

Section 1

Introduction

This section introduces the proposal by The Austral Brick Company Pty Limited (the "Proponent") to develop a clay/shale quarry at New Berrima for supply and road transportation of raw materials by to its brick plant at Bowral. This section provides information on:

- *the scope and format of the Environmental Assessment;*
 - *the Proponent;*
 - *the relevant background to the Project;*
 - *a summary of the approvals process;*
 - *the environmental performance of the Bowral Brick Plant;*
 - *the proposed approach towards environmental management and documentation; and*
 - *identification of the personnel involved in the Project design, document preparation and specialist consultant investigations.*
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1.1 SCOPE

The Austral Brick Company Pty Ltd (“the Proponent”) proposes to develop and operate a clay/shale quarry near New Berrima and transport the extracted clay/shale via the public road network to the Proponent’s Bowral Brick Plant (“the Project”). The quarry is proposed within part of Lot 1, DP414246 (“Mandurama”), located 1.5km east of New Berrima and 1.5km northeast of the Berrima Cement Works (**Figure 1.1**).

The Project would involve the extraction of clay/shale from a resource of approximately 8 million tonnes defined within the Project Site. The Project has been classified as a Major Project in accordance with Paragraph 7(1)(b) of Schedule 1 of *State Environmental Planning Policy (Major Development) 2005* (“Major Projects SEPP”) for which project approval is required under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The application is made possible as it satisfies the requirements of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.

This *Environmental Assessment* has been prepared by R.W. Corkery & Co. Pty Limited in support of the Proponent’s application for project approval (**Appendix 1**) in accordance with the requirements of Section 75H of the *EP&A Act*. The *Environmental Assessment* describes the Project and provides information on mitigation measures and management controls the Proponent would adopt to avoid or reduce potential impacts within and surrounding the Project Site. The residual impacts are described and proposed monitoring is outlined to assess the ongoing environmental performance of the Project.

The information provided in this document is presented to a level of detail which adequately addresses all relevant issues identified by the various stakeholders including government agencies, surrounding residents and the local community. Emphasis has been placed upon comprehensively addressing the key issues and limiting coverage of those issues that are not central to the determination of the project application for approval application. This approach is consistent with Director-General’s Requirements issued for the Project (see **Appendix 2**).

1.2 THE PROPONENT

The Proponent for the Project is The Austral Brick Company Pty Ltd. The company trades as “Austral Bricks” and, since its formation in 1907, has been involved in the production and distribution of a range of quality fired clay products.

Brickworks Limited, the Proponent’s parent company is a publicly listed company. Brickworks Limited was formed in 1934, shortly before it purchased New South Wales State Brickworks at Homebush Bay, in Sydney. Between 1934 and 1937, Brickworks Limited acquired a number of brick plants in and around Sydney.

Brickworks Limited also owns a range of other companies, including Bristle Roofing and Austral Masonry. These companies, together with the Proponent manufacture a large range of clay bricks, pavers, terracotta floor tiles and roof tiles. The Proponent is Australia’s largest manufacturer of pavers, bricks, building materials, facade systems and landscaping products.



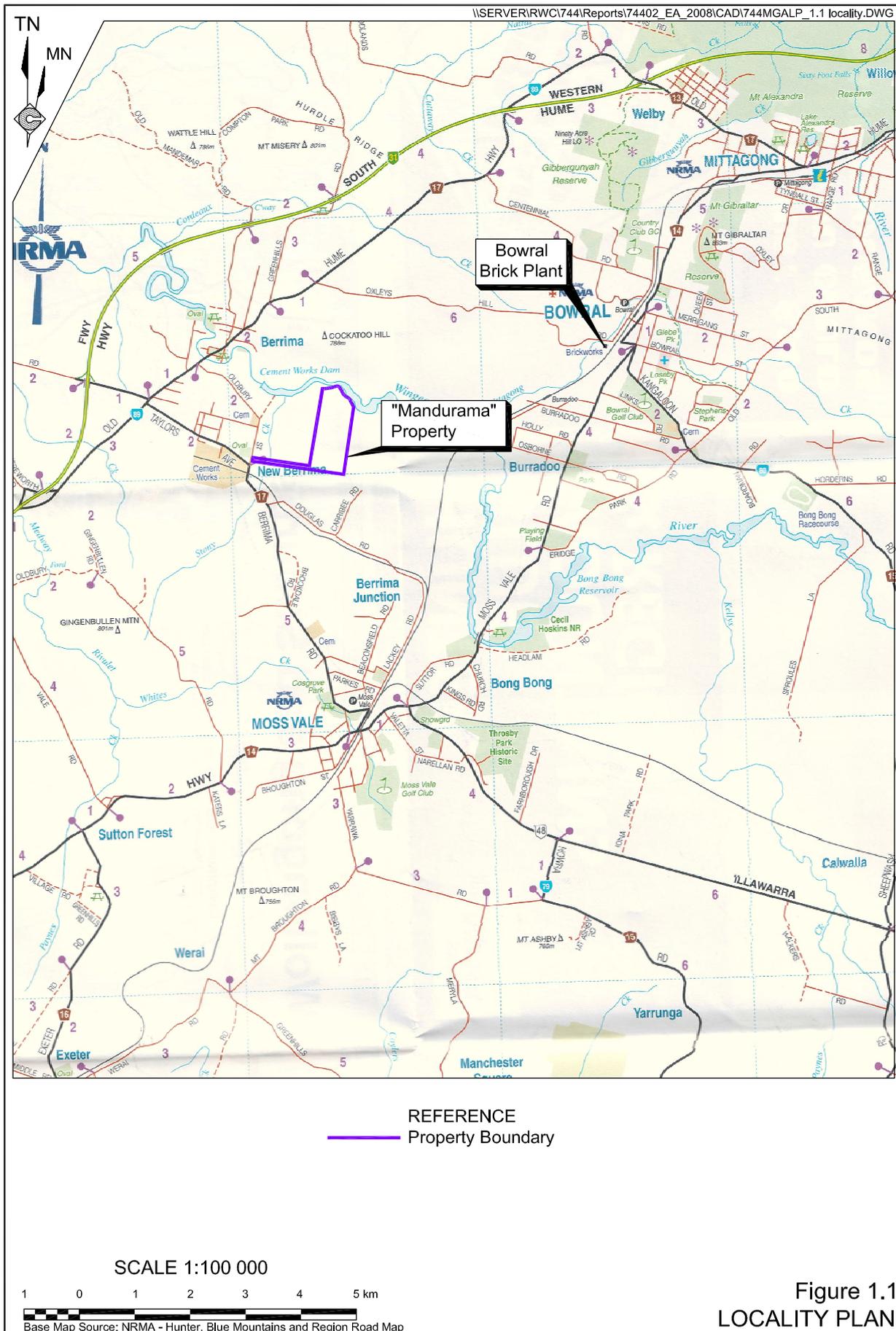


Figure 1.1
 LOCALITY PLAN



1.3 DOCUMENT FORMAT

This *Environmental Assessment* includes seven sections of text, a glossary, references and a set of appendices. The information presented in this document covers all aspects of the Project, including planning, development, operation, rehabilitation and environmental monitoring at a level of detail dependent on the environmental risk posed by each issue. The issues and their relevant importance to the assessment of the Project have been identified through consultation with government agencies, the local community, stakeholders, surrounding landowners and specialist consultant assessments.

The format of the *Environmental Assessment* is as follows.

- Section 1:** introduces the Project, the Proponent and Project Site. A brief overview is also provided of the history and operations of the Bowral Brick Plant and the proposed environmental management and documentation that would be implemented and details related to the management of the investigations.
- Section 2:** provides a description of the Project, including the Proponent's objectives, the clay/shale resources and the proposed extraction, transportation and progressive and final rehabilitation activities.
- Section 3:** provides a summary of the consultation undertaken with the local community and relevant government agencies together with a review of the relevant preliminary environmental studies. Key issues for assessment are identified and prioritised based on the results of the consultation and preliminary environmental assessments.
- Section 4:** provides a range of background information related to the environmental setting of the Project Site.
- Section 5** provides a description of the components of the existing environment, proposed mitigation measures and management procedures, assessment of potential environmental impacts and monitoring that would be undertaken for the key issues identified in Section 3.
- Section 6:** provides a draft Statement of Commitments the Proponent would implement with respect to environmental management and monitoring for the Project.
- Section 7:** presents an evaluation of the Project assuming the adoption of all of the Proponent's commitments. The proposed direct and indirect impacts are then justified, particularly in light of the principles of Ecologically Sustainable Development.
- Section 8:** lists the various source documents referred to for information and data used throughout the preparation of the *Environmental Assessment*.
- Section 9:** presents a glossary of technical terms, symbols and acronyms and units used throughout the *Environmental Assessment*.



Appendices: present the following additional information.

Appendix 1: A copy of the Proponent's Major Projects Application.

Appendix 2: A copy of the Director-General's Requirements and a tabulated summary of those requirements and the *Environmental Assessment* requirements provided by other government agencies which identifies where each requirement is addressed in the *Environmental Assessment*.

The *Environmental Assessment* is accompanied by a *Specialist Consultant Studies Compendium* incorporating eight parts addressing the assessment of the following key issues.

Part 1: Traffic

Part 5: Fauna

Part 2: Surface Water

Part 6: Air Quality

Part 3: Noise

Part 7: Soil and Land Capability

Part 4: Flora

Part 8: Aboriginal Cultural Heritage

The contents of the assessment reports are summarised into the appropriate section(s) of the *Environmental Assessment*.

1.4 PROJECT BACKGROUND

1.4.1 Bowral Brick Plant

The Austral Brick Company Pty Ltd is the owner and operator of the Bowral Brick Plant, the Company's sole dry press brick manufacturing plant in NSW. This plant is recognised by the architectural fraternity for the wide range of brick products used both in architecturally designed buildings and importantly for many home and public building renovations/extensions. The bricks produced at Bowral are therefore in considerable demand and provide an important building material throughout Sydney, NSW and beyond. It is noted that since the Proponent Company acquired the Bowral Brick Plant in March 2001, in the order of \$15 million has been invested into the upgrading and modernising plant increasing the capital value of the plant to in excess of \$20 million.

The principal raw material used in the manufacture of the dry pressed bricks at the plant is Ashfield Shale, the material underlying many Sydney suburbs and which was first used to manufacture the billions of bricks manufactured throughout Sydney until 2003 when the Eastwood Brick Plant closed down, i.e. the last of over 20 dry-pressed brick plants to close in Sydney since the early 1980s. The Ashfield Shale has been extracted from a quarry adjacent to the Bowral Brick Plant for over 80 years, however, the remaining resources are limited and likely to be exhausted within about 5 years.

1.4.1.1 Previous Operations

Bricks have been manufactured at the Bowral Brick Plant since 1922. During that time, the plant has grown to its current production rate of 24 million bricks and 1 million pavers per year. The Proponent purchased the Bowral Brick Plant in 2001 in readiness for when its Eastwood Plant ceased production in 2002.



The Bowral Brick Plant provides full-time equivalent employment for 38 persons on site, 7 persons are engaged as contracted drivers to deliver bricks and three drivers contracted part-time to transport raw materials from the Proponent's satellite quarries to the Bowral Brick Plant. Approximately 10.6% of the brick manufacturing raw materials are delivered from the satellite quarries within the remaining 89.4% extracted from the quarry adjacent to the plant.

The Bowral Brick Plant and its adjoining quarry have operated within the residential area in Bowral for almost 90 years. The Proponent has responded positively to the few complaints received during the past 10 years of ownership. Since 2001, there has been a marked improvement in environmental compliance and performance at the plant.

1.4.2 Clay/Shale Exploration and Site Selection

In light of the programmed completion of clay/shale extraction within the quarry adjacent to the Bowral Brick Plant (by about 2015), the Proponent embarked on an exploration program throughout the Southern Highlands in 2005 to identify a suitable replacement source of Ashfield Shale. Since 2005, several areas have been investigated and these are discussed in Section 7.3.1. The land which is the subject of the Project was selected on the basis that it presents fewer environmental constraints, primarily because the land is cleared and contains limited remnant native vegetation. The Proponent acquired the 100.2ha "Mandurama" property which is the subject of this proposal, in early April 2008.

The drilling investigations on the "Mandurama" property have established there is in the order of 8 million tonnes of recoverable clay/shale on the property, the bulk of which is ideally suited to the manufacture of dry pressed bricks at the Bowral Brick Plant. The Proponent proposes to extract the shale and a proportion of the clay and sandstone and transport the materials to the Bowral Brick Plant to be used in the manufacture of dry pressed bricks.

Based upon the results of the preliminary environmental studies conducted, the Proponent established that it was feasible to proceed with the Project and commissioned the preparation of an *Environmental Assessment* to support its application for project approval.

1.5 ENVIRONMENTAL MANAGEMENT AND DOCUMENTATION

1.5.1 Environmental Management

The Proponent operates a range of quarries adjacent to or at satellite locations to supply raw materials for its plants in Sydney and Bowral. Each quarry is operated under an Environmental Management System (EMS) incorporating the relevant elements of ISO14001. The EMS reflects the Proponent's Environmental Policy which focuses on sustainable development, pollution reduction and open communication with all stakeholders. The NSW Environmental Manager oversees environmental management of all quarries and each quarry is managed by registered personnel who are also responsible for the implementation of the EMS. The EMS also addresses the establishment of environmental targets and objectives, continual improvement, the identification of environmental aspects and impacts, control measures to remove or reduce environmental impacts, environmental competencies and training, corrective and preventive actions and incident and complaints management as well as environmental reporting. The implementation of the EMS includes an environmental audit program whereby each quarry is audited by an independent party annually.



1.5.2 Environmental Documentation

An *Environmental Management Plan* would be prepared and implemented for the management of the proposed New Berrima Quarry. This document would focus on providing sufficient detailed planning information to ensure all conditional requirements in the granted project approval (and associated commitments) are clearly outlined for operational personnel. The document would draw on relevant documents from the corporate EMS, including an environmental aspects and impacts register, a compliance register, management systems procedures and standard operating procedures, inspection checklists, training documents, corrective and preventive actions, monitoring records and an incident and complaints register.

1.6 MANAGEMENT OF INVESTIGATIONS

The preparation of this document has been managed by Mr Rob Corkery, (B.Appl.Sc.(Hons), M.App.(Sc)) Principal of R.W. Corkery & Co Pty Limited. The bulk of the document was assembled by Ms Lisa Aspinall (MBus, BAgSc, GradDipED) Environmental Consultant with R.W. Corkery & Co Pty. Limited. Mr Rob Corkery, (B.Appl.Sc.(Hons), M.App.(Sc)) of the same Company undertook a review of the document.

Various personnel working with the Proponent under the supervision of Mr Steve Wall (NSW Manufacturing Manager) have provided a range of technical information on the proposed development and assisted with finalising the document.

Strong emphasis has been placed upon a multi-disciplinary approach to the design of the Project, the description of the existing environment, identification of design and operational safeguards and resultant impact assessment. The following Specialist Consultants were commissioned by the Proponent to prepare specialist consultant studies for the Project. The various Specialist Consultant reports prepared for the Project are presented in the *Specialist Consultant Studies Compendium* accompanying this document.

- Traffic Assessment: Traffic Solutions Pty Ltd
(Mr Craig Hazell – Assoc.Dip. Eng)
- Surface Water Assessment: SEEC
(Mr Andrew Macleod, B.Sc. (Hons))
- Noise Assessment: Spectrum Acoustics
(Dr Neil Pennington – PhD, B.Sc. (Physics), B.Math (Hons))
- Flora Assessment: Geoff Cunningham Natural Resource Consultants Pty Ltd
(Mr Geoff Cunningham – B.Sc.Ag (Hons))
- Fauna Assessment: Aquila Ecological Surveys
(Mr Paul Burcher – B.Appl.Sc)
- Air Quality Assessment: Heggies Pty Ltd
(Ms Tanya Henley – B.Sc. (App Chem) Dip Sc Practice)



- Soil and Land Capability Assessment: Geoff Cunningham Natural Resource Consultants Pty Ltd
(Mr Geoff Cunningham – B.Sc.Ag (Hons))
- Aboriginal Cultural Heritage Assessment: Archaeological Surveys and Reports Pty Ltd
(Mr John Appleton – B.A. (Hons))



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