
APPENDIX A3: Standard Criteria

THE STANDARD CRITERIA

The *Environmental Protection Act 1994* (EP Act) requires Chapter 4 Environmentally Relevant Activities (ERAs) and Chapter 5A activities to be authorised by an Administering Authority. An Environmental Authority (EA) under the EP Act will be required from the Department of Environment and Resource Management (DERM) for the Level 1 Chapter 5A activity, as defined in Schedule 5, *Environmental Protection Regulation 2008*: namely “constructing a new pipeline of more than 150 km under a petroleum authority”.

When deciding whether to grant or refuse an application for an EA or deciding on the conditions of the authority, the Administering Authority must consider certain matters set out in the EP Act. One of those matters is the ‘Standard Criteria’.

The ‘Standard Criteria’ defined in Schedule 4 of the EP Act includes the principles of Ecologically Sustainable Development (ESD) and other policy instruments as follows:

Standard criteria means—

- a) the principles of ecologically sustainable development as set out in the ‘National Strategy for Ecologically Sustainable Development’; and
- b) any applicable environmental protection policy; and
- c) any applicable Commonwealth, State or local government plans, standards, agreements or requirements; and
- d) any applicable environmental impact study, assessment or report; and
- e) the character, resilience and values of the receiving environment; and
- f) all submissions made by the applicant and submitters; and
- g) the best practice environmental management for activities under any relevant instrument, or proposed instrument, as follows—
 - i. an environmental authority;
 - ii. a transitional environmental program;
 - iii. an environmental protection order;
 - iv. a disposal permit;
 - v. a development approval; and
- h) the financial implications of the requirements under an instrument, or proposed instrument, mentioned in paragraph (g) as they would relate to the type of activity or industry carried out, or proposed to be carried out, under the instrument; and
- i) the public interest; and
- j) any applicable site management plan; and
- k) any relevant integrated environmental management system or proposed integrated environmental management system; and

- l) any other matter prescribed under a regulation.

The purpose of this Appendix is to address each of these criteria in turn to demonstrate how they are being met by the Arrow Bowen Pipeline project (the project) as assessed in this Environmental Impact Statement (EIS).

CRITERION A

The core objectives of ESD, as outlined in the National Strategy for Ecologically Sustainable Development, are:

- To enhance individual and community well-being and welfare by following a path of economic development that safeguards the welfare of future generations;
- To provide for equity within and between generations; and
- To protect biological diversity and maintain essential ecological processes and life support systems.

The guiding principles for ecologically sustainable development as outlined in the National Strategy for Ecologically Sustainable Development are:

- Decision-making processes should effectively integrate both long and short term economic, environmental, social and equity considerations;
- Where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;
- The global dimension of environmental impacts of actions and policies should be recognised and considered;
- The need to maintain and enhance international competitiveness in an environmentally sound manner should be recognised;
- Cost effective and flexible policy instruments should be adopted, such as improved valuation, pricing and incentives mechanisms; and
- Decisions and actions should provide for broad community involvement on issues which affect them.

Each of these objectives and principles is addressed as follows to demonstrate the project's commitment to ensure that they are uniformly considered in pursuit of achieving ESD.

Individual and community well-being and welfare

Arrow has applied the principles of ESD when planning the project and in selecting the most appropriate alternatives for the pipeline location. Specifically the project:

- Has considered both long term and short term economic, environmental, social and equity considerations;
- Will not pose threats of serious or irreversible environmental damage and measures will be undertaken during each phase of the project to ensure environmental degradation is prevented;
- Has considered environmental policies in planning and design;
- Will enhance the national, state and local economy;
- Enhances international competitiveness in an environmentally and sound manner;
- Has considered valuation, pricing and incentive mechanisms; and
- Has undergone community and stakeholder consultation.

The project will provide benefits to individuals and the community in terms of providing employment opportunities to local community members in the short term and employment creation in the longer term from the ongoing operations of the pipeline.

The intergenerational equity principle

The project will not significantly affect, or fail to maintain, the health, diversity and productivity of the Queensland environment, or affect future generations.

Rehabilitation of the project site will occur throughout the life of the project. This will ensure that future generations will have access to the same resources and features that currently exist.

Arrow has undertaken extensive community consultation throughout the EIS process to ensure all ensures that all land users maintain rights and interests in relation to the project site.

Protection of biological diversity and maintenance of essential ecological processes and life support systems

Surveys of the flora and fauna in the vicinity of the project have been undertaken. Species and ecosystems observed during field assessments were assessed against the Queensland *Nature Conservation Act 1992*, the *Vegetation Management Act 1999* and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* to identify the conservation status of the species.

On the basis of the available evidence, the project does not pose a significant threat to biological diversity or ecological integrity. While localised and short-term impacts are expected, the area of impact is small in terms of the regional extent of similar ecosystems and no essential ecological processes or life support systems will be significantly or adversely affected.

Decision-making based on long and short term economic, environmental, social and equity considerations

The project represents a major investment in Australia and will contribute to the establishment of an export gas industry in Gladstone generating significant jobs. The project is estimated to generate a total of \$627 million in personal income across the nearly 3,000 jobs in Australia, with \$128 million distributed to employment in the project area. The project itself is estimated to directly provide almost \$35 million in personal income over the project life. In total, the project will directly inject close to \$891 million into the Australian economy and create a total impact across Australia of close to \$2.9 billion. One-fifth of the total output impact is expected to accrue to the project area and nearly half is expected to be generated throughout Queensland with a direct expenditure of \$174 million in the project area over the project life. The project is important to the economic competitiveness of coal seam gas (CSG) and, ultimately, liquefied natural gas (LNG) distribution in Queensland.

The project will provide socio-economic benefits to Queensland, contributing to Commonwealth, State and local economies while recognising the environmental value of the project area by:

- Adding strength and diversity to Queensland's economic base and providing significant royalty and other revenue for the Queensland and Australian governments;
- Assisting in insulating the Australian and Queensland economies against adverse international trends;
- Further developing LNG export markets at a time when energy supply is in deficit and a continued growth in global demand anticipated;
- Strengthening Queensland's position as leaders in CSG development in Australia and globally;
- Providing Queensland with the opportunity to look for 'green' energy sources to replace coal-fired electricity generation (DEEDI, 2011).
- Contributing to increased output in the project area resulting in local and regional economic growth; and

- Contribution to employment, particularly in construction and operational jobs - approximately 15 to 20 percent of materials and labour is predicted to come from the project area.

The precautionary principle

The project has undertaken an environmental impact assessment, including an assessment of the risk of unacceptable environmental harm, consistent with the Precautionary Principle. The findings have been used to determine appropriate environmental control strategies. These have been incorporated into the Environmental Management Plan included in the EIS.

Global environmental impact

The proposed pipeline route has been located to traverse predominantly rural land, much of which has been cleared for agricultural purposes, particularly grazing, with negligible global environmental impact.

Enhancing international competitiveness in an environmentally sound manner

The project will facilitate Australia's enhanced international competitiveness and consolidate its reputation as a reliable producer of quality LNG while contributing to the growing global demand for LNG while not causing significant adverse environmental impacts.

The adoption of cost-effective and flexible policy instruments

The project is compatible with the Queensland and Commonwealth Government program of adoption of cost-effective and flexible policy instruments.

Broad community involvement in decisions and actions

A transparent and timely Stakeholder Consultation Plan (SCP) is being implemented to engage and maintain a constructive relationship with all stakeholders, including traditional owners. This engagement is being undertaken in a manner which informs stakeholders about the project and encourages them to contribute ideas that can enhance its environmental and social acceptability.

The SCP also ensures that open and accessible channels of communication between stakeholders and project decision-makers are maintained for the duration of the planning, construction and operational phases of the pipeline.

CRITERION B

ENVIRONMENTAL PROTECTION POLICIES (EPP)

The following Environmental Protection Policies (EPPs) have relevance to the project:

- *Environmental Protection (Air) Policy 2008 (EPP(Air));*
- *Environmental Protection (Noise) Policy 2008 (EPP(Noise));*
- *Environmental Protection (Water) Policy 2009 (EPP(Water));* and
- *Environmental Protection (Waste Management) Policy 2000 (EPP(Waste Management)).*

Environmental Protection (Air) Policy 1997 (EPP(Air))

The major fugitive air emission associated with construction of the pipeline is dust which will be managed through the use of water carts as outlined in the Environmental Management Plan. Emissions from construction machinery will be minimised through maintenance of all plant and equipment in line with manufacturer's recommendations. Additionally, the temporary nature of works at any given site means that impacts to air quality will be minimal.

During operation, accidental natural gas fugitive emissions will be minimised through good operating practice and preventative maintenance programs. Shut-off valves will be connected at regular intervals and an automatic gas detection cut-off system will be designed into the pipeline operations.

Emissions during operation are considered to be negligible and are associated with the small amounts of gas released to test a valve or in the event of a shut down (usually associated with an emergency or as a result of a major maintenance exercise).

Environmental Protection (Noise) Policy 2008 (EPP(Noise))

During the construction phase, the noise levels emitted from construction equipment are likely to give rise to a temporary short term increase in background noise levels in the vicinity of the activity.

Impacts associated with construction activities will be of relatively short duration and localised. The construction contractor will liaise with the community to advise them of the likely duration of noisy activities and, in certain circumstances, will undertake particularly noisy activities at periods less likely to cause nuisance to nearby residents.

Environmental Protection (Water) Policy 1997 (EPP(Water))

The EPP(Water) will apply to the project during the construction of the pipeline and activities will be conducted so that wastewater from any of the project activities does not impact on the environmental values of the catchment areas through which it passes. Sediment and erosion

control measures will be used to manage the impact of the construction activities on waterways.

Environmental Protection (Waste Management) Policy 2000 (EPP(Waste Management)).

Waste management is most relevant during the construction of the pipeline, where construction materials and wastes will be managed. In accordance with the requirements of the EPP(Waste Management) hierarchy, waste will be reduced to the greatest extent practicable. Waste recycling and disposal, spill response and depot maintenance will be carried out in accordance with approved procedures. Waste streams will be segregated and stockpiled separately and only licensed waste contractors and facilities will be utilised.

State Planning Policies (SPP)

State planning policies (SPPs) are planning instruments that the planning Minister employs to protect various aspects of the environment that are of interest to the State (e.g. agricultural land, development within close proximity to airport land, protecting development from adverse affects of bushfire, floods and landslides).

The proposed ABP does not intersect strategic cropping land and the draft SPP *Protecting Queensland's strategic cropping land* does not apply to this project.

The following State Planning Policies (SPPs) have relevance to the project:

- SPP 1/92 Development and Conservation of Agricultural Land;
- SPP 1/03 Mitigating the Adverse Impacts of Flood, Bushfire and Landslide;
- SPP 2/02 Planning and managing development involving acid sulfate soils; and
- *State Coastal Management Plan – Queensland's Coastal Policy* (State Coastal Management Plan)

SPP 1/92 Development and Conservation of Agricultural Land

SPP 1/92 seeks to protect good quality agricultural land (GQAL) from development that diminishes its productivity or leads to its alienation. The project will not alienate any GQAL as any land disturbed as a result of constructing the proposed pipeline will be reinstated back to the original condition.

SPP 1/03 Mitigating the Adverse Impacts of Flood, Bushfire and Landslide

The purpose of this SPP is to set out the State Government's interest with regard to natural hazards of flood, bushfire and landslide and ensure these matters are adequately addressed when carrying out the development assessment. The design of the proposed pipeline in accordance with AS 2885 takes into account the potential impacts of natural hazards. None of the aspects of this SPP will significantly affect the land use of the project area.

SPP 2/02 Planning and managing development involving acid sulfate soils

This SPP applies to areas of Queensland when excavating 100 m³ of soil or filling 500 m³ of land at or below 5 m Australian Height Datum (AHD) where the natural ground level is less than 20 m AHD.

The impact of the project on acid sulfate soils is discussed in Section 4.2. The management of acid sulfate soils associated with the project is provided in the EMP and will be undertaken in accordance with the SPP 2/02 Guideline.

State Coastal Management Plan – Queensland’s Coastal Policy

The State Coastal Management Plan and subsequent Regional Coastal Management Plans have been developed under the Coastal Act to provide ways to protect and manage Queensland’s coastal resources. The proposed pipeline route traverses land included in the *Curtis Coast Regional Coastal Management Plan* (Curtis Coastal Plan) and this is discussed in Criterion C.

CRITERION C

The EIS has been prepared to demonstrate compliance with local, State and Commonwealth standards and guidelines and will be reviewed by Referral Agencies consisting of their representatives. The project will be evaluated in the context of these plans, and standards, and any agreements or requirements that may apply, including the ‘standard criteria’.

Regional Plans

The project is subject to three regional plans, namely the Draft Mackay, Isaac, Whitsunday Regional Plan (Draft MIW Regional Plan), the Central Queensland Regional Plan (Central Queensland Regional Growth Management Framework) and the Curtis Coast Regional Coastal Management Plan.

The Draft MIW Regional Plan encompasses the local government areas of Isaac, Mackay and Whitsunday and takes precedence over all planning instruments, other than state planning regulatory provisions.

The Central Queensland Regional Plan encompasses the local government areas of Banana Shire Council, Central Highlands Regional Council, Gladstone Regional Council (excluding former Miriam Vale Shire Council) Rockhampton Regional Council and Woorabinda Aboriginal Shire Council. This regional plan was developed under the repealed *Integrated Planning Act 1997* (IP Act) and remains current under the SP Act.

The Curtis Coastal Plan describes how the coastal zone in the Curtis Coast region is to be managed within the policy framework established by the State Coastal Management Plan.

The Curtis Coastal Plan applies to the coastal zone¹ and specifically sections of the project that traverse land within the Curtis Coastal Plan, at AB445.6, AB446.6, AB446.7, AB447.9 and AB448.1 where the proposed pipeline route crosses Raglan Creek.

Agreements

The Commonwealth Government is a signatory to agreements on climate change, migratory birds, world heritage, and biodiversity. There are four main principles of these conventions:

- The precautionary principle;
- Intergenerational equity;
- Conservation of biological diversity; and
- Improved valuation, pricing and incentive mechanisms.

These principles are discussed previously in Standard Criterion A.

CRITERION D

Arrow has undertaken numerous studies to determine the environmental impact of the project. The findings of relevant desktop assessments and ecological field surveys are presented in this EIS.

CRITERION E

The receiving environment surrounding the project is described in the EIS. This has indicated that the character, resilience and values of the receiving environment are unlikely to be significantly impacted by the project. The area of the activity does not impact upon the conservation estate, and the activity will not add significantly to the vulnerability of the area to natural hazards such as flood, fire or erosion.

CRITERION F

Arrow will make several submissions to government departments in support of their application to gain approval for the construction and operation of the Arrow Bowen Pipeline (ABP) including:

- EIS and Supplementary Report;
- EPBC Act Referral;
- Petroleum Pipeline Licence and associated Environmental Authority; and

¹ The coastal zone refers to coastal waters and all areas to the landward side of coastal waters in which there are physical features, ecological or natural processes or human activities that affect, or potentially affect, the coast or coastal resources (DERM, 2011).

- Development Approvals associated with establishing camp sites, waterway barriers etc. A comprehensive list of Development Approvals associated with the project is presented in Appendix A2 – Regulatory Approvals.

Interested parties will have the opportunity to make submissions on the project through comments on the draft EIS.

CRITERION G

Best practice environmental management is defined in the EP Act, Section 21(1), as ‘the management of the activity to achieve an ongoing minimisation of the activity’s environmental harm through cost-effective measures assessed against the measures currently used nationally and internationally for the activity’.

The project has environmental management provisions that meet ‘Best Practice’ aligned with the Australian Pipeline Industry Association (APIA) Environmental Code of Practice. The pipeline will be constructed and operated in accordance with regulatory obligations with mitigation of environmental impacts managed through the EMP.

CRITERION H

The financial implications of the project will be positive and not place an undue burden on existing infrastructure or services.

The direct impact on employment is equal to approximately 2952 full time equivalent (FTE) jobs over the life of construction activities and 28 FTEs per year during operation (2018 to 2058). Approximately 35 percent of employment will be generated in the project area. Operational employment impacts are the annual average jobs created during the projected 40-year operational life of the pipeline with approximately 67 percent of employment coming from across Queensland.

Provision of additional CSG transmission opportunities will help support the continued development of the region and lead to an increasing sustainable region from an economic perspective. This growth represents a significant addition to the Queensland and Australian economy. The project will encourage the use of local suppliers and contractors during construction and operations where possible.

CRITERION I

The project, in association with Arrow Energy’s upstream and downstream CSG development, will provide employment and wealth for Queenslanders. Issues of public interest and concern are dealt with during the EIS process.

CRITERION J

Site management plans are integrated in the EMP which has been prepared to address the environmental management of construction activities and is included in the EIS.

CRITERION K

Arrow will conduct activities associated with the project in accordance with Arrow Energy's Integrated Environmental Management System (IEMS).

CRITERION L

All matters prescribed by applicable regulations have been considered and described in this appendix.