



Millennium Expansion Project

Environmental Impact Statement

CHAPTER 1:

INTRODUCTION

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1.0 INTRODUCTION

This section describes the purpose and structure of the Environmental Impact Statement (EIS) for the Millennium Expansion Project (MEP) and what it sets out to achieve.

This section also provides a brief overview of the MEP and the Proponent.

1.1 THE MEP

The Millennium Expansion Project (MEP) involves the expansion of the existing Millennium open-cut coal mine, near Moranbah, Queensland. Currently the mine production is limited to a maximum of 2 million tonnes per annum (Mtpa) and the MEP is seeking to increase production up to 5.5 Mtpa. It is proposed to use excavator and truck fleets to produce coking and pulverized coal injection (PCI) coals for the export market over a mine life of approximately 16 years. Further exploration may extend the life of the mine.

The MEP is located on Mining Leases (ML) 70313 (granted and part of the existing Millennium Mine), Mining Lease Application (MLA) 70401 and Mineral Development Licence (MDL) 136. An Environmental Authority (EA) (mining activities) No. MIN100344305 applies to the existing Millennium Mine and will require amendment for the MEP to proceed. Peabody Energy Australia Pty Limited (Peabody) volunteered to prepare this EIS in support of the amendment of the existing EA and conversion of tenure.

1.1.1 Project Description

The MEP involves the development of a 5.5 Mtpa open-cut coal mine using conventional excavator and truck fleet. The key elements of the MEP are:

- a coal mine, including:
 - up to two open pits operating at any one time, up to 190 metres (m) deep, producing approximately 5.5 Mtpa of run-of-mine (ROM) coal to produce up to 3.6 Mtpa of product coal for the export market;
 - waste rock emplacements external to the pit, including initial ex-pit box-cut dumps, which will subsequently be combined with the in-pit dumps;
 - progressive backfilling of the pits with overburden (internal waste rock emplacements (IWRE)) once there is sufficient space for in-pit dumping;
 - mine haul roads which connect the pits to the Red Mountain Joint Venture (RMJV) Coal Handling and Preparation Plant (CHPP); and
 - a mine water management system including clean water diversion, integrated mine area runoff collection and settlement, pit water management, water reuse and treated water disposal if required. It will also have the ability to convey water to the Raw Water Dam to ensure maximum reuse of site water and minimise the likelihood of water discharges from the site;
- coal tailings and rejects from the processing of the MEP's coal in the CHPP returned by truck to the MEP's waste rock emplacements; and
- construction of haul roads across New Chum Creek.

The MEP will utilise the existing Millennium Mine infrastructure, such as power supply, explosives storage, wastewater network and site offices/industrial area.

The MEP may require upgrading to the facilities of the Millennium Mine, including possible alteration of the site access road.

The product coal will be railed approximately 150 kilometres (km) to the Dalrymple Bay coal terminal for distribution to the international market.

1.1.2 Project Proponent

Millennium Coal Pty Limited (MCPL) is a wholly owned subsidiary of Peabody Energy Australia Pty Limited (Peabody). MCPL is responsible for operating the Millennium Coal Mine.

Peabody owns substantial coal assets throughout Queensland and New South Wales, comprising a total of eight operations. Peabody is a 100% owned subsidiary of Peabody Energy Corporation which is listed on the New York Stock Exchange (NYSE – BTU) and is the largest private sector coal company in the world.

Further information concerning the MEP can be obtained from:

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Fax: +61 (0)7 3225 5555

Email: millenniumexpansionproject@peabodyenergy.com

Further information about Peabody can be obtained from <http://www.peabodyenergy.com.au> and <http://www.peabodyenergy.com>.

1.1.3 Project Objectives and Scope

The MEP involves the expansion of an existing open-cut coal mine producing up to 5.5 Mtpa of ROM coal. The MEP will be a conventional truck and shovel operation, with a life of approximately 16 years. The estimated capital cost of the MEP is \$276 million.

The MEP aims to produce over 50 million tonnes (Mt) of product coal for the export market over the life of the mine. Coal exports provide a significant contribution to the Queensland economy. The relatively low sulphur content of Queensland coals helps to ensure that sulphur dioxide emissions are minimised in combustion processes.

The key objectives of the MEP are to:

- establish and operate a sustainable and profitable coal mine;
- use the existing CHPP and other facilities to produce a mining operation that minimises adverse impacts on the surrounding physical and social environments;
- construct and operate a coal mine that complies with all relevant statutory obligations and continues to improve operations to ensure best practice environmental management;
- design, construct and operate a coal mine allowing for future expansion that does not compromise environmental and social indicators and standards;

- make efficient use of current infrastructure and reduce costs by using existing Millennium infrastructure; and
- use similar proven strategies to those adopted at existing mines in the region to minimise impacts (e.g. salvage and stockpiling of topsoil, early and progressive rehabilitation of disturbed areas, protection of water quality by appropriate management systems, adoption of appropriate landform designs to ensure sustainability and planning for a nominated final land use).

The Millennium coal resource has been extensively tested by way of drilling, geophysical logging, ground geophysics, geotechnical, hydrogeological and geochemical investigations to develop a high level of resource knowledge. Peabody has carried out pre-feasibility studies in the MEP area including baseline flora, fauna, soils, water quality, air quality and noise investigations.

1.2 THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

1.2.1 Purpose of the EIS

This EIS has been prepared to inform decision makers, affected parties, interest groups and the public about potential environmental issues relating to the development and operation of the MEP and how these issues will be managed. The content of the EIS addresses issues contained in the Terms of Reference (TOR) issued by the Queensland Department of Environment Resource Management (DERM) (**Appendix A-Final Terms of Reference**).

This document will be made publicly available for comment and submissions will be sought from individuals and organisations. After consideration of this report and submissions received, DERM will review the MEP to identify any uncertainties or omissions. A Supplementary Report will be prepared to cover those additional matters and a final decision on the overall acceptability of the MEP will be made on the basis of the information provided in the EIS and Supplementary Report.

The Environmental Impact Assessment (EIA) process allows for community consultation and ensures environmental protection by comprehensive consideration of potential impacts and management strategies. DERM is responsible for coordinating the EIA process for this MEP.

1.2.2 Objectives of the EIS

The objective of the EIA process is to ensure that all impacts, direct and indirect, particularly environmental, social and economic impacts are fully examined and addressed. The EIS aims to be a self-contained and comprehensive document that provides:

- for interested bodies and persons-a basis for understanding the MEP, alternatives and preferred solutions, the existing environment that will be affected, both on and off the site, the impacts that may occur and the measures to be taken to mitigate all adverse impacts;
- for DERM and the Advisory Bodies-a framework for assessing the impacts of the MEP, in view of legislative and policy provisions; and,
- for the Proponent-a definitive statement of measures or actions to be undertaken to mitigate any adverse impacts during and following the implementation of the MEP. A draft Environmental Management Plan (EM

Plan) is included in the EIS (**Chapter 20–Draft Environmental Management Plan**), describing potential impacts and environmental management strategies designed to meet agreed performance criteria.

The EIS aims to present sufficient detail to enable readers to assess the potential impacts of the MEP on the environment and how those impacts will be managed. The EIS relates to the entire life of the MEP including construction, operation, maintenance, and decommissioning. The EIS enables reasonable economic and technically achievable conditions to be developed to ensure that the impact of the MEP is reduced to acceptable levels. The level of analysis and detail in the EIS reflects the level of significance of particular impacts.

1.2.3 Structure of the EIS

This EIS is structured as follows:

- Executive Summary;
- Chapters 1 and 2 provide an Introduction to the MEP;
- Chapter 3 provide the MEP Need and Alternatives;
- Chapters 4 and 5 provide a Project Description;
- Chapters 6 through to 18 presents the Environmental Values, Impacts and Mitigation Measures for various environmental aspects of the MEP;
- Chapter 19 provides a TOR cross reference table;
- Chapter 20 includes the Environmental Management Plan;
- Chapter 21 includes a list of Project Commitments;
- Chapter 22 lists the References cited in the EIS; and
- Appendices at the end provide additional information such as technical reports.

1.2.4 Study Team

Mining and Energy Technical Services Pty Ltd (Met Serve) conducted the environmental studies and compiled the EIS on behalf of Peabody, with the assistance of sub-consultants. Minserve completed the engineering feasibility studies.

Additional details of the Study Team are provided in **Appendix C–Study Team**.

1.2.5 Public Consultation Process and Submissions

Copies of the EIS have been submitted to DERM. Following submission, DERM will distribute the EIS for public and Advisory Body review and comment. The document will be placed on public display and copies will be made available to interested persons. Copies of the EIS will be on display at the Isaac Regional Council Offices and public libraries in Nebo and Moranbah, at the DERM offices in Emerald and Brisbane, and at the Peabody office at:

Level 13, BOQ Centre
259 Queen Street, Brisbane.

Any person, group or organisation can make a written submission about the MEP EIS to DERM. Such submissions do not have to relate to the whole of the EIS and may relate to any aspect. Persons making a submission do not have to be an expert in any of the issues assessed in the EIS. EIS comments and submissions must be made in writing and sent to DERM within the comment period, as

advertised in the public notice about the EIS. All submissions, comments and enquiries regarding this EIS should be addressed to:

Chief Executive

Department of Environment and Resource Management

Attention: EIS Coordinator – Millennium Expansion Project

Floor 3, 400 George Street, BRISBANE, QLD, 4000

GPO Box 2454, BRISBANE, QLD, 4001

Telephone: 13 74 680 (13 GOV) Facsimile: (07) 3330 5749

Email: eis@derm.qld.gov.au

DERM and Advisory Bodies will consider public submissions in making decisions in relation to the MEP. DERM will co-ordinate the consultation process between Peabody and the Advisory Bodies and the public and collate and review all comments received on the EIS. Peabody will then prepare a Supplementary Report addressing the comments submitted by the Advisory Bodies and the public. At the conclusion of this process, DERM will prepare an EIS Assessment Report.

During the production of this EIS, members of the public and other interested parties have been encouraged to participate in the planning process by providing input through public consultation programs. Advertisements providing information about the MEP and promoting communication with the EIS team have been placed in the local media. Responses from all parties have been collated and considered in the design of environmental and social plans and strategies.