



WHITEHAVEN COAL LIMITED

Rocglen Coal Mine Modification- Highwall Stabilisation Works

Environmental Assessment

Rapid Assessment under Section 75W of the EP&A Act 1979

May 2010

WHM01-006



GSS ENVIRONMENTAL
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Management Consultants

Prepared on behalf of Whitehaven Coal Limited

By:-

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Submission of Environmental Assessment (EA)

Prepared under Section 75W of Part 3A the *Environmental Planning and Assessment Act 1979*

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Development Application:

Proponent Name: Whitehaven Coal Limited

Proponent Address: PO Box 600
Gunnedah NSW 2380

Land to be Developed: Lot 1 in DP 1120601

Wean Road, Gunnedah NSW 2380
Parish of Tulcumba
County of Nandewar
Local Government Area of Gunnedah

Development Description: Rocglen Coal Mine Modification – Highwall Stabilisation Works

Declaration:

We hereby certify that we have prepared the contents of this document and to the best of our knowledge:

- It contains all available information that is relevant to the environmental assessment of the proposed development modification to which the document relates; and
- It is true in all material particulars and does not, by its presentation or omission of information, materially mislead.

Name: **GSS ENVIRONMENTAL**

Signature: 

Date: 17 May 2010

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1.0 INTRODUCTION

1.1 Overview

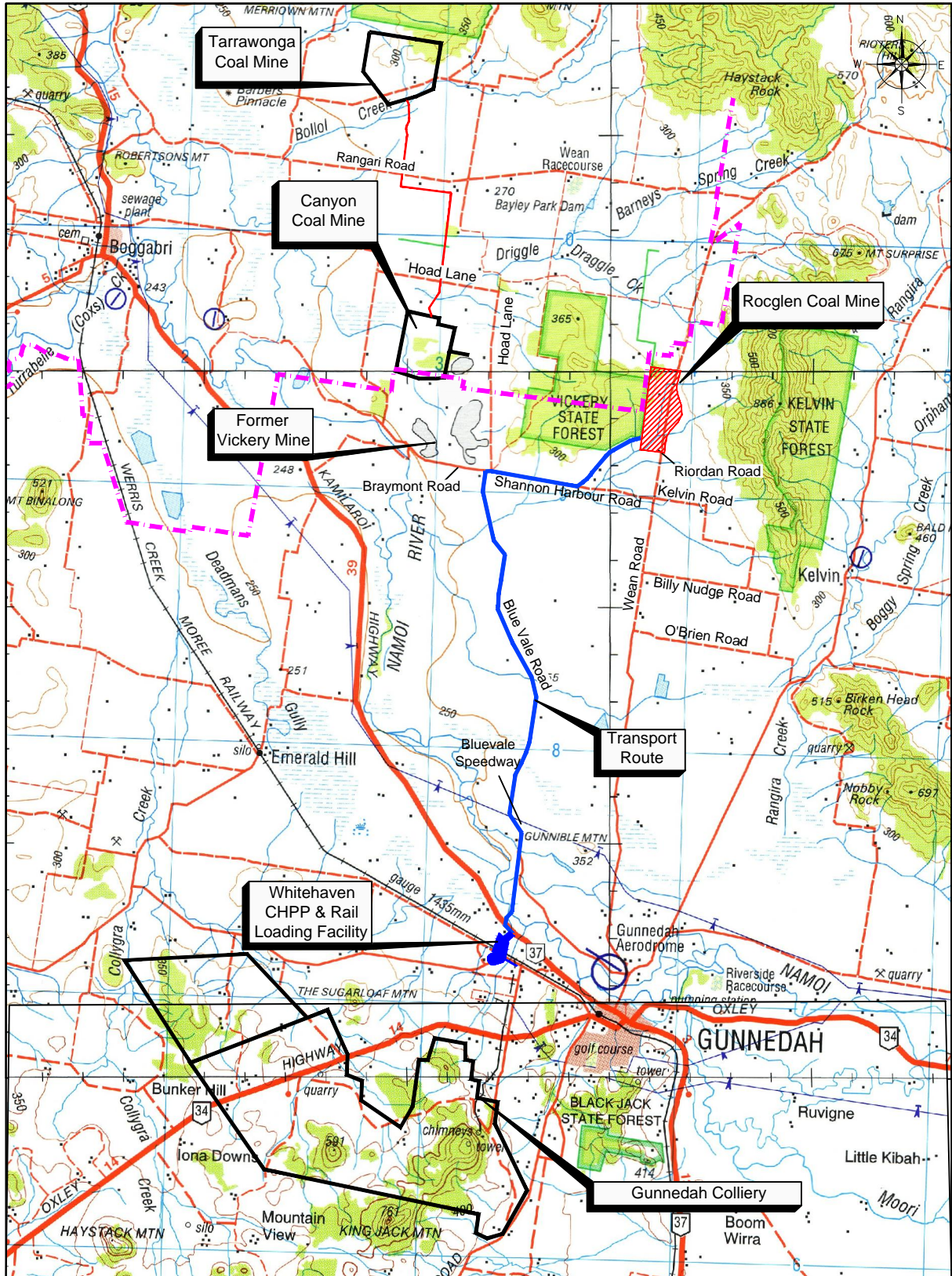
This Environmental Assessment (EA) has been prepared to support an application by Whitehaven Coal Limited (“the Proponent”) to modify Project Approval (PA) 06_0198 under Section 75W of Part 3A of the Environmental Planning and Assessment Act 1979 (EP&A Act) at the Rocglen Coal Mine in the New South Wales’ (NSW) Gunnedah Basin (see **Figure 1**). This application applies to unplanned emergency earthworks required to stabilise the eastern highwall following slipping adjacent to a fault structure in the north eastern portion of the existing open cut pit. Following an assessment by an experienced geotechnical engineer, it has been determined that the stabilisation works are required to ensure the long-term stability and safety of the highwall, which will enable on-going extraction efforts at the northern end of the approved open cut. The areas required to be worked to achieve a stable highwall are partially outside of the open cut limit approved under PA 06_0198. A copy of the project application form is contained within **Appendix A**.

The Rocglen Coal Mine (formally known as Belmont Coal Project) was originally approved by the Minister on the 15 April 2008 under PA 06_0198. It was classified as a Major Project in accordance with the *State Environmental Planning Policy (Major Projects) 2005* and, subsequently, was determined under Part 3A of the EP&A Act. A copy of the original Project Approval is contained within **Appendix B**.

In addition to the minor modification outlined in this EA, Whitehaven is currently in the process of preparing a separate application for a new Project Approval under Part 3A of the EP&A Act to expand operations in order to maximise resource recovery and allow for improved mine progression (Rocglen Extension Project). A Preliminary Environmental Assessment (PEA) for the Rocglen Extension Project was submitted to the NSW Department of Planning (DoP) in December 2009, with the Director-General’s Requirements (DGRs) issued in March 2010. It is anticipated that the EA currently being prepared for the Rocglen Extension Project will be submitted to the DoP by early June 2010. A plan showing the layout of the Rocglen Extension Project is contained within **Appendix C**.

The making of a separate application for the proposed stabilisation works is unfortunate, however it is considered necessary in order to allow continued mining to the northern end of the approved open cut. Continued operations of the Rocglen Coal Mine is contingent on mining out the northern reserves and opening up the pit for backfill of overburden as it extends back to the south east. While the works associated with the proposed highwall stabilisation are outside of the current approved open cut pit limit, they are entirely contained within the existing mine lease area (ML 1620) and previous disturbance associated with the mine development. The stabilisation area is also entirely contained within the Project Area for the forthcoming Rocglen Extension Project. On this basis, all areas to be disturbed by the proposed stabilisation works have already been subject to a range of environmental assessments which have been used in the preparation of this EA.

This EA contains relevant background information and a description of the proposed stabilisation works. It also includes an assessment of all related planning and environmental management matters to a level of detail commensurate with the scale of the proposal, industry standards and the legislative framework under which the stabilisation works are permitted.



Grid: MGA (Zone 56)

LEGEND

- Current Mine Lease Boundary
- Approved Transport Route
- - - Gunnedah / Narrabri Shire Boundary

0 0.25 0.5 0.75 1.0km

Base Plan Data Source: RWC & Australian Surveying & Land Information Group - Manilla SH56-09 1:250 000

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Rocglen Coal Mine Modification - Highwall Stabilisation 2010
Regional Location Plan

1.2 The Proponent

Whitehaven Coal Limited (Whitehaven) is a publicly listed mining company formed to explore and develop the coal resources within the Gunnedah Region of NSW. The company is now the leading coal producer in the Gunnedah Basin, employing over 250 people. In addition to the Rocglen Coal Mine, the Whitehaven Group operates three open cut mines, being Tarrawonga, Werris Creek and Sunnyside, and is developing the Narrabri North underground mine. The company's Canyon Coal Mine (open cut) is currently undergoing final rehabilitation. The company also operates the Whitehaven Coal Handling and Preparation Plant (CHPP) and rail loading facility, located approximately 6 km west of Gunnedah.

1.3 Project Site

The Rocglen Coal Mine is located on Wean Road approximately 25 km north of Gunnedah and 23 km south - east of Boggabri in the northwest NSW. For the purposes of this modification proposal, the Project Site (see **Figure 2**) is defined as the current mining lease boundary (ML 1620), within which all mining and mining-related activities are currently approved under PA 06_0198.

1.4 Project Overview

The proposed project modification applies to unplanned emergency earthworks required to stabilise the highwall at Rocglen Coal Mine following slipping adjacent to a fault structure in the north eastern portion of the existing open cut pit. Following an assessment by an experienced geotechnical engineer, it has been determined that the stabilisation works are required to ensure the long-term stability of the highwall, which will ultimately ensure the safety of mining personnel working in pit. The areas where additional works are required for highwall stabilisation are partially outside of the open cut limit approved under PA 06_0198.

The primary components of the proposed highwall stabilisation works at Rocglen are:

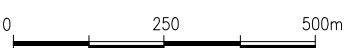
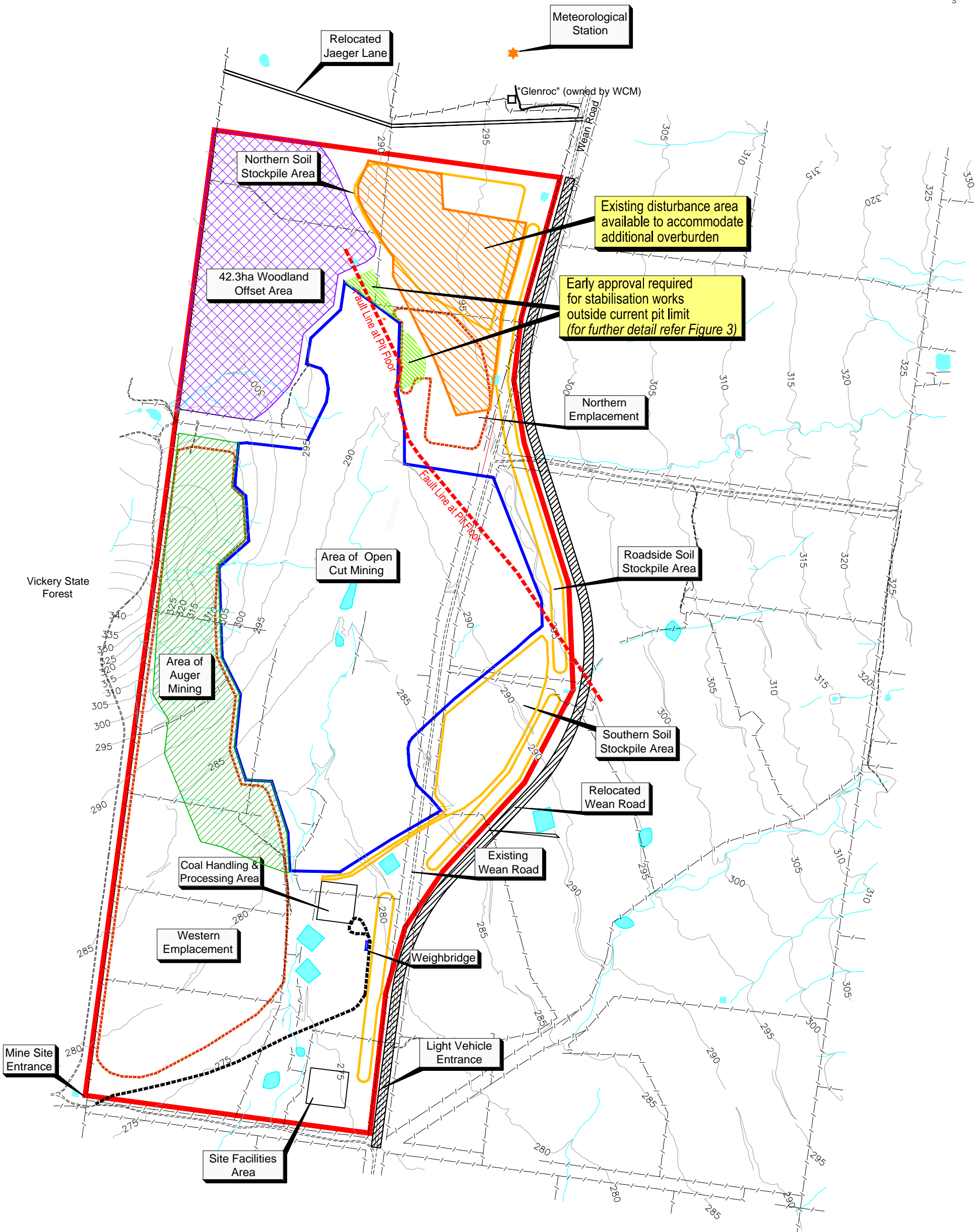
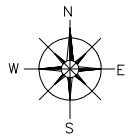
- Widening the face of the open cut, outside of the currently approved limit, to establish a highwall within competent material that will enable development of the pit in a safe and efficient manner; and
- Extraction of the additional overburden material from the fault zone and emplacement of it within the current area of disturbance to the north and east of the proposed stabilisation works.

The proposal will not involve any change to the current open cut mining methods, annual coal production rate, mine operating hours, coal handling and processing techniques, or workforce.

1.5 Project Approval Process

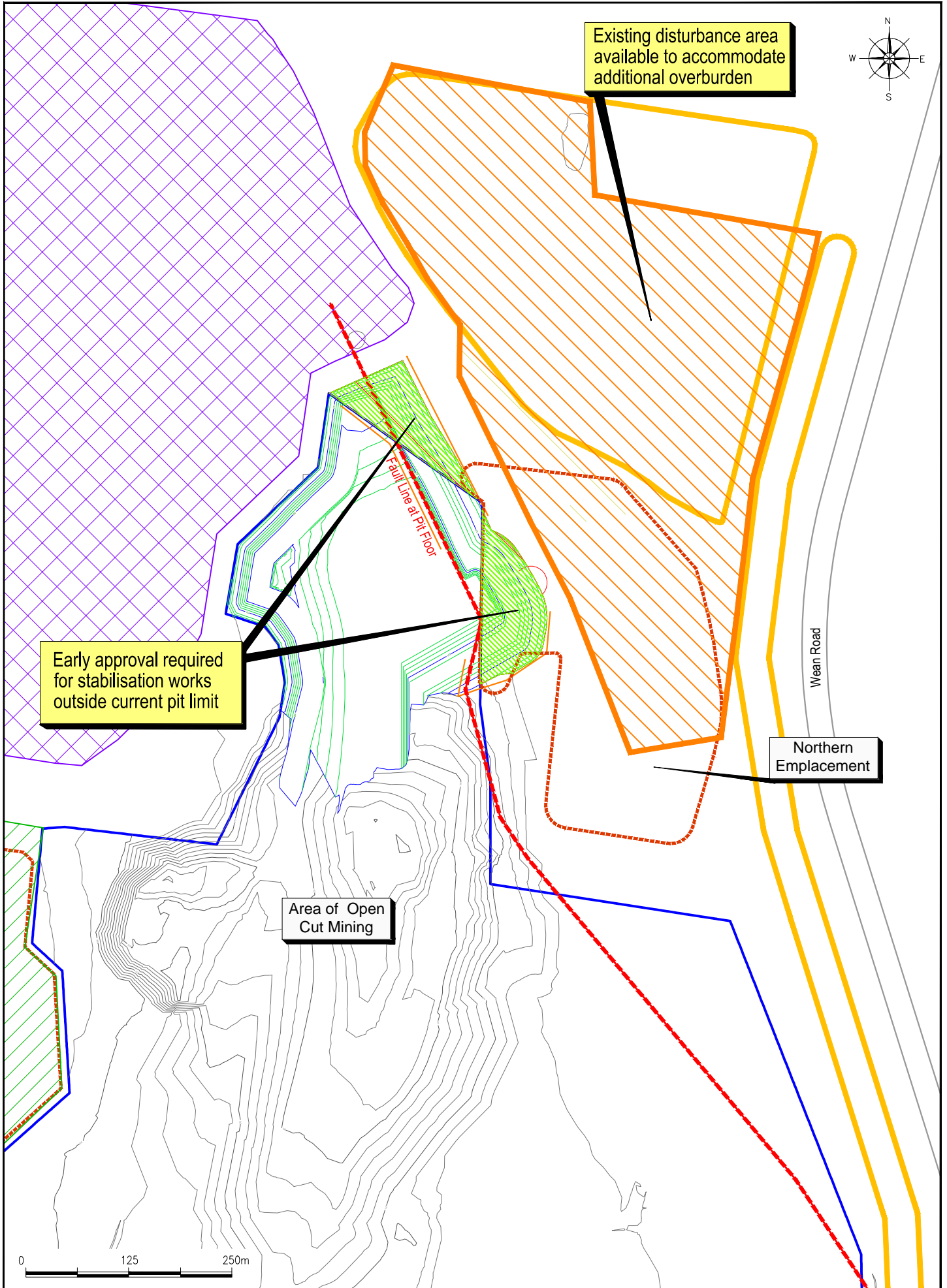
During a meeting with the DoP's David Kitto, Howard Reed and Anna Bradley on 23 February 2010, Whitehaven raised the geotechnical issues within the open cut pit at Rocglen with a view to determining a streamlined application process in the event that a minor extension to the pit limit was required in order to resolve the stability problems. The DoP indicated it would accept a modification application under Section 75W of Part 3A of the EP&A Act provided Whitehaven:

- (a) Obtained a letter of comfort from the company's legal representative confirming the proposed modification was within the criteria of a Section 75W modification (see **Appendix D**); and
- (b) Present a Section 75W modification utilising the data obtained to date in the larger Part 3A application to be sought in the near future for the Rocglen Extension Project.



Base Plan Data Source: RWC & Geo-spectrum (Australia) Pty Ltd.

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2.0 STAKEHOLDER CONSULTATION

Whitehaven has undertaken consultation with the DoP and NSW Department of Industry and Investment (I&I NSW) with regards to the geotechnical issues within the open cut pit at Rocglen and the necessary development modification process. The outcomes of the consultation with the DoP are summarised above in **Section 1.5**.

Inspectors from the I&I NSW were made aware of the highwall failures by notification and during inspections of the site. In summary:

- 12 January 2010 - notification to the I&I NSW;
- 13 January 2010 – I&I NSW undertook a check inspection;
- 8 February 2010 – I&I NSW undertook a second check inspection; and
- 2 March 2010 – additional notification to the I&I NSW.

Whitehaven has undertaken consultation with local and state government agencies, Aboriginal groups and surrounding residences for the larger Rocglen Extension Project which ultimately incorporates the areas impacted by the highwall stabilisation modification. As mentioned above in **Section 1.1**, it is anticipated that the Part 3A Extension Project will be lodged with the DoP by early June 2010.

Consultation undertaken to date includes:

- Written and verbal consultations with the DoP, I&I NSW, NSW Department of Environment, Climate Change and Water (DECCW), NSW Roads and Traffic Authority (RTA), NSW Office of Water (NOW), Namoi Catchment Management Authority (CMA) and Gunnedah Shire Council;
- Discussion with the Rocglen Community Consultative Committee (CCC);
- Distribution of a community newsletter to surrounding residences introducing and outlining the project; and
- Consultation with Local Aboriginal stakeholders under the *Interim Community Consultation Requirements* (DEC, 2004).

3.0 SITE DESCRIPTION

3.1 Overview

The Rocglen Coal Mine is located on Wean Road approximately 25 km north of Gunnedah and 23 km south-east of Boggabri in the northwest NSW. For the purposes of this modification proposal, the Project Site (see **Figure 2**) is defined as the current mining lease boundary (ML 1620), within which all mining and mining-related activities are currently approved under PA 06_0198.

ML 1620 encompasses approximately 460 hectares within the Parish of Tulcumba, County of Nandewar and Local Government Area (LGA) of Gunnedah. It incorporates all or part of Lot 1 in DP 787417, Lots 1 and 4 in DP 1120601, and public roads and road reserves. All of the freehold land within the ML, being Lot 1 in DP 787417 and Lots 1 and 4 in DP 1120601, is owned by Whitehaven.

The proposed modification works, being the highwall stabilisation earthworks and overburden emplacement, are located entirely within Lot 1 in DP 1120601. These works are also entirely contained within the existing mine lease (ML 1620) area and previous disturbance associated with the mine development.

3.2 Zoning

Under the provisions of the *Gunnedah Local Environmental Plan 1998 (as amended)* (LEP), the Rocglen Coal Mine is located within zone No. 1(a) Rural (Agricultural Protection). Mining is a permissible land use within this zone with development consent.

All land adjoining the mine site is also zoned No. 1(a), with the exception of the Vickery State Forest immediately to the west, which is zoned No. 1(f) Forests.

3.3 Surrounding Land Use

With the exception of the Vickery State Forest adjoining the Rocglen Coal Mine to the west, all other surrounding land is primarily utilised for traditional agricultural pursuits comprising a combination of livestock grazing and crop cultivation. No agricultural land within the vicinity of the Project Site is considered sensitive to mining or mining-related activities.

The nearest non-project related residence is located in excess of 1.5 km from the mine site.

3.4 Climate

Rocglen Coal Mine is situated within the Namoi River Valley between the tropical and temperate climatic zones, and between the belts of the sub-tropical highs and the zone of mid-latitude westerlies. In summer, synoptic highs dominate the climate. Low pressure systems pass at regular intervals bringing milder temperatures and winds from the southerly quadrant. The climate is also influenced by substantial mountain ranges located to the east, known as the Kelvin Range, and to a lesser extent Bull Mountain to the west.

The area is characterised by mild to hot summers and cool winters. December, January and February are the warmest months with mean daily maximum temperatures approximating 34 degrees Celsius (°C). July is the coldest month with a mean daily minimum of 2.9°C. Autumn and Spring are generally mild with occasional erratic temperature fluctuations. Mean diurnal temperature variation is relatively constant throughout the year at about 15°C.

The relative humidity of the Gunnedah region can be described as moderate based on the observed conditions at the Gunnedah Bureau of Meteorological (BoM) weather station (No. 055023). The mean 9:00am and 3:00pm relative humidity is 67% and 46%, respectively, with an increase occurring through the winter months.

The highest rainfalls recorded at Gunnedah (and Rocglen Site) occur during Spring and Summer, with January having the highest median rainfall of 89.8mm. April and May are the driest months with median rainfalls of 30.2mm and 34.4mm respectively. On average, Gunnedah experiences 72 rain days per year. A statistical review of rainfall records has identified that for a dry year (10th percentile rainfall event) the annual rainfall is 373.6mm, and for a wet year (90th percentile rainfall event) the annual rainfall is 843.4mm.

3.5 Landforms and Geology

Geologically, the Project Site is located in the Gunnedah Basin, which contains sedimentary rocks, including coal measures, of Permo-Triassic age. The Gunnedah Basin forms the central-north part of the Permo-Triassic Sydney-Gunnedah-Bowen Basin system which extends along the eastern margin of Australia. The basin is, in part, unconformably overlain by Jurassic strata of the Surat Basin. The Gunnedah Basin is divided by a sub-surface ridge of volcanic rocks, termed the Boggabri Ridge and Boggabri Volcanics respectively, into sub-basins with distinct geological characteristics. The Rocglen Coal Mine is located in the Maules Creek sub-basin towards the southern margin.

The principal local structure in the area is a north-northwest oriented asymmetrical anticline that plunges and flattens to the south. In the north of the deposit, a syncline is developed to the east of the anticline, and appears to be bounded by steeply dipping and faulted strata.

The overburden within the site comprises a deeply weathered section (this material is the subject of the current slippages) of interbedded claystone, siltstone, sandstone, conglomerate and tuffaceous claystone. The depth of weathering is generally between 30 and 40 metres on the crest and western limb of the anticline, but increases to between 45 and 68 metres on the eastern limb of the anticline. A thin soil layer is underlain by between 4 and 14 metres of light olive brown clay that is variably stained yellow and orange by secondary iron oxides. On the eastern side of the deposit, this clay layer often grades into a weathered cream to greenish grey claystone unit that varies from 2 metres to nearly 20 metres thick, with the thicker intersections being on the crest and eastern flank of the anticline.

Regional Topography

Rocglen lies within the Namoi River Basin in an area representative of the transition from the higher broken country to the northeast and south associated with the Nandewar, Great Dividing and Liverpool Ranges and the open plains to the west in the Wee Waa and Coonamble areas. Natural slopes within the region range from less than 1 degree along the flood plain of the Namoi River to over 25 degrees within areas of Vickery State Forest and over 45 degrees within the nearby Community Conservation Area (CCA) Zone 2 – Kelvin and the Nandewar Range. Elevations in the region vary from 1,094 metres Australian Height Datum (AHD) (approximately 35 kilometres east of Rocglen) to 250 metres AHD within the Namoi River Valley (approximately 12 kilometres southwest of Rocglen), with isolated peaks elsewhere.

Local Topography

Rocglen Coal Mine lies within, and partially straddles, the 3 kilometre wide north-south trending valley between the elevated areas comprising the Vickery State Forest and CCA Zone 2 – Kelvin. To the north and south of the site, the valley widens to ultimately form part of the Namoi River floodplain. Elevations within the local area range from approximately 490 metres AHD in the Vickery State Forest and 885 metres AHD within CCA Zone 2 – Kelvin, to approximately 270 metres AHD to the south of Shannon Harbour Road.

4.0 APPROVED MINE OPERATIONS

The Rocglen Coal Mine (formally known as Belmont Coal Project) was originally approved by the Minister on the 15 April 2008 under PA 06_0198. It was classified as a Major Project in accordance with the *State Environmental Planning Policy (Major Projects) 2005* and, subsequently, was determined under Part 3A of the EP&A Act. Whitehaven commenced coal production at Rocglen in late 2008.

Appendix B contains a complete copy of the project approval for PA 06_0198. The key activities approved, in summary, are:

- (a) **Coal Mining by Open Cut Mining Methods** – extraction of coal by open cut mining methods within an area of approximately 114 hectares. This involves the extraction of three (3) separate coal seams with a combined thickness of up to 17 metres, at an approved production rate of 1.5 million tonne per annum (Mtpa).
- (b) **Open Cut Mining by Auger Mining** – extraction of additional coal reserves that are uneconomical to extract by open cut mining methods using auger mining techniques.
- (c) **On-Site Coal Processing** – transfer of mined coal by haul truck to a coal handling and processing area located immediately south of the limit of open cut mining for crushing, screening and loading into B-double trucks for transport off-site.
- (d) **Transportation** – crushed and screened coal is transported to the Whitehaven CHPP (around 6 km west of Gunnedah) via a purpose built section of road between Rocglen and Hoad Lane, and from Hoad Lane via an established coal haulage route, already used by other Whitehaven mining operations. Once the coal reaches the CHPP, it is washed, stockpiled and either railed to the Port of Newcastle or trucked to domestic customers. These activities are covered by a separate development consent granted by Gunnedah Shire Council, under the Minister’s delegation, on 2 October 2002. A proportion of the coarse reject material from the CHPP will be backloaded to Rocglen for placement in the mined-out areas of the open cut.
- (e) **Relocation of Public Roads** – relocation of sections of Wean Road (not yet undertaken) and Jaeger Lane (completed) to allow for open-cut mining activities and infrastructure within these areas.
- (f) **Biodiversity Offset Strategy** – implement the biodiversity offset areas specified under condition 27 of PA 06_0198 and shown on the approved mine layout plan. Disturbance to native vegetation is to be further offset through the Whitehaven Regional Biodiversity Offset Strategy, which provides for the long-term conservation of around 1,500 hectares of Whitehaven-owned land.
- (g) **Rehabilitation** – progressive use of out-of-pit and in-pit overburden emplacements to shape and recreate the landform comparable to that of the pre-mining environment. The final rehabilitation is to be to the satisfaction of the DoP and I&I NSW.

5.0 PROPOSED MODIFICATION

5.1 Overview

Whitehaven propose to modify Project Approval PA 06_0198 under Section 75W of Part 3A of the EP&A Act to undertake unplanned emergency earthworks at the Rocglen Coal Mine to stabilise the eastern highwall following slipping adjacent to a fault structure in the north eastern portion of the existing open cut pit. Following an assessment by an experienced geotechnical engineer, it has been determined that the stabilisation works are required to ensure the long-term stability of the highwall, which will ultimately ensure the safety of mining personnel working in pit. The areas where additional works are required for highwall stabilisation are partially outside of the open cut limit approved under PA 06_0198 (see **Figures 2 and 3**).

The primary components of the proposed highwall stabilisation works at Rocglen are:

- Widening the face of the open cut, outside of the currently approved limit, to establish a highwall within competent material that will enable development of the pit in a safe and efficient manner; and
- Extraction of the additional overburden material from the fault zone and emplacement of it within the current area of disturbance to the north and east of the proposed stabilisation works.

The proposal will not result in any additional mine life, rather it will enable the mining operation to continue as prescribed under PA 06_0198. The proposal will also not involve any change to the current open cut mining methods, annual coal production rate, mine operating hours, coal handling and processing techniques, or workforce.

5.2 Background

On the 22 October 2009 Whitehaven personnel identified a series of surface cracks adjacent to the eastern highwall of the Rocglen open cut pit. Survey was immediately undertaken of the affected area and a geotechnical report (see **Appendix E**) obtained to identify appropriate management actions. At the time of the initial identification, there was no evidence of slipping of the highwall face or movement in the pit floor. The outcome from the initial geotechnical investigations was to undertake additional drilling in the affected areas to obtain more relevant geotechnical information in order to establish an appropriate response.

A further geotechnical assessment was undertaken in January 2010 following a period of significant rainfall that caused slipping around the fault structure. The inspection conducted in January confirmed the presence of a near vertical fault in the areas of surface cracking that has resulted in an absence of competent rock between the fault and the Belmont Coal Seam. By the end of April, additional slips on the north eastern face of the pit determined that further works adjacent to the eastern highwall were no longer safe and activities in the vicinity of the slip zone ceased. With the current depth of the pit at approximately 120 metres it was determined inappropriate to develop a side wall in the fault zone due to its propensity to further collapse. Geotechnical advice determined that the only means of developing a stable side wall was to cut back beyond the fault zone. In order to determine an appropriate extent of cut back, drilling was undertaken in the vicinity of the fault zone in an attempt to locate competent rock. A full description of the geotechnical assessment and a detailed description of the remedial works can be found in the report by Graham Holt & Associates dated 4 May 2010 in **Appendix F**.

5.3 Proposed Stabilisation Works

In order to continue extraction of the coal contained in the Belmont Coal Seam it will be necessary to push the highwall further to the north-east and east to develop a stable highwall outside the zone of deeply weathered and fault affected strata.

The initial identification of the highwall instability occurred with observed surface cracking above the affected area. A range of options were considered at the time, including propping of the wall with overburden material, as well as a monitoring regime to determine the longer term extent of movement. The option of propping the highwall was seriously considered and applied, in conjunction with on-going monitoring. More recent constraints in the on-going development of the pit have included the narrow available working area in pit and the exposure of highly weathered material on the western highwall, which is demonstrating a similar propensity for highwall slip.

The latest geotechnical report prepared by GE Holt & Associates in May 2010, which is contained in **Appendix F**, details the proposed stabilisation works in order to allow for the safe development of the northern end of the approved open cut. In summary, the current highwall will be pushed further to the north-east and east (i.e. outside of the current approved pit limit) to develop a stable highwall in deeply weathered and fault affected strata. The combined area of the two proposed pit extensions for stabilisation works, as shown on **Figures 2** and **3**, have a combined area of approximately 2.05 hectares. This represents an increase of approximately 1.8% over the current approved open cut pit area (114 hectares). The highwall will be flattened with face slopes of 45 degrees, with a 15 metre wide bench halfway down the face to develop stability. The bench will act as a catch bench and as a buttress between the fault zone and the Belmont Coal Seam. There may be a need to widen the pit to develop sufficient working room if the structure of the fault zone alters.

It is clear that the thrust fault will sometimes intersect the eastern highwall at an oblique angle and at other times will be parallel to the highwall. Highwall design will need to vary according to conditions encountered, as outlined in the geotechnical report (see **Appendix F**).

GE Holt & Associates (2010) conclude that a combination of advance/retreat and variable face design, according to geological conditions encountered, will ensure stable working conditions. Highwall development will also be subject to geotechnical review as the area is developed to ensure on-going appropriate design. On that basis, the approved area for highwall stabilisation works will need to retain some flexibility in the event that on-going workings to the highwall require alternative treatments.

5.4 Overburden Emplacement

The additional overburden material to be extracted from in and around the fault zone is anticipated to amount to approximately 1 million bank cubic metres (Mbcm). As illustrated on **Figures 2** and **3**, it is proposed to emplace this material within the current area of disturbance to the north and east of the proposed stabilisation works. This area is currently utilised for overburden emplacement and subsoil stockpiling, as approved under PA 06_0198. Emplacement in this area represents the shortest distance in terms of material haulage, as well as provides an area of sufficient volume that is already in use and approved for disturbance.

The area identified for additional overburden emplacement comprises approximately 228,000 square metres (m²). Allowing for swell, it is estimated that emplacement of the overburden will require a height increase within the nominated area of around 6 metres over what is currently emplaced. Areas that are not currently used for overburden emplacement or subsoil stockpiling, but within the nominated zone, will provide opportunity to minimise height increases as much as is practically possible.

Emplacement of the material in this area is the only option available to Whitehaven at this time. There is no capacity available within the Western Emplacement Area, and mining of the south-eastern blocks is reliant upon the northern area of the pit being open for in-pit dumping of overburden. Furthermore, emplacement within the footprint of the existing approved emplacement and stockpile areas is preferred over currently undisturbed lands. By utilising the existing area of disturbance, additional impact, over and above what is currently approved under PA 06_0198, will be minimised.

The subsoil currently stockpiled within the subsoil stockpile area will not be required for future rehabilitation requirements on the basis of sufficient material being available for rehabilitation purposes based on the Rocglen Extension Project (application anticipated to be lodged by early June 2010). The Rocglen Extension Project identifies an extension to the northern emplacement area which covers the existing subsoil stockpiles. As a consequence, the area required for overburden emplacement in this modification will ultimately be extended upon under the pending Part 3A application.

5.5 On-Going Environmental Management

A comprehensive set of environmental management plans and monitoring programs are implemented at Rocglen in accordance with PA 06_0198 and the Environmental Protection Licence (EPL).

These environmental management plans and monitoring programs will continue to apply to all operations at Rocglen. The modification proposal to stabilise the highwall does not warrant any amendments or updates to these documents.

5.6 Evaluation of Alternatives

There are no alternatives to the proposed stabilisation works described above. If the eastern highwall of the Rocglen pit is not stabilised it will remain unsafe and the failure may worsen leading to sterilisation of the coal reserves within the vicinity.

The proposed methodology for establishing a safe and stable eastern highwall is considered the most appropriate means of allowing access to the northern end of the approved open cut, which will then allow further development of the pit back to the south-east.

6.0 PLANNING FRAMEWORK

The proposed modification to enable highwall stabilisation at Rocglen Coal Mine has been assessed in full consideration of the applicable statutory planning instruments. The following sections contain a summary of the major points of the planning considerations.

6.1 Project Approval Process

The Rocglen Coal Mine (formally known as Belmont Coal Project) was originally approved by the Minister on the 15 April 2008 under PA 06_0198. It was classified as a Major Project in accordance with the State Environmental Planning Policy (Major Projects) 2005 and, subsequently, was determined under Part 3A of the EP&A Act. A copy of the original Project Approval is contained within **Appendix B**.

During a meeting with the DoP's David Kitto, Howard Reed and Anna Bradley on 23 February 2010, Whitehaven raised the geotechnical issues within the open cut pit at Rocglen with a view to determining a streamlined application process in the event that a minor extension to the pit limit was required in order to resolve the stability problems. The DoP indicated it would accept a modification application under Section 75W of Part 3A of the EP&A Act provided Whitehaven:

- (a) Obtained a letter of comfort from the company's legal representative confirming the proposed modification was within the criteria of a Section 75W modification (see **Appendix D**); and
- (b) Present a Section 75W modification utilising the data obtained to date in the larger Part 3A application to be sought in the near future for the Rocglen Extension Project.

6.2 Commonwealth Legislation

6.2.1 Environmental Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is administered by the Commonwealth Department of the Environment, Water, Heritage and the Arts (DEWHA) and provides a legal framework to protect and manage nationally important flora, fauna, ecological communities and heritage places defined as matters of national environmental significance. The EPBC Act comes into play when a development proposal has the potential to have a significant impact on a matter of national environmental significance.

Based on the limited nature of the proposed modification and the environmental assessment detailed in **Section 7.0**, we do not believe that the proposal poses any impact on any matter of national environmental significance. On this basis, referral to and approval of the Federal Minister for the Environment, Heritage and the Arts is not required.

6.3 NSW State Legislation

6.3.1 Environmental Planning and Assessment Act 1979

The EP&A Act is the principal piece of legislation overseeing the assessment and determination of development proposals in NSW. It aims to encourage the proper management, development and conservation of resources, the protection of the environment, and ecologically sustainable development (ESD).

Pursuant to *State Environmental Planning Policy (Major Projects) 2005*, development referred to as a 'Major Project' requires assessment and approval from the Minister for Planning in accordance with Part 3A of the EP&A Act. Pursuant to Schedule 1 of the SEPP, development for the purpose of coal mining is defined as a Major Project.

As stated above, the Rocglen Coal Mine was originally approved by the Minister under Part 3A of the EP&A Act. Accordingly, the proposed modification to enable the required highwall stabilisation works is sought under Section 75W of Part 3A of the Act.

6.3.2 Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) establishes the state's environmental regulatory framework and includes licensing requirements for certain activities. Coal mining is a premises-based activity requiring an Environmental Protection Licence (EPL) to be issued by the DECCW. The proposed modification should not require any amendment to the site's current EPL.

6.4 State Environmental Planning Policies

The provisions of the following State Environmental Planning Policies (SEPPs) have been considered in the preparation of this EA -

- *SEPP (Major Development) 2005*;
- *SEPP (Mining, Petroleum Production and Extractive Industries) 2007*;
- *SEPP No. 33 – Hazardous and Offensive Development; and*
- *SEPP No. 44 – Koala Habitat Protection.*

With the continued implementation of Rocglen's existing environmental management practices and mitigation measures, the works associated with the proposed highwall stabilisation should not raise any issues in terms of the above listed SEPPs.

6.5 Local Environmental Plans

6.5.1 Gunnedah Local Environmental Plan 1998

The Rocglen Coal Mine is located within the Gunnedah LGA. The pertinent matters of the *Gunnedah LEP 1998 (as amended)* in relation to the proposed modification are -

- Definition of a mine under Clause 6; and
- As outlined above in **Section 3.2**, the site is zoned 1(a) Rural (Agricultural Protection). Mining is a permissible land use within this zone with development consent.

7.0 ENVIRONMENTAL ASSESSMENT

The making of an application for the stabilisation works separate to that for the forthcoming Rocglen Extension Project is unfortunate, however it is considered necessary in order to ensure a safe work environment and enable coal mining continue to the northern end of the approved open cut. While the works associated with the proposed highwall stabilisation are outside of the current approved open cut pit limit, they are contained entirely within the existing mine lease area (ML 1620) and previous disturbance associated with the mine development. The stabilisation area is also entirely contained within the Project Area for the forthcoming Rocglen Extension Project. On this basis, all areas to be disturbed by the proposed stabilisation works have already been subject to a range of environmental assessments which have been used in the preparation of this EA.

Furthermore, and as advised above in **Section 5.5**, a comprehensive set of environmental management plans and monitoring programs are implemented at Rocglen in accordance with PA 06_0198 and the EPL. These environmental management plans and monitoring programs will continue to apply to all operations at Rocglen.

7.1 Air Quality

A detailed Air Quality Impact Assessment for the larger Rocglen Extension Project has been undertaken by PAEHolmes. Dispersion modelling was used to predict off-site dust concentration and dust deposition levels due to the activities that would occur as part of the project. Model predictions at privately-owned residences were compared with the relevant air quality criteria for both the DECCW and the DoP.

Analysis of the dispersion modelling results indicates that the Rocglen Extension Project, which comprises a far greater scope of works and disturbance activities than the proposed highwall stabilisation works outlined in this EA, would not cause exceedances of project assessment criteria at any privately owned residential properties. The DECCW 24-hour PM₁₀ criterion is predicted to be exceeded at “Yarrowonga”, however this property is owned by Whitehaven and not subject to acquisition criteria.

Given the proposed stabilisation works do not involve any significant activities over or above the currently approved operation, the findings of the air quality assessment for the larger Rocglen Extension Project are considered relevant. On this basis, the proposal should not result in any significant air quality impacts at surrounding residential properties.

The existing management strategies, mitigation measures and monitoring programs will continue to operate at Rocglen in order to minimise potential air quality emissions and ensure levels remain below the relevant criteria.

7.2 Surface Water

The minor extension to the open cut extraction will result in a small increase in the catchment area of the pit and will result in additional capture of rainfall runoff within the pit. In the context of the existing operations, the change to water capture within the pit will be negligible.

The area identified for the additional overburden emplacement is within an area that has been previously disturbed by mining operations (existing overburden emplacement and subsoil stockpiling). There are no new areas of ground disturbance proposed and no increase in the total area of dirty water catchment.

In conclusion, the works associated with the proposed highwall stabilisation do not increase the extent or intensity of the potential impacts associated with the currently approved operations on site, and do not increase the risk to any surface waters within or adjacent to the site.

The existing site water management system will continue to operate and has the capacity to manage potential impacts from the minor modification works. The existing site water management system has been designed in accordance with the best management practices contained in *Managing Urban Stormwater: Soils and Construction Volume 1* (LandCom, 2004) and *Volume 2* (DECC, 2008).

7.3 Groundwater

The proposed stabilisation works primarily lie to the east of the Belmont Fault, which defines the eastern extent of the Belmont and Glenroc coal seams. Douglas Partners are currently preparing a Groundwater Impact Assessment for the larger Rocglen Extension Project. Douglas Partners (pers. comm. 14 May 2010) has advised that permeability testing within bores at the site as part of the previous environmental assessment indicates that the coal seams are significantly more permeable than the overlying strata within the pit as well as the strata to the east of the fault. Therefore the coal seams to the west of the fault comprise the primary water bearing zones.

Excavating beyond the fault as proposed for the stabilisation works will involve excavating past the existing approval limit in two relatively small areas. The material that is to be excavated is considered to be of relatively low permeability. On this basis, the proposed excavations are expected to have a negligible effect on the groundwater flow regime (Douglas Partners, pers. comm. 14 May 2010)

The existing management strategies, mitigation measures and monitoring programs will continue to operate at Rocglen in order to minimise the potential for groundwater impact.

7.4 Soils and Land Capability

A Soils and Land Resource Impact Assessment has been undertaken by GSSE for the larger Rocglen Extension Project. In accordance with that assessment, it appears that two soil types will be encountered during the highwall stabilisation works. These soil types and the recommended management principles are outlined below.

Brown Duplex Fine Sandy Loam (Eutrophic Brown Chromosol)

These soils generally consist of dark brown fine sandy loams with a clear wavy change to strong brown clays. These well-drained soils are moderately strongly alkaline at depth. The soils are generally non saline with moderate fertility characteristics. The topsoil and subsoil are non-sodic. The top 0.25 metres is suitable for stripping and can be reused as a topdressing material in rehabilitation. The subsoil, up to 1.05 metres deep, is suitable as an intermediate layer between overburden and topdressing in rehabilitation. The subsoil below 1.05 metres is not recommended for reuse in rehabilitation due to the limiting factors of weathered rock. This soil requires standard erosion and sediment control measures if disturbed.

Sodic Brown Alluvial Clay (Calcic Brown Dermosol)

These soils generally exhibit crusty surfaces and scattered gravel. These moderately well drained soils are strongly alkaline in the upper layers and moderately alkaline at depth. They are slightly saline in the subsurface but have good fertility characteristics throughout. The topsoil is marginally sodic tending to be highly sodic in the subsoil. The top 0.25 metres of this soil is suitable and therefore recommended for stripping and reuse as topdressing in rehabilitation. However any sections with clay topsoil and all subsoil is texturally unsuitable for use as a topdressing and therefore is not recommended for reuse in rehabilitation. The high sodicity levels in the subsoil indicate this soil is not recommended for use as an intermediate layer between overburden and topdressing, as the risks associated with erosion are high. This soil requires standard erosion and sediment control measures if disturbed, however given the sodicity at depth, if the topsoil is removed, it may lead to dispersion and erosion if exposed to wet conditions over time.

GSSE (2010) reports that the pre-mining land capability and agricultural suitability within the proposed disturbance area is Class III and Class 3, respectively. Following the proposed stabilisation activities the land capability and agricultural suitability will change to Class VII and Class 5, respectively.

The existing management strategies and mitigation measures will continue to operate at Rocglen in order to minimise potential disturbance impacts and ensure effective rehabilitation.

7.5 Noise

A detailed Noise and Vibration Impact Assessment for the larger Rocglen Extension Project has been undertaken by Spectrum Acoustics. The assessment of operational noise was conducted using ENM (noise modelling software). All major noise producing items were modelled at their known positions (for stationary sources such as the surface facilities) or typical positions (for mobile sources such as dump trucks) and noise contours and point calculations were generated for the surrounding area and receivers. The assessment is based on operational noise criteria as presented in the original Project Approval PA 06_0198.

In summary, the noise assessment for the Rocglen Extension Project concluded –

- One residential receptor (“Costa Vale”) is predicted to be within a noise acquisition zone due to noise emission from truck movements on the proposed new Northern Emplacement Area. Whitehaven has recently entered negotiations with the owner of the “Costa Vale” property with a view to purchase. No other receptors are predicted to receive noise levels in excess of the applicable criteria; and
- No issues or exceedences predicted in terms of sleep disturbance, road traffic noise or blasting.

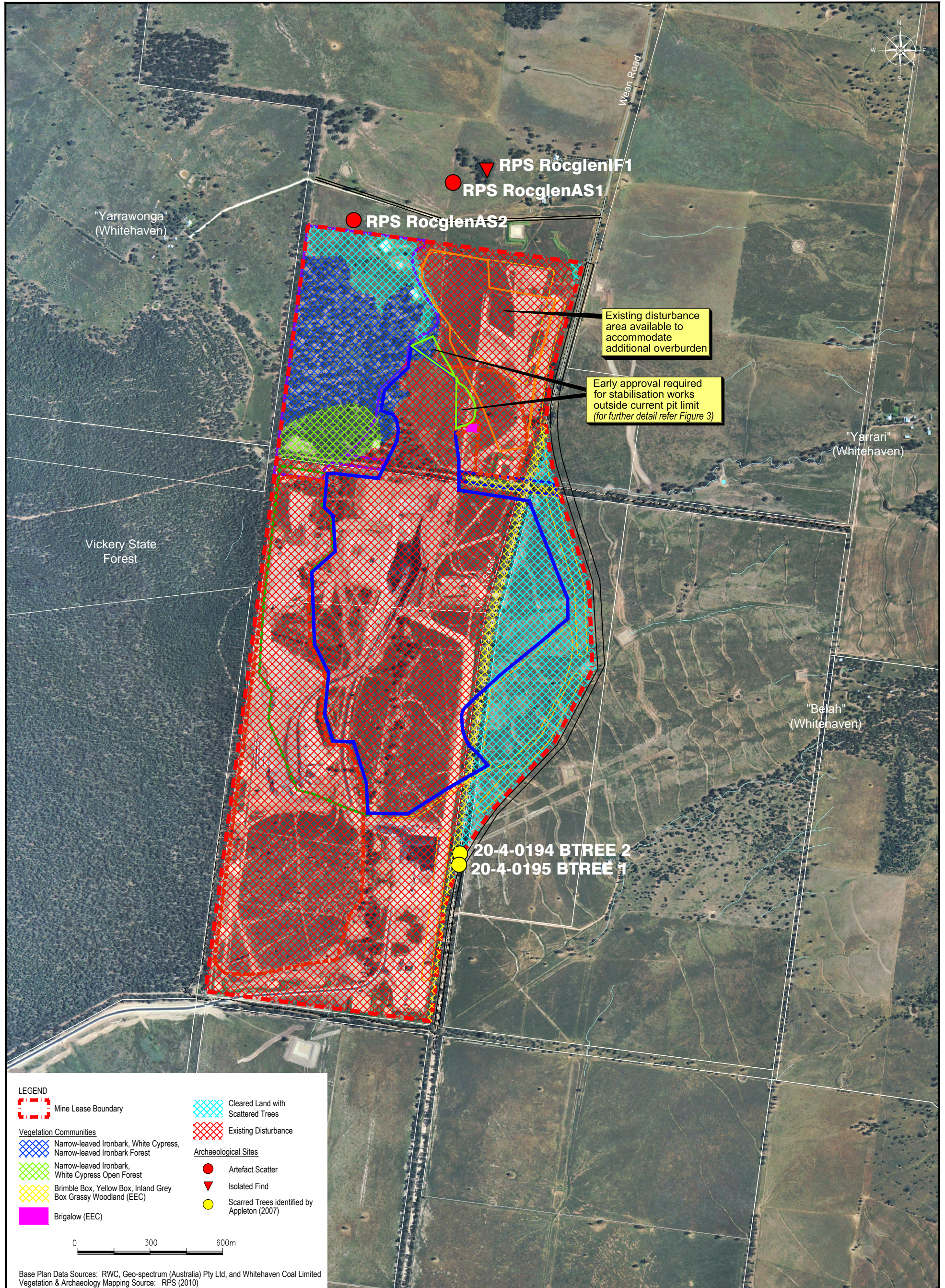
The modification proposed in this EA does not involve any significant activities over or above the currently approved operation, nor will it extend on the current footprint of disturbed areas. On this basis, the proposal should not result in any significant noise impacts at surrounding residential properties.

The existing management strategies, mitigation measures and monitoring programs will continue to operate at Rocglen in order to minimise potential noise emissions and ensure levels remain below the relevant criteria.

7.6 Flora and Fauna

A detailed Flora and Fauna Assessment for the larger Rocglen Extension Project has been undertaken by RPS, including significant field survey work. **Figure 4** illustrates the vegetation communities within the site as mapped by RPS, noting that the proposed modification works (stabilisation earthworks and overburden emplacement) will occur within areas currently approved for disturbance.

The only significant ecological feature within proximity to the proposed modification works is a very small area (approximately 0.03 ha) of Brigalow corresponding to the Endangered Ecological Community (EEC) listed within the Threatened Species Conservation Act 1995 (TSC Act) known as ‘Brigalow within the Brigalow Belt South, Nandewar and Darling Riverine Plains Bioregions’. This community also corresponds to the federally listed (EPBC Act) EEC known as Brigalow (*Acacia harpophylla* dominant and co-dominant). The proposed modification works will avoid this patch of Brigalow and there will be no impact with adequate buffer maintained between proposed works and the vegetation. It is worth noting that RPS (2010) has concluded that the Brigalow is highly disturbed and considered as an unviable long-term population given its age and no evidence of regeneration. The patch consists of 38 stems of mature Brigalow with no recruitment of seedlings. The shrub and ground layer species indicative of the EEC are also completely absent. It is considered that this stand of Brigalow is no longer truly representative of the EEC community.



Existing disturbance area available to accommodate additional overburden

Early approval required for stabilisation works outside current pit limit (for further detail refer Figure 3)

LEGEND	
	Mine Lease Boundary
	Cleared Land with Scattered Trees
Vegetation Communities	
	Narrow-leaved Ironbark, White Cypress, Narrow-leaved Ironbark Forest
	Narrow-leaved Ironbark, White Cypress Open Forest
	Brimble Box, Yellow Box, Inland Grey Box Grassy Woodland (EEC)
	Brigalow (EEC)
Archaeological Sites	
	Artefact Scatter
	Isolated Find
	Scarred Trees identified by Appleton (2007)



Base Plan Data Sources: RWC, Geo-spectrum (Australia) Pty Ltd, and Whitehaven Coal Limited
 Vegetation & Archaeology Mapping Source: RPS (2010)

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No threatened flora species were observed on site during previous flora surveys by Geoff Cunningham Natural Resource Consultants (2007) or by recent flora surveys by RPS (2010). A previous fauna survey within the site undertaken by Countrywide Ecological Service (2007) found/detected seven threatened species on-site. The assessment for these species found that there was no significant impact likely to occur as a result of the Rocglen Coal Mine (Countrywide Ecological Services, 2007).

Three threatened fauna species listed within the TSC Act were identified by RPS (2010) during their recent surveys. These were the Grey-crowned Babbler, Speckled Warbler and Yellow-bellied Sheath-tail-bat. A further two threatened fauna species were identified on neighbouring land (Diamond Firetail and Varied Sittella). Potential habitat exists within the mine site for a further 13 threatened fauna species listed under the TSC Act. Of the 14 threatened species and 10 migratory species listed on the EPBC Act protected matters database search results, none were identified by RPS within the Rocglen site.

Consideration for the likely level of impact on each of these species found that the larger Rocglen Extension Project would be unlikely to significantly impact on any of the identified threatened or migratory fauna species. The modification works proposed in this EA will require minimal, if any, clearing activities, with the stabilisation earthworks and overburden emplacements proposed within areas already disturbed (in accordance with PA 06_0198).

The existing management strategies, mitigation measures and monitoring programs will continue to operate at Rocglen in order to minimise the potential for flora and fauna disturbance. The Rocglen Extension Project includes a revised Biodiversity Offset Strategy that will ensure the continued viability of the vegetation communities.

7.7 Aboriginal Heritage

A detailed Cultural Heritage Assessment for the larger Rocglen Extension Project has been undertaken by RPS, with local Aboriginal stakeholders consulted in accordance with the *Interim Community Consultation Requirements* (DEC, 2004). This assessment comprised an environmental and archaeological regional context assessment, detailed literature review of previous relevant archaeological and historical studies, a search of the DECCW Aboriginal Heritage Information Management System (AHIMS) database and a field survey.

As shown on **Figure 4**, the field survey identified three Aboriginal stone artefact sites comprising one isolated find and two artefact scatters (RPS Rocglen IF1, RPD Rocglen AS1 and RPS Rocglen AS2). All three of these sites were found outside of the mining lease boundary to the north and substantially removed from the proposed modification works, which are within areas currently approved for disturbance.

The AHIMS database search revealed five listed sites inside the mine site, comprising two artefact scatters (NPWS #20-4-0191 and #20-4-0192), an isolated find (NPWS #20-4-0193) and two scar trees (NPWS#20-4-0194 and 20-4-0195). The three artefact sites were salvaged to enable the original Rocglen Coal Mine to proceed, and the two scar trees (see **Figure 4**) are located in the southern portion of the site well removed from the proposed modification works.

Should any cultural heritage sites be identified during the course of the modification works, all activities within the area will cease immediately and the DECCW and relevant local Aboriginal groups will be notified. Works will only recommence when an appropriate and approved management strategy has been agreed to by all relevant stakeholders.

In the event that skeletal remains are uncovered, all activities within the area will cease and the NSW Police will be contacted. If skeletal remains are deemed to be of Aboriginal origin, a representative of the local Aboriginal community and the DECCW will be consulted.

7.8 Visual Amenity

As outlined above in **Section 5.4**, the emplacement of the additional overburden will require a height increase within the nominated area of around 6 metres over what is currently emplaced. Areas that are not currently used for overburden emplacement or subsoil stockpiling, but within the nominated zone, will provide opportunity to minimise the additional height impacts.

The nominated area for overburden emplacement will be incorporated into the new Northern Emplacement Area proposed in the forthcoming Rocglen Extension Project, and will be shaped and rehabilitated in accordance with surrounding landforms.

7.9 Traffic and Transport

No additional traffic generation is associated with the proposed highwall stabilisation, with all works to be undertaken using existing mining fleet.

7.10 Chemicals and Hazardous Materials

The proposed highwall stabilisation will not necessitate the use of any chemicals or hazardous substances above what is currently approved to be used and stored on-site.

7.11 Waste Minimisation and Management

All waste streams will be managed in accordance with current approved waste management strategies.

7.12 Post Mining Land Use and Rehabilitation

There will be no change to post mining land use or rehabilitation at the site as a result of the proposed highwall stabilisation. Rehabilitation will be undertaken in accordance with the expectations of I&I NSW and industry standards. All areas disturbed by the highwall stabilisation works will be rehabilitated to a stable landform with a self-sustaining vegetation cover. This will be achieved by the early establishment of a suitable ground cover and appropriately positioned tree and shrub plantings where required.

Short term rehabilitation objectives will include, but may not be limited to, the following:

- Minimise clearing/vegetation disturbance consistent with operational requirements;
- Schedule overburden emplacement and shaping and revegetation to minimise visual exposure;
- Rehabilitate areas of disturbance no longer required for mining-related operations;
- Apply appropriate soil material (topsoil/subsoil) to the final landform based on material availability and post-mining land use; and
- Stabilise all earthworks, drainage lines and disturbed areas in order to minimise erosion and sedimentation.

7.13 Socio-Economic Impacts

The proposed stabilisation of the eastern highwall within the Rocglen open cut pit will not have any adverse socio-economic impacts. There are no alternatives to the proposed highwall stabilisation works described in this EA. If the eastern highwall of the Rocglen pit is not stabilised it will remain unsafe and the failure may worsen leading to sterilisation of the coal reserves within the vicinity.

8.0 CONCLUSION

Whitehaven propose to modify Project Approval PA 06_0198 under Section 75W of Part 3A of the EP&A Act to undertake unplanned emergency earthworks at the Rocglen Coal Mine to stabilise the eastern highwall following slipping adjacent to a fault structure in the north eastern portion of the existing open cut pit. Following an assessment by an experienced geotechnical engineer, it has been determined that the stabilisation works are required to ensure the long-term stability of the highwall, which will ultimately ensure the safety of mining personnel working in pit. The areas where additional works are required for highwall stabilisation are partially outside of the open cut limit approved under PA 06_0198.

The primary components of the proposed highwall stabilisation works at Rocglen are:

- Widening the face of the open cut, outside of the currently approved limit, to establish a highwall within competent material that will enable development of the pit in a safe and efficient manner; and
- Extraction of the additional overburden material from the fault zone and emplacement of it within the current area of disturbance to the north and east of the proposed stabilisation works.

The proposal will not result in any additional mine life, rather it will enable the mining operation to continue as prescribed under PA 06_0198. The proposal will also not involve any change to the current open cut mining methods, annual coal production rate, mine operating hours, coal handling and processing techniques, or workforce.

While the works associated with the proposed highwall stabilisation are outside of the current approved open cut pit limit, they are entirely contained within the existing mine lease area (ML 1620) and previous disturbance associated with the mine development. This, along with the on-going application of the environmental management plans and monitoring programs currently implemented at Rocglen (in accordance with PA 06_0198 and the EPL), will ensure that the potential for environmental impact, over and above what is currently approved under PA 06_0198, is minimised.

There are no alternatives to the proposed highwall stabilisation works described in this EA. If the eastern highwall of the Rocglen pit is not stabilised it will remain unsafe and the failure may worsen leading to sterilisation of the coal reserves within the vicinity.

9.0 REFERENCES

GE Holt & Associates Pty Ltd (October 2009) *Cracking Behind Eastern Highwall at Rocglen Open Cut*

GE Holt & Associates Pty Ltd (May 2010) *Stability of Eastern Highway*

GSS Environmental (2009) *Rocglen Coal Mine Project Preliminary Environmental Assessment*

GSS Environmental (2010) *Rocglen Coal Mine Extension Project Draft Rehabilitation and Mine Closure Strategy*

GSS Environmental (2010) *Rocglen Coal Mine Extension Project Draft Surface Waster Assessment*

GSS Environmental (2010) *Rocglen Coal Mine Extension Project Soil Survey and Land Resource Impact Assessment*

PAEHolmes (2010) *Air Quality Impact Assessment Rocglen Coal Mine Extension Project*

RPS (2010) *Draft Cultural Heritage Survey and Assesment Rocglen Mine Extension Project*

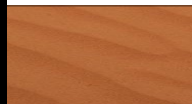
RPS Harper Somers O'Sullivan (2010) *Flora and Fauna Assessment for Proposed Rocglen Coal Mine Extension Project*

R.W. Corkery & Co. Pty Limited (2007) *Environmental Assessment of the Belmont Coal Project*

Spectrum Acoustics (2010) *Draft Noise and Vibration Impact Assessment Rocglen Coal Mine Extension Project*

Appendix A

**Project Application Form and Political
Donations Disclosure Statement**



APPENDIX A

Request to modify a major project



NSW GOVERNMENT
Department of Planning

Date duly made: ___/___/___

Modification No. _____

1. Before you lodge

This form is required under section 75W of the *Environmental Planning and Assessment Act 1979* (the Act) in order to request the Minister to modify the Minister's approval to carry out a project or concept plan to which Part 3A of the Act applies.

Before making this request, it is recommended that you first consult with the Department of Planning (the Department) concerning your modification. The Director-General may issue environmental assessment requirements that must be complied with before your request will be considered by the Minister. If the changes proposed by the modification will result in a project that is consistent with the existing approval, the Minister's approval for a modification is not required.

Disclosure Statement

Persons making a request to modify a project or concept plan are required to declare reportable political donations (including donations of or more than \$1,000) made in the previous two years.

Note: For more details about political donations disclosure requirements, including a disclosure form, go to www.planning.nsw.gov.au/donations.

Lodgement

All modification requests must be lodged with the Director-General of the Department of Planning, by courier or mail. An electronic copy should also be e-mailed to the assessment contact officer assigned to the project.

NSW Department of Planning
Ground floor, 23-33 Bridge Street, SYDNEY NSW 2000
GPO Box 39 SYDNEY NSW 2001
Phone 1300 305 695

2. Details of the proponent

Company/organisation/agency

ABN

Whitehaven Coal Mining Pty Ltd

65 086 426 253

Mr Ms Mrs Dr Other

First name

Brian

Family name

Cullen

Position

General Manager, Technical Services

STREET ADDRESS

Unit/street no.

1049

Street name

Kamilaroi Highway

Suburb or town

GUNNEDAH

State

NSW

Postcode

2380

POSTAL ADDRESS (or mark 'as above')

PO Box 600

Suburb or town

GUNNEDAH NSW 2380

State

NSW

Postcode

2380

Daytime telephone

02 67424337

Fax

02 67423607

Mobile

0418200512

Email

bcullen@whitehavencoal.com.au

3. Identify the land

STREET ADDRESS (where relevant)

Unit/street no.

2383

Street or property name

Wean Road

Suburb, town or locality

GUNNEDAH NSW

Postcode

2380

Local government area(s)

Gunnedah

State Electorate(s)

Tamworth

REAL PROPERTY DESCRIPTION

1/1120601

Note: The real property description is found on a map of the land or on the title documents for the land. If you are unsure of the real property description, you should contact the Department of Lands.

Please ensure that you place a slash (/) to distinguish between the lot, section, DP and strata numbers. If the proposed modification applies to more than one piece of land, please use a comma to distinguish between each real property description.

OR: detailed description of land attached:

MAP: A map of the site and locality should also be submitted with this request.

4. Details of the original major project or concept plan

Briefly describe what the original approval allows

Construction and operation of an open cut coal mine

What was the original project application no.?

PA06_0198

What was the date of the approval?

15th April 2008

What was the original application fee?

\$67,145.00

Note: Clause 245K of the *Environmental Planning and Assessment Regulation 2000* provides information on calculating the maximum fee for a request for modification.

5. Describe the modification you propose to make to the approval

Describe the proposed modification

Minor extension to the limit of extraction along north-east highwall for the purposes of maintaining highwall stability, as per Environmental Assessment attached.

Your modification request may need to be accompanied by an Environmental Assessment, including plans. An electronic and hard copy of this document will be required.

ESTIMATED CAPITAL INVESTMENT VALUE

Please indicate the estimated capital investment value (CIV) of the modification to the project approval or concept plan (excluding GST).

\$Nil

FULL TIME EQUIVALENT JOBS

Please indicate the number of jobs created by the proposed modification. This should be expressed as a proportion of full time equivalent (FTE) jobs over a full year.

Construction jobs (FTE) Operational jobs (FTE)

6. Landowner's consent (where required)

As the owner(s) of the above property, I/we consent to this request being made by the proponent:

Land <input type="text"/>	Land <input type="text"/>
Signature <input type="text"/>	Signature <input type="text"/>
Name <input type="text"/>	Name <input type="text"/>
Date <input type="text"/>	Date <input type="text"/>

Note: Under Clause 8F of the *Environmental Planning and Assessment Regulation 2000* (the Regulation), certain applications for approval under Part 3A of the Act do not require consent of the landowner, however, the proponent is required to give notice of the application (e.g. linear infrastructure, mining & petroleum projects, and critical infrastructure).

7. Political donation disclosure statement

Persons making a request to modify a project or concept plan are required to declare reportable political donations (including donations of or more than \$1,000) made in the previous two years.

Have you attached a disclosure statement to this request?

- Yes
- No

Note: For more details about political donations disclosure requirements, including a disclosure form, go to www.planning.nsw.gov.au/donations.

8. Proponent's signature

As the proponent(s) of the project and in signing below, I/we hereby:

- provide a description of the modification to the project approval or concept plan and address all matters required by the Director-General pursuant to Section 75W of the Act, and
- declare that all information contained within this form is accurate at the time of signing.

Signature

Name

Date

In what capacity are you signing if you are not the proponent

Name, if you are not the proponent

Political donations disclosure statement



NSW GOVERNMENT
Department of Planning

Office use only:

Date received: ___/___/___

Planning application no. _____

This form may be used to make a political donations disclosure under section 147(3) of the *Environmental Planning Assessment Act 1979* for applications or public submissions to the Minister or the Director-General.

Please read the following information before filling out the Disclosure Statement on pages 3 and 4 of this form. Also refer to the 'Glossary of terms' provided overleaf (for definitions of terms in *italics* below). Once completed, please attach the completed declaration to your planning application or submission.

Explanatory information

Making a planning application or a public submission to the Minister or the Director-General

Under section 147(3) of the Environmental Planning and Assessment Act 1979 ('the Act') a person:

- (a) who makes a *relevant planning application* to the Minister or the Director-General is required to disclose all *reportable political donations* (if any) made within the *relevant period* to anyone by any *person with a financial interest* in the application, or
- (b) who makes a *relevant public submission* to the Minister or the Director-General in relation to the application is required to disclose all *reportable political donations* (if any) made within the *relevant period* to anyone by the person making the submission or any *associate of that person*.

How and when do you make a disclosure?

The disclosure to the Minister or the Director-General of a *reportable political donation* under section 147 of the Act is to be made:

- (a) in, or in a statement accompanying, the relevant planning application or submission if the donation is made before the application or submission is made, or
- (b) if the donation is made afterwards, in a statement of the person to whom the relevant planning application or submission was made within 7 days after the donation is made.

What information needs to be included in a disclosure?

The information requirements of a disclosure of reportable political donations are outlined in section 147(9) of the Act.

Pages 3 and 4 of this document include a Disclosure Statement Template which outlines the information requirements for disclosures to the Minister or to the Director-General of the Department of Planning.

Note: A separate Disclosure Statement Template is available for disclosures to councils.

Warning: A person is guilty of an offence under section 125 of the *Environmental Planning and Assessment Act 1979* in connection with the obligations under section 147 only if the person fails to make a disclosure of a political donation or gift in accordance with section 147 that the person knows, or ought reasonably to know, was made and is required to be disclosed under section 147.

The maximum penalty for any such offence is the maximum penalty under Part 6 of the *Election Funding and Disclosures Act 1981* for making a false statement in a declaration of disclosures lodged under that Part.

Note: The maximum penalty is currently 200 penalty units (currently \$22,000) or imprisonment for 12 months, or both.

Glossary of terms (under section 147 of the *Environmental Planning and Assessment Act 1979*)

gift means a gift within the meaning of Part 6 of the *Election Funding and Disclosures Act 1981*. Note. A gift includes a gift of money or the provision of any other valuable thing or service for no consideration or inadequate consideration.

Note: Under section 84(1) of the *Election Funding and Disclosures Act 1981* gift is defined as follows:

gift means any disposition of property made by a person to another person, otherwise than by will, being a disposition made without consideration in money or money's worth or with inadequate consideration, and includes the provision of a service (other than volunteer labour) for no consideration or for inadequate consideration.

local councillor means a councillor (including the mayor) of the council of a local government area.

relevant planning application means:

- a) a formal request to the Minister, a council or the Director-General to initiate the making of an environmental planning instrument or development control plan in relation to development on a particular site, or
 - b) a formal request to the Minister or the Director-General for development on a particular site to be made State significant development or declared a project to which Part 3A applies, or
 - c) an application for approval of a concept plan or project under Part 3A (or for the modification of a concept plan or of the approval for a project), or
 - d) an application for development consent under Part 4 (or for the modification of a development consent), or
 - e) any other application or request under or for the purposes of this Act that is prescribed by the regulations as a relevant planning application,
- but does not include:
- f) an application for (or for the modification of) a complying development certificate, or
 - g) an application or request made by a public authority on its own behalf or made on behalf of a public authority, or
 - h) any other application or request that is excluded from this definition by the regulations.

relevant period is the period commencing 2 years before the application or submission is made and ending when the application is determined.

relevant public submission means a written submission made by a person objecting to or supporting a relevant planning application or any development that would be authorised by the granting of the application.

reportable political donation means a reportable political donation within the meaning of Part 6 of the *Election Funding and Disclosures Act 1981* that is required to be disclosed under that Part. Note. Reportable political donations include those of or above \$1,000.

Note: Under section 86 of the *Election Funding and Disclosures Act 1981* reportable political donation is defined as follows:

86 Meaning of "reportable political donation"

- (1) For the purposes of this Act, a reportable political donation is:
 - (a) in the case of disclosures under this Part by a party, elected member, group or candidate—a political donation of or exceeding \$1,000 made to or for the benefit of the party, elected member, group or candidate, or
 - (b) in the case of disclosures under this Part by a major political donor—a political donation of or exceeding \$1,000:
 - (i) made by the major political donor to or for the benefit of a party, elected member, group or candidate, or
 - (ii) made to the major political donor.
- (2) A political donation of less than an amount specified in subsection (1) made by an entity or other person is to be treated as a reportable political donation if that and other separate political donations made by that entity or other person to the same party, elected member, group, candidate or person within the same financial year (ending 30 June) would, if aggregated, constitute a reportable political donation under subsection (1).
- (3) A political donation of less than an amount specified in subsection (1) made by an entity or other person to a party is to be treated as a reportable political donation if that and other separate political donations made by that entity or person to an associated party within the same financial year (ending 30 June) would, if aggregated, constitute a reportable political donation under subsection (1). This subsection does not apply in connection with disclosures of political donations by parties.
- (4) For the purposes of subsection (3), parties are associated parties if endorsed candidates of both parties were included in the same group in the last periodic Council election or are to be included in the same group in the next periodic Council election.

a person has a financial interest in a relevant planning application if:

- a) the person is the applicant or the person on whose behalf the application is made, or
- b) the person is an owner of the site to which the application relates or has entered into an agreement to acquire the site or any part of it, or
- c) the person is associated with a person referred to in paragraph (a) or (b) and is likely to obtain a financial gain if development that would be authorised by the application is authorised or carried out (other than a gain merely as a shareholder in a company listed on a stock exchange), or
- d) the person has any other interest relating to the application, the site or the owner of the site that is prescribed by the regulations.

persons are associated with each other if:

- a) they carry on a business together in connection with the relevant planning application (in the case of the making of any such application) or they carry on a business together that may be affected by the granting of the application (in the case of a relevant planning submission), or
- b) they are related bodies corporate under the *Corporations Act 2001* of the Commonwealth, or
- c) one is a director of a corporation and the other is any such related corporation or a director of any such related corporation, or
- d) they have any other relationship prescribed by the regulations.

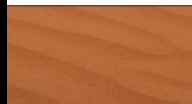
Political Donations Disclosure Statement to Minister or the Director-General

If you are required under section 147(3) of the Environmental Planning and Assessment Act 1979 to disclose any political donations (see Page 1 for details), please fill in this form and sign below.

Disclosure statement details		You are a PERSON MAKING A SUBMISSION IN RELATION TO AN APPLICATION		YES / NO
Name of person making this disclosure	Planning application reference (e.g. DA number, planning application title or reference, property address or other description)			
BRIAN COLLEN				
Your interest in the planning application (circle relevant option below)				
You are the APPLICANT		<input checked="" type="radio"/> YES	<input type="radio"/> NO	OR
Reportable political donations made by person making this declaration or by other relevant persons				
* State below any reportable political donations you have made over the 'relevant period' (see glossary on page 2). If the donation was made by an entity (and not by you as an individual) include the Australian Business Number (ABN).				
* If you are the applicant of a relevant planning application state below any reportable political donations that you know, or ought reasonably to know, were made by any persons with a financial interest in the planning application, OR				
* If you are a person making a submission in relation to an application, state below any reportable political donations that you know, or ought reasonably to know, were made by an associate.				
Name of donor (or ABN if an entity)	Donor's residential address or other official office of the donor	Name of party or person for whose benefit the donation was made	Date donation made	Amount/ value of donation
		No Political Donations Made		
Please list all reportable political donations—additional space is provided overleaf if required.				
By signing below, I/we hereby declare that all information contained within this statement is accurate at the time of signing.				
Signature(s) and Date				
Name(s)				

Brian Colleen 17/5/2010.
BRIAN COLLEN

Appendix B
Project Approval PA 06_0198



APPENDIX B

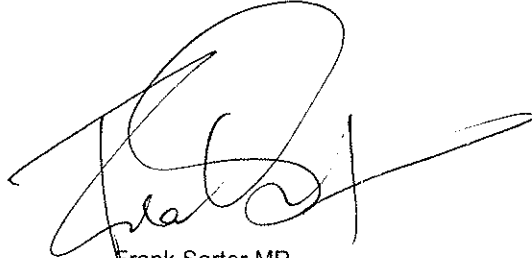
Project Approval

Section 75J of the *Environmental Planning and Assessment Act 1979*

I approve the project application referred to in schedule 1, subject to the conditions in schedules 2 to 5.

These conditions are required to:

- prevent, minimise and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.



Frank Sartor MP
Minister for Planning

Sydney

15th April

2008

SCHEDULE 1

Application No:	06_0198
Proponent:	Whitehaven Coal Limited
Approval Authority:	Minister for Planning
Land:	See Appendix 1
Project:	Belmont Coal Project

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DEFINITIONS

AEMR	Annual Environmental Management Report
Biodiversity Offsets	The conservation and enhancement program described in the EA
BCA	Building Code of Australia
CCC	Community Consultative Committee
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
DECC	Department of Environment and Climate Change
Department	Department of Planning
Director-General	Director-General of Department of Planning, or delegate
DPI	Department of Primary Industries
DWE	Department of Water and Energy
EA	Environmental Assessment titled <i>Belmont Coal Project Environmental Assessment and Specialist Consultant Studies Compendium, Volumes 1 & 2 (October 2007)</i> , including the <i>Response to Public and Government Agency Submissions</i> dated 11 February 2008
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence issued under the <i>Protection of the Environment Operations Act 1997</i>
Evening	The period from 6pm to 10pm
GSC	Gunnedah Shire Council
Hoad Lane intersection	The intersection of Hoad Lane and Shannon Harbour Road
Kamilaroi Highway intersections	The intersection of the Kamilaroi Highway with the Whitehaven Siding coal handling and preparation plant access road and also its intersection with Blue Vale Road
km	Kilometre
Land	The whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this approval
Material harm to the environment	Material harm to the environment as defined in <i>Protection of the Environment Operations Act 1997</i>
Mining operations	The extraction, processing and transportation of coal on the site
Minister	Minister for Planning, or delegate
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
Privately-owned land	Land that is not owned by a public agency, or a mining company (or its subsidiary)
Proponent	Whitehaven Coal Limited or any other person or persons who rely on this approval to carry out the project that is subject to this approval
Project	The Belmont Coal Project described in the EA
Reasonable and Feasible	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements. Feasible relates to engineering considerations and what is practical to build
ROM	Run-of-mine
RTA	Roads and Traffic Authority
Site	Land to which the project application applies, which includes the project site, sections 1 and 2 of the transport route, Wean Road and its proposed diversion (see Figures 1 and 2 of Appendix 2)
Statement of Commitments	The Proponent's commitments in Appendix 3

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

Obligation to Minimise Harm to the Environment

1. The Proponent shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.

Terms of Approval

2. The Proponent shall carry out the project generally in accordance with the:
 - (a) EA;
 - (b) statement of commitments; and
 - (c) conditions of this approval.

Notes:

- The general layout of the project is shown in Figures 1 and 2 of Appendix 2; and
- The statement of commitments is reproduced in Appendix 3.

3. If there is any inconsistency between the above documents, the latter document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.
4. The Proponent shall comply with any reasonable and feasible requirements of the Director-General arising from the Department's assessment of:
 - (a) any reports, plans, programs, strategies or correspondence that are submitted in accordance with the conditions of this approval; and
 - (b) the implementation of any actions or measures contained in these reports, plans, programs, strategies or correspondence.

Limits on Approval

5. Mining operations may take place on the site for 12 years from the grant of the mining lease for the project.

Note: Under this Approval, the proponent is required to rehabilitate the site to the satisfaction of the Director-General and DPI. Consequently this approval will continue to apply in all other respects other than the right to conduct mining operations until the site has been rehabilitated to a satisfactory standard.

6. The Proponent shall not extract more than 1.5 million tonnes of ROM coal a year from the site.

Hours of Operation

7. The Proponent is permitted to undertake mining operations 24 hours a day, Monday to Saturday, with the exception of public holidays.

Note: This condition does affect the operation of conditions 13 and 40 of schedule 3 in relation to blasting and coal transportation hours.

8. The Proponent is only permitted to undertake construction activities between the hours of:
 - (a) 6 am to 8 pm, Monday to Saturday;
 - (b) 6 am to 5 pm, Sunday; and
 - (c) at no time on public holidays.

Management Plans / Monitoring Programs

9. With the approval of the Director-General, the Proponent may submit any management plan or monitoring program required by this approval on a progressive basis.

Structural Adequacy

10. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

Notes:

- *Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.*
- *Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.*

Demolition

11. The Proponent shall ensure that all demolition work is carried out in accordance with *Australian Standard AS 2601-2001: The Demolition of Structures*, or its latest version.

Operation of Plant and Equipment

12. The Proponent shall ensure that all plant and equipment used on site is:
- (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS

SOIL AND WATER

Note: These conditions should be read in conjunction with sections 4, 5, 10, 13 and 17 of the Statement of Commitments.

Discharge

1. Except as may be expressly provided for by an EPL, the Proponent shall not discharge any surface waters from the site.

Water Management Plan

2. The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Director-General. This plan must:
 - (a) be prepared in consultation with DWE and DECC by suitably qualified expert/s whose appointment/s have been approved by the Director-General;
 - (b) be submitted to the Director General prior to the commencement of construction activities (not including construction of the Kamilaroi Highway and Hoad Lane intersections or sections 1 and 2 of the road transport route); and
 - (c) include a:
 - Site Water Balance;
 - Erosion and Sediment Control Plan;
 - Surface Water Monitoring Plan;
 - Groundwater Monitoring Program; and
 - Surface and Groundwater Response Plan, setting out the procedures for:
 - investigating, and if necessary mitigating, any exceedances of the surface or groundwater assessment criteria (see below); and
 - responding to any unforeseen impacts of the project.

Site Water Balance

3. The Site Water Balance must:
 - (a) include details of:
 - sources and security of water supply;
 - water use on site;
 - water management on site;
 - any off-site water transfers;
 - (b) describe measures to minimise water use by the project; and
 - (c) be reviewed and recalculated each year in the light of the most recent water monitoring data.

Erosion and Sediment Control

4. The Erosion and Sediment Control Plan must:
 - (a) be consistent with the requirements of *Managing Urban Stormwater: Soils and Construction* manual (Landcom 2004, or its latest version);
 - (b) identify activities that could cause soil erosion and generate sediment;
 - (c) describe measures to minimise soil erosion and the potential for transport of sediment to downstream waters;
 - (d) describe the location, function, and capacity of erosion and sediment control structures; and
 - (e) describe what measures would be implemented to monitor and maintain the structures over time.

Surface Water Monitoring Program

5. The Surface Water Monitoring Plan must include:
 - (a) detailed baseline data on surface water flows and quality in creeks and other waterbodies that could be affected by the project;
 - (b) surface water impact assessment criteria;
 - (c) a program to monitor the impact of the project on surface water flows and quality; and
 - (d) procedures for reporting the results of this monitoring.

Groundwater Monitoring Program

6. The Groundwater Monitoring Program must include:
- further development of the regional and local groundwater model;
 - detailed baseline data to benchmark the natural variation in groundwater levels, yield and quality (including at any privately owned bores in the vicinity of the site);
 - groundwater impact assessment criteria;
 - a program to monitor the impact of the project on groundwater levels, yield and quality; and
 - procedures for reporting the results of this monitoring.

NOISE

Note: These conditions should be read in conjunction with sections 8 and 17 of the Statement of Commitments.

Impact Assessment Criteria

7. The Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria set out in Table 1 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

Location	Day	Evening	Night	
	$L_{Aeq}(15 \text{ minute})$	$L_{Aeq}(15 \text{ minute})$	$L_{Aeq}(15 \text{ minute})$	$L_{A1}(1 \text{ minute})$
All privately owned residences	35	35	35	45

Table 1: Impact assessment criteria dB(A)

However, if the Proponent has a written negotiated noise agreement with any landowner and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the noise limits in Table 1 in accordance with the negotiated noise agreement.

Notes:

- To determine compliance with the $L_{Aeq}(15 \text{ minute})$ noise limits, noise from the project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the project is impractical, the Department and DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.
- These limits apply under the relevant meteorological conditions outlined in the assessment procedures in Chapter 5 of the NSW Industrial Noise Policy.
- To determine compliance with the $L_{A1}(1 \text{ minute})$ noise limits, noise from the project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the project is impractical, the Department and DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).

Road Traffic Impact Assessment Criteria

8. The Proponent shall ensure that the cumulative noise generated by road traffic associated with the project, Canyon (Whitehaven) and Tarrawonga mines on public roads does not exceed the criteria in Table 2.

Day	Evening	Night	Location
$L_{Aeq}(1 \text{ hour})$	$L_{Aeq}(1 \text{ hour})$	$L_{Aeq}(1 \text{ hour})$	
60	60	50	Any residence on privately-owned land.

Table 2: Road Traffic Noise Criteria dB(A)

Continuous Improvement

9. The Proponent shall:
- (a) implement all reasonable and feasible best practice noise mitigation measures;
 - (b) investigate ways to reduce the noise generated by the project, including off-site road and rail noise and maximum noise levels which may result in sleep disturbance; and
 - (c) report on these investigations and the implementation and effectiveness of these measures in the AEMR,
- to the satisfaction of the Director-General.

Monitoring

10. The Proponent shall prepare and implement a Noise Monitoring Program for the project to the satisfaction of the Director-General. This program must:
- (a) be prepared in consultation with the DECC;
 - (b) be submitted to the Director-General for approval prior to the commencement of construction activities (not including the construction of the Kamilaroi Highway and Hoad Lane intersections and sections 1 and 2 of the coal transport route);
 - (c) use attended noise monitoring measures to monitor the performance of the project; and
 - (d) include a protocol to establish whether the project is complying with the noise impact assessment criteria in Tables 1 and 2.

BLASTING AND VIBRATION

Note: These conditions should be read in conjunction with sections 9 and 17 of the Statement of Commitments.

Airblast Overpressure Impact Assessment Criteria

11. The Proponent shall ensure that the airblast overpressure level from blasting at the project does not exceed the criteria in Table 3 at any residence on privately-owned land.

Airblast overpressure level (dB(Lin Peak))	Allowable exceedance
115	5% of the total number of blasts in a 12 month period
120	0%

Table 3: Airblast overpressure impact assessment criteria

Note: The overpressure values in Table 3 apply when the measurements are performed with equipment having a lower cut-off frequency of 2 Hz or less. If the instrumentation has a higher cut-off frequency a correction of 5 dB should be added to the measured value. Equipment with a lower cut-off frequency exceeding 10 Hz should not be used.

Ground Vibration Impact Assessment Criteria

12. The Proponent shall ensure that the ground vibration level from blasting, or any other activity at the project does not exceed the criteria in Table 4 at any residence on privately-owned land.

Peak particle velocity (mm/s)	Allowable exceedance
5	5% of the total number of blasts in a 12 month period
10	0%

Table 4: Ground vibration impact assessment criteria

Blasting Hours

13. The Proponent shall only carry out blasting on site between 9 am and 5 pm Monday to Saturday.

Blasting Frequency

14. The Proponent may carry out:
 - (a) a maximum of 2 blasts a day;
 - (b) 5 blasts a week, averaged over a 12 month period;on site without the written approval of the Director-General.

Operating Conditions

15. During mining operations on site, the Proponent shall implement best blasting practice to:
 - (a) protect the safety of people, property, public infrastructure, and livestock;
 - (b) minimise the dust and fume emissions from blasting at the mine site, to the satisfaction of the Director-General.
16. The Proponent shall not undertake blasting within 500 metres of any privately-owned land, unless suitable arrangements have been made with the landowner and any tenants to minimise the risk of flyrock-related impact to the property to the satisfaction of the Director-General.

Road Closure

17. Prior to blasting within 500 metres of any public road, the Proponent shall prepare and implement a Road Closure Management Plan for the project to the satisfaction of GSC and DPI.

Public Notice

18. During mining operations on site, the Proponent shall:
 - (a) notify any person who registers an interest in being notified about the blasting schedule at the mine;
 - (b) operate a Blasting Hotline, or alternate system agreed to by the Director-General, to enable the public to get up-to-date information on the blasting schedule at the project;
 - (c) advertise the blasting hotline number in a local newspaper each year; and
 - (d) provide signage, with updated details of proposed blasting times, immediately to the north and south of the mine site on Wean Road, to the satisfaction of the Director-General.

Property Inspections

19. Before carrying out any blasting, the Proponent shall advise the owners of "Costa Vale", "Surrey" and "Brolga", all landowners within 2 km of proposed blasting activities, and any other landowner nominated by the Director-General, that they are entitled to a property inspection.
20. If the Proponent receives a written request for a property inspection from any landowner within 2 km of proposed blasting activities, or any other landowner nominated by the Director-General, the Proponent shall within 3 months of receiving this request:
 - (a) commission a suitably qualified person, whose appointment has been approved by the Director-General, to inspect the condition of any building or structure on the land, and recommend measures to mitigate any potential blasting impacts; and
 - (b) give the landowner a copy of this property inspection report.

Property Investigations

21. If any landowner within a 2 km of proposed blasting activities, or any other landowner nominated by the Director-General, claims that any building or structure on his/her property, including vibration-sensitive infrastructure such as water supply or underground irrigation mains, has been damaged as a result of blasting at the project, the Proponent shall within 3 months of receiving this request:
 - (a) commission a suitably qualified person whose appointment has been approved by the Director-General to investigate the claim; and
 - (b) give the landowner a copy of the property investigation report.

If this independent investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damages to the satisfaction of the Director-General.

If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Director-General for resolution.

Monitoring

22. Prior to the commencement of blasting, the Proponent shall prepare and implement a detailed Blasting Monitoring Program for the project in consultation with DECC, and to the satisfaction of the Director-General.

AIR QUALITY

Note: These conditions should be read in conjunction with sections 14 and 17 of the Statement of Commitments.

Impact Assessment Criteria

23. The Proponent shall ensure that dust emissions generated by the project does not cause additional exceedances of the criteria listed in Tables 5 to 7 at any residence on privately owned land, or on more than 25 percent of any privately-owned land.

Pollutant	Averaging period	Criterion
Total suspended particulate (TSP) matter	Annual	90 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	30 µg/m ³

Table 5: Long term impact assessment criteria for particulate matter

Pollutant	Averaging period	Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	50 µg/m ³

Table 6: Short term impact assessment criteria for particulate matter

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
Deposited dust	Annual	2 g/m ² /month	4 g/m ² /month

Table 7: Long term impact assessment criteria for deposited dust

Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS/NZS 3580.10.1-2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.

Monitoring

24. The Proponent shall prepare and implement an Air Quality Monitoring Program for the project in consultation with DECC, and to the satisfaction of the Director-General. This program must:
- be submitted to the Director-General prior to the commencement of construction activities (not including the Kamilaroi Highway and Hoad Lane intersections and sections 1 and 2 of the coal transport route);
 - be prepared in consultation with the DECC; and
 - use a combination of high volume samplers and dust deposition gauges to monitor the performance of the project.

METEOROLOGICAL MONITORING

25. During the project, the Proponent shall ensure there is a suitable meteorological station on site that complies with the requirements in *Approved Methods for Sampling of Air Pollutants in New South Wales* (DECC, 2007), or its latest version.

SUBSIDENCE

Subsidence Impact Limits

26. The Proponent shall ensure that subsidence of the land surface caused by auger coal mining does not result in vertical subsidence of greater than 20 mm.

LANDSCAPE

Note: These conditions should be read in conjunction with sections 4, 6, 11, 13 and 16 of the Statement of Commitments.

Biodiversity Offsets

27. The Proponent shall:
- implement the Biodiversity Offsets summarised in Table 8 and described in the EA (shown conceptually in Figure 6 in Appendix 4); and
 - make suitable arrangements to provide appropriate long term security for the offset areas by the end of August 2010, to the satisfaction of the Director-General.

	Offset Area	Minimum Size
1	"Glenroc" remnant Ironbark – Pilliga Grey Box vegetation	42.3 ha
2	Northern boundary of project site	2.6 ha
3	Jaeger Lane	2.6 ha
4	Southern boundary of project site	3.8 ha
5	Whitehaven Regional Biodiversity Offset Area	60 ha (see condition 28)

Table 8: Biodiversity Offsets

28. The Proponent is to allocate at least 60 ha of the required offset from the Whitehaven Regional Biodiversity Offset area (offset 5 in Table 8 - also refer to Appendix 5). This must be done in consultation with DECC, and to the satisfaction of the Director-General.

Rehabilitation

29. The Proponent shall progressively rehabilitate the site in a manner that is generally consistent with the final landform set out in the EA (shown conceptually in Figure 5 in Appendix 4) to the satisfaction of the Director-General and DPI.

The final landform shall provide for at least 84 hectares of woodland vegetation, in a manner generally consistent with that shown conceptually in Figure 6 in Appendix 4.

Landscape Management Plan

30. The Proponent shall prepare and implement a detailed Landscape Management Plan for the site to the satisfaction of the Director-General and DPI. This plan must:
- be prepared in consultation with DWE, DECC and GSC by suitably qualified expert/s whose appointment/s have been approved by the Director-General;
 - be submitted to the Director-General for approval by the end of March 2009; and
 - include a:
 - Rehabilitation and Offset Management Plan;
 - Final Void Management Plan; and
 - Mine Closure Plan.

Note: The Department accepts that the initial Landscape Management Plan may not include the detailed Final Void Management Plan and Mine Closure Plan. However, if this occurs, the Applicant will be required to seek approval from the Director-General for an alternative timetable for the completion and approval of the Final Void Management Plan and Mine Closure Plan.

Rehabilitation and Offset Management Plan

31. The Rehabilitation and Offset Management Plan must include:
- the objectives for rehabilitation of the site and offset areas;

- (b) a strategic description of how the rehabilitation of the site would be integrated with surrounding land use;
- (c) a description of the short and long term measures that would be implemented to:
 - rehabilitate the site;
 - implement the biodiversity offsets;
 - manage the remnant vegetation and habitat on the site and in the offset areas; and
 - maximise effective vegetative linkages for the offset areas and across the valley floor to the Whitehaven Regional Biodiversity Offset area;
- (d) detailed performance and completion criteria for the rehabilitation of the site and the implementation of the biodiversity offsets;
- (e) a detailed description of how the performance of the rehabilitation works and the offset areas would be monitored over time to achieve the stated objectives;
- (f) a detailed description of the measures that would be implemented to rehabilitate the site, including the measures to be implemented for:
 - managing the remnant vegetation and habitat on site;
 - minimising impacts on fauna;
 - minimising visual impacts;
 - conserving and reusing topsoil;
 - controlling weeds, feral pests, and access;
 - managing bushfires; and
 - managing any potential conflicts between the rehabilitation works and/or biodiversity offsets and Aboriginal cultural heritage;
- (g) a description of the potential risks to successful rehabilitation and/or revegetation, and a description of the contingency measures that would be implemented to mitigate these risks; and
- (h) details of who is responsible for monitoring, reviewing and implementing the plan.

Final Void Management Plan

32. The Final Void Management Plan must:
- (a) justify the final location, configuration and future use of the final void;
 - (b) incorporate design criteria and specifications of the final void based on verified groundwater modelling predictions and re-assessment of the post-mining groundwater levels;
 - (c) assess the potential interactions between groundwater resources, surface water flows and the final void; and
 - (d) describe what actions and measures would be implemented to:
 - minimise any potential adverse impacts associated with the final void; and
 - manage and monitor the potential impact of the final void.

Mine Closure Plan

33. The Mine Closure Plan must:
- (a) define the objectives and criteria for mine closure;
 - (b) investigate options for the future use of the site, including the final void;
 - (c) investigate ways to minimise the adverse socio-economic effects associated with mine closure, including reduction in local and regional employment levels;
 - (d) describe the measures that would be implemented to minimise or manage the on-going environmental effects of the project; and
 - (e) describe how the performance of these measures would be monitored over time.

HERITAGE

Note: These conditions should be read in conjunction with section 7 of the Statement of Commitments.

Destruction of Aboriginal Sites

34. The Proponent may destroy sites B1, B2 and B3, and undertake salvage of the artefacts contained in these sites, to the satisfaction of DECC. Representatives of the local Aboriginal community may, subject to the conditions of a Care and Control permit, relocate some or all of the artefacts contained in these sites to the Cumbo Gunerah Keeping Place.

Aboriginal Cultural Heritage Management Plan

35. The Proponent shall not destroy any known Aboriginal objects (as defined in the *National Parks and Wildlife Act 1974*), except in accordance with condition 34, without the written approval of the Director-General.
36. The Proponent shall prepare and implement an Aboriginal Cultural Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must:
 - (a) be submitted to the Director-General prior to the commencement of construction activities (not including the construction of the Kamilaroi Highway and Hoad Lane intersections);
 - (b) be prepared in consultation with the DECC, Red Chief Local Aboriginal Land Council, Gunida Gunyah Aboriginal Corporation, Min Min Aboriginal Corporation and Bigundi Gunnedar Traditional People;
 - (c) include a protocol for the ongoing consultation and involvement of Aboriginal communities in the conservation and management of Aboriginal heritage on site;
 - (d) make provision for the local Aboriginal community to monitor works at the project site that occur in areas considered by the local Aboriginal community to be culturally sensitive;
 - (e) describe the measures that would be implemented to protect Aboriginal objects and traditional resources (such as Wild Orange - *Capparis mitchellii*) on site, or if any new Aboriginal objects or skeletal remains are discovered during the project; and
 - (f) describe the cultural heritage awareness and protection training program to be undertaken by all employees and contractors.

TRANSPORT

Note: These conditions should be read in conjunction with sections 12 and 17 of the Statement of Commitments.

Monitoring of Coal Transport

37. The Proponent shall keep records of the amount of coal transported from the mine site, and number of coal truck movements each year, and include these records in the AEMR.

Coal Haul Road

38. Prior to coal being transported from the site, the Proponent shall ensure the coal transport route from the Belmont mine site to the Whitehaven Siding coal handling and preparation plant is constructed and tar sealed, to the satisfaction of GSC. If agreement cannot be reached, the matter shall be referred to the Director-General for resolution.
39. The Proponent shall transport all coal from the site to the Whitehaven Siding coal handling and preparation plant by use of the road transport route shown in Figure 3 of Appendix 2, unless otherwise approved by the Director-General.

Coal Transportation Hours

40. The Proponent shall only dispatch coal from the site by road between the hours of:
 - (a) 7 am to 9.15 pm, Monday to Friday;
 - (b) 7 am to 5.15 pm Saturday; and
 - (c) at no time on Sundays and public holidays.

Kamilaroi Highway Intersections

41. The Proponent shall construct the Kamilaroi Highway intersections in consultation with GSC and to the satisfaction of RTA. This intersection must:
 - (a) be completed within 18 months of this approval;
 - (b) be constructed in accordance with a Traffic Management Plan approved by NSC and RTA; and
 - (c) include appropriate signage and illumination of the intersections.

Hoad Lane Intersection

42. Prior to coal being transported from the site, the Proponent shall construct the Hoad Lane intersection in general accordance with the design shown in Figure 4 of Appendix 1, and to the satisfaction of GSC.

Wean Road

43. By the end of March 2009, the Proponent shall reconstruct and bitumen seal Wean Road from the northern end of the existing tar seal to a point 200 metres north of the proposed light vehicle entry to the site from Wean Road. Additionally, within 3 months of the completion of the proposed diversion of Wean Road to facilitate open cut mining operations, the Proponent shall reconstruct and extend the bitumen seal Wean Road to a point 200 metres north of the relocated position of Jaeger Lane (see Figure 1 of Appendix 2) in general accordance with GSC's Rural Local Roads Standard, and to the satisfaction of GSC.

Road Maintenance Agreement

44. By the end of September 2008, the Proponent shall review (and implement any approved changes to) the road maintenance agreement between the Proponent and GSC for public roads used as the coal transport route within Gunnedah Shire, to the satisfaction of GSC. If agreement cannot be reached, the matter shall be referred to the Director-General for resolution.

Road Noise Management Plan

45. Prior to the transport of any coal from the mine site, the Proponent shall produce and implement a combined Road Noise Management Plan for the project, Canyon (Whitehaven) and Tarrawonga mines, including a noise monitoring program and full consideration of the combined impacts of traffic associated with these mines, in consultation with GSC, and to the satisfaction of the Director-General.

VISUAL

Note: These conditions should be read in conjunction with section 11 of the Statement of Commitments.

46. The Proponent shall:
- (a) ensure no outdoor lights shine above the horizontal;
 - (b) ensure that all external lighting associated with the project complies with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*;
 - (c) take all practicable measures to mitigate off-site lighting impacts from the project; and
 - (d) minimise the visual impacts of the project, to the satisfaction of the Director-General.

GREENHOUSE & ENERGY EFFICIENCY

Note: These conditions should be read in conjunction with section 14 of the Statement of Commitments.

47. The Proponent shall prepare and implement a Greenhouse and Energy Efficiency Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with DECC and generally in accordance with the *Guidelines for Energy Savings Action Plans* (DEUS 2005, or its latest version);
 - (b) be submitted to the Director-General for approval by the end of September 2008;
 - (c) include a program to monitor greenhouse gas emissions and energy use generated by the project;
 - (d) include a framework for investigating and implementing measures to reduce greenhouse gas emissions and energy use at the site; and
 - (e) describe how the performance of these measures would be monitored over time.

WASTE

Note: These conditions should be read in conjunction with section 3 of the Statement of Commitments.

Waste Minimisation

48. The Proponent shall:
- (a) monitor the amount of waste generated by the project;
 - (b) investigate ways to reuse, recycle, or minimise the waste generated by the project;
 - (c) implement reasonable and feasible measures to minimise waste generated by the project;
 - (d) ensure irrigation of treated wastewater is undertaken in accordance with *Environmental Guidelines: Use of Effluent by Irrigation* (DEC, 2004), or its latest version; and
 - (e) report on waste management and minimisation in the AEMR, to the satisfaction of the Director-General.

SCHEDULE 4
ADDITIONAL PROCEDURES

INDEPENDENT REVIEW

1. ~~If a landowner considers the project to be exceeding the impact assessment criteria in schedule 3, then he/she may ask the Director-General in writing for an independent review of the impacts of the project on his/her land.~~

If the Director-General is satisfied that an independent review is warranted, the Proponent shall within 2 months of the Director-General's decision:

- (a) consult with the landowner to determine his/her concerns;
- (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to conduct monitoring on the land, to:
 - determine whether the project is complying with the relevant impact assessment criteria in schedule 3; and
 - identify the source(s) and scale of any impact on the land, and the project's contribution to this impact; and
- (c) give the Director-General and landowner a copy of the independent review.

2. If the independent review determines that the project is complying with the relevant impact assessment criteria in schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.
3. If the independent review determines that the project is not complying with the relevant impact assessment criteria in schedule 3, and that the project is primarily responsible for this non-compliance, then the Proponent shall:
- (a) take all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria; and
 - (b) conduct further monitoring to determine whether these measures ensure compliance.

If the additional monitoring referred to above subsequently determines that the project is complying with the relevant criteria in schedule 3, or the Proponent and landowner enter into a negotiated agreement to allow these exceedances, then the Proponent may discontinue the independent review with the approval of the Director-General.

4. If the independent review determines that the relevant criteria in schedule 3 are being exceeded, but that more than one project is responsible for this non-compliance, then the Proponent shall, together with the relevant project/s:
- (a) take all reasonable and feasible measures, in consultation with the landowner, to ensure that the relevant criteria are complied with; and
 - (b) conduct further monitoring to determine whether these measures ensure compliance; or
 - (c) secure a written agreement with the landowner and other relevant projects to allow exceedances of the criteria in schedule 3, to the satisfaction of the Director-General.

If the additional monitoring referred to above subsequently determines that the projects are complying with the relevant criteria in schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.

5. If the landowner disputes the results of the independent review, either the Proponent or the landowner may refer the matter to the Director-General for resolution.

If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 6).

SCHEDULE 5

ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING

Note: This schedule should be read in conjunction with sections 17 and 18 of the Statement of Commitments.

ENVIRONMENTAL MANAGEMENT STRATEGY

1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must be submitted to the Director-General prior to the commencement of construction activities (not including the construction of the Kamilaroi Highway and Hoad Lane intersections and sections 1 and 2 of the road transport route), and:
 - (a) provide the strategic framework for environmental management of the project;
 - (b) identify the statutory requirements that apply to the project;
 - (c) describe in general how the environmental performance of the project would be monitored and managed;
 - (d) describe the procedures that would be implemented to:
 - keep the local community and relevant agencies informed about the operation and environmental performance of the project;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise during the course of the project;
 - respond to any non-compliance;
 - manage cumulative impacts; and
 - respond to emergencies; and
 - (e) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project.

ENVIRONMENTAL MONITORING PROGRAM

2. The Proponent shall prepare and implement an Environmental Monitoring Program for the project to the satisfaction of the Director-General. This program must be submitted to the Director-General by the end of September 2008 and consolidate the various monitoring requirements in schedule 3 of this approval into a single document.

REPORTING

Incident Reporting

3. Within 24 hours of detecting an exceedance of the limits/performance criteria in this approval, or the occurrence of an incident that causes (or may cause) material harm to the environment, the Proponent shall notify the Department and other relevant agencies of the exceedance/incident.
4. Within 6 days of notifying the Department and other relevant agencies of an exceedance/incident, the Proponent shall provide the Department and these agencies with a written report that:
 - (a) describes the date, time, and nature of the exceedance/incident;
 - (b) identifies the cause (or likely cause) of the exceedance/incident;
 - (c) describes what action has been taken to date; and
 - (d) describes the proposed measures to address the exceedance/incident.

Annual Reporting

5. By the end of March 2009, and annually thereafter, the Proponent shall submit an AEMR to the Director-General and to all relevant agencies. This report must:
 - (a) identify the standards and performance measures that apply to the project;
 - (b) describe the works carried out in the last 12 months;
 - (c) describe the works that would be carried out in the next 12 months;
 - (d) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years;
 - (e) include a summary of the monitoring results for the project during the past year;
 - (f) include an analysis of these monitoring results against the relevant:
 - impact assessment criteria/limits;

- monitoring results from previous years; and
 - predictions in the EA;
- (g) identify any trends in the monitoring results over the life of the project;
- (h) identify any non-compliance during the previous year; and
- (i) describe what actions were, or are being, taken to ensure compliance.

INDEPENDENT ENVIRONMENTAL AUDIT

6. By the end of March 2011, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
- (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any associated EPL or Mining Lease (including any strategy, plan or program required under these approvals);
 - (d) review the adequacy of strategies, plans or programs required under these approvals; and, if appropriate,
 - (e) recommend measures or actions to improve the environmental performance of the project, and/or any strategy, plan or program required under these approvals.

Note: This audit team must be led by a suitably qualified auditor and include experts in the fields of ecology and minesite rehabilitation.

7. Within 6 weeks of the completing of this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.
8. Within 3 months of submitting the audit report to the Director-General, the Proponent shall review, and if necessary revise the strategies/plans/programs required under this approval to the satisfaction of the Director-General.

COMMUNITY CONSULTATIVE COMMITTEE

9. By the end of September 2008, or other date agreed by the Director-General, the Proponent shall establish a Community Consultative Committee (CCC) for the project to the satisfaction of the Director-General. This CCC must be established and operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version)* to the satisfaction of the Director-General.

Note: The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this consent.

ACCESS TO INFORMATION

10. Within 3 months of the approval of any strategy/plan/ program required under this approval (or any subsequent revision of these strategies/plans/ programs), or the completion of the audits or AEMRs required under this approval, the Proponent shall:
- (a) provide a copy of the relevant document/s to the relevant agencies and CCC; and
 - (b) put a copy of the relevant document/s on its website.
11. From the end of September 2008, and thereafter during the project, the Proponent shall:
- (a) provide a copy of this approval as may be modified from time to time on its website;
 - (b) provide a comprehensive, running summary of monitoring results required under this approval on its website; and
 - (c) update these results on a regular basis (at least every three months).

**APPENDIX 1
SCHEDULE OF PROJECT LAND**

<i>Area</i>	<i>Land Title Reference</i>
<i>Mine Site Area including the proposed Wean Road diversion</i>	<i>Lots 1 and 4 DP 1120601 Lot 1 DP 787417</i>
<i>Coal Haulage Route</i>	<i>Lots 23 and 28 DP 754929 Council roads and road reserve, including:</i> <ul style="list-style-type: none"> <i>• Shannon Harbour road (SR 93);</i> <i>• Hoad Lane (SR 95);</i> <i>• Blue Vale Road (SR 7); and</i> <i>• Kamilaroi Highway (SH 29).</i>
<i>Wean Road</i>	<i>Wean Road (SR 6)</i>

APPENDIX 2 PROJECT MAPS

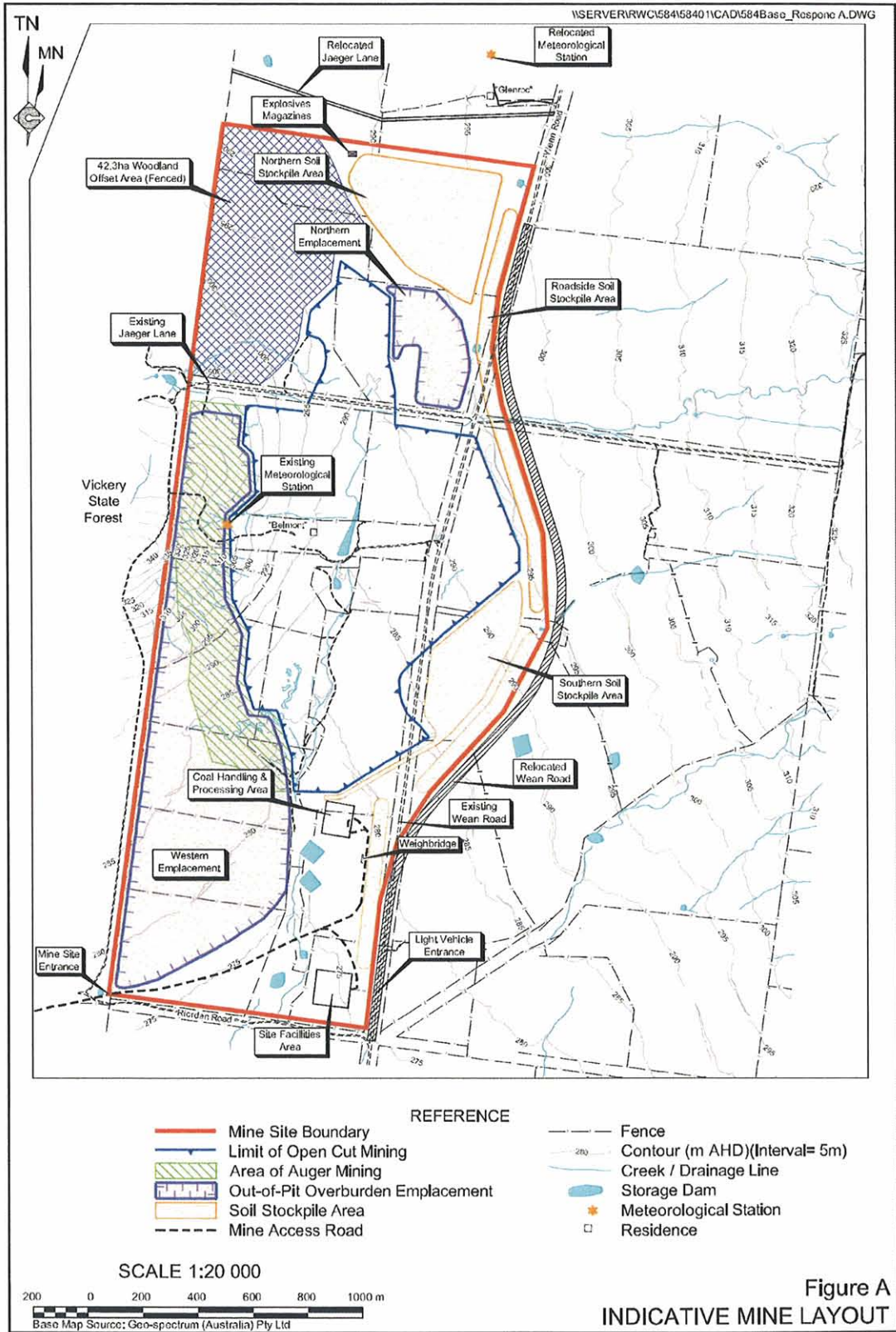


Figure 1: Project Mine Layout

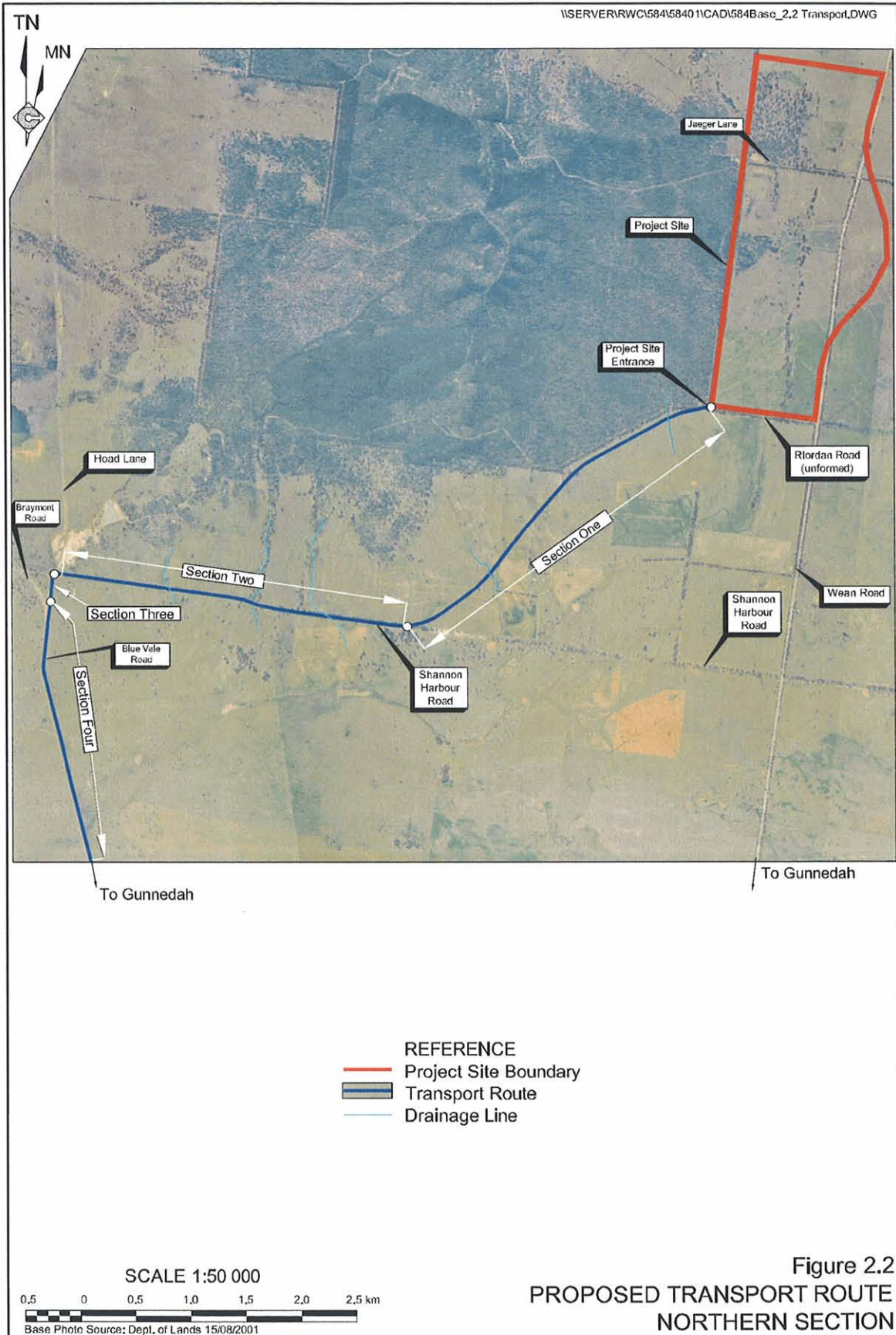
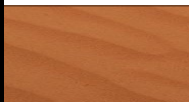


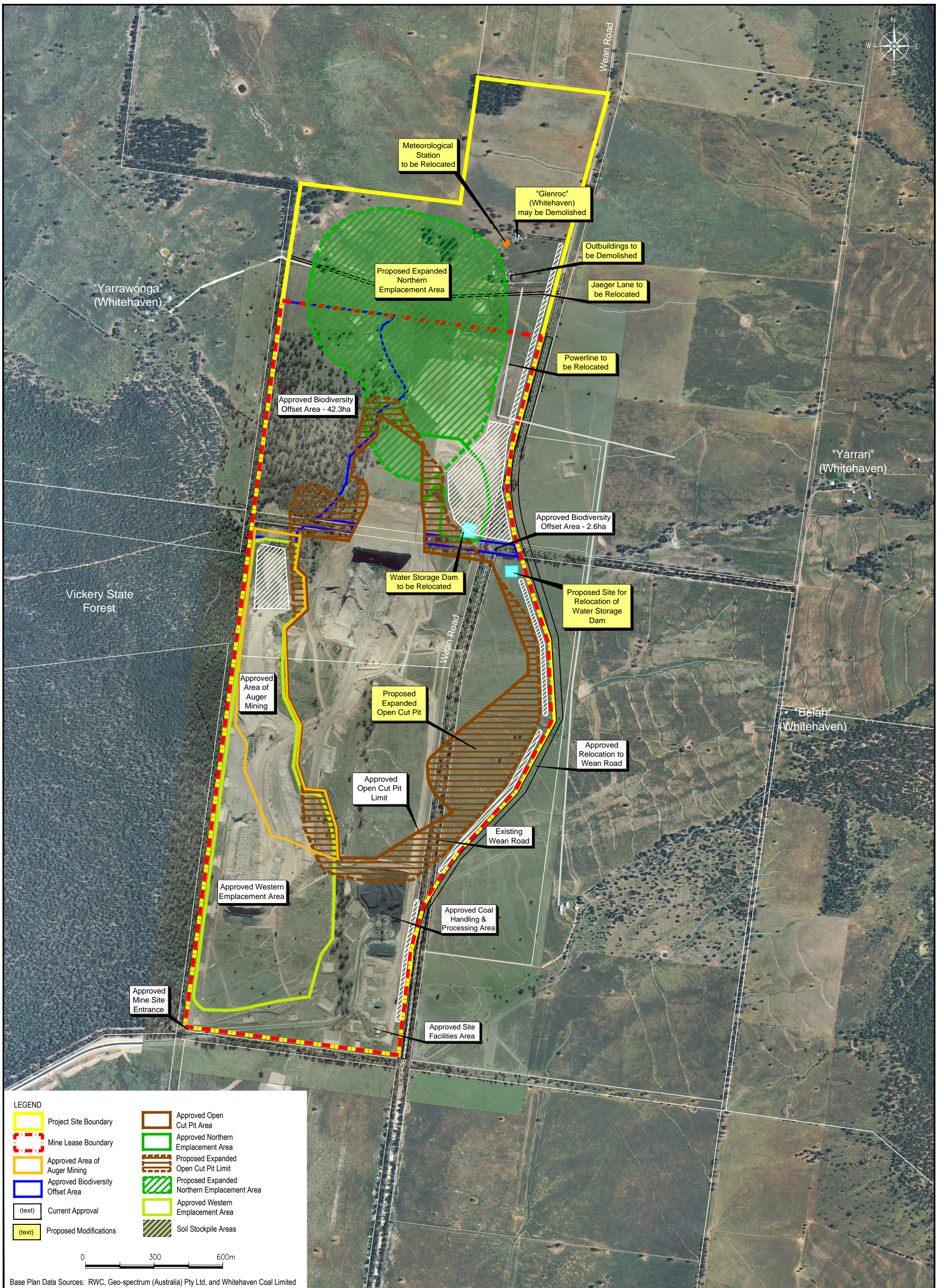
Figure 2: Project Site (which includes Sections 1 and 2 of the Transport Route)

Appendix C

Rocglen Coal Mine Extension Project - Project Layout Plan



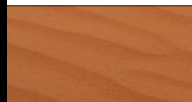
APPENDIX C



Proposed Mine Layout - Rocglen Coal Mine Extension Project

FIGURE 1

Appendix D
Legal Advice (Blake Dawson)



APPENDIX D

BY EMAIL

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17 May 2010

Dear Brian

ROCGLLEN COAL MINE – PROPOSED s 75W MODIFICATION FOR THE HIGHWALL STABILISATION WORKS

Our reference
MPB 02 2014 7120

Partner
Mark Brennan
T 61 2 9258 6072
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1. Purpose of this letter

This letter is concerned with the proposed modifications to the Rocglen Coal Mine (**Proposed Modification**) as described in a document titled *Environmental Assessment – Rocglen Coal Mine Modification – Highwall Stabilisation Works* dated May 2010 (**EA**).

The Rocglen Coal Mine is operated pursuant to a Part 3A approval granted by the Minister for Planning on 15 April 2008 (**2008 Part 3A Approval**).

The purpose of this letter is to respond to your request for my opinion as to whether it would be within power for the Minister for Planning to approve the Proposed Modification pursuant to s 75W of the *Environmental Planning and Assessment Act 1979* (**EP&A Act**).

2. Executive summary

My key conclusion is that there is no doubt that it is within power for the Minister for Planning to approve the Proposed Modification pursuant to s 75W of the EP&A Act.

3. What is contemplated by the Proposed Modification?

The need for the Proposed Modification arises from geological issues encountered during carrying out the mining operations authorised by the 2008 Part 3A Approval.

An overview description of the Proposed Modification is given at section 1.4 of the EA. It states:

1.4 Project Overview

The proposed project modification applies to unplanned emergency earthworks required to stabilise the highwall at Rocglen Coal Mine following slipping adjacent to a fault structure in the north eastern portion of the existing open cut pit. Following an assessment by a experienced geotechnical engineer, it has

been determined that the stabilisation works required to ensure the long-term stability and safety of the highwall are partially outside of the open cut limit approved under PA 06_0198.

The primary components of the proposed highwall stabilisation works at Rocglen are:

- Widening the face of the open cut, outside of the currently approved limit, to establish a highwall within competent material that will enable development of the pit in a safe and efficient manner; and
- Extraction of the additional overburden material from the fault zone and emplacement of it within the current area of disturbance to the east of the proposed stabilisation works.

The proposal will not involve any change to the current open cut mining methods, annual coal production rate, mine operating hours, coal handling and processing techniques, or workforce.

The cutback associated with the highwall stabilisation works is depicted by green hatching on Figures 2 and 3 of the EA.

I am instructed that the area of the proposed cutback is approximately 2.05ha. The area of the approved pit under the 2008 Part 3A Approval is approximately 114ha. Accordingly, the proposed cutback will expand the area already approved for open cut mining by approximately 1.8%.

In relation to the overburden generated by the pit cutback, section 4.4 of the EA states:

The additional overburden material to be extracted from around the fault zone is anticipated to amount to approximately one million bank cubic metres (Mbcm). ... it is proposed to emplace this material within the current area of disturbance to the north-east of the proposed stabilisation works. This area is currently utilised for overburden emplacement and subsoil stockpiling, as approved under PA 06_0198. ... Whitehaven's mining engineer contractor has determined that approximately 228,000 square metres is available within this area for emplacement of the additional overburden material. Allowing for swell, it is estimated that emplacement of the overburden will require a height increase within the nominated area of around 6 metres over what is currently there. Areas that are not currently used for overburden emplacement or subsoil stockpiling, but are within the nominated area, may give some opportunity to reduce the 6 metre height differential.

The land proposed for the highwall stabilisation works and the overburden emplacement have already been cleared pursuant to the 2008 Part 3A Approval. At section 6.0 of the EA it is relevantly stated:

While the works associated with the proposed highwall stabilisation are outside of the current approved open cut pit limit, they are contained entirely within the existing mine lease area (ML 1620) and previous disturbance associated with the mine development.

4. **Section 75W – what does it provide?**

Section 75W relevantly states:

75W(1) In this section:

"Minister's approval" means an approval to carry out a project under this Part, and includes an approval of a concept plan.

"modification of approval" means changing the terms of a Minister's approval, including:

- (a) revoking or varying a condition of the approval or imposing an additional condition of the approval, and
- (b) changing the terms of any determination made by the Minister under Division 3 in connection with the approval.

- (2) The proponent may request the Minister to modify the Minister's approval for a project. The Minister's approval for a modification is not required if the project as modified will be consistent with the existing approval under this Part.
- (3) The request for the Minister's approval is to be lodged with the Director-General. The Director-General may notify the proponent of environmental assessment requirements with respect to the proposed modification that the proponent must comply with before the matter will be considered by the Minister.
- (4) The Minister may modify the approval (with or without conditions) or disapprove of the modification.

5. What degree of modification is permitted by s 75W – the current case law?

The only judgment which has substantively considered the scope of s 75W is the decision of Biscoe J in *Williams v Minister for Planning & Ors* (LEC, 5 February 2009) (**Cowal Gold case**)¹.

The *Cowal Gold* case concerned an application under s 75W lodged with the Minister by Barrick Australia Ltd to modify its existing development consent for its Cowal Gold Mine. That development consent had been modified pursuant to s 96(1A) on five earlier occasions.

The objector brought the legal proceedings contending that Barrick's proposed changes to its Cowal Gold Mine were so significant that they were beyond the scope of s 75W.

One of the issues which had to be decided by Biscoe J, was the basis of comparison required by s 75W. Namely, is the modified approval to be compared with the original development consent or with the development consent as it currently exists. Biscoe J decided that it was the latter. His reasoning is contained at para 54 of his judgment where he states:

54. It is clear that "the approval" referred to in s 75W that may be modified is the approval, with any earlier modifications, as it stood at the time of the modification request, for it makes no sense to speak of modifying something that is not current. At times, the applicant's submissions invited comparison with the original development consent. The relevant comparison, in my view, is with the modified development consent as at the date of [Barrick's s 75W modification]. {My underlining}.

As to the scope of change permitted by s 75W, the judge stated the following at paras 56-62:

... there is a qualification in s 96 which informs the meaning of the word "modified" as used therein: the consent authority must be satisfied that the development to which the consent as modified relates is "substantially the same" as the development already approved. That qualification is absent in s 75W ... This difference suggests that s 75W permits a modification which is not substantially the same as the development already approved. However, that is not the same as saying that s 75W permits a radical transformation.

...Take as an example, a request to "modify" the terms of this development consent by increasing the life of the mine's operation by 100 years, the area of the mine by 100 hectares and the production of ore one hundred fold. Such changes certainly would constitute a radical transformation of the terms of the existing development consent. A modified approval must of necessity change its predecessor in

¹

Barrick filed an appeal against the decision of Biscoe J. A judgment in the appeal proceedings was handed down by the Court of Appeal on 3 September 2009. The Court of Appeal upheld Barrick's appeal but did so without clarifying the scope of s 75W or determining whether Justice Biscoe's "radical transformation" test is the correct test for administering s 75W: *Barrick Australia Limited v Neville Williams & The Minister for Planning*.

some respects. However, I do not consider that the words "changing the terms" in the s 75W definition go so far as to contemplate a radical transformation. Accordingly, in my opinion, the modification of approval in s 75W means changing the terms of an existing approval without radical transformation.

.... The test of "radical transformation" calls for an evaluative judgment following consideration of the nature and extent of the proposed changes. The mine is already a major project in terms of the size of the area covered, the scope of the works and their duration. The proposed changes are a great expansion of important elements of the currently approved development. An additional 53 million tonnes of ore (up from 76Mt to 129Mt) is to be mined to increase gold production from 2.7Moz to an estimated 3.5Moz. Consequential very large increases in operational mine life (almost doubling), pit size (almost doubling), volume of mined waste rock, area of waste rock emplacements, tailings storage, low grade ore stockpile and run off seepage are required

....Over the proposed longer lifetime of the mine, almost double the amount of water will be used up from 30,000 megalitres to 55,485 megalitres.

.... Overall, in my opinion, the proposed changes, by reason of their nature and extent, are not merely substantial (which is beside the point) but amount to a radical transformation of the terms of the existing development consent. Accordingly, I uphold this challenge to [Barrick's s 75W application] [My underlining].

The relevant principles established by the judgment in the *Cowal Gold* case are:

- the comparative task under s 75W, involves an assessment of the proposed modified approval and the approval as it currently exists;
- s 75W permits a modification which is not substantially the same as the development already approved, however it does not authorise a modification which amounts to a "radical transformation";
- the test of "radical transformation" calls for an evaluative judgment following consideration of the nature and extent of the proposed changes.

The judgment does not provide material guidance on distinguishing when a proposed modification goes too far so as to constitute a "radical transformation". In this regard, the judgment stands for the principle that a mine expansion will constitute a "radical transformation" if it involves a 70% increase in ore mined, an increase in gold production by approximately 33%, an almost doubling in the operational mine life, an almost doubling in the pit size, and an almost doubling of the volume of water which will be used during the mine life.

6. Does the Proposed Modification breach the "radical transformation" test?

Section 75W requires a comparison between the Proposed Modification and the development authorised by the 2008 Part 3A Approval. This is a direct application of the law as stated by Biscoe J in the *Cowal Gold* case.

Based on the description contained in the EA, it appears that the following features of the Rocglen Coal Mine will remain unchanged:

- life of mine;
- open cut mining methods;
- annual coal production rate;
- mine operating hours;
- coal handling and processing techniques;

- workforce.

The variations introduced by the Proposed Modification appear to be confined to the carrying out of the proposed highwall stabilisation works and the overburden emplacement. Both will occur on land already disturbed pursuant to the 2008 Part 3A Approval.

The proposed expansion of the pit by approximately 2.05ha involves approximately a 1.8% increase in the approved pit size. In comparison, the proposed increase in the pit in the *Cowal Gold* case involved the approved pit "almost doubling". Other metrics which were regarded by the judge in the *Cowal Gold* case as being material were the proposed increase in mined ore which was to increase from 76Mt to 129Mt (an increase of 70%) and the volume of mined waste rock (which was to increase from 128Mt to 184Mt, an increase of 44%). Increases to the material to be mined at the Rocglen Coal Mine involve mine waste only. Accordingly there would be a 0% increase in Rocglen's equivalent to ore, ROM coal, and a proposed increase in overburden of approximately 1Mbcm.

Other aspects of the proposed modification of the Cowal Gold Mine which the judge identified as being material to his finding that the entirety of the changes amounted to a "radical transformation" were the increase in gold production, the almost doubling of the operational mine life and the increased area of waste rock emplacements, tailings storage and ore stockpile. In comparison, the Proposed Modifications to the Rocglen Coal Mine involve no increase in life of mine ROM coal, no increase in the life of mine, and no changes to out of pit storages other than the proposed increase in height of part of the overburden emplacement area by approximately 6m.

There is no question that when the Proposed Modifications to the Rocglen Coal Mine are compared in relative terms to the modifications considered by Biscoe J in the *Cowal Gold* case, the Proposed Modification is far more modest.

An assessment of the nature and extent of the proposed changes involved with the Proposed Modification indicates that some of the changes may be described as material, but they fall well short of constituting what could be described as a "radical transformation".

According to the *Macquarie Dictionary*, "radical" means:

1. Going to the root or origin: fundamental: *a radical change*.
2. Thoroughgoing or extreme, esp. toward reform.

From the same source, "transform" means:

1. To change in form; change to something of a different form; metamorphose.
2. To change in appearance, condition, nature or character, esp. completely or extensively.

In my opinion, on no view of the Proposed Modification could the changes proposed be said to amount to a "radical transformation" of the terms of the 2008 Part 3A Approval.

7. Conclusion

For the reasons discussed in section 6 of this letter, I am of the view that there is no doubt that it is within power for the Minister for Planning to approve the Proposed Modification pursuant to s 75W of the EP&A Act.

If you have any questions in relation to any aspect of this advice, please do not hesitate to contact me.

Yours sincerely

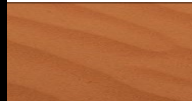
A handwritten signature in black ink, appearing to be 'Mark Brennan', with a long horizontal line extending to the right.

Mark Brennan
Partner
T 61 2 9258 6072
mark.brennan@blakedawson.com

Appendix E

Geotechnical Report

(GE Holt & Associates Pty Ltd, October 2009)



APPENDIX E

29 October 2009

Mr Tony Heinrich
Project Manager
Rocglen Coal Mine
P.O. Box 600
Gunnedah N.S.W. 2380

Dear Mr Heinrich

Re: Cracking Behind Eastern Highwall at Rocglen Open Cut

This letter follows from inspection of the open cut on 19 January 2010. The purpose of the inspection was to assess the condition of the eastern side wall of the pit in the vicinity of the fault (reported in October 2009 following an inspection of the pit on 28 October 2009). An inspection was requested after a period of very heavy rainfall earlier in January that resulted in excessive quantities of water flowing over the side wall and through the faulted region. This caused additional slip on and around the fault structure.

The two telling features of the site are shown in Figures 1 and 2.

We predicted in our October report there was a likely rapid dip reversal in the strata that was connecting with the faulting to provide the required slip surface. Figure 1 shows that this is the case. The vertical dip of strata against the fault, coupled with the known position of the Belmont Seam further to the east suggest the fault is a thrust fault located beneath the Belmont Seam, but then suddenly turns up into a near-vertical fault. The result of this is that there appears to be a fault zone east of the mapped fault line where there is no sound rock from the surface down to the Belmont Seam. A borehole located just east of the fault apparently found no solid rock, and no coal. It may have been drilled in the fault zone.

This has significant impact for developing a safe, stable side wall to the pit as it advances to the north.

Given the 120m depth of the pit it is not recommended to develop a side wall in the fault zone as it is likely to collapse. This is evident from the collapse of the upper part of the side wall – shown in Figure 2.

The wall will thus need to be cut back beyond the fault zone containing deeply weathered and brecciated rock in order to develop a stable wall. This may require an alteration to the existing MOP Line as indicated in Figure 3, supplied by MMG.



Figure 1: Advancing highwall showing turning up of bedding against fault .



Figure 2: Sidewall of pit showing slumped strata in front of fault

The problem from a stability viewpoint is where to position the sidewall because of the extent of the brecciated and deeply weathered rock in the fault zone.

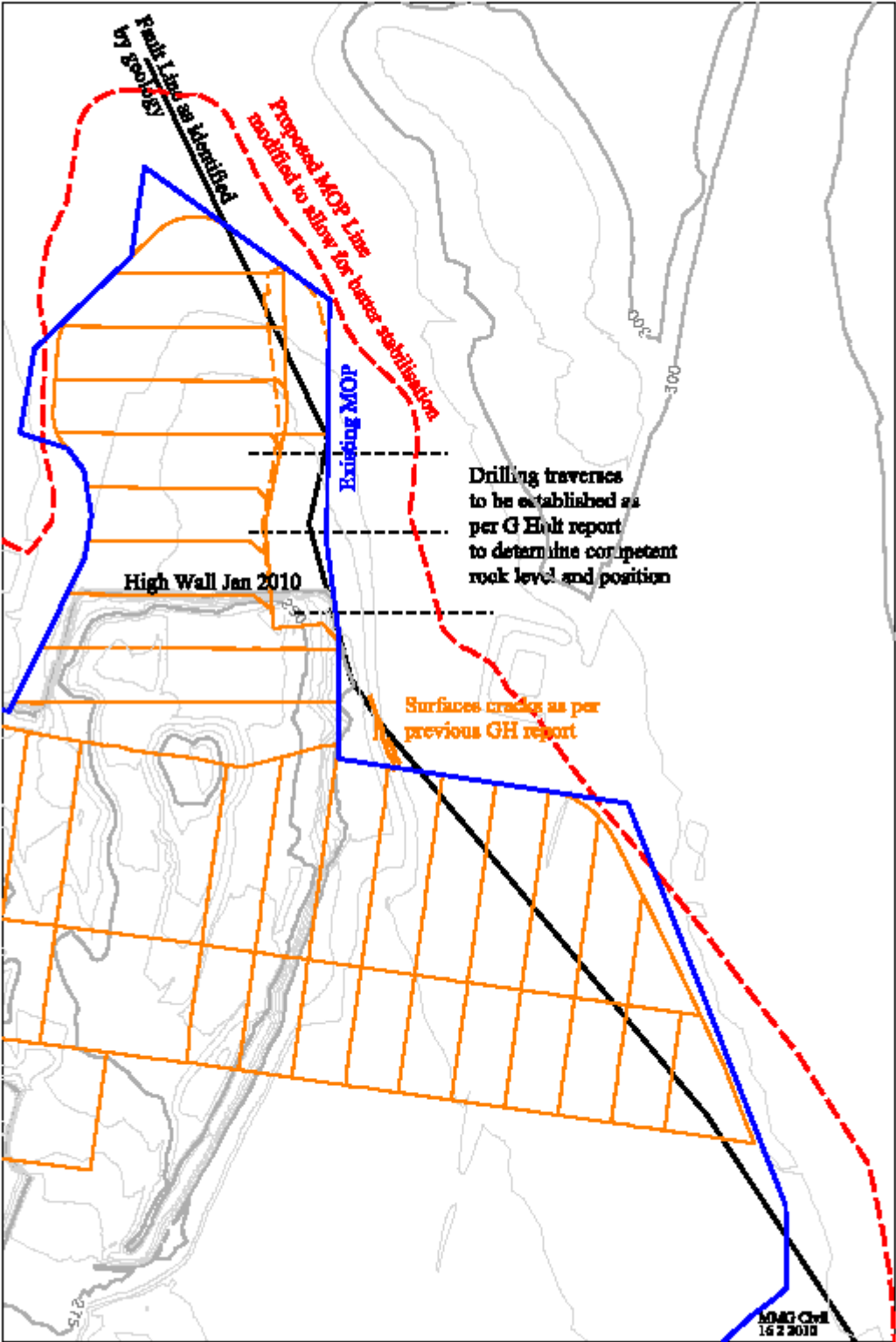


Figure 3: Plan supplied by MMG indicating possible modified MOP Line and scout drilling for fault zone

The side wall should have regular benches, as per existing design, in fresh rock, which appears to commence a short distance above the Upper Rocglen Seam. The upper face in normally weathered strata should be cut back at 45⁰ as is the present design profile.

The one difficulty with setting a new sidewall location is the brecciated zone of rock associated with the thrust fault. If this is a few metres deeper than the normal depth of weathering, it could be included in an upper cut back face. However if it is 10's of metres deeper, a second 45⁰ face with bench would need to be developed above fresh rock faces.

It is thus important to locate the extent of the fault zone. A suggested method is to drill say three lines of holes east of the known fault line to locate the "normal" strata sequence, particularly fresh rock at the proposed pit floor. Figure 3 shows three suggested lines.

Once there is more certainty about the location of sound strata a normal slope profile can then be fitted and the pit outline re-defined.

A future issue will be how to tackle the mine operation in the future southeast area, as it is evident there will be a zone lacking coal around the fault. This zone will also be unstable. Modification to mining blocks may also be necessary at the northern limit of the pit, where the fault intersects mining blocks.

Yours Faithfully

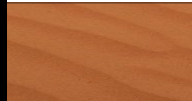
A handwritten signature in cursive script that reads "Graham Holt".

Graham Holt CPEng CP(Geol)
Principal Geotechnical Engineer

Appendix F

Geotechnical Report

(GE Holt & Associates Pty Ltd, May 2010)



APPENDIX F

4 May 2010

Mr Tony Heinrich
Project Manager
Rocglen Coal Mine
P.O. Box 600
Gunnedah N.S.W. 2380

Dear Mr Heinrich

Re: Stability of Eastern Highwall

The purpose of this geotechnical report is to assess the proposed highwall design for the Eastern Highwall of the Rocglen Open Cut. It follows from a meeting held at Rocglen on 28 April to discuss aspects of the design of the eastern highwall that needs to extend beyond the currently approved disturbance limit in order to develop a safe and stable wall.

In October 2009 the eastern highwall intersected a thrust fault that rises steeply from the east, forcing the east dipping strata into a vertical position. The thrust zone is relatively wide, and has resulted in deeper weathering of the strata and significant strength reduction in the weathered rock affected by the thrust.

The thrust was partially located by closely spaced drillholes that have detected both the deeper weathering and thick coal indicative of the upturned Belmont Seam, the lowest seam mined. The approximate location of the upturned Belmont Seam is shown in Figure 1 as a pink line. The thrust zone appears to have variable thickness and variable strike. It may also contain more than one fault.

In order to extract the coal contained in the Belmont Seam it will be necessary to push the highwall further to the east to develop a stable highwall in deeply weathered and fault affected strata.

The stabilisation of the wall at the site of the initial fault intersection is the subject of earlier reporting. The work proved that it is possible to buttress the thrust zone and maintain a stable face. Using this as a guide a method of operation has been developed to advance the pit in a safe manner. The method of operation is integrated with the slope design to provide a plan for a safe and stable operation.

It is clear that the thrust will sometimes intersect the eastern highwall at an oblique angle and at other times will be parallel to the highwall. This means that the wall design will need to vary according to conditions encountered. This is shown in the two profiles prepared by MMG for the Rocglen Open Cut. These are shown in Figures 2 and 3.

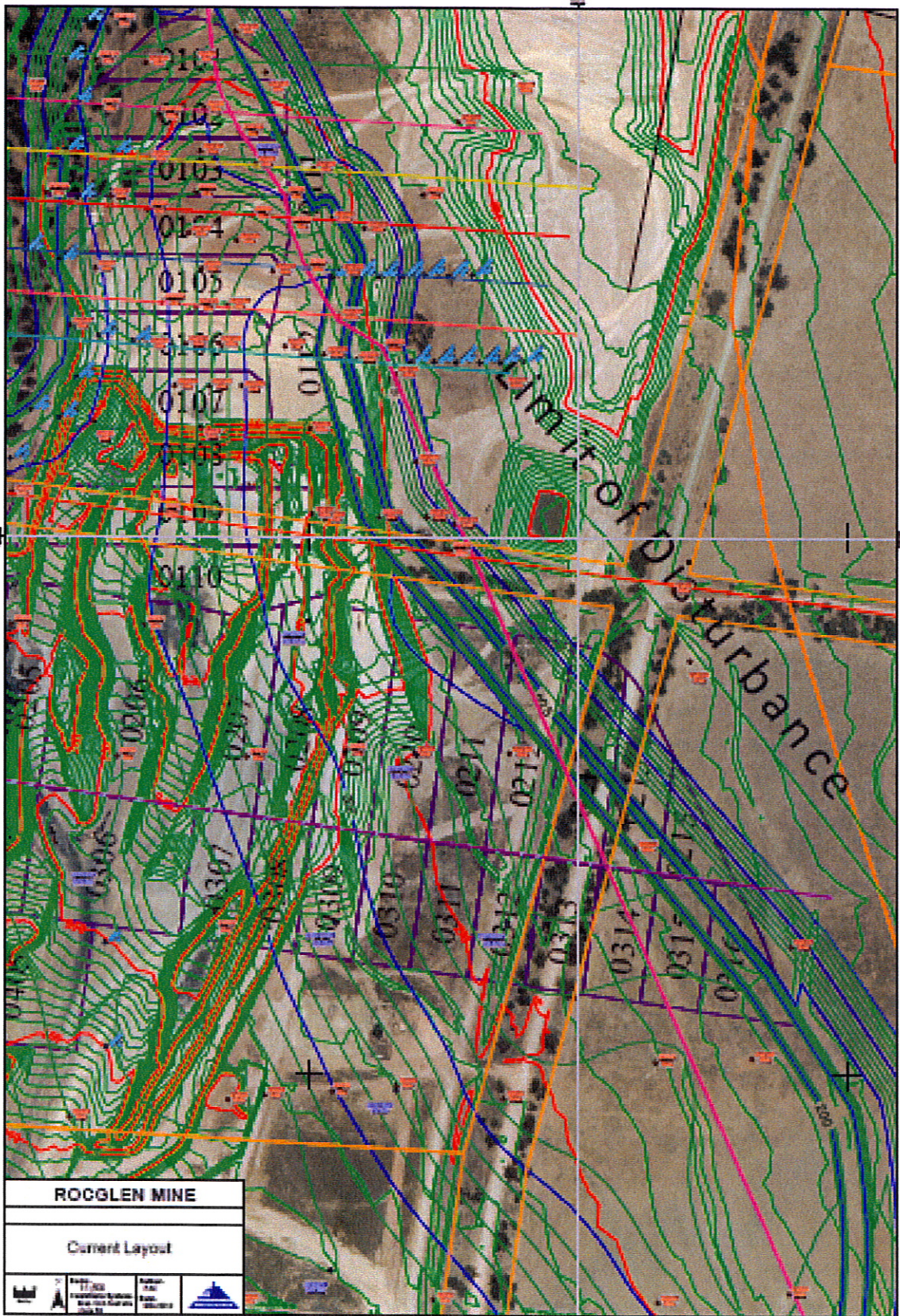


Figure 1: Current Layout of the Rocglen Open Cut showing the approximate line of upturned Belmont Seam overlaid on the existing pit layout.

There are two parts to the revised highwall design. The upper part of the wall will be in weathered and fault-affected strata, which is of relatively low strength. The highwall will need to be flattened with face slopes of 45° with a 15m wide bench approximately half way down the face in order to develop stability. Overall thickness of the weathered zone is not expected to exceed 50m. If the face height exceeds 50m it may become necessary to incorporate an additional catch bench so sufficient room is recommended inside the disturbance limit.

Fault affected strata will be exposed only in the upper face. This is so a bench 15m wide can be developed at the top of fresh rock between the western limit of the thrust fault zone and the floor of the upturned Belmont Seam. The bench will act as a catch bench as well as a buttress between the fault zone and the Belmont Seam. This buttress rock will be the Belmont Seam floor which is a strong conglomerate.

The lower part of the wall will be in fresh strata of higher strength. This part of the highwall can be developed at a much steeper angle to maintain stability. Where the strength of the Belmont Seam floor permits the lower face can be the seam/floor contact. This is shown in Figure 2.

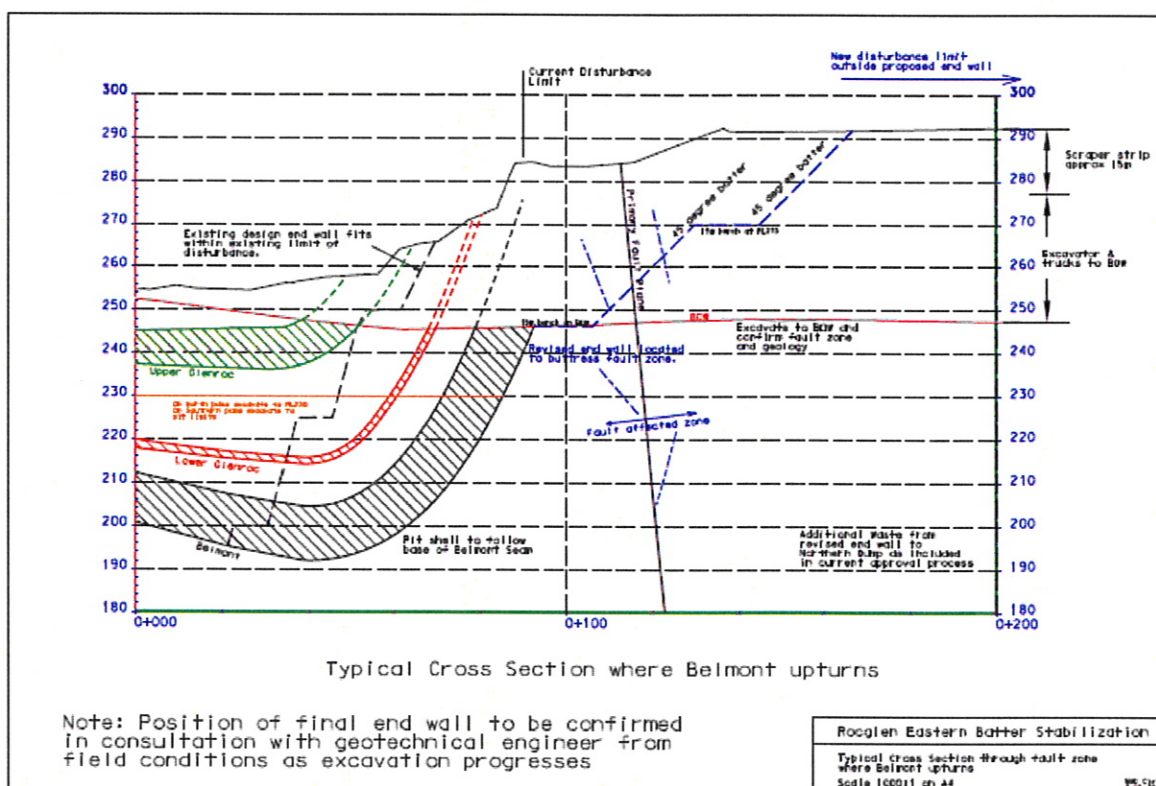


Figure 2: Proposed highwall profile where Belmont Seam is uncovered and has turned up nearly vertical

If the floor strata prove to be too friable for a single sloping face then there is room to provide a 5m catch bench in the face.

Also, on reaching competent rock and the Belmont Seam has not upturned, then the face can be benched with faces 15° off vertical (Maximum verticality) with heights in the range 25m to 30m. This is shown in

Figure 3. In this situation the fault zone is either through the upper weathered material or buttressed behind competent rock.

This situation is unlikely since the upturned seam is planned to be the ultimate eastern limit of the pit, but it may happen further south where the pit widens, and the pit has a temporary highwall prior to moving to the east.

The geological advice at this stage is that the thrust fault extends the full limit of the pit on its eastern side. Another key element in development of a safe and stable highwall is accurate location of the thrust zone.

The approximate position is now known, but its accurate location is necessary to be able to develop the crest of the highwall in its correct location. This will be achieved by the method of mining the deposit.

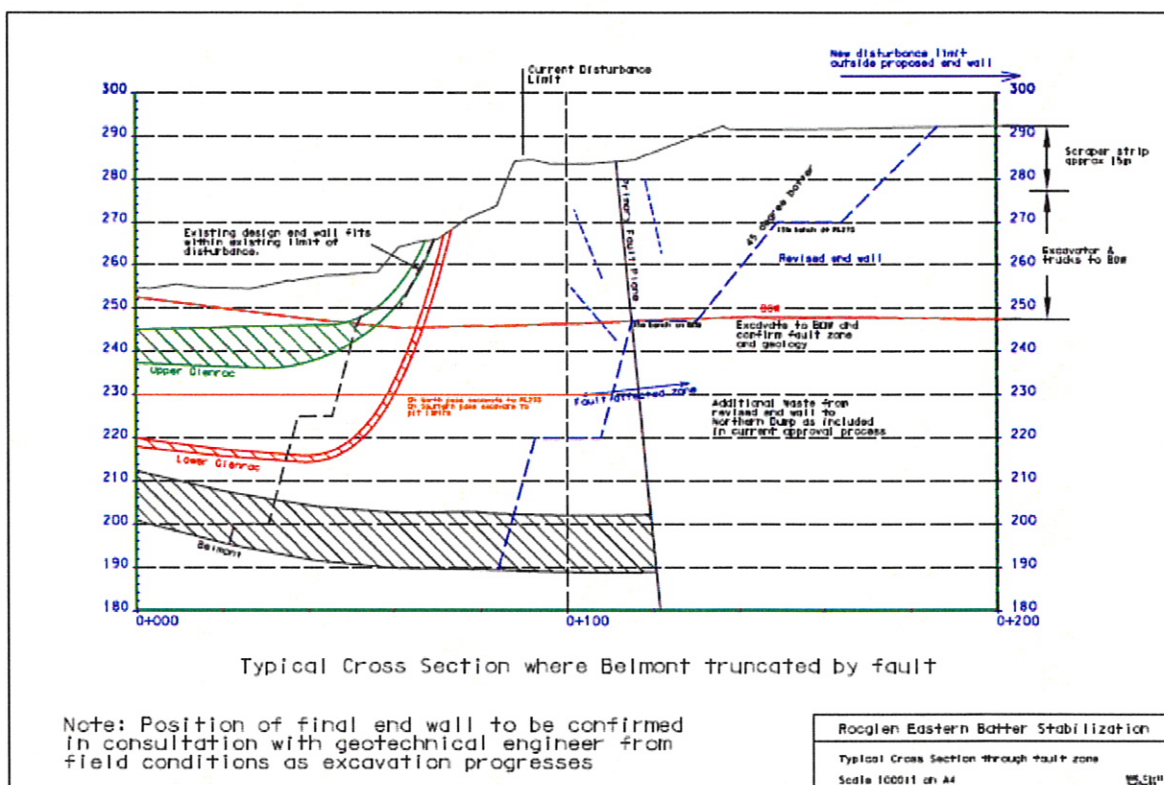


Figure 3: Proposed wall profile where Belmont Seam is cut off by thrust fault.

It is intended to advance mining from the present north face to the north along the western side of the pit at a depth limit of approximately RL230 and use this development to approach the upturned Belmont Seam to the east by widening out the pit as conditions allow. There may be a need to widen the pit to develop sufficient working room if the structure of the fault zone alters.

The mining limit on the eastern side will be determined by the location of the Belmont Seam as it is exposed and geotechnical advice during development. This is when the final wall profile will be developed through weathered, and/or faulted material. The pit would then retreat south using the location of the Belmont Seam as a guide to the final crest location.

The retreat south would be in narrow width strips so that only limited section of the final highwall face is developed and exposed at any time. Spoil will be hauled back to buttress the face where coal has been worked out.

The mining process will be subject to regular stability review to ensure safe working.

The Factor of Safety of the proposed wall profile has been checked using the Galena Program, which is a Method of Slices program incorporating a Spencer-Wright analysis to allow for non-circular failure surfaces. Figure 4 shows the model develops a minimum Factor of Safety of 1.1 for the weathered strata section of the proposed wall profile using cohesion of 50kPa and Friction Angle of 19° for the weathered rock mass. The wall profile used in the model is as shown in Figure 2.

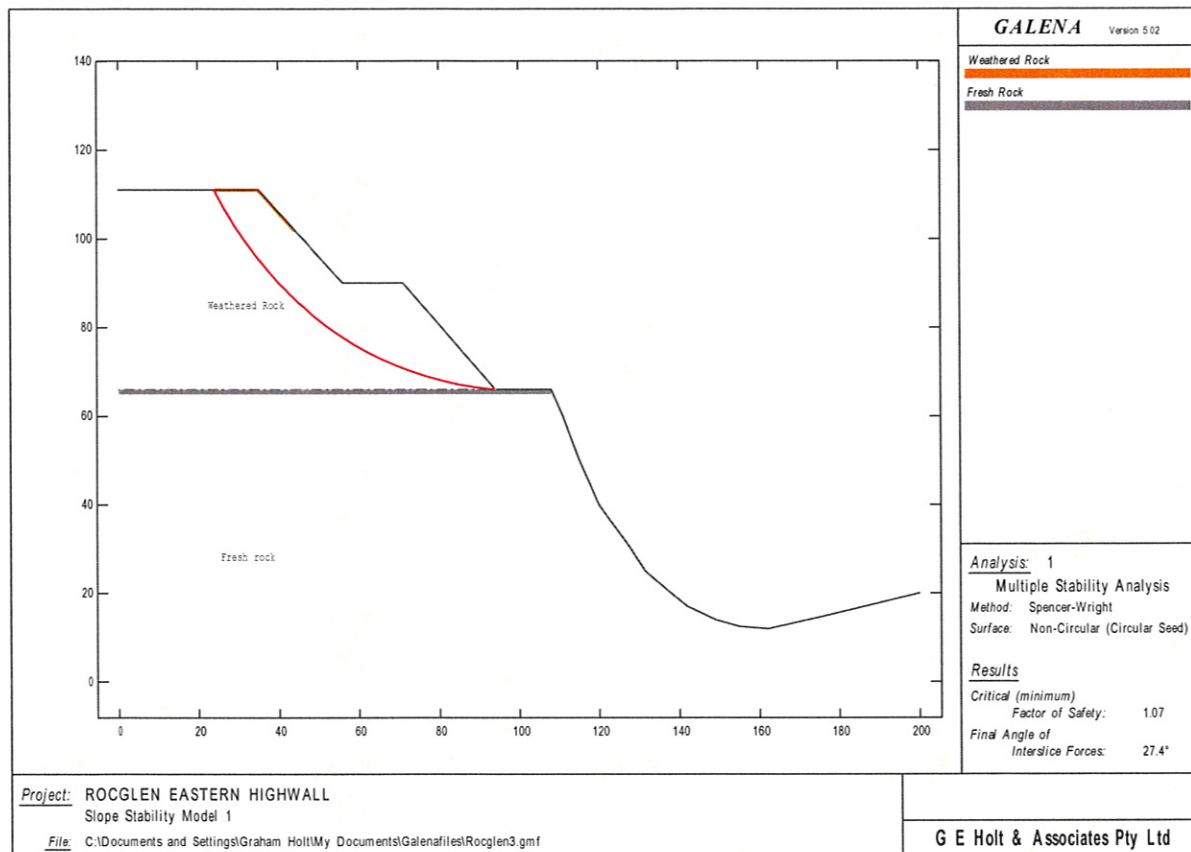


Figure 4: Factor of Safety model for limiting stability case.

When the potential failure surfaces are developed to the pit bottom the Factor of Safety increases to 1.6.

This model result is shown in Figure 5. This demonstrates the effectiveness of competent rock in the lower part of the face in maintaining face stability. The limiting Factor of Safety however is 1.1 for the upper weathered/faulted part of the face. This is considered satisfactory for the “short term”.

The reason is that the model assumes an infinitely long face and in reality only a limited length of face will be developed at a time.

The buttress effect of hauled-back spoil against the face behind a working strip, and non-excavated strata ahead of any mining strip will materially assist face stability.

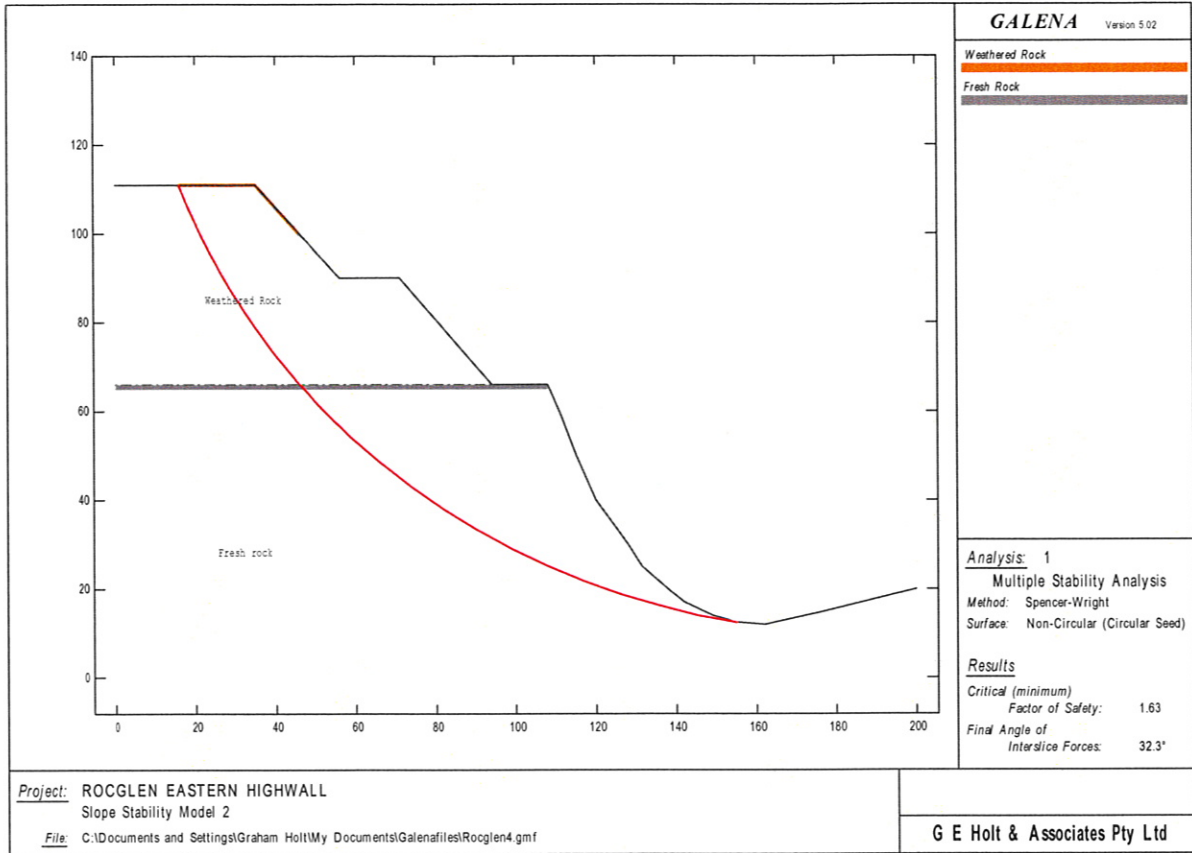


Figure 5: Factor of Safety model for entire face.

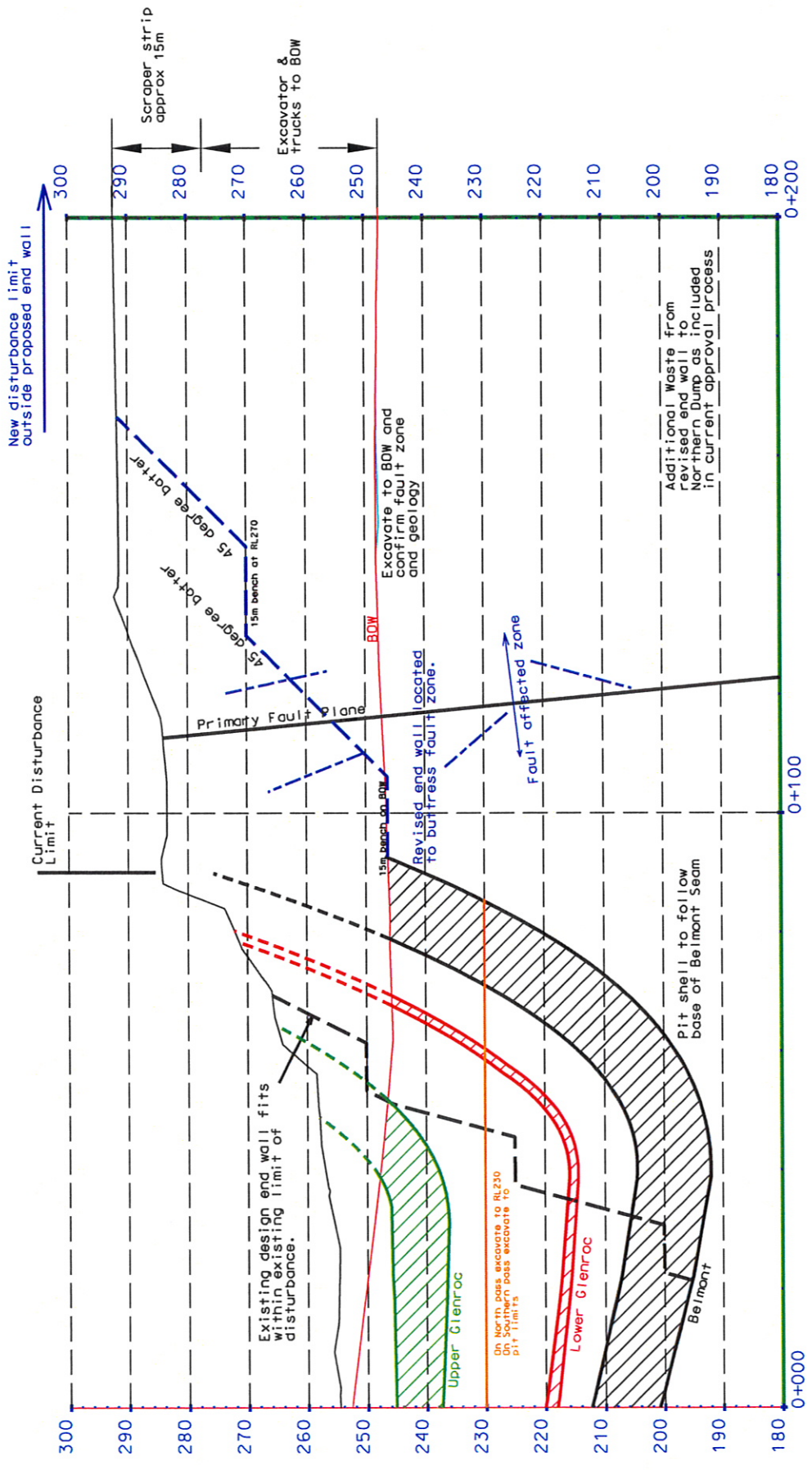
It is understood that regular geotechnical assessment of face conditions will be incorporated into the slope stability plan.

In conclusion it is considered the combination of advance/retreat and variable face design, according to geological conditions encountered, will ensure stable working conditions. There needs to be sufficient room inside the amended limit of disturbance line to allow for any modifications to the highwall to counter unknown adverse conditions.

Yours Faithfully

Graham Holt

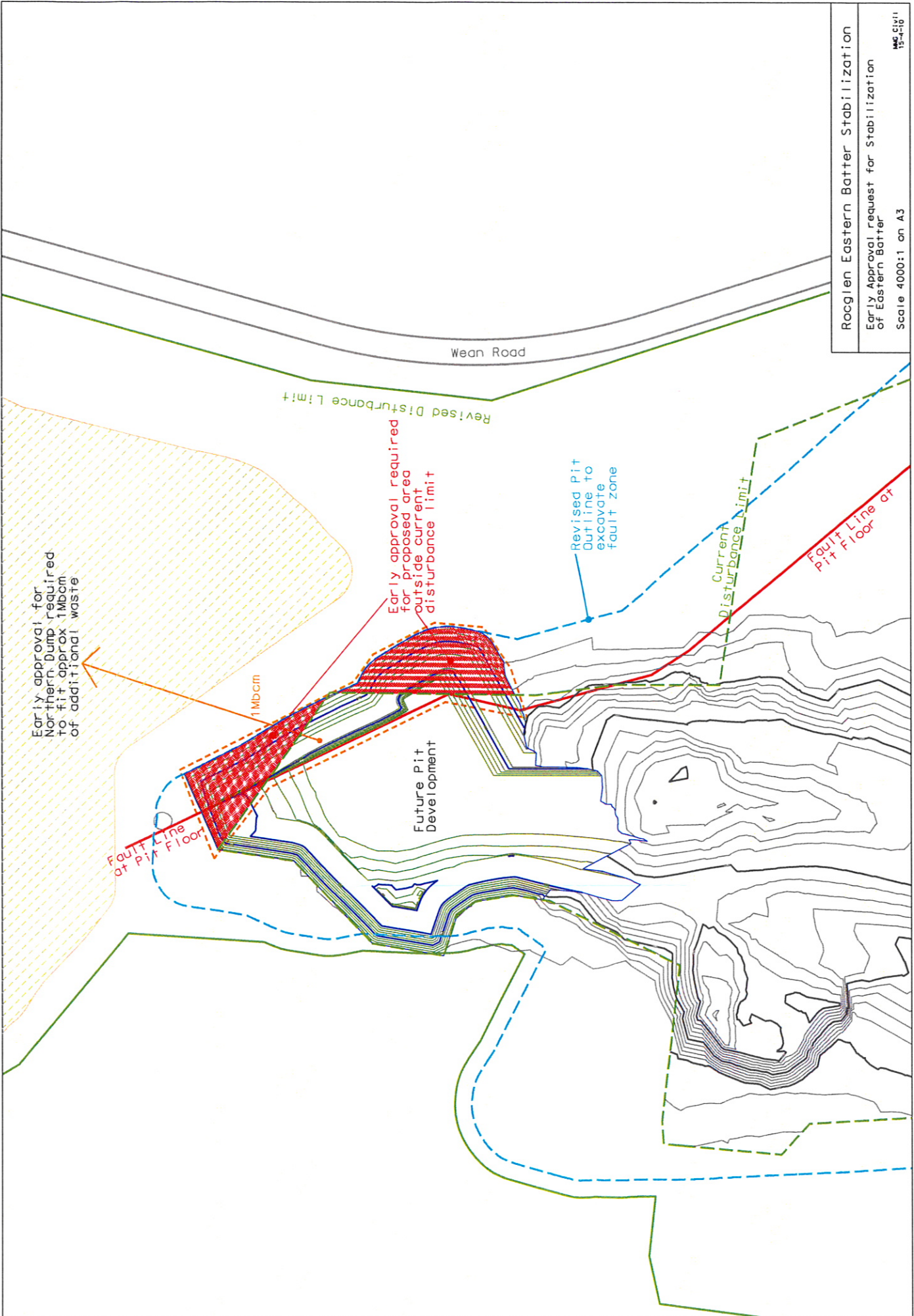
Graham Holt CPEng CP(Geol)
Principal Geotechnical Engineer



Typical Cross Section where Belmont upturns

Note: Position of final end wall to be confirmed in consultation with geotechnical engineer from field conditions as excavation progresses

Rocglen Eastern Batter Stabilization
Typical Cross Section through fault zone where Belmont upturns
Scale 1000:1 on A4



Roglien Eastern Batter Stabilization
 Early Approval request for Stabilization
 of Eastern Batter
 Scale 4000:1 on A3
 H&C CIVIL
 15-4-10

Early approval for
 Northern Dump required
 to fit approx 1Mbcm
 of additional waste

Fault Line
 at Pit Floor

1 Mbcm

Early approval required
 for proposed area
 outside current
 disturbance limit

Revised Pit
 Outline to
 excavate
 fault zone

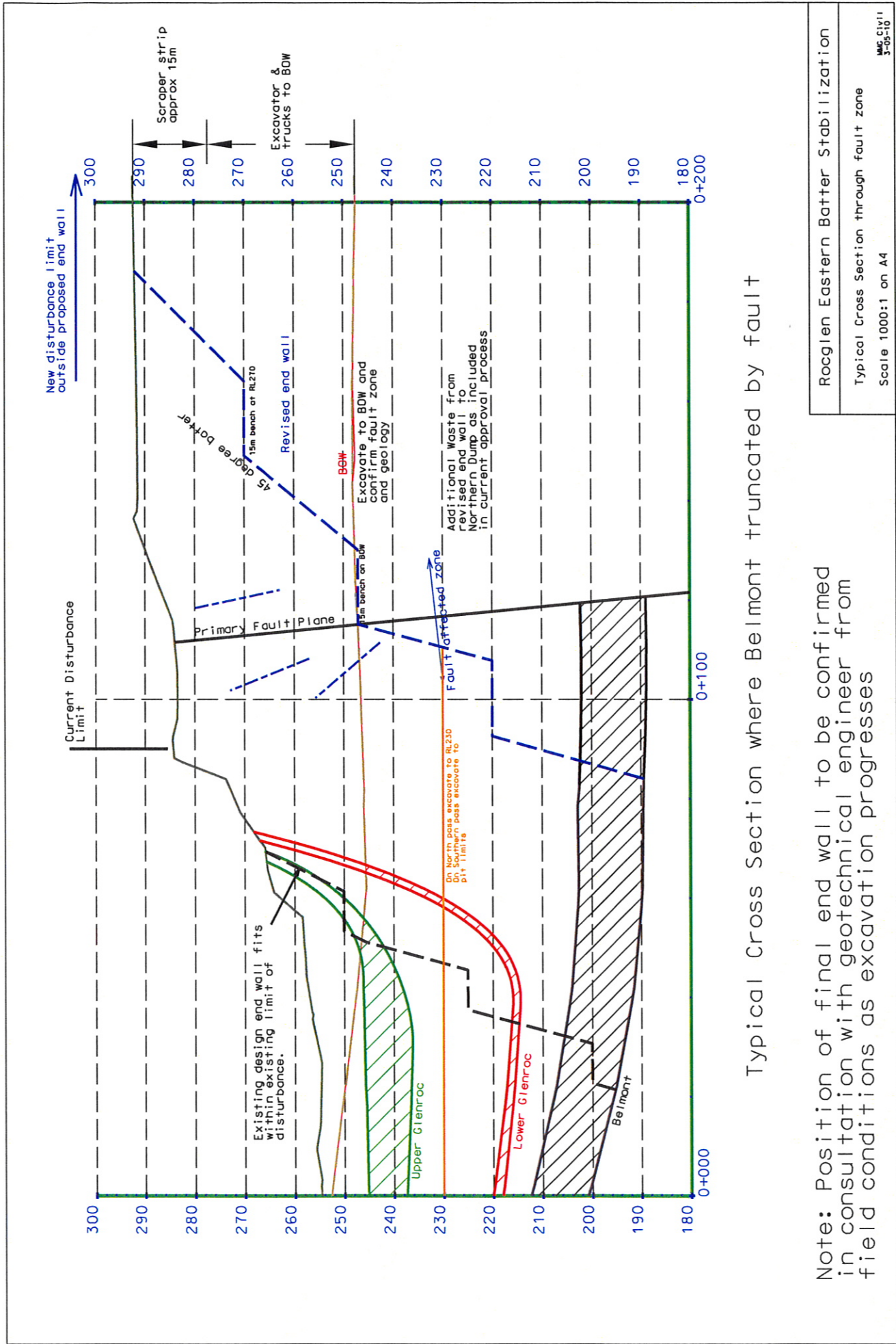
Current
 Disturbance Limit

Fault Line at
 Pit Floor

Future Pit
Development

Wean Road

Revised Disturbance Limit



Typical Cross Section where Belmont truncated by fault

Note: Position of final end wall to be confirmed in consultation with geotechnical engineer from field conditions as excavation progresses

Rocgen Eastern Batter Stabilization
Typical Cross Section through fault zone
Scale 1000:1 on A4

WMS CIV/11
3-05-10