



MINISTER FOR THE ENVIRONMENT AND HERITAGE

Statement No.

000596

**STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED  
(PURSUANT TO THE PROVISIONS OF THE  
ENVIRONMENTAL PROTECTION ACT 1986)**

**GAS-FIRED POWER STATION AND NATURAL GAS PIPELINE,  
12 KM NORTH-WEST OF BODDINGTON  
SHIRE OF BODDINGTON**

**Proposal:** The construction and operation of a 110 MW gas-fired power station at the Boddington Gold Mine, approximately 12 kilometres north-west of Boddington, and the construction of a natural gas pipeline to the power station, predominantly along the railway reserve between Pinjarra and Boddington, as documented in schedule 1 of this statement.

**Proponent:** Worsley Alumina Pty Ltd

**Proponent Address:** PO Box 48, Boddington WA 6390.

**Assessment Number:** 1408

**Report of the Environmental Protection Authority:** Bulletin 1035

The proposal referred to above may be implemented subject to the following conditions and procedures:

*Procedural conditions*

**1 Implementation and Changes**

1-1 The proponent shall implement the proposal as documented in schedule 1 of this statement subject to the conditions of this statement.

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- 1-2 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment and Heritage determines, on advice of the Environmental Protection Authority, is substantial, the proponent shall refer the matter to the Environmental Protection Authority.
- 1-3 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment and Heritage determines, on advice of the Environmental Protection Authority, is not substantial, the proponent may implement those changes upon receipt of written advice.

## **2 Proponent Commitments**

- 2-1 The proponent shall implement the consolidated environmental management commitments documented in schedule 2 of this statement.
- 2-2 The proponent shall implement subsequent environmental management commitments which the proponent makes as part of the fulfilment of the conditions and procedures in this statement.

## **3 Proponent Nomination and Contact Details**

- 3-1 The proponent for the time being nominated by the Minister for the Environment and Heritage under section 38(6) or (7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal until such time as the Minister for the Environment and Heritage has exercised the Minister's power under section 38(7) of the Act to revoke the nomination of that proponent and nominate another person as the proponent for the proposal.
- 3-2 If the proponent wishes to relinquish the nomination, the proponent shall apply for the transfer of proponent and provide a letter with a copy of this statement endorsed by the proposed replacement proponent that the proposal will be carried out in accordance with this statement. Contact details and appropriate documentation on the capability of the proposed replacement proponent to carry out the proposal shall also be provided.
- 3-3 The nominated proponent shall notify the Department of Environmental Protection of any change of contact name and address within 60 days of such change.

## **4 Commencement and Time Limit of Approval**

- 4-1 The proponent shall provide evidence to the Minister for the Environment and Heritage within five years of the date of this statement that the proposal has been substantially commenced or the approval granted in this statement shall lapse and be void.

Note: The Minister for the Environment and Heritage will determine any dispute as to whether the proposal has been substantially commenced.

- 4-2 The proponent shall make application for any extension of approval for the substantial commencement of the proposal beyond five years from the date of this statement to the Minister for the Environment and Heritage prior to the expiration of the five-year period referred to in condition 4-1.

The application shall demonstrate that:

- the environmental factors of the proposal have not changed significantly;
- new, significant environmental issues have not arisen; and
- all relevant government authorities have been consulted.

Note: The Minister for the Environment and Heritage may consider the grant of an extension of the time limit of approval not exceeding five years for the substantial commencement of the proposal.

### *Environmental conditions*

#### **5 Closure Plans**

- 5-1 At least six months prior to the anticipated date of closure, or at a time agreed with the Environmental Protection Authority, the proponent shall prepare a Final Closure Plan designed to ensure that the site is left in an environmentally acceptable condition to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority.

The Final Closure Plan shall address:

- 1 removal or, if appropriate, retention of plant and infrastructure in consultation with relevant stakeholders;
  - 2 rehabilitation of all disturbed areas to a standard suitable for the agreed new land use(s); and
  - 3 identification of contaminated areas, including provision of evidence of notification and proposed management measures to relevant statutory authorities.
- 5-2 The proponent shall implement the Final Closure Plan required by condition 5-1 until such time as the Minister for the Environment and Heritage determines, on advice of the Environmental Protection Authority, that the proponent's closure responsibilities are complete.

## 6 Compliance Audit and Performance Review

6-1 The proponent shall prepare an audit program in consultation with and submit compliance reports to the Department of Environmental Protection which address:

- the implementation of the proposal as defined in schedule 1 of this statement;
- evidence of compliance with the conditions and commitments; and
- the performance of the environmental management plans and programs.

Note: Under sections 48(1) and 47(2) of the *Environmental Protection Act 1986*, the Chief Executive Officer of the Department of Environmental Protection is empowered to audit the compliance of the proponent with the statement and should directly receive the compliance documentation, including environmental management plans, related to the conditions, procedures and commitments contained in this statement. Usually, the Department of Environmental Protection prepares an audit table which can be utilised by the proponent, if required, to prepare an audit program to ensure that the proposal is implemented as required. The Chief Executive Officer is responsible for the preparation of written advice to the proponent, which is signed off by either the Minister or, under an endorsed condition clearance process, a delegate within the Environmental Protection Authority or the Department of Environmental Protection that the requirements have been met.

6-2 The proponent shall submit a performance review report every five years after the start of the operations phase to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority, which addresses:

- the major environmental issues with the project; the targets for those issues; the methodologies used to achieve these; and the key indicators of environmental performance measured against those targets;
- the level of progress in the achievement of sound environmental performance, including industry bench marking and the use of best available technology where practicable;
- significant improvements gained in environmental management, including the use of external peer reviews;
- stakeholder and community consultation about environmental performance and the outcomes of that consultation, including a report of any on-going concerns being expressed; and
- the proposed environmental targets over the next five years, including improvements in technology and management processes.

### Procedures

1 Where a condition states "to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority", the Chief Executive Officer of the Department of Environmental Protection will obtain that advice for the preparation of written advice to the proponent.

- 2 The Environmental Protection Authority may seek advice from other agencies, as required, in order to provide its advice to the Chief Executive Officer of the Department of Environmental Protection.

**Note**

- 1 The Minister for the Environment and Heritage will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environmental Protection over the fulfilment of the requirements of the conditions.
- 2 The proponent is required to apply for a Works Approval and Licence for this project under the provisions of Part V of the *Environmental Protection Act 1986*.

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Dr Judy Edwards MLA  
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- 2 The Environmental Protection Authority may seek advice from other agencies, as required, in order to provide its advice to the Chief Executive Officer of the Department of Environmental Protection.

**Note**

- 1 The Minister for the Environment and Heritage will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environmental Protection over the fulfilment of the requirements of the conditions.
- 2 The proponent is required to apply for a Works Approval and Licence for this project under the provisions of Part V of the *Environmental Protection Act 1986*.

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## Schedule 1

### The Proposal (Assessment No. 1408)

The proposal is to construct and operate a 110 MW gas-fired power station and construct a natural gas pipeline from Pinjarra to the Boddington Gold Mine, as specified in the key proposal characteristics table below (Table 1).

The location of the Boddington and Hedges Gold Mines are shown in Figure 1, and the pipeline route is shown in Figure 3.

**Table 1 - Key Proposal Characteristics**

<b>Element</b>	<b>Quantities/Description</b>
Life of project	Life of Boddington Expansion (15-20 years)
<b>Power station</b>	
Capacity	110 megawatts
Fuel	Gas
Cooling water	
consumption	About 2400 megalitres per annum
source	D1 or D4 water supply reservoir
Plant	Two gas turbines Two waste heat boilers One steam turbine Reverse osmosis water treatment plant Two 20 metre stacks and two bypass stacks
Air emissions	
Nitrogen Oxides	4.6 grams per second
Greenhouse gases (CO <sub>2</sub> )	360,000 tonnes per year at 95% of capacity
<b>Gas pipeline</b>	
Vegetation disturbance (area)	About 30.5 hectares
Length and diameter	65 kilometres, 210 millimetres outside diameter
Pressure	4.9 megapascals
Alignment	Principally along rail reserve (between Boddington and Pinjarra)

#### **Figures (attached)**

Figure 1 - Location of the Boddington and Hedges Gold Mines.

Figure 3 - Natural gas pipeline route.

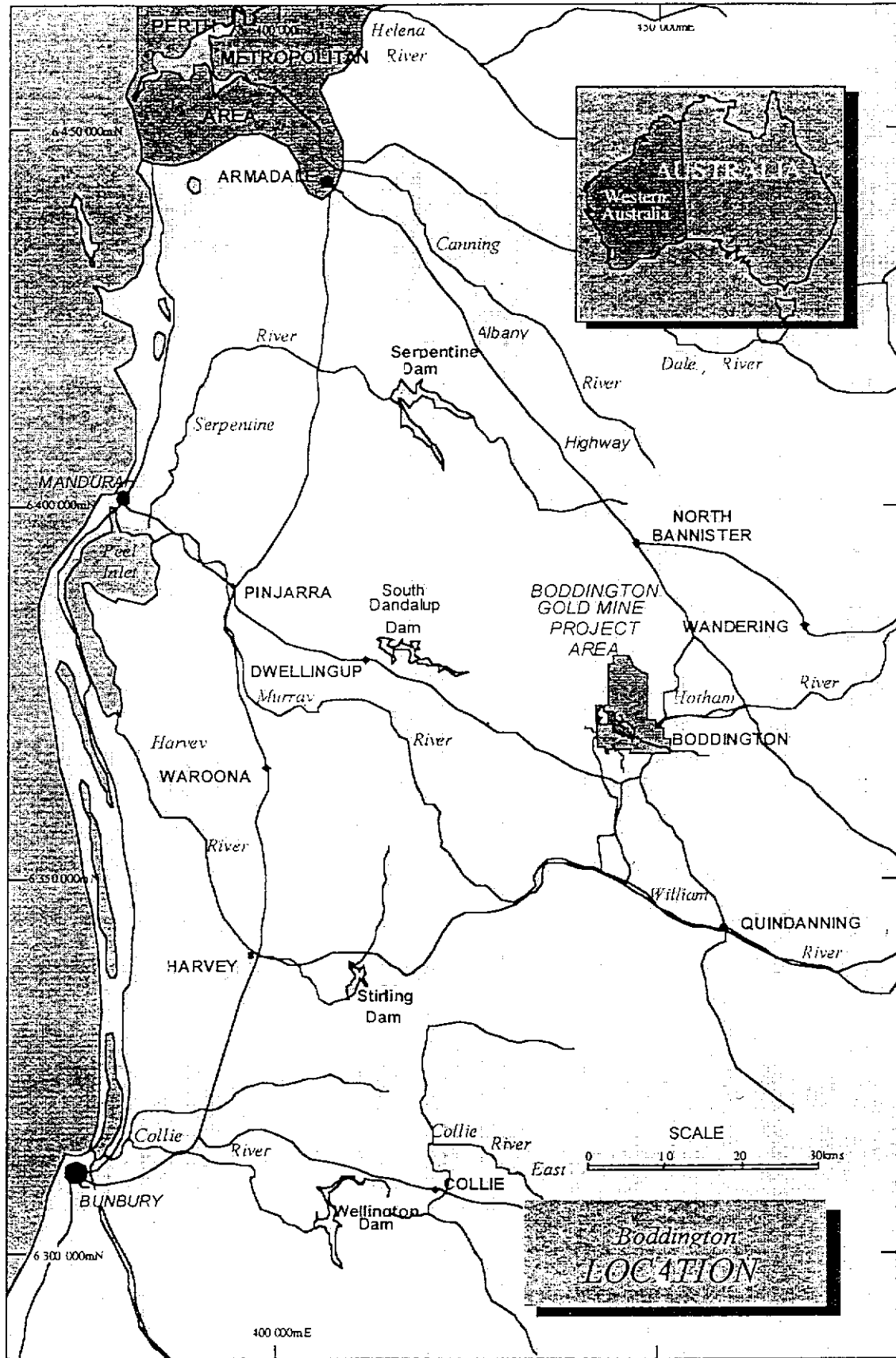


Figure 1 Location of the Boddington and Hedges Gold Mines (Source: WEC, 2001)



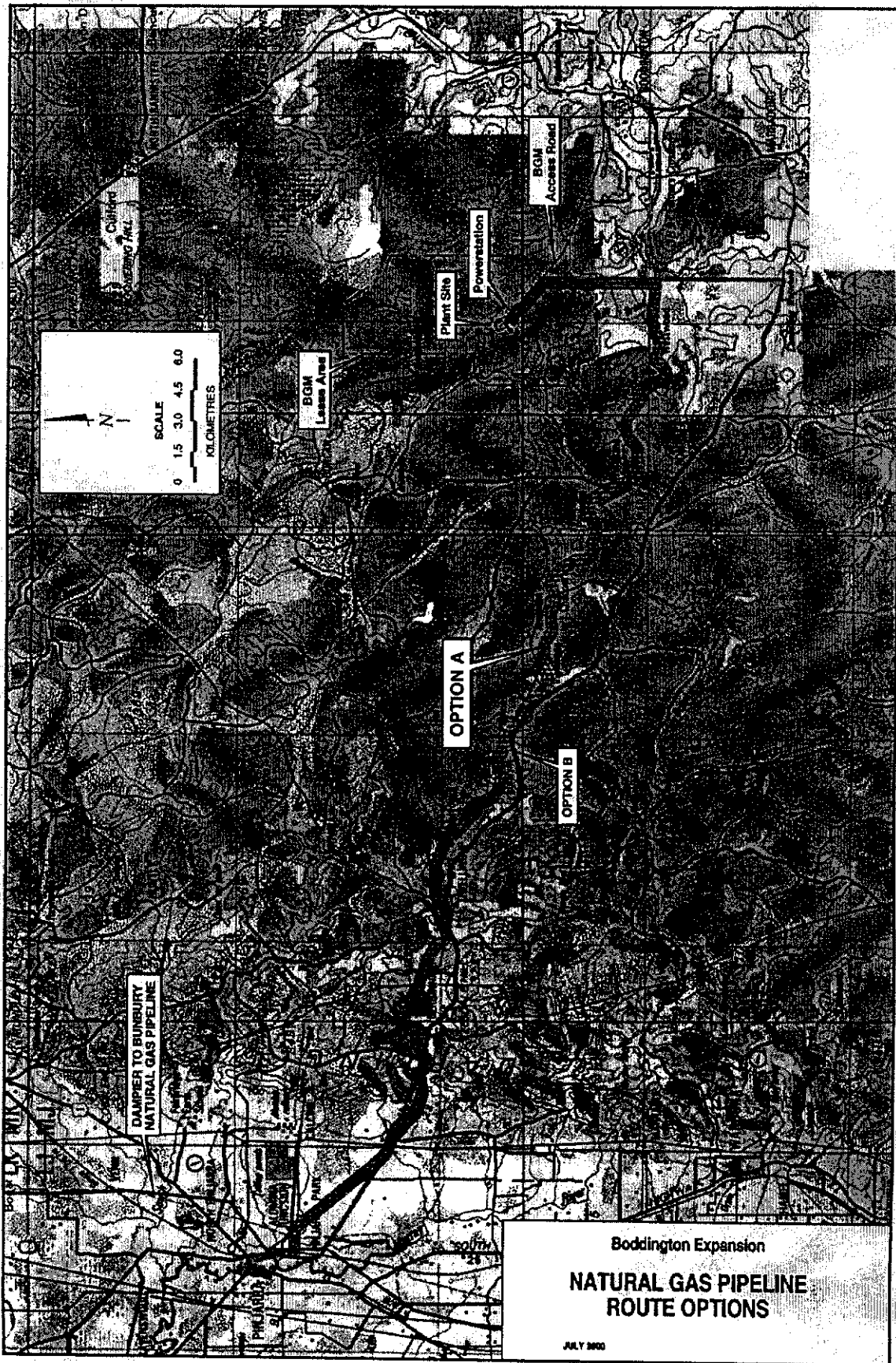


Figure 3 Natural Gas Pipeline Route (Source: WEC, 2001)

**Proponent's Consolidated Environmental Management  
Commitments**

May 2002

**GAS-FIRED POWER STATION & NATURAL GAS  
PIPELINE  
12 KM NORTH-WEST OF BODDINGTON  
SHIRE OF BODDINGTON**

(Assessment No. 1408)

Worsley Alumina Pty Ltd

## Proponent's Consolidated Environmental Management Commitments

### Gas-fired Power Station and Natural Gas Pipeline, 12 Km North-west of Boddington (Assessment No. 1408)

Topic	Objective	Action	Timing	Advice
Environmental Management Approach	<ul style="list-style-type: none"> <li>To ensure construction, operational and decommissioning phases of the power station and gas pipeline are managed to reduce unnecessary impacts.</li> <li>To ensure unavoidable impacts are managed to an acceptable level.</li> </ul>	<ol style="list-style-type: none"> <li>Review and modify as necessary the environmental management systems to be in accordance with the principles of recognised national standards.</li> <li>Implement best practice environmental management where "best practice" implies the use of the best practicable equipment, processes, systems or techniques relevant to the power station operations.</li> <li>Undertake regular internal environmental audits of key processes.</li> </ol>	During operation	
Vegetation communities and flora	<ul style="list-style-type: none"> <li>To maintain the abundance, species diversity, geographic distribution and productivity of vegetation communities.</li> <li>To protect Declared Rare and Priority Flora, consistent with the provisions of the Wildlife Conservation Act 1950</li> </ul>	<ol style="list-style-type: none"> <li>Refine the final pipeline alignment in the rail reserve to the requirements of CALM and the Forest Products Commission.</li> </ol>	Pre-commissioning	CALM FPC
		<ol style="list-style-type: none"> <li>Prepare a Vegetation Management Plan to the requirements of CALM and the Forest Products Commission, and include with construction environmental management plan. The Vegetation Management Plan will address the following:               <ol style="list-style-type: none"> <li>a detailed description of the route for the pipeline;</li> <li>dieback disease management procedures;</li> <li>management measures to avoid impacts on rare flora and vegetation at creek crossings;</li> <li>clearing widths along the route;</li> </ol> </li> </ol>	Pre-commissioning & construction	CALM FPC

Topic	Objective	Action	Timing	Advice
		<ol style="list-style-type: none"> <li>5. results of any detailed flora surveys of the alignment including the location of any rare flora;</li> <li>6. rehabilitation measures and objectives for previously cleared and uncleared areas;</li> <li>7. weed control; and</li> <li>8. completion criteria and monitoring of rehabilitation.</li> </ol> <ol style="list-style-type: none"> <li>6. Implement the Vegetation Management Plan in commitment 5 to the requirements of CALM and the Forest Products Commission.</li> <li>7. Conduct further detailed surveys for Priority and Declared Rare Flora along the final alignment as required.</li> </ol>	Prior to pipeline construction	
Noise	<ul style="list-style-type: none"> <li>• To protect the amenity of nearby residents from noise impacts resulting from activities associated with the proposal by ensuring that noise levels meet statutory requirements and acceptable standards.</li> </ul>	<ol style="list-style-type: none"> <li>8. Prepare a Construction Noise Management Plan and include with construction environmental management plan to address:               <ol style="list-style-type: none"> <li>1. the Australian Standard 2436-1981 "Guide to Noise Control on Construction, Maintenance and Demolition Sites";</li> <li>2. equipment noise criteria; and</li> <li>3. community consultation.</li> </ol> </li> <li>9. Implement the Construction Noise Management Plan in commitment 8.</li> </ol>	Pre-commissioning & construction	
Blast noise and vibration	<ul style="list-style-type: none"> <li>• To ensure that noise does not cause unacceptable community annoyance and meets the criteria used for noise impacts specified in the Environmental Protection (Noise) Regulations 1997 and that ground vibration peak particle velocity does not exceed 5 mm/s at any building.</li> </ul>	<ol style="list-style-type: none"> <li>10. Prepare a Blast Noise and Vibration Plan as part of the construction environmental management plan to address:               <ol style="list-style-type: none"> <li>1. the <i>Environmental Protection (Noise) Regulations 1997</i>;</li> <li>2. consultation with owners of buildings or structures that may be affected by vibration; and</li> <li>3. monitoring.</li> </ol> </li> <li>11. Implement the Blast Noise and Vibration Plan as part of the construction environmental management plan.</li> </ol>	Pre-commissioning & construction	

Topic	Objective	Action	Timing	Advice
Particulates and dust	<ul style="list-style-type: none"> <li>To ensure that the dust levels generated by the proposal do not adversely impact upon welfare and amenity by meeting statutory requirements and acceptable standards.</li> </ul>	<p>12. Implement the guidelines "Land development sites and impacts on air quality - A guideline for the prevention of dust and smoke pollution from land development sites in Western Australia" (DEP 1996).</p>	Pre-commissioning & construction	
Surface water and groundwater - quantity and quality	<ul style="list-style-type: none"> <li>To maintain or improve the quality of surface and ground water to ensure that the existing and potential uses, including ecosystem maintenance, are protected consistent with the draft WA Water Quality Guidelines for Fresh and Marine Waters (EPA 1993) and the NHMRC/ARMCANZ Australian drinking water guidelines - National Water Quality Management Strategy.</li> </ul>	<p>13. Prepare a Water Quality and Quantity Management Plan to address:</p> <ol style="list-style-type: none"> <li>dewatering;</li> <li>potential spillage of fuels and chemicals;</li> <li>disruption and restoration of drainage patterns; and</li> <li>hydrostatic testing of pipeline, and include with the construction environmental management plan.</li> </ol> <p>14. Implement the Water Quality and Quantity Management Plan in commitment 13.</p>	Pre-commissioning, construction, & operation	WRC
Risk and hazard	<ul style="list-style-type: none"> <li>Ensure that risks to the public associated with the presence of the gas pipeline meet applicable criteria and are minimised.</li> </ul>	<p>15. Prepare a Risk Management Plan for the gas pipeline to address:</p> <ol style="list-style-type: none"> <li>assessment of the risk and risk mitigation measures in accordance with appropriate standards;</li> <li>management of risk to achieve "low" or "negligible" risk category within 210 metres of pipeline, or reduce risk to the lowest practicable level; and</li> <li>consultation with nearby residents.</li> </ol> <p>16. Implement the Risk Management Plan in commitment 15.</p>	Pre-commissioning, & operation	
Greenhouse emissions	<ul style="list-style-type: none"> <li>To ensure that "greenhouse gas" emissions associated with the project are adequately addressed and best available efficient technologies are used in Western Australia to minimise Western Australia's "greenhouse gas" emissions.</li> <li>To mitigate "greenhouse gas" emissions in accordance with the Framework Convention on Climate Change 1992, and consistent with the National Greenhouse Strategy.</li> </ul>	<p>17. Prepare a Greenhouse Gas Management Plan that will include:</p> <ol style="list-style-type: none"> <li>calculation of the "greenhouse gas" emissions associated with the proposal, as indicated in "Minimising Greenhouse Gas Emissions, Guidance for the Assessment of Environmental Factors, No. 12" published by the Environmental Protection Authority;</li> </ol>	Pre-commissioning & operation	

Topic	Objective	Action	Timing	Advice
	<ul style="list-style-type: none"> <li>To ensure that all reasonable and practicable measures are taken to minimise the emission of greenhouse gases.</li> </ul>	<ol style="list-style-type: none"> <li>specific measures to minimise the "greenhouse gas" emissions associated with the proposal;</li> <li>monitoring of "greenhouse gas" emissions;</li> <li>estimation of the "greenhouse gas" efficiency of the project (per unit of product and/or other agreed performance indicators) and comparison with the efficiencies of other comparable projects producing a similar product;</li> <li>analysis of the extent to which the proposal meets the requirements of the National Strategy using a combination of: <ul style="list-style-type: none"> <li>"no regrets" measures;</li> <li>"beyond no regrets" measures;</li> <li>landuse change or forestry offsets; and</li> <li>international flexibility mechanisms.</li> </ul> </li> <li>a target set by the proponent for the reduction of total net "greenhouse gas" emissions and/or "greenhouse gas" emissions (per unit of product time), and annual reporting of progress made in achieving this target. <p>Note: In point 5 above, the following definitions apply:</p> <ul style="list-style-type: none"> <li>"no regrets" measures are those that can be implemented by a proponent which are effectively cost neutral and provide the proponent with returns and savings which offset the initial capital expenditure that may be incurred; and</li> <li>"beyond no regrets" measures are those that can be implemented by a proponent which involve some additional cost that is not expected to be recovered.</li> </ul> </li> </ol>		

Topic	Objective	Action	Timing	Advice
		<p>18. Implement the Greenhouse Gas Management Plan in commitment 17.</p> <p>19. Prepare a Revegetation Scheme to assist revegetation of the Hotham catchment which includes sponsorship of:</p> <ul style="list-style-type: none"> <li>• research, planting or revegetation trials on farming land;</li> <li>• re-establishment of riparian vegetation in degraded areas; and</li> <li>• enhancement of biodiversity in degraded areas.</li> </ul> <p>20. Implement the Revegetation Scheme referred to in commitment 19.</p>		

**Abbreviations:**

ARMCANZ

Agriculture and Resource Management Council of Australia and New Zealand

CALM

Department of Conservation and Land Management

DEP

Department of Environmental Protection

EPA

Environmental Protection Authority

FPC

Forest Products Commission

NHMRC

National Health and Medical Research Council

WRC

Water and Rivers Commission