

# Director-General's Requirements

Section 75F of the *Environmental Planning and Assessment Act 1979*

<b>Application Number</b>	MP 10_0162.
<b>Project</b>	The Narrabri Gasfield Project, including: <ul style="list-style-type: none"> <li>• the establishment of up to 550 gas well sets; and</li> <li>• a range of associated infrastructure such as gas-gathering lines, gas processing and compression facilities and water storage and treatment infrastructure.</li> </ul>
<b>Location</b>	Within and adjacent to the Pilliga East State Forest, off the Newell Highway, approximately 30 kilometres south of Narrabri.
<b>Proponent</b>	Eastern Star Gas Limited.
<b>Date of Issue</b>	18 February 2011.
<b>General Requirements</b>	<p>The Environmental Assessment of the project must include:</p> <ul style="list-style-type: none"> <li>• an executive summary;</li> <li>• a detailed description of the project, including the: <ul style="list-style-type: none"> <li>– need for the project;</li> <li>– alternatives considered including justification for the proposed project plan;</li> <li>– likely staging of the project;</li> <li>– likely interactions between the project and the proponent's existing and proposed gasfield operations and pipeline developments; and</li> <li>– plans of any proposed building works;</li> </ul> </li> <li>• a risk assessment of the potential environmental impacts of the project, identifying the key issues for further assessment;</li> <li>• a detailed assessment of the key issues specified below, and any other significant issues identified in the risk assessment (see above), which includes: <ul style="list-style-type: none"> <li>– a description of the existing environment, using sufficient baseline data;</li> <li>– an assessment of the potential impacts of the project, including taking into consideration any relevant guidelines, policies, plans and statutory provisions (see below); and</li> <li>– a description of the measures that would be implemented to avoid, minimise and if necessary, offset the potential impacts of the project, including detailed contingency plans for managing any significant risks to the environment;</li> </ul> </li> <li>• a statement of commitments, outlining all the proposed environmental management and monitoring measures;</li> <li>• a conclusion justifying the project on economic, social and environmental grounds, taking into consideration whether the project is consistent with the objects of the <i>Environmental Planning &amp; Assessment Act 1979</i>; and</li> <li>• a signed statement from the author of the Environmental Assessment, certifying that the information contained within the document is neither false nor misleading.</li> </ul>
<b>Key Issues</b>	<ul style="list-style-type: none"> <li>• <b>Soil and Water</b> – including: <ul style="list-style-type: none"> <li>– detailed modelling of the potential surface and groundwater impacts of the project;</li> <li>– a detailed project water balance;</li> <li>– a Water Management Strategy, including an evaluation of the options for the reuse and disposal of production water;</li> </ul> </li> </ul>

- a detailed assessment of the potential impacts of the project on:
  - o the quality and quantity of both surface and groundwater resources;
  - o water users, both in the vicinity of and downstream of the project; and
  - o environmental flows;
- **Biodiversity** – including:
  - measures taken to avoid impacts on biodiversity;
  - accurate estimates of proposed vegetation clearing;
  - a detailed assessment of the potential impacts of the project on any:
    - o terrestrial or aquatic threatened species or populations and their habitats, endangered ecological communities and water dependent ecosystems; and
    - o regionally significant remnant vegetation, or vegetation corridors; and
  - an offset strategy to ensure the project maintains or improves the terrestrial and aquatic biodiversity values of the region in the medium to long term (in accordance with NSW and Commonwealth policies), and considers offsets or compensation in relation to forestry production;
- **Air Quality** – including a quantitative assessment of the potential air quality impacts of the project;
- **Noise and Vibration**– including a quantitative assessment of the potential:
  - construction, operational and transport noise impacts (noise modelling should be based on applicable meteorological and stability category temperature inversion conditions to be developed in consultation with DECCW); and
  - potential vibration impacts on people, livestock and property;
- **Traffic & Transport** – including:
  - accurate predictions of the road traffic associated with construction and operation of the project; and
  - a detailed assessment of the potential impacts of this traffic on the capacity, efficiency, and safety of the road network;
- **Greenhouse Gases** – including:
  - a quantitative assessment of the potential scope 1, 2 and 3 greenhouse gas emissions of the project;
  - a qualitative assessment of the potential impacts of these emissions on the environment; and
  - an assessment of all reasonable and feasible measures to minimise the greenhouse gas emissions of the project and ensure energy efficiency;
- **Hazards** – including:
  - details of the measures taken to ensure that the gas well sets and processing and compression facilities are constructed and operated in accordance with appropriate hazard guidelines; and
  - consideration of bushfire risks to the facilities and the risks of bushfire initiation from gas leaks;
- **Waste** - including:
  - accurate estimates of the quantity and nature of the potential waste streams of the project, including brine, salt, effluent and domestic waste; and
  - a detailed description of the measures that would be implemented to minimise the production of waste on site, and ensure that any waste produced is appropriately handled and disposed of;
- **Rehabilitation** – including:
  - a detailed description of the proposed rehabilitation strategy for the project area;

	<ul style="list-style-type: none"> <li>- strategic rehabilitation objectives, methodology and proposed completion criteria; and</li> <li>- nominated final land uses and landforms, having regard to any relevant strategic land use planning or resource management plans or policies;</li> <li>• <b>Social &amp; Economic</b> - including: <ul style="list-style-type: none"> <li>- an assessment of the potential impacts of the project on the local and regional community, paying particular attention to the demand it may generate for the provision of additional infrastructure and services; and</li> <li>- a detailed assessment of the costs and benefits of the project as a whole, and whether it would result in a net benefit for the NSW community.</li> </ul> </li> <li>• <b>Visual</b>; and</li> <li>• <b>Heritage</b> – both Aboriginal and non-Aboriginal.</li> </ul>
<b>References</b>	<p>The environmental assessment of the key issues listed above must take into account relevant guidelines, policies, and plans. While not exhaustive, the following attachment contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this project.</p>
<b>Consultation</b>	<p>During the preparation of the Environmental Assessment, you should consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners.</p> <p>In particular you must consult with:</p> <ul style="list-style-type: none"> <li>• Commonwealth Department of Sustainability, Environment, Water, Populations and Community;</li> <li>• Department of Environment, Climate Change and Water, including the NSW Office of Water;</li> <li>• Industry and Investment NSW;</li> <li>• NSW Roads and Traffic Authority;</li> <li>• Narrabri Shire Council;</li> <li>• Gunnedah Shire Council;</li> <li>• Namoi Catchment Management Authority;</li> <li>• Land and Property Management Authority; and</li> <li>• Livestock Health and Pest Authorities.</li> </ul> <p>The consultation process and the issues raised must be described in the Environmental Assessment.</p>
<b>Deemed Refusal Period</b>	90 days

## Policies, Guidelines & Plans

### Biodiversity

Draft Guidelines for Threatened Species Assessment under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) (DEC)

NSW State Groundwater Dependent Ecosystem Policy (DLWC)

Policy & Guidelines - Aquatic Habitat Management and Fish Conservation (NSW Fisheries)

Policy & Guidelines - Fish Friendly Waterway Crossings (NSW Fisheries)

State Environmental Planning Policy No. 44 – Koala Habitat Protection

### Soil & Water

#### Soil

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

Rural Land Capability Mapping (DLWC)

Agricultural Land Classification (DPI)

#### Surface Water

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)

Namoi Catchment Action Plan (Namoi CMA)

Namoi Catchment Extractive Industries Policy (Namoi CMA)

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

State Water Management Outcomes Plan

Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Sources 2003 (DECCW)

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)

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)

#### Groundwater

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)

Water Sharing Plan for the Upper and Lower Namoi Groundwater Sources (2003)

**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)  
Environmental Criteria for Road Traffic Noise (NSW EPA)  
Interim Guideline for the Assessment of Noise From Rail Infrastructure Projects (DECC)  
Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration (ANZEC)  
Interim Construction Noise Guideline (DECC)  
DIN 4150 Part 3 - Structural Vibration: effects of vibration on structures (ISO, 1999)

**Traffic & Transport**

Guide to Traffic Generating Development (RTA)  
Road Design Guide (RTA)

**Heritage***Aboriginal*

Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation (DoP and DEC)  
Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW)

*Non-Aboriginal*

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  
Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines (DUAP)  
Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis  
Locational Guidelines – Development in the Vicinity of Operating Coal Seam Methane Wells (DIPNR)

**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)

**Social & 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)



<b>Air Quality</b>	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)
<b>Noise &amp; Blasting</b>	NSW Industrial Noise Policy (DECC) Environmental Noise Management – Assessing Vibration: a technical guide (DEC) Environmental Criteria for Road Traffic Noise (NSW EPA) Interim Guideline for the Assessment of Noise From Rail Infrastructure Projects (DECC) Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration (ANZEC) Interim Construction Noise Guideline (DECC) DIN 4150 Part 3 - Structural Vibration: effects of vibration on structures (ISO, 1999)
<b>Traffic &amp; Transport</b>	Guide to Traffic Generating Development (RTA) Road Design Guide (RTA)
<b>Heritage</b>	
<i>Aboriginal</i>	Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation (DoP and DEC) Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW)
<i>Non-Aboriginal</i>	NSW Heritage Manual (NSW Heritage Office) The Burra Charter (The Australia ICOMOS charter for places of cultural significance)
<b>Greenhouse Gases</b>	National Greenhouse Accounts Factors (Australian Department of Climate Change (DCC)) Guidelines for Energy Savings Action Plans (DEUS)
<b>Waste</b>	Waste Classification Guidelines (DECC)
<b>Hazards</b>	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines (DUAP) Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis Locational Guidelines – Development in the Vicinity of Operating Coal Seam Methane Wells (DIPNR)
<b>Rehabilitation</b>	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)
<b>Social &amp; Economic</b>	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)