

Section 1

Introduction

PREAMBLE

This section introduces a project proposed by Enhance Place Pty Limited proposal to extend the life of the Pine Dale Coal Mine by approximately 3 years by extending operations northwards into an area that incorporates the former unrehabilitated Yarraboldy Open Cut Mine.

This section includes:

- *an outline of the scope and format of the document;*
- *details about the Proponent, Enhance Place Pty Limited;*
- *the format of the Environmental Assessment;*
- *relevant background to the Project including a review of the history of mining and operations at the Pine Dale Coal Mine;*
- *a summary of the approval process;*
- *a discussion on 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

Enhance Place Pty Limited (“the Proponent”) proposes to extend its existing coal mining operations at the Pine Dale Coal Mine into an area which incorporates the former unrehabilitated Yarraboldy Open Cut Mine (“the Project”). The Project, also known as the “Pine Dale Coal Mine - Yarraboldy Extension” is located near Blackmans Flat on the northern side of the Castlereagh Highway, 17km northwest of Lithgow and 5km north of Wallerawang, in the Western Coalfields of New South Wales (**Figure 1.1**). A copy of the application for project approval (Application No. 10_0041) is included in **Appendix 1**.

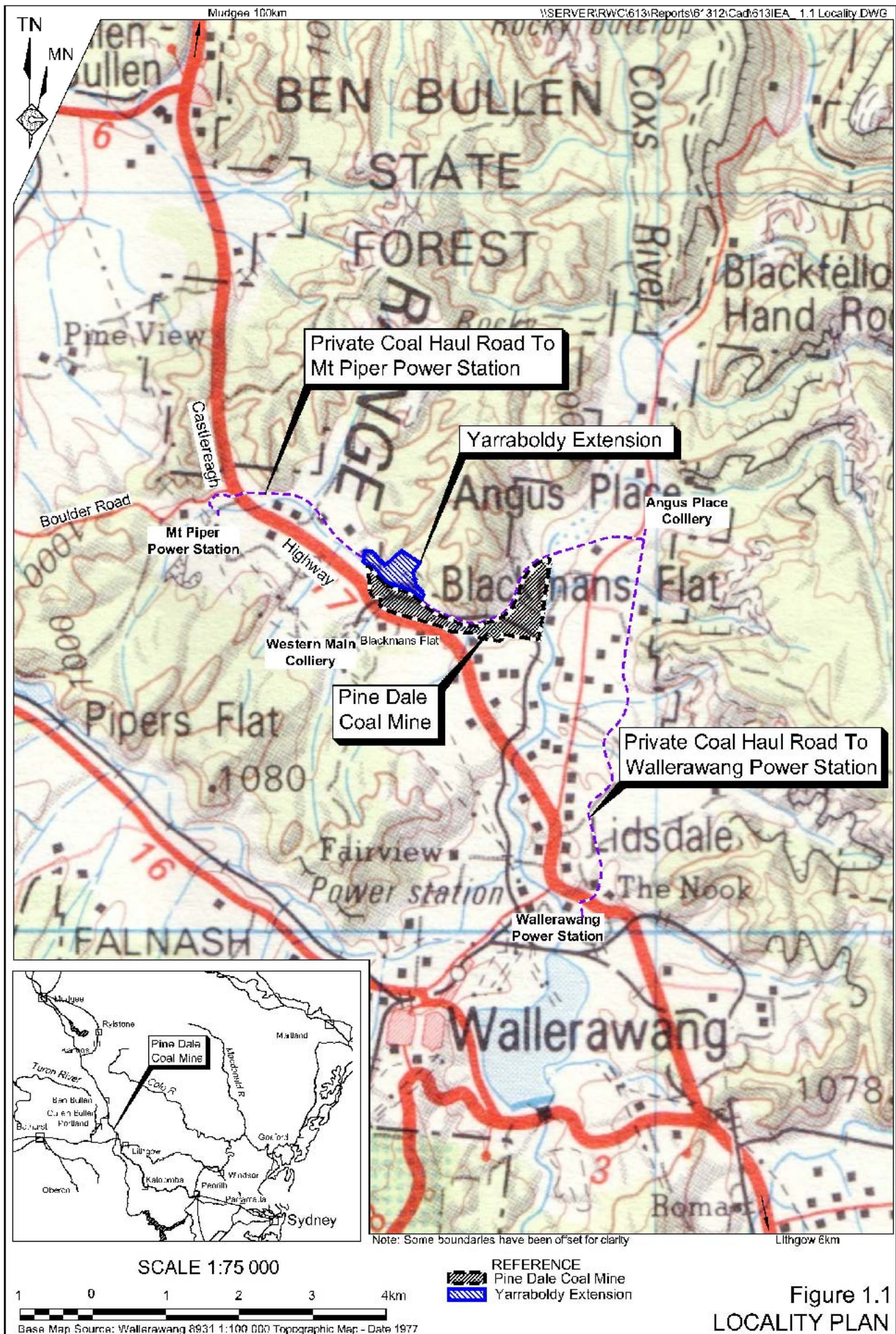
The Project is classified as a Major Project in accordance with the *State Environmental Planning Policy (Major Development) 2005*. Consequently, the Minister for Planning is the approval authority and an *Environmental Assessment* is required to be submitted to support the project application. The application is made possible by virtue of the fact that coal mining is a permissible land use within the Project Site under the *Lithgow City Local Environmental Plan 1994* (LEP 1994).

The information presented in this document covers all aspects of the planning, development, operation, rehabilitation and environmental management and monitoring of the Pine Dale Coal Mine - Yarraboldy Extension to a level of detail consistent with industry standards, the scale of the proposed operations and the potential for environmental impact. These aspects are presented in a manner that addresses the specific requirements of the Director-General of the Department of Planning (DoP) and other State and local government agencies, together with those issues raised during the community consultation process. It is noted that the requirements provided by the other State Government agencies relate to a larger proposal (see Section 1.5) and hence not all specific requirements are relevant to the Yarraboldy Extension. A copy of the Director-General’s Requirements (DGRs) is provided in **Appendix 2** whilst a table recording where each DGR and other requirements raised by government agencies is addressed in this document is presented in **Appendix 3**.

In brief, for the purposes of this document, the Pine Dale Coal Mine - Yarraboldy Extension would involve the following.

- Ongoing extraction of run-of-mine (ROM) coal at a rate of 350 000t per year for 2½ years.
- Upgrade of the existing intersection with the Angus Place to Mt Piper Power Station Private Coal Haul Road.
- Continued transportation via public road of up to 100 000tpa of product coal and 250 000tpa via the Private Coal Haul Road.
- Continued importation via public road of up to 50 000tpa of alkaline boiler ash for use in rehabilitation.
- Extraction and emplacement of overburden and interburden material to create a stable and safe final landform - effectively rehabilitating the areas associated with the former Yarraboldy Open Cut Mine within the extension area.
- Dewatering of any groundwater and water inflows into the mine area.
- Other ancillary activities, including equipment maintenance, clearing and stripping of the areas to be disturbed and rehabilitation activities.





1.2 FORMAT OF THE ENVIRONMENTAL ASSESSMENT

The information presented in this document covers all aspects of the planning, development, operation, rehabilitation and environmental monitoring of the Pine Dale Coal Mine - Yarraboldy Extension at a level of detail reflecting 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, surrounding landowners and specialist consultant assessments.

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

- Section 1:** introduces the Project, the Proponent and the Project Site, provides background information to the Project and includes information on the existing approved operations of the Pine Dale Coal Mine. The section also discusses the environmental management, documentation and performance since construction of the Pine Dale Coal Mine, provides an overview of the approvals process and concludes with information on the management of investigations for the *Environmental Assessment*.
- Section 2:** describes the Proponent's objectives and proposed open cut mining, coal crushing, transportation, waste management and rehabilitation activities.
- Section 3:** provides a description of the process used to identify and prioritise the key issues for assessment with reference to the Director-General's Requirements for the Project, stakeholder consultation through the project planning stages and a general environmental risk analysis undertaken to establish the specific environmental risk(s) posed by the issues identified.
- Section 4:** presents a description of the existing environment, proposed management and mitigation measures, and assesses the potential impacts and maintenance / monitoring requirements for the key issues identified in Section 3.
- Section 5:** provides a draft statement of commitments the Proponent is prepared to implement with respect to environmental management and monitoring for the Project.
- Section 6:** provides a conclusion to the document which justifies the Project in terms of biophysical, economic and social considerations and records the consequences of not proceeding with the Project.
- Section 7:** lists the various source documents referred to for information and data used during the preparation of the *Environmental Assessment*.
- Section 8:** presents a glossary of acronyms, symbols and units and technical terms, used throughout the *Environmental Assessment*.

Appendices: present the following additional information.

1. A copy of the Proponent's major project application.
2. The Director-General's Requirements.



3. A summary of the coverage of the DGRs and other government agency requirements.
4. A SEPP Risk 33 Screening.

The *Environmental Assessment* is also supported by an additional volume, the *Specialist Consultant Studies Compendium*, which incorporates nine stand-alone reports prepared by specialist environmental consultancies engaged to assess specific aspects of the Project. The contents of these reports are summarised into the appropriate section(s) of the *Environmental Assessment*.

1.3 THE PROPONENT, APPLICATION AREA AND PROJECT TERMINOLOGY

1.3.1 The Proponent

Enhance Place Pty Limited (“the Proponent”) (ABN: 31 077 105 867), is the owner and operator of the Pine Dale Coal Mine, Mining Lease ML 1578, and the adjacent Enhance Place Coal Mine south of the Castlereagh Highway, ML 1422, ML 1458 and ML 1520. Mining operations at the Enhance Place Coal Mine have now ceased with rehabilitation effectively completed. The Proponent is also the holder of ML1569 covering an area of approximately 161ha generally north of the existing Pine Dale Coal Mine (see **Figure 1.2**).

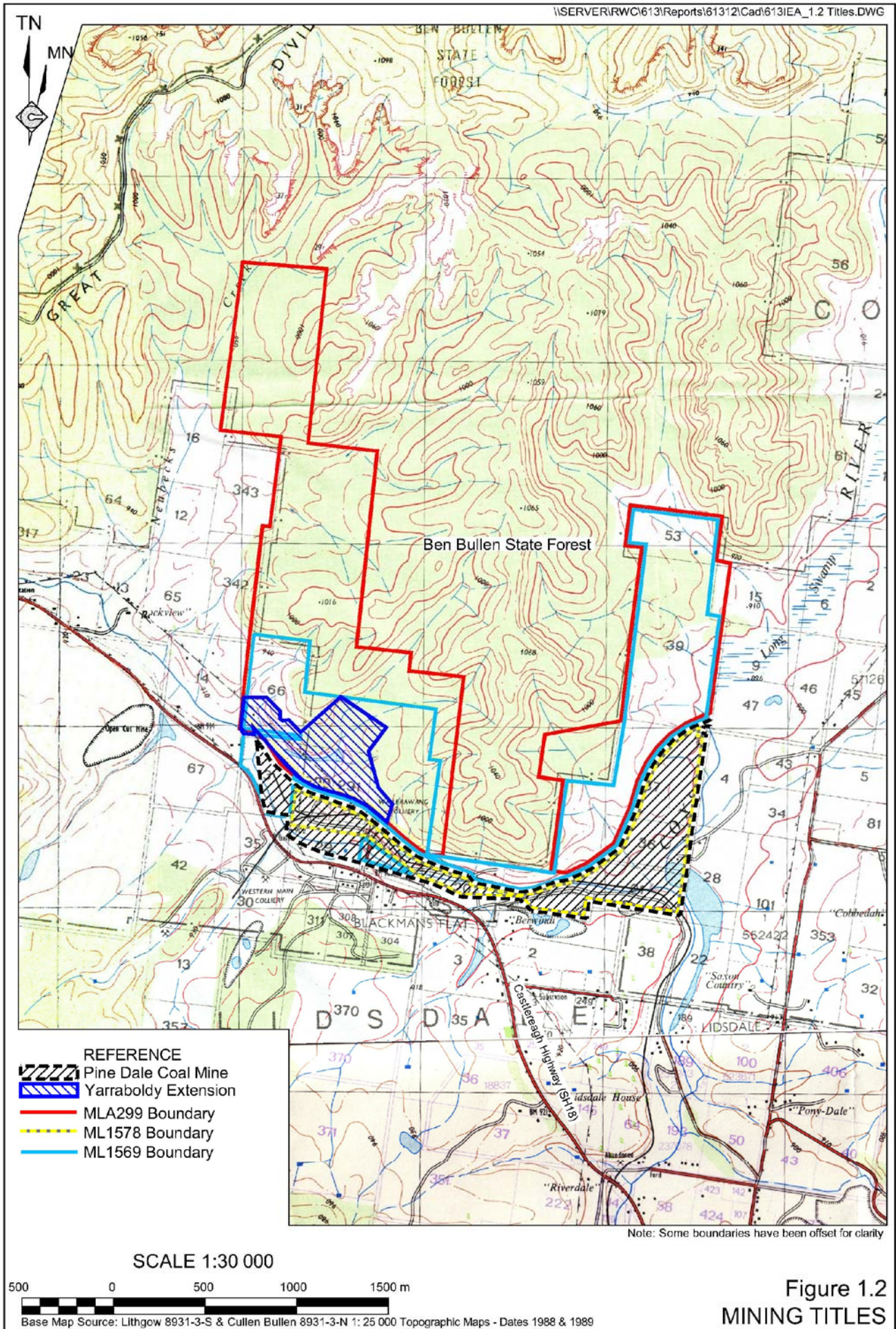
Enhance Place Pty Limited is a privately owned company comprising three shareholders. The Directors, representing each of the shareholders, are:

- Mr G.O. Jennings – an Electrical Engineer with over 40 years operating experience in Australian open cut and underground coal mining ventures;
- Mr J.K. Doherty – a Chartered Engineer (retired) with over 40 years operating experience in Australian open cut and underground coal mining industries; and
- Mr D.J. Frew – a Certified Practising Accountant with over 40 years operating experience in Australian open cut and underground coal mining industries.

The current Operations Manager for the Pine Dale Coal Mine, Mr Hilton Goldfinch, has over 20 years mining experience in both the Queensland and NSW coalfields in a range of roles including Mine Manager, Open Cut Examiner, Mine Engineer, Project Manager and other professional mining engineering roles.

Collectively, the Directors and Operations Manager have significant experience in Australian open cut and underground coal mining ventures.





1.3.2 Application Area

For the purposes of the project application, the Application Area is coincident with the Project Site as shown on **Figure 1.3**. The Project Site includes the following component areas.

- The existing Pine Dale Coal Mine covering an area of approximately 83ha and incorporating ML 1578 and part of ML 1569. The principal reasons for inclusion of the existing mine site are:
 - due to the continued use of the Crushing, Stockpiling and Maintenance Area (temporarily for crushing and then as a subsequent Lay Down Area), offices, parking and amenities;
 - ongoing use of the licensed discharge points, existing amenity bunding and selected internal access roads;
 - to incorporate any coal mining activities that may still be underway as activities commence in the Yarraboldy Extension; and
 - to incorporate the activities required for the final landform creation and rehabilitation of the existing Mining Area C.
- An extension area of approximately 27ha directly north of the existing Pine Dale Coal Mine incorporating:
 - part of ML1569 (26.1ha) and part of MLA 299 (0.7ha);
 - an area of approximately 6.6ha owned by the Proponent and 20.1ha of Forests NSW land forming part of the Ben Bullen State Forest which also includes a section of the Private Coal Haul Road (approximately 1ha) which is located on land owned jointly by the Proponent and Forests NSW but with right-of-way or lease to Coal>Link Pty Ltd; and
 - approximately 10ha of land which is currently completely disturbed by the former unrehabilitated Yarraboldy Open Cut Mine.

The use of the Castlereagh Highway and its arterial roads would continue to be utilised in the same manner as for the existing operations (but with a reduced annual tonnage) in order to transport product coal to customers. The existing Angus Place to Mt Piper Power Station Private Coal Haul Road would also be utilised for coal transport, however, this would be undertaken in accordance with the existing approvals for this road.

In summary, the Project Site encompasses, either in part or full, the following mining titles and application areas (see **Figure 1.2**).

- Mining Lease (ML) 1578 – Enhance Place Pty Limited
- Mining Lease (ML) 1569 – Enhance Place Pty Limited
- Mining Lease (MLA) 299 – Enhance Place Pty Limited

Table 1.1 lists the associated land title reference information within the Project Site (**Figure 1.4**). Refer to Section 4A.3 for a detailed discussion on land ownership.



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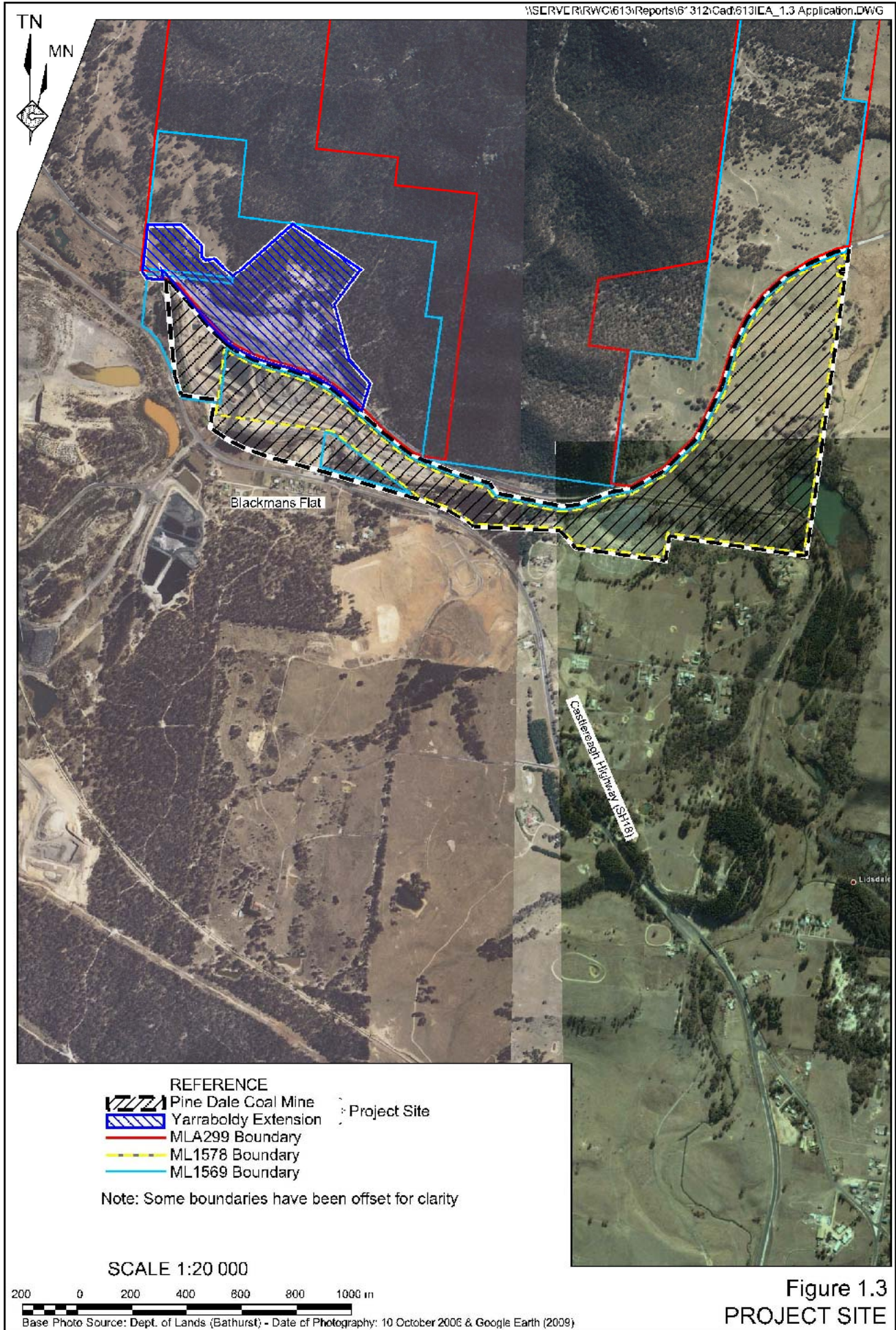


Figure 1.3
PROJECT SITE

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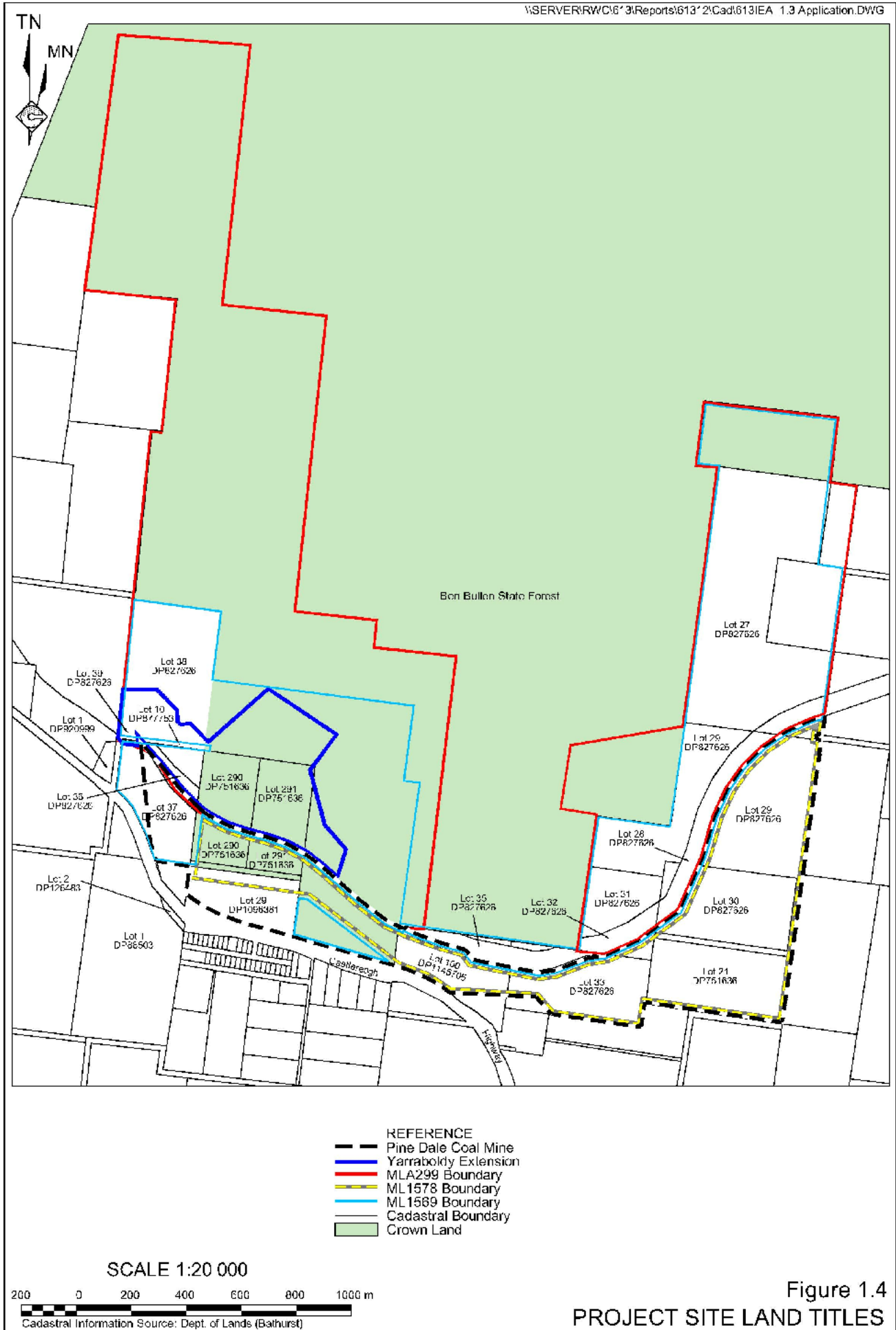


Figure 1.4
PROJECT SITE LAND TITLES

Table 1.1
Project Site Land Titles

Area of Activities	Land Title Reference
Existing Pine Dale Mine	Part Lots 21, 290 and 291 DP 751636, Part Lots 27, 29, 30, 31, 33, 35, 36 and 37 DP 827626, Part Lot 29 DP 1096381, Part Lot 100 DP 1145705, Part of the Ben Bullen State Forest and Various Crown Roads
Proposed Yarraboldy Extension	Part Lots 290 and 291 DP 751636, Part Lots 36, 37, 38 and 39 DP 827626, Part Lot 10 DP 877753 and Part of the Ben Bullen State Forest.

1.3.3 Project Terminology

The following terminology is referred to regularly throughout this document. A glossary of all other mining and environment-related terminology is presented in Section 8.

- Pine Dale Coal Mine: The currently approved coal mining operation encompassing an area of approximately 83ha north of the Castlereagh Highway (see **Figure 1.3**).
- Pine Dale Coal Mine - Yarraboldy Extension: “the Project” for the purposes of this *Environmental Assessment*. The Project includes mining of coal within the Yarraboldy Extension area together with ancillary activities.
- Yarraboldy Extension area: The proposed mining area to the north of the existing Pine Dale Coal Mine which encompasses an area of approximately 27ha (see **Figure 1.3**). This area encompasses the former Yarraboldy Open Cut Coal Mine.
- The former Yarraboldy Open Cut Mine: An unrehabilitated open cut coal mine to the north of the existing Pine Dale Coal Mine which is situated within the Yarraboldy Extension area.
- Private Coal Haul Road: This haul road is used to transport product coal from other mining operations to the local power stations. The haul road runs through the southern section of the Yarraboldy Extension area. The land on which the coal haul road is located is jointly owned by Enhance Place Pty Limited and Forests NSW but with right-of-way or lease to Coal>Link Pty Ltd.

1.4 PROJECT SITE HISTORY

1.4.1 Introduction

The majority of the following information has been sourced from Mr Fred Morris, Roland Mining Services Pty Ltd, who has a long history in the area as well as information gathered from Lithgow Tourism.

Coal mining has been occurring in the Lithgow area since 1838 when Andrew Brown started using coal for the steam engine at his flour mill. Coal for trading purposes was first mined in the Lithgow area in 1868.



Coal mining in the Wallerawang area commenced around 1873, with most mines targeting the Lithgow Seam. Coal mining in the Blackmans Flat area commenced between 1900 and 1910.

The southern and western parts of the existing Pine Dale Coal Mine were originally associated with historical coal mining operations, particularly the former Wallerawang and Commonwealth Collieries (**Figure 1.5**).

1.4.2 Wallerawang Colliery

The Wallerawang Colliery commenced operations in 1910 as an extension to the first mine in the district. The Colliery operated as a hand-worked operation until 1940, when some mechanised mining was introduced. More advanced mechanical mining was introduced from 1941, with subsequent upgrades and modifications in the mining method until the colliery closed in 1987 due to a depletion of underground coal reserves.

A small open cut mine was operated on the Wallerawang Colliery site for approximately 2 years up until 1954, with a second smaller open cut operation undertaken for a similar period up until 1969. Both open cut operations fall within an area referred to as the Wallerawang Colliery Pit Top which is partly located in the western part of the existing Pine Dale Coal Mine and Yarraboldy Extension area.

Between 1987 and 1991, the majority of the surface infrastructure including the washery and conveyors were removed. The shafts and adits are reported to have been sealed during this period. Approximately 20ha of the surface area disturbed by the operation was rehabilitated in 1991 although the rehabilitation work proved largely unsuccessful as coarse reject from the washing operations was left on the surface and capped with only 0.1m of clay prior to seeding. Over time, the surface acidified and much of the vegetation died, resulting in bare areas susceptible to erosion.

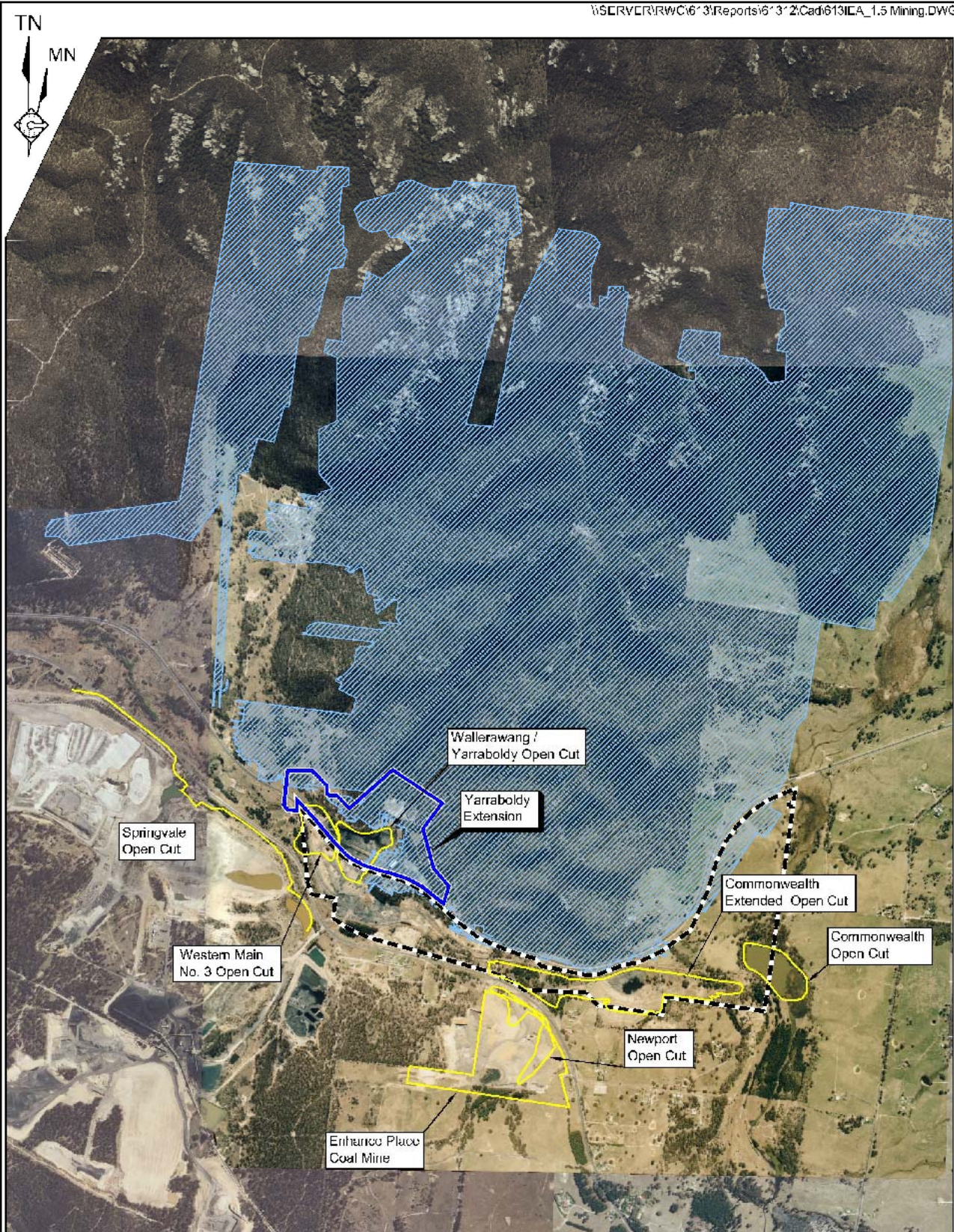
Further rehabilitation work continued in 1994 with the removal of the bathhouse and office blocks. A program to remove approximately 150 000t of coal fines, generally located within the northern part of the former Wallerawang Open Cut (now referred to as the former Yarraboldy Open Cut Mine), was commenced. During this time, discharge water quality controls, fertilisation and noxious weed control programs were maintained. The coal fines recovery program was expanded in 1999 with the commencement of a briquette operation which was subcontracted to Yarraboldy Briquette Company Pty Ltd. This operation ceased in 2006.

1.4.3 Commonwealth Colliery

Open cut mining operations (**Figure 1.5**) were conducted at the Commonwealth Extended Open Cut Mine located south of Neubecks Creek in the late 1940's and early 1950's. The mine was under the control of the NSW Mining Company, the forerunner of the Joint Coal Board, and was part of a series of many large and small open cuts which extended from Kerosene Vale in the south to Ben Bullen in the north. Their existence was the result of the then urgent need for coal following the rapid post-war industrial expansion and the unprecedented coal mine turmoil associated with the conversion from hand mining methods to mechanical mining methods.

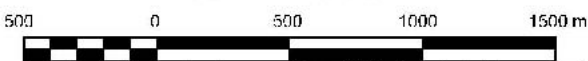


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- REFERENCE
- Pine Dale Coal Mine
 - Yarraboldy Extension
 - Extent of Existing Underground Workings
 - Historic Open Cut Mine (and Name)

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Base Photo Source: Geo-Spectrum (Australia) Pty Ltd - Date: 4 September 2003

Figure 1.5
 HISTORICAL MINING OPERATIONS

The void resulting from the Commonwealth Extended Open Cut was about 15m deep along its southern boundary and contained a substantial volume of water in the lower part of the open cut, prior to the opening up of the Wallerawang No. 2 underground operations in 1968. From about 1975 onwards, this open cut became the principal site for the disposal of washery reject (“chitter”) from the Wallerawang Colliery washery. It is estimated that over 1 million tonnes of reject was placed in the old Commonwealth Extended Open Cut. In the 1990s, the surface of the backfill was reprofiled to its present configuration and mostly covered with a layer of clay and vegetated with pasture grasses.

The original Commonwealth Open Cut located to the east of the Commonwealth Extended Open Cut filled with water and is now known as the Blue Lake. The Blue Lake is located at the confluence of the Coxs River and Neubecks Creek. Overflow from the Blue Lake continues down the Coxs River.

1.4.4 Neubecks Creek

Neubecks Creek flows from the northwest to the southeast, generally parallel to various rehabilitation areas before entering the Coxs River at the Blue Lake, a water filled void formerly part of the Commonwealth Open Cut. The Coxs River is located within the upper Sydney Catchment Area.

The pre-mining creek alignment was, in certain parts, different to its alignment today. The course of Neubecks Creek has been redirected during the operation of a number of small, shallow open cuts by several government agencies during the early 1950s to overcome severe coal shortages in the immediate post-war years.

There has been only slight variation in the geometry of the creek banks since the late 1950s. The banks have progressively stabilised from the presence of naturally established native grasses and trees, including eucalypts.

After much effort, the acidity of creek waters is now near neutral and the clarity is satisfactory.

Flooding incidents have occurred on about three occasions over the last 45 years, as confirmed by a local resident and persons who worked on the site.

1.5 BACKGROUND TO THE PROJECT

The Pine Dale Coal Mine currently supplies approximately 350 000tpa of steaming coal to Delta Electricity’s Mt Piper Power Station. Coal reserves within the currently approved operations will exhaust in about September 2010. Delta Electricity has expressed an interest in continuing competitively priced long-term contracts with the Proponent for the supply of steaming coal to their two power stations near the Pine Dale Coal Mine, namely Mt Piper and Wallerawang Power Stations.



As the Proponent is committed to the Enhance Place/Blackmans Flat area, it is their preference to explore and develop potential extension options for the current mining operations before seeking to develop alternative coal resources further removed from the Mt Piper and Wallerawang Power Stations. Therefore, in recognition of the current planned completion date for the existing Pine Dale Coal Mine, the Proponent has reviewed its options and proposes to extend the existing mining operations to the north centred on the former Yarraboldy Open Cut Mine.

Preliminary work to compile an *Environmental Assessment* for a mine extension north of the existing Pine Dale Coal Mine to provide coal supply for approximately a further 20 years (**Figure 1.6**) commenced in late 2008. However, a number of issues arose which have resulted in delays in compiling the required information for inclusion in an *Environmental Assessment* for this original extension area. These delays extended the timeframe for potential approval of the original proposed extension beyond when the approved coal resource would be exhausted. In order to ensure the continuation of coal supply beyond September 2010 without a delay of significant consequence to both the Proponent, its contractors and their employees, a separate Project Application for a smaller area with fewer environmental and operational constraints has been lodged, namely the proposed Pine Dale Coal Mine - Yarraboldy Extension and this *Environmental Assessment* prepared for the smaller Project.

The Yarraboldy Extension area incorporates the former Yarraboldy Open Cut Mine which has a long history of disturbance and has been left effectively unrehabilitated (see **Plate 1.1**). The Proponent views the proposed Yarraboldy Extension as an opportunity to rehabilitate this former disturbance and provide an additional 2½ years of coal supply during which time, the application for the long-term extension can be finalised for consideration and determination. In the event the proposed long-term extension is not approved, the proposed Yarraboldy Extension would still result in beneficial outcomes for both the community and State government (through the rehabilitation and return to State Forest capability of the former Yarraboldy Open Cut Mine) and the Proponent (by extending approved coal reserves by a further 2½ years).



Plate 1.1 The Former Yarraboldy Open Cut Mine

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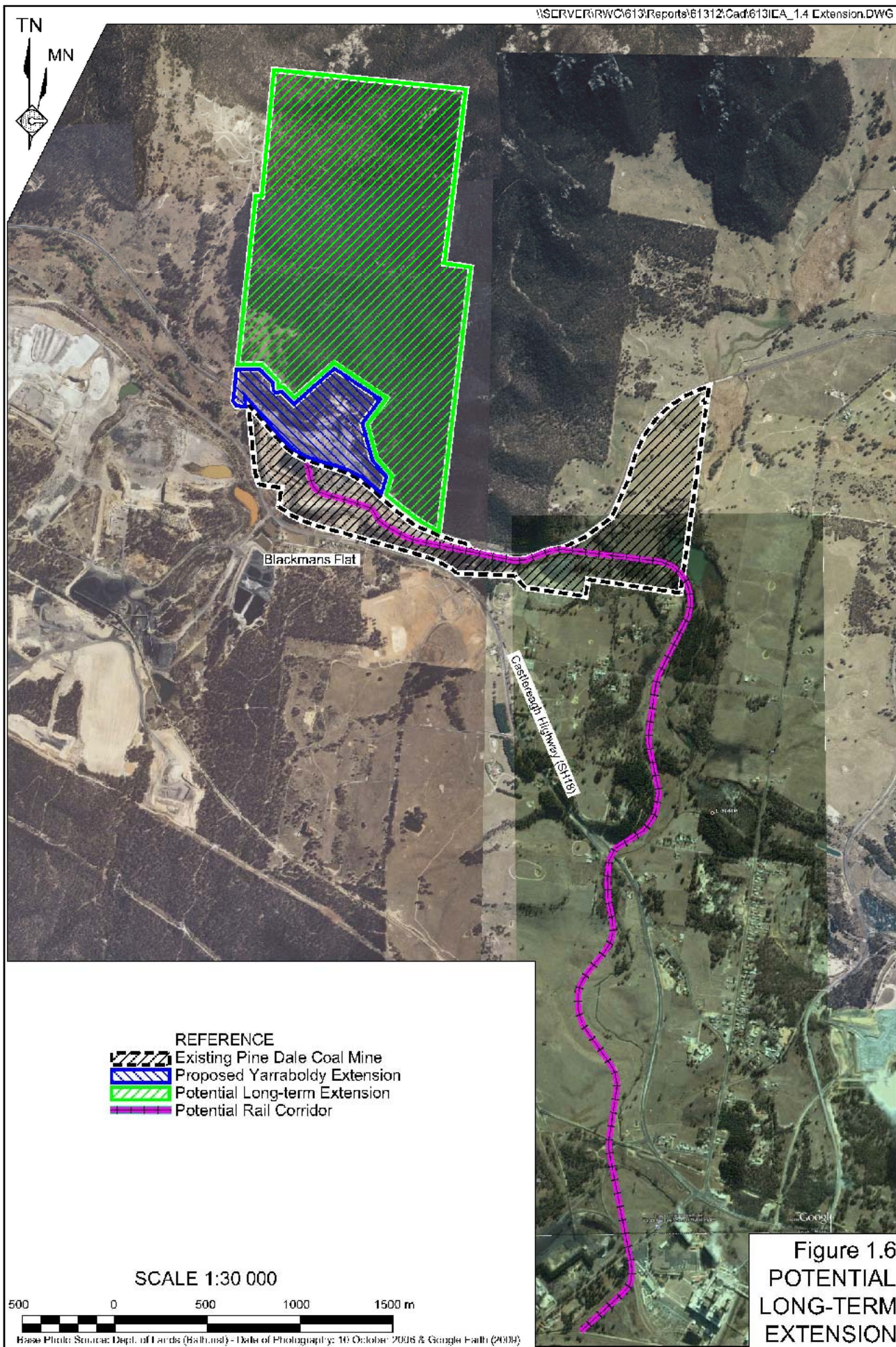


Figure 1.6
 POTENTIAL
 LONG-TERM
 EXTENSION

1.6 EXISTING APPROVALS AND OPERATIONS

1.6.1 Existing Approvals and Licences

The Pine Dale Coal Mine currently operates with the following approvals, leases and licences.

Development Consent 461-04 (dated 14 November 2005 and amended 17 March 2008)

Granted by Lithgow City Council (under delegated authority from the (then) Minister of Infrastructure, Planning and Natural Resources). DA 461-04 remains valid for a period of 10 years from the date of consent, i.e. to the 14 November 2015.

Environment Protection Licence No. 4911 (annual anniversary date – 24 November)

Issued by the, then Department of Environment and Conservation, now Department of Environment, Climate Change and Water (DECCW) under the *Protection of the Environment Operations Act 1997*. This licence, originally issued for the rehabilitation work being completed for the Wallerawang Colliery Pit Top, has been modified to include the approved Pine Dale Coal Mine. The licence permits mining of between 0 and 500 000tpa of coal and coal works of between 0 and 2 000 000tpa of loaded coal.

Mining Lease 1578 (dated 15 March 2006)

Mining Lease (ML) 1578 incorporates 69.4ha of land within the boundary of the existing Pine Dale Coal Mine. The ML1578 was granted following receipt of Development Consent from the Lithgow City Council on 14 November 2005.

Mining Lease 1569 (dated 04 July 2007)

Mining Lease 1569 incorporates approximately 161ha of land immediately north and west of the existing Pine Dale Coal Mine of which approximately 26.1ha is located within the proposed Yarraboldy Extension area.

Flood Control Works Licence No. 10CW801601 (dated 23 December 2005)

Issued by the, then, Department of Natural Resources, now DECCW – NSW Office of Water (NOW) under Part 8 of the *Water Act 1912* for the construction of noise/flood bunding along the southern boundaries of the approved mining areas.

Bore Licence 10BL165933 (dated 22 December 2005)

Issued by the, then, Department of Natural Resources, now DECCW-NOW under Part 5 of the *Water Act 1912* for the use of six piezometers for monitoring groundwater levels and quality.

1.6.2 Existing Operations

1.6.2.1 Site Layout

The existing Pine Dale Coal Mine commenced operations in early 2006 and comprises of the following components (see **Figure 1.7** and **Plates 1.2** to **1.4**).

- Three mining areas (A, B & C).
- Administration and ablutions area.
- Crushing, stockpiling and maintenance area.
- Three site entrances (truck, light vehicle and emergency).



- Light vehicle parking area.
- Internal haul and access roads.
- Various noise, flood, and visual amenity bunds.



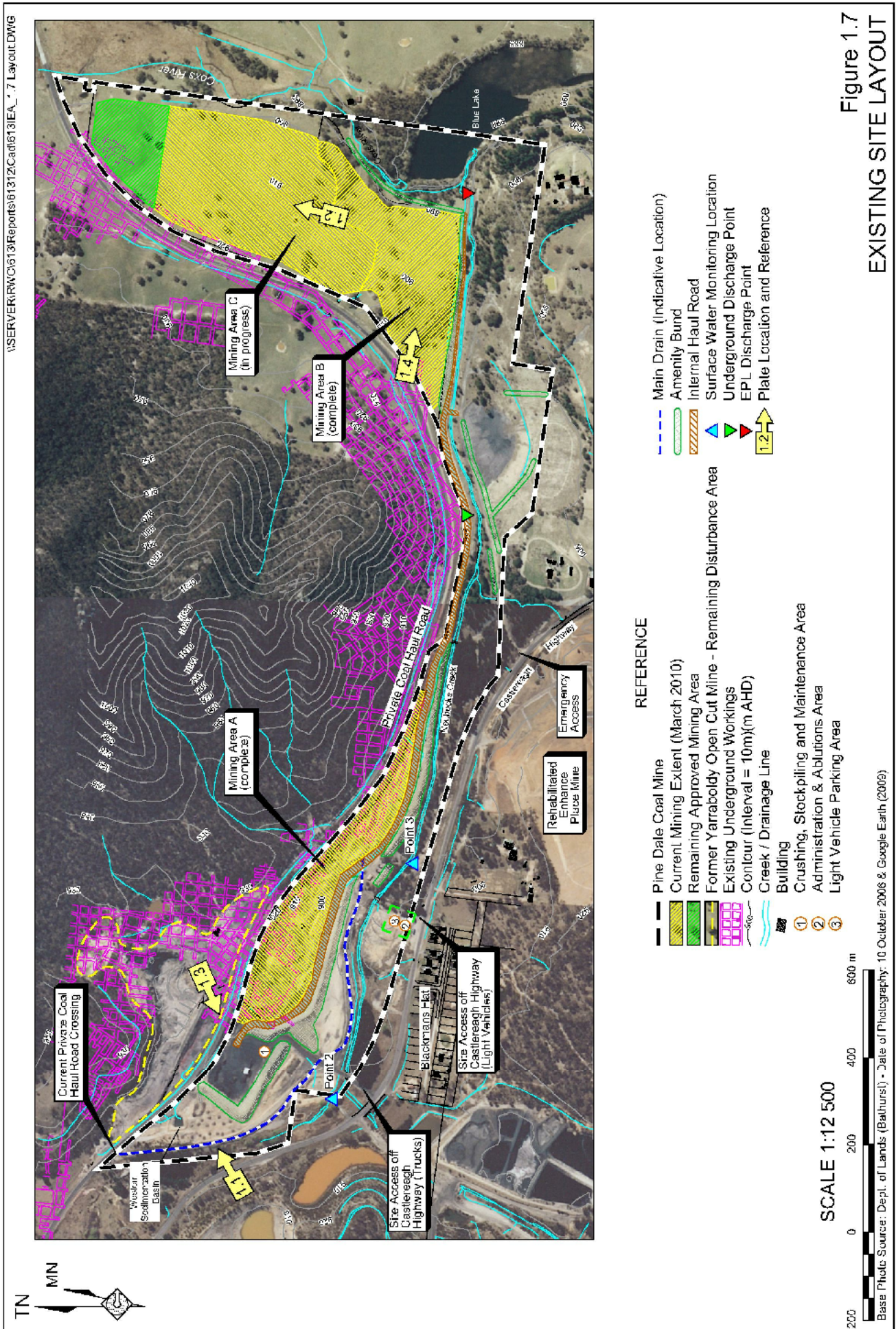
Plate 1.2 Mining Block Area C



Plate 1.3 Crushing, Stockpiling and Maintenance Area



Plate 1.4 Rehabilitation – Mining Area B Pine Dale Coal Mine



1.6.2.2 Mining and Processing Operations

All recoverable coal has been mined from Areas A and B with mining now being undertaken within Area C. Mining currently involves stripping of remaining soil material, blasting of overburden and interburden, where required, and recovery of coal using bulldozers and excavators. Coal is then loaded into haul trucks which transport the coal to the ROM coal stockpile within the crushing, stockpiling and maintenance area where it is crushed and screened to <50mm. No further processing or beneficiation is currently undertaken prior to transport to customers.

1.6.2.3 Transport Operations

Crushed coal is then transported using road trucks, typically semi-trailers and rigid-bodied tip trucks with average carrying capacities of approximately 30t, to the Mt Piper Power Station via the Castlereagh Highway. The mine is currently approved to produce and transport up to 350 000tpa.

1.6.2.4 Hours of Operation

The current approved hours of operation for the Pine Dale Coal Mine are presented in **Table 1.2**.

Table 1.2
Approved Hours of Operation

Activity	Hours of Operation	Day
Construction	7:00am to 6:00pm 8:00am to 1.00pm	Monday to Friday Saturday
Clearing/topsoil and subsoil removal	7:00am to 6:00pm	Monday to Saturday
Overburden/interburden removal	7:00am to 6:00pm	Monday to Saturday
ROM coal haulage	7:00am to 6:00pm	Monday to Saturday
Drilling	7:00am to 6:00pm	Monday to Saturday
Blasting (occasional)	10:00am to 3:00pm	Monday to Friday
Coal processing	7:00am to 6:00pm	Monday to Saturday
Product transportation	7:00am to 8:00pm	Monday to Saturday
Maintenance	7:00am to 10:00pm 9.00am to 4.00pm	Monday to Saturday Sunday**
* Up to 16 Sundays per calendar year, excludes public holidays # Written advice will be provided to Council within seven days of any maintenance work scheduled for a Sunday.		

1.6.2.5 Rehabilitation

The mine is being progressively rehabilitated as mining advances with rehabilitated land to be ultimately returned to pasture and native vegetation. To date, Area A has been backfilled, shaped and revegetated whilst sections of Area B have been backfilled with shaping and revegetation to be completed as mining progresses. To assist in rehabilitation works, alkaline boiler ash from the Oberon Timber Processing Works is also imported to site.



1.6.2.6 Environmental Performance

An appreciation of the standard of environmental performance, from the community's perspective, is often gauged through any complaints received directly or through the DECCW (EPA) or Council. Also, any non-compliances with operating conditions are also an indication of environmental performance.

In 2008, seven complaints were received relating to noise. Five of these complaints arose from one complainant. Noise monitoring was undertaken following the first complaint and showed that noise levels were not exceeding the applicable operational noise limits. In any event, additional measures targeting potentially intrusive noise sources were implemented.

In 2009, three complaints were received, two relating to noise and one to an uncovered coal truck within the mine site. Of the noise complaints, one related to truck brake noise and one to concerns of the possibility of simultaneous blasts occurring with surrounding mines. The mining contractor was requested to ensure maintenance was completed on the truck to avoid any repetition of the perceived noise and an analysis of the unattended noise monitoring records was undertaken. However, analysis was unable to filter out noise from the Castlereagh Highway. A communication protocol was also instituted with adjacent mines to avoid blasting at the same time on the same day.

In relation to compliance, an unannounced site visit by representatives of the, then, DEC (EPA) on 6 July 2006 and consequent correspondence on 9 August 2006 indicated that the mine was operating to the satisfaction of the DEC (EPA) and in compliance with Environment Protection Licence (EPL) No. 4911. Furthermore, no non-compliances were reported during the 2007 and 2008 Annual Returns for EPL 4911. It is noted that, in 2009, one exceedance of the total suspended solids criteria for discharge to the underground mine workings was recorded. This exceedance was reported as part of the 2009 Annual Environmental Management Report and was considered to be an isolated incident.

1.7 ENVIRONMENTAL MANAGEMENT AND DOCUMENTATION

1.7.1 Environmental Management

On-going environmental management at the Pine Dale Coal Mine, including the Proponent's performance with respect to this document and the implementation of any lease, licence or Project approval conditions, is the responsibility of both the Directors of Enhance Place Pty Ltd and Operations Manager for the Pine Dale Coal Mine. The Operations Manager would also continue to coordinate the day to day environmental activities on the mine with assistance provided by specialist consultants, as and when required.

The Proponent is committed to continuing the development and operation of all components of the Pine Dale Coal Mine in a responsible and pro-active manner which:

- adheres to all conditions of DA 461-04 (or subsequent Project Approval), ML's 1578 and 1569 and EPL 4911;
- is environmentally and socially responsible; and
- minimises wherever possible any real or perceived impacts on other members of the community.



1.7.2 Environmental Documentation

Successful environmental management invariably involves regular, organised documentation to ensure that, irrespective of personnel changes, all aspects of planning, environmental control, monitoring and responses to problems are properly recorded.

The Proponent is committed to the Mining, Rehabilitation and Environmental Management Process (MREMP) managed by Industry and Investment NSW - Mineral Resources (I&I NSW - MR) with input from other relevant government agencies. This process involves the preparation of the following documentation.

- Mining Operations Plan (MOP) – prepared to provide more detailed mining design and operational information for the mine and ancillary activities. The MOP for the Pine Dale Coal Mine was finalised in March 2006 and approved by the, then Department of Primary Industries – Mineral Resources for the period ending October 2012.
- Annual Environmental Management Report (AEMR) – prepared to record operational progress and all relevant environmental issues on an annual basis. Each AEMR is submitted annually for each calendar year, the first being for the 2006 calendar year.

In accordance with various conditions of DA 461-04, the Proponent currently operates the Pine Dale Coal Mine in accordance with a number of environmental management plans, strategies and monitoring programs. **Table 1.3** summarises the documentation, date of approval and condition against which the documentation has been prepared for the existing Pine Dale Coal Mine.

Table 1.3
Environmental Documentation for the Pine Dale Coal Mine

Document Title	Date Completed/ Approved	Comment
Air Quality Monitoring Program	09/12/2005	Prepared in compliance with Condition 7.2.2 of DA 461-04
Flora and Fauna Management Plan	09/06/2006	Prepared in compliance with Condition 9.1 of DA 461-04
Environmental Management Strategy	11/01/2005	Prepared in compliance with Condition 19.1 of DA 461-04
Groundwater Monitoring Program	12/12/2005	Prepared in compliance with DNR Condition 2 of DA 461-04
Floodplain Management Plan	12/01/2006	Prepared in compliance with DNR Condition 4 of DA 461-04
Stormwater Management Scheme	12/01/2006	Prepared in compliance with EPA Condition O4.1 of DA 461-04
Blasting/Vibration Management Protocol	03/01/2006	Prepared in compliance with EPA Condition O7.1 of DA 461-04
Noise Monitoring Program	09/12/2005	Prepared in compliance with Condition 6.2.5 of DA 461-04
Source: DA 461-04 and Enhance Place Pty Limited		

1.8 THE APPROVALS PROCESS

Table 1.4 presents the component stages of the overall approvals process for a major project and provides an indicative Project timetable currently being followed by the Proponent. Based upon the submission of an adequate *Environmental Assessment* in July 2010 for exhibition during August / September 2010, the determination of the Application by the Minister for Planning (*Stage 12* of Table 1.4) could possibly occur by September 2010.

Table 1.4
Approvals Process for a Major Project and the Proponent's Indicative Timing

Stage	Activity	Indicative Timing
1 →	A draft " <i>Preliminary Environmental Assessment</i> " for the Project is prepared and submitted to the Department of Planning for distribution to relevant government agencies.	Completed
2 →	A Planning Focus Meeting is convened for all relevant government agencies to attend a briefing about the Project and a site inspection.	Completed
3 →	The Proponent writes to the Department of Planning lodging its Application for Project Approval and the final <i>Preliminary Environmental Assessment</i> .	Completed
4 →	The Department of Planning receives the written requirements of the government agencies consulted and issues the Director-General's requirements for the Project.	Completed March 2010
5 →	The Proponent commences consultation with the local and wider community – which continues throughout the entire process.	Commenced March 2010 and ongoing
6 →	An <i>Environmental Assessment</i> is provided to the Department of Planning for consideration and assessment of adequacy by the Department and other government agencies (prior to it being placed on public exhibition).	July 2010*
7 →	The <i>Environmental Assessment</i> is lodged with modifications reflecting the comments provided by the various government agencies. The Department of Planning will place all documents on public exhibition and notify neighbours and other stakeholders about the Project and the exhibition period.	August 2010*
8 →	Review of the <i>Environmental Assessment</i> during the exhibition period by the community and government agencies.	August / September 2010*
9 →	The Department of Planning seeks from the Proponent a response/clarification of issues raised in the submissions from government agencies and the community.	September 2010*
10 →	The Proponent provides a response to the issues raised and, if necessary, a revised Statement of Commitments.	End September 2010*
11 →	The Department of Planning prepares its assessment report based on all documentation submitted by the Proponent, government agencies and the community. If considered appropriate by the Minister, the application will be referred to a Planning Assessment Commission.	October 2010*
12 →	Determination by the Minister for Planning, i.e. either approval or refusal.	October 2010*
Note:	* Estimated timing only	



1.9 MANAGEMENT OF INVESTIGATIONS

This *Environmental Assessment* has been prepared by Mrs Alexandra Mayes B.Appl.Sc and Mr Scott Hollamby, B.EnvSc(Hons), Environmental Scientists with R.W. Corkery & Co Pty Limited and reviewed by Mr Rob Corkery, M.Appl.Sc, B.Sc(Hons), Principal of R.W. Corkery & Co Pty. Limited.

Details of the Project have been provided by Mr John Doherty, B.A, B.E, FAusIMM, FASA, FCIS, CEng (ret'd), MIEAust, MIMechE, MIET Director, and Mr Hilton Goldfinch, G.DiP Mining, M.SME, MSIA, MAusIMM, Operations Manager of Pine Dale and Enhance Place Coal Mines.

A strong emphasis has been placed upon a multi-disciplinary team approach to the design of the Project, the description of the existing environment and impact assessment. A wide range of specific studies were commissioned by the Proponent through the following specialist consultants.

- Aquaterra Consulting Pty Ltd – Groundwater
– Ms Katarina David, B.Sc Geo(Hons), M.Sc Hydro.
- Archaeological Surveys & Reports Pty Ltd – Aboriginal and Non-indigenous Heritage Assessments
– Mr John Appleton, BA.(Hons).
- Barnson Pty Ltd – Traffic and Transportation
– Mr Luke Morris, B.Eng.
- Ecotone Ecological Consulting Pty Ltd – Fauna
– Mr Brian Wilson, B.AppSc.
– Mr Peter Irish, B.AppSc
- Geoff Cunningham Natural Resource Consultants Pty Ltd – Flora and Soils
– Mr Geoff Cunningham, B.Sc.Agr(Hons).
- GSS Environmental – Surface Water
– Mr Craig Bagnall, B.E(Env)(Hons).
- Heggies Pty Ltd – Noise and Air Quality
– Mr Jason Watson, B. App. Sc.
– Mr Nathan Archer, B.Sc.

A copy of each of the specialist consultant reports is presented in the separate volume supporting document titled *Specialist Consultant Studies Compendium*.



The following professionals also provided assistance in the design, planning and assessment for the Project.

- Roland Mining Services Pty Ltd – Geology
 - Mr Fred Morris, B. Sc., B.Bus.
- Mr Sandy Longthworth BE, DIC, – Infrastructure Design
- Enviro Strata Consulting Pty Ltd – Blasting Assessment
 - Mr Thomas Lewandowski B.E. (Mining).



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