



Taroborah Coal Project

Appendix 3 – Standard Criteria



STANDARD CRITERIA

The Taroborah Coal Mine Project (the Project) has been assessed against the relevant aspects of the Standard Criteria outlined in the *Environmental Protection Act 1994* (EP Act). Particular regard to the principles of Ecological Sustainable Development (ESD), as listed in the *National Strategy for Ecologically Sustainable Development* (Department of Environment (DoE) 1992), has been applied to this assessment and a discussion of how the Project conforms to each principle is provided throughout the following sections.

The Standard Criteria, current as of November 2013, as defined in Schedule 4 of the EP Act are as follows:

- a) the following principles of environmental policy as set out in the Intergovernmental Agreement on the Environment —
 - (i) the precautionary principle;
 - (ii) intergenerational equity;
 - (iii) conservation of biological diversity and ecological integrity; and
- b) any Commonwealth or State government plans, standards, agreements or requirements about environmental protection or ecologically sustainable development; and
- c) any relevant wild river declaration; and
- d) any relevant 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 relevant 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.

1.0 AUSTRALIA'S GOAL, CORE OBJECTIVES AND GUIDING PRINCIPLES OF ECOLOGICALLY SUSTAINABLE DEVELOPMENT

The *National Strategy for Ecologically Sustainable Development* (DoE 1992) outlines the goals, core objectives and guiding principles relevant to Australia in relation to its commitment to ESD.

The Goal of the *National Strategy for Ecologically Sustainable Development* is:

- Development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends.

The Core Objectives of the *National Strategy for Ecologically Sustainable Development* are as follows:

- 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 of the *National Strategy for Ecologically Sustainable Development* are as follows:

- 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 develop a strong, growing and diversified economy which can enhance the capacity for environmental protection should be recognised;
- 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 incentive mechanisms; and
- Decisions and actions should provide for broad community involvement on issues which affect them.

These guiding principles and core objectives should be considered together, with no objective or principle outweighing the other. In order to obtain the goal of ESD, a balanced approach is required that addresses each objective and principle exclusively.

1.1 Mining Sector

The *National Strategy for Ecologically Sustainable Development* also outlines broad challenges and provides a framework to meet the challenges for each major economic sector. The challenge for the mining sector (Part 2 Sectoral Issues – Chapter 5) is “*To further develop the mining industry in a way that manages the renewable and non-renewable resources on which it depends in an efficient manner which is also consistent with the principles of ESD*” (DoE 1992).

The *National Strategy for Ecologically Sustainable Development* (DoE 1992) outlines the following three objectives (Objectives 5.1, 5.2 and 5.3) to meet the challenge:

- a) Objective 5.1 – “*to ensure mine sites are rehabilitated to sound environmental and safety standards, and to a level at least consistent with the condition of surrounding land*”;
- b) Objective 5.2 – “*to provide appropriate community returns for using mineral resources and achieve better environmental protection and management in the mining sector*”; and
- c) Objective 5.3 – “*to improve community consultation and information, improve performance in occupational health and safety and achieve social equity objectives*”.

The Project is currently undergoing the Environmental Impact Statement (EIS) process in accordance with the EP Act. The EIS itself, together with affiliated technical reports (attached to the EIS as appendices), provide strategies that will be undertaken during construction, operation and decommissioning of the mine to enhance the natural, social and economic environments associated with the Project.

2.0 PROJECT ACHIEVEMENT OF PRINCIPLES OF ESD

For the purposes of this report the Goal, Objectives and Guiding Principles of the *National Strategy for Ecologically Sustainable Development* and the Standard Criteria from the EP Act have been summarised into six relevant categories:

- Intra-generational equity;
- Inter-generational equity;
- Precautionary principle;
- Biodiversity conservation;
- Integration of economic and environmental interests; and
- A holistic approach to resource management.

2.1 Intra-Generational Equity

Intra-generational equity ensures that all current generation land users still have rights and interests in relation to the Project site. The Project will also provide continued economic benefit to the local area, state and country with royalties, profits and salaries. Shenhua will provide employment to individuals, while providing means of access to further educational opportunities and training, aiding in the improvement of regional skill levels.

The Project will incorporate the principle of intra-generational equity through ongoing community consultation and associated agreements / compensation with current land users.

The community was engaged and consulted during the Project planning stage, all interested and affected parties and relevant government departments were consulted and copies of public reports regarding the Project proposal were made available. All of the comments and submissions received during the public consultation process were addressed for the Terms of Reference for the EIS.

The community consultation program adopted the consultation methods as required by the EP Act and those suggested in the Engaging Queenslanders resource (a series of guides and fact sheets) developed in 2002 to support the government's commitment to community engagement practices (Queensland Government Web Centre 2011).

Cultural heritage surveys have been conducted on the Project site, which have identified the associated indigenous values, and Project planning has endeavoured to ensure that it will not impact on any areas of indigenous cultural significance. If artefacts and / or areas of Indigenous cultural heritage significance are identified throughout the life of the Project, these items will be preserved and protected for the duration of the Project life.

With regard to non-indigenous cultural heritage, an independent non-indigenous Cultural Heritage Assessment to evaluate the non-indigenous cultural heritage values within the Project site was undertaken. The aim of this survey was to ensure that current cultural heritage values of the area are retained as much as possible.

During Project construction and operation, complaints registers will be maintained to document the concerns of the public in relation to air quality, noise, vibration, transport or other impacts arising from the Project. Complaints will be investigated and the appropriate mitigation strategies employed to ensure minimal impact on the public during mine operation.

2.2 Inter-Generational Equity

Inter-generational equity ensures that future generations can enjoy the features and resources of the landscape that presently exist and to protect resources so as not to diminish the ability of future generations to meet their needs.

The Project aims to ensure inter-generational equity through progressive rehabilitation of the Project site during the life of the mine and after decommissioning. Rehabilitation goals which are outlined in both the ESD policy framework (*National Strategy for Ecologically Sustainable Development*) and *Guideline EM1122* (EHP 2012) have been adopted for the Project with the aim of creating a post-mining site with a stable landform that can be used for low-intensity cattle grazing and agricultural cropping. Rehabilitation of the Project site also aims to facilitate the long-term maintenance of essential ecological processes following mining operations.

A rehabilitation plan has been developed for the Project, which includes indicators that are defensible and measurable to assist rehabilitation goals for the Project. Each indicator has been assigned completion criteria, in accordance with *Guideline EM1122* (EHP 2012), providing a bench mark against which the success of rehabilitation can be compared.

Indicators will be monitored in accordance with the rehabilitation monitoring program and assessed against completion criteria to determine the success of rehabilitation.

Detailed baseline studies have been undertaken to ensure the environmental values associated with the Project are well understood prior to commencement of mining so that post-mining land uses can mimic, to the best practical level, the pre-mining environment.

2.3 Precautionary Principle

The Precautionary Principle is inherent in this proposal due to the nature of an EIS. Thorough environmental studies and surveys have been undertaken to ensure that potential impacts to the environment posed by the Project (minor and large-scale) are considered over both the long and the short term. Furthermore, measures developed by specialists i.e. air consultants, acoustic consultants etc. will be adopted to avoid, remedy or mitigate these potential risks, which directly addresses the precautionary principle.

The precautionary principle also encompasses the concept that if there is limited information available on a potential impact, caution should be exercised to limit the effects of the unknown. The Project incorporates this concept by conducting baseline studies to gather all necessary information prior to mining, then undertaking ongoing monitoring of environmental conditions during construction, operation and decommissioning to enable continual improvement of mining practices. This will aid in maintaining a level of caution and limiting adverse impacts of the Project on the existing landscape.

2.4 Biodiversity Conservation

Conservation of biological diversity and ecological integrity as a principle of ESD policy is used to address both the long and short-term environmental equity potentially affected by the proposal.

Biological conservation has been considered in the Project's proposal, design and for its development. Terrestrial and aquatic flora and fauna studies have been undertaken on the Project site in accordance with the EIS process. These surveys aimed to establish an understanding of the local ecology within the Project site, to identify ecologically significant species and ecosystems and to identify weed and invasive species. The results of these surveys highlighted the biodiversity values of the area in order to protect the ecological integrity of the site and establish biodiversity conservation efforts.

The following legislation and guidelines were used to assess the biodiversity within the Project site and the wider region:

- *Vegetation Management Act 1999;*
- *Vegetation Management Regulation 2000;*
- *Nature Conservation Act 1992;*
- *Queensland Land Protection (Pest and Stock Route Management) Act 2002;*



- *Environmental Protection and Biodiversity Conservation Act 1999*;
- *Queensland EHP Biodiversity Status*; and
- *Queensland Environmental Offset Policy 2014*.

Thirteen vegetation communities were identified on the Project site during the field surveys. Seven of these communities were assessed as remnant vegetation as defined in the *Vegetation Management Act 1999* (VM Act). An additional area of EHP mapped remnant natural grassland is believed to be sufficiently degraded by grazing and introduced grass species such that it is now classified as non-remnant, however, further ground truthing is required to positively identify it as such. Therefore, it remains as an area of conservation significance for the purposes of this EIS assessment.

Seven communities of conservation significance were positively recorded on the Project site. Two communities, Brigalow / Belah Woodland and Brigalow / Belah Low Open Woodland are listed as Endangered under Commonwealth and Queensland legislation. Poplar Box Woodland is listed as Of Concern under the VM Act and Endangered under the EHP Biodiversity Status. River Teatree Riparian Woodland is listed as Of Concern under the VM Act and EHP Biodiversity Status. In addition, the Silver-leaved Ironbark Open Woodland, Palustrine Wetland and the River Red Gum Riparian Woodland are all listed as Of Concern under the EHP Biodiversity Status only.

One mammal species of conservation significance, the Little Pied Bat (*Chalinolobus picatus*) was positively recorded within the Project site during the assessment. The Little Pied Bat is listed as Near Threatened under the *Nature Conservation Act 1992*. Despite targeted searches for species listed under the NC Act or *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act), no other species of conservation significance were recorded.

One Migratory species listed under the EPBC Act was observed within the Project site during the assessment, the Cattle Egret (*Ardea ibis*).

Four fauna species listed as Class 2 pests under the *Land Protection (Pest and Stock Route Management) Regulation 2003* were observed during the surveys. These were the feral cat (*Felis catus*), dingo (*Canis familiaris dingo*), feral pig (*Sus scrofa*) and European rabbit (*Oryctolagus cuniculus*).

Disturbance to communities of conservation significance have been minimised in planning where practicable. Habitat areas due to be impacted by the Project shall be inspected prior to any vegetation clearing to determine whether any fauna are present. Any fauna observed within an area to be disturbed will be given the opportunity to move on naturally or be relocated before clearing occurs.

Disturbed areas will be revegetated progressively with species native to the local area. Progressive rehabilitation will ensure that the total area of disturbed land is minimised at any one time. This will encourage pre-existing ecosystems to reform and maintain biodiversity in the Project site during the Project life and after decommissioning. Monitoring of rehabilitation performance against completion criteria will be undertaken to identify any potential impact that may be caused to the surrounding environment and to ensure the success of rehabilitation strategies.

In addition to this, management strategies to assist in the removal of pest species identified under the *Land Protection (Pest and Stock Route Management) Act 2002* are included in the EIS and this will aid in conserving biodiversity values on the Project site and the surrounding area. This will involve management of pest species within the Project site.

2.5 Integrating Economic and Environmental Interests

The concept of integrating environmental, economic and social interests in project management is one of the main objectives of the *National Strategy for Ecologically Sustainable Development* (DoE 1992). As part of the EIS for the Project, the ecological and social values of the site are considered alongside the economic values.

The Project will contribute positively and significantly towards the Queensland and Australian economies by sustaining trade of coal resources. The Project and the mining industry as a whole contribute greatly towards the ongoing strength and stability of the Australian economy through the provision of employment and contribution of government royalties (State and Federal) for the right to mine in Australia. There is a flow-on effect from continued employment and expenditure on related goods and services, which underpins many smaller regional communities. This contributes to a strong national economy, which the government can choose to redistribute to meet societal needs in accordance with the guiding principles outlined in the *National Strategy for Ecologically Sustainable Development*.

The Project has been developed so that economic benefits do not come at the cost of the surrounding environment and that any adverse affects are mitigated using industry best practice criteria. This will involve a detailed monitoring programme, which will compare baseline data with current and future data to ensure that the Project does not cause significant adverse effects to the environment. If any significant impact is identified, then appropriate mitigation measures will be implemented.

2.6 Holism

By taking a holistic approach to project management, the Project will ensure the principles of ESD will become part of the Shenhua culture. It is important to take sustainable development seriously by implementing sustainable practices and measures to add to the success of sustainable initiatives within the existing projects and within a company's day to day operations.