BULGA OPEN CUT

Western Mining Limit Modification

ENVIRONMENTAL ASSESSMENT

SEPTEMBER 2012

Bulga Open Cut Western Mining Limit Modification

Environmental Assessment

Prepared by

Umwelt (Australia) Pty Limited

on behalf of

Bulga Coal Management Pty Ltd

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Executive Summary

The Bulga Coal Surface Operations (BSO), operated by Bulga Coal Management Pty Ltd (BCM) is an open cut coal mine which forms part of the Bulga Coal Complex (BCC). The BCC is located approximately 12 kilometres south-west of Singleton in the Upper Hunter Valley of New South Wales (NSW) within the Singleton Local Government Area. The BCC also includes underground coal mining operations and coal preparation and transport infrastructure which are not the subject of this proposed modification. BSO operates under Development Approval (DA) 41-03-99 which provides for the extraction of up to 12.2 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal until 2025. Although production has remained within the approved limit of 12.2 Mtpa, open cut mining operations will reach the approved western limit of coal extraction within the Bulga Open Cut Pit earlier than previously planned.

BCM is seeking to modify the approved western mining limit of the Bulga Open Cut Pit to provide for the continuation of existing mining activities to enable the recovery of approximately 1 million tonnes of ROM coal from the Redbank Creek, Wambo, Whynot, Blakefield, Glen Munro and Woodlands Hill seams. This will primarily involve extending the currently mined Bulga Open Cut Pit to the west, to re-mine through the shallower Whybrow Pit, in an area that has been previously subject to open cut mining. The proposed modified mining sequence will be integrated into the currently approved BSO and will occur over approximately seven years.

The proposed extension will require handling of an additional approximately 10 Million bank cubic metres of overburden to access the additional coal resource. Approval is also being sought to allow additional overburden emplacement to the north of the existing Blakefield North Dump area, within existing disturbed mining areas, to provide an improved final landform in this area. These works will be under an agreement with Coal & Allied's Mt Thorley Warkworth Operation and will include dumping of overburden along the common boundary between these operations.

Mining operations will occur within the currently approved disturbance footprint and the total ROM coal extracted under DA 41-03-99 will remain unchanged at 12.2 Mtpa. Mining operations will utilise the existing mining fleet and infrastructure. All approved operations outside of the proposed modified mining sequence will continue in accordance with the existing DA 41-03-99. The proposed modification is being sought under Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The proposed modification to the western mining limit of the Bulga Open Cut Pit has been designed to integrate with future planned mining operations at the BCC, whilst allowing for the continuation of efficient mining operations. The proposed modification is aligned with the 'Bulga Coal Optimisation Project' (the Optimisation Project) with proposed modified mining sequence integrating with the initial stages of the Optimisation Project, if approved. In addition, the proposed modified mining sequence will integrate with the underground access for the proposed Blakefield North modification, subject to securing all relevant approvals.

Should the Optimisation Project be approved prior to the completion of the life of the proposed modification, the approval for the Optimisation Project will supersede that of the proposed modification. Should the Optimisation Project not be approved, a revised mine plan will be developed to maximise the recovery of the coal resource within the BCC mining lease during the period of the existing approval.

Project Need and Benefit

The proposed modification to the surface mining operations at the BCC is required to enable the continuation of mining until the implementation of the proposed Optimisation Project (subject to approval). The Optimisation Project will allow the continuation of mining at the BCC for approximately 10 years beyond the expiry date of DA 41-03-99 ensuring the continuation of substantial economic benefit and providing significant employment to the local community.

Benefits of the proposed modification include:

- maximising, within the existing environmental constraints, the coal resource recovery from the existing disturbed mining footprint and disturbed landscape;
- continued employment of approximately 660 people;
- recovery of 1 million tonnes of ROM coal;
- continued payment of significant royalties to the State of NSW; and
- continued export earnings for Australia.

Consultation

BCM has an established relationship with the surrounding community and other stakeholders and has implemented a process for ongoing engagement regarding its mining operations. The stakeholder engagement process for the proposed modification has been undertaken as part of these established community consultation processes.

Environmental Management

The BCC operate to leading standards of environmental management and continue to reinforce commitment and focus to meet environmental obligations. The BCC operate a comprehensive Environmental Management System (EMS) which provides a framework for managing all environment and community aspects, impacts and performance throughout the entire life cycle of the mining process. Within the EMS are management plans, procedures, standards, objectives and targets which aim to continually improve the performance of the BCC operations. These management plans are developed and implemented to provide for compliance with relevant requirements of existing approvals for the BCC. Regular inspections and periodic audits assess performance against these objectives and targets and identify opportunities for improvement.

The BCC will continue to operate under the same environmental management systems and performance monitoring obligations for the life of the proposed modification.

Environmental Assessment

This Environmental Assessment (EA) includes a detailed assessment of the potential environmental and social impacts of the proposed modification.

The proposed modification will not result in substantial changes to the approved BCC operations and will not change the disturbance footprint or production limit of the surface operations. The EA demonstrates that the BCC will maintain compliance with existing environmental limits and requirements of existing approvals over the life of the proposed modification. This will be achieved through the ongoing implementation of environmental controls at BCC and the refinement of existing management and monitoring strategies. This includes the refinement of the active management systems of potential air quality and noise impacts through continued implementation of real time dust and noise monitoring at surrounding private residences.

BCM will amend relevant environmental management plans required under existing development consents to provide for the refinements to the existing management controls, including further detail around the active noise and air quality management and monitoring systems at the BCC.

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1.0 Introduction

Bulga Coal Management Pty Ltd (BCM) is seeking to modify the approved western mining limit of the Bulga Open Cut Pit to provide for the continuation of existing mining activities within the approved disturbance area. The proposed modified mining sequence will enable the recovery of an additional 1 million tonnes of run-of-mine (ROM) coal. Extending the western mining limit of the Bulga Open Cut Pit will primarily involve re-mining previously mined areas within the Whybrow Pit, in the currently approved disturbance footprint of the Bulga Coal Surface Operations (BSO). The proposed modified mining sequence will be integrated with the current approved BSO and is expected to be undertaken over an approximate seven year period within the life of the existing approval. The proposed modification is being sought under Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The BSO is an open cut coal mine which forms part of the Bulga Coal Complex (BCC). The BCC is located approximately 12 kilometres south-west of Singleton in the Upper Hunter Valley of New South Wales (NSW) (refer to **Figure 1.1**). The BCC also includes underground coal mining operations which are not the subject of this proposed modification. The BSO lies within the Singleton Local Government Area (LGA).

Umwelt (Australia) Pty Limited (Umwelt) has prepared this Environmental Assessment (EA) on behalf of BCM to assess the potential environmental and social impacts of the proposed modification to the existing Bulga Open Cut Pit western limit (proposed modification).

1.1 The Applicant

The applicant for the proposed modification is BCM. BCM manage the BSO on behalf of the Bulga Joint Venture (BJV). The BJV ownership comprises Saxonvale Coal Pty Limited which holds an 87.5 per cent share with the remaining 12.5 per cent held by Nippon Steel Australia Pty Limited. Saxonvale Coal Pty Limited is a wholly owned subsidiary of Oakbridge Pty Limited of which Xstrata Coal Pty Limited (XC) owns 78 per cent with the remainder held by Tomen Corporation (5 per cent), Nippon Oil (15.2 per cent) and Kawasho Corporation (1.8 per cent).

BCM is a wholly owned subsidiary of Oakbridge Pty Limited which is 78 per cent owned by XC.

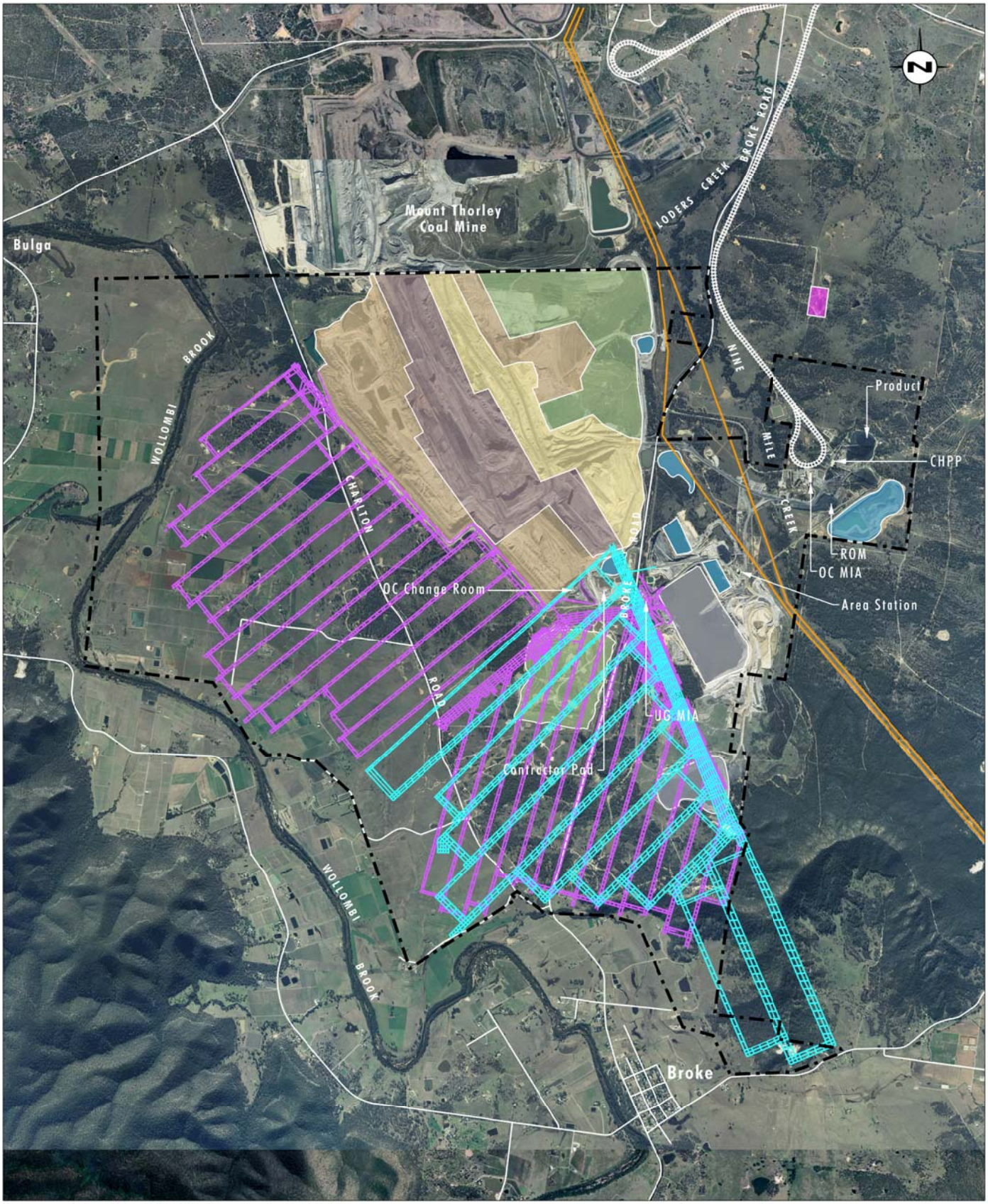
1.2 Overview of the Project

The BCC comprises the BSO and Bulga Underground Operations (Underground Operations) (refer to **Figure 1.2**). The BCC operations are located approximately 4 kilometres north of Broke and 4 kilometres east of Bulga, in the Upper Hunter Valley of NSW (refer to **Figure 1.1**).

BSO operate under Development Approval (DA) 41-03-99 which provides for the extraction of up to 12.2 million tonnes per annum (Mtpa) of ROM coal until 2025. Although production has remained within the approved limit of 12.2 Mtpa, open cut mining operations within the Bulga Open Cut Pit will reach the approved western limit of coal extraction earlier than previously planned.

FIGURE 1.1

Locality Plan



Source: Bulga Coal (2011), Google Earth (2010)

0 1 2 3km
1:65 000

Legend

- Saxonvale Colliery Holding Boundary
- Blakefield South Underground Mine
- Beltana No.1 Underground Mine
- Transmission Line
- Railway Line
- Existing Mushroom Composting Facility

Mining Activity

- Active Pit
- Active Overburden
- Shaped Overburden not Seeded
- Rehabilitation
- Mine Water Dam

FIGURE 1.2

Current Approved Mining Operations at Bulga Coal Complex

BCM is seeking to modify the approved western mining limit of the Bulga Open Cut Pit under Section 75W of the EP&A Act to provide for the continuation of existing open cut mining operations. **Figure 1.3** illustrates both the approved and proposed western mining limits for the Bulga Open Cut pit. The proposed modification includes the following:

- extension of the currently mined Bulga Open Cut Pit to the west (refer to **Figure 1.3**) to recover an additional 1 million tonnes of ROM coal from the deeper seams under the previously mined areas of the Whybrow Pit (refer to **Figure 1.4**) over a period of approximately seven years;

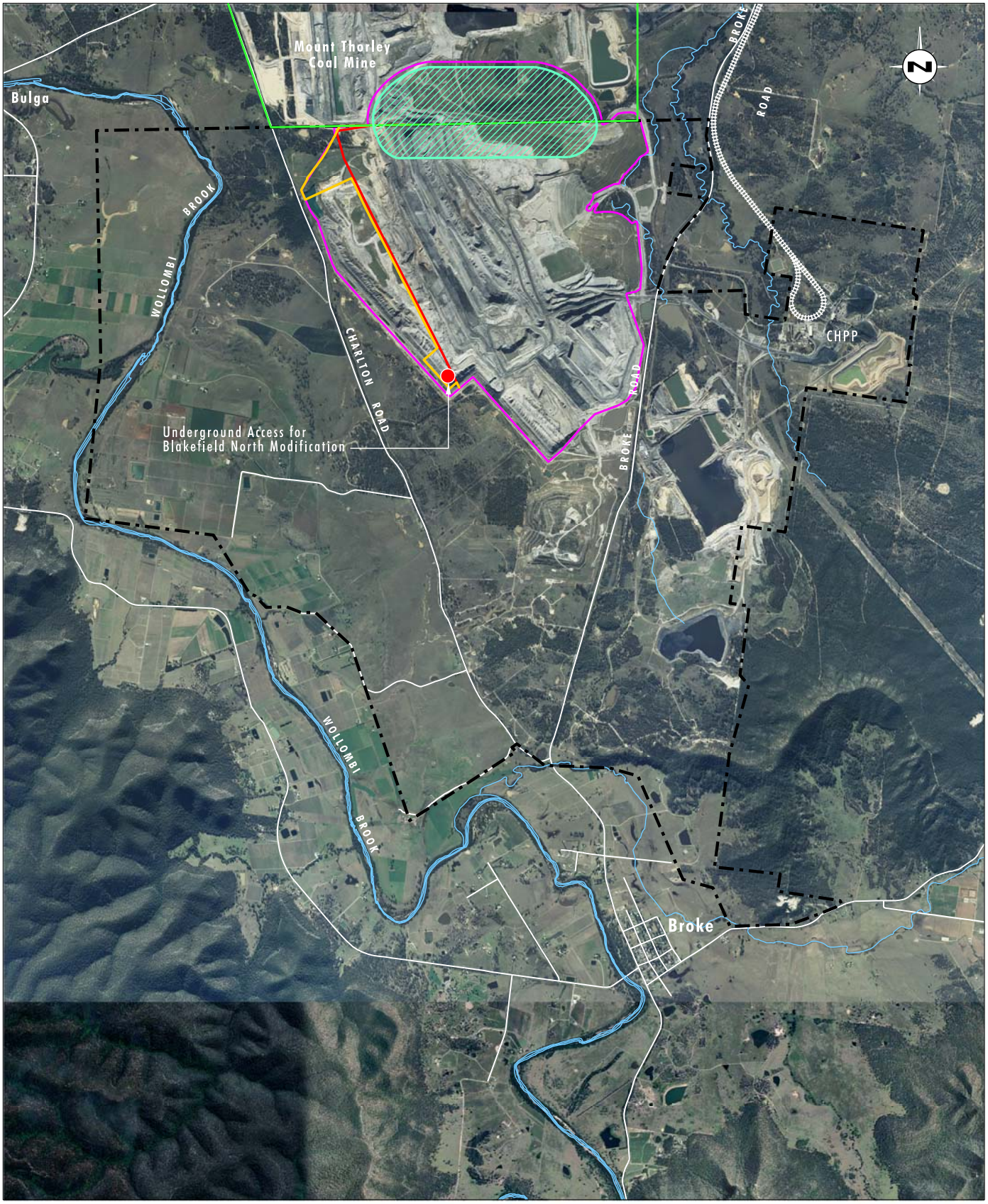
- handling an additional 10 Million bank cubic metres (MBCM) of overburden, including re-handling spoils from previously mined areas; and

- emplacement of overburden from the BSO in an area on the boundary of the BCC ML1547 and Coal & Allied's Mt Thorley Warkworth (MTW) Operation ML to the north of the existing Blakefield North Dump area under an agreement with Coal & Allied.

The total ROM coal extracted under DA 41-03-99 will remain unchanged at 12.2 Mtpa and all mining operations will occur within the approved disturbance footprint utilising the existing mining fleet and infrastructure. All approved operations outside of the proposed modified mining sequence will continue in accordance with the existing DA 41-03-99. The proposed modified mining sequence will be incorporated into the existing approved BSO.

BCM is also currently progressing an environmental assessment and planning process for the proposed 'Bulga Coal Optimisation Project' (the Optimisation Project) which is a proposed continuation of the existing open cut mine extending the life of the open cut operations by approximately 10 years beyond the expiry date of DA 41-03-99. The Optimisation Project will allow an approximate 180 million tonnes of additional coal to be mined by open cut methods and will enable existing rates of production from the BCC to continue for the life of the project. The proposed modification to the western mining limit of the Bulga Open Cut Pit will allow for the continuation of efficient mining operations until approval of the Optimisation Project. The proposed modification is aligned with the Optimisation Project, with the proposed modified mining sequence forming part of initial mining stages for the Optimisation Project, if approved. Should the Optimisation Project be approved prior to the completion of the seven year life of the proposed modification, the approval for the Optimisation Project will supersede that of the proposed modification. Should the Optimisation Project not be approved, a revised mine plan will be developed to maximise the recovery of the coal resource within the BCC mining lease during the period of the existing approval.

The BSO and Underground Operations are integrated and managed as a complex, i.e. the BCC. The proposed modification will not change the integrated management of the BCC. Both operations currently utilise shared infrastructure and facilities and will continue to do so for the life of the proposed modification, existing approved underground operations and the future open cut operations associated with the Optimisation Project. The proposed modified mining sequence has been designed to integrate with the underground access for the proposed Blakefield North modification, subject to securing all relevant approvals (refer to **Figure 1.3**).



Source: Bulga Coal (2011), Google Earth (2010), Hansen Bailey, 2010, GA, Modification to DA 41-03-99

0 1 2 3km
1:65 000

Legend

- Saxonvale Colliery Holding Boundary
- Project Boundary
- Approved Open Cut Western Mining Limit
- Proposed Open Cut Western Mining Limit
- MTW Site Boundary
- Proposed BCM/MTW Shared Emplacement Area

FIGURE 1.3

Approved and Proposed Bulga Open Cut Western Mining Limit and Proposed Overburden Emplacement Area

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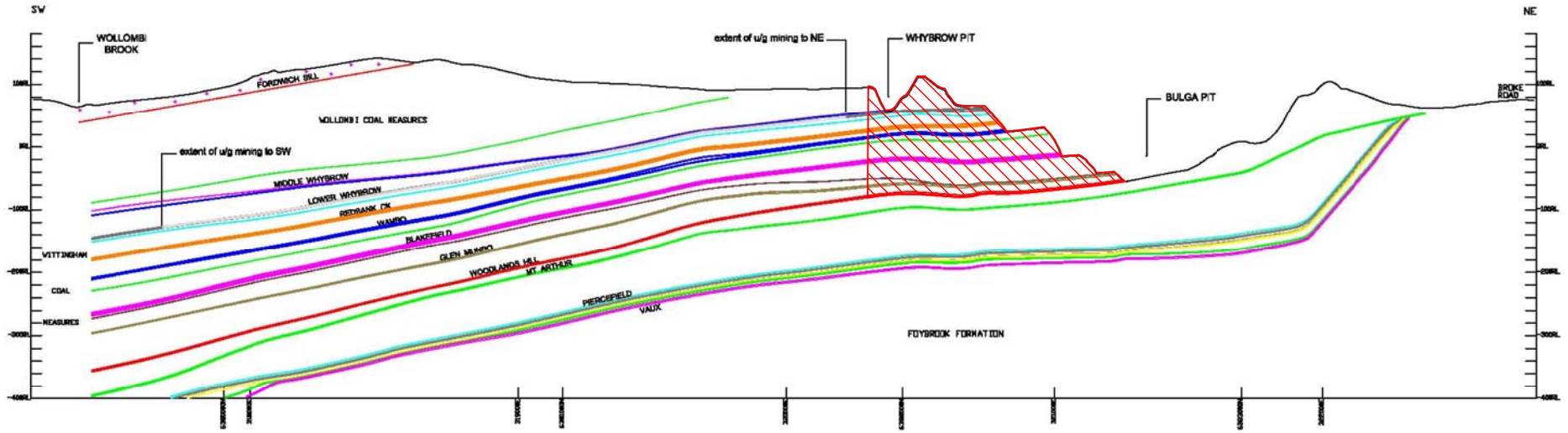
20120820 14.31



Source: Mackie Environmental Research, 2012
Note: Drawing not to scale

0 0.5 1.0 1.5km

Legend
Indicative Proposed Western Limit Mining Area

FIGURE 1.4

Extent of Western Limit Mining Area

File Name (A4): R01/2969_075.dgn
20120810 13.06

The proposed modification and Optimisation Project have been significantly shaped by XC's commitment to sustainable development. BCM has an established relationship with the surrounding community and other stakeholders. These relationships are maintained through a formal process of engagement in relation to current and future operations at the BCC. BCM is committed to working with the community and other stakeholders to continue to operate in a manner that can coexist with the local community. A stakeholder engagement process has been implemented as part of the environmental assessment and approval process to assist in achieving this aim.

Further details of the existing and approved mining operations are provided in **Section 2.0** and further details of the proposed modification are provided in **Section 3.0**. **Section 4.0** provides detail on the stakeholder consultation undertaken for the proposed modification.

1.3 Overview of the Existing Environment

The key features of the BCC and surrounding areas are illustrated on **Figure 1.2** and **Figure 1.5**. The land surrounding the BCC is dominated by mining, rural landholdings, agriculture and Commonwealth owned land. A number of established mining and industrial operations are located in the vicinity of the BCC including:

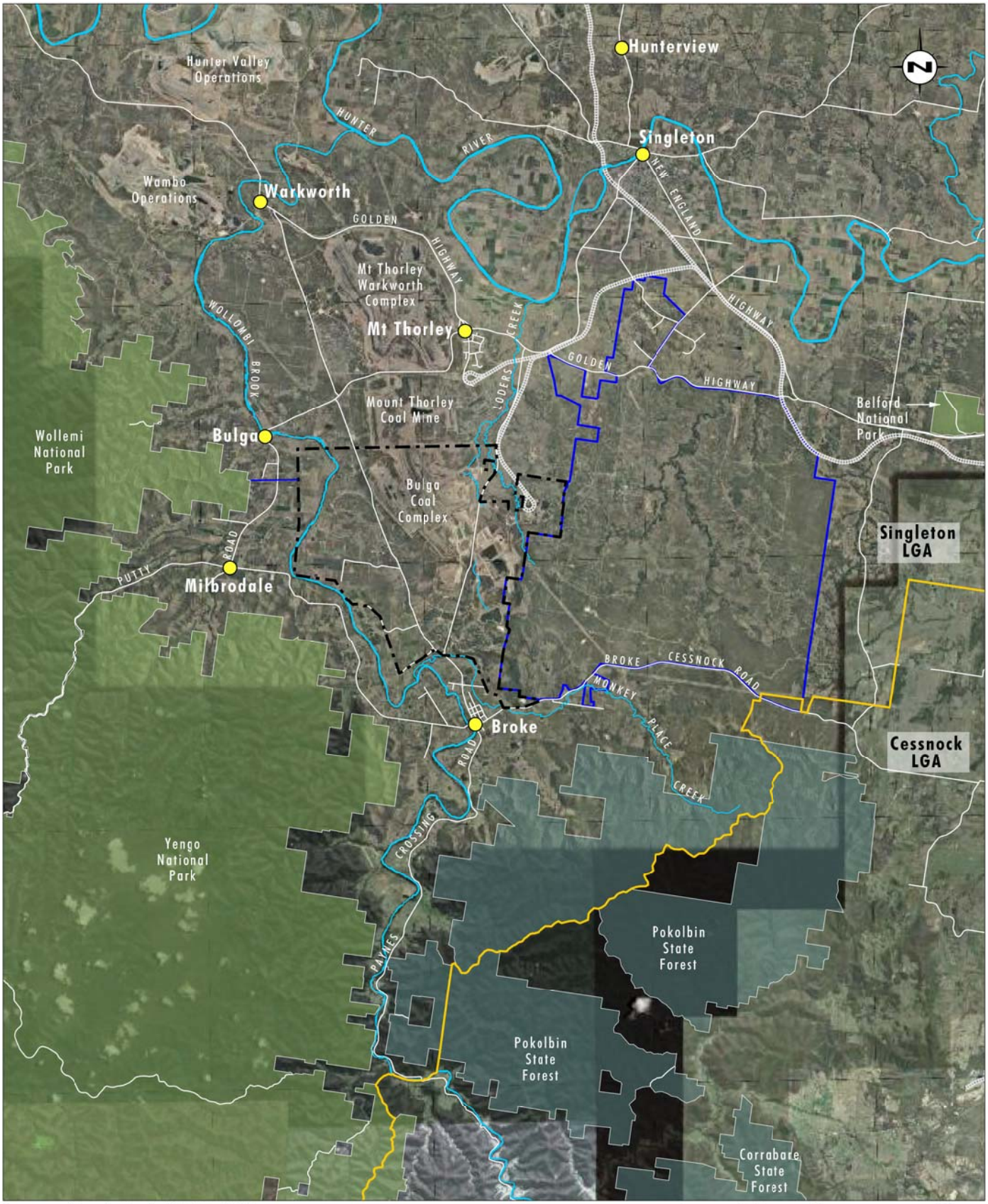
- MTW open cut coal mining operation which adjoins the northern boundary of the Bulga Open Cut Pit;
- Mt Thorley Industrial Estate (MTIE) approximately 2.9 kilometres to the north;
- Wambo Mine (Wambo), approximately 9 kilometres to the north-west; and
- Coal & Allied's Hunter Valley Operations (HVO) 10 kilometres to the north north-west.

The other land uses which occur within the surrounding area include viticulture, olive growing, tourism, a large dairy farm and beef cattle grazing and rural residential land holdings, along with the villages of Bulga (to the west) and Broke (to the south). BCM is the largest vineyard owner in the area, grazes cattle and also owns and operates a large olive grove.

An area of Commonwealth land, operated by the Commonwealth Government (Department of Defence) as the Singleton Military Training Area, lies to the east of the BCC.

The majority of land within the BCC is zoned Rural 1(a) under the Singleton Local Environmental Plan (LEP) 1996, with a small proportion of land in the south-east of the BCC zoned 5 Special Uses and Reservation (Commonwealth Land). This area will not be impacted by the proposed modification. Charlton and Broke Roads, which traverse the Blakefield South Underground Mine, are under the jurisdiction of Singleton Council.

The BCC is located within the catchment of Loders Creek and Wollombi Brook. The eastern area of the BCC, which incorporates sections of two drainage lines of an unnamed tributary of Nine Mile Creek, a tributary of Loders Creek and adjoining slope landforms comprises a significant component of the Loders Creek catchment area (refer to **Figure 1.5**). Loders Creek drains into the Hunter River downstream of the confluence of the Hunter River and Wollombi Brook (approximately 6.7 kilometres upstream (south-west) of Singleton). The southern and western areas of the BCC drain into Wollombi Brook through two unnamed tributaries referred to by BCM as the Southern Drainage Line and the Northern Drainage Line. The catchments within and surrounding the BCC are discussed further in **Section 6.7**.



Source: Google Earth (2010), LPMA

0 2.5 5 10km
1:200 000

Legend

- Saxonvale Colliery Holding Boundary
- Local Government Area
- Singleton Military Training Area

FIGURE 1.5

Surrounding Environment/Land Use
- Greater Bulga Area

The BCC is located adjacent to the Great Dividing Range in the Hunter Valley. Approximately 2.5 kilometres to the west of the BCC active mining area lie the foothills of the Wollemi National Park, and approximately 4.5 kilometres to the south-east of the southern emplacement area in the BCC, the foothills of Yengo National Park, both of which form the dominant features of the land use in these areas (refer to **Figure 1.5**).

The historical topography of the BCC was characterised by rolling hills and gentle slopes. The topography to the south-west of the BCC approaching the steeper vegetated slopes associated with Wollemi National Park is typically steeper with topography up to 90 metres higher than the topography within the BCC. The land to the west of the BCC includes a north south orientated ridge which then slopes towards Wollombi Brook and its associated alluvial floodplain. The Singleton Military Training Area to the east of the BCC is higher with an elevation ranging up to 326 metres and is characterised by steep slopes and clifflines. The land to the north-east of the BCC is gently undulating and is largely cleared for agricultural use. The MTW open cut coal mining operation is located directly north of the BCC.

1.3.1 Land Ownership

Land affected by the proposed modification is largely owned by the BJV entities or BCM. The BJV entities and BCM also own a significant buffer of land around the BCC.

An area to the north of Bulga's North Blakefield Dump, a portion of the MTW ML owned by Coal & Allied, is also included in the proposed modification.

The remaining land surrounding the BCC is owned by a variety of entities including other mining companies, the Commonwealth Government (Department of Defence) and private land holders (refer to **Figure 1.6**).

1.4 Overview of the Planning and Approval Process

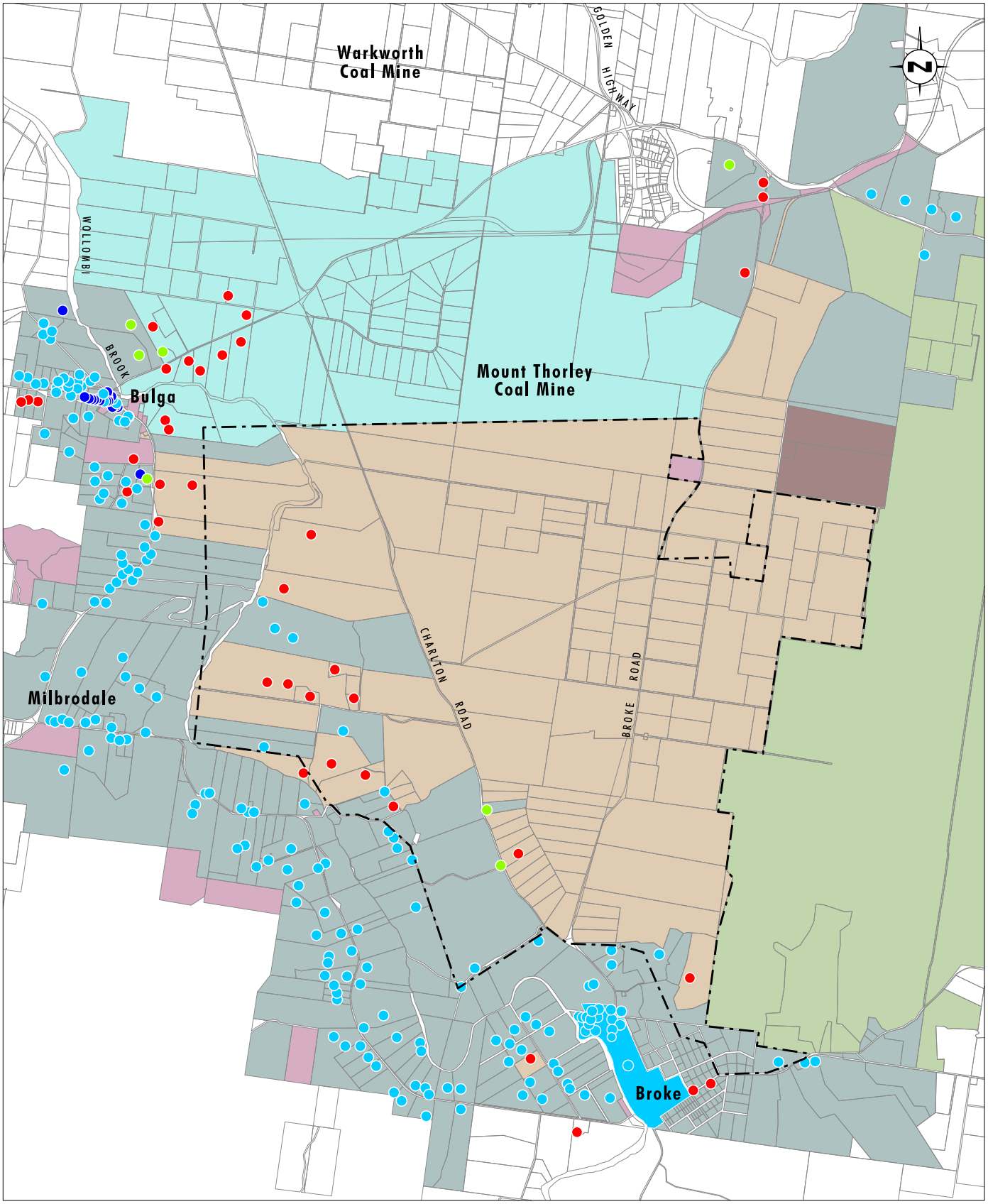
BCM is seeking a modification to development consent DA 41-03-99 pursuant to Section 75W of the EP&A Act to provide for the proposed modification. The Minister for Planning and Infrastructure is the consent authority for the proposed modification application. A detailed discussion of the planning context for the proposed modification is included in **Section 5.0**.

1.5 Project Team

This EA was prepared by Umwelt on behalf of BCM. Specialist studies undertaken as part of the EA process include:

- Environmental Noise and Blasting Impact Assessment – Global Acoustics Pty Ltd;
- Air Quality Impact Assessment – PAE Holmes Pty Ltd;
- Groundwater Impact Assessment – Mackie Environmental Research; and
- assessments for Surface Water Resources, Visual Amenity, Greenhouse Gas and Energy, Land Resources and Rehabilitation and Closure have been undertaken by Umwelt.

Further details of the Project Team are provided in **Appendix 1**.



Source: Bulga Coal 2009, Google Earth 2010

0 1 2 4km
1:80 000

Legend

- Saxonvale Colliery Holding Boundary
- Broke Residential Area
- Private Residence
- Mine Owned Residence
- Residences with Aquisition Rights
- Residences with Aquisition Rights under MTW SOC
- Bulga Coal
- Commercial Enterprise
- Commonwealth
- Crown
- Mount Thorley Warkworth
- Private Freehold

FIGURE 1.6

Land Ownership

1.6 EA Structure

The purpose of this EA is to identify and assess the potential environmental and social impacts associated with the proposed modification. This EA has been prepared in accordance with the requirements of the EP&A Act and the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) (refer to the EA Statement of Authorship in **Appendix 1**). An overview of the structure of this EA is provided below.

The **Executive Summary** provides a brief overview of the proposed modification and the major outcomes of the EA.

Section 1.0 provides the background and context for the proposed modification, an overview of the existing environment and approval process, and outlines the Applicant, the EA project team and the EA structure.

Section 2.0 contains a description of the existing operations and approvals at the BCC and other current BCC development plans.

Section 3.0 contains a description of the proposed modification and alternatives.

Section 4.0 describes the consultation process and the environmental and community issues identified as part of this process for detailed assessment in the EA.

Section 5.0 describes the planning context for the proposed modification, including the applicability of Commonwealth and State legislation.

Section 6.0 contains the environmental assessment of the proposed modification, including the project specific and cumulative impacts as a result of the proposed modification.

Section 7.0 details the Statement of Commitments proposed to be adopted for the proposed modification in order to mitigate impacts.

Section 8.0 provides a conclusion for the environmental assessment, justification for the proposed modification and assesses consistency with the principles of Ecologically Sustainable Development (ESD).

Section 9.0 and **Section 10.0** provide a list of references cited in the EA, and a list of abbreviations.

2.0 Existing Operations and Development Consents

As outlined in **Section 1.0**, there are two existing mining operations within the BCC, the BSO and the Underground Operations (refer to **Figure 1.2**). This section provides an overview of the development consent history of these operations and development consents and the integration with the proposed modification.

The BCC currently operates under two development consents. The BSO operate in accordance with DA 41-03-99 and the Bulga Underground Operations operate in accordance with DA 376-8-2003. The underground mining operations and associated infrastructure is not the subject of this modification.

DA 38-3-2005 was granted in 2005 to provide for the emplacement of overburden from the BSO on part of the adjoining Mount Thorley Coal Mine emplacement area to the north of the BSO. The actions permitted by this DA have been completed and the consent lapsed in May 2011 as designed. The emplacement area and current boundary agreement with MTW captured in this proposed modification will provide for emplacement of overburden along the common boundary between these operations (refer to **Section 3.2.2**).

BCC also holds an approval under the *Environment Protection and Biodiversity Conservation Act 1995* (EPBC 2002/773) which provides for underground mining operations beneath an area of Commonwealth land in the south-east of the BCC.

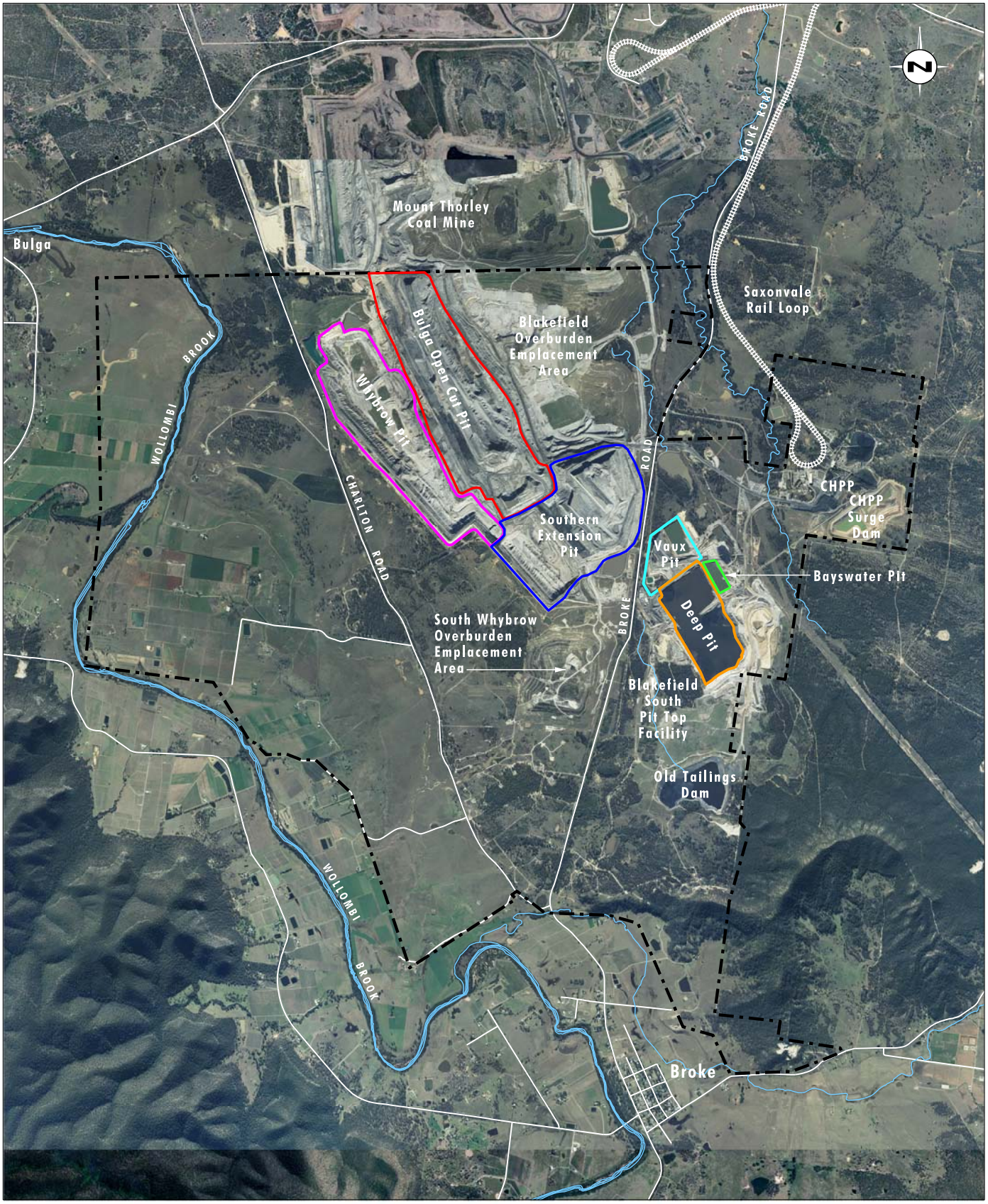
Further details on the development consents are provided in the following sections of the EA.

2.1 Bulga Surface Operations (DA 41-03-99)

Coal mining within the area currently known as the BCC was first undertaken in 1982 following approval by the Minister for Planning and Environment on 26 March 1981. The operation, known as Saxonvale Mine and located in the Saxonvale Coal Lease (CL 224) to the east of Broke Road, comprised an open cut coal mine truck and shovel operation, coal handling and preparation plant (CHPP) and rail loading facility, with an approved annual production of up to 7 million tonne of ROM coal. The Saxonvale Pit is now referred to as the Deep Pit (refer to **Figure 2.1**).

By 1988 the available resource in the Saxonvale Pit was approaching depletion and development work commenced at the Whybrow Pit, also located in CL 224 (refer to **Figure 2.1**). In 1989 the Saxonvale Mine was sold with the new owner obtaining development consent from the Minister for Planning and Environment on 21 December 1990 to conduct mining within the Bulga Lease (CL 372). This involved expansion of the Whybrow Pit operations into CL 372 at a rate of up to 5.2 Mtpa, development of the Bulga Open Cut Pit and continued use of the existing CHPP and rail loading facility. A dragline was acquired in 1996 to supplement the truck and shovel mining fleet.

Figure 1.2 illustrates the existing approved surface operations at the BCC and **Figure 2.1** illustrates the location of the approved pits.



Source: Bulga Coal (2011), Google Earth (2010), Hansen Bailey, 2010, GA, Modification to DA 41-03-99

0 1 2 3km
1:65 000

Legend

- Saxonvale Colliery Holding Boundary
- Bulga Open Cut Pit
- Deep Pit (formerly known as Saxonvale Pit)
- Vaux Pit
- Whybrow Pit
- Bayswater Pit
- Southern Extension Pit

FIGURE 2.1

Approved Mine Pits at Bulga Coal Complex

File Name (A4): R01/2969_033.dgn
20120809 16.32

The BSO currently operates in accordance with DA 41-03-99, which was granted in 1999 (under Part 4 of the EP&A Act) to enable the continuation of open cut mining until 2025 at an extraction of up to 12.2 Mtpa ROM coal. DA 41-03-99 consolidated previous open cut mining approvals and provides for the following:

- maximum coal production from open cut mining of 12.2 Mtpa ROM coal to 2025;
- establishment of the South Whybrow Overburden Emplacement Area (refer to **Figure 2.1**);
- emplacement of tailings in the northern section of the Deep Pit and Old Tailings Dam to allow for preparation of final landform; and
- construction and utilisation of a CHPP water storage dam.

DA 41-03-99 allows for the following open cut mining to occur:

- in the Whybrow Pit to the base of the Whybrow seam (refer to **Figure 1.4**);
- in the Bulga Open Cut Pit to the base of the Woodlands Hill seam;
- in the Deep Pit to the base of the Vaux seam; and
- also provides for open cut mining into the Vaux seam (Vaux Pit) adjacent to the Deep Pit.

Open cut mining within the BCC is carried out via a combination of overburden stripping by dragline and shovel and coal extraction undertaken by truck and shovel operations. Dump trucks are used to transport waste rock to the emplacement areas and the ROM coal to the CHPP for processing.

Mining is currently occurring in the Bulga Open Cut Pit, the Deep Pit is currently being used to store tailings and the Vaux Pit and Bayswater Pit are currently used for water storage. When the Vaux Pit is dry this pit may be mined under the current approval. The Bayswater Pit may be used for tailings storage in the future. All approved operations outside of the proposed modified mining sequence within the Bulga Open Cut Pit will continue in accordance with the existing DA 41-03-99.

There have been six approved modifications to DA 41-03-99 since being granted in 1999. Details of these modifications are outlined in **Table 2.1**.

Table 2.1 – Approved Modifications to BSO Consent

Date of Modification	MOD #	Description of Modification
2001	MOD 1	Change of wording to clarify the duration of the consent.
2008	MOD 2	Allow extension of offices to accommodate ongoing administration and technical staff.
2008	MOD 3	Relocate the tyre changing and wash down facilities and to increase capacity of the CHPP Surge Dam from 200 ML to 800 ML.
2009	MOD 4	Increase the capacity of the approved, but yet to be constructed, CHPP Surge Dam from 800 ML to 3100 ML to provide a secure water storage capacity for the duration of mining operations within the BCC.

Table 2.1 – Approved Modifications to BSO Consent (cont.)

Date of Modification	MOD #	Description of Modification
2010	MOD 5	Modernisation of noise criteria, mitigation measures and monitoring program. Gradual replacement of the BCC equipment fleet over 18 months.
2011	MOD 6	Construction and operation of rail refuelling facility on the Saxonvale rail loop, associated with Blakefield South.

2.2 Underground Operations (DA 376-8-2003)

DA 376-8-2003 for underground mining operations was granted under Part 4 of the EP&A Act in 2003. DA 376-8-2003 provides for all underground mining operations undertaken at the BCC including the Beltana No.1 Underground Mine and the Blakefield South Underground Mine. The underground mining operations and associated infrastructure are not the subject of this modification.

Key elements of the Underground Operations include:

- consolidation of all previous development consents relating to underground mining at the BCC (including the Beltana No.1 Underground Mine consent);
- longwall mining of four seams (Whybrow, Blakefield, Glen Munro and Woodland Hill) up to 14 Mtpa of ROM coal to 2032;
- construction of new amenities, offices, road intersections and overland conveyors, transfer stockpiles and associated infrastructure;
- construction and operation of gas drainage plants and dewatering bores;
- continued use of the existing CHPP, with minor upgrades to allow processing of approximately 20 Mtpa ROM coal from the combined open cut and underground operations; and
- transportation of up to 20 Mtpa product coal for export via the existing Saxonvale rail loop.

There have been four modifications to DA 376-8-2003 since it was granted in 2003.

The proposed modification application does not propose any changes to the underground operations or associated infrastructure.

The BSO and Underground Operations are integrated and managed as a complex, i.e. the BCC, and will continue to share infrastructure and facilities for the life of the proposed modification. The proposed modification will not change the integrated management of the BCC.

2.3 Other Approvals

2.3.1 Mining Authorities

There are three mining leases issued under the *Mining Act 1992* covering mining operations in the BCC. These leases comprise the Saxonvale Colliery Holding and are discussed in more detail below. The location of these leases and the Saxonvale Colliery Holding boundary is illustrated in **Figure 2.2**. The mining titles relevant to the BCC are listed in **Table 2.2**.

Table 2.2 – Mining Titles within the BCC

Mining Title	Company	Expiry
ML 1547	Saxonvale Coal Pty Limited	4 April 2025
ML 1494	Saxonvale Coal Pty Limited and Nippon Steel Australia Pty Ltd	20 September 2027
CL219*	Warkworth Sublease	23 April 2017
ML1674	Bulga Coal Management Pty Limited	22 March 2033
CL 224	Saxonvale Coal Pty Limited	23 December 2023
EL5461	Saxonvale Coal Pty Limited and Nippon Steel Australia Pty Ltd	2 April 2013
EL 5277	Saxonvale Coal Pty Limited	6 April 2010 (renewal application made to DTIRIS)
A447	Saxonvale Coal Pty Limited	30 December 2013
A450	Saxonvale Coal Pty Limited	30 December 2013

* CL219 held by MTW.

2.3.2 Environment Protection Licence

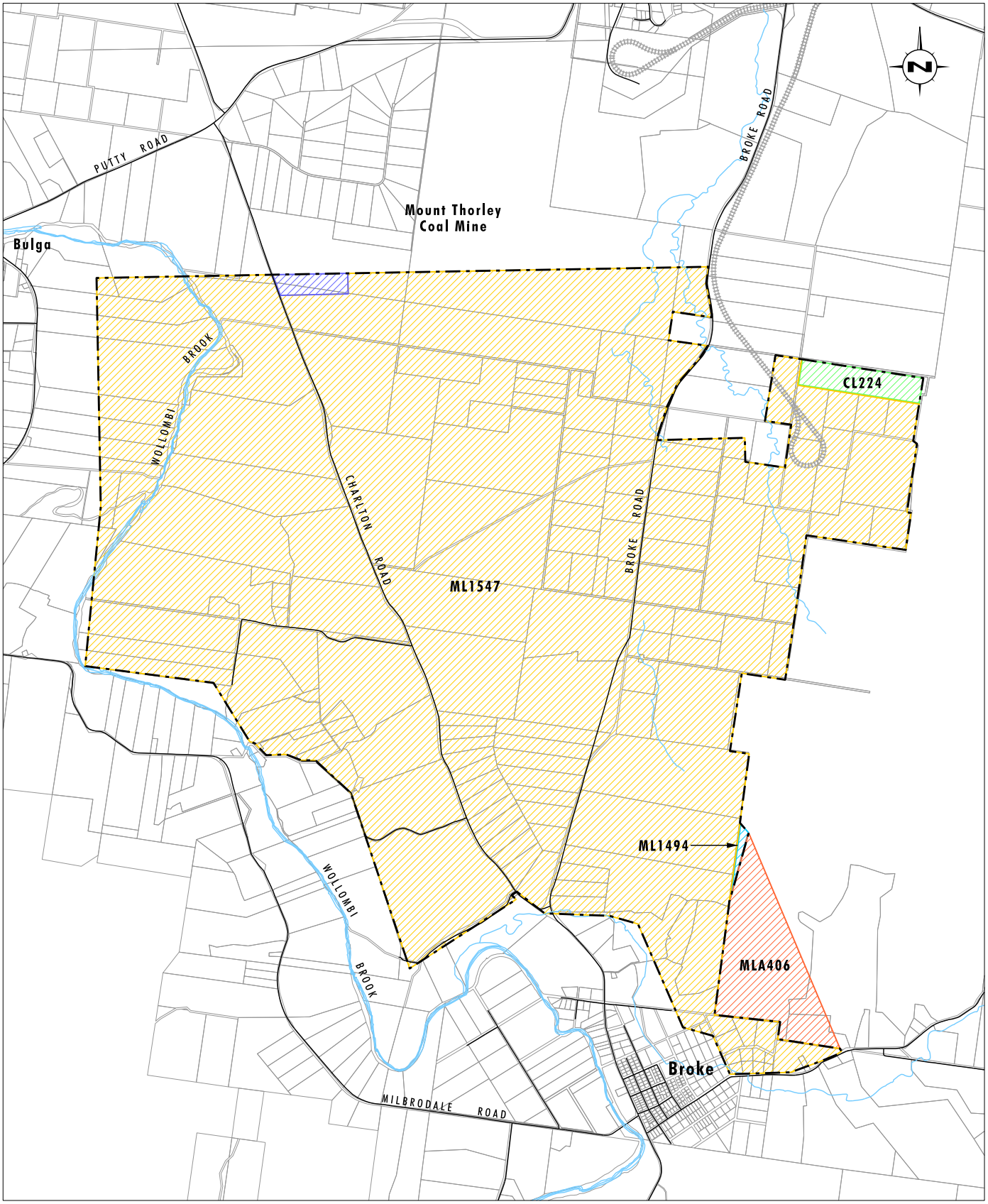
The BCC currently operates under Environment Protection Licence No.563 (EPL563). The licence covers the scheduled activities of 'mining for coal' and 'coal works' and applies to both the BSO and Underground Operations.

EPL563 outlines air quality, noise, blasting and surface water monitoring criteria. EPL563 also enables discharges of excess water from the licensed discharge point at Swan Lake (refer to **Section 6.7**) subject to the Hunter River Salinity Trading Scheme.

2.3.3 Water Licences

BCM currently holds fourteen groundwater licences issued by the NSW Office of Water (NOW) which provide for dewatering of the open cut and underground workings, groundwater monitoring, test bores and using groundwater for irrigation of agricultural land uses.

BCM holds four surface water licenses issued by NOW which provide for irrigation.



Source: Bulga Coal (2011), Google Earth (2010)

0 1 2 3km
1:65 000

Legend

- Saxonvale Colliery Holding Boundary
- ML1547
- Warkworth Sublease ML1547
- ML1494
- MLA406 (Pending)
- CL224

FIGURE 2.2

Mining Titles

2.4 Existing Environmental Management Systems and Performance Monitoring

The BCC operate to leading standards of environmental management and continue to reinforce commitment and focus to meet environmental obligations. The BCC operate a comprehensive Environmental Management System (EMS) which provides a framework for managing all environment and community aspects, impacts and performance throughout the entire life cycle of the mining process. Within the EMS are management plans, procedures, standards, objectives and targets which aim to continually improve the performance of the BCC operations. Regular inspections and periodic audits assess performance against these objectives and targets and identify opportunities for improvement.

A large amount of environmental data is collected to enable assessment of the BCC's environmental performance. The majority of this data is stored in the Environmental Monitoring Database. Environmental monitoring results are available on the BCC website in report format and are updated quarterly.

The BCC reports on its performance each year through the production of the Annual Environmental Management Report (AEMR) which is distributed to regulatory authorities and the BCC Community Consultative Committee (CCC). These reports are also available on the BCC website.

The BCC will continue to implement these comprehensive environmental management systems and performance monitoring processes for the life if the proposed modification.

2.5 Other BCC Development Plans

BCM is currently progressing other development plans for the operations at the BCC. The development plans relate to both the BSO and Underground Operations. Details of these development plans are provided below.

2.5.1 Bulga Coal Optimisation Project

In addition to the proposed modification, BCM is currently in the process of progressing detailed mine plans and preparing an environmental impact statement for the Optimisation Project. The Director General's Requirements (DGRs) for the Optimisation Project were issued by the Department of Planning and Infrastructure (DP&I) on 14 December 2011.

The proposed Optimisation Project will enable the BSO to continue mining until approximately 2035 (approximately 10 years beyond the expiry date of DA 41-03-99). The Optimisation Project will, amongst other things, allow an additional 180 million tonnes of ROM coal (approximately) to be mined by open cut methods from land that is largely within the existing BCC disturbance footprint. The Optimisation Project will enable existing rates of production from the BCC to continue for the life of the Optimisation Project. The Optimisation Project will not change the current approved maximum production rate from the BSO nor will it require an increase in the approved throughput of the CHPP.

The proposed Optimisation Project will include the construction of a noise and visual bund around the western and southern perimeters of the open cut pit to act as a visual screen and minimise noise impacts on private residences to the south and west of the BCC. This noise bund and visual screen, is one of a number of control measures that have been incorporated into the Optimisation Project to minimise the impacts of the BCC on the environment and community.

2.5.2 Blakefield North Modification

In 2010, BCM received approval for the construction and operation of a (up to 25 MW) gas-fired power generation plant and the establishment of a pilot ventilation air methane abatement system. These facilities provide for the utilisation of the methane gas extracted as part of the underground mining process, minimising greenhouse gas emissions and maximising the use of a valuable natural resource. Construction and operation of 9 MW gas-fired power generation plant (3 MW units) is scheduled to be completed in 2012 under the existing approval.

BCM currently propose to construct an additional 32 MW gas-fired power station in the north of the BCC. The proposed power station will be constructed in addition to the existing 9 MW power plant. BCM is seeking a modification to DA 376-08-2003 to provide for the construction and operation of the 32 MW power station as well as the associated infrastructure. Observed levels of methane production from underground mine workings are higher than previously anticipated and the construction of additional gas fired power generation capacity is proposed in order to utilise gas produced through pre-mine gas drainage activities to achieve a more sustainable use of this waste product from underground mining.

The proposed Blakefield North modification is also seeking minor alterations to the approved mine plan for the Underground Operations. The modification to the mine plan includes the realignment of the longwalls and alterations to mine access.

A separate EA is currently being prepared for the proposed Blakefield North modification and is expected to be lodged with the DP&I Quarter 4 2012.

3.0 Description of Proposed Modification

The proposed modification will result in some minor changes to the currently approved mining operations within previously disturbed areas. The modification seeks to move the approved western mining limit of the Bulga Open Cut Pit further to the west (refer to **Figure 1.3**) resulting in changes to the location and layout of some haul roads and overburden emplacement areas within the open cut mining area. In turn this will result in a slight change in the final landform when compared to the approved BSO.

3.1 Project Layout

BCM propose to extend the currently mined Bulga Open Cut Pit to the west, to re-mine through the shallower Whybrow Pit, an area that has been previously subject to open cut mining. Mining the deeper seams under the previously mined areas will enable BSO to continue mining within the existing disturbance footprint. The extension will allow the recovery of 1 million tonnes of ROM coal from the Redbank Creek, Wambo, Whynot, Blakefield, Glen Munro and Woodlands Hill seams, which is within the approved disturbance area of DA 41-03-99 (refer to **Figure 1.4**). The extension to access coal will also result in an additional approximately 10 MBCM of overburden. The proposal also includes the additional overburden emplacement to the north of Bulga's North Blakefield Dump under an agreement with MTW (refer to **Section 3.2.2**).

The extension of the Bulga Open Cut Pit will be contained within the previously approved disturbance footprint and coal extraction will remain at the currently approved maximum rate of 12.2 Mtpa. The proposed modified mining sequence will be incorporated into the existing approved BSO.

The modelling and assessment for the proposed modified mining sequence is based on the assumptions outlined in this section integrated with the current approved BSO mining operation. This approach provides for an indicative worst case representation of the proposed modified mining sequence and accounts for the proposed alterations to the approved overburden emplacement sequence required as part of the proposed modification.

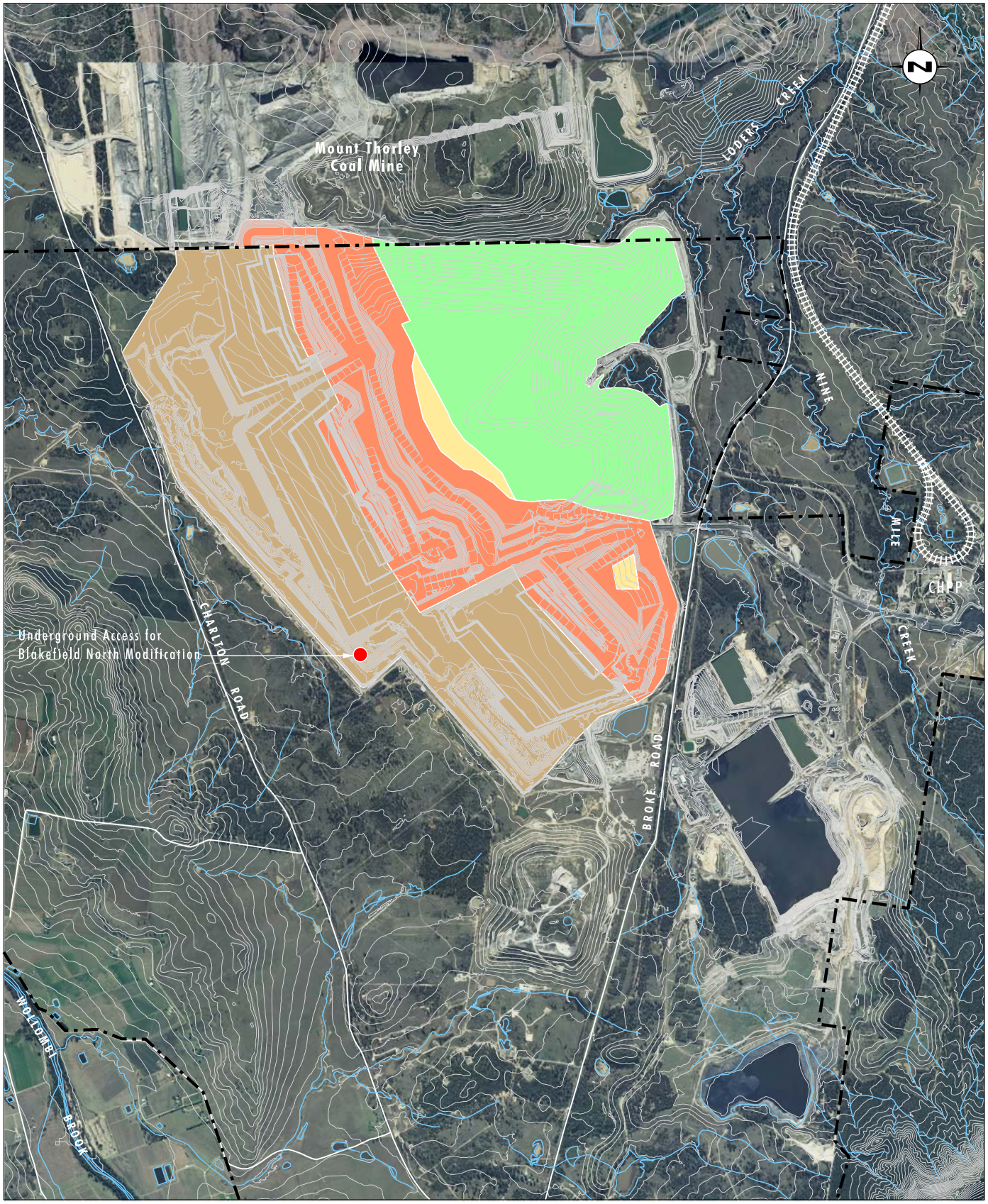
3.2 Surface Mining Operations and Associated Activities

Open cut mining involves the clearing of vegetation and stripping of topsoil (where present)[1], overburden removal, extraction of the exposed coal resource, overburden emplacement and progressive rehabilitation activities.

Indicative mine plans for the proposed modification to the western mining limit of the surface operations are illustrated in **Figures 3.1** to **3.3** (dates indicative only) and the final landform and final void. The mining operations undertaken as part of the proposed modification will be carried out over a period of approximately seven years.

Proposed mining areas will be progressively rehabilitated throughout the mining operations to achieve a suitable final landform. Further details regarding proposed rehabilitation are provided in **Section 6.9**.

[1] No topsoil removal is required as part of the proposed modification, i.e. all topsoil has previously been removed and stockpiled as required for use in rehabilitation. Topsoil will continue to be managed as required.



Source: Bulga Coal (2011), Google Earth (2010)
Note: Contour Interval 5m

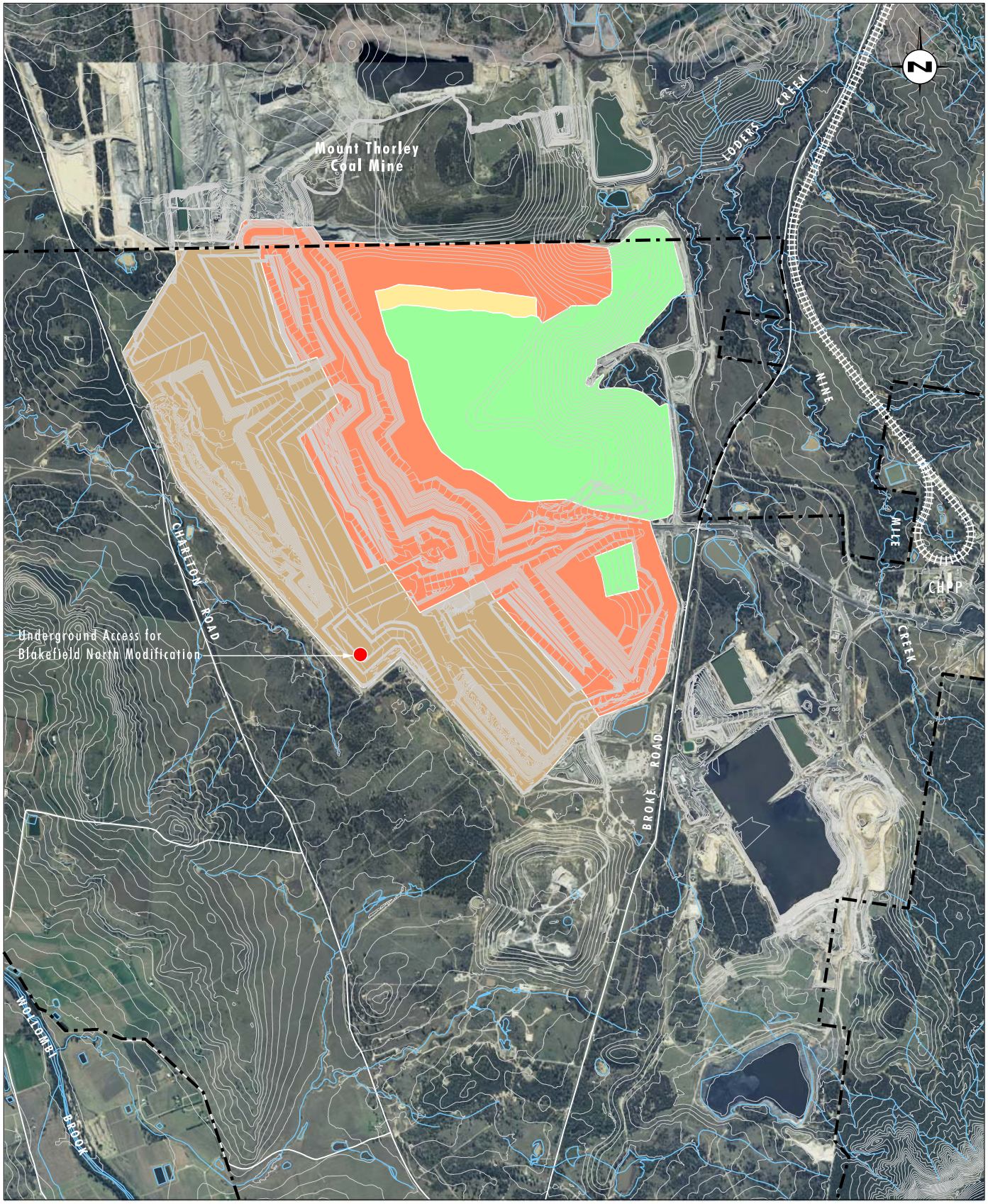
0 0.5 1 2km
1:40 000

Legend

- Saxonvale Colliery Holding Boundary
- Active Pit
- Active Overburden
- Shaped Overburden not Seeded
- Rehabilitation
- Drainage Line

FIGURE 3.1

Indicative Mine Plan - 2013



Source: Bulga Coal (2011), Google Earth (2010)
Note: Contour Interval 5m

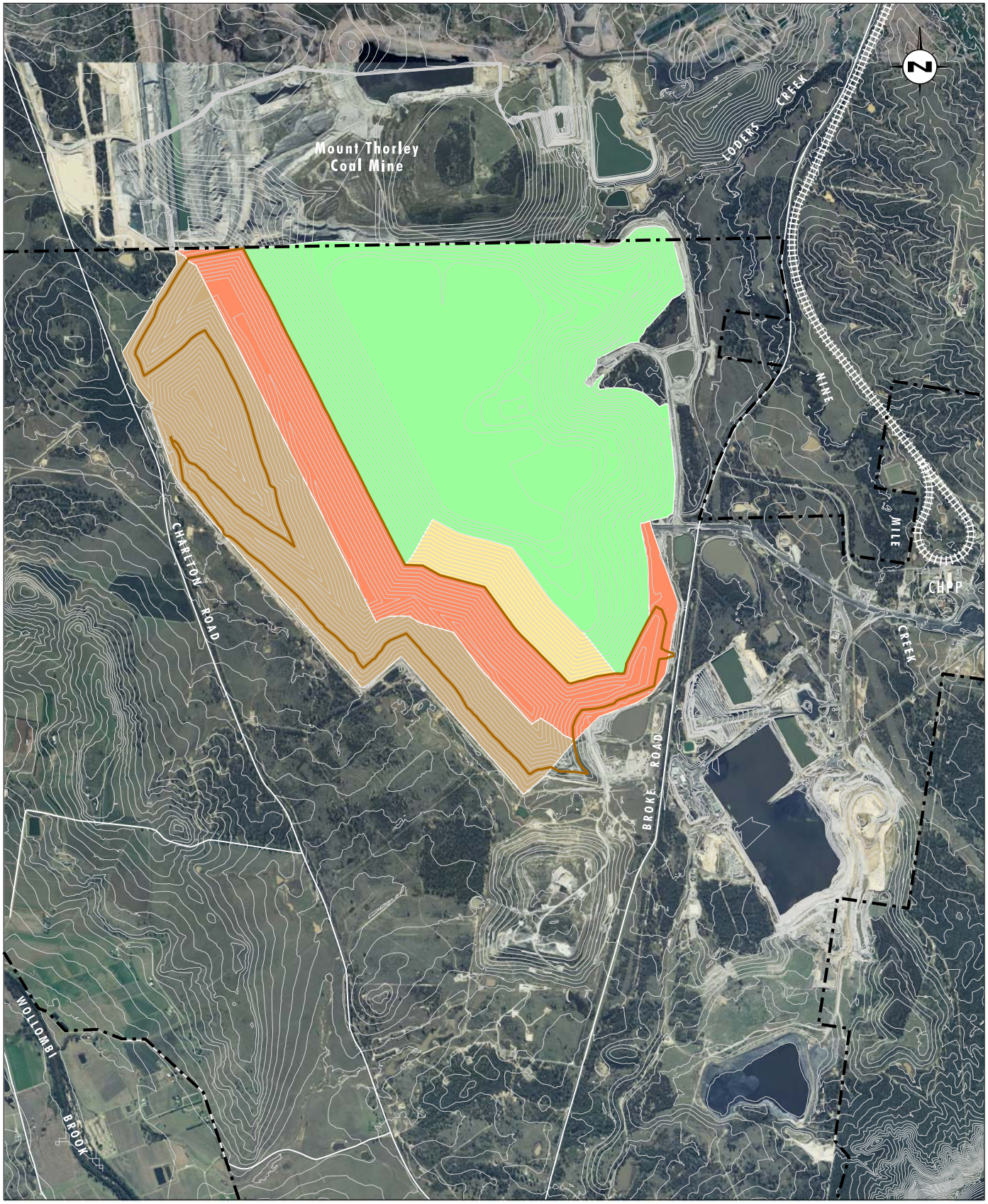
0 0.5 1 2km
1:40 000

Legend

- Saxonvale Colliery Holding Boundary
- Active Pit
- Active Overburden
- Shaped Overburden not Seeded
- Rehabilitation
- Drainage Line

FIGURE 3.2

Indicative Mine Plan
- 2014



Source: Bulga Coal (2011), Google Earth (2010)
Note: Contour Interval 5m

0 0.5 1 2km
1:40 000

Legend

- Saxonvale Colliery Holding Boundary
- Drainage Line
- Active Pit
- Active Overburden
- Shaped Overburden not Seeded
- Rehabilitation
- Final Void

FIGURE 3.3

Indicative Mine Plan - Final Landform

The proposal will require minimal change to the existing surface mining operations currently occurring on site. Surface operations currently utilise a conventional multi seam dragline operation with pre-stripping undertaken by truck and shovel operations. A fleet of haul trucks are then utilised to transport the overburden to the emplacement area and ROM coal to the CHPP for processing.

No significant changes to mining equipment are anticipated with this modification.

3.2.1 Coal Handling and Processing

The existing CHPP infrastructure will continue to be used to process the ROM coal extracted from surface operations. The CHPP will process ROM coal from both the surface and the underground operations. No changes are proposed for the CHPP and it will continue to operate seven days a week 24 hours a day. Both semi soft coking and thermal coal products will be produced from the CHPP. The location of the CHPP facility is illustrated in **Figure 1.2**.

There are no proposed changes to product coal handling and transportation arrangements as a result of the proposed modification.

There are no proposed changes to total annual coal production and therefore no change to tailings management at the BCC as a result of the proposed modification.

3.2.2 Overburden Emplacement

The proposed overburden emplacement is largely in accordance with the existing development consent approval as illustrated in **Figures 3.1** to **3.3**. Approval is also being sought to allow overburden to be deposited to the north of the existing Blakefield North Dump area, within existing disturbed mining areas, under an agreement with Coal & Allied's MTW Operation. The proposed emplacement area is located on the boundary of the BCC ML1547 and the MTW ML (refer to **Figure 1.3**) and will provide an improved final landform in this area. The proposed emplacement area will accommodate approximately 42 MBCM of which approximately 21 MBCM of overburden will be emplaced by BCM with the remainder emplaced by MTW. Dumping in this area would commence upon receipt of approval for the proposed modification with a detailed emplacement strategy to be developed between BCM and MTW and managed under sublease arrangements. Detailed design and management will be developed through this agreement with Coal & Allied. Emplacement of overburden and rehabilitation will be in accordance with revised the Mining Operations Plan.

BCM and MTW have an agreement for development of a plan for the mines' common boundary final landform and rehabilitation of that landform. This will remove the 'valley' void area that currently exists between the two mines and create a continuous landform once rehabilitation is complete.

The creation of the mines' common boundary final landform and rehabilitation of that landform will involve BCM and MTW dumping overburden on each other's land within the common boundary area.

3.2.3 Rehabilitation

The Bulga Open Cut Pit will be progressively rehabilitated as mining progresses until the final landform is achieved. **Figures 3.1** to **3.3** illustrate the proposed progression of rehabilitation as surface operations progress in this area.

Rehabilitation will initially consist of the shaping of overburden areas to create a stable landform. The area will then either be topsoiled or treated with ameliorants and/or green waste prior to revegetation[2]. It is expected that the rehabilitation will be completed within approximately five years following the cessation of mining. If emplacement ceases for a period of greater than 12 months, temporary rehabilitation will be undertaken as is consistent with the Bulga Coal Landscape Management Plan[3] (LMP) (KMH, 2011).

Figure 3.4 and **Figure 3.5** presents cross sections of the approved final landform and the final landform proposed as part of the proposed modification. The cross sections illustrate the very limited change to final landform as a result of the modification.

Further detail on the rehabilitation of the area is provided in **Section 6.9**.

3.2.4 Water Management and Use

Water management on site is not proposed to change as a result of the proposed modification with continued use of the existing site water management system and management plans. The proposed modification will be within the existing approved area of disturbance with water use and any releases from site continuing as per the current open cut mining operation. There will be limited changes to the surrounding catchments and there will be no significant changes to the site water balance.

There will be a minor change in the final void area, however, water levels are unlikely to change and the void will be a self-contained system.

Further detail on the surface water management system is provided in **Section 6.7**.

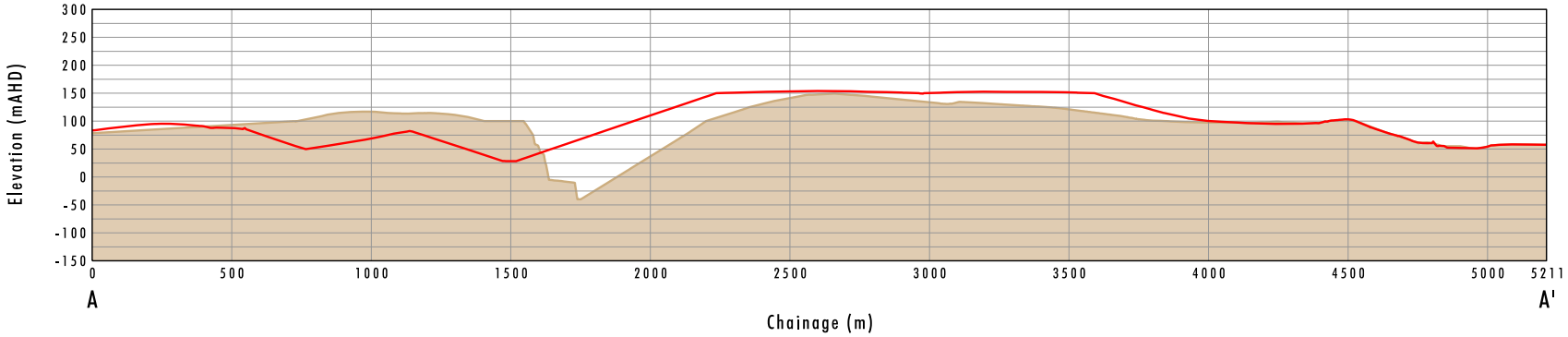
3.2.5 Mine Workforce and Hours of Operation

There will be no change to the BCC workforce as a result of the proposed modification and mining operations will continue to operate 24 hours per day, seven days per week.

3.3 Alternatives

The proposed modification is being sought to enable surface operations at the BCC to continue mining until the Optimisation Project is approved. The key alternative that requires consideration in regard to the proposed modification is the 'do nothing' alternative, that is, ceasing the surface mining operations at the BCC until the Optimisation Project is approved. This option is not considered desirable due to the substantial loss of revenue for the Federal, State governments and local community. Cessation of operations would also result in the loss of approximately 660 jobs. The proposed modification provides substantial benefits to BCM and as demonstrated in **Section 6.0**, the proposed modification can be undertaken without significantly changing the environmental impacts of current approved BCM operations.

[2] No topsoil removal is required as part of the proposed modification, i.e. all topsoil has previously been removed and stockpiled as required for use in rehabilitation. Topsoil will continue to be managed as required.
[3] The LMP includes a Rehabilitation and Offset Management Plan, Final Void Management Plan and Mine Closure Plan.



Note: Vertical Exaggeration 2:1

0 0.25 0.5 0.625km
Vertical Scale 1:12 500

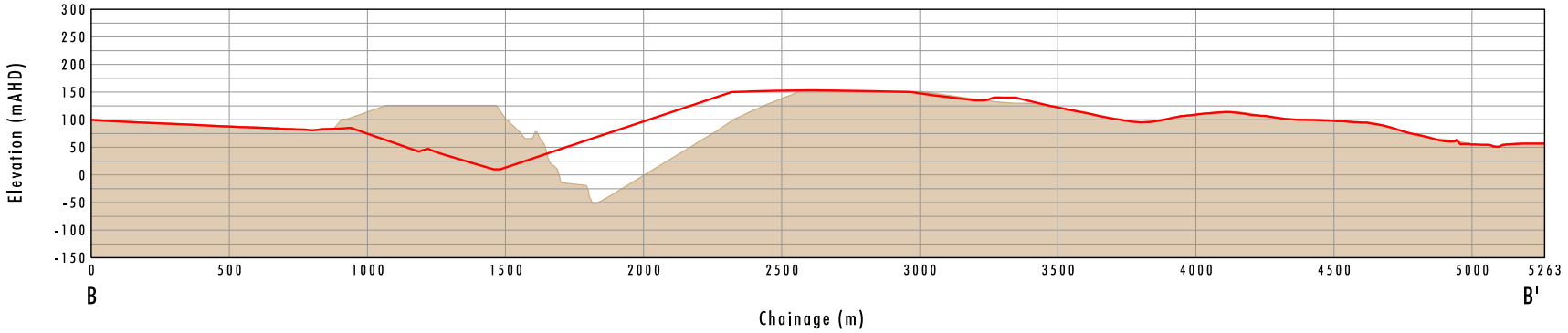
0 0.5 1.0 1.25km
Horizontal Scale 1:25 000

Legend

- Approved Final Landform
- Proposed Final Landform

FIGURE 3.4

Comparison of Approved and Proposed Landforms Bulga Open Cut Pit and Blakefield Overburden Emplacement Area



Note: Vertical Exaggeration 2:1

0 0.25 0.5 0.625km
Vertical Scale 1:12 500

0 0.5 1.0 1.25km
Horizontal Scale 1:25 000

Legend

- Approved Final Landform
- Proposed Final Landform

FIGURE 3.5

Comparison of Approved and Proposed Landforms Whybrow Pit and Blakefield Overburden Emplacement Area

Throughout the planning process for the proposed modification, BCM has considered a number of other alternatives to ensure the minimisation of impacts from both an environmental and social perspective. The key planning considerations for the proposed modification have been to contain coal recovery within the existing mining disturbance area to minimise the environmental and social impacts, maintaining them at current levels from the BCC and also ensuring effective management of amenity impacts, in particular, noise impacts. In designing the proposed modification a range of project design options were considered including:

- different resource extraction options;
- additional infrastructure; and
- additional overburden emplacement areas.

Whilst additional infrastructure and different extraction options were considered in the initial planning stages, to reduce environmental and social impact these options were not pursued and the extraction proposed has been contained within the existing mining disturbance area. Overburden emplacement will be contained within an existing area of disturbance in the BCC subject to the common boundary agreement with MTW (refer to **Section 3.2.2**).

Following detailed mine planning, environmental investigations and environmental modelling; the proposed indicative mining sequence indicated in **Figures 3.1** to **3.3** is considered to be the most appropriate approach for the proposed modification.

4.0 Stakeholder Consultation and Identification of Key Environmental Issues

BCM has an established relationship with the surrounding community and other stakeholders and has implemented a process for ongoing engagement regarding its mining operations. As part of the proposed modification, BCM is committed to working with the community to ensure it can continue to coexist with the local community.

The stakeholder engagement process for the proposed modification has been undertaken and developed concurrently with the consultation process for the Optimisation Project. The purpose of the engagement process is to provide the opportunity for the community to be involved in the development of the proposed modification and the Optimisation Project:

- to provide information to BCM for consideration in its project planning for the BCC;
- to identify community needs, concerns and opportunities; and
- to be involved in the environmental and social assessment process.

4.1 Agency and Government Consultation

The following NSW State Government agencies have been briefed on the proposed modification during 2011 and 2012:

- DP&I - Three meetings have been held between the project team and DP&I:
  - 1 April 2011;
  - 8 December 2011; and
  - 5 July 2012;

  The meetings were held to discuss the progress of both the proposed modification and the proposed Optimisation Project, and the final outcomes of the assessment for the proposed modification;
- Department of Trade and Investment, Regional Infrastructure and Services (DTIRIS) - Mineral Resources and Energy, 10 May 2011 (Conceptual Mine Plan Meeting);
- Department of Primary Industries - NOW; and
- the office of Environment and Heritage (OEH).

DTIRIS – Mineral Resources and Energy issued a supporting proposal letter to DP&I following BCM's 10 May 2011 Conceptual Project Development Plan presentation to the DP&I.

Singleton Council was also briefed on the proposed modification on 6 April 2011. The briefings to Singleton Council and agencies have outlined the key aspects of the modification in terms of project design and the approach to the environmental assessments and stakeholder engagement program.

4.2 Community and Other Stakeholder Engagement

The regular BCC Newsletter issued in April 2011 contained a description of the proposed modification and information on how members of the community could obtain more information. On 25 July and 31 October 2011 the BCC CCC was briefed on the proposed modification.

Individual meetings have been held with 84 landholders to discuss the existing operations at the BCC, the proposed modification and the Optimisation Project. The Hunter Valley Protection Alliance, a local environmental and community interest group, and the Broke/Fordwich wine groups and Tourism Association were briefed on the proposed modification at a special meeting held on 17 April 2011.

As part of community consultation, two community dinners were held in April 2011, one at both Bulga and Broke, to brief the broader community on the proposed modification and the Optimisation Project and invite them to identify any issues that they may have in relation to the current and proposed operations. Approximately 31 people attended the community dinner at Bulga and approximately 45 attended the dinner held at Broke.

An overview of the proposed modification and the results of investigations were also presented at the community dinners held in Broke and Bulga in March 2012. An open invitation was delivered to the majority of residences in the Broke, Bulga and intervening community. The Broke community dinner was attended by 59 community members and 44 community members attended the Bulga community dinner.

Detailed constructive feedback was received from the community as a result of the engagement process. The majority of the issues raised by the community related to future operations including the Optimisation Project and the proposed modification are:

- air quality;
- noise;
- rehabilitation;
- light pollution;
- blast vibration; and
- visual impact.

These are consistent with existing community issues for the current operations at the BCC.

The project team has considered this community feedback in refining the proposed modification and in preparing this EA. Air quality, noise disturbance and rehabilitation were raised by the community as the most significant issues, and these issues have been studied in detail as part of the environmental assessment process with the assessment findings to be shared with the community as part of the ongoing stakeholder engagement program. Further details of the approach to the environmental assessment process are provided in **Section 6.0**.

Specifically, the key community issues raised for existing and future operations have been subject to detailed environmental assessments as part of this EA detailed further in **Section 6.1**.

5.0 Planning Context

The following section identifies the relevant Commonwealth and State planning and environmental legislation, including the relevant planning approval process applicable to the proposed modification.

5.1 Commonwealth Legislation

Table 5.1 provides a review of the relevant Commonwealth environment and planning legislation and its relevance to the proposed modification.

Table 5.1 – Summary of Commonwealth Legislation and Relevance to the Proposed Modification

Planning Provision	Comments	Further Approval Required
Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)	Under the EPBC Act 1999, approval from the Minister for Sustainability, Environment, Water, Population and Communities is required for any action that would result in a significant impact to Matters of National Environmental Significance (MNES). MNES are defined in the following categories: • World Heritage property; • National Heritage place; • Wetlands of international importance (Ramsar wetland); • Threatened species and communities listed under the EPBC Act; • Migratory species listed under the EPBC Act; • Nuclear actions; • Marine areas or reserves; and • Commonwealth land. The proposed modification involves the continuation of mining operations within the approved disturbance area. There will be no additional impact on migratory species, threatened species, critical habitats or ecological communities. The proposed modification is not considered to be a controlled action, requiring approval under the EPBC Act, and does therefore not require referral to the Department of Sustainability, Environment, Water, Population and Communities (DSEWPC).	No
Native Title Act 1993	The *Native Title Act 1993* is administered by the National Native Title Tribunal who is responsible for maintaining a register of Native Title claimants and bodies to whom Native Title rights have been gained. The Act prescribes that Native Title can be extinguished under certain circumstances, including the granting of freehold land. The modification area consists entirely of freehold land therefore Native Title has been extinguished within the modification area.	No

5.2 New South Wales Legislation

5.2.1 *Environmental Planning and Assessment Act 1979*

As discussed in **Section 1.0**, it is proposed to modify DA 41-03-99 under Section 75W of the EP&A Act. Further details of this approval path are provided below.

The EP&A Regulation clause 8J(8) prescribes how, in certain circumstances, a development consent can be modified under Section 75W of the EP&A Act. Clause 8J(8) states that:

> (8) For the purposes only of modification, the following development consents are taken to be approvals under Part 3A of the Act and section 75W of the Act applies to any modification of such a consent:
>
> (a) a development consent granted by the Minister under section 100A or 101 of the Act,
> (b) a development consent granted by the Minister under *State Environmental Planning Policy No 34—Major Employment-Generating Industrial Development*,
> (c) a development consent granted by the Minister under Part 4 of the Act (relating to State significant development) before 1 August 2005 or under clause 89 of Schedule 6 to the Act,
> (d) a development consent granted by the Land and Environment Court, if the original consent authority was the Minister and the consent was of a kind referred to in paragraph (c).
>
> The development consent, if so modified, does not become an approval under Part 3A of the Act.

DA 41-03-99 was granted under Part 4 of the EP&A Act in 1999. The development approved was classified as State Significant Development. Clause (c) of Section 8J(8) of the EP&A Regulation applies to DA 41-03-99.

Part 3A of the EP&A Act has recently been repealed, however, Schedule 6A, Clause 12 of the EP&A Act provides for the continued use of Section 75W to modify the development consents referred to in Clause 8J(8) of the EP&A Regulation. Schedule 6A, Clause 12 of the EP&A Act states:

> ***12 Continuing application of Part 3A to modifications of certain development consents***
> Section 75W of Part 3A continues to apply to modifications of the development consents referred to in Clause 8J(8) of the *Environmental Planning and Assessment Regulation 2000*, and so applies whether an application for modification is made before or after the commencement of this clause.

Section 75W is therefore the appropriate approval pathway for the proposed modification.

5.2.2 Other State Legislation and Environmental Planning Instruments

A summary of the other State environmental and planning legislation potentially relevant to the proposed modification is provided in **Table 5.2**.

Table 5.2 – Summary of State Legislation and Relevance to the Proposed Modification

Act	Comment	Further Approval Required for Proposed Modification
Mining Act 1992	Under this Act a ML is required before any mining or specified mining purpose can be carried out on the land. The BCC currently operates under ML1547, ML1494 and CCL 224. The proposed modification will operate within ML1547 and associated subleases. ML1547 is due to expire in 2025. All mining operations must be subject to a Mining Operations Plan (MOP) approved by the Director General of DTIRIS.	No approvals required, however, BCM will require a revised MOP.
Coal Mine Health and Safety Act 2002	The principal aim of the *Coal Mine Health and Safety Act 2002* is to secure the objectives of the *Work Health and Safety Act 2011* in relation to coal operations. It does this by imposing certain specific safety requirements on coal mines. This includes the requirement to comply with minimum barriers for underground mining workings and the requirement to obtain consent from the Minister for Mineral Resources for the establishment of emplacement areas. No new emplacement areas will be required as a result of the proposed modification.	No
Protection of the Environment Operations Act 1997 (PoEO Act)	The PoEO Act is administered by OEH and requires licences for environmental protection including waste, air, water and noise pollution control. BCM currently holds EPL563. BCM will obtain a variation to EPL563 to provide for any changes resulting from the proposed modification.	Yes
Water Management Act 2000	This Act regulates the taking, interception, storage and use of surface water and groundwater within areas subject to water sharing plans.	No
Water Act 1912	This Act has been repealed by the *Water Management Act 2000*; however, some of the licensing provisions remain in force where the water source is not covered by a water sharing plan. BCM currently holds Part 5 licences under this Act for the interception and extraction of groundwater as part of its mining operations. The proposed modification will not require any further Part 5 licences.	No
Environmentally Hazardous Chemicals Act 1985	The OEH is granted power under the *Environmentally Hazardous Chemicals Act 1985* to assess and control chemicals and declare substances to be chemical wastes. A licence is required for any storage, transport or use of prescribed chemicals. The proposed modification will not result in any changes to the storage, transport or use of prescribed chemicals. No further approvals will be required.	No

Table 5.2 – Summary of State Legislation and Relevance to the Proposed Modification (cont.)

Act	Comment	Further Approval Required for Proposed Modification
National Parks and Wildlife Act 1974	This Act is the principle legislation dealing with the management of Aboriginal heritage and protection of native flora and fauna. The proposed modification will be undertaken within the approved project disturbance boundary and no Aboriginal heritage sites will be impacted as a result of the proposed modification.	No
Heritage Act 1977	The *Heritage Act 1977* provides for the conservation and management of the state's built, marine, moveable and natural heritage. The proposed modification will be undertaken within the approved project disturbance boundary and no heritage items will be impacted. No further approvals will be required under this Act.	No
Roads Act 1993	The *Roads Act 1993* is administered by Roads and Maritime Services (RMS), local council or the Department of Lands depending on the classification of the road; the RMS has jurisdiction over major roads, the local council over minor roads, and the Department of Lands over road reserves. The Act requires that applications for the closure of Crown roads be made to the Minister. Consent under Section 138 of the *Roads Act 1993* is required in order to undertake works within a road reserve. The proposed modification does not require any works to or the closure of any roads. No further approvals will be required under this Act.	No
Crown Lands Act 1989	The Act provides for the administration and management of Crown land in the eastern and central divisions of the State. Crown land may not be occupied, used, sold, leased, dedicated, reserved or otherwise dealt with unless authorised by this Act or the *Crown Lands (Continued Tenures) Act* 1989. The proposed modification will not impact on any Crown Land. No further approvals will be required under this Act.	No
Dams Safety Act 1978	The *Dams Safety Act 1978* requires that large dams that may constitute a hazard to human life and property must be periodically reviewed by the NSW Dams Safety Committee. These dams are known as prescribed dams and are listed in Schedule 1 of the Act. The proposed modification will not require the construction of any new dams. No further approvals will be required under this Act.	No

Table 5.3 outlines the relevant State Environmental Planning Policies (SEPPs) required to be considered in relation to the proposed modification.

Table 5.3 – Relevant SEPPs for Consideration in Relation to the Proposed Modification

NSW Legislation – Environmental Planning Instruments		
Planning Provision	**Comment**	**Relevance**
State Environmental Planning Policy (State & Regional Development) 2011	The project approved under DA 41-03-99 is of a classification listed in the SEPP and would have been classified as State significant development of a new development not a modification.	As the original approval is classified as State Significant Development the proposed modification is to be considered under Section 75W of the EP&A Act.
State Environmental Planning Policy (Mining, Petroleum Production & Extractive Industries) 2007	Regulates the permissibility of mining and related development and specifies matters that must be considered in assessing mining developments requiring consent under Part 4 of the EP&A Act.	The proposed modification is not considered exempt or complying development and therefore requires consent.
State Environmental Planning Policy 33 (Hazardous & Offensive Development) 1992	SEPP No. 33 requires the consent authority to consider whether an industrial proposal is a potentially hazardous industry or a potentially offensive industry. A hazard assessment is completed for potentially hazardous development to assist the consent authority to determine acceptability.	The existing BCC operations are not considered as hazardous or offensive. The proposed modification will not result in any changes to the existing BCC operations which would alter this classification. No further consideration of SEPP No. 33 will be required.
State Environmental Planning Policy 44 (Koala Habitat Protection)	SEPP No. 44 restricts a Council from granting development consent for proposals on land identified as core koala habitat without preparation of a plan of management.	The proposed modification will not result in an increase of the approved disturbance footprint and therefore will not change the impacts of the project on ecological values. Therefore additional consideration of the provisions of this SEPP will not be required.

The Singleton LEP 1996, which regulates permissibility and planning considerations in the Singleton LGA has also been reviewed in relation to the proposed modification. Findings of the review indicate that the proposed modification will be undertaken within the approved project disturbance area which is zoned Rural 1(a). The proposed modification is permissible under the Singleton LEP.

The NSW Government recently released its *Draft Strategic Regional Land Use Policy* (SRLUP) for the Upper Hunter and the Draft NSW *Aquifer Interference Policy - Stage 1*, developed by NOW as a component of the Draft SRLUP. The Draft SRLUP aims to strike a balance between important agricultural, mining and energy sectors while ensuring the protection of the high value conservation lands and water sources.

The Draft SRLUP seeks to apply gateway process to all state significant development applications for mining or coal seam gas that is on or located within two kilometres of Biophysical Strategic Agricultural Land (BSAL) or Critical Industry Clusters (CICs) and to development which is considered to be an aquifer interference activity. The proposed modification will take place within an already disturbed area, therefore will not impact any BSAL or CICs, and will not result in any additional impacts to either surface waters or aquifers within the area of the proposed modification or surrounds.