

Metallurgical Coal



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14 June 2011

Mr Keith Davies  
Coordinator General  
Level 5 Executive Building  
100 George Street  
BRISBANE QLD 4000

Dear Mr Davies

**Caval Ridge Mine Change Request  
Proposal for up to 100 per cent fly-in/fly-out Operational Workforce**

In the attached Change Request, BHP Billiton Mitsubishi Alliance (**BMA**) is seeking amendments to the Coordinator-General's conditions for the operation of the Caval Ridge mine, from the approved 70 per cent fly-in fly-out to up to 100 per cent fly-in fly-out.

This change is fundamental to the project, and is driven by the following considerations:

***Securing the operations workforce for the Caval Ridge mine in a tight labour market***

BMA must widen its recruitment options, by providing greater flexibility and choice for employees.

***Minimising impacts from Caval Ridge Mine on BMA's existing operations***

An increase from 70 per cent to up to 100 per cent fly-in fly-out for the Caval Ridge mine provides the opportunity for BMA to secure the workforce required for the Caval Ridge mine without drawing workers from BMA's existing mines and adversely impacting these operations.

***Ensuring effectiveness at the Caval Ridge mine and improved road safety outcomes***

A 100 per cent fly-in fly-out arrangement allows a one roster system essential for operational effectiveness on the Caval Ridge mine site. The fly-in fly-out arrangement will also improve road safety through reduced road travel, compared to the alternative arrangement.

***Spreading employment and economic benefits from the Caval Ridge mine throughout Queensland***

The fly-in fly-out arrangement will allow BMA to access areas in Queensland with high skills availability, usually also areas of high unemployment. The Company would consider recruiting up to half of the workforce from North Queensland, if feasible, and sourcing the balance from Southern Queensland, thereby spreading the economic benefits of the Caval Ridge mine more widely outside the Bowen Basin.

### ***Providing upside for Moranbah***

Moranbah will be better off with the Caval Ridge mine than without it. However, the change from 70 per cent to up to 100 per cent fly-in fly-out will help to relieve additional pressure on community infrastructure and services.

BMA does not see the proposed change as a choice between a fly-in fly-out arrangement and ongoing support for Moranbah. That support will continue and increase. Moranbah will continue to grow. BMA is continuing its significant housing investment in Moranbah and is expanding its investment in community support programs to approximately \$85 million over FY11 and FY12.

Finally, the additional 30 per cent being requested needs to be considered in the context of BMA's total workforce. The change to up to 100 per cent fly-in fly-out equates to only 1.3 per cent of BMA's existing workforce (employees and contractors) and represents only 150 fly-in fly-out jobs. The workforce in BMA's existing operations is predominantly residential and BMA has no plans to change this.

In seeking this change from 70 per cent fly-in fly-out to 100 per cent fly-in fly-out for the operation of the Caval Ridge mine, BMA provides the following undertakings:

- The operations workforce for the associated expansion of the Peak Downs mine will be predominantly residential. This expansion involves 350 new operations jobs in addition to the 500 jobs at Caval Ridge. Taking the two projects together, less than 70 per cent of the combined workforce will be fly-in fly-out.
- Apprentices will be recruited locally where possible and will live locally.
- BMA will support local suppliers and contractors under its Local Buying Program.
- BMA will target areas of high skills availability (and consequently high unemployment) as fly-in fly-out sources in Queensland.
- BMA will maintain its commitments to Moranbah.

The Caval Ridge mine cannot proceed without a flexible workforce solution. Early resolution of the change request application is critical to ensure that investment decisions on the Caval Ridge mine project are able to be taken, and the benefits from the project are secured for all stakeholders.

If you require any further information, please do not hesitate to contact myself or Mr Ross Willims.

Yours sincerely



**Hubie van Dalsen**

President – Metallurgical Coal



BHP Billiton Mitsubishi Alliance

# Caval Ridge Mine

## Operational Workforce Change Request 4

14 JUNE 2011

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## 1. EXECUTIVE SUMMARY

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### 1.1 Introduction

The Caval Ridge Mine is a proposed new coal mine and coal handling and processing facility, located approximately 15 kilometres south of Moranbah and 160 kilometres south west of Mackay. BM Alliance Coal Operations Pty Ltd (**BMA**) as manager and agent for the Central Queensland Coal Associates Joint Venturers is the proponent of the Caval Ridge Mine which forms part of BMA's Bowen Basin Coal Growth Project (**BBCGP**). The BBCGP was declared by the Coordinator-General in 2008 to be a significant project for which an Environmental Impact Statement (**EIS**) was required under the *State Development and Public Works Organisation Act 1971* (**SDPWOA**).

Technical studies originally developed for the EIS in 2008 and 2009 were based on modelling which assumed that approximately 70 per cent of Caval Ridge Mine's operational workforce would be engaged under fly-in fly-out arrangements, whilst 30 per cent would be accommodated in Moranbah and surrounding areas. These original studies were conducted on the basis that a final decision as to the workforce arrangements for the Caval Ridge Mine would be subject to further assessment and consideration by BMA. This original assumption involving a 70 per cent fly-in fly-out and a 30 per cent residential based operations workforce for the Caval Ridge Mine was adopted by the Coordinator-General and prescribed as imposed conditions in the Coordinator-General's Report dated August 2010 (**Coordinator-General's Report**).

As contemplated at the time of the EIS, BMA has continued to review and assess the operational workforce requirements for the Caval Ridge Mine since completing the EIS, the Supplementary Environmental Impact Statement (**SEIS**) and since the finalisation of the Coordinator-General's Report in August 2010.

This review has identified that the conditions prescribing 70 per cent fly-in fly-out and 30 per cent residential based workforce arrangements give rise to recruitment and operational difficulties which are of such a degree, that the imposed conditions present significant issues for the development of the Caval Ridge Mine. The Caval Ridge Mine cannot proceed without a flexible workforce solution for the mine.

BMA calls upon the Coordinator-General to reconsider these conditions relating to the Caval Ridge Mine operations workforce.

This report constitutes a change request prepared by BMA pursuant to Section 35E of the SDPWOA in relation to the terms of reference (**Tor**) for the BBCGP, the EIS and the SEIS for the Caval Ridge Mine (**Change Request 4**).

This Change Request 4 does not relate to the Development Applications for the Buffel Park Accommodation Village which were called in by the Minister for State Development and Trade, the Honourable Andrew Fraser on 8 June 2011 pursuant to the Ministerial call in powers under the *Sustainable Planning Act 2009* (Qld) (**SPA**). The decisions relating to the Development Applications and this Change Request 4 are entirely separate matters.

### 1.2 Change requested to operational workforce arrangements

BMA proposes to increase the fly-in fly-out arrangement from the presently approved 70 per cent to up to 100 per cent for the operations workforce for the Caval Ridge Mine. The change is being requested in order to recruit the workforce required for the Caval Ridge Mine in an extremely tight

labour market, without impacting the existing BMA operations and to ensure operational effectiveness.

An arrangement allowing up to 100 per cent fly-in fly-out operations workforce will necessitate changes to Conditions 18(b), 18(c), 18(d) and 18(e) in the Coordinator-General's report of August 2010. The changes required to these conditions in order to achieve a fly-in fly-out arrangement of up to 100 per cent are set out in **Appendix B**.

### **1.3 Reasons for the change**

#### **(a) Securing the operations workforce for the Caval Ridge Mine in a tight labour market**

It is always BMA's preference, where it can, to recruit its workforce locally. BMA's workforce at its existing Central Queensland operations is predominantly residential. BMA has no plans to change the primarily residential nature of its existing operations. Indeed these numbers are projected to increase with growth in BMA's operations.

However, the fundamental reason BMA is seeking a change to the workforce arrangements for the proposed new Caval Ridge Mine, in the manner contemplated by this Change Request 4, is to assist BMA to secure the workforce required for the new mine. BMA currently faces an extremely tight labour market. This is best demonstrated by the high job vacancy rate at BMA's existing Central Queensland operations. BMA currently has approximately 750 vacancies (or 13 per cent) in its existing employee workforce of 5,800 people. The vacancy rate and average recruitment time are both projected to increase further.


This is a challenge that not only affects BMA, but also the industry as a whole with approximately 4,000 job vacancies across the mining, oil and gas industries in Queensland.

This constrained labour market is likely to become even more difficult in the short to medium term, both for skilled and unskilled workers, as Queensland and Australia continue to experience a sustained increase in demand for mining based commodities. It is predicted that an additional 60,000 workers will be required in the Central Queensland region from around 2015, to support new mining, coal seam gas and infrastructure projects in the region. The proposed Caval Ridge Mine therefore will be recruiting and operating in an extremely tight labour market.

The competition for labour and the existing high levels of vacancies in the Central Queensland region calls for companies to offer wider choices for their workforce in terms of employment arrangements and accommodation options. Companies need options to attract and retain parts of the labour force outside the region they have been unable to attract previously.

#### **(b) Minimising impacts from Caval Ridge Mine on BMA's existing operations**

The increase from 70 per cent to up to 100 per cent fly-in fly-out for the Caval Ridge Mine provides the opportunity for BMA to secure the workforce required by the Caval Ridge Mine without drawing workers from BMA's existing mines and impacting those existing operations. Given the existing vacancies across the BMA portfolio, it is critical to ensure that the recruitment for the new Caval Ridge Mine does not exacerbate current recruitment difficulties at existing BMA mines and elsewhere in the industry.



Mining companies need to have the flexibility to offer workforce choice and the ability to determine their own workforce composition without having their workforce arrangements heavily prescribed.

By moving from 70 per cent to up to 100 per cent fly-in fly-out, BMA secures the ability to offer that workforce choice and to determine the appropriate workforce composition for the Caval Ridge Mine. Ultimately, some of the Caval Ridge Mine workforce may be recruited locally and live locally. For example, it is likely that apprentices would be recruited from Moranbah and would continue to live with their families in the township where possible. However, BMA needs to have the ability and the flexibility to determine its workforce arrangements for the Caval Ridge Mine workforce having regard to labour market factors, the impact on its existing operations and its operational needs.

(c) **Ensuring effectiveness at the Caval Ridge Mine and improved road safety outcomes**

By moving from 70 per cent to up to 100 per cent fly-in fly-out BMA will be able to implement one set of shift rosters at the Caval Ridge Mine, rather than two or more sets of rosters. One roster system is essential for operational effectiveness and workforce cohesion at the Caval Ridge Mine.

The arrangement has the additional advantage of improving road safety and reducing road maintenance as a consequence of reduced road travel, compared to the alternative arrangement.

(d) **Spreading the employment and economic benefits from the Caval Ridge Mine throughout Queensland**

The proposal to increase the Caval Ridge Mine workforce to up to 100 per cent fly-in fly-out would allow the benefits of the Caval Ridge Mine project to be spread more widely around Queensland by recruiting the workforce from other parts of the State with high skills availability. These are also often areas with higher levels of unemployment. BMA is currently assessing a number of regions as potential sources for the fly-in fly-out workforce, such as Cairns / North Queensland, the Sunshine Coast, the Gold Coast and Toowoomba, as well as Brisbane.

BMA would consider recruiting up to half of the workforce from North Queensland, if feasible, and recruiting the balance from Southern Queensland. Recruiting half of the fly-in fly-out workforce from North Queensland potentially means an additional 250 incomes created for the North Queensland region, with flow on benefits through the additional spending by these households.

(e) **Providing upside for Moranbah**

There is manageable upside for Moranbah from the Caval Ridge Mine. Moranbah will be better off with the Caval Ridge Mine than without it. However, the change from 70 per cent to up to 100 per cent fly-in fly-out will help to relieve additional pressure on community infrastructure and services.

The scale and speed of growth in Queensland's resource sector has placed additional demand and pressure on existing social infrastructure and services in regional communities. This is apparent in Moranbah where it is estimated, based on the existing community profile, that Moranbah has a shortfall of hospital beds, general practitioners and police officers. It is



estimated that Moranbah has a shortfall of seven general practitioners and five police officers. The change from 70 per cent to up to 100 per cent fly-in fly-out for the Caval Ridge Mine will help to relieve pressure on already strained regional infrastructure and services.

The change from 70 per cent to up to 100 per cent fly-in fly-out for the Caval Ridge Mine will not alter or diminish BMA's ongoing commitment to the community of Moranbah. BMA has a strong record of supporting Moranbah and it remains committed to maintaining and further growing this community.

Last financial year (FY10) alone, BMA spent \$2 million each week (\$100 million in total) on new housing in Moranbah. BMA will provide further significant investment in new housing to support new employees at its existing operations who choose to live in the township.

Expansion of the Peak Downs Mine, which relies on the Caval Ridge Mine, will also add markedly to the housing stock in Moranbah as it will have a primarily residential workforce.

In addition to housing, BMA invested a further \$54.2 million into the Bowen Basin communities in 2009 and 2010, with Moranbah accounting for more than half of this, including \$14 million in 2010. This included supply and funding more than 80 per cent of Moranbah's water. BMA has increased its commitment further this year with an additional \$13 million for a Moranbah community support package announced in March 2011. BMA has also committed \$46 million towards the upgrade of the Moranbah airport. All up, BMA will increase its community contribution to Moranbah from around \$14 million in FY10 to approximately \$85 million over FY11 and FY12.


The development of the Caval Ridge Mine is expected to bring substantial economic benefits to the general Moranbah area. The economic contribution from the Caval Ridge Mine and the expansion of the Peak Downs mine is estimated at up to \$35 million per annum. Additionally, the Moranbah community will receive further support from BMA's existing operations, through the implementation of the new Buying Local Program launched earlier this year.

#### 1.4 The effects of the proposed change

The Coordinator-General's Report conditions have previously approved and established a 70 per cent fly-in fly-out operations workforce for the Caval Ridge Mine. This Change Request 4 is seeking approval of an incremental change in the proportion of the operations workforce which may be engaged on a fly-in fly-out arrangement from 70 per cent to up to 100 per cent.

It is important to put the proposed change into context, and that is as follows:

- (a) BMA has assessed the issues raised in the Terms of Reference (**ToR**) for the BBCGP, the EIS, the SEIS, the Coordinator-General's Report and Coordinator-General's response to Change Report 1, to identify any implications of the proposed incremental change to the operations workforce. This review has confirmed that there is **no material impact** on the assessment previously undertaken for the Caval Ridge Mine EIS or SEIS as a result of BMA's proposal to move from 70 per cent to up to 100 per cent fly-in fly-out.
- (b) A workforce of up to 100 per cent fly-in fly-out at the Caval Ridge Mine will equate to only 4.3 per cent of the total BMA workforce of employees and contractors. The additional 30 per cent being requested pursuant to this Change Request 4 equates to only 1.3 per cent of BMA's workforce, or 150 fly-in fly-out jobs, out of a workforce of over 11,000 employees and contractors.

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- (c) Expansion of the Peak Downs Mine (which relies on the development of the Caval Ridge Mine to proceed) will have a primarily residential workforce. Caval Ridge Mine will create 500 operational jobs and the expansion of the Peak Downs Mine will create 350 operational jobs. This means that, taking the two projects together, less than 70 per cent of the combined workforce will be fly-in fly-out.
  - (d) The proposed change provides an opportunity for prospective workers who wish to reside elsewhere to work in the industry through a choice that does not currently exist. It will enable BMA to attract and retain a segment of the population that we have been unable to access previously.
  - (e) The proposed change provides an advantage in the attraction of female workers (BMA has a target of 30 per cent female participation at the Caval Ridge Mine).
  - (f) The proposed change will secure jobs for regions in Queensland with higher unemployment.

## 1.5 Conclusion and recommendations

The proposed change to increase fly-in fly-out workforce arrangements to up to 100 per cent is necessary to secure the Caval Ridge Mine workforce in an extremely tight labour market, without impacting existing operations. The change is also necessary to achieve operational effectiveness and to secure improved road safety outcomes. The proposal will spread the benefits of the Caval Ridge Mine more widely around Queensland, whilst providing manageable upside for Moranbah.

In seeking this change for the operation of the Caval Ridge Mine from 70 per cent fly-in fly-out to up to 100 per cent fly-in fly-out, BMA provides the following undertakings:

- (a) The operations workforce for the associated expansion of the Peak Downs Mine will be predominantly residential. (This expansion involves 350 new operations jobs in addition to the 500 jobs at Caval Ridge. Taking the two projects together, less than 70 per cent of the combined workforce will be fly-in fly-out.)
- (b) Where possible, apprentices will be recruited locally and will live locally.
- (c) BMA will support local suppliers and contractors under its Local Buying Program.
- (d) BMA will target areas of high skills availability (and consequently high unemployment) as fly-in fly-out sources in Queensland.
- (e) BMA will maintain its commitments to Moranbah.

The Caval Ridge Mine cannot proceed without a flexible workforce solution.

Early resolution of the change request application is critical to ensure that investment decisions on the Caval Ridge Mine project are able to be taken, and the benefits from the project are secured for all stakeholders.

BMA calls upon the Coordinator-General to approve Change Request 4 for an increase in the fly-in fly-out workforce of the Caval Ridge Mine from the presently approved 70 per cent to up to 100 per cent.

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## 2. INTRODUCTION

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This is a formal Change Request (**Change Request 4**) to the Coordinator-General for consideration of amendments to conditions imposed on the approved Caval Ridge Mine. This Change Request 4 is made under Part 4, Division 3A (Section 35C) of the SDPWOA. BMA, as manager and agent of the Central Queensland Coal Associates Joint Venture, is the proponent for the Caval Ridge Mine.

An EIS prepared by BMA for the Caval Ridge Mine was released by the Coordinator-General for public and advisory agency comment during July and August, 2009. The SEIS was prepared to address issues raised during public notification. The Coordinator-General's Report evaluating the EIS and SEIS was released in August 2010.

Technical studies originally developed for the EIS in 2008 and 2009 were based on modelling which assumed that approximately 70 per cent of the Caval Ridge Mine's operational workforce would be engaged under fly-in fly-out arrangements, whilst 30 per cent would be accommodated in Moranbah and surrounding areas. These original studies were conducted on the basis that a final decision on workforce arrangements for the Caval Ridge Mine would be subject to further assessment and consideration by BMA.

The Coordinator-General adopted BMA's initial workforce assumptions and imposed conditions which limited fly-in fly-out arrangements for the Caval Ridge Mine to 70 per cent of the operations workforce. A list of existing conditions and requirements imposed by the Coordinator-General and relevant to the fly-in fly-out arrangements is contained in **Appendix A** of this Change Request 4.

As contemplated at the time of the EIS, BMA has continued to review and assess the operational workforce requirements for the Caval Ridge Mine since completing the EIS, the SEIS and since the finalisation of the Coordinator-General's Report in August 2010.

This review has identified that the conditions prescribing 70 per cent fly-in fly-out and 30 per cent residential based workforce arrangements give rise to recruitment and operational difficulties which are of such a degree, that the imposed conditions present significant issues for the development of the Caval Ridge Mine. BMA calls upon the Coordinator-General to reconsider these conditions relating to the Caval Ridge Mine operations workforce. BMA proposes to increase the fly-in fly-out arrangement from the presently approved 70 per cent to up to 100 per cent fly-in fly-out.

An arrangement allowing up to 100 per cent fly-in fly-out operations workforce will necessitate changes to Conditions 18(b), 18(c), 18(d) and 18(e) in the Coordinator-General's report of August 2010. The changes required to these conditions are set out in **Appendix B**.

This Change Request 4 addresses the information required under Section 35E of the SDPWOA, as follows:

- (a) statutory requirements of the proposed changes (**Section 4**);
- (b) a description of the proposed changes and their effects on the project (**Section 5**);
- (c) reasons for the proposed changes (**Section 6**); and
- (d) environmental effects of the proposed changes and mitigation measures (**Section 7**).

BMA considers that this Change Request 4 provides sufficiently detailed information to allow the Coordinator-General to appropriately evaluate (and approve) the proposed changes to the operational workforce of the Caval Ridge Mine.



This Change Request 4 does not relate to the Development Applications for the Buffel Park Accommodation Village which were called in by the Minister for State Development and Trade, the Honourable Andrew Fraser on 8 June 2011 pursuant to the Ministerial call in powers under the *Sustainable Planning Act 2009* (Qld) (**SPA**). The decisions relating to the Development Applications and this Change Request 4 are entirely separate matters.

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### 3. PROJECT BACKGROUND

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#### 3.1 Bowen Basin Coal Growth Project

The BBCGP comprises the expansion of BMA's coal mining operations in the northern portion of the Bowen Basin. The BBCGP Initial Advice Statement, provided to the Coordinator-General in June 2008, outlined the production of an additional 21.5 million tonnes per annum of coal products through the Daunia, Caval Ridge and Goonyella Riverside Mines.

The BBCGP was declared a significant project under the SDPWOA by the Coordinator-General in 2008 and the ToR allowed for the completion of a number of EISs to address the multiple components of the BBCGP, including the Caval Ridge Mine.

#### 3.2 Caval Ridge Mine

The Caval Ridge Mine will be a new multi-seam, open cut coal mine and coal handling and processing facility in the Bowen Basin and a key component of the BBCGP. The mine industrial area (MIA) will be approximately 16 kilometres from Moranbah, situated on the Peak Downs Highway (**Figure 2.1 Caval Ridge Mine Context Plan**). The northern most boundary of the Caval Ridge Mine is approximately 6 kilometres from the edge of Moranbah. The Caval Ridge Mine site is adjoined by the Peak Downs Highway and is approximately 17 kilometres in length and 4 kilometres in width. The mine is expected to have a working life of 60 years.

The Caval Ridge Mine site is located north of BMA's Peak Downs Mine and covers the northern extent of the BMA Mining Lease (ML1775). A new mining lease (ML70403), immediately to the west of ML1775, will be used for site infrastructure and supporting activities. The Caval Ridge Mine is located on both ML1775 and ML70403.

The Caval Ridge Mine is an investment of approximately \$4 billion of capital and an annual operating expenditure of approximately \$475 million per annum. The Caval Ridge Mine and associated expansion of the Peak Downs Mine is expected to produce 8 million tonnes per annum of hard coking coal.

The Caval Ridge Mine and expansion of the Peak Downs Mine will generate an additional \$500 million per annum<sup>1</sup> into the Queensland economy, \$220 million per annum<sup>2</sup> in royalties for the State and create significant job growth with 2000 construction jobs and 850 operational jobs<sup>3</sup>.

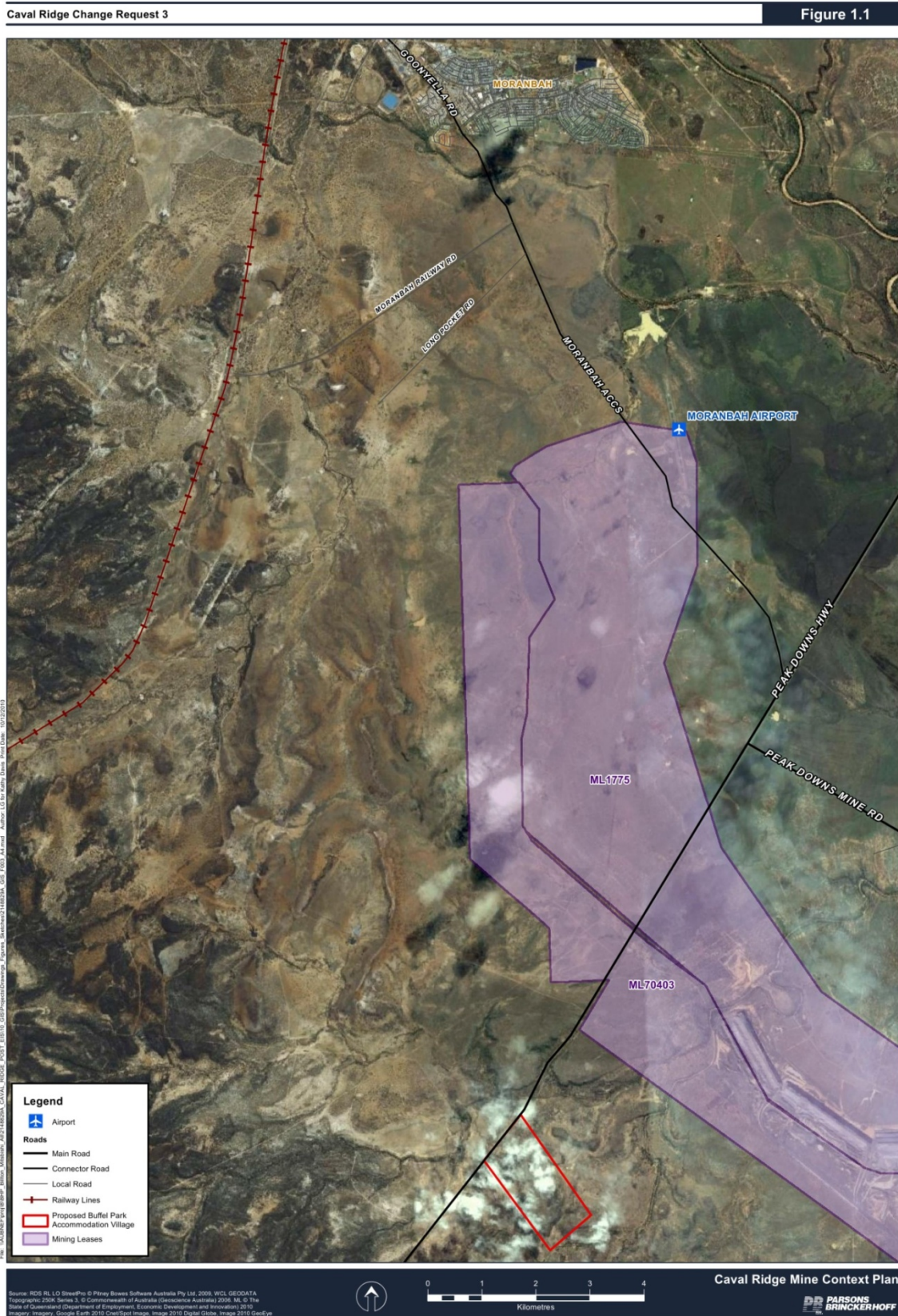
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<sup>1</sup> \$500 million per annum includes wages, goods, services and flow on impacts.

<sup>2</sup> \$220 million per annum in royalties is based on current market prices and exchange rates.

<sup>3</sup> 850 jobs includes 500 Caval Ridge jobs and 350 Peak Downs expansion jobs.

Figure 1 Caval Ridge Mine Context Plan



### 3.3 Assessment of Caval Ridge Mine undertaken to date

This section of the Change Request outlines the assessment that has occurred for the Caval Ridge Mine to date, under both Commonwealth and State legislation.

#### (a) Commonwealth Government

The Commonwealth Minister of Sustainability, Environment, Water, Population and Communities determined on 23 September 2008 that the Caval Ridge Mine constituted a controlled action under Section 75 of the *Environment Protection and Biodiversity Conservation Act 1999 (EPBCA)*, on the basis of likely impact on matters of national environmental significance.

The completed EIS, SEIS and the Coordinator-General's Report were referred to the Commonwealth Minister for assessment under the EPBCA. The Commonwealth Minister's approval was provided in March 2011.

The variation to the accommodation village location, scale and capacity included in Change Request 1 was accepted by the Department of Sustainability, Environment, Water, Population and Communities in a letter to the Coordinator-General on 28 October 2010.

#### (b) State Government

On 4 July 2008, the Coordinator-General declared BBCGP a significant project for which an EIS is required in accordance with Part 4 of SDPWOA.


The ToR for the BBCGP set out a phased process for assessing the environmental impacts of each element of the BBCGP. An EIS prepared by BMA for the Caval Ridge Mine was released by the Coordinator-General for public and advisory agency comment during July and August 2009. A SEIS was prepared to address issues raised during public notification.

The Coordinator-General's Report on the Caval Ridge Mine EIS and SEIS was issued on 9 August 2010.

Ongoing review of the Caval Ridge Mine's construction and operational requirements by BMA has led to the preparation and submission to the Coordinator-General of three previous Change Requests (Change Requests 1, 2 and 3) as follows:

- (i) Change Request 1 (September 2010) - sought changes to the location and accommodation capacity of Caval Ridge Mine's workforce. Change Request 1 sought endorsement of the location and capacity of the Buffel Park Accommodation Village.
- (ii) Change Request 2 (November 2010) - sought administrative amendments to the Coordinator-General's Report condition relating to the granting of the Caval Ridge Mine Environmental Authority.
- (iii) Change Request 3 (June 2011) – sought administrative amendments to the Coordinator-General's Report condition relating to the completion of the housing study.

The Coordinator-General required public notification of Change Request 1 and received eight public submissions and 165 private submissions relating to Change Request 1.



Following consideration of those submissions the Coordinator-General issued the Change Report (in response to Change Request 1) in February 2011.

The Coordinator-General did not require public notification of Change Request 2 and, following his evaluation of the request, issued the Change Report (in response to Change Request 2) in November 2010.

The Coordinator-General is still considering Change Request 3.

This Change Request 4 is separate from and is to be assessed independently of Change Requests 1, 2 and 3.



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## 4. PROCESS FOR EVALUATING A PROPOSED CHANGE TO THE PROJECT OR ITS CONDITIONS

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The process for making changes to approved significant projects or their conditions is outlined in Section 35B to 35L of the SDPWOA. This process is set out below.

### 4.1 Written application by proponent to Co-ordinator General to assess proposed change

Section 35E of the SDPWOA requires a written application:

- (a) describing the proposed change and its effects on the project;
- (b) stating the reasons for the proposed change; and
- (c) including enough information about the proposed change and its effects on the project to allow the Coordinator-General to make the evaluation.

This written report constitutes a written application from BMA for the purposes of section 35E of the SDPWOA.

A change sought to be assessed under the SDPWOA does not necessarily require a full assessment of the Project against the ToR.

### 4.2 Public notice of the proposed changes

On submission of this Change Request 4, the Coordinator-General must decide, under Section 35G of the SDPWOA, whether or not to require BMA to give public notification of the proposed change.

If the Coordinator-General decides to require public notification, he must send BMA a decision notice before he proceeds with his evaluation and consider any properly made submissions received in response to the public notification.

### 4.3 Coordinator-General evaluates the changes sought

In making the evaluation, the Coordinator-General must consider each of the following matters outlined in s35H of the SDPWOA:

- (a) the nature of the proposed change and its effects on the project. This is set out in **Section 5 and 6** of this report;
- (b) the project as currently evaluated under the Coordinator-General's Report for the EIS and SEIS for the project and under Change Reports 1, 2 and 3;
- (c) the environmental effects of the proposed change and its effects on the project. This is set out in **Section 7** and **Appendix D** of this report;
- (d) if, under section 35G, public notification was required - all properly made submissions about the proposed change and its effects on the project; and
- (e) the material mentioned in section 35(1) to the extent the Coordinator-General considers it is relevant to the proposed change and its effects on the project.

#### 4.4 **Coordinator-General's change report**

Subsequent to the evaluation process selected by the Coordinator-General, a Change Report must be prepared under Section 35I of the SDPWOA. This change report will evaluate the proposed changes and the effects on the project.

BMA submits that the conditions set out in **Appendix B** would be appropriate. Should the Coordinator-General have diverging views in terms of the form and content of the changes required to the existing Coordinator-General conditions, BMA welcomes the opportunity to consult with the Coordinator-General on any proposed conditions.

#### 4.5 **Other approvals**

(a) **Commonwealth**

The proposed changes do not trigger any further assessment under the EPBCA as no matters of national environmental significance are impacted by the proposal.

(b) **State**

Following the issue of the Coordinator-General's Report on this Change Request 4, any approvals under SPA or other relevant legislation will be sought to the extent required.

(c) **Local**

Following the issue of the Coordinator-General's Report on this Change Request 4, any approvals under SPA will be sought to the extent required.

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## 5. DESCRIPTION OF PROPOSED CHANGES

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Section 35E(a) of the SDPWOA requires the proponent to describe the proposed changes and their effects on the Caval Ridge Mine. This section provides the details of the proposed change to the Caval Ridge Mine operational workforce.

### 5.1 Outline of current conditions

Conditions 18(b), 18(c), 18(d) and 18(e) in the Coordinator-General's Report of August 2010 are relevant to this Change Request 4. Conditions 18(b), 18(c), 18(d) and 18(e) established a 70 per cent fly-in fly-out arrangement for the operations workforce for the Caval Ridge Mine.

These conditions are set out below:

(a) **Condition 18(b)**

The proponent must not accommodate more than approximately 70 per cent of its total Caval Ridge Mine operational workforce in operational accommodation village(s) or other fly-in/ fly-out, bus-in bus-out, drive-in drive-out arrangements.

(b) **Condition 18(c)**

The proponent must provide new dwellings in the Isaac Region local government area to accommodate at least approximately 30 per cent of the Caval Ridge Mine operational personnel and their accompanying immediate family members.

(c) **Condition 18(d)**

The number of new dwellings required under (c) may be reduced for each Caval Ridge Mine operational worker that has existing permanent accommodation within the Isaac Region local government area if that accommodation is owned by the proponent or the Caval Ridge Mine worker (and this should be documented in the SIMP).

(d) **Condition 18(e)**

Notwithstanding the proponent's obligations under (b)-(d), the proponent must also provide sufficient accommodation village units at each stage of the Caval Ridge Mine development to accommodate at least 60 per cent of the Caval Ridge Mine operational workforce.

### 5.2 Changes sought to the conditions

For the reasons outlined in **Section 6** of this report, BMA proposes to increase the fly-in fly-out arrangement for the operations workforce for the Caval Ridge Mine from the currently approved 70 per cent to up to 100 per cent. An arrangement allowing up to 100 per cent fly-in fly-out operations workforce will necessitate changes to Conditions 18(b), 18(c), 18(d) and 18(e) in the Coordinator-General's Report.

BMA's requested changes to the existing Coordinator-General conditions are set out in **Appendix B**. Should the Coordinator-General have diverging views in terms of the form and content of the changes required to the existing Coordinator-General conditions, BMA welcomes the opportunity to consult with the Coordinator-General on any proposed conditions.

### 5.3 The effect of the changes requested

The proposed change seeks to increase the fly-in fly-out arrangements from the already approved 70 per cent to up to 100 per cent of the Caval Ridge Mine operational workforce. The effect of the proposed change will permit BMA to recruit up to 100 per cent of the operational workforce for the Caval Ridge Mine on a fly-in fly-out arrangement.

It is important to put the proposed change into context, and that is as follows:

- (a) BMA has assessed the issues raised in the Terms of Reference (ToR) for the BBCGP, the EIS, the SEIS, the Coordinator-General's Report and Coordinator-General's response to Change Report 1, to identify any implications of the proposed incremental change to the operations workforce. This review has confirmed that there is no material impact on the assessment previously undertaken for the Caval Ridge Mine EIS or SEIS as a result of BMA's proposal to move from 70 per cent to up to 100 per cent fly-in fly-out.
- (b) The additional 30 per cent being requested pursuant to this Change Request 4 equates to only 1.3 per cent of BMA's workforce, or 150 fly-in fly-out jobs, out of a workforce of over 11,000 employees and contractors.
- (c) Up to 100 per cent of the Caval Ridge Mine operations workforce may be secured by BMA on a fly-in fly-out basis. This equates to only 4.3 per cent of the total current BMA workforce of over 11,000 employees and contractors.
- (d) Expansion of the Peak Downs Mine (which relies on the development of the Caval Ridge Mine to proceed) will have a primarily residential workforce. Caval Ridge Mine will create 500 operational jobs and the expansion of the Peak Downs Mine will create 350 operational jobs. This means that, taking the two projects together, less than 70 per cent of the combined workforce will actually be fly-in fly-out.

The reasons supporting the proposed change to the fly-in fly-out arrangements are analysed in further detail in **Section 6 (Reasons for the change)**.

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## 6. REASONS FOR THE CHANGE

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This section provides the rationale for the proposed change to the Caval Ridge Mine operational workforce. This section is provided in response to Section 35E(b) of the SDPWOA.

Technical studies originally developed for the EIS in 2008 and 2009 were based on modelling which assumed that approximately 70 per cent of Caval Ridge Mine's operational workforce would be engaged under fly-in fly-out arrangements, whilst 30 per cent would be accommodated in Moranbah and surrounding areas. These original studies were conducted on the basis that a final decision on workforce arrangements for the Caval Ridge Mine would be subject to further assessment and consideration by BMA. This original assumption involving a 70 per cent fly-in fly-out and a 30 per cent residential based operations workforce for the Caval Ridge Mine was adopted by the Coordinator-General and imposed as conditions in the Coordinator-General's Report.

As contemplated at the time of the EIS, BMA has continued to review and assess the operational workforce requirements for the Caval Ridge Mine since completing the EIS and the SEIS, and since finalisation of the Coordinator-General's Report in August 2010.

This review has identified that the conditions prescribing 70 per cent fly-in fly-out and 30 per cent residential based workforce arrangements give rise to recruitment and operational difficulties which are of such a degree, that the imposed conditions present significant issues for the development of the Caval Ridge Mine.

BMA calls upon the Coordinator-General to reconsider these conditions relating to the Caval Ridge Mine operations workforce for the reasons set out below.

### 6.1 Securing the operations workforce for the Caval Ridge Mine in a tight labour market

It is always BMA's preference, where it can, to recruit its workforce locally. BMA's workforce at its existing Central Queensland operations is predominantly residential. BMA has no plans to change the residential nature of its existing operations. Indeed these numbers are projected to increase with growth in BMA's operations.

BMA is seeking a change to the workforce arrangements for the proposed new Caval Ridge Mine, in the manner contemplated by this Change Request 4, to allow BMA to secure the necessary workforce for the new mine in an extremely tight labour market.

Since the submission of the EIS and SEIS, BMA has conducted further studies and assessments that consider a number of labour supply and demand scenarios, including the changing labour market, resourcing and vacancy trends in the existing BMA operations, the competition for labour resources and changing employment dynamics. The challenges which arise in respect of the recruitment for the Caval Ridge Mine as a consequence of each of these factors is examined in turn.

#### (a) Existing vacancies and the existing recruitment challenges

BMA faces recruitment challenges across a number of existing operations. BMA currently has approximately 750 vacancies (13 per cent) in its existing employee workforce of 5,800 people. There is also a trend towards longer recruitment timeframes with some jobs remaining vacant for several months. With a demonstrated 'skills shortage' across Australia and continued growth in the resources sector, it is anticipated that these recruitment challenges will escalate in coming years.

This is a challenge that not only affects BMA, but also the industry as a whole, with approximately 4,000 existing job vacancies across the mining, oil and gas industries in Queensland.

(b) **Low rate of local unemployment and limited labour supply in the Isaac Region**

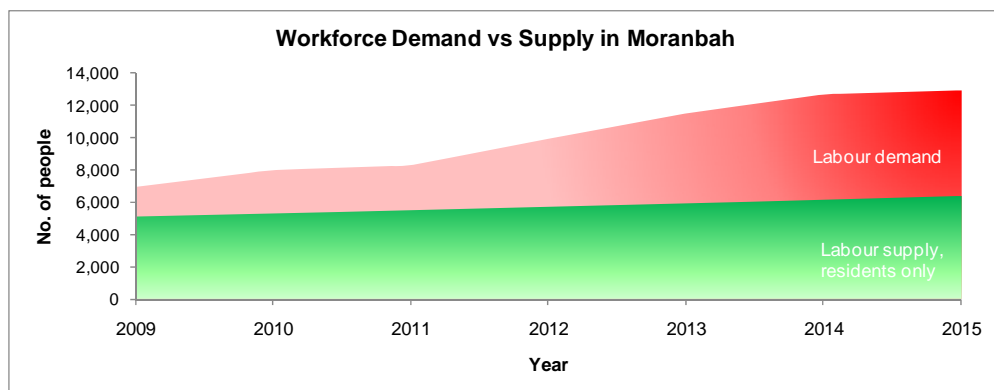
The population within the former Belyando Shire Council boundaries (in which Moranbah is located), has an extremely low unemployment rate of 1.3 per cent which equates to approximately 95 people seeking full-time employment<sup>4</sup> out of the area's labour force of approximately 7,200 people.

By extending the unemployment rate to take into account all of the area within the new Isaac Regional Council (**IRC**) boundaries, approximately 185 people are unemployed (approximately 1.4 per cent of the region's labour force).<sup>5</sup>

The expansion of the Peak Downs Mine (which relies on the development of the Caval Ridge Mine to proceed) will create around 350 largely residential jobs, which is almost twice the number of unemployed persons within the Isaac Region.

Research and analysis conducted by PricewaterhouseCoopers (**PWC**) on behalf of BMA indicates that resource industry demand for labour around Moranbah will increase by approximately 86 per cent between 2009 and 2015 equating to a further 6,000 workers due to the expansion of existing operations and new projects. The overall shortfall in terms of supply and demand in Moranbah estimated by PWC is demonstrated in **Figure 2** below.

**Figure 2 Moranbah – the gap between workforce demand and supply**



(c) **Competition for labour resources**

Since preparation of the Caval Ridge Mine EIS and SEIS, Queensland has witnessed a proliferation of new resource projects. This has been particularly evident over the last 12 months.

Between November 2009 and April 2010 alone, three coal projects were completed in Queensland with six new projects at an advanced stage of development. Thirty five proposed new mines are undergoing feasibility studies or approval processes.<sup>6</sup>

<sup>4</sup> Department of Education, Employment and Workplace Relations, Labour Market Information Portal (LMIP), September 2010

<sup>5</sup> LMIP, June 2010

<sup>6</sup> ABARE, 2010

In addition to expansion in coal production, there has been a prolific increase in new resource industries including, Coal Seam Gas (CSG) and Liquefied Natural Gas (LNG). Current CSG production from the Bowen Basin and Surat Basin now supplies more than 80 per cent of the Queensland gas market.<sup>7</sup>

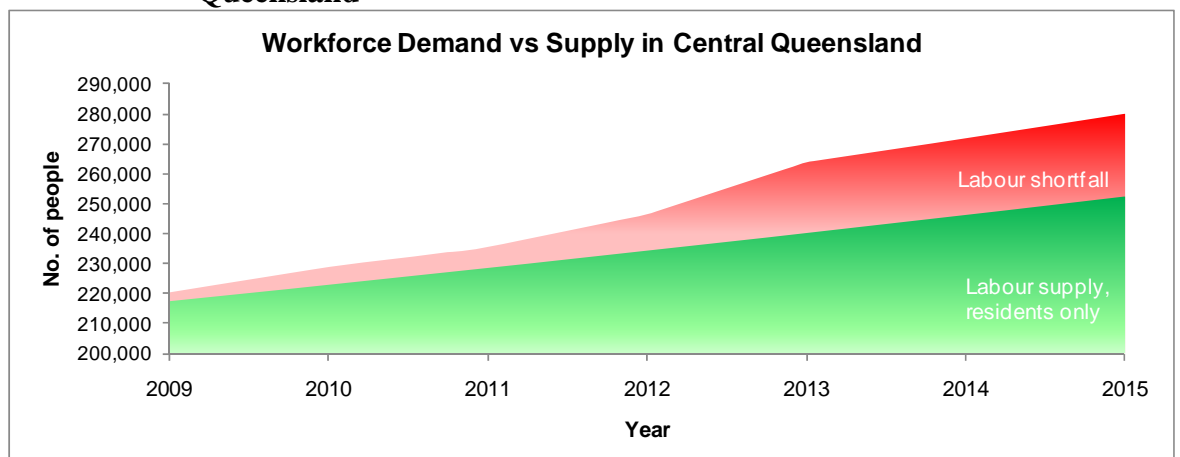
Further growth is expected with eight proposals announced for LNG plants in Queensland, the full production of which has the potential to create an LNG export market for the State of approximately 43 million tonnes per annum.<sup>8</sup> Two of these LNG projects have since been approved which will have an immediate impact on labour availability.

This accelerated growth in the resource industry will continue to increase demand for labour resources both at construction and operational stages of these developments.

As new developments come on line and workforces begin to be recruited, the competition for labour resources will only intensify. An assessment of the number of recent job advertisements has identified that internet job advertisements for roles in engineering and mining have experienced a 62.8 per cent (adjusted) annual increase during the last year while trades and services internet job advertisements have shown an (adjusted) increase of 11.2 per cent.<sup>9</sup>

The expansive growth in the resource industry across Queensland, with more than \$100 billion in resource investments currently under consideration, means there is strong demand for skilled and experienced workers and general labour. PWC has estimated that this will increase resource industry labour demand in the Central Queensland region by 60,000 workers from around 2015, necessitating resource companies to look at new recruitment strategies and alternative accommodation arrangements. The shortfall in terms of supply and demand for Central Queensland is demonstrated in **Figure 3** below.

**Figure 3 Workforce demand versus workforce supply in Central Queensland**



The competition for labour resources is not only influenced by the sustained and ongoing demand for resource based commodities, but labour availability is also influenced and impacted by local regional events. Heavy rain and severe flooding occurred in many areas of Queensland in December 2010 and January 2011. It is estimated that three quarters of

<sup>7</sup> DEEDI, 2010

<sup>8</sup> DEEDI, 2010

<sup>9</sup> Australian Advantage Job Index

the State and in excess of 28,000 properties were flood affected in late 2010 or early 2011. In addition, North Queensland experienced extreme weather events and significant property and infrastructure damage associated with Tropical Cyclone Yasi in February 2011. It is anticipated that reconstruction efforts will further exacerbate the existing demand for skills and labour in Central Queensland and throughout the State.

The potential impact of these weather events on regional labour shortages and building resources is a consideration which must be taken into account by both government and BMA. This demonstrates the ongoing evolution of project requirements, schedules and risk management required for projects prior to development.

(d) **Changing employment dynamics**

Not only has Queensland experienced a tightening of the labour market since completion of the EIS and SEIS, BMA is also mindful that employers are constantly faced with a continual shift and evolution in terms of employee preferences and workforce dynamics. Over time, worker's preferences and ideals change.

Some workers satisfy a preference for 'metropolitan living' by choosing to work in regional areas and return home to cities or other regional areas on their days off. The general preference for metropolitan living by many workers means that sourcing sufficient skilled labour willing to relocate to the regions has proven extremely difficult.<sup>10</sup>

BMA has also observed a trend of 'workforce drift' whereby some workers initially accept a residential role but gradually shift to an informal drive-in drive-out or fly-in fly-out commute (at their own arrangement and expense). It is currently assessed that, based on current worker trends, up to 40 per cent of BMA's residential workforce informally commute to and from communities outside of Moranbah at some point during their employment, despite the provision of local housing. This is both an inefficient use of the limited Moranbah accommodation supply and also a potential fatigue management issue for the operation of the Caval Ridge Mine. It also indicates that many workers are looking for employment options beyond the local residential roles which BMA currently offers.

BMA is a major employer in Central Queensland with seven mines in the Bowen Basin where employees can choose to live and work locally. A formal fly-in fly-out arrangement is not offered at any of these operations and workers are employed into residential roles.

The proposed changes to the operational workforce under this Change Request allows BMA to provide an additional 30 per cent of future Caval Ridge Mine workers with an attractive work arrangement and to provide a seven on, seven off shift roster that offers employees the opportunity to retain their existing lifestyle and permanent home base. Such a roster and intended fly-in fly-out arrangement is essential for effective site operations and will assist in the management of potential fatigue issues (refer to paragraph 6.3(c) below).

By offering up to a 100 per cent fly-in fly-out arrangement for operations employees at the Caval Ridge Mine, and a desirable seven on, seven off shift roster, BMA will be able to offer much greater flexibility and choice, which in turn, will assist BMA to secure the Caval Ridge Mine workforce and respond to some of the recruitment challenges BMA is currently facing. Resource companies need options to attract and retain parts of the labour force from regions they have been unable to attract previously.

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<sup>10</sup> Storey, 2001



The numbers associated with this proposal also need to be seen in context. It is important to note that even if all operational workers employed for the Caval Ridge Mine worked on a fly-in fly-out arrangement, they would account only for 4.3 per cent of the total BMA workforce of employees and contractors. Further, the additional 30 per cent being requested equates to only 1.3 per cent of the BMA workforce and represents only 150 fly-in fly-out jobs. By comparison, the expansion of the Peak Downs Mine (which is dependent on the Caval Ridge Mine development) will provide around 350 largely residential jobs for existing or new residents. The workforce in BMA's existing operations is largely residential and BMA has no plans to change this.

## 6.2 Minimising impacts from Caval Ridge Mine on BMA's existing operations

The increase from 70 per cent to up to 100 per cent fly-in fly-out for the Caval Ridge Mine provides the opportunity for BMA to secure the Caval Ridge Mine operational workforce without drawing workers from BMA's existing mines and impacting on those existing operations.

The requirement to recruit a 30 per cent residential workforce for Caval Ridge Mine imposed by the Coordinator-General's Report will mean that recruitment for the Caval Ridge Mine would:

- (a) be in direct competition to several BMA operations already facing recruitment challenges;
- (b) increase competition for the resourcing of the largely residential workforce for expansion of the Peak Downs Mine (ie the expansion of the Peak Downs Mine will involve 350 largely residential jobs); and
- (c) place added pressure on the recruitment needs of local business (big and small) in and around the Central Queensland region generally.

Resource companies need to develop innovative and proactive recruitment strategies both to address natural attrition from increased competition and to recruit workers for new projects. Developing the Caval Ridge Mine with up to 100 per cent fly-in fly-out arrangement for its operational workforce is considered the only effective arrangement to address the recruitment needs of BMA's existing operations and its plans for growth through the Caval Ridge Mine.

Engaging up to 100 per cent of the Caval Ridge Mine's workforce on a fly-in fly-out arrangement provides the Company with the opportunity to recruit workers from outside traditional mining areas, where more labour resources are available.

Ultimately, some of the Caval Ridge Mine workforce may be recruited locally and live locally. For example, it is likely that apprentices would be recruited from Moranbah and would continue to live with their families in the township. However, resource companies need to have the ability to determine their own workforce composition without having workforce arrangements heavily conditioned or prescribed.

The proposed change will minimise, and likely overcome, the Caval Ridge Mine drawing workers from BMA's existing operations, in an environment where BMA's existing operations are already experiencing high vacancy rates, associated labour shortages and recruitment challenges.

## 6.3 Ensuring effectiveness at the Caval Ridge Mine and improved road safety outcomes

### (a) Operational effectiveness


The current conditions imposed by the Coordinator-General prescribing 70 per cent fly-in fly-out and 30 per cent residential based workforce arrangements require BMA to run two or more separate site shift roster arrangements (for example, seven days on, seven days off for the fly-in fly-out workforce and a varying arrangement for the residential based workforce). Separate site shift roster arrangements are highly undesirable as they create a disparate workforce and impact upon operational effectiveness at the Caval Ridge Mine.

Single shift arrangements are essential for effective workforce management of the Caval Ridge Mine. The Company needs to have the ability to operate one set of site shift rosters, rather than two or more sets of rosters which would result under a 70 per cent fly-in fly-out arrangement.

It is proposed that BMA be given the flexibility of recruiting up to 100 per cent of the Caval Ridge Mine workforce on a fly-in fly-out arrangement to enable BMA to run an even time roster (ie seven on, seven off). Supervisors and other technical or support staff will be engaged on a formal fly-in fly-out arrangement, although rosters may vary depending on individual role requirements.

Continuing to prescribe a 70 per cent fly-in fly-out and 30 per cent residential based workforce arrangement will create other immediate and long-term management challenges for the Caval Ridge Mine, including the following:

- (i) Initial recruiting would be limited to a percentage break-up on preferred residential location and not necessarily the best person for the role.
- (ii) Any modification to the initial workforce (for example, should personnel wish to change from fly-in fly-out to residential (or vice versa) due to personal circumstances) could not be accommodated due to the prescribed conditions essentially placing a cap or limit on variations to the fly-in fly-out and residential split, resulting in potential loss of employment rather than the flexibility required to retain a workforce.
- (iii) Any requirement to grow the Caval Ridge Mine workforce with any urgency would be made nearly impossible due to the percentage restriction on fly-in fly-out arrangements and the need to quickly provide housing accommodation for a percentage of the workforce. A prescribed limit on the workforce composition as between fly-in fly-out therefore severely impacts on management's ability to respond at the pace the business requires.
- (iv) Any requirement to reduce the workforce, would result in reductions from a range of areas to enable BMA to manage the percentage of fly-in fly-out workers or residential workers, as opposed to reductions from the areas of the mine which operationally requires the reduction.

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- (v) Any requirement to change the mix of fly-in fly-out employees versus residential employees within the mine would be nearly impossible. Any percentage break-up of employees would necessitate whole departments to be either residential or fly-in fly-out so as to enable suitable rostering and departmental cohesion. This break up would be difficult to maintain as the operation of the Caval Ridge Mine will change over time.

BMA therefore believes the current percentage workforce arrangement (70 per cent fly-in fly-out and 30 per cent residential based workforce) poses serious challenges and if it is enforced, will affect BMA's ability to operate the Caval Ridge Mine effectively.

(b) **Workforce cohesion and retention**


As a new greenfield operation, there is benefit in operating a fly-in fly-out workforce arrangement for the Caval Ridge Mine as employees will have the opportunity to develop an inclusive culture that encourages a supportive work environment through shared experiences. Furthermore, operating with one set of shift rosters and allowing personnel to share similar rosters and experiences will contribute to developing a more cohesive and motivated workforce that supports each other's choices and encourages both attraction and retention of workers in a challenging recruitment environment.

BMA believes the opportunity to engage up to 100 per cent of the Caval Ridge Mine operational workforce on a fly-in fly-out arrangement builds one integrated workforce within its operations. Engaging up to 100 per cent of operational personnel at the Caval Ridge Mine on a fly-in fly-out arrangement will encourage teamwork and camaraderie, as employees may share priorities, similar lifestyles, knowledge and experiences.

The proposed change will also have the benefit of creating flexibility and choice and therefore help to create a working environment that is seen as more attractive to female employees. The Company is seeking to increase opportunities and offer workforce arrangements that would be viewed as attractive for female employees. BMA is seeking increased female participation, with a 30 per cent target, in the Caval Ridge Mine workforce.

The requested changes to the Coordinator-General's conditions will help create greater workforce cohesion amongst BMA employees and encourage all workers to support each other through their shared experiences, regardless of their gender. This is considered particularly important for developing a workforce in which women may be in the minority. Sharing opportunities to work on the same roster and being a part of a supportive working environment will contribute to each employee's job satisfaction and sense of value and security.

The proposed changes to the operational workforce may also have the potential to encourage workers from different cultural backgrounds into the resource industry as they will be able to maintain a support base in their point of origin. Mining communities tend not to exhibit high rates of cultural diversity which can discourage some potential workers from residential roles. As BMA offers only residential positions at its existing sites, this may be restricting a proportion of people from seeking opportunities with the company. Building a strong supportive culture within the fly-in fly-out operational workforce may encourage those who might have previously disregarded mining roles due to location or concerns about losing a particular connection to their lifestyle or culture.



In addition to developing a more cohesive and motivated workforce, operating on a fly-in fly-out arrangement and consequently on one set of shift rosters helps BMA retain workers in a challenging recruitment environment. Should an employee begin working at the Caval Ridge Mine on a fly-in fly-out arrangement, and over time, decide that a residential position would better suit their individual circumstances, that employee would be encouraged to apply for a residential role in one of BMA's existing operations.

(c) **Road use and safety**

The projected growth in mining and resource projects (BMA and non-BMA) around Moranbah will result in increased traffic pressure on local roads and highways. Additional traffic due to increasing mining operations poses increased risks for people who travel along these routes.

BMA has previously undertaken a Traffic Study as part of both the Caval Ridge Mine EIS and SEIS. Stakeholder submissions received as part of the SEIS highlighted concerns regarding road safety on the Peak Downs Highway and the management of traffic impacts in the region generally. BMA has consequently conducted an additional Traffic Report for Change Report 1. The Report contained a pavement and intersection analysis for the proposed vehicular routes and traffic movement associated with the Caval Ridge Mine.

Under the proposed fly-in fly-out arrangement, the Caval Ridge Mine operational workforce will be accommodated in the Buffel Park Accommodation Village located approximately 3 kilometres south west of the Caval Ridge Mine site and 20 kilometres south of Moranbah. Transportation will be provided by BMA between the Moranbah Airport, the Caval Ridge Mine site and the Buffel Park Accommodation Village. It is proposed that all operational personnel will be transported between these sites by buses, with only a minority of personnel using light vehicles on the road network outside the mine and village boundaries. Transport between the village and mine will be via an internal access road. Costs of travel between the airport of origin, worker accommodation and Caval Ridge Mine site will be borne by BMA. As part of the Caval Ridge Mine fatigue management protocols, personnel will commit to residing within 90 minutes travel of the proposed airport of origin and manage their own transport arrangements to and from that location.

Employing the Caval Ridge Mine workforce on a fly-in fly-out arrangement will therefore enable BMA to minimise the number of vehicles travelling between Moranbah and the Caval Ridge Mine. This arrangement has the advantage of improved road safety and reduced road maintenance as a consequence of the reduced road travel, compared to the alternative arrangement.

Operating Caval Ridge Mine exclusively as a fly-in fly-out operation also removes the likelihood of 'workforce drift' whereby workers initially accept a residential role but gradually shift to an informal fly-in fly-out or drive-in drive-out commute at their own arrangement and expense.

The consolidation of vehicle movement between three primary destinations (airport, accommodation village and mine) is therefore a key element in BMA's decision making for the Caval Ridge Mine. The proposed change allows BMA to ensure the safety of its workforce at the Caval Ridge Mine, by reducing the requirement for long distance travel (associated with bus-in bus-out or drive-in drive-out).

#### 6.4 **Spreading the economic and employment benefits from the Caval Ridge Mine throughout Queensland**

The proposal to increase the Caval Ridge Mine workforce to up to 100 per cent fly-in fly-out would allow the benefits of the Caval Ridge Mine project to be spread more widely around Queensland.

BMA is currently assessing a number of regions as potential sources for the fly-in fly-out workforce. Regions of high skills availability (and therefore usually higher unemployment) such as Cairns / North Queensland, the Sunshine Coast, the Gold Coast, and Toowoomba as well as Brisbane, are being considered.

BMA would consider recruiting up to half of the workforce from North Queensland, if feasible, and recruiting the balance from Southern Queensland. Workers located in these areas may not previously have had the opportunity to pursue BMA employment due to their residential location.

Recruiting half of the fly-in fly-out workforce from North Queensland potentially means an additional 250 incomes created for these regions, with additional flow on benefits through the additional spending by these households and jobs supporting the fly-in fly-out arrangement (baggage handling, servicing and ground crews, and other aviation roles).

The proposal enables BMA to recruit from non-traditional mining areas and demographics, thereby allowing BMA to provide opportunities for workers who have so far been unable to pursue opportunities in the mining industry. For example, there are many potential employees who may not have considered employment opportunities in the mining industry because they have not been willing or able to move to traditional mining communities.

The attraction and retention of women in mining operations is one of the many recruitment challenges faced in today's competitive labour market. The proposed changes to the operational workforce will enable BMA to seek increased female participation, in the Caval Ridge Mine workforce. BMA is presently seeking increased female participation, with a 30 per cent target, in the Caval Ridge Mine workforce.

#### 6.5 **Providing upside for Moranbah**

There is manageable upside for Moranbah from the Caval Ridge Mine. Moranbah will be better off with the Caval Ridge Mine than without it.

##### (a) **Reducing pressure on local community infrastructure**

The scale and speed of growth in Queensland's resource sector has placed additional demand and pressure on existing social infrastructure and services in regional communities. This growth is set to continue in the region from the resource industry as a whole.

This is apparent in Moranbah where it is estimated, based on the existing community profile, that Moranbah has a shortfall of hospital beds, general practitioners and police officers. It is estimated that Moranbah has a shortfall of seven general practitioners and five police officers.

Part of understanding and encouraging sustainable development is recognising when there are opportunities to provide benefit, without consequential negative impact. BMA's economic and social commitment to Moranbah continues, regardless of where the Caval Ridge Mine operational workforce resides. However, by structuring Caval Ridge Mine as a fly-in fly-out operation, Moranbah will not experience the excess demands of growth or the related pressure on community infrastructure.

The change from 70 per cent to up to 100 per cent fly-in fly-out for the Caval Ridge Mine will help to relieve pressure on already strained regional infrastructure and services through:

- (i) fewer mine workers and their family members moving to the community as a result of Caval Ridge Mine;
- (ii) the additional mine workers not being in the community;
- (iii) paramedic services being available on-site at Caval Ridge Mine at all times; and
- (iv) health professionals being included in the site's management structure servicing both the mine and the Buffel Park Accommodation Village .

As part of BMA's \$13 million Moranbah Community Support Package, significant contributions are to be made to important local community infrastructure.

(b) **BMA's investment in Moranbah**

BMA is committed to maintaining and supporting continued sustainable growth in Moranbah.

BMA has demonstrated its long-term commitment to the sustainable growth and development of Moranbah through local investment in the community of Moranbah, the development of worker housing, and sustaining and increasing support for local services and community infrastructure. The change from 70 per cent to up to 100 per cent fly-in fly-out for the Caval Ridge Mine will not alter or diminish BMA's ongoing commitment to the Moranbah community.

BMA invested \$54.2 million into the Bowen Basin communities in 2009 and 2010, with Moranbah accounting for more than half of this, including \$14 million in 2010. This included supply and funding more than 80 per cent of Moranbah's water. BMA has increased its commitment further this year with an additional \$13 million through a Moranbah Community Support package for the following initiatives.

(i) **Regional Youth and Community Services Centre**

BMA will contribute up to \$5.5 million towards development of a Regional Youth and Community Services Centre. This development, identified as a key priority in the Isaac Regional Council's Community Plan, will involve a youth and community centre built to provide community support and health services for youth and families in Moranbah.

The Regional Youth and Community Services Centre will be a local facility where youth, community groups and the broader community can meet, access information, facilities and services, attend events and access health and wellness activities.

This project will deliver community services in a convenient and accessible way.

(ii) **Redevelopment of the Greg Cruickshank Aquatic Centre**

BMA will contribute \$2.5 million to assist with the redevelopment of the Greg Cruickshank Aquatic Centre which will create an important focal point for community recreation in Moranbah. BMA funding contributes half of the overall \$5 million cost of the project.

(iii) **Moranbah Affordable Accommodation Initiative**

BMA will contribute \$5 million to assist with the provision of affordable accommodation for low income earners not directly employed in the resource industry.

BMA's financial contribution for the affordable accommodation initiative will be provided to the Isaac Regional Council to manage, subject to satisfactory arrangements being agreed with the Council.

BMA has also committed almost \$46 million towards the upgrade of the Moranbah airport, with the first stage of the upgrade already completed.

All up, BMA has made commitments which increase its financial contribution to Moranbah from around \$14 million in FY10 to approximately \$85 million over FY11 and FY12.

(c) **BMA's housing investment in Moranbah**


BMA has been responsible for the construction of over 62 per cent (approximately 1,750 out of 2,800) of Moranbah's residences. Over the past five years, BMA has constructed or purchased 200 new residences and developed or purchased 250 new lots of land in Moranbah. In 2010 alone, BMA constructed 60 new, three and four bedroom houses, and 37 units/townhouses in Moranbah at a cost of \$2 million a week (\$100 million in total). BMA currently has approximately \$693 million invested in houses, land and other infrastructure in Moranbah.

BMA will provide further significant investment in new housing to support its new employees at existing operations who choose to live in Moranbah. Expansion of the Peak Downs Mine will involve a primarily residential operations workforce. The expansion (which relies upon the Caval Ridge Mine to proceed) will add substantially to the housing stock in Moranbah, a further commitment by BMA to the growth and sustainability of Moranbah.

As an active participant in the supply of housing in the region, BMA has a commitment to support the development of housing projects in Moranbah and will continue to invest in additional workforce accommodation through a five year accommodation plan, which includes a range of accommodation types. Additionally, BMA is investing in the rebuild and upgrade of existing houses.

The town of Moranbah is land-locked by mining leases, tenements and mining developments (both existing and proposed). As a consequence this has placed pressure on the availability of land for housing developments. Additionally, there are pressures to accommodate the increasing workforce generated by new projects (coal and other), the expansion of existing operations in the region (both BMA and non-BMA), and from the lack of a fully functioning real estate market. These factors have contributed to a number of accommodation challenges in Moranbah, particularly in relation to the availability and affordability of accommodation in the community

BMA is committed to working closely with the Isaac Regional Council and the Urban Land Development Authority (ULDA) on new housing and urban renewal projects to meet requirements in the township. This will provide a wider range of housing styles for growth in Moranbah.



Changing from 70 per cent to up to 100 per cent fly-in fly-out for the Caval Ridge Mine will minimise the pressure on accommodation availability in Moranbah.

(d) **Other benefits for Moranbah**

The development of the Caval Ridge Mine is expected to bring substantial economic benefit to the general Moranbah area. The economic contribution from the Caval Ridge Mine and the expansion of the Peak Downs Mine is estimated as being up to \$35 million per annum. Additionally, the Moranbah community will receive additional support from BMA's existing operations, through the implementation of the new Buying Local Program.

The change from 70 per cent to up to 100 per cent fly-in fly-out for the Caval Ridge Mine will not alter or diminish BMA's ongoing commitment to the community of Moranbah. BMA remains committed to maintaining and supporting Moranbah in a sustainable manner which limits additional pressure on the township. BMA maintains its position that the proposed change will provide upside for Moranbah.



## 7. EVALUATION OF ENVIRONMENTAL EFFECTS

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In response to Section 35H(c) of the SDPWOA this section of the Change Request addresses the environmental impacts of the proposed changes to:

- (a) the ToR for the BBCGP; and
- (b) the effects of the proposal (where relevant) as described in the EIS and SEIS and previously considered by the Coordinator-General in order to identify and respond to cumulative impacts.

**Appendix C** provides an analysis of the relevant information in the EIS, SEIS and Change Request 1, and compares this with the relevant elements of the proposed operational workforce change.

**Appendix D** reflects the ToR, EIS and Coordinator-General's Report and details the relevant environmental impacts of the proposed changes, and required mitigation measures where appropriate. Any departure from the mitigation strategies detailed in the EIS and SEIS is also identified.

In summary, the proposed change to the operational workforce is not anticipated to have an increased impact for those items previously considered by the Coordinator-General in the EIS and SEIS, and in some cases will reduce the effects identified as likely to occur.

## 8. CONCLUSION

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The Caval Ridge Mine project is a key component of the BBCGP, with an investment of approximately \$4 billion of capital and an annual operating expenditure of approximately \$475 million per annum. It is expected to produce 8 million tonnes per annum of hard coking coal (together with the expansion of the Peak Downs Mine). The project is expected to generate an additional \$500 million per annum<sup>11</sup> into the Queensland economy, \$220 million per annum<sup>12</sup> in royalties for the State and create strong employment growth with 2,000 construction jobs and 850 operational jobs<sup>13</sup>.

The EIS and SEIS for the Caval Ridge Mine has been assessed and approved by the Coordinator-General under the SDPWOA as part of the BBCGP significant project. Since the finalisation of the Caval Ridge Mine EIS, the Coordinator-General's Report and the assessment and feedback from two previous change requests, BMA has continued to review Caval Ridge Mine's construction and operational requirements. BMA's continued assessment of project requirements has shown that an increase of up to 100 per cent fly-in fly-out arrangements for the operations workforce is required so as to provide BMA with an opportunity to meet the operational requirements of Caval Ridge Mine in a changing and competitive labour market and in a way that helps reduce impacts on the local community.

Engaging the operations workforce for the Caval Ridge Mine on a fly-in fly-out arrangement of up to 100 per cent will:


- (a) Enable BMA to secure the Caval Ridge Mine operations workforce in a tight labour market.
- (b) Enable BMA to expand its recruitment options to offer additional flexibility and choice, thereby facilitating both the attraction and retention of workers in a tight labour market.
- (c) Minimise the impact on existing operations by enabling BMA to secure a workforce for the Caval Ridge Mine without drawing workers from BMA's existing mines.
- (d) Assist in developing a more cohesive and motivated workforce thereby facilitating both the attraction and retention of workers in a tight labour market.
- (e) Ensure operational effectiveness by facilitating one set of shift rosters, rather than two or more sets of rosters under a 70/30 fly-in fly-out system.
- (f) Reduce the number of vehicles travelling between Moranbah and the Caval Ridge Mine thereby improving road safety and reducing road maintenance in the area.
- (g) Provide an opportunity to spread the flow on benefits of the Caval Ridge Mine project more widely to other regions across the State. BMA will target regions of high skills availability (and therefore usually higher unemployment) such as Cairns/North Queensland, the Sunshine Coast, the Gold Coast and Toowoomba as well as Brisbane.
- (h) Relieve pressure on existing community services and infrastructure such as schools, hospitals and roads in regional communities such as Moranbah and its surrounding regions.
- (i) Relieve pressure on an already tight local housing market.
- (j) Result in no material impacts on the previously completed EIS and SEIS for the Caval Ridge Mine.
- (k) Provide manageable upside for Moranbah given BMA's continuing and increasing commitments to the Moranbah township.

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<sup>11</sup> \$500 million per annum includes wages, goods, services and flow on impacts.

<sup>12</sup> \$220 million per annum in royalties is based on current market prices and exchange rates.

<sup>13</sup> 850 jobs includes 500 Caval Ridge jobs and 350 Peak Downs expansion jobs.



Taking the above into consideration, BMA requests that the Coordinator-General support the proposed change as outlined in this Change Request 4. In particular, BMA requests the Coordinator-General to remove or amend Conditions 18(b), 18(c), 18(d) and 18(e) in the Coordinator-General's Report (as proposed in Annexure B) so as to facilitate an incremental increase in the fly-in fly-out arrangements from the currently approved 70 per cent to up to 100 per cent for the operational workforce for the Caval Ridge Mine.

The Caval Ridge Mine cannot proceed without a flexible workforce solution for the mine. Early resolution of the change request application is critical to ensure investment decisions on the Caval Ridge Mine project are able to be taken and the benefits for the State from the project are secured for all stakeholders.

## 9. REFERENCES

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# **Appendix A – Coordinator- General’s conditions relevant to Change Request 4**

**Table 1 Coordinator-General’s conditions relevant to Change Request 4**

<b>Environmental Aspect</b>	<b>Coordinator-General’s Report reference</b>	<b>Requirement</b>
Fly-in Fly-out operational workforce	Condition 18(b)	The proponent must not accommodate more than approximately 70% of its total CRM operations workforce in operational accommodation village(s) or other fly-in fly-out, bus-in-bus-out (BIBO), drive-in-dive-out (DIDO) arrangements.
Resident workforce	Condition 18(c)	The proponent must provide new dwellings in the Isaac Region local government area to accommodate at least approximately 30% of the CRM operational personnel and their accompanying immediate family members.
Existing resident workforce	Condition 18(d)	The number of new dwellings required under (c), may be reduced for each CRM operational worker that has existing permanent accommodation within the Isaac Region local government area if that accommodation is owned by the proponent or the CRM worker, (and this should be documented in the SIMP).
Accommodation village units	Condition 18(e)	Notwithstanding the proponent’s obligations under (b)-(d), the proponent must also provide sufficient accommodation village units at each stage of the CRM development to accommodate at least 60 per cent of the CRM operational workforce.



# **Appendix B – Requested changes to conditions**

**Table 2 Relevant workforce conditions and changes sought under this Change Request**

Environmental Aspect	Coordinator-General's Report reference	Requirement	Comment/suggested condition wording
Fly-in Fly-out operational workforce	Condition 18(b)	The proponent must not accommodate more than approximately 70% of its total CRM operations workforce in operational accommodation village(s) or other fly-in fly-out, bus-in-bus-out (BIBO), drive-in-dive-out (DIDO) arrangements.	<p><b>Request for removal of condition.</b></p> <p><b>If removal of condition not possible, request modification of condition to read:</b></p> <p>"The proponent may engage all CRM operational workforces on a fly-in fly-out arrangement."</p>
Resident workforce	Condition 18(c)	The proponent must provide new dwellings in the Isaac Region local government area to accommodate at least approximately 30% of the CRM operational personnel and their accompanying immediate family members.	<p><b>Request for removal of condition.</b> This condition is no longer relevant on an up to 100 per cent fly-in fly-out basis.</p>
Existing resident workforce	Condition 18(d)	The number of new dwellings required under (c), may be reduced for each CRM operational worker that has existing permanent accommodation within the Isaac Region local government area if that accommodation is owned by the proponent or the CRM worker, (and this should be documented in the SIMP).	<p><b>Request for removal of condition.</b> This condition is no longer relevant on an up to 100 per cent fly-in fly-out basis.</p>



Environmental Aspect	Coordinator-General's Report reference	Requirement	Comment/suggested condition wording
Accommodation village units	Condition 18(e)	Notwithstanding the proponent's obligations under (b)-(d), the proponent must also provide sufficient accommodation village units at each stage of the CRM development to accommodate at least 60 per cent of the CRM operational workforce.	<b>Request for removal of condition.</b> This condition is no longer relevant on an up to 100 per cent fly-in fly-out basis.

Should the Coordinator-General have diverging views in terms of the changes required to the above conditions, BMA welcomes the opportunity to consult with the Coordinator-General on any proposed changes.



# **Appendix C – Comparison of proposed workforce changes**

**Table 3 Comparison of proposed workforce changes**

Aspect	EIS	SEIS	Change Request 1	Change Request 4
Fly-in fly-out ratio.	70 per cent fly-in fly-out. 30 per cent private vehicle, bus or car pool.	No change from EIS.	No change from EIS.	An additional 30 per cent fly-in fly-out operational workforce (an increase from 70 per cent to up to 100 per cent)
Peak fly-in fly-out operational personnel.	495 operational personnel for the mine.	No change from EIS.	No change from EIS.	No change to operating personnel however a range of 500 to 750 personnel is provided to cater for potential changes based on equipment, processes and productivity.
Accommodation method for fly-in fly-out personnel.	70 per cent accommodation villages. 20 per cent live locally. 10 per cent current residence (Moranbah).	No change from EIS.	No change from EIS.	An additional 30 per cent (an increase from 70 per cent to up to 100 per cent) workforce accommodated in the Buffel Park Accommodation Village. It is anticipated that each permanent operational and administrative worker will have a dedicated room.
Accommodation location.	Suitable accommodation village. Housing provided through BMA's housing strategy.	Accommodation village with suitable accessibility. Accommodation village not expected to be in Moranbah.	Buffel Village on Lot 12 on SP151669.	No change from Change Report 1 (Buffel Village on Lot 12 on SP151669).
Transport of personnel from accommodation village to mine.	70 per cent by privately operated bus. 30 per cent workforce by private/company vehicles.	No change from EIS.	No change from EIS.	Workers to be transported from Buffel Village to the mine by privately operated bus.



# **Appendix D – Environmental effects of proposed operational workforce change**



**Table 4 Environmental effects of the proposed operational workforce change**

Summary of the relevant Caval Ridge Mine EIS/SEIS content	Alterations to Coordinator-General's conditions (if required)	Identified environmental effects	Mitigation strategies (if required)
Coordinator-General's Report Section 5.1 – Land Resources			
The content of the land resources chapter is not relevant to the proposed adjustment of operational workforce arrangements.	There will be no alterations to any recommendations or conditions identified in the land resources content of the EIS or SEIS, or to conditions stated in the Coordinator-General's Report.	There are no applicable impacts on land resources as part of the operational workforce proposed change, which need to be assessed as part of this Change Request.	No additional mitigation measures are necessary above those already defined in the EIS and SEIS.
Coordinator-General's Report Section 5.2 – Mineral Waste			
The content of the mineral waste chapter is not relevant to the proposed adjustment of operational workforce arrangements.	There will be no alterations to any recommendations or conditions identified in the mineral waste content of the EIS, SEIS or in the Coordinator-General's Report.	There are no applicable impacts on mineral waste as part of the operational workforce proposed change, which need to be assessed as part of this Change Request.	No additional mitigation measures are necessary above those already defined in the EIS and SEIS.
Coordinator-General's Report Section 5.3 – Surface Water Resource			
The content of the surface water resources chapter is not relevant to the proposed adjustment of operational workforce arrangements.	The proposed change to the operational workforce results in no alterations to the surface water content in the EIS, SEIS, or conditions stated in the Coordinator-General's Report.	Therefore there are no applicable impacts on surface water resources which need to be assessed as part of this Change Request.	No additional mitigation measures are necessary above those already defined in the EIS and SEIS.
Coordinator-General's Report Section 5.4 – Groundwater Resources			
The content of the groundwater resources chapter is not relevant to the proposed adjustment of operational workforce arrangements.	The proposed change to the operational workforce results in no alterations to groundwater resource content in the EIS, SEIS, or conditions stated in the Coordinator-General's Report.	Therefore there are no applicable impacts on groundwater resources which need to be assessed as part of this Change Request.	No additional mitigation measures are necessary above those already defined in the EIS and SEIS.
Coordinator-General's Report Section 5.5 – Ecology (Terrestrial and Aquatic)			
The content of the ecology	The proposed change results in no	Therefore there are no applicable	No additional

Summary of the relevant Caval Ridge Mine EIS/SEIS content	Alterations to Coordinator-General's conditions (if required)	Identified environmental effects	Mitigation strategies (if required)
(terrestrial and aquatic) chapter is not relevant to the proposed adjustment of operational workforce arrangements.	alterations to ecology (terrestrial and aquatic) content in the EIS and SEIS, or conditions stated in the Coordinator-General's Report.	impacts on ecology (terrestrial and aquatic) which need to be assessed as part of this Change Request.	mitigation measures are necessary above those already defined in the EIS and SEIS.
Coordinator-General's Report Section 5.6 – Air Quality			
The content of the air quality chapter is not relevant to the proposed adjustment of operational workforce arrangements.	The proposed change results in no alterations to air quality content in the EIS and SEIS, or conditions stated in the Coordinator-General's Report.	Therefore there are no applicable impacts on air quality which need to be assessed as part of this Change Request.	No additional mitigation measures are necessary above those already defined in the EIS and SEIS.
Coordinator-General's Report Section 5.7 – Noise and Vibration			
Section 12 and Appendix M of the EIS assessed the potential noise and vibration impacts for the construction and operational phases of Caval Ridge Mine on the 23 residences located within 5 kilometres of the project site. Potential impacts due to mine activities (plant operations and blasting) and road traffic noise were considered in the EIS assessment.	<p>With regard to road traffic noise impacts, the EIS assessment focused on how traffic changes attributed to the Caval Ridge Mine would alter the LA10 (18 hour) noise level using CoRTN prediction algorithms. An increase of 2 dBA was adopted as the threshold to signify a significant road traffic noise impact. The assessment used existing and future traffic patterns on the Peak Downs Highway, Moranbah Access Road and Dysart-Moranbah Road to predict the noise levels for 'with Project' scenarios in 2013 and 2023. Specifically, data for average annual daily traffic (AADT) and percentage of heavy vehicles on these roads was used.</p> <p>It was concluded that the Caval Ridge Mine would not cause any adverse road traffic noise impacts. The predicted noise level increase on the above roads ranged from +0.1 to +0.3 dBA for both the construction</p>	<p>The proposed adjustment to the operational workforce will likely reduce the impacts of road traffic noise. Further, no vibration impacts are expected since such impacts are related only to mine blasting activities.</p> <p>Therefore, there are no applicable impacts on noise and vibration which need to be assessed as part of this Change Request.</p>	No additional mitigation measures are necessary above those already defined in the EIS and SEIS.

Summary of the relevant Caval Ridge Mine EIS/SEIS content	Alterations to Coordinator-General's conditions (if required)	Identified environmental effects	Mitigation strategies (if required)
	<p>and operational phases, thus well below the adopted 2 dBA threshold.</p> <p>Given the reduction to traffic generation and consolidation of traffic movement it is expected that road traffic noise impacts will remain below the adopted 2 dBA threshold and that no alteration to conditions is required.</p>		
Coordinator-General's Report Section 5.8 – Waste Management			
<p>The content of the waste management chapter is not relevant to the proposed adjustment to the operational workforce arrangements.</p>	<p>The proposed change results in no alterations to waste management content in the EIS/SEIS, or conditions stated in the Coordinator-General's Report.</p> <p>Under the proposed change to the operational workforce arrangement, there will be fewer workers and their families residing in Moranbah which is likely to generate less waste overall.</p>	<p>There are no applicable impacts on waste management which need to be assessed as part of this Change Request.</p> <p>As a result, the waste produced as a whole in Moranbah under the Caval Ridge Mine arrangements will not increase. Additionally, the waste produced in the Buffel Park Accommodation Village will be less than that produced from residential households in Moranbah. The Accommodation Village will, where possible, purchase product in bulk, and therefore generate less waste product per person.</p> <p>The proposed fly-in fly -out arrangement will not have any tangible impacts on the waste management (as described in the EIS and SEIS) associated with the mine construction and operations.</p>	<p>No additional mitigation measures are necessary above those already defined in the EIS and SEIS.</p>

Summary of the relevant Caval Ridge Mine EIS/SEIS content	Alterations to Coordinator-General's conditions (if required)	Identified environmental effects	Mitigation strategies (if required)
Coordinator General's Report Section 5.9 – Transport and Traffic			
<p>Traffic impacts associated with travel between the accommodation village, Moranbah Airport and the mine will be assessed (where necessary) by the IRC and the Department of Transport and Main Roads (DTMR). The assessment of subsequent individual approvals requiring intersection and pavement analysis and accompanying traffic management measures will satisfy the Coordinator-General's traffic requirements and no alterations to existing conditions is required.</p>	<p>The proposed change results in no alterations to transport and traffic content in the EIS/SEIS, or conditions stated in the Coordinator-General's Report.</p> <p>The proposed fly-in fly-out arrangement will reduce the burden on local and State controlled roads, particularly along the Peak Downs Highway which is currently stressed.</p>	<p>Traffic movement associated with the Caval Ridge Mine will only occur between the mine, accommodation village and airport. There will be a reduction in the number of vehicles travelling between the three destinations, as it is anticipated that all workers will travel from the accommodation village to the mine site by privately operated bus, whilst on occasion, some personnel may travel by light vehicles.</p> <p>In summary, the proposed fly-in fly-out arrangement will:</p> <ul style="list-style-type: none"> <li>■ reduce the number of vehicles on roads in and around Moranbah (including the Peak Downs Highway)</li> <li>■ reduce vehicle travel between the town and external areas</li> <li>■ reduce vehicle travel between the mine and the town</li> <li>■ consolidate traffic associated with the Caval Ridge Mine to three primary destinations (the mine, Moranbah Airport and Buffel Park Accommodation Village).</li> </ul>	<p>No additional mitigation measures are necessary above those already defined in the EIS and SEIS.</p>
Coordinator-General's Report Section 5.10 – Cultural Heritage and Native Title			
<p>The content of the Cultural Heritage and Native Title</p>	<p>The proposed change results in no alterations Cultural Heritage and Native</p>	<p>There are no applicable impacts on cultural heritage and Native Title which</p>	<p>No additional mitigation measures</p>



Summary of the relevant Caval Ridge Mine EIS/SEIS content	Alterations to Coordinator-General's conditions (if required)	Identified environmental effects	Mitigation strategies (if required)
chapter is not relevant to the proposed adjustment of operational workforce arrangements.	Title content in the EIS and SEIS, or conditions stated in the Coordinator-General's Report.	need to be assessed as part of this Change Request.	are necessary above those already defined in the EIS and SEIS.
Coordinator-General's Report Section 5.11 – Social Impacts			
5.11.2 Cumulative impacts			
<p>The Coordinator-General's Report identified the following key social cumulative issues associated with the Caval Ridge Mine EIS:</p> <ul style="list-style-type: none"> <li>■ project construction and operation placing greater demand on emergency services, health care, and housing</li> <li>■ cumulative environmental issues associated with noise, dust and vibration when combined with nearby mining operations</li> <li>■ increased road traffic and use of heavy vehicles on the Peak Downs Highway (locally and regionally)</li> <li>■ reduction in amenity and liveability of the community associated with noise, dust, vibration, and traffic cumulative impacts.</li> </ul> <p>The cumulative social impacts</p>	<p>The mining operations and the management of environmental effects arising from the mining process remain unchanged as part of the proposed adjustment to the operational workforce arrangement.</p> <p>Therefore there will be no alterations to social impacts content in the EIS and SEIS, or conditions stated in the Coordinator-General's Report.</p>	<p>The proposed fly-in fly-out arrangement will produce limited cumulative impacts, and will also reduce impacts by:</p> <ul style="list-style-type: none"> <li>■ removing pressure on existing hard (e.g. community centres) and soft (e.g. services and support within centres) infrastructure</li> <li>■ easing housing constraints in Moranbah, including impact on property prices (such as rental prices and availability)</li> <li>■ contributing to the mitigation of Central Queensland and Moranbah accommodation and land shortages</li> <li>■ reducing pressures on local and regional road traffic issues by consolidating individual vehicle travel to private bus movement in the main</li> <li>■ not impacting on amenity and liveability of the local community, by having a fully self contained workforce and accommodation</li> </ul>	<p>No additional mitigation measures are necessary above those already defined in the EIS and SEIS.</p>

Summary of the relevant Caval Ridge Mine EIS/SEIS content	Alterations to Coordinator-General's conditions (if required)	Identified environmental effects	Mitigation strategies (if required)
<p>were thoroughly addressed during the EIS and SEIS processes. The Coordinator-General accepted and acknowledged Caval Ridge Mine's cumulative social impacts in his Report.</p> <p>Provided the existing social environment has not changed from the time of the EIS/SEIS preparation, there is a negligible impact from the proposed increase in non resident operational personnel.</p>		<p>village</p> <ul style="list-style-type: none"> <li>■ providing Queensland employees an opportunity to work in the mining sector, even if they are not locally based.</li> </ul>	
5.11.3 Housing issues			
<p>Allowing an additional 30 per cent of the Caval Ridge Mine operational workforce to live outside of Moranbah, will necessitate an alteration to the workforce accommodation strategies presented in the EIS and SEIS. The EIS provided the following estimates for the accommodation of the Caval Ridge Mine operational workforce:</p> <ul style="list-style-type: none"> <li>■ 10 per cent would be recruited from existing residents</li> <li>■ 20 per cent would choose to move to, or live in or</li> </ul>	<p>The proposed change results in no alterations to the housing issues content in the EIS and SEIS, or conditions stated in the Coordinator-General's Report.</p> <p>Increased housing demand as a result of increased mining activity and other resource and related development within the region has applied pressure on house prices and rents, with a decline in housing affordability in Moranbah. BMA recognises that the BBCGP will add to the demand for accommodation in Moranbah and the surrounding area. The impact of this housing situation on the 'non-mining' community is exacerbated by the fact that they do not have the 'mine salary' or employer support to meet such increased</p>	<p>During operation, Caval Ridge Mine employees will reside in the village accommodation. Some pressure on short-term local accommodation may occur from the demand of contractors who choose not to reside in the company provided village accommodation. This demand is anticipated to be negligible as part of the proposed change. Increasing the number of non-resident effectively removes the need for BMA to recruit and secure employee accommodation in town, thereby relieving pressure on the local housing and rental market. It is also likely to reduce the demand for detached housing, which provides more opportunities for non-mining</p>	<p>No additional mitigation measures are necessary. BMA will continue to provide housing in the Moranbah region for its existing operations.</p> <p>BMA considers that Condition 18(c) of the Coordinator-General's Report is no longer relevant.</p>

Summary of the relevant Caval Ridge Mine EIS/SEIS content	Alterations to Coordinator-General's conditions (if required)	Identified environmental effects	Mitigation strategies (if required)
<p>around Moranbah</p> <ul style="list-style-type: none"> <li>70 per cent would reside elsewhere and take up fly-in fly-out, drive-in drive out or bus-in bus-out options.</li> </ul> <p>The EIS indicated that the majority of operational personnel would be accommodated in a purpose-built accommodation village in Moranbah. Some workers alternatively would be accommodated through BMA's general housing provision.</p> <p>The SEIS stated that the accommodation village was to be located in the vicinity of Moranbah.</p>	<p>costs.</p> <p>All Caval Ridge Mine operational employees will be accommodated in the proposed Buffel Park Accommodation Village located approximately 3 kilometres south west of the Caval Ridge Mine site and approximately 16 kilometres south of Moranbah. It is proposed that the fly-in fly-out personnel will be transported from the village to both the mine site and Moranbah Airport by private buses.</p> <p>Caval Ridge Mine will not provide opportunities for employees of the fly-in fly-out operational workforce to seek temporary and short-term accommodation in the study area as an alternative to the village accommodation.</p> <p>It then follows that the proposed change will result in less pressure on existing housing supply in Moranbah than the approved workforce arrangements.</p>	<p>community members, particularly service workers, to rent these houses.</p>	
5.11.4 Community health, safety and wellbeing – Community Services			
<p>The EIS and SEIS predicted that there may be some increased demand for the community services (for example, provision of services and facilities for training, education and learning) offered in the study area. This demand was associated with the forecast that 30 per cent and</p>	<p>The proposed change results in no alterations to community services content in the EIS and SEIS, or conditions stated in the Coordinator-General's Report.</p> <p>It is anticipated that most of the services required to support the Caval Ridge Mine workforce are to be provided as part of the village accommodation. The Caval Ridge Mine will essentially operate in a self-sufficient manner, and where possible will</p>	<p>Therefore there are no anticipated effects on community services which need to be assessed as part of this Change Request.</p>	<p>No additional mitigation measures are necessary. Acknowledging that provision of community services is primarily a government responsibility, BMA will continue its working partnerships and</p>

Summary of the relevant Caval Ridge Mine EIS/SEIS content	Alterations to Coordinator-General's conditions (if required)	Identified environmental effects	Mitigation strategies (if required)
<p>their families of the operational workforce would reside permanently in the Moranbah community.</p>	<p>operate independently so as to minimise the pressure on community services within the local township.</p> <p>Social infrastructure will also be provided in the Buffel Park Accommodation Village (e.g. recreational facilities), further relieving pressures on local social infrastructure.</p>		<p>support for community services.</p> <p>The Social Impact Management Plan (SIMP) currently being prepared for Caval Ridge Mine will contain detail on social impacts of the additional fly-in fly-out workforce and management strategies for delivering positive outcomes in the community.</p>
<p>5.11.4 Community health, safety and wellbeing – Emergency Services</p>			
<p>It was predicted under the EIS and SEIS that there would be limited impacts on emergency services in the study area and region as a result of the Project. The Area Director of Queensland Fire and Rescue Services (QFRS) had indicated that the main workload for the QFRS or response would likely result from the increase in vehicles on the road.</p>	<p>The proposed change results in no alterations to emergency services content in the EIS and SEIS, or conditions stated in the Coordinator-General's Report.</p> <p>The project site is to be equipped with first aid, paramedic and rescue equipment. A paramedic service will also be on site at all times during operation. The Caval Ridge Mine will therefore be relatively self-sufficient and limit the impact on emergency services in the local township. It is in fact expected that the need for emergency services in the region will be less with an increase in non-resident operational workers, given the reduction of the time</p>	<p>Therefore there are no applicable impacts on community health or emergency services which need to be assessed as part of this Change Request.</p>	<p>No additional mitigation measures should be necessary. Acknowledging that the provision of emergency services is predominately a government responsibility, BMA would continue its working partnerships and support of local health service providers.</p> <p>The Social Impact</p>

Summary of the relevant Caval Ridge Mine EIS/SEIS content	Alterations to Coordinator-General's conditions (if required)	Identified environmental effects	Mitigation strategies (if required)
	these workers will be present in the area, fewer residential workers and their families, and the expected reduction of light vehicle on roads in the region.		Management Plan (SIMP) currently being prepared for Caval Ridge Mine will include detail on social impacts of the increased fly-in fly-out work force and management strategies for delivering positive outcomes in the community.
5.11.4 Community health, safety and wellbeing – Local Health Services			
The EIS/SEIS stated that there would be some increase in demand for general health services in the study area and region as a result of Caval Ridge Mine. This impact was predicted to stem from the increase in population, from both permanent and transient personnel, who would rely on local health services when in the area. The likelihood of workers residing with partners and families would also increase demand on local health services.	The proposed change results in no alterations to local health services content in the EIS and SEIS, or conditions stated in the Coordinator-General's Report.  No increase in demand for general health services in the study area is anticipated as a result of the proposed operational workforce change. It is expected that the need for local health services in the region will not alter, and may potentially reduce due to a decrease of the time these workers will be present in the area and the reduction of the number of residential mine workers and their families.	There is no applicable impact on local health services which need to be assessed as part of this Change Request.	No additional mitigation measures are necessary. As acknowledged in the EIS and SEIS, BMA will continue its region-wide community initiatives, including partnerships and support of local health service providers.  The provision of health services is considered predominately a government responsibility however, through the Sustainable Resource Communities Fund,

Summary of the relevant Caval Ridge Mine EIS/SEIS content	Alterations to Coordinator-General's conditions (if required)	Identified environmental effects	Mitigation strategies (if required)
			<p>BMA is advocating the need for a number of health development initiatives specific to Moranbah.</p> <p>BMA will also continue to support some medical staff in the broader region through wages or subsidised rental properties, and support community wellbeing through its Community Partnerships Program. Further detail on these support mechanisms is being developed within the Caval Ridge Mine SIMP.</p>
5.11.4 Community health, safety and wellbeing – Community Safety			
<p>Community safety was identified as a key issue in the EIS and submissions in response to the SEIS. Concerns regarding community safety are primarily related to the increase in a non-resident workforce in the Moranbah area. This concern was identified in the EIS in relation to the perception that transient workers are often responsible for disturbances to</p>	<p>The impacts arising from the proposed increase to the fly-in fly-out operational workforce do not alter from the issues presented and addressed in Section 17.4.9.5 of the EIS.</p> <p>It is deemed that appropriate social order and community safety policies will be implemented as outlined in the EIS, in order to manage the potential for negative behaviour in the wider community from a transient workforce.</p>	<p>There are no applicable impacts on community safety which need to be assessed as part of this Change Request.</p>	<p>No additional mitigation measures should be necessary. As outlined in the EIS, BMA and its contractors maintain low-tolerance standards towards those who exhibit behaviours that are socially unacceptable or those whose</p>

Summary of the relevant Caval Ridge Mine EIS/SEIS content	Alterations to Coordinator-General's conditions (if required)	Identified environmental effects	Mitigation strategies (if required)
<p>social order within the community, particularly in relation to alcohol-related violence.</p>	<p>BMA has approved appropriate management strategies in place for the entire Caval Ridge Mine workforce, irrespective of a percentage increase to the total operational workforce undertaking fly-in fly-out.</p> <p>The likelihood of the occurrence of anti-social behaviour from a mine employee within the Moranbah community is minimal, given that Caval Ridge Mine will operate a self-contained accommodation village that services all the needs of the Project. Buses will be used to transport workers from Moranbah Airport and the village accommodation to Caval Ridge Mine. As a result, there will be minimal interaction between the Caval Ridge Mine workforce and Moranbah.</p>		<p>behaviour poses a risk to others.</p> <p>All company and contract personnel will be made aware of the policies and procedures that are in place and the consequences of not meeting expectations. BMA also enforces internal policies relating to drugs and alcohol for its employees across all sites. This will be implemented as a further measure to reduce the potential for drug and alcohol related violence from Caval Ridge Mine employees within the community.</p>
<p>5.11.4 Community health, safety and wellbeing – Fatigue and Road Safety</p>			
<p>Fatigue and road safety associated with travel between the accommodation village, Moranbah Airport and the mine will be assessed (where</p>	<p>The proposed change results in no alterations to fatigue and road safety content in the EIS and SEIS, or conditions stated in the Coordinator-General's Report. Light vehicle demands of the mine during</p>	<p>There is the potential for the fly-in fly-out arrangements to deliver direct improvements to road safety in the study area. Therefore there are no applicable impacts on fatigue and road</p>	<p>No additional mitigation measures are necessary. The change to the operational workforce</p>

Summary of the relevant Caval Ridge Mine EIS/SEIS content	Alterations to Coordinator-General's conditions (if required)	Identified environmental effects	Mitigation strategies (if required)
<p>necessary) by the IRC and the Department of Transport and Main Roads (DTMR). The assessment of subsequent individual approvals requiring intersection and pavement analysis and accompanying traffic management measures will satisfy the Coordinator-General's traffic requirements and no alterations to existing conditions is required.</p>	<p>the operation phase are expected to be less than previously anticipated in the EIS, given that the additional fly-in fly-out operational workforce would be bussed to the mine site from the village and airport. Some private/company vehicle movements may occur however these are likely to be minimal.</p>	<p>safety which need to be assessed as part of this Change Request.</p>	<p>will therefore enable BMA to limit the number of vehicles travelling between Moranbah and the Caval Ridge Mine. This arrangement has the advantage of improving road safety and reducing road maintenance as a consequence of the reduced road travel, compared to the alternative arrangement.</p>



Summary of the relevant Caval Ridge Mine EIS/SEIS content	Alterations to Coordinator-General's conditions (if required)	Identified environmental effects	Mitigation strategies (if required)
5.11.4 Community health, safety and wellbeing – Social connectivity			
<p>Section 17.5.10.2 of the EIS identified the community health, wellbeing and social connectivity aspects of the Caval Ridge Mine.</p> <p>The EIS identified that the fly-in fly-out workforce may experience a level of disconnection with their families due to time spent apart. There is also the potential that the partner and family of the worker may feel a level of isolation associated with fly-in fly-out.</p>	<p>The key principle of a fly-in fly-out operational workforce was accepted through the original Coordinator-General's approval of the Caval Ridge Mine Project. It is not the principle of fly-in fly-out that should be considered here, but rather what impact the increase to up to 100 per cent fly-in fly-out may have. As identified in the EIS, the fly-in fly-out workforce may experience a level of disconnection with their families due to time spent apart. There is also the potential that the partner and family of the worker may feel a level of isolation associated with fly-in fly-out.</p>	<p>There are no applicable impacts on social connectivity which need to be assessed as part of this Change Report.</p>	<p>No additional mitigation measures should be necessary, above the mitigation measures already defined in the EIS and SEIS for the fly-in fly-out operational workforce.</p> <p>The use of an appropriate roster system will assist in encouraging healthy family relationships, as it allows for more time outside work than some of BMA's existing rosters. BMA will seek opportunities to partner with and support services that provide services to families in need (e.g. Employee Assistance Program); however, this will apply to BMA's workforce in the region rather than being restricted to Caval Ridge Mine.</p> <p>The Social Impact Management Plan</p>

Summary of the relevant Caval Ridge Mine EIS/SEIS content	Alterations to Coordinator-General's conditions (if required)	Identified environmental effects	Mitigation strategies (if required)
			(SIMP) currently being prepared for the Project will contain significant detail on social connectivity strategies which will deliver positive outcomes in the Moranbah community.
5.11.7 Employment and Economic Development – Employment			
The EIS/SEIS identified that there would be a minimum of 500 operational workforce jobs made available as part of the Caval Ridge Mine.	As mentioned earlier in this Change Request, a minimum of 500 (and up to 750) operational jobs will be created. These employment opportunities will not be affected by the requested change so no alteration is required.	The principle of fly-in fly-out to be 70 per cent (majority) of the Caval Ridge Mine workforce was accepted through the original project approval. It is not the principle of fly-in fly-out that should be considered, but instead the potential impact of an increase to up to 100 per cent fly-in fly-out operational workforce.  It is considered that the requested change to the operational workforce strategy for the Caval Ridge Mine will have negligible impact on employment opportunities.	Operational workforce personnel will be recruited from either single or multiple regional centres.
5.11.7 Employment and Economic Development – Economic development			
In the EIS and SEIS, BMA considered that providing a choice of employment options across the business allows BMA the greatest opportunity to attract an ongoing workforce to meet future operational needs.	Due to tight labour market, operational workforce personnel will be recruited from either single or multiple regional centres.  Once operational, the Caval Ridge Mine with an up to 100 per cent fly-in fly-out arrangement is expected to spend up to	It is considered that the requested change to the operational workforce strategy for the Caval Ridge Mine will have minimal impact on economic development.	Training opportunities would be provided through existing BMA operations. BMA would continue to provide employment opportunities for locals

Summary of the relevant Caval Ridge Mine EIS/SEIS content	Alterations to Coordinator-General's conditions (if required)	Identified environmental effects	Mitigation strategies (if required)
<p>Feedback from early workforce studies indicated that fly-in fly-out is an important attract / retain strategy. By expanding the fly-in fly-out workforce, BMA expects to reduce the current high demand for residential accommodation in Moranbah and the demand on existing services and infrastructure and promoting sustainable growth.</p>	<p>approximately \$95 million to \$110 million per annum on equipment, goods and services sourced from Central Queensland.</p>		<p>in other BMA operations in Moranbah and across the region. BMA would continue to facilitate discussions with local business owners about preferred supplier opportunities.</p> <p>The SIMP, currently being prepared for the Caval Ridge Mine will contain significant detail on economic management strategies which will deliver positive outcomes in the Moranbah community.</p>
<p><b>Coordinator-General's Report Section 5.12 Workforce accommodation villages</b></p>			
<p>In the EIS and SEIS, BMA committed to providing suitable accommodation for a fly-in fly-out workforce including the development of a high standard, purpose built accommodation village. The accommodation village was to be located in an appropriate position within easy travelling distance to Caval Ridge Mine site.</p>	<p>As per Change Request 1, Caval Ridge Mine operational workforce personnel will be accommodated at the Buffel Park Accommodation Village. The proposed operational village has 445 permanent rooms, including ancillary dining and recreational facilities.</p> <p>Where room vacancy rates permit, each tenant of the Operations Village is intended to have a dedicated room that they will use while on roster.</p> <p>Increases in operational employees on a</p>	<p>In assessing the impact of the proposed change to the fly-in fly-out arrangement on BMA's capacity to provide accommodation for its staff, it should be kept in mind that:</p> <ul style="list-style-type: none"> <li>■</li> <li>■ the workforce is expected to work rosters that will be determined following the development of the fatigue management processes (as required by legislation)</li> <li>■ workforce rosters will be</li> </ul>	<p>No additional mitigation measures should be necessary, above the mitigation measures already defined for the fly-in fly-out operational workforce in the EIS and SEIS.</p>

Summary of the relevant Caval Ridge Mine EIS/SEIS content	Alterations to Coordinator-General's conditions (if required)	Identified environmental effects	Mitigation strategies (if required)
	fly-in fly-out arrangement will require review to determine the need for further rooms at Buffel Village to be constructed.	<p>continually reviewed and may be subject to change to respond to operational needs and to maximise operational effectiveness (as required by legislation).</p> <p>The proposed change to the fly-in fly-out operational workforce will not have a significant impact on BMA's capacity to provide accommodation for its staff, given there are sufficient rooms in the Buffel Park Accommodation Village.</p>	
<b>Coordinator-General's Report Section 5.13 Greenhouse Gas Emissions</b>			
<p>Section 11 of the EIS and Section 5.11 of the SEIS, along with further explanatory material dated May 2010 provided an approach to the estimation of GHG emissions from the Caval Ridge Mine Project, using a model which used the Greenhouse Gas Protocol (2004).</p> <p>These estimates considered the construction and operational phases of the Caval Ridge Mine Project, as follows:</p> <ul style="list-style-type: none"> <li>■ Scope 1 emissions originating from the Project</li> <li>■ Scope 2 emissions from electricity purchased and</li> </ul>	The proposed changes to the fly-in fly-out operational workforce will not alter the overall GHG emissions from the mine component of the Project. Therefore no alteration to conditions is required.	<p>The proposed change to the fly-in fly-out arrangements will not have any potential environmental effects, as it does not affect the manner in which the mine itself will be constructed or operated, and thus will not change the estimation of GHG emissions from the Caval Ridge Mine Project provided in the EIS and SEIS.</p> <p>The proposed changes to the fly-in fly-out arrangements will not alter the overall GHG emissions from the mine component of the Project.</p> <p>There will be a reduction in the number of workers and their families travelling by private motor vehicle within and around Moranbah, as such removing a number of unnecessary trips associated with the Caval Ridge Mine</p>	No additional mitigation measures should be necessary, above the mitigation measures already defined in the EIS and SEIS for the fly-in fly-out operational workforce.

Summary of the relevant Caval Ridge Mine EIS/SEIS content	Alterations to Coordinator-General's conditions (if required)	Identified environmental effects	Mitigation strategies (if required)
<p>consumed by the Project</p> <ul style="list-style-type: none"> <li>■ Scope 3 emissions from associated activities (occurring from sources not owned or controlled by the Project).</li> </ul> <p>The Coordinator-General's Report concluded that during both the construction and operational phases of the Project, Scope 1 and Scope 2 GHG emissions would be significant, but a condition that imposed a definitive offset would be unreasonable and unprecedented. As such, the Coordinator-General included Imposed Condition 12 (Schedule 1 of Appendix 1 of the Coordinator-General's Report) which required the implementation of a GHG Management Plan.</p>		<p>operations.</p> <p>Given the changes to the fly-in fly-out arrangements on air travel, there is potential for the changes to have implications on GHG release. These implications are considered immaterial, given the overall emissions of the BBCGP, particularly the extent of emissions from the mining activities.</p>	