



5

Regulatory Framework

This section describes the environmental and planning regulatory framework applicable to the Project and considers both NSW and Commonwealth legislation. A flowchart illustrating the planning assessment and consultation process relevant to the Project is presented in Figure 26.

5.1 Introduction

The principal approval required for the Project is Development Consent under the EP&A Act. The approval's regime under Division 4.1 of Part 4 of the EP&A Act is described in Section 5.2.

Section 89J of the EP&A Act lists the approvals that are not required for approved developments under Division 4.1 of Part 4 (see Section 5.5). In addition, section 89K of the EP&A Act lists a number of approvals that cannot be refused if they are necessary for the carrying out of an approved development under Division 4.1 of Part 4 (see Section 5.4). There are other licences and approvals under NSW legislation which will be required for the Project, as described in Section 5.9, which are not listed in either section 89J or 89K. These are all described below. The Project will also require approval under the Commonwealth EPBC Act.

5.2 Environmental Planning and Assessment Act 1979

5.2.1 Objects of the Act

As stated in section 5 of the EP&A Act, the objects are:

- “(a) to encourage:
- (i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,
 - (ii) the promotion and co-ordination of the orderly and economic use and development of land,
 - (iii) the protection, provision and co-ordination of communication and utility services,
 - (iv) the provision of land for public purposes,

- (v) the provision and co-ordination of community services and facilities and
 - (vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities and their habitats and
 - (vii) ecologically sustainable development and
 - (viii) the provision and maintenance of affordable housing and
- (b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State and
- (c) to provide increased opportunity for public involvement and participation in environmental planning and assessment.”

Section 10 assesses the Project in the context of the objects of the EP&A Act.

5.2.2 Applicability of Division 4.1 of Part 4

On 1 October 2011, Division 4.1 of Part 4 replaced Part 3A of the EP&A Act as the planning and determination regime for SSD.

Under section 89C of the EP&A Act, a development is SSD if it is declared by any State Environmental Planning Policy (SEPP) to be SSD. *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP) at clause 8(1) provides:

“8 Declaration of State significant development: section 89C

(1) Development is declared to be State significant development for the purposes of the Act if:

(a) the development on the land concerned is, by the operation of an environmental planning instrument, not permissible without development consent under Part 4 of the Act and

(b) the development is specified in Schedule 1 or 2.”

“Development for the purpose of mining that is coal mining” is listed in clause 5 of Schedule 1 of SRD SEPP.

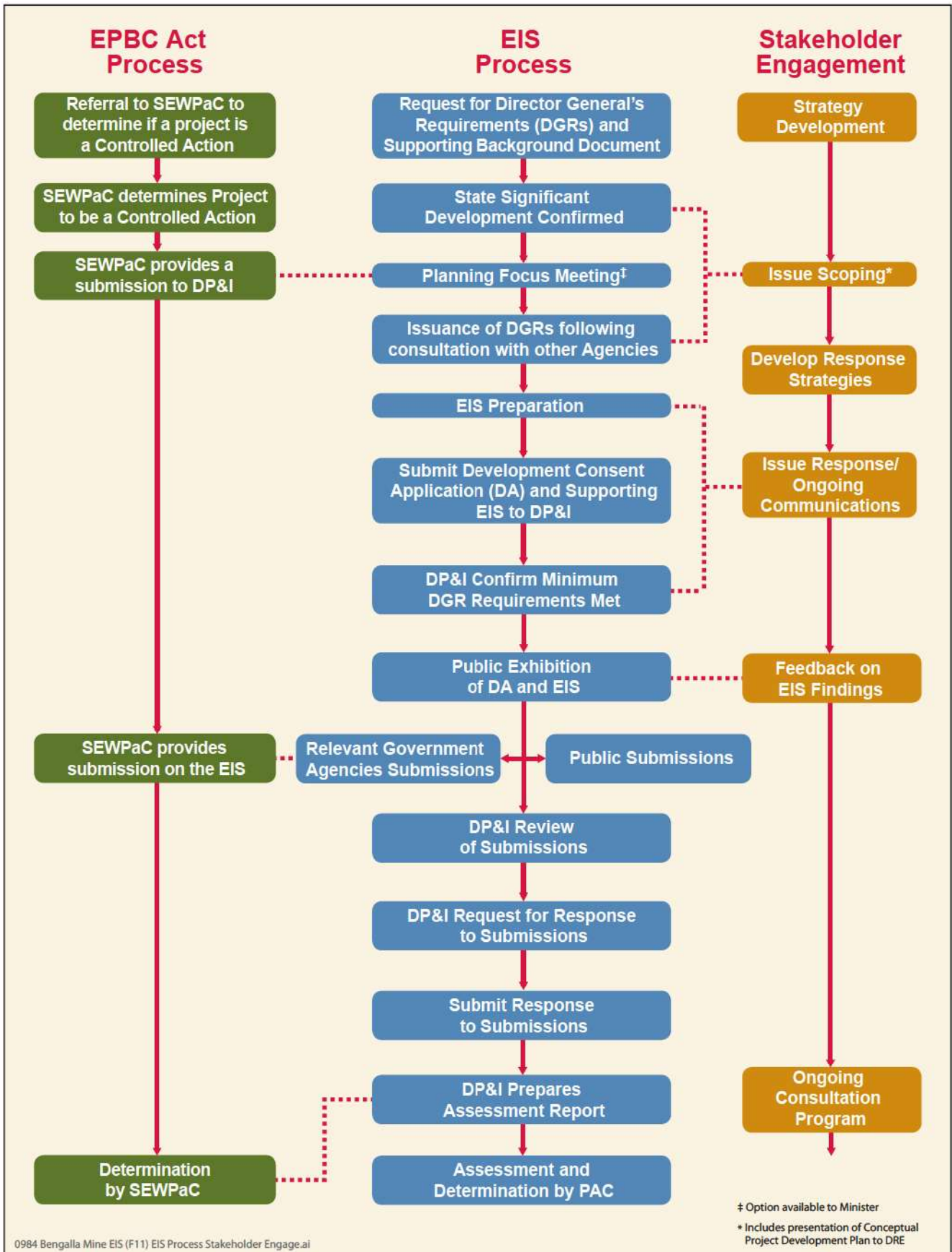


FIGURE 26

5.2.3 Permissibility and Development Consent and Zoning

Section 89E(2) of the EP&A Act provides that “*Development consent may not be granted if the development is wholly prohibited by an environmental planning instrument*”.

Section 89E(3) EP&A Act provides that “*Development consent may be granted despite the development being partly prohibited by an environmental planning instrument*”.

The Project is located entirely within the Muswellbrook LGA. The majority (66%) of the land within the Project Boundary is zoned as “RU1 Primary Production” under the Muswellbrook Local Environment Plan 2009 (Muswellbrook LEP). The majority of the remaining land is zoned as “E3 Environmental Management” with lesser amount of land zoned “SP2 Rail Infrastructure Facilities”. The zonings for the land within and surrounding the Project Boundary are shown in Figure 27.

The land use table in the Muswellbrook LEP states that mining is prohibited within Zone E3. However, the permissibility of mining developments is also governed by Mining SEPP. Clause 7(1) of the Mining SEPP provides:

“7 Development permissible with consent

(1) Mining

Development for any of the following purposes may be carried out only with development consent: ...

(b) mining carried out:

- (i) on land where development for the purposes of agriculture or industry may be carried out (with or without development consent), or*
- (ii) on land that is, immediately before the commencement of this clause, the subject of a mining lease under the Mining Act 1992 or a mining licence under the Offshore Minerals Act 1999.”*

The Muswellbrook LEP provides that development for the purposes of “extensive agriculture” is permissible within Zone E3. By virtue of clause 7(1)(b)(i) of the Mining SEPP, mining is also permissible within zone E3. This is inconsistent with the land use table in the Muswellbrook LEP. Clause 5 of the Mining SEPP states that where there is an inconsistency between the SEPP and another Environmental Planning Instrument (EPI), the SEPP will prevail to the extent of the inconsistency. Therefore, the Mining SEPP will override the Muswellbrook LEP, resulting in mining being permissible in Zone E3 with Development Consent.

The land use table in the Muswellbrook LEP provides that open cut mining is permissible with Development Consent in zone RU1. Therefore, mining is permissible with Development Consent on all land within the Project Boundary on which mining or mining operations would occur. The land within the Project Boundary which is zoned SP2 would contain only the rail infrastructure which is part of the Approved Bengalla Mine or “*development ordinarily incidental or ancillary to...*” rail infrastructure facilities which, under the Muswellbrook LEP is permissible in that zoning. Therefore, the provisions of section 89E do not prohibit the development.

5.2.4 Consent Authority

Pursuant to section 89D of the EP&A Act, the Minister for Planning and Infrastructure is the consent authority for SSD. However, section 23 of the EP&A Act enables the Minister to delegate his or her functions to a number of other persons or authorities, including the Planning Assessment Commission (PAC). As at the date of this EIS there are current delegations to the PAC, including determination functions under sections 89D and 89E for SSD.

5.2.5 Need for an Environmental Impact Statement

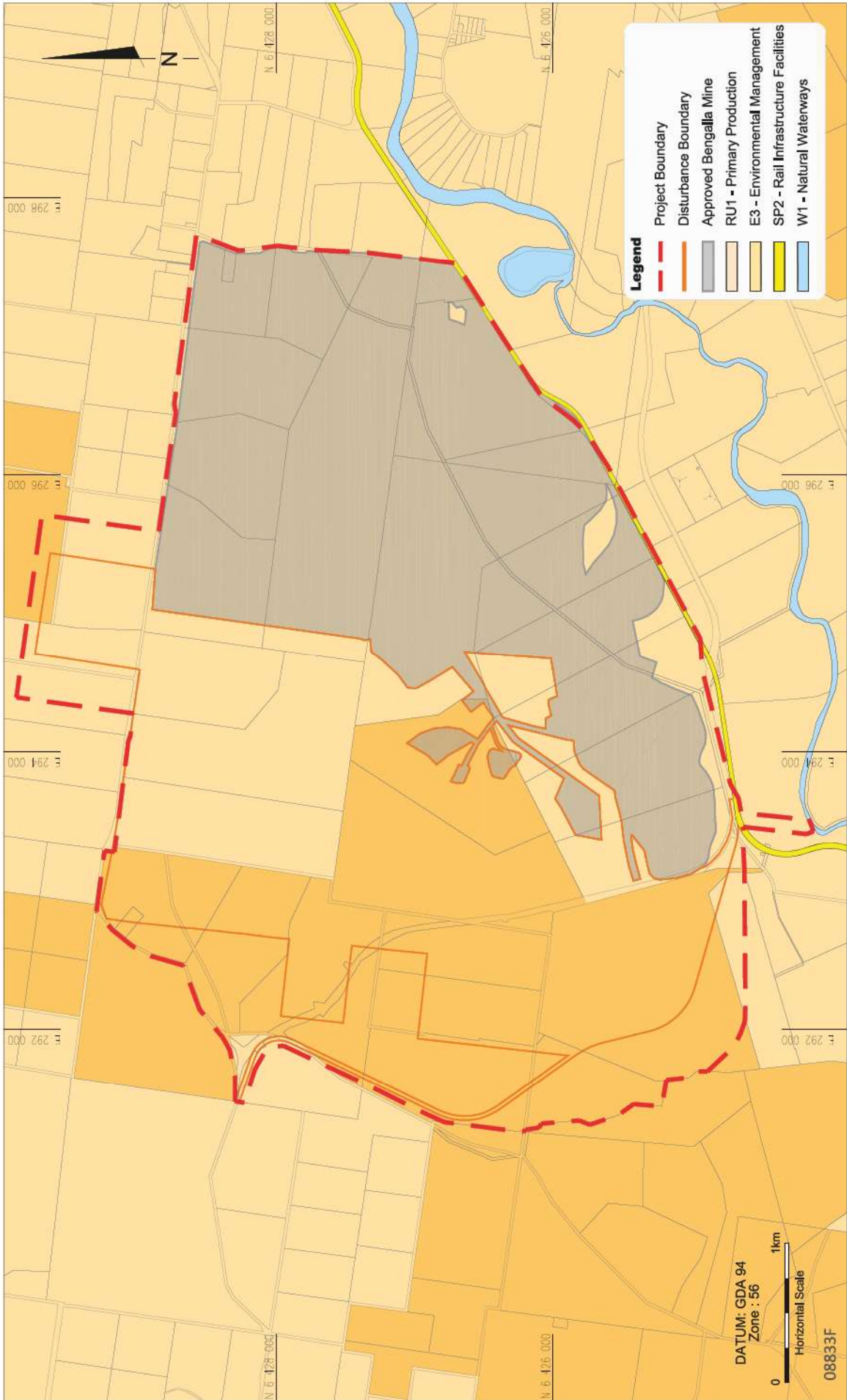
Section 78A(8A) of the EP&A Act states that a development application for SSD must be accompanied by an EIS prepared in accordance with the EP&A Regulation. The form and content requirements for an EIS are provided in Schedule 2 of the EP&A Regulation.

5.2.6 Environmental Assessment Requirements

Clause 3 of Schedule 2 of the EP&A Regulation states that prior to the preparation of an EIS, the applicant must make a written application to the Director-General for DGRs. A request for DGRs, supported by the Continuation of Bengalla Mine Background Document, was made by BMC on 17 February 2012. In response, DGRs for the Project were issued by the Director-General on 13 March 2012 with supplementary DGRs issued on 12 July 2012. Section 6.4.1 describes the DGRs and specifies where each has been addressed in this EIS.

5.2.7 Public Participation

Pursuant to Section 89F of the EP&A Act and clause 83 of the EP&A Regulation, the development application and supporting EIS must be placed on public exhibition for a period of at least 30 days. During this exhibition period, any person may make written submissions to the Minister regarding the proposed development.



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Land Zoning

FIGURE 27

5.2.8 Evaluation

Section 89H of the EP&A Act stipulates that section 79C applies to a SSD development application.

Section 79C of the EP&A Act specifies the matters that the consent authority is to consider when determining a development application. The consent authority is to consider the following matters that are relevant to the development application:

“(1) Matters for consideration—general

In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application:

- (a) the provisions of:*
 - (i) any environmental planning instrument and*
 - (ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Director-General has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved) and*
 - (iii) any development control plan and*
 - (iv) any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F and*
 - (v) the regulations (to the extent that they prescribe matters for the purposes of this paragraph) and*
 - (vi) any coastal zone management plan (within the meaning of the Coastal Protection Act 1979), that apply to the land to which the development application relates,*
- (b) the likely impacts of that development, including environmental impacts on both the natural and built environments and social and economic impacts in the locality,*
- (c) the suitability of the site for the development,*
- (d) any submissions made in accordance with this Act or the regulations,*
- (e) the public interest.”*

Section 10 describes how each of these matters has been addressed in this EIS.

5.2.9 Planning Assessment Commission

The Minister can refer a development application to the PAC for its review and report to the Minister. The functions of the PAC relevant to the development application are set out in section 23D of the EP&A Act including:

“... to review any (or any aspect or part of any) development, activity, infrastructure or project to which this Act applies and to hold a public hearing into any matter the subject of any such advice or review ...”

5.2.10 Determination and Appeals

Pursuant to section 80 of the EP&A Act, the consent authority can determine a development application by either granting consent or refusing consent. If the consent authority decides to grant consent, the consent can be unconditional or subject to conditions.

Under section 82(1) of the EP&A Act, a development application is deemed to have been refused consent if a determination has not been made within the relevant period. The relevant period for SSD applications is 90 days, as provided by clause 113 of the EP&A Regulation. Section 82(2) of the EP&A Act provides that the expiration of the relevant period does not preclude the consent authority from making a determination. However, the deemed refusal of the development application does give rise to rights of appeal.

Section 97 of the EP&A Act states that an applicant who is dissatisfied with the consent authority's determination can lodge an appeal in the Land and Environment Court within 6 months after the determination. If the appeal is against a deemed refusal under section 82(1) of the EP&A Act, the appeal must be commenced within 6 months after the expiration of the relevant period.

Section 98 of the EP&A Act allows an objector to appeal against a consent authority's decision to grant consent within 28 days after the date on which notice of the determination was given. Section 23F of the EP&A Act states that a decision made by the PAC cannot be challenged if it was made after a public hearing.

5.2.11 Development Contributions

Section 94 of the EP&A Act enables the consent authority to impose a condition requiring the applicant to provide a development contribution if the consent authority *“... is satisfied that development for which development consent is sought will or is likely to require the provision of or increase the demand for public amenities and public services within the area ...”*

Section 93F of the EP&A Act enables the applicant to enter into a Voluntary Planning Agreement (VPA) with planning authorities effectively in lieu of a section 94 contribution.

5 Regulatory Framework

Discussions with MSC for the Project are well progressed in relation to the revision of the existing VPA and establishment of a new VPA for the Project (see Section 6.1.1).

5.2.12 Disclosure of Reportable Political Donations and Gifts

Pursuant to section 147 of the EP&A Act, an applicant is required to provide full disclosure of any political donations and gifts at the time of making a development application. A person making a submission regarding a development application is also required to provide full disclosure of any political donations and gifts.

BMC has not made any political donations or gifts to political parties.

5.3 NSW Environmental Planning Instruments

The following sections provide a review of the EPIs that are applicable to the Project. EPIs include Local Environmental Plans (LEPs), Regional Environmental Plans and SEPPs.

5.3.1 State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

The Mining SEPP determines the permissibility of mining related developments and the matters that must be considered by consent authorities when evaluating development applications for mining developments. The permissibility of mining and the associated activities within the Project Boundary is discussed in Section 5.2.3.

The consent authority is required to consider the compatibility of the proposed development with surrounding land uses. Clauses 12 and 13 of the Mining SEPP require that:

"Before determining an application for consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must:

(a) *consider:*

- (i) *the existing uses and approved uses of land in the vicinity of the development and*
- (ii) *whether or not the development is likely to have a significant impact on the uses that, in the opinion of the consent authority having regard to land use trends, are likely to be the preferred uses of land in the vicinity of the development and whether the development is likely to have a significant impact on current or future recovery of minerals*

(iii) *any ways in which the development may be incompatible with any of those existing, approved or likely preferred uses and*

(b) *evaluate and compare the respective public benefits of the development and the surrounding land uses and*

(c) *evaluate any measures proposed by the applicant to avoid or minimise any incompatibility."*

The land uses in the vicinity of the Project are described in Section 2. The dominant land use in the immediate vicinity of the Project is coal mining. The Project will be compatible with the use of the surrounding land for coal mining. The other main land uses in the vicinity of the Project are agriculture and rural residential developments. The impacts of the Project on these land uses have been extensively assessed in this EIS and mitigation and management measures have been proposed to avoid or alleviate potential land use incompatibilities.

Pursuant to clause 14, the consent authority is required to consider whether or not to impose conditions to ensure that impacts on significant water resources, threatened species and biodiversity are avoided or minimised and greenhouse gas emissions are minimised.

Clause 15 requires the consent authority to consider the development's efficiency of resource recovery. The consent authority must also consider whether or not to impose conditions in order to optimise the resource recovery. The Project has adopted a mine plan that seeks to optimise resource recovery without causing unacceptable environmental impacts. BMC considered a number of alternatives for the recovery of the resource as discussed in Section 4.13. The Project was determined to be the most appropriate alternative for recovering the resource within the Project Boundary whilst at the same time minimising any consequential impacts on resource recovery within adjoining mining areas.

Pursuant to clause 16, the consent authority must consider whether or not to impose conditions concerning the transportation of coal by public roads. The Project will not involve the transportation of coal by road.

Under clause 17, the consent authority must consider whether or not to impose conditions to ensure the rehabilitation of the land. The Project will involve the rehabilitation of all land that is disturbed in the course of mining operations, as described in Section 8.21.

5.3.2 State Environmental Planning Policy 33 – Hazardous and Offensive Development

State Environmental Planning Policy 33 – Hazardous & Offensive Development (SEPP 33) governs the assessment of developments for the purposes of a “potentially hazardous industry” or “potentially offensive industry”.

Clause 12 of SEPP 33 requires a preliminary hazard analysis to be prepared in accordance with current circulars or guidelines (including the Hazardous and Offensive Development Application Guidelines) and the ‘Hazardous Industry Planning Advisory Paper No. 6’ referred to in the DGRs). The preliminary hazard analysis is discussed in **Section 8.16**.

Clause 13 of SEPP 33 requires the consent authority to consider the following:

- “(a) current circulars or guidelines published by the Department of Planning relating to hazardous or offensive development and*
- (b) whether any public authority should be consulted concerning any environmental and land use safety requirements with which the development should comply and*
- (c) in the case of development for the purpose of a potentially hazardous industry – a preliminary hazard analysis prepared by or on behalf of the applicant and*
- (d) any feasible alternatives to the carrying out of the development and the reasons for choosing the development the subject of the application (including any feasible alternatives for the location of the development and the reasons for choosing the location the subject of the application) and*
- (e) any likely future use of the land surrounding the development.”*

5.3.3 State Environmental Planning Policy 44 – Koala Habitat Protection

State Environmental Planning Policy 44 – Koala Habitat Protection (SEPP 44) encourages the conservation and management of natural vegetation areas to ensure that there is ongoing protection of koalas and their habitat. Muswellbrook LGA is listed under Schedule 1 as an area to which SEPP 44 applies.

Clause 9 of SEPP 44 requires the preparation of a plan of management where a development is proposed to be carried out on lands that constitute “core koala habitat”. To determine whether the land constitutes “core koala habitat”, it is first necessary to determine whether the land is “potential koala habitat”. “Potential koala habitat” is defined under clause 4 as “*areas of native vegetation where the trees of the types listed in Schedule 2 constitute at least 15% of the total number of trees in the upper or lower strata of the tree component*”.

The Ecological Impact Assessment undertaken for the Project has determined that the Project Boundary is “potential koala habitat” due to the presence of feed tree species including *Eucalyptus albens* x *Eucalyptus moluccana* (White Box x Grey Box intergrade) and *Eucalyptus tereticornis* (Forest Red Gum). Both *Eucalyptus albens* (White Box) and *Eucalyptus moluccana* (Grey Box) are known koala secondary food trees and thus it is probable that koalas would browse on intergrades of these two tree species.

The next step is to determine whether the land is “core koala habitat”. Clause 4 of SEPP 44 defines “core koala habitat” as:

“an area of land with a resident population of koalas, evidenced by attributes such as breeding females (that is, females with young) and recent sightings of and historical records of a population.”

Recent ecological surveys of the area, including the Ecological Impact Assessment for this Project, have not recorded any occurrences of the koala within the Project Boundary. Therefore, it has been concluded that the land within the Project Boundary is not “core koala habitat”. As a consequence, there is no need to prepare a plan of management. Further detail in relation to the Ecological Impact Assessment is discussed in **Section 8.11**.



5.3.4 State Environmental Planning Policy 55 – Remediation of Land

State Environmental Planning Policy 55 – Remediation of Land (SEPP 55) aims to promote the remediation of contaminated land. Clause 7 imposes the following obligations on a consent authority:

- "(1) A consent authority must not consent to the carrying out of any development on land unless:*
- (a) it has considered whether the land is contaminated and*
 - (b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out and*
 - (c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose."*

Pursuant to clauses 7(2) and 7(4), a preliminary investigation must be undertaken for land that has been used for agriculture and mining. If the proposed development represents a change in use of this land, the consent authority cannot grant consent to the development application unless it has considered the preliminary investigation of the land. The Project will involve a change in the use of the land to the west of the Approved Bengalla Mine. Accordingly, the applicant has undertaken the required preliminary investigation, which is provided in Section 8.20. The investigation determined that there is no contaminated land within the area of the Project Boundary where a change of use is proposed.

5.3.5 Hunter Regional Environmental Plan 1989 (Heritage)

The Hunter Regional Environmental Plan 1989 (Heritage) (Hunter REP) aims to conserve the environmental heritage of the Hunter Region. Items of state, regional and local heritage significance are listed under schedules 1, 2 and 3 of the Hunter REP. None of these heritage items are located within the Project Boundary. There are two items located in the vicinity of the Project Boundary:

- Keys Family Private Cemetery, a regional environmental heritage item (Schedule 2) (Hunter REP); and
- Overdene Homestead, a local environmental heritage item (Schedule 3) (Hunter REP).

Additionally, the Bengalla Homestead (Schedule 4) (Hunter REP) is within the Project Boundary.

Clause 13 of the Hunter REP states that 'Council' can only grant consent to a development in the vicinity of a heritage item after it has assessed the effect of the development on the heritage significance of the item. The impacts of the Project on the Keys Family Private Cemetery and Overdene Homestead and the Bengalla Homestead are discussed in Section 8.10.3.

5.3.6 Muswellbrook Local Environment Plan 2009

The Project is within RU1, E3 and SP2 zones under the Muswellbrook LEP as discussed in Section 5.2.3.

5.4 Requirements Under Other NSW Legislation

In order to carry out the Project, BMC will require a number of approvals in addition to Development Consent. Section 89K states that the following authorisations cannot be refused if necessary for carrying out any approved:

- (a) "an aquaculture permit under section 144 of the Fisheries Management Act 1994,*
- (b) an approval under section 15 of the Mine Subsidence Compensation Act 1961,*
- (c) a mining lease under the Mining Act 1992,*
- (d) a production lease under the Petroleum (Onshore) Act 1991,*
- (e) an environment protection licence under Chapter 3 of the Protection of the Environment Operations Act 1997 (for any of the purposes referred to in section 43 of that Act),*
- (f) a consent under section 138 of the Roads Act 1993,*
- (g) a licence under the Pipelines Act 1967."*

Each is described further below.

5.4.1 Mining Act 1992

Summary

Under section 5 of the Mining Act, it is an offence to mine for minerals except in accordance with a valid authorisation. Section 6 of the Mining Act provides that a valid authorisation is also needed for certain activities that are incidental to mining, including water storages, tailings dams and stockpiles.

BMC will seek the following authorisations under the Mining Act:

- Renewal of existing Mining Leases (1397, 1450, 1469 and 1592);
- Convert BMC AL13 and EL A438 to new Mining Lease for coal mining;

- A new mining lease for surface purposes to a depth of 40 m for surface mining purposes only (being the surface activities described in this EIS) over the area west of AL13 within A102 required for necessary Project infrastructure; and
- Part transfers of Coal & Allied Mining Lease 1645 (which overlays part of AL13 south of Wybong Road and a section of the surface only for the necessary area north of Wybong Road).

The required authorisations required for the Project are shown on **Figure 28** and are discussed below.

Part Transfer Coal & Allied Authorisations

It is proposed that the areas of Mining Lease 1645 (held by Coal & Allied Operations Pty Limited) necessary for supporting the relevant elements of the Project (indicatively those which are shown on **Figure 28**) will be part transferred at the appropriate time having regard for progress of the Project by the holder of Mining Lease 1645 (Coal & Allied Operations Pty Ltd) to BMC, which includes areas to the:

- South of Wybong Road; and
- North of Wybong Road in the area of the Dry Creek clean water diversion dam (CW1).

5.4.2 Protection of the Environment Operations Act 1997

Section 48 of the *Protection of the Environment Operations Act 1997* (POEO Act) provides that an EPL is needed for the carrying out of scheduled activities under the Act. Under clause 28 of Schedule 1 of the POEO Act, "mining for coal" is declared to be a scheduled activity if the daily production exceeds 500 t, or if the disturbance area exceeds 4 ha. Therefore, the Project is a scheduled activity and will require an EPL.

BMC currently holds EPL 6538 for the Approved Bengalla Mine. BMC will seek the necessary variations to this licence to accommodate the Project. Those variations will include the right to discharge water from a different licensed discharge point location to that currently approved.

5.4.3 Roads Act 1993

Under section 138 of the *Roads Act 1993* (Roads Act), work cannot be carried out in, on or over a public road unless the appropriate roads authority has given consent. Consent under section 138 will be required for the realignment of Bengalla Link Road. The relevant roads authority is MSC.

The realignment of Bengalla Link Road will intersect Wyndham Arms right of way which is a Crown road. At the intersection there will be work on a Crown road and will therefore require consent under section 138 of the Roads Act from the Minister administering the Roads Act.

The Project will also necessitate the crossing of Wybong Road to enable earthen materials from the earthworks associated with the construction of CW1 to be deposited on the southern side of Wybong Road as part of the OEA(s). Some minor remediation works to Wybong Road may also be required upon completion of the temporary crossing works. Since Wybong Road is a council road, this work will require the consent of MSC.

The Project will also involve the construction of a pipeline that passes beneath the surface of Wybong Road for which consent under section 138 of the Roads Act from MSC will also be required.

Pursuant to section 89K(1)(f) of the EP&A Act, the necessary consents under section 138 of the Roads Act cannot be refused if they are required for the carrying out of a project that has been granted Development Consent under the EP&A Act.

5.4.4 Water Management Act 2000

The licensing and approvals provisions of the *Water Management Act 2000* (WM Act) apply (in general terms) to water sources that are subject to a Water Sharing Plan (WSP). Parts 2 and 5 of the Water Act 1912 continue to apply to water sources that are not subject to a WSP.

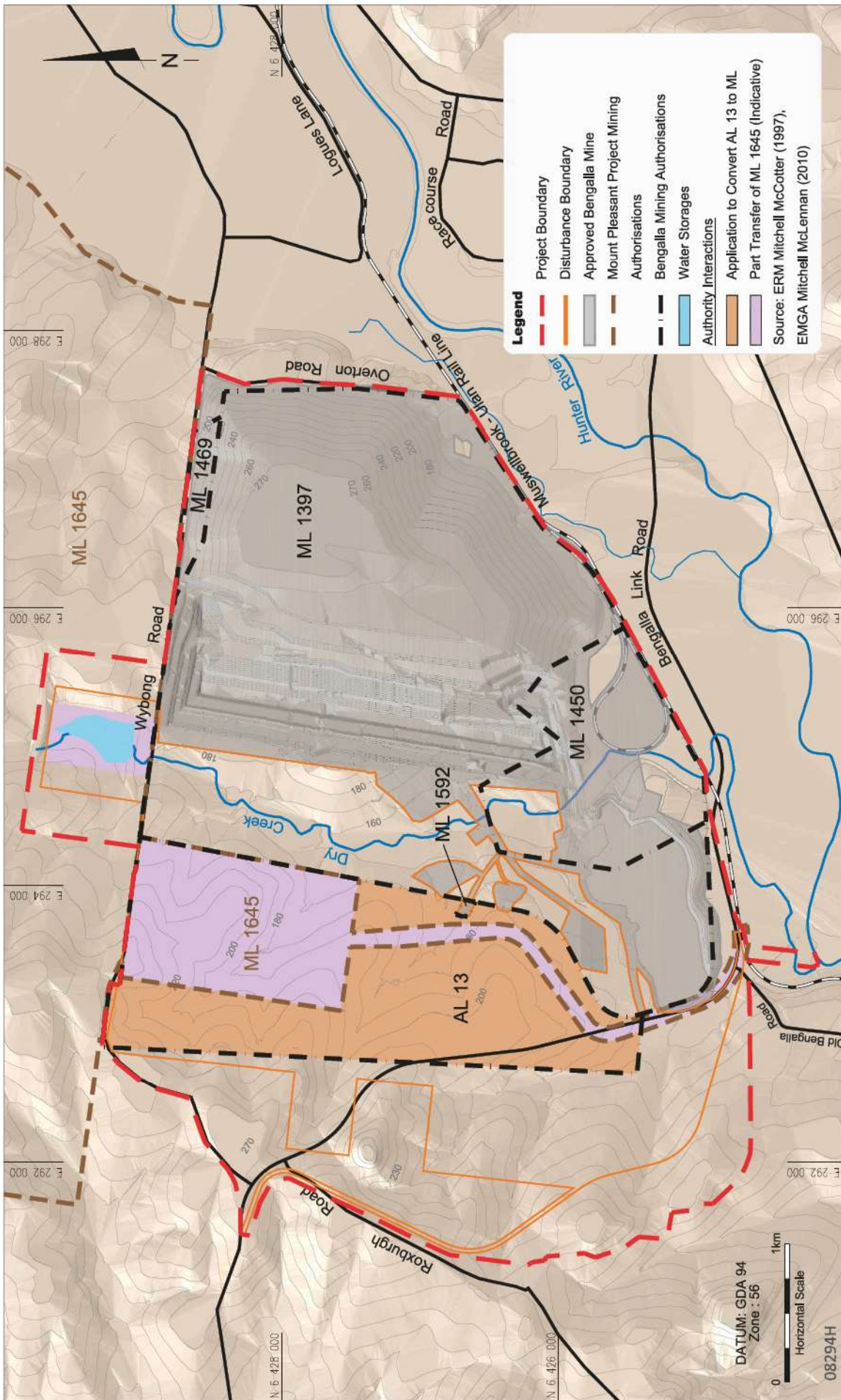
There are two water sharing plans that are relevant to the Project:

- 'WSP for the Hunter Regulated River Water Source 2003' (Hunter River WSP); and
- 'WSP for the Hunter Unregulated and Alluvial Water Sources 2009' (Hunter Unregulated WSP).

The water sources affected by of the Project that are within these WSPs will be subject to the approvals and licensing provisions of the WM Act. The water sources affected by the Project that are outside of a WSP will be governed by the Water Act.

The Hunter River WSP applies to all water between the banks of the Hunter River downstream of Glenbawn Dam. A WAL will therefore be required for water extracted from the Hunter River. The WSP also applies to water in the alluvial sediments underlying waterfront land (within 40 m of the river bank). The long term average annual extraction limit for this water source is 217,000 ML/year, which represents approximately 20% of the natural flow. Since the commencement of the WSP, water extraction has been substantially below the extraction limit (DWE, 2009).

The Hunter Unregulated WSP applies to 39 water sources in the Hunter Region. The Project is situated entirely within the Muswellbrook Water Source, which has a total share component of 1,816 units, including 636 unit shares for unregulated river access licences.



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Mining Lease Applications and Transfers

FIGURE 28

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The WSP applies to all surface water and alluvial aquifers within the water source. Therefore, the WSP applies to surface flows in Dry Creek. A WAL will be required for water taken from the Dry Creek catchment.

The Hunter Unregulated WSP also applies to the Hunter Regulated River Alluvial Water Source. This water source includes water contained in the Hunter River alluvium (excluding the sediments within 40 m of the river bank). The alluvial sediments within 40 m of the bank are regulated by the Hunter River WSP. A WAL will be required if the Project reduces the groundwater flow to the alluvium. The areas to which the WSPs apply are shown on Figure 29.

CW1 Diversion Dam

CW1 (the clean water diversion dam north of Wybong Road) will capture surface run off and then divert that water around the Project and put it back into the catchment which ultimately flows into the Hunter River. Section 60I of the *Water Management Amendment Act 2010* renders the diversion of water from a water source in connection with a mining activity as taking water for the purposes of the WM Act "... whether or not water is returned to that water source ...".

Section 60I has not yet commenced. If it does commence, then any water diverted by CW1 may have to be accounted for under a WAL for the Hunter Regulated River. BMC holds WAL 001106 with a share component of 1,449 units (High Security) on the Hunter Regulated River. BMC also holds other water access licences with a general security share components totalling 4,562 units for the Hunter Regulated River Water Source and 442 units for the Hunter Regulated River Alluvial Water Source.

Water Act 1912

The Hunter water sharing plans exclude water in the basement rocks (which includes the porous rock aquifers). Accordingly, under section 112 of the Water Act, a bore licence is required for the Project.

The embargoes against grants of Water Act licences under section 113A of the Water Act do not apply to the porous rock aquifers in the Hunter. Accordingly, it is open for there to be a grant of the necessary water licence for the Project.

BMC holds a bore licence under Part 5 of the Water Act for the basement rocks authorising a maximum annual extraction of 125 ML pa. This would be subject to an application to vary licence.

Water Management System

Clause 18(1) of the *Water Management (General) Regulation 2011* (WM Regulation) states that a WAL is not required for any of the purposes listed under Part 1 of Schedule 5 of the WM Regulation. 'Excluded works' are listed under Part 1 of Schedule 5 as a purpose that does not require a WAL. 'Excluded works' are defined in Schedule 1 of the WM Regulation and include:

"Dams solely for the capture, containment and recirculation of drainage and / or effluent, consistent with best management practice or required by a public authority (...) to prevent the contamination of a water source, provided such dams are located on a minor stream."

Therefore, a WAL does not need to be obtained for water captured in sediment dams.

Pursuant to section 89J(1)(g) of the EP&A Act, the Project will not require approval under sections 89, 90 and 91 of the WM Act. The applicability of these sections is discussed in Section 5.5.4.

Water Licensing Summary

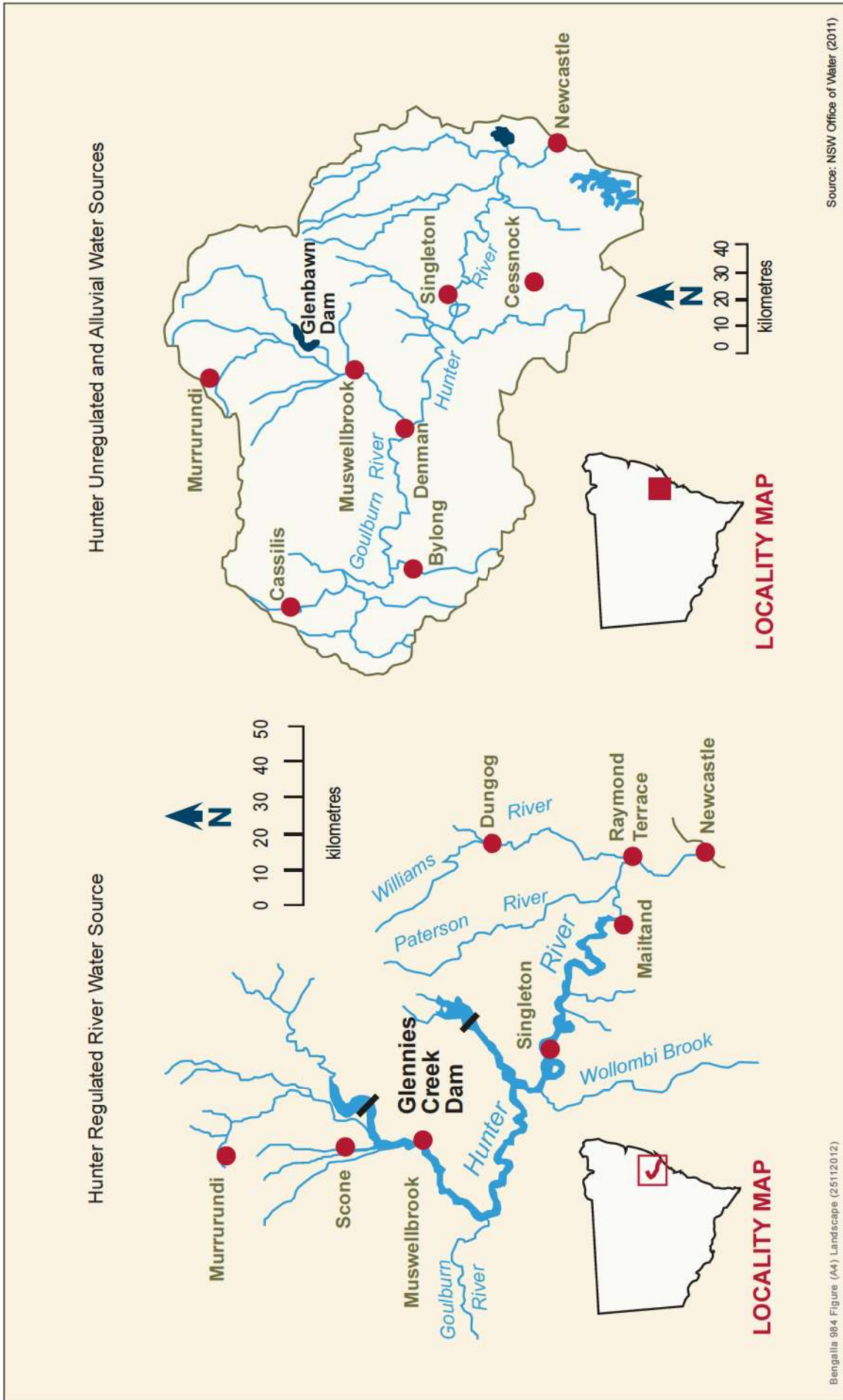
It is an offence to take water from a water source except in accordance with a WAL unless an exemption applies. WALs with sufficient water allocation (derived from share component) must be held under the WM Act to account for all water taken by the Project from a water source in any one "water year" (1 July to 30 June). Similarly, a groundwater licence under Part 5 of the Water Act with sufficient annual entitlement must be held to account for the maximum amount of water taken by the Project from outside a WSP area (i.e. the Permian coal measures).

BMC will hold all relevant licences, share component and allocation required to comply with the WM Act and Water Act at all times water is taken, whether during or after the life of the Project. Table 15 lists water licences which will need to be progressively sought for the Project.

BMC hold WALs with sufficient share component totalling 6,017 units (comprising 1,455 high security units and 4,562 general security units) to account for the maximum predicted take for the life of the Project from the Hunter Regulated River Water Source (Management Zone 1A). BMC maintains exclusive rights for the dedicated use of at least 2,534 units (comprising 1,449 high security units and 1,085 general security units) under these WALs for the Project. The remaining units of the WALs (comprising 2,702 units) are currently subject to use by licensees of BMC owned land for agricultural purposes.

BMC also holds WALs with sufficient share component totalling 490 units for the Hunter Unregulated and Alluvial Water Source (year) (Hunter Regulated River Alluvial Water Source). BMC maintains exclusive rights for the dedicated use of at least 377 units under these WALs for the Project.

Given that BMC does not currently hold a WAL for the Hunter Unregulated and Alluvial Water Source (Muswellbrook Water Source), water will not be taken from this source until BMC has secured a WAL(s) with sufficient share component to authorise the take for the Project. There are 24 unregulated river WALs in existence for the Muswellbrook Water Source held by 21 separate holders with a total of 636 units of share component.



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Water Sharing Plans

FIGURE 29

In accordance with Part 5 of the Water Act, BMC holds a licence to authorise the take of 125 ML of groundwater. To account for the maximum amount of groundwater taken by the Project at any one point during its life, BMC will make the required application to NOW to amend its licence conditions so as to increase the volumetric extraction authorised by the licence.

In respect of the water, which will be taken after mining, BMC will investigate in consultation with NOW appropriate surrender of entitlements in lieu of holding licences indefinitely (or other agreed mechanism).

By virtue of clauses 18 and 36 and Schedule 1 of the *Water Management (General) Regulation 2011*, mine water dams on site and the use of the water from them are exempt from the requirement for licences or approvals.

Further detail in relation to impacts to water sources is provided in Section 8.6 and Section 8.7 and the Aquifer Interference Policy (AIP) Compliance Criteria in Section 5.7. BMC will also obtain the necessary bore licences prior to the installation of new monitoring bores.

Harvestable Rights

A WAL is not required to take and use water by means of harvestable rights dams in accordance with the applicable harvestable rights order under the WM Act. Harvestable rights may be available to account (wholly or partially) for the take of water from a water source. In the case of the Project, the maximum take from the Muswellbrook Water Source is estimated at 39 ML/year.

BMC's calculated harvestable rights (based on its total landholding of 3,203 ha less the Disturbance Boundary and the Approved Bengalla Mine resulting in a net area of 1,551 ha) has been determined to be 109 ML per water year.

BMC has nominated Spare Dam and Relocated Staged Discharge Dam as shown on Figure 3 as its harvestable rights dams from which water can be taken and used without a WAL. These dams have an annual average capture volume of 60.9 ML (less than the capacity allowed under the Harvestable rights Order).

Available Water Determinations

BMC currently has exclusive use of a large proportion of the units under its WALs (see Table 15). The remaining units are or may be subject to term transfers and/or use by licensees of BMC owned land for agricultural purposes. However, BMC enters into licence agreements on terms that allow it to resume from time to time (either temporarily or permanently) use of the land and/or water licences when required for mining operations effectively giving BMC priority over the use of that water entitlement.

Available Water Determinations (AWDs) for both general security and high security WALs in the Hunter Regulated River water source have been 1 ML per unit of share component for the past six water years. Similarly, WALs in the Hunter Regulated River Alluvial Water Source have been 1 ML per unit of share component for the past five water years. It is acknowledged that high security licences have priority over general security licences when determining AWDs in dry conditions.

Table 15 Project Water Licensing Requirements

Water Type	Water Source	Predicted Annual Take (ML/year)		BMC Current Entitlements Held	Licence Allocation Required (ML/year or Units)	Water Available in Water Source
		Avg	Max			
Water Management Act 2000						
Groundwater	Hunter Unregulated and Alluvial Water Source – Hunter Regulated River Alluvial Water Source	112	220	442 ML	0	23,722 units
Surface Water	Hunter Regulated River Water Source (Management Zone 1A)	1,500	2,257	3 high security WALs totalling 1,455 units 25 general security WALs totalling 4,562 units	0	10,378 high security units 75,035 general security units
	Hunter Unregulated and Alluvial Water Source – Muswellbrook Water Source	20	39	109 ML	0	636 units
Water Act 1912						
Groundwater	Coal seam and Bedrock Aquifer	110	365	125 ML	240	N/A

5 Regulatory Framework

In consideration of the relatively stable recent AWDs and the large volume of licences held by BMC, it is considered that BMC holds sufficient entitlement to account for the peak annual take of water from the Hunter Regulated River Water Source (2,257 ML) and the Hunter Unregulated and Alluvial Water Source (Hunter Regulated River Alluvial Water Source) (220 ML) having regard for AWDs, which may reduce the value of one unit below 1 ML.

In the unlikely event that the water supply needs of the Project cannot be met by existing licences due to AWDs, the necessary water entitlements would be purchased. The Hunter Regulated River Water Source is an active trading market, with over 85,000 units of share component (general and high security units) estimated to exist at the commencement of the water sharing plan in Management Zone 1.

To the extent that any available water determinations reduce the value of one unit to a level such that the water needs of the Project cannot be met and additional licences cannot be secured on the market, this is acknowledged as a commercial risk for the Project production.

5.4.5 Dams Safety Act 1978

The *Dams Safety Act 1978* (Dams Safety Act) requires the NSW Dams Safety Committee (DSC) to “*formulate measures to ensure the safety of dams*” and to “*maintain a surveillance of prescribed dams*”. A “*prescribed dam*” is any dam listed under Schedule 1 of the Dams Safety Act.

The Project will involve the construction of dams that are likely to be prescribed dams. These include the relocated Staged Discharge Dam (currently a prescribed dam), Mount Pleasant Discharge Dam and CW1.

The proposed dams for the Project have been referred to the DSC in the course of the stakeholder consultation undertaken for this EIS (see Section 1). If one or more of the proposed dams are deemed to be prescribed dams, then activities in the vicinity of these dams will be regulated by the Dams Safety Act and the DSC.

5.4.6 Coal Mine Health and Safety Act 2002

Under section 100 of the *Coal Mine Health and Safety Act 2002*, emplacement areas can only be established with the approval of the Minister. An “*emplacement area*” is defined to mean “*any pile, heap, hole, excavation or place in which or on which reject (whether in a solid state or in a solution or suspension) is piled, heaped, dumped, accumulated or deposited or placed ...*”. An application for approval of emplacement areas will be made with the Minister or his delegate when required.

5.4.7 Threatened Species Conservation Act 1995

The *Threatened Species Conservation Act 1995* (TSC Act) lists and defines threatened species, populations and ecological communities and critical habitat within NSW. The TSC Act also provides a framework for the assessment of a development’s impacts on threatened species. A detailed assessment of the Project’s impacts on threatened species and ecological communities is provided at Section 8.11.

5.5 Exemptions from other Approval Requirements

Under section 89J, the following authorisations are not required for any SSD that has been granted Development Consent:

- A permit under section 201, 205 or 219 of the *Fisheries Management Act 1994*;
- An approval under Part 4, or an excavation permit under section 139, of the *Heritage Act 1977* (Heritage Act);
- An Aboriginal Heritage Impact Permit (AHIP) under section 90 of the *National Parks and Wildlife Act 1974* (NPW Act);
- An authorisation referred to in section 12 of the *Native Vegetation Act 2003* (NV Act) (or under any Act repealed by that Act) to clear native vegetation or State protected land;
- A bushfire safety authority under section 100B of the *Rural Fires Act 1997*; and
- A water use approval under section 89, a water management work approval under section 90 or an activity approval (other than an aquifer interference approval) under section 91 of the WM Act.

The approvals which have potential relevance to the Project are discussed in the following sections.

5.5.1 Heritage Act 1977

The Heritage Act governs the management of items of European heritage significance (referred to as “*relics*”). Section 139(1) of the Heritage Act states that “*A person must not disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an excavation permit*”.

There are no heritage items listed under the Heritage Act to be affected by the Project. Historic heritage is further described in Section 8.10.

5.5.2 National Parks and Wildlife Act 1974

Under the section 86 of the NPW Act, it is an offence to harm or desecrate an Aboriginal place or object except in accordance with an AHIP issued under Section 90 of the NPW Act.

Pursuant to section 89J(1)(d) of the EP&A Act, the granting of Development Consent will remove the requirement to obtain an AHIP prior to the salvage or destruction of Aboriginal objects. However, Aboriginal cultural heritage impacts assessments and management plans are required and must be consistent with OEH guidelines.

Part 8A of the NPW Act establishes offences pertaining to the harming of threatened species, populations, ecological communities and critical habitats. However, sections 118A(3)(b)(i), 118C(5)(b)(i) and 118D(2)(b)(i) state that a valid defence exists where the act causing the harm is essential to the carrying out of a development for which Development Consent has been granted.

5.5.3 Native Vegetation Act 2003

Section 12 of the NV Act prohibits the clearing of native vegetation except in accordance with a Development Consent granted under the EP&A Act or a property vegetation plan.

5.5.4 Water Management Act 2000

The Project will include and constitute controlled activities and management works and will use water which, except where exemptions apply (see above), ordinarily require approvals under sections 89 (water use), 90 (management works) and 91 (controlled activities). These approvals will not be required where Development Consent under Division 4.1 is granted.

An aquifer interference activity approved under Section 91 would be required but for the fact that these provisions have not commenced in the area of the Project. However, the AIP (NOW, 2012) requires assessment in the context of the Project.



5.6 Plans and Policies

5.6.1 MSC Land Use Development Strategy (Coal Mining Component)

In November 2011, MSC introduced the 'Draft Land Use Development Strategy (Coal Mining Land Use Component)' (LUDS) (MSC, 2012). The coal mining component of the LUDS prescribes a number of planning principles to ensure that current and future land uses are not prejudiced by coal mining developments. The LUDS sets out MSC's expectations for mining projects and the issues that it will consider when evaluating a proposed project for the purposes of making a submission on the Project. The underlying principles of the LUDS are:

- Intensification of existing and approved mining activities are favoured over an increase in the footprint of mining activities;
- Land use conflict needs to be managed between mining activities and adjoining uses, particularly in regard to the development and growth of Muswellbrook township;
- Impacts of mining activities on the health and well-being of residents in settlements and townships require investigation and monitoring throughout the lifetime of the mine;
- Recognition needs to be given to the central location of Muswellbrook in regard to the movement of coal resource through the Upper and Mid Hunter Valley;
- There is a need for a whole of life consideration for mining activities, including quality rehabilitation and restoration of mined land;
- Mining activities as far as possible should complement rather than dominate landscapes, particularly as seen from the road;
- Provision needs to be made for the diversification of land uses within the Shire, particularly ensuring that once mining has ceased compatible land use activities can re-establish and add to the Shire's diversity and economic base;
- Rehabilitation of land post mining should set the platform for future land use, recreation opportunities and provide for opportunities to strengthen the districts biodiversity resource;
- Best practice activities employed in the mining industry should be employed in mining activities throughout the Shire; and
- Recognition that mining activity is a positive contributor to the Shire's economy and that the mining industry continues to work in partnership with Council.

This EIS proposes mitigation and management measures to ameliorate the predicted impacts of the Project as described in Section 8. These measures assist in achieving these principles to the maximum extent practicable.

5.6.2 Agricultural Impact Statement

The DGRs require that the "... the EIS to contain a rigorous assessment of the agricultural impacts of the project. Your assessment must be in accordance with the new Agricultural Impact Statement (AIS) guideline, which is available on the Department's website".

The AIS for the Project is summarised in Section 8.20.

5.6.3 Upper Hunter Strategic Regional Land Use Plan

In March 2012, the NSW government placed the *Draft Upper Hunter Strategic Regional Land Use Plan* (draft SRLUP) (DP&I, 2012a) on public exhibition. The document established a preliminary 'Gateway process' for a scientific assessment of the impacts of a SSD (of the same nature as the Project) on Strategic Agricultural Land (SAL):

"The Department also advises that there are a number of recent key policy and planning documents that are relevant to the project. These include the draft Upper Hunter Strategic Regional Land Use Plan and the draft Aquifer Interference Policy ... These DGRs may be amended to reference these additional documents once they are finalised to ensure that they are appropriately considered during the preparation of the EIS. ... The Department strongly recommends that you consider the draft Plan and in particular the draft Gateway criteria in Chapter 11 of the Plan during preparation of your mine plan and EIS."

In September 2012, the *Upper Hunter Strategic Regional Land Use Plan* (SRLUP) (DP&I, 2012b) was finalised and released. The document provides a Gateway process for all State significant developments, which involves the verification of SAL, and if it exists, the assessment by an independent panel of experts (referred to as the 'Gateway Panel') against the criteria of the SRLUP.

Implementation of the SRLUP through environmental planning instrument (and/or legislation) has not yet occurred as at the date of this EIS. It will be brought into operation by amendments to the Mining SEPP and other necessary legislative changes. Consequently, the Gateway process foreshadowed in the SRLUP does not apply to the Project.

In this regard, the Project will not be required to hold a Gateway certificate for the development application to be lodged. However, the assessment criteria of the SRLUP relevant to the Project have been considered in this EIS. There are two categories of SAL:

- Biophysical Strategic Agricultural Land (BSAL); and
- Critical Industry Cluster land (CIC), which is represented by the Equine and Viticulture CIC.

The indicative extent of SAL for the Upper Hunter region is provided in Map 6 of the SRLUP. Figure 30 illustrates the proximity of the Project Boundary and Project Disturbance Boundary to the areas of SAL mapped in the SRLUP.

Biophysical Strategic Agricultural Land

The indicative extent of BSAL illustrated in Map 6 of the SRLUP is based on the criteria provided in Table 1 of the SRLUP.

The Approved Bengalla Mine occurs within the spatial limits of mapped BSAL (including the CHPP and administration facilities to be utilised by the Project). However, in relation to the Disturbance Boundary, only 1 ha associated with the southern section of the realignment of the Bengalla Link Road realignment is within the spatial limits of mapped BSAL. The existing southern portion of the Bengalla Link Road (part of the Approved Bengalla Mine) is located wholly within BSAL.

Further discussion in relation to the extent of verified BSAL within the Project Disturbance Boundary is presented below and in Section 8.20.

Equine Critical Industry Cluster

The indicative extent of the Equine CIC as illustrated in Map 6 of the SRLUP and based on the mapping criteria provided in the Appendix of the SRLUP. In the Muswellbrook LGA, the Equine CIC includes land "within 2 km of the Muswellbrook Denman Road or the New England Highway north of Muswellbrook".

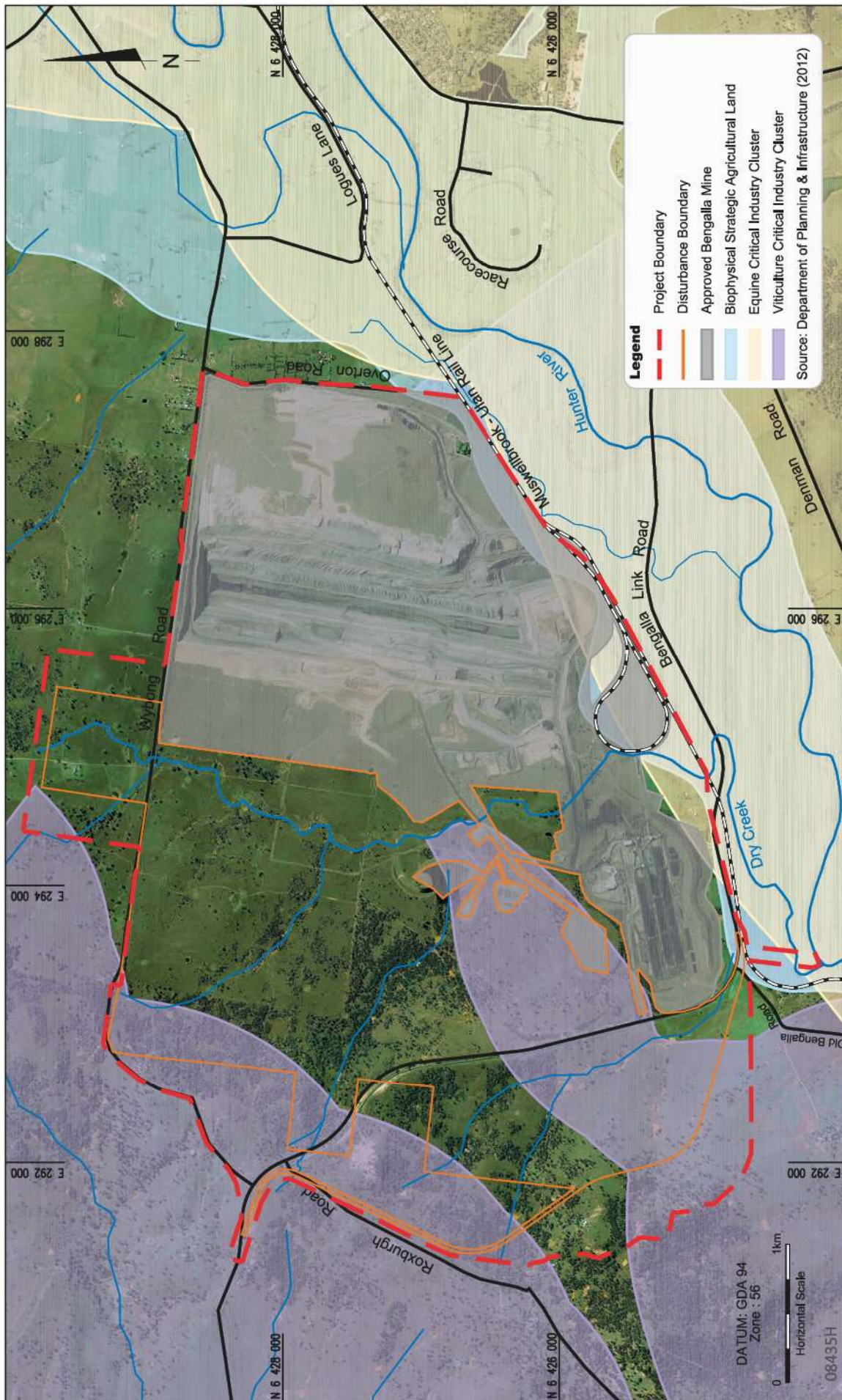
The Approved Bengalla Mine occurs within the spatial limits of mapped Equine CIC (including the existing CHPP and Administration facilities to be utilised by the Project). However, the Disturbance Boundary does not occur within the spatial limits of the mapped Equine CIC. Further discussion in relation to the extent of verified Equine CIC within the Disturbance Boundary is presented in Section 8.20.

Viticulture Critical Industry Cluster

The indicative extent of the Viticulture CIC is illustrated in Map 6 of the SRLUP. The criteria provided in the Appendix of the SRLUP to determine if land is Viticulture CIC is as follows:

- "...Land (excluding National Park and State Forests) within 20 km of Denman; and
- Falls under soil fertility classes 'high', moderately high, moderate or moderately low under the Draft Inherent General Fertility of NSW (OEH); and
- Land capability classes I, II, III, IV or V under the Land and Soil Capability Mapping of NSW (OEH); and
- Is within 2 km of a mapped alluvial water source."

The Approved Bengalla Mine occurs within the spatial limits of mapped Viticulture CIC (including the existing CHPP and administration facilities to be utilised by the Project). Additionally, approximately 494 ha of the Project Boundary occurs within the spatial limits of mapped Viticulture CIC.



BENGALLA MINE

Strategic Agricultural Land (SRLUP Mapping)

FIGURE 30

Hansen Bailey
ENVIRONMENTAL CONSULTANTS



5 Regulatory Framework

The Soils and Land Capability Impact Assessment (Section 8.19) to determine soil fertility and land capability and the Groundwater Impact Assessment (Section 8.7) to determine the extent of any alluvial aquifer were investigated to determine if land within the Project Boundary conformed to the requirements presented in the SRLUP Appendix.

Following the verification process it was determined that the Project Boundary contains 494 ha of Viticulture CIC that meets all the criteria presented in the SRLUP Appendix. Of this a total of 369 ha of verified Viticulture CIC is located within the Disturbance Boundary although the nearest vineyard not owned by the operator of a coal mine is located 12 km to the south-west away from the Project Boundary at the closest point.

Further discussion in relation to the extent of verified Viticulture CIC within the Disturbance Boundary is presented in Section 8.20.

Site Verification

As part of the Gateway process, site verification must be undertaken for the land within the Project Disturbance Boundary, if it is mapped as SAL in accordance with Map 6 of the SRLUP. In order for the land to be considered SAL, the land must satisfy the criteria for BSAL or CIC (see Section 8.20).

In Chapter 11 of the SRLUP it is noted that "Due to the regional scale of the strategic agricultural land maps in the plan it is important that appropriate processes are in place to provide for site-specific verification that the particular sites do in fact meet the strategic agricultural land criteria." As such this EIS considers whether the mapped land does or does not meet the criteria, relevant to the Project, for Equine CIC and/or a Viticulture CIC.

Discussion

The SRLUP proposes 'gateway criteria' which must be considered by the 'gateway panel' in its assessment of the proposal. As part of the assessment process, a site verification process must be undertaken for the land mapped as SAL. In order for the land to be considered SAL, the land must satisfy the criteria for BSAL or CIC. These criteria are defined in Chapter 3 of the SRLUP and are reproduced in Table 16.

The SRLUP provides that the 'gateway panel' must consider the criteria defined in Chapter 11 of the SRLUP. The criteria for BSAL and CIC are provided and consideration given in Table 17.

The *Interim Strategic Agricultural Land Policy for State Significant and Transitional Part 3A Mining and Coal Seam Gas Proposals in the Upper Hunter and New England North West Regions* (Interim Policy) requires the AIS for the Project to include specific focused assessment of the impacts of the proposal on strategic agricultural land, having regard to the draft gateway criteria in the draft SRLUPs.

As the SRLUP has now been released in final form, the AIS and this EIS will incorporate an assessment as required by the Interim Policy having regard for the gateway criteria in the SRLUP.

Gateway Criteria Assessment

Under the SRLUP if a State significant development is located on land that has been confirmed as SAL, the proposal will be assessed by the Gateway Panel against the criteria listed in Table 2 of the SRLUP. The assessment criteria are reproduced Table 17.

Although not applicable by means of legislation, the Gateway process and criteria of the SRLUP is relevant to the assessment of the Project, due to the DGRs which requires the EIS to "consider the draft Plan and in particular the draft Gateway criteria in Chapter 11 of the Plan". In this instance, the Gateway criteria of the SRLUP has been adopted, which supersedes the draft SRLUP.

This EIS and the AIS prepared for the Project (see Appendix W), which is required by means of the *Strategic Regional Land Use Policy* (DP&I, 2012c), includes a specific focussed assessment of the impacts of the Project on SAL having regard to the Gateway criteria in the SRLUP. In order to fulfil the request with the DGRs, the AIS draws upon conclusions provided in expert impact assessments prepared for the Project, which encompass a number of environmental and socio-economic disciplines. As indicated in Table 2 of the SRLUP (reproduced as Table 17) it will be necessary to take into account "Any advice on water impacts received from the Commonwealth Independent Expert Scientific Committee on Coal seam Gas and Large Coal Mining Development" in the assessment of the Project against the criteria of the SRLUP.



Table 16 Verification of Strategic Agricultural Land Values

Value	Criteria	Project Trigger	Section
Biophysical Strategic Agricultural Land	Land that falls under soil fertility classes 'high' or 'moderately high' under the Draft Inherent General Fertility of NSW (OEH) and		8.19 and 8.20
	Land capability classes I, II or III under the Land and Soil Capability Mapping of NSW (OEH) and	✓	8.19 and 8.20
	<ul style="list-style-type: none"> • Reliable water of suitable quality, characterised by land having rainfall of greater than 350mm per annum (9 out of 10 years); or • Properties within 150 m of <ul style="list-style-type: none"> – A regulated river, or – Unregulated rivers where there are flows for at least 95% of the time (i.e. the 95th percentile flow of each month of the year is greater than zero) or – 5th order and higher rivers, or – Groundwater aquifers (excluding miscellaneous alluvial aquifers, also known as small storage aquifers) which have a yield rate greater than 5L/s and total dissolved solids of less than 1,500 mg/L. 	✓	8.7 and 8.20
	or		
	Land that falls under the soil fertility class 'moderate' under the Draft Inherent General Fertility of NSW (OEH) and	✓	8.19 and 8.20
	Land capability classes I or II under the Soil Capability Mapping of NSW (OEH), and	✓	8.19 and 8.20
Critical Industry Cluster	<ul style="list-style-type: none"> • Reliable water of suitable quality, characterised by land having rainfall of greater than 350mm per annum (9 out of 10 years); or • Properties within 150 m of <ul style="list-style-type: none"> – A regulated river, or – Unregulated rivers where there are flows for at least 95% of the time (i.e. the 95th percentile flow of each month of the year is greater than zero) or – 5th order and higher rivers, or • Groundwater aquifers (excluding miscellaneous alluvial aquifers, also known as small storage aquifers) which have a yield rate greater than 5L/s and total dissolved solids of less than 1,500 mg/L. 	✓	8.6 and 8.20
	Industry clusters that meet the following criteria: <ul style="list-style-type: none"> • There is a concentration of enterprises that provides clear development and marketing advantages and is based on an agricultural product; • The productive industries are interrelated; • It consists of a unique combination of factors such as location, infrastructure, heritage and natural resources; • It is of national and/or international importance; • It is an iconic industry that contributes to the region's identity; and • It is potentially substantially impacted by coal seam gas or mining proposals. 	✓	8.20

Table 17 Indicative Gateway Assessment Criteria for Strategic Agricultural Land

Value	Criteria	Section
Biophysical Strategic Agricultural Land	Whether the proposal would significantly reduce the agricultural productivity of the land based on a consideration of:	-
	• Impacts on the land through surface area disturbance and subsidence	8.20
	<ul style="list-style-type: none"> • Impacts on: <ul style="list-style-type: none"> – Soil fertility – Rooting depth, or – Soil profile materials and thickness 	8.19
	• Increases in land surface microrelief or soil salinity, or significant changes to soil pH; and	8.19
	• Impacts on Highly Productive Groundwater, including the provisions of the Aquifer Interference Policy and the advice on the Minister for Primary Industries (note that the Minister for Primary Industries will be required to take into account the advice of the Commonwealth Independent Expert Scientific Committee in providing advice in this stage).	8.7

Value	Criteria	Section
Critical Industry Clusters	Whether the proposal would lead to significant impacts on the critical industry cluster through:	-
	• Surface area disturbance	8.20
	• Subsidence	N/A
	• Reduced access to agricultural resources	8.20
	• Reduced access to support services and infrastructure	8.20
	• Reduced access to transport routes	8.20
	• Loss of scenic and landscape values	8.20
Consultation	Any advice received from the Commonwealth Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development.	N/A

5.7 Aquifer Interference Policy

The following section identifies the relevant assessment criteria from the AIP and assesses each of them against the Project.

5.7.1 Water Sources

Requirement

Which water source(s) will the activity take water from. [clause 2.1, AIP – page 7]

Assessment

The proposed activity (the Project) will take water from the:

- Permian groundwater system – regulated (for licensing) under the Water Act 1912;
- Hunter Regulated River Alluvial Water Source – regulated under the WM Act;
- Hunter Regulated River Water Source – regulated under the WM Act; and
- Muswellbrook Water Source – regulated under the WM Act.

5.7.2 Quantities

Requirement

A prediction of the total amount of water that will be taken from each connected groundwater or surface water source on an annual basis as a result of the activity and after closure of the activity.... [clause 2.1, AIP – page 7]

How and in what proportions this take will be assigned to the affected aquifers and connected surface water sources, even if take predictions are not based on groundwater modelling. [clause 2.1, AIP – page 7]

Assessment

Modelling has been undertaken to determine the quantities of water that will be taken from groundwater sources. The peak annual take is predicted to be:

- 365 ML from the Permian groundwater system;
- 220 ML from the Hunter Regulated River Alluvial Water Source;
- 2,257 ML from the Hunter Regulated River Water Source; and
- 39 ML from the Muswellbrook Water Source.

5.7.3 Applicable Licence Exemptions

Requirement

How any relevant licence exemptions might relate to the water to be taken by the activity. [clause 2.1, AIP – page 7].

Assessment

There are no licence exemptions relevant to inflows to mining areas.

Runoff from disturbed areas will be captured in dams, which are considered to be excluded works under the WM Act and WM Regulation and reused for mining related activities (such as dust suppression and coal washing). There is a licence exemption for water taken using an excluded work.

5.7.4 Characteristics of Water Requirements

Requirement

The characteristics of the water requirements such as whether it is taken at a fixed rate or varying in time, i.e. is it ongoing, constant, unavoidable - which, in the case of regulated rivers, means that high security water may be required to account for the water requirements - or is it climatically/time varying or controllable in some way - which, in the case of regulated rivers, implies general security water is likely to be adequate to account for the water taken. [clause 2.1, AIP – page 7]

Assessment

The water taken from groundwater sources will vary over the Project life. The groundwater inflows to mining areas will peak in Year 1 and then gradually decrease as mining moves away from the Hunter River alluvium. The variation in inflow volumes over the Project life is discussed in Section 8.7. The reduction in flow to the Hunter River alluvium will also peak in Year 1 and decrease as mining progresses away from the alluvium. The reduction in flows to the alluvium over the Project life is discussed in Section 8.7.

5.7.5 Availability of Water Entitlements

Requirement

Whether there are sufficient water entitlements and water allocations that are able to be obtained to cover the characteristics of the water requirements. Consideration must also be given to the water sharing plan rules by which water is credited to water accounts on an annual basis and by which those accounts may be managed (e.g., carryover rules for unused water allocations) to provide the flexibility required to ensure there is sufficient water in accounts to cover the take of water. [clause 2.1, AIP – page 7]

Assessment

A request to vary the conditions of the existing Water Act licence will be made. There is no embargo against such action.

The necessary share component for the WAL is already held by the BMC and can be transferred to the relevant WAL at the appropriate time.

5.7.6 How Water Entitlements will be Obtained

Requirement

How this water will be obtained by what mechanism and what licence category, consistent with any trading rules specified in either the Minister's access licence dealing principles and/or relevant water sharing plans. Consideration will also need to be given to the possibility and effect of low water allocations in regulated river systems. For example, if high security entitlements have been purchased to cover the ongoing take of water from a regulated river water source, then there may be years of low water allocations due to low water availability. This may result in insufficient water allocation being credited to the high security licence account.

One way to cover this shortfall would be to enter the temporary water trading market and purchase water allocations credited to other licences. The costs and ability to undertake this sort of trade (i.e., the market depth) during these low allocation times will need to be understood. [clause 2.1 AIP – page 8]

Assessment

Clause 54(2) of the Hunter Unregulated and Alluvial Water Sources WSP provides that "An available water determination shall be made at the commencement of each water year for all aquifer access licences in the Hunter Regulated River Alluvial Water Source and should be equivalent to the available water determination made for regulated river (high security) access licences under the Water Sharing Plan for the Hunter Regulated River Water Source 2003".

The plan makes provisions for adjustments to the available water determination provisions after six years after the commencement of the plan.

The Bengalla Joint Venture holds a total of 442 units of share component for the Hunter Regulated River Alluvial Water Source and therefore the available water determination would need to go below 50% for Hunter Regulated River High Security share components before BMC would need to obtain additional allocations.



5.7.7 'Activation' of Existing Entitlements

Requirement

The effect that activation of existing entitlement may have on future available water determinations for the proposed licence category and entitlement volume. [clause 2.1, AIP – page 8]

Assessment

It is not believed that there will be any impact on future Available Water Determinations by the 'activation' of these entitlement volumes due to the small quantity compared to the total share component (24,132 unit shares in the Hunter Regulated River Alluvial Water Source – see clause 32(jj) of the Hunter Unregulated and Alluvial Water Sources, 2009).

5.7.8 Inflow Minimisation Measures

Requirement

Actions required both during operation and post-closure to minimise the risk of inflows to a mine void as a result of flooding, since these are very difficult to account for volumetrically. Therefore, set-back distances from rivers should be no less than that required to ensure structural integrity of the river bank during flooding events. Levee banks or landforms should also be constructed at the appropriate time to prevent at least a 1 in 100 year flood from entering the site either during or after operation. In some instances, where the implications of such inflows are significant, levee bank levels may be required to be higher. [clause 2.1, AIP – page 8]

Assessment

The Surface Water Impact Assessment included a flood impact assessment (see Section 8.6). This assessment found that all components of the Project (including the final void) are located outside of the 1 in 100 year flood extent of the Hunter River.

5.7.9 Water Take Beyond Project Life

Requirement

A strategy for accounting for any water taken beyond the life of the operation of the project, such as continuing to hold the appropriate amount of licence entitlement to cover the ongoing volumetric impact or surrendering a component of licence entitlement at the end of the project. [clause 2.1, AIP – page 8]

Assessment

The Groundwater Impact Assessment predicted that water will continue to be taken from the Hunter Regulated River Alluvial Water Source after mine closure. The long term annual reduction in flow to the alluvium is predicted to be 220 ML/year (0.6 ML/day). The water allocations required for the Project will be sufficient for the post-mining water take. BMC will maintain these water licences following closure of the mine.

5.7.10 Hydraulic Connection between Aquifers

Requirement

Any potential for causing or enhancing hydraulic connection between aquifers or between groundwater and surface water sources and quantification of this risk in the volumetric inflow estimates. [clause 2.1, AIP – page 8]

Assessment

The groundwater model predicts that mining associated with the Project will induce flow from the alluvium to the Permian. This is a reversal of the flow direction under pre-mining conditions. However, the flux generated by the Project will be less than the flux generated by the existing operations at Bengalla.

5.7.11 Other Uncertainties

Requirement

Quantification of any other uncertainties in the groundwater or surface water impact modelling conducted for the activity. [clause 2.1 AIP – page 8]

Assessment

The Groundwater Impact Assessment included a sensitivity analysis to determine the effect of uncertainty on the predicted inflows to mining areas and reductions in flow to the alluvium. The sensitivity analysis is discussed in Section 8.7.3.

5.7.12 Monitoring Actual Take

Requirement

Strategies in place for monitoring actual and reassessing any predicted take of water and how any changes in these requirements will be accounted for, including analysis of water market depth and/or in-situ mitigation and remediation options. [clause 2.1 AIP – page 8]

Assessment

BMC operates a network of groundwater monitoring bores and will undertake monitoring of inflows to mining areas and impacts on alluvial aquifers.

5.7.13 Ability to Obtain Necessary Water Licences

Requirement

- (a) *Ability to demonstrate that they have the ability to obtain the necessary licences in order to account for the take of water from any relevant water source; or*
- (b) *Ability to demonstrate that the proposal has been designed in such a way as to prevent the take of water where applicants are unable to meet the requirements specified in point (a) above. [clause 3.2 AIP – page 11].*

Assessment

The BMC own water licences and water access licences with the necessary water entitlements, as identified in Table 15.

5.7.14 'Minimal Impact' Considerations

Requirement

Ability to demonstrate that adequate arrangements will be in place to ensure that the minimal impact considerations specified in Table 1 and section 3.2.2 can be met. [clause 3.2, AIP – page 11]

Assessment

There are different minimal impact considerations that apply to “highly productive” and “less productive groundwater”. The criteria for “highly productive groundwater” are:

- (a) *Total dissolved solids of less than 1,500 mg/L; and*
- (b) *Contains water supply works that can yield water at a rate greater than 5 L/s.*

The Hunter River alluvial aquifer satisfies these criteria and therefore constitutes highly productive groundwater. The Permian coal measures are a less productive groundwater source.

For both highly productive and less productive groundwater, the maximum allowable water table variation is 10% at a distance of 40 m from any high priority Groundwater Dependent Ecosystems (GDEs) or culturally significant sites listed under a WSP. There are no high priority GDEs or culturally significant sites within the zone of depressurisation associated with the Project.

The maximum allowable decline in the water table at any water supply work is 2 m. Only one registered bore (GW073576) is expected to experience a decline in water levels. The drawdown at this location is predicted to be 2 m. Therefore, the Project complies with this minimal impact consideration.

For highly productive groundwater, the maximum allowable decline in pressure head at a water supply work is 2 m or 40% (whichever is lower). For less productive groundwater, the maximum allowable decline is 2 m. The maximum drawdown predicted by the groundwater model is 2 m, which occurs at bore GW073576.

With respect to water quality, the minimum impact considerations for highly productive groundwater are:

- Any change in the groundwater quality should not lower the beneficial use category of the groundwater source beyond 40 m from the activity;
- No increase of more than 1% per activity in long-term average salinity in a highly connected surface water source at the nearest point to the activity. Redesign of a highly connected surface water source that is defined as a “reliable water supply” is not an appropriate mitigation measure to meet considerations 1.(a) and 1.(b);

- No mining activity to be below the natural ground surface within 200 m laterally from the top of high bank or 100 m vertically beneath (or the three dimensional extent of the alluvial water source - whichever is the lesser distance) of a highly connected surface water source that is defined as a “reliable water supply”; and
- Not more than 10% cumulatively of the three dimensional extent of the alluvial material in this water source to be excavated by mining activities beyond 200 m laterally from the top of high bank and 100 m vertically beneath a highly connected surface water source that is defined as a “reliable water supply”.

For less productive groundwater, only the first consideration applies. Since mining will move away from the alluvium, the impacts of the Project on salinity are expected to be lower than the impacts caused by existing mining operations. Historical monitoring data has shown that mining at Bengalla has indicated a stable to falling salinity in the Hunter River alluvial aquifer. Therefore, the Project is not expected to lower the beneficial use category of the groundwater source. Similarly, the Project is not expected to increase the salinity of the Hunter River by more than 1%.

Mining will not be undertaken within 200 m of the high bank of the Hunter River or beneath the river. The Project will not involve the extraction of alluvial material. Therefore, the Project complies with the minimal impact considerations for water quality.

5.7.15 Contingent Remedial Actions

Requirement

Proposed remedial actions for impacts greater than those that were predicted as part of the relevant approval [including]:

- (a) *consideration of the potential types and risks of unforeseen impacts that may occur during the operational phase or post-closure of the aquifer interference activity; and*
- (b) *whether the proposed mitigation, prevention or avoidance strategies will minimise these risks; and*
- (c) *whether the proposed remedial actions are adequate, should the proposed risk minimisation strategies in (b) fail; and*
- (d) *advice on what further mitigation, prevention, avoidance or remedial actions may be required; and*
- (e) *appropriate conditions that maintain any mitigation, prevention, avoidance or remediation actions until they are no longer required to keep the impacts at or below the predicted levels. [clause 3.2, AIP – page 11]*

Assessment

BMC will undertake monitoring of groundwater quantity and quality in accordance with a Groundwater Management Plan. This management plan will be updated to account for the impacts of the Project.

5.7.16 Minimal Impact Considerations

Requirement

If the predicted impacts are less than the Level 1 minimal impact considerations, then these impacts will be considered as acceptable.

Where an activity's predicted impacts are greater than the Level 1 minimal impact considerations specified in Table 1, but these predicted impacts exceed the Level 1 thresholds by no more than the accuracy of an otherwise robust model, then the project will be considered as having impacts that are within the range of acceptability, with extra monitoring and potential mitigation or remediation required during operation, should the project be approved. In such instances, the Minister's advice will include a request that appropriate conditions be imposed to ensure the impacts of the activity are acceptable. This may include for example, adaptive management conditions requiring the proponent to monitor the actual impacts of the proposal and take action to mitigate or remediate the impacts that exceed the Level 1 thresholds.

Where the predicted impacts are greater than the Level 1 minimal impact considerations by more than the accuracy of an otherwise robust model, then the assessment will involve additional studies to fully assess these predicted impacts. If this assessment shows that the predicted impacts do not prevent the long-term viability of the relevant water-dependent asset, as defined in Table 1, then the impacts will be considered to be acceptable. [clause 3.2.1, AIP – page 13]

Assessment

The Groundwater Impact Assessment undertaken by Australasian Groundwater and Environmental Consultants (AGE) (Appendix K) has predicted that the impacts caused by the Project will be less than the Level 1 minimal impact considerations.

5.7.17 Additional Considerations

Requirement

Acidity issues to arise, for example exposure of acid sulphate soils;

Water logging or water table rise to occur, which could potentially affect land use, groundwater dependent ecosystems and other aquifer interference activities. Specific limits will be determined on a case-by-case basis, depending on the sensitivity of the surrounding land and groundwater dependent ecosystems to water logging and other aquifer interference activities to water intrusion. [clause 3.2.2 AIP – page 25].

Assessment

The Soils and Land Capability Impact Assessment found that acid sulphate soils are unlikely to be present within the Project Boundary (see Section 8.19).

The Project will cause a decline in the water table. Therefore, the Project is not expected to increase the risk of water logging.

5.7.18 Requirements of Proponents

Requirement

The proponent of an activity that may result in aquifer interference will need to provide the following to enable assessment of the activity against minimal impact considerations:

- I. establishment of baseline groundwater conditions including groundwater depth, quality and flow based on sampling of all existing bores in the area potentially affected by the activity, any existing monitoring bores and any new monitoring bores that may be required; and*
- II. a strategy for complying with any water access rules applying to relevant categories of water access licences, as specified in relevant water sharing plans;*
- III. details of potential water level, quality or pressure drawdown impacts on nearby water users who are exercising their right to take water under a basic landholder right;*
- IV. details of potential water level, quality or pressure drawdown impacts on nearby licensed water users in connected groundwater and surface water sources;*
- V. details of potential water level, quality or pressure drawdown impacts on groundwater dependent ecosystems;*
- VI. details of potential for increased saline or contaminated water inflows to aquifers and highly connected river systems;*
- VII. details of the potential to cause or enhance hydraulic connection between aquifers;*
- VIII. details of the potential for river bank instability, or highwall instability or failure to occur;*
- IX. details of the method for disposing of extracted water (in the case of coal seam gas activities). [clause 3.2.3 AIP – page 26]*

Assessment

These issues have been addressed in the Groundwater Impact Assessment (see Appendix K).

5.8 Commonwealth Legislation

5.8.1 Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act prescribes the Commonwealth's role in environmental assessment, biodiversity conservation and the management of protected areas of national significance. The EPBC Act is administered by SEWPaC and provides protection for listed Matters of National Environmental Significance (MNES). There are eight MNES in total:

- Listed threatened species and ecological communities;
- World heritage properties;
- National heritage places;
- Wetlands of international importance;
- Migratory species;
- Commonwealth marine areas;
- The Great Barrier Reef Marine Park; and
- Nuclear actions.

If a proposed action is likely to have a significant effect on one or more MNES, an approval from the Minister for Sustainability, Environment, Water, Population and Communities must be obtained before the action can be carried out.

Under section 68 of the EPBC Act, a proposed action must be referred to the Minister if the proponent thinks that the action is or may be a "controlled action". If the Minister declares that the proposed action is a controlled action, the action must be the subject of an impact assessment under Part 8 of the EPBC Act. A controlled action cannot be carried out unless the Minister has granted approval under Section 133 of the EPBC Act.

The Project was referred to SEWPaC on 31 March 2012. On 7 June 2012, SEWPaC declared that the Project is a controlled action and will subsequently require assessment under the EPBC Act. The Project was considered a controlled action due to its potential impacts on threatened species and communities, which is a protected matter under sections 18 and 18A of the EPBC Act.

The Project will result in the clearing of White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland, which is a critically endangered ecological community under the EPBC Act.

The assessment approach prescribed by SEWPaC was accreditation of the assessment process under the EPBC Act. DP&I issued supplementary DGRs in this regard on 12 July 2012 (see **Appendix D**). Therefore, this EIS will be considered by the Minister when deciding whether or not to approve the Project under Section 133 of the EPBC Act.

5.8.2 Native Title Act 1993

The *Native Title Act 1993* (NT Act) facilitates the recognition and protection of native title. Under section 13 of the NT Act, a person can apply to the Federal Court for a determination of native title. There is currently a native title determination application over a large area of land in north-western NSW, including the land within the Project Boundary. This application known as 'Gomerioi People' (NSD2308/11) has not yet been determined by the Federal Court.

Section 23A of the NT Act states that native title is extinguished by "previous exclusive possession acts". Under section 23B of the NT Act, native title over land is extinguished by the grant of a freehold estate over that land, provided that the grant occurred on or before 23 December 1996.

Freehold estates were granted or roads dedicated in respect of all of the land within the Project Boundary prior to 23 December 1996. Therefore, no native title rights exist within the Project Boundary.



5.9 Summary of Required Licences and Approvals

Table 18 provides a summary of the licences, leases and approvals needed to enable the construction and operation of the Project.

Table 18 Licences and Approvals Required for the Project

Approval	Legislation	Authority	Comments
Development Consent for the construction and operation of the Project	Section 89E of Part 4 of the EP&A Act empowers the Minister for Planning & Infrastructure to grant a Development Consent	Minister for Planning & Infrastructure	Under section 23 of the EP&A Act, the Minister may delegate his / her functions as the consent authority to the PAC.
Mining Leases	Section 63 of the Mining Act enables the Minister for Resources and Energy to grant a mining lease	Minister for Resources & Energy	Under section 89K of the EP&A Act, a Mining Lease must be granted to a development that has been granted development consent. The Mining Lease must be substantially consistent with the Development Consent. A renewal of the existing mining leases held for the Project will be sought in advance of their expiry. A mining lease application will be made in respect of the area of AL 13. An application for part transfer of Mining Lease 1645 within the Project Boundary will be lodged.
Preparation of a Mining Operations Plan (or equivalent) to the satisfaction of DRE	Typically required as a condition of a Mining Lease issued under the Mining Act	DRE	Will be sought following the issuing of a Mining Lease
Approval for the carrying out of a "Controlled Action"	Section 133 of the EPBC Act enables the Minister for SEWPaC to approve the taking of a controlled action	SEWPaC	SEWPaC has accredited the assessment process under Division 4.1 of Part 4 of the EP&A Act.
EPL	Chapter 3 of the POEO Act	OEH	Section 89K of the EP&A Act provides that an EPL must be granted to a development that has been granted development consent.
AHIP	Section 90 of the NPW Act	NPWS	Section 89J of the EP&A Act provides that a permit of this type is not required for a development that has been granted development consent.
Authorisation to clear Native Vegetation	Section 12 of the NV Act	OEH	Section 89J of the EP&A Act provides that an authorisation of this type is not required for a development that has been granted development consent.
Water Use Approval	Section 89 of the WM Act	NOW	Section 89J of the EP&A Act provides that a water use approval is not required for a development that has been granted development consent.
Water Management Work Approval	Section 90 of the WM Act	NOW	Section 89J of the EP&A Act provides that a water management work approval is not required for a development that has been granted development consent.
Controlled Activity Approval	Section 91 of the WM Act	NOW	Section 89J of the EP&A Act provides that a controlled activity approval is not required for a development that has been granted development consent.
Water Access Licence(s)	Parts 2 and 3 of Chapter 3 of the WM Act	NOW	Will be obtained as required. Requirements are set out in Table 15
Bore Licence	Part 5 of the Water Act	NOW	Will be obtained (or existing varied) as required. Existing bore licences held in respect of the project may require variation to account for the modelled volumetric take from the porous rock aquifers.
Consent to carry out a work in on or over a public road	Section 138 of the Roads Act	MSC and Minister for Road & Ports	Section 89K of the EP&A Act provides the granting of this approval must be approved substantially consistent with the Part 3A approval

Approval	Legislation	Authority	Comments
Closure of Bengalla Road	Section 37 of the Roads Act	MSC	An application will be made at the appropriate time.
Construction Certificate	Division 1 of Part 4A of the EP&A Act	MSC	Will be obtained as required.
Building Certificate	Section 149A of the EP&A Act	MSC	Will be obtained as required.
Approval for works over Crown land	Crown Lands Act	DoL	Separate Approval
Notification of Dangerous Goods	Work Health and Safety Regulation	WorkCover	Will be provided when required.
Environment Management Plans	Conditions of Development Consent	DP&I	Will be updated following the determination of Development Consent.





6

Stakeholder Engagement

This section provides a summary of the stakeholder engagement program undertaken for the Project, which included consultation with near neighbours and the surrounding community, local and State government, industry regulators and the local Aboriginal community. It also provides an overview of the engagement process applied for the Project, its objectives, a description of the various engagement phases, the engagement activities undertaken and findings that have been incorporated into the impact assessments undertaken for this EIS.

A Social Impact Assessment was also undertaken as a component of this EIS and is discussed further in Section 8.14.

6.1 Existing Stakeholder Engagement

BMC has conducted effective stakeholder engagement programs for Bengalla since its initial exploration licence was granted on the 14 February 1991. To demonstrate their commitment to commencing operations associated with Bengalla, in 1993 BMC established an office in the centre of the Muswellbrook business area. The office provided an open outlet for consultation and community members were advised that information regarding the EIS was freely available at this office.

This office is currently situated at 19 Bridge Street Muswellbrook and is still in operation and houses Coal & Allied's Muswellbrook based employees and stakeholder relations team. During the release of Project and Coal & Allied quarterly newsletters the community were regularly referred to this shopfront as a means of contacting key Project Team members to discuss any aspect of the Project and EIS process.

Since the original Bengalla 1997 EIS, BMC has continued to enhance its stakeholder engagement program through the operation of Coal & Allied's communications procedures and particularly through the Muswellbrook Community Relations Program. Regular meetings with local organisations including MSC are conducted and aimed at providing updates in relation to the status of Coal & Allied's projects around Muswellbrook.

The BMC CCC meets regularly to provide a forum for open discussion between the community, MSC, relevant government agencies and BMC representatives. The BMC CCC discusses issues directly relating to the mining operation and environmental performance.

A summary of demonstrated BMC stakeholder engagement is provided in Table 19.

6.1.1 Existing Community Contributions

BMC recognises the importance of the Upper Hunter community to its mining operation and values the relationship it has developed. This relationship has been strengthened throughout the years due to BMC's efforts for being more than just a major source of local employment and economic growth. BMC has worked in partnership with the local community contributing to provide positive long term outcomes for the Hunter Valley region.

Since operations commenced in 1998, BMC have directly contributed over \$700,000 to community based sponsorship programs including (but not limited to):

- Muswellbrook Show;
- Upper Hunter Show and Mining Expo;
- Upper Hunter River Rehabilitation Initiative;
- Muswellbrook Regional Centre Art Prize;
- NSW Ambulance;
- Westpac Rescue Helicopter;
- Local Junior and Senior Sporting Teams and events;
- Local Education, Community Events / Organisations;
- Muswellbrook Race Club and Race Day; and
- Arts and Cultural Events.

Voluntary Planning Agreement

In addition to the above community contributions, BMC have provided significant annual funding and employment commitments as part of its existing VPA with MSC (see Section 5.2.11). The existing VPA is required by Division 6 of Part 4 of the EP&A Act and is stipulated in DA 211/93 (as modified). The existing VPA between MSC and BMC allows annual funding of \$400,000 for the Bengalla Coal Community Fund, \$125,000 for Council Roads Maintenance Fund, \$15,000 for Council Environmental Officer and the engagement of four apprentices.

Discussions with MSC over a revised VPA for the Project are well progressed. Details in relation to the proposed content of the revised VPA are included in Section 8.14.4.

6 Stakeholder Engagement

Table 19 Demonstrated Stakeholder Engagement

Activity	Details
Coal & Allied's Muswellbrook Shop Front	<ul style="list-style-type: none"> • Currently situated at 19 Bridge Street Muswellbrook, this shop front houses Coal & Allied's Stakeholder Relations and Mount Pleasant Project Team
Community Newsletters	<ul style="list-style-type: none"> • Coal & Allied Community Newsletters – distributed quarterly in Muswellbrook and Singleton editions
Community Information phone lines	<ul style="list-style-type: none"> • Coal & Allied information line • BMC blasting hotline • Environment contact line available 24/7
BMC website	<ul style="list-style-type: none"> • Available 24/7
Adjacent residents	<ul style="list-style-type: none"> • Personal visits, newsletters and website
Muswellbrook community consultation	<ul style="list-style-type: none"> • Biannual Community Open Day and general community sponsored events • Reports and meeting information accessible in the Muswellbrook and Denman libraries • Newsletters • Website • Upper Hunter Show and Bursting With Energy Expo • Site tours and presentations • Local media • Presentations at local schools
Aboriginal Groups consultation	<ul style="list-style-type: none"> • Meetings and site inspections, newsletters and website
BMC CCC	<ul style="list-style-type: none"> • Meets approximately every three months with representatives from the community, government agencies, MSC and BMC
Coal & Allied Community Development Fund	<ul style="list-style-type: none"> • Contributes to projects aimed at providing benefits for the local community
Coal & Allied Community Partnerships	<ul style="list-style-type: none"> • A continuing active partnership program with key organisations that provide a service valued by the community and have an approach to their business that is aligned with Coal & Allied principles
Coal & Allied Aboriginal Community Development Fund	<ul style="list-style-type: none"> • Contributes to projects aimed at providing benefits for the Upper Hunter Aboriginal community
MSC consultation	<ul style="list-style-type: none"> • Coal Mine General Manager forum, personal discussions, presentations and site tours, newsletters and website
Government agency consultation	<ul style="list-style-type: none"> • Offers of presentations and site tours, scheduled external reporting of monitoring results and performance, newsletters and website
BMC Employees & Contractors	<ul style="list-style-type: none"> • Regular 'BMC Toolbox Talks' • Induction presentations • Information boards, newsletters and website • Open Day and Family Day
BMC Corporate	<ul style="list-style-type: none"> • Internal reports • Coal & Allied / Rio Tinto Coal Australia website
Environmental Non-Government Organisations	<ul style="list-style-type: none"> • Newsletters • Presentations
Neighbouring industry	<ul style="list-style-type: none"> • Newsletters • Presentations and site tours • Attendance at meetings • Coal & Allied / Rio Tinto Coal Australia website
Media	<ul style="list-style-type: none"> • Newsletters • Radio • Newspapers • BMC CCC minutes • Coal & Allied / Rio Tinto Coal Australia website

(Source: BMC, 2012b)

Coal & Allied Community Development Fund

The Coal & Allied Community Development Fund (previously called the Coal & Allied Community Trust) was established in 1999 to support communities in the Hunter Valley to build community capacity, address development challenges and take advantage of emerging opportunities. Since its inception, the Coal & Allied Community Development Fund has contributed more than \$11 M to projects aimed at providing benefits for the local community.

Coal & Allied Aboriginal Community Development Fund

In partnership with the Upper Hunter Valley Aboriginal Community, Coal & Allied launched the Aboriginal Development Consultative Community (now known as the Coal & Allied Aboriginal Community Development Fund (ACDF)) in 2006, investing more than \$3.05 Million in education, training, community and business development projects benefiting the Hunter Valley Aboriginal community since its inception. The ACDF is a funding program accessible by any Aboriginal person or group in the Upper Hunter Valley region undertaking a project to benefit the wider Aboriginal community. The ACDF operates under a set of guidelines established and agreed to by the Upper Hunter Valley Aboriginal community and Coal & Allied.

The projects funded are those most likely to deliver long term, sustainable outcomes for the Upper Hunter Valley Aboriginal community and applications may be made by members of the Upper Hunter Valley Aboriginal community, including the areas of Muswellbrook and Upper Hunter (BMC, 2012b).

Based on the established objectives, the ACDF looks to fund proposals of the following nature:

- Aboriginal business development;
- Educational programs;
- Heritage and culture;
- Training and employment;
- Community development;
- Community health and wellbeing; and
- Projects that have compelling and significant benefit for the whole Upper Hunter Aboriginal community.

More detail in relation to recent projects supported by the ACDF program is available on the Coal & Allied website www.riotintocoalaustralia.com.au.

6.2 Stakeholder Identification

A range of stakeholders were identified for the Project based on BMC's existing stakeholder relationships and a review of existing databases developed during the preparation of previous modifications.

Consultation records for these projects were supplemented with an analysis of recent cadastral information, BMC's records and background research into the local area. This enabled a comprehensive list of key stakeholders to be developed for the Project.

The key stakeholders identified for the Project and the methods and types of consultation undertaken for each are identified in Table 20.

Other Infrastructure and Service Providers

Australian Rail Track Corporation (ARTC) has not been consulted regarding the Project as provisions in ARTC's Hunter Valley Access Undertaking (approved by the Australian Competition and Consumer Commission (ACCC) in June 2011) provide a mechanism for contracting for additional track capacity from mines to the Port of Newcastle, based on 10-year contract commitments. ARTC has current plans for expansion of rail track capacity to meet industry requirements for 208 Mtpa of capacity to existing terminals, and is developing plans for rail track capacity to match Port Waratah Coal Services (PWCS) proposed "Terminal 4" development. Bengalla and/or Coal & Allied would utilise the ARTC process to contract for any additional track capacity requirement to support the proposed expansion.

Consultation with PWCS regarding the Project will be conducted under the Long Term Capacity Framework agreement with the NSW Government (via Newcastle Port Corporation) to conduct an annual process for nominations for new port capacity, and is obliged to make capacity available (including construction of new capacity as required – particularly via a new terminal "Terminal 4") to any producer willing to commit to a long-term contract. BMC and/or Coal & Allied would utilise this process for obtaining any additional port capacity required to support the Project.

Consultation with Newcastle Port Corporation (NPC) is not considered necessary as port capacity is managed via the terminal operators (in this case PWCS) under NPC auspices.

Consultation with the Hunter Valley Coal Chain Coordinator (HVCCC) is not considered necessary for the preparation of an EIS. The ARTC contracting process has provision for consultation with HVCCC to ensure sufficient aligned coal chain capacity for rail track contracts.

Table 20 Project Stakeholders and Methods of Engagement

Stakeholder	Method of Engagement
Community Stakeholders	
Near Neighbours / Community	<ul style="list-style-type: none"> • Community Newsletter 'Continuation of Bengalla Mine' (1 November 2011) • Bengalla Community Open Day (27 October 2012) • Personalised Project notification letter and accompanying Project Fact Sheet, including offer of briefing to 31 near neighbours (24 February 2012) • Personalised letter to 93 near neighbours (13 March 2012) notifying each about the consultation program and Coal & Allied Shopfront • Coal & Allied Shopfront – Community open day sessions specific to the Project open in Muswellbrook every Thursday from 1 March 2012 to 31 March 2012 between 9:00 am and 12:00 pm. • Coal & Allied community newsletter Muswellbrook edition (released to 8,500 residents): <ul style="list-style-type: none"> – Issue 9 February 2012 – Issue 10 July 2012 – Issue 11 September 2012 – Issue 12 December 2012 – Issue 1 March 2013 • Bengalla Community Open Day (27 October 2012) • Continuation of Bengalla Mine Project Update Newsletter (October 2012)
Muswellbrook LGA	<ul style="list-style-type: none"> • Coal & Allied community newsletter Muswellbrook edition (released to 8,500 residents): • Coal & Allied Shopfront – Community open day sessions specific to the Project open in Muswellbrook every Thursday from 1 March 2012 to 31 March 2012 between 9:00 am and 12:00 pm. • Bengalla Community Open Day (27 October 2012) • Continuation of Bengalla Mine Project Update Newsletter (October 2012)
Aboriginal Community	<ul style="list-style-type: none"> • Public notice in Muswellbrook Chronicle (17 February 2012) and the Hunter Valley News (22 February 2012) • Letter inviting expressions of interest (19 March 2012) to all Aboriginal stakeholders identified by regulatory agencies and from responses to the newspaper notifications. • Onsite survey methodology discussion and planning meeting (4 April 2012) • Field archaeological survey (14 May to 6 June 2012) • Aborist potential scar tree assessment (15 August 2012) • Draft Aboriginal and Cultural Heritage Impact Assessment review (9 October – 6 November 2012)
BMC CCC	<ul style="list-style-type: none"> • Project Presentation (22 February 2012) • Project Presentation (22 May 2012) • Project Update Presentation (21 November 2012) • Project Update 22 May 2013
Bengalla Employees & Contractors	<ul style="list-style-type: none"> • Tool Box Talk, Website and Factsheet (February 2012)
Federal Government Agencies	
Department of Sustainability, Environment, Water, Population and Communities (SEWPaC)	<ul style="list-style-type: none"> • Preliminary briefing (8 February 2012) • Project Update (17 December 2012) • Project Update (11 July 2013)
State Government Agencies	
Department of Planning and Infrastructure (DP&I)	<ul style="list-style-type: none"> • Initial Briefing (17 November 2011) • Submit Background Document (21 February 2012) • Offset Strategy Consultation Strategy with OEH (3 May 2012) • Project DGRs Letter (11 May 2012) • Project Update via telephone (6 June 2012) • Offer of Project Briefing (8 November 2012) • Site Visit (27 February 2013) • Project Update (4 July 2013)

Stakeholder	Method of Engagement
Department of Trade and Investment, Regional Infrastructure and Services (DTIRIS) Division of Resources Energy	<ul style="list-style-type: none"> • Project briefing (21 February 2012) • Combined briefing by BMC and Coal & Allied to discuss interactions with the Mount Pleasant Project and mining authorisations (25 July 2012) • Conceptual Project Development Plan (CPDP) Meeting (29 August 2012) • Correspondence with DTIRIS culminating in a letter from DTIRIS to DP&I supporting the Project (15 May 2013)
DTIRIS – Primary Industries (Agriculture)	<ul style="list-style-type: none"> • Project briefing (9 August 2012)
DTIRIS – Primary Industries (Fisheries)	<ul style="list-style-type: none"> • Offer of Project briefing via telephone (3 December 2012)
DTIRIS - NSW Office of Water (NOW)	<ul style="list-style-type: none"> • Briefing meeting (9 February 2012) • Project Update Meeting – Draft Groundwater and Surface Water Impact Assessment Report Discussion (7 November 2012)
Office of Environment and Heritage (OEH) (including Environment Protection Authority (EPA) and Heritage Branch)	<ul style="list-style-type: none"> • Project Briefing at Newcastle offices (2 February) • Offset Strategy Consultation Strategy with DP&I (3 May 2012) • Project Briefing (14 December 2012) • Project Update (19 February 2013) • Project Update (18 July 2013)
UHCMA	<ul style="list-style-type: none"> • Factsheets • Project Briefing in Muswellbrook (16 October 2012)
NSW Health - Hunter New England Health	<ul style="list-style-type: none"> • Offer of Project briefing (17 October 2012)
NSW Dam Safety Committee	<ul style="list-style-type: none"> • Project Briefing in Sydney (22 August 2012)
Catchment and Lands (Crown Lands Division)	<ul style="list-style-type: none"> • Project Briefing via telephone (5 December 2012)
Forestry NSW	<ul style="list-style-type: none"> • Project Briefing via telephone (10 August 2012)
Local Government Agencies	
MSC	<ul style="list-style-type: none"> • Initial briefing (January 2012) (Mayor and General Manager) • RTCA Newsletter with accompanying letter of offer for briefing (February 2012) (Councillors and officers) • Preliminary Consultation Meeting - discussion of DGRs (18 April 2012) • VPA discussion (4 December 2012) • Bengalla Link Road interactions (11 December 2012) • VPA discussions (May – July 2013)
Infrastructure and Service Providers and Other Mines	
Transport for NSW (including Centre for Transport Planning, Roads & Maritime Services (RMS))	<ul style="list-style-type: none"> • Offer of briefing (April 2012)
Mount Pleasant Project	<ul style="list-style-type: none"> • Regular Project discussions and interaction meetings 2009-2013
Relevant neighbouring mines and industry	<ul style="list-style-type: none"> • Coal & Allied community newsletter Muswellbrook edition



6.3 Issue Scoping

Stakeholder consultation was undertaken in accordance with existing engagement practices at Bengalla and the stakeholder engagement strategy developed for the Project, which had the following key objectives:

- Identification of potential stakeholders to engage with and the scoping of key issues to guide the Social Impact Assessment;
- Identification of major areas of concern and an appropriate level of engagement required for each stakeholder and assessment in the EIS;
- Integration of the stakeholder engagement for the Project with the management of ongoing community engagement as undertaken by BMC;
- Further development of landowner and community engagement;
- Ensure consistency of key messages with the adjacent Mount Pleasant Project; and
- The development of clear and consistent key messages for the Project that allow for effective engagement with all relevant stakeholders.

As indicated in Table 20, various consultation methods were adopted to identify stakeholder issues. These consultation methods are described in further detail below.

The outcomes of the stakeholder consultation were incorporated into the risk assessment conducted for the Project as presented in Section 7.

6.3.1 Community Engagement

EIS Project Briefings and Shopfront Information Days

EIS Project briefings were offered to neighbouring land owners and the wider local community via telephone, personal letters (for neighbouring land owners) and community newsletters. Near neighbours were provided a personal letter outlining the details of the Project and extending an invitation to attend one of the upcoming Project community information sessions.

Specific community information sessions were held at Coal & Allied's shopfront at 19 Bridge Street, Muswellbrook, from 9 am – 12 pm each Thursday in March 2012. The information sessions were designed to provide a Project Team member to which members of the community would find more readily accessible to meet and discuss the Project.

In total nine people attended the information sessions where they had the opportunity to meet and discuss potential concerns with key Project personnel.

Community Newsletters

Project community newsletters were distributed in relation to the Project from November 2011 to November 2012 and are reproduced in Appendix E.

A Project newsletter was distributed in November 2011 to familiarise stakeholders and the wider community with the Project and to provide information regarding time frames and the stakeholder consultation process. This newsletter was distributed to local, State and Commonwealth government agencies, neighbouring land owners and industries, the local Aboriginal community and 8,500 residents in the Muswellbrook LGA.

In October 2012 a 'Continuation of Bengalla Mine Project Update Newsletter' was developed for the Bengalla Community Open Day and distributed during this event.

Coal & Allied's regular community newsletter Muswellbrook edition also contained information about the status of the Project and was released to over 8,500 local receptors along with key regulators and community members. The Coal & Allied newsletter was release on the following dates:

- Issue 9 February 2012;
- Issue 10 July 2012;
- Issue 11 September 2012;
- Issue 12 December 2012; and
- Issue 1 March 2013.

In addition to the above, a BMC CCC newsletter was distributed to the local community surrounding Bengalla including:

- Racecourse Road and Sheppard Avenue;
- Neighbours from the intersection of Wybong Road / Kayuga Road along Wybong Road to 2 km past the intersection of Roxburgh Road / Wybong Road;
- Roxburgh Road; and
- Denman Road from the intersection of Racecourse Road to 5 km past the intersection of Denman / Edderton Road.

The BMC CCC newsletter contained information regarding the Project and was distributed to the above neighbours on the following dates:

- November 2011;
- February 2012;
- May 2012;
- August 2012; and
- November 2012.

Bengalla Community Open Day

On 27 October 2012, BMC conducted the biannual Bengalla Community Open Day. Members from the Project Team were present on the day and established an information stall to present the key components of the Project to interested community members including the Project description, EIS preparation and timing along with potential environmental, social and economic impacts (see **Plate 4**).

As discussed above a specific 'Bengalla Community Open Day Newsletter' (October 2012) was developed for distribution to community members on the day of the event. A copy of the 'Bengalla Community Open Day Newsletter' is included in **Appendix E**.

Other Miners and Industry

During key stages of the preparation of the EIS, members of the Project Team contacted adjacent mining operations, including Mt Arthur Coal Mine and Xstrata Mangoola, to inform them of the Project and to discuss any potential concerns or interactions. No issues were raised during the consultation program.

6.3.2 Regulator Engagement

As indicated in **Table 20**, a number of briefings and presentations were provided to Local, State and Commonwealth government agencies throughout the planning and preparation of this EIS. These consultations provided regulators with an understanding of the Project, some of the key findings from the technical studies and an overview of community stakeholder issues raised.

Plate 4 Bengalla Community Open Day



6.4 Issue Response

Following completion of the issue scoping phase, responses were provided for all issues raised by stakeholders in relation to the Project. A summary of the responses to these issues is provided in this section. These issues have all been incorporated in detail in the impact assessments undertaken for this EIS. Strategies for the management and mitigation of these issues are also detailed in this EIS. Where possible, specific issues raised by stakeholders in relation to the Project were addressed directly with the relevant stakeholders.

6.4.1 Director-General's Environmental Assessment Requirements

Department of Planning & Infrastructure

In response to the regulatory consultation undertaken for the Project, the Director-General of the DP&I issued DGRs for the Project (SSD-5170) on 13 March 2012. Supplementary DGRs were issued on 12 July 2012 to address issues from SEWPaC. The DGRs are provided in full at **Appendix D**.

Table 21 outlines the DGRs and the section of the EIS which corresponds to each requirement.

Table 21 Director-General's Environmental Assessment Requirements

Issue	Description	EIS Section
General Requirements	The Environmental Impact Statement (EIS) for the development must meet the form and content requirements in Clauses 6 and 7 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i> .	-
	<p>In addition, the EIS must include a:</p> <ul style="list-style-type: none"> • Detailed description of the development, including: <ul style="list-style-type: none"> – Need for the proposed development; – Justification for the proposed mine plan, including efficiency of coal resource recovery, mine safety and environmental protection; – Likely staging of the development - including construction, operational stage/s and rehabilitation; – Likely interactions between the development and existing, approved and proposed mining operations in the vicinity of the site, particularly the approved but not yet operational Mt Pleasant mine and the Mt Arthur mine; – Plans of any proposed building works; – Forecast coal volumes and train movements. 	4 and 10
	<ul style="list-style-type: none"> • Consideration of all the relevant environmental planning instruments, including identification and justification of any inconsistencies with these instruments. 	5
	<ul style="list-style-type: none"> • Risk assessment of the potential environmental impacts of the development; including key issues for further assessment. 	7
	<ul style="list-style-type: none"> • Detailed assessment of the key issues (see below) and any other significant issues identified within the risk assessment, which includes: <ul style="list-style-type: none"> – A description for the environment using sufficient baseline data; – An assessment of the potential impacts of all stages of the project including any cumulative impacts taking into consideration relevant guidelines, policies plans and statutes; and – A description of the measures that would be implemented to avoid, minimise and if necessary offset the potential impacts of the development, including proposals for adaptive management and/or contingency plans to manage any significant risk to the environment. 	8
Key Issues	<ul style="list-style-type: none"> • Land Resources – including an Agricultural Impact Statement and a detailed assessment in of the potential impacts on: <ul style="list-style-type: none"> – Soils and land capability (including salination and contamination); – Landforms and topography, including steep slopes; and – Land use, including agricultural, forestry, conservation and recreational use, with particular attention on viticulture and equine industries. 	8.19 and 8.20
	<ul style="list-style-type: none"> • Water Resources – including: <ul style="list-style-type: none"> – Detailed assessment of potential impacts on the quality and quantity of existing surface and ground water resources, including: <ul style="list-style-type: none"> • Detailed modelling of potential groundwater impacts, including any potential impacts on the alluvial aquifers of the Hunter River and confirmation of the physical extent of the river's alluvium; • impacts on affected licensed water users and basic landholder rights; • impacts on riparian, ecological, geo-morphological and hydrological values of watercourses, including environmental flows; • details and staging for the proposed Dry Creek re-diversion; and • a flood assessment including identification of any necessary flood impact mitigation measures; – A detailed site water balance, including a description of site water demands, water disposal methods (inclusive of volume, salinity and frequency of any water discharges), water supply infrastructure and water storage structures; – An assessment of proposed water discharge quantities and quality against receiving water quality and flow objectives; – Assessment of impacts of salinity from mining operations, including disposal and management of coal rejects and modified hydrogeology, a salinity budget and the evaluation of salt migration to surface and groundwater sources; – Identification of any licensing requirements or other approvals under the <i>Water Act 1912</i> and/or <i>Water Management Act 2000</i>; – Demonstration that water for the construction and operation of the development can be obtained from an appropriately authorised and reliable supply in accordance with the operating rules of any relevant Water Sharing Plan (WSP); – A description of the measures proposed to ensure the development can operate in accordance with the requirements of any relevant WSP or water source embargo; – A detailed description of the proposed water management system (including sewage), water monitoring program and other measures to mitigate surface and groundwater impacts; and – Compliance with the Hunter River Salinity Trading Scheme. 	8.6 and 8.7

Issue	Description	EIS Section
Key Issues	<ul style="list-style-type: none"> • Biodiversity – including: <ul style="list-style-type: none"> – Measures taken to avoid, reduce or mitigate impacts on biodiversity; – Accurate estimates of proposed vegetation clearing; – A detailed assessment of potential impacts of the development on any: <ul style="list-style-type: none"> • Terrestrial or aquatic threatened species or populations and their habitats, endangered ecological communities and groundwater dependent ecosystems; and • Regionally significant remnant vegetation, or vegetation corridors; and – a comprehensive offset strategy to ensure the development maintains or improves the terrestrial and aquatic biodiversity values of the region in the medium to long term; 	8.11
	<ul style="list-style-type: none"> • Heritage – including: <ul style="list-style-type: none"> – An Aboriginal cultural heritage assessment (including both cultural and archaeological significance) which must: <ul style="list-style-type: none"> • Demonstrate effective consultation with Aboriginal communities in determining and assessing impacts and developing and selecting mitigation options and measures; and • Outline any proposed impact mitigation and management measures (including an evaluation of the effectiveness and reliability of the measures). 	8.9
	<ul style="list-style-type: none"> – A historic heritage assessment (including archaeology) which must: <ul style="list-style-type: none"> • Include a statement of heritage impact (including significance assessment) for any State significant or locally significant heritage items; and • Outline any proposed mitigation and management measures (including an evaluation of the effectiveness and reliability of the measures). 	8.10
	<ul style="list-style-type: none"> • Air Quality – including a quantitative assessment of potential: <ul style="list-style-type: none"> – Construction and operational impacts, with a particular focus on dust emissions (including PM_{2.5} and PM₁₀ emissions and dust generation from coal transport), as well as diesel and blast fume emissions; – Reasonable and feasible mitigation measures to minimise dust, diesel and blast fume emissions, including evidence that there are no such measures available other than those proposed; and – Monitoring and management measures, in particular real-time air quality monitoring. 	8.1
	<ul style="list-style-type: none"> • Greenhouse Gases – including: <ul style="list-style-type: none"> – A quantitative assessment of potential Scope 1, 2 and 3 greenhouse gas emissions; – A qualitative assessment of the potential impacts of these emissions on the environment; and – An assessment of reasonable and feasible measures to minimise greenhouse gas emissions and ensure energy efficiency. 	8.2
	<ul style="list-style-type: none"> • Noise, Vibration & Blasting – including a quantitative assessment of potential: <ul style="list-style-type: none"> – Construction, operational and off site transport noise impacts; – Blasting impacts on people, livestock and property; – Reasonable and feasible mitigation measures, including evidence that there are no such measures available other than those proposed; and – Monitoring and management measures, in particular real-time, attended noise monitoring and predictive meteorological forecasting; 	8.3 and 8.4
	<ul style="list-style-type: none"> • Traffic & Transport – including: <ul style="list-style-type: none"> – Accurate predictions of the road and rail traffic generated by the project; – A detailed assessment of the potential impacts of the development on the capacity, efficiency and safety of the: <ul style="list-style-type: none"> • Local and regional rail network, having regard to the strategic objectives and cumulative impacts for the passenger and freight rail network; and • Local and regional road network, with particular regard to a cumulative traffic impact assessment; condition assessment of the existing network; proposed new road infrastructure; and impacts of coal trains on level crossing operations. – Details of mine to port or other domestic customer transport movements, train path availability and any required rail infrastructure works; and – A detailed description of the measures that would be implemented to maintain and/or improve the capacity, efficiency and safety of the road and rail networks in the surrounding area over the life of the project; – Details of the existing interactions with and potential opportunities to join inter-mine arrangements for maintenance and/or upgrade of public roads, particularly Thomas Mitchell Drive; and – Details of interactions with the approved rail corridor for Mt Pleasant mine. 	8.13
	<ul style="list-style-type: none"> • Visual – including: <ul style="list-style-type: none"> – A detailed assessment of the: <ul style="list-style-type: none"> • changing landforms on the site during the various stages of the project; and • potential visual impacts of the project on private landowners in the surrounding area as well as key vantage points in the public domain, including lighting impacts; and – A detailed description of the measures that would be implemented to minimise the visual impacts of the project. 	8.5

Issue	Description	EIS Section
Key Issues cont'	<ul style="list-style-type: none"> • Waste – including: <ul style="list-style-type: none"> – Accurate estimates of the quantity and nature of the potential waste streams of the development, including tailings and coarse reject; – A tailings and coarse reject disposal strategy; and – A description of measures that would be implemented to minimise production of other waste and ensure that that waste is appropriately managed. 	8.17
	<ul style="list-style-type: none"> • Hazards – including bushfires. 	8.16
	<ul style="list-style-type: none"> • Social & Economic – including an assessment of the: <ul style="list-style-type: none"> – Potential direct and indirect economic benefits of the project for local and regional communities and the State; – Potential impacts on local and regional communities, including: <ul style="list-style-type: none"> • increased demand for local and regional infrastructure and services (such as housing, childcare, health, education and emergency services); and • impacts on social amenity; – A detailed description of the measures that would be implemented to minimise the adverse social and economic impacts of the project, including any infrastructure improvements or contributions and/or voluntary planning agreement or similar mechanisms; and – A detailed assessment of the costs and benefits of the development as a whole and whether it would result in a net benefit for the NSW community; and 	8.14 and 8.15
	<ul style="list-style-type: none"> • Rehabilitation – including the proposed rehabilitation strategy for the site, having regard to the key principles in the Strategic Framework for Mine Closure, including: <ul style="list-style-type: none"> – Rehabilitation objectives, methodology, monitoring programs, performance standards and proposed completion criteria; – Nominated final land uses and land forms, having regard to any relevant strategic land use planning or resource management plans or policies; and – The potential for integrating this strategy with any other rehabilitation and/or offset strategies in the region. 	8.21
Plans and Documents	The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the <i>Environmental Planning and Assessment Regulation 2000</i> . These documents should be included as part of the EIS rather than as separate documents.	Appendix C
References	The assessment of the key issues listed above must take into account relevant guidelines, policies and plans as identified. While not exhaustive, Attachment 1 contains a list of some of the guidelines, policies and plans that may be relevant to the environmental assessment of this development.	12
Consultation	<p>During the preparation of the EIS, you must consult with relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular you must consult with the:</p> <ul style="list-style-type: none"> • Commonwealth Department of Sustainability, Environment, Water, Population and Communities; • Office of Environment and Heritage (including the Environment Protection Authority and the Heritage Branch); • Division of Resources and Energy within the Department of Trade and Investment, Regional Infrastructure and Services; • Department of Primary Industries (including the NSW Office of Water; NSW Forestry, Agriculture and Fisheries sections; Catchments and Lands (Crown Lands Division)); • Transport for NSW (including the Centre for Transport Planning, Roads and Maritime Services); • NSW Health; • ARTC and coal chain operators including Railcorp, Newcastle Ports Corporation and the Hunter Valley Coal Chain Co-ordinator; • Dams Safety Committee; • Hunter-Central Rivers Catchment Management Authority; and • Muswellbrook Shire Council. <p>The EIS must describe the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.</p>	6
Further consultation after 2 years	If you do not lodge a DA and an EIS for the development within 2 years of the issue date of these DGRs, you must consult further with the Director-General in relation to the requirements for lodgement.	N/A

Regulatory Submissions to DGRs

Submissions to the DP&I were received from the following regulatory agencies:

- Transport for NSW – Roads and Maritime Services (RMS);
- NSW Department of Primary Industries – Fisheries;
- NSW Department of Primary Industries – Office of Agricultural Sustainability and Food Security;
- NSW Department of Primary Industries – Crown Lands;
- NOW;
- NSW Environment Protection Authority (EPA);
- DTIRIS - DRE;
- MSC; and
- SEWPaC.

The issues raised by each of the above mentioned regulatory agencies and where they have been addressed in this EIS are included in **Appendix D** and in individual technical appendices.

6.4.2 Regulatory Consultation Responses

Arising throughout the duration of the stakeholder engagement program, including at project briefings or other meetings, a number of issues were raised by regulatory agencies that were not specifically raised in their submissions to the DGRs. All issues raised were addressed by BMC or the relevant technical specialist and incorporated into the impact assessments undertaken as part of this EIS.

Table 22 outlines the regulatory stakeholder issues raised and the section of the EIS where each is addressed.

6.4.3 Community Responses

A range of environmental and social issues were raised by neighbouring land owners and the wider local community during the stakeholder engagement program. The issues that were most commonly raised broadly related to:

- EIS process;
- Zone of impact;
- Interactions with the Mount Pleasant Project;
- Diversion and reinstatement of Dry Creek;
- Noise and blasting impacts;
- Air quality impacts;
- Traffic and transport;
- Cumulative environmental impacts; and
- Economic / social impacts.

As described above in **Section 6.1**, consultation with both regulatory and community stakeholders has been completed throughout the preparation of this EIS. A number of key changes to the Project we have made in response to this consultation.

A discussion in relation to the Project changes as a result of consultation is included as part of the alternative considered for the Project (see **Section 4.13**).

Table 23 outlines the community stakeholder issues raised and the section of the EIS where each is addressed.

Table 22 Regulatory Stakeholder Issues

Regulator	Issue Raised	EIS Section
DP&I	Dry Creek interim diversion and realignment	4.9, 8.6 and 8.21.7
	Cumulative noise and dust generation	8.1 and 8.3
	Ecological offsetting	8.11.4
	Rehabilitation and mine closure	8.21
	VPA with MSC	5.2.11, 6.11 and 8.14
	Legislative requirements and EIS process	5 and Figure 26
DTIRIS – Primary Industries (Agriculture)	Agricultural impacts and final land use	8.20
	Soil testing, results and management	8.19
	Rehabilitation objectives and topsoil management	8.21
	Leasing arrangements regarding agricultural land	8.20
DTIRIS – DRE	Land ownership	2.5
	Regional geology including Project reserves and exploration	2.7
	Project infrastructure requirements	4
	Project mine plan progression and timing	4.3
	Rehabilitation and final landform	8.21
	Dry Creek interim diversion and realignment	4.9, 8.6 and 8.21.7

6 Stakeholder Engagement

Regulator	Issue Raised	EIS Section
DTIRIS – DRE - con't	Dry Creek realignment alternatives considered	4.13.9
	Renewal of the existing MOP	3.2
	Mining authorisations required for the Project	5
	Interactions with the Mount Pleasant Project and associated mining authorisations	4.12
	Ecological offsetting using the Upper Hunter Strategic Assessment process	8.11.4
	Western OEA	4.5
Dams Safety Committee	Existing and proposed water management system	4.8 and 8.6
	Dam design parameters and flooding particularly associated with CW1	4.8 and 8.6
MSC	Rehabilitation, final void and final landform design	8.21
	Interactions with the Mount Pleasant Project	4.12
	Visual impacts and screening	8.5
	Local council plans and policies	5.6
	Ecological impacts and associated offset strategy	8.11
	Cumulative road impacts and regional road upgrades	8.13
	VPA with MSC in relation to social impacts	5.2.11, 6.11 and 8.14
	Dry Creek interim diversion and realignment	4.9, 8.6 and 8.21.7
	Bengalla Link Road realignment	4.7 and 8.13
NOW	Dam design and flooding	4.8 and 8.6
	Water extraction and licensing	5.44, 8.6 and 8.7
	Dry Creek interim diversion and realignment	4.9, 8.6 and 8.21.7
	Impacts to GDEs	8.11 and 8.12
	OEA seepage water quality	8.8
	Post-mining groundwater quality	8.7
EPA	Dry Creek interim diversion and realignment	4.9, 8.6 and 8.21.7
	Final void and final landform design	8.21
	Dam design and flooding	4.8 and 8.6
	Ecological offsetting using the Upper Hunter Strategic Assessment process	8.11.4
	Air quality and noise assessment and management measures	8.1 and 8.3
	Site water balance	8.6
SEWPaC	"Controlled action" referral	5.8.1
	Impacts to federal listed species (separate from state listed species)	8.11.3
	Principles of ecological offsetting	8.11.4
Forests NSW	Proximity to National Parks and State Forests	8.11
UHCMA	Consideration of UHCMA policies	8.11
	Remediation of local waterways	
	Ongoing liaison with UHCMA in relation to remediation works	

Table 23 Community Stakeholder Issues

Ref	Issue Raised	EIS Section
1	EIS process	
a	Consultation process	This Section
b	EIS approvals process and lodgement	Figure 26
2	Zone of impact	
a	Extent of the zone of affectation and management areas	8.1 and 8.3
3	Interactions with the Mount Pleasant Project	
a	Project overlapping with the Mount Pleasant Project	4.12
b	Interacting mining authorities	5.4.1
4	Diversion and reinstatement of Dry Creek	
a	Interim diversion of Dry Creek	4.9, 8.6 and 8.21.7
b	Use of CW1 for the Mount Pleasant Project	4.12
c	Options considered for the realignment of Dry Creek	4.13.9
d	Loss of catchment area	8.6
5	Noise and blasting impacts	
a	Predicted noise and blasting impacts	8.3 and 8.4
b	Night time blasting	8.4
6	Air quality Impacts	
a	Air quality monitoring	8.1
b	Cumulative air quality impacts	
7	Traffic and transport	
a	Assessment of forecast traffic movements	8.13
8	Cumulative environmental impacts	
a	Air quality	8.1.3
b	Traffic - intersection performance	8.13.3
9	Economic / social impacts	
a	Property devaluation in the local area	8.14
b	Mining impacts on lifestyle	

6.5 Aboriginal Community Consultation

Aboriginal community consultation for the Project was conducted by Hansen Bailey and AECOM Australia Pty Ltd (AECOM) in accordance with the 'Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010' (DECCW, 2010a) (Aboriginal Consultation Requirements).

The Aboriginal community consultation program consists of the following components:

- Stage 1 - Notification and registration;
- Stage 2 - Project information;
- Stage 3 - Survey methodology and fieldwork; and
- Stage 4 - Draft Aboriginal Archaeological and Cultural Heritage Assessment review.

A summary of the Aboriginal community consultation for the Project is described below.

6.5.1 Stage 1 - Notification and Registration

Consultation with Regulatory Agencies

Section 4.1.2 of the Aboriginal Consultation Requirements requires the proponent to consult with the following agencies for the purpose of identifying Aboriginal people who may hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects or places within the Study Area:

- OEH;
- NSW Department of Aboriginal Affairs – Office of the Registrar;
- Hunter-Central Rivers Catchment Management Authority;
- MSC;
- Native Title Services;
- National Native Title Tribunal; and
- Wanaruah Local Aboriginal Land Council (WLALC).

On 27 February 2012, these agencies were consulted via a letter seeking assistance in identifying potentially interested Aboriginal stakeholders.

On 28 February 2012, the Department of Aboriginal Affairs – Office of the Registrar indicated that there are no Registered Aboriginal Owners (under Division 3 of the *Aboriginal Land Rights Act 1983*) of the land within the Project Boundary. OEH responded on 29 February 2012 by providing a list of 47 stakeholder groups. On 29 February 2012, National Native Title Tribunal responded by providing the results of a native title search, however no additional Aboriginal stakeholders were identified. On 6 March 2012, WLALC provided a list of 32 stakeholder groups. WLALC also expressed an interest in being consulted as part of this assessment.

On 29 March 2012, MSC responded by providing a list of 35 stakeholders. Hunter-Central Rivers Catchment Management Authority advised in a letter dated 30 March 2012 that it would not be providing the details of any Aboriginal stakeholders. Native Title Services responded by email on 10 April 2012, indicating that it could not release the details of any stakeholder groups due to privacy reasons.

Public Notification

Section 4.1.3 of the Aboriginal Consultation Requirements requires that a project must be advertised in the local newspaper. In accordance with this requirement, the Project was advertised in the Muswellbrook Chronicle on 17 February 2012 and the Hunter Valley News on 22 February 2012.

The notice invited Aboriginal stakeholders to express an interest in being consulted as part of the Aboriginal Cultural Heritage Impact Assessment. In accordance with Section 4.1.4 of the Aboriginal Consultation Requirements the registration period extended for 14 days to the 7 March 2012.

Five Aboriginal stakeholder groups responded to the public notice and were duly accepted as participants in the consultation program for the Aboriginal Cultural Heritage Impact Assessment.

Following the correspondence from the agencies and the newspaper notifications a total of 53 Aboriginal stakeholder groups were identified to be consulted for the Project.

Invitations for Expressions of Interest

In accordance with Section 4.1.3 of Aboriginal Consultation Requirements on 19 March 2012, a letter inviting expressions of interest was sent to all Aboriginal stakeholders identified by the regulatory agencies. A total of 53 Aboriginal stakeholders were invited to register an interest in being consulted as part of the Aboriginal cultural heritage impact assessment. The closing date for expressions of interest was 2 April 2012, which provides the necessary 14 day period for expressions of interest.

The draft methodology for the archaeological survey component of this Aboriginal Cultural Heritage Impact Assessment was also attached to this letter and stakeholders were invited to comment on the methodology. Comment on the draft survey methodology was sought by the 16 April 2012. Additional comments in relation to the consultation conducted for the survey methodology is provided in Section 6.5.3.

This letter also advised all stakeholders that there would be a planning meeting held at Bengalla on 4 April 2012 to discuss the Project, consultation process and the proposed archaeological survey methodology.

By the closing date for expressions of interest (2 April 2012), 12 stakeholder groups had expressed an interest in the Project. To enable sufficient time to respond to the personalised registration letter the period for expressions of interest was extended until after the onsite planning meeting held on 4 April 2012. This enabled an additional four groups registered an interest on 3 April 2012 and a further four groups registered an interest in person at the planning meeting.

A total of 28 groups registered as part of the Aboriginal Cultural Heritage Impact Assessment following responses to the public notice, personalised expression of interest letter and onsite planning meeting (see Table 24).

Table 24 Registered Aboriginal Parties

Ref	Group Name
1	Aliera French Trading
2	Bawurra Consultants
3	Breeza Plains Culture and Heritage Consultants
4	Bunda Consultants
5	Cacatua Cultural Consultants
6	DFTV Enterprises
7	Deslee Talbott Consultants
8	Gidawaa Walang Cultural Heritage Consultancy
9	Hunter Valley Aboriginal Corporation
10	Hunter Valley Cultural Surveying
11	Indigenous Outcomes
12	Kauwul (trading as Wonn1 Contracting)
13	Kawul Cultural Services
14	Myland Cultural & Heritage Group
15	Ngarramang-Kuri Aboriginal Culture & Heritage Group
16	Roger Noel Matthews Consultancy
17	Ungooroo Aboriginal Corporation
18	Upper Hunter Heritage Consultants
19	Upper Hunter Wonnarua Council
20	Waabi Gabinya Cultural Consultancy
21	Wallangan Cultural Services
22	Wanaruah Local Aboriginal Land Council
23	Warragil Cultural Services
24	Warul Consultants
25	Wattaka Wonnarua Culture Consultants
26	Widescope Indigenous Group Pty Ltd
27	Wonnarua Culture Heritage
28	Yinarr Cultural Services

Two further stakeholders expressed an interest in this assessment after the registration closure date on 11 April 2012 including Greg Griffiths and T&G Culture Consultants. Both Greg Griffiths and T&G Culture Consultants were incorporated into the consultation program for the Project.

Notification of Registered Aboriginal Stakeholders

In accordance with Section 4.1.5 of the Aboriginal Consultation Requirements the expression of interest letter dated 19 March 2012, advised that contact details would be forwarded to OEH and WLALC unless they stipulated that they did not want their details distributed.

In accordance with Section 4.1.6 of the Aboriginal Consultation Requirements, the details of registered Aboriginal parties (RAPs) stakeholders were provided to OEH and WLALC on 30 April 2012.

- A copy of the public notice placed in the Muswellbrook Chronicle and Hunter Valley News;
- A copy of the letter inviting expressions of interest, sent to all Aboriginal stakeholders on 19 March 2012; and
- A record of RAPs whom have registered for consultation as part of the Aboriginal cultural heritage impact assessment.

6.5.2 Stage 2 - Project Information

Planning Meeting

In order to satisfy Sections 4.2.1 and 4.2.2 of the Aboriginal Consultation Requirements, a planning meeting was held on site at Bengalla on 4 April 2012. The purpose of the planning meeting was to:

- Present a detailed briefing about the Project;
- Discuss the draft survey methodology and the nature and scope of the assessment;
- Outline the EIS process;
- Specify critical timelines and milestones for the completion of assessment activities and delivery of reports;
- Clearly define agreed roles, functions and responsibilities in relation to Aboriginal consultation;
- Identify, raise and discuss the RAPs cultural concerns, perspectives and assessment requirements (if any) and provide contact details should any individual discussions be required; and
- Provide a forum in which cultural knowledge of the land within the Project Boundary can be discussed.

A total of 24 Aboriginal stakeholders attended the planning meeting.

6.5.3 Stage 3 - Survey Methodology and Fieldwork

Methodology

In accordance with Section 4.3.1 of the Aboriginal Consultation Requirements, the proposed methodology for the archaeological survey was provided to registered stakeholders accompanying the letter dated 19 March 2012.

The methodology letter provided a description of the Project, previous Aboriginal impact assessments and context, results from a desktop assessment along with the proposed archaeological survey methodology for the Project.

All Aboriginal stakeholders were encouraged to provide comments and raise any concerns in relation to the draft methodology or cultural heritage issues either in writing, during the planning meeting or during any stage of the consultation process.

6 Stakeholder Engagement

Five stakeholder groups provided a response to the draft archaeological survey methodology including:

- Breeza Plains Culture and Heritage Consultants;
- DFTV Enterprises;
- Gidawaa Walang Cultural Heritage Consultants;
- Ungooroo Aboriginal Corporation; and
- Cacatua Culture Consultants.

All of these groups agreed with the content in the draft methodology (see Section 8.9).

Archaeological Survey

All Aboriginal stakeholders that had registered an interest prior to the planning meeting were offered the opportunity to participate in an archaeological survey of the land within the Project Boundary. All 28 registered stakeholder groups accepted the offer of participating in the archaeological survey.

As explained in the methodology, it was estimated that three weeks would be needed to survey the entire area within the Project Boundary outside the Approved Bengalla Mine. Due to the large number of groups involved in the assessment, the 28 groups involved in the archaeological survey were divided equally into three working groups. Each working group was allocated to one week of the archaeological survey. All stakeholder groups were asked to nominate an archaeological survey representative and to indicate the weeks that their representative would be available to undertake archaeological survey.

Each of the 28 stakeholder groups was provided the opportunity to select a one of the three working groups according to the availability of their archaeological survey representative. The final allocations for the 28 groups are shown in Table 25.

Each Aboriginal group was personally contacted by phone and / or email to confirm dates representatives were required in the field, request insurances and to provide other logistics. The archaeological survey was then scheduled for the three weeks from 14 May 2012 to 1 June 2012 and consisted of the following:

- Working Group 1 (14 May 2012 – 18 May 2012);
- Working Group 2 (21 May 2012 – 25 May 2012); and
- Working Group 3 (28 May 2012 – 1 June 2012).

The third week of archaeological survey was scheduled for the working week from 28 May 2012 to 1 June 2012. Due to inclement weather, the final three days of archaeological survey were postponed until the following week. That is, the archaeological survey originally scheduled for the three days from 30 May to 1 June 2012 was undertaken on 4 – 6 June 2012.

An additional one day of fieldwork was conducted on the 15 August 2012 by representatives present from AECOM, Global Soils Systems and BMC in conjunction with Aboriginal stakeholders representing Gidawaa Walang Cultural Heritage Consultancy and Wallangan Cultural Services. The purpose of the additional survey fieldwork was to determine the nature and origin of four potential scar trees identified within the Project Boundary. Results from the assessment are discussed further in Section 8.9.

6.5.4 Stage 4 - Draft Aboriginal Archaeological and Cultural Heritage Assessment Review

The draft Aboriginal Cultural Heritage Impact Assessment was issued to all 30 RAPs on 9 October 2012. Responses to the assessment were provided by 14 Aboriginal groups. A summary of the responses is provided below. The reviews of the assessment can be seen in full in Appendix M.

Stakeholder Responses

Of the 14 responses received on the draft report, seven Aboriginal stakeholder groups agreed with the content of the report and did not wish to make further comment. A further three groups, when contacted, stated they did not wish to make comment. A written response was provided from four Aboriginal stakeholder groups with the responses summarised below.

- WLALC highlighted the importance of land within the Project Boundary to Aboriginal people. In addition, the WLALC made several recommendations which are summarised below:
 - That the 'Management Recommendations' in the draft assessment be correctly titled "Consultant's Management Recommendations";
 - That the recommendations be included in the assessment under Aboriginal community Recommendations;
 - An Aboriginal cultural surface and subsurface investigation be conducted by and in consultation with the Aboriginal community;
 - That the Aboriginal community be given employment opportunities in all areas of the Project mining process through Aboriginal specific traineeships and employment programs or alike;
 - That the proponent funds the building of a Keeping Place, learning centre and 50 ha cultural heritage offset area be established for the Aboriginal Community; and
 - That BMC provides an annual financial contribution for the life of the mine to a trust for Aboriginal employment, education programs and health services in the Upper Hunter.
- Kauwul requested a particular individual be consulted and to participate in the site salvage and the inspection and decision-making process with regard to the scarred trees;

Table 25 Archaeological Survey Fieldwork and Participants

Working Group	Survey Period	Stakeholder Group
1	14 May 2012 – 18 May 2012	Roger Noel Matthews
		Indigenous Outcomes
		Myland Cultural and Heritage Group
		Upper Hunter Heritage Consultants
		Wonnarua Culture Heritage
		Bawurra Consultants
		Bunda Consultants
		Yinarr Cultural Services
		Ngarramang-Kuri Aboriginal Culture and Heritage Group
2	21 May 2012 – 25 May 2012	Kawul Cultural Services
		Warragil Cultural Services
		Breeza Plains Culture and Heritage Consultants
		Gidawaa Walang Cultural Heritage Consultancy
		Cacatua Culture Consultants
		Wallangan Cultural Services
		Upper Hunter Wonnarua Council
		DFTV Enterprises
		Deslee Talbott Consultants
		Hunter Valley Cultural Surveying
3	28 May 2012 – 1 June 2012 & 4 – 6 June 2012	Hunter Valley Aboriginal Corporation
		Widescope Indigenous Group
		Kauwul
		Wanaruah Local Aboriginal Land Council
		Aliera French Trading
		Waabi Gabinya Culture Consultants
		Cacatua Culture Consultants
		Upper Hunter Wonnarua Council
		Wallangan Cultural Services
		Gidawaa Walang Cultural Heritage Consultancy

- HVAC stated that they did not wish to make specific comment however supported the views of the WLALC; and
- DFTU Enterprises commented that land surveyed during the second week of the survey was densely covered with pasture grass which lowered surface visibility and limited the potential to identify evidence of surface archaeological materials.

As discussed in **Section 6.1.1**, BMC (through Coal & Allied contribute to the Coal & Allied ACDF where more than \$3.05 M has been provided to education, training, community and business development projects benefiting the Hunter Valley Aboriginal community since its inception in 2006.

BMC will continue to support the Coal & Allied ACDF to help deliver long term sustainability to Aboriginal business and programs in the Hunter Valley.

Details of proposed mitigation and management strategies of all sites will be included as part of the revised Aboriginal Cultural Heritage Management Plan (ACHMP) to be prepared following approval of the Project. The ACHMP will be developed in consultation with all RAPs. All RAPs will be provided the opportunity to be involved in the proposed surface collection (see **Section 8.9.4**). All other comments have been considered in the final Aboriginal Cultural Heritage Impact Assessment in **Appendix M**.

6.6 Ongoing Stakeholder Engagement

BMC is committed to continuing its stakeholder engagement program throughout the life of the Project. Ongoing stakeholder engagement will include regular contact with neighbouring land owners, representatives of key local and State regulatory authorities and industry bodies and the release of information on the status of the Project, key Project issues and environmental performance.

Project information sheets will be distributed upon the submission of this EIS to provide an update on this EIS process and where this EIS may be viewed by the public.

Mechanisms that will be employed by BMC to ensure effective ongoing engagement and communication with Project stakeholders will include:

- Regular engagement with individual near neighbours including the distribution of frequent newsletters and Project updates;
- Continuation of the established BMC CCC;
- Company representation on appropriate environmental and community groups;
- Ongoing distribution of the Coal & Allied Community Newsletter – Muswellbrook Edition;
- Continued regular consultation and working group meetings with Mount Pleasant Project personnel;
- Regular updates and documentation available on the Coal & Allied website; and
- Ongoing support and participation at relevant key community events.

Training of employees and contractors will be undertaken commensurate with each job description in relation to the commitments in this EIS and as part of the commitment to ongoing stakeholder consultation.

In addition, an Annual Review that summarises company activities and performance in the areas of environment and community will be prepared and made available to the public on the Coal & Allied website.





7

Risk Assessment

7.1 Revised Risk Assessment

The Background Document which supported the request for DGRs to DP&I included a preliminary risk assessment which identified potential environmental and socio-economic issues associated with the Project. The primary purpose of the risk assessment process was to prioritise and focus the required environmental and socio-economic impact assessments for the EIS.

Each of the environmental issues has been assessed and addressed to a relevant extent and where appropriate, management and mitigation options developed. Following stakeholder engagement and the receipt of the DGRs, a revision of this preliminary risk assessment was undertaken to incorporate additional requirements. The revised risk assessment is presented in full in **Appendix F**.

Each of the potential environmental issues was ranked in accordance with the RTCA HSEQ Risk Classification Matrix (see **Appendix F**) as being of low, moderate, high or critical risk. The risk rating allocated to an impact is dependent upon the probability of the impact occurring and the potential consequences should the impact materialise.

Table 26 summarises findings from the revised risk assessment which indicated that in the absence of controls several aspects associated with the Project potentially pose a high environmental risk. Many of the aspects were rated as high to moderate risk. No critical risks were identified.

Aspects identified as having a higher environmental impact risk ranking formed the primary focus of this EIS and were more intensively assessed. Aspects which have been identified as having a moderate to low risk were also assessed however a lesser scope of works was conducted for these secondary issues, based on their lower risk rating.

Table 26 Environmental and Socio-Economic Risk Rating

Critical	High	Moderate	Low
None	Air Quality	Greenhouse Gas	Hazardous (including bushfire)
	Noise	Surface Water	Waste
	Blasting	Geochemical	Flooding
	Visual and Lighting	Historical Heritage	Spontaneous Combustion
	Groundwater	Traffic and Transportation	
	Aboriginal Heritage	Agriculture	
	Ecology (Biodiversity)	Rehabilitation and Final Landform	
	Social	Soils and Land Capability	
	Economics		

