negotiate offsets with you during the assessment phase. Reference should be made to the department's draft policy statement, including any revisions to this statement, at :
<http://www.environment.gov.au/epbc/publications/draft-environmental-offsets.html>
 - a. the description of any offset package should include how the offset compensates for the residual impacts, when the offset will be delivered and how the offset will be managed;
 - b. an assessment of the impact of the offsets on other matters of environmental, economic, or social significance; and
 - c. analysis of cost, both financial and other, related to offsets.

Other approvals and conditions

9. Any other requirements for approval or conditions that apply, or that the proponent reasonably believes are likely to apply, to the proposed action. Information must include:
 - a. details of any local or State government planning scheme, or plan or policy under any local or State government planning system that deals with the proposed action, including:
 - i. what environmental assessment of the proposed action has been, or is being, carried out under the scheme, plan or policy; and
 - ii. how the scheme provides for the prevention, minimisation and management of any relevant impacts;
 - b. a description of any approval that has been obtained from a State, Territory or Commonwealth agency or authority (other than an approval under the EPBC Act), including any conditions that apply to the action;
 - c. a statement identifying any additional approval that is required;
 - d. a description of the monitoring, enforcement and review procedures that apply, or are proposed to apply, to the action.

Economic and social matters

10. A description of the short-term and long-term social and economic implications and/or impacts of the project.

Environmental record of person proposing to take the action

11. 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 proponent; and
 - b. for an action for which a person has applied for a permit, the person making the application.
12. Details of the proponent's environmental policy and planning framework.

Information sources

13. For information given in an environment assessment, the draft must state:
 - a. the source of the information;
 - b. how recent the information is;
 - c. how the reliability of the information was tested; and
 - d. what uncertainties (if any) are in the information.

Consultation

14. Any consultation about the action, including:
 - a. any consultation that has already taken place;
 - b. proposed consultation about relevant impacts of the action;
 - c. if there has been consultation about the proposed action — any documented response to, or result of, the consultation.
15. Identification of affected parties, including a statement mentioning any communities that may be affected and describing their views.

APPENDIX A

Threatened flora:

- Bynoe's Wattle (*Acacia bynoeana*) – Vulnerable
- Leafless Tongue Orchid (*Cryptostylis hunteriana*) – Vulnerable
- Small-flower Grevillea (*Grevillea parviflora*) – Vulnerable
- Biconvex Paperbark (*Melaleuca biconvex*) - Vulnerable

Threatened fauna:

- Australasian Bittern (*Botaurus poiciloptilus*) – Endangered
- Grey-headed Flying Fox (*Pteropus poliocephalus*) – Vulnerable
- Large-eared Pied Bat (*Chalinolobus dwyeri*) - Vulnerable
- Littlejohn's Tree Frog (*Litoria littlejohni*) – Vulnerable
- Stuttering Frog (*Mixophyes balbus*) – Vulnerable