

The logo for RPS, consisting of the letters 'RPS' in white, bold, sans-serif font, centered within a dark blue rectangular background.

# Caval Ridge Project

## **Buffel Park Accommodation Villages** Construction Village

September 2010

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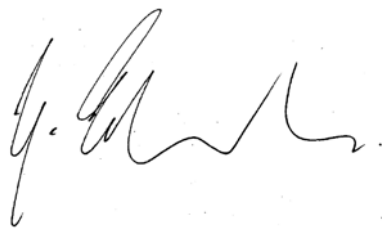
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RPS Staff responsible for this Report



Author: Wayne Window, Planner

Date: 20 September 2010



Reviewer: Gavin Edwards, Senior Planner / Principal

Date: 20 September 2010

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## Abbreviations

BMA	BM Alliance Coal Operations Pty Limited
BPS	Belyando Planning Scheme 2008
DA	Development Application
DERM	Department of Environment and Resource Management
DIP	Department of Infrastructure and Planning
DP	Development Permit
DTMR	Department of Transport and Main Roads
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EPA	<i>Environmental Protection Act 1994 (Qld)</i>
EPBCA	<i>Environment Protection and Biodiversity Conservation Act 1999 (Comm)</i>
EPR	<i>Environmental Protection Regulation 2008 (Qld)</i>
ERA	Environmentally Relevant Activity
GQAL	Good Quality Agricultural Land
IDAS	Integrated Development Assessment System
IRC	Isaac Regional Council
MCU	Material Change of Use
MIA	Caval Ridge Mine Industrial Area
ML	Mining Lease
MLA	Mining Lease Application
OW	Operational Works
PA	Preliminary Approval
ROL	Reconfiguration of a Lot
RPS	RPS Australia East Pty Ltd
SBSWMP	Site Based Stormwater Management Plan
SDPWOA	<i>State Development and Public Works Organisation Act 1971 (Qld)</i>
SPA	<i>Sustainable Planning Act 2009 (Qld)</i>
SPR	<i>Sustainable Planning Regulation 2009 (Qld)</i>
VMA	<i>Vegetation Management Act 1999 (Qld)</i>
WA	<i>Water Act 2000 (Qld)</i>



# Executive Summary

RPS has been engaged by BM Alliance Coal Operations Pty Ltd (BMA) to assist in the attainment of development approvals for an accommodation village (for construction and operations purposes) associated with the Caval Ridge Mine (CRM) project, part of BMA's broader Bowen Basin Coal Growth Project (BBCGP). These approvals are required pursuant to the *Sustainable Planning Act 2009* (SPA) and integrated legislation.

BMA proposes to develop a coal mine at Caval Ridge which is approximately 17 south-west of Moranbah when travelling by road, and approximately 160 km from Mackay. The CRM includes a new coal mine, coal handling and processing infrastructure and associated accommodation and services for the workforce. The mine is anticipated to have a working life of approximately 30 years.

The BBCGP has been designated by the Queensland Government as a significant project under the *State Development and Public Works Organisation Act 1971* (SDPWOA). Terms of Reference issued for the project allow for the completion of a phased EIS addressing different components of the project. An EIS has been prepared and advertised for the CRM project. The Coordinator General's Report was released on 9 August 2010.

Accommodation is required to house the CRM workforce, as there is limited housing available within Moranbah and no certainty of further provision for the mining workforce within the timeframe required for the commencement of mining operations.

Consequently, Accommodation Village is proposed on a property referred to as "Buffel Park", to provide housing for the CRM workforce. The Accommodation Village is to be located on a site to the south-east of Peak Downs Highway.

This application relates to the proposed Construction Village.

The site is formally described as Lot 12 on SP151669. Buffel Park has an overall area of 10,074 hectares, with the combined Accommodation Villages occupying some 130 hectares. The site adjoins the Caval Ridge Mining Lease Application Area (MLA70403) which is north of Buffel Park and contiguous to the existing Peak Downs Mining Lease (ML1775). The site location and relationship to the mining operations areas are illustrated in Figure 1 and Figure 2 respectively.

*Refer to Figure 1: Location Plan and to Figure 2: Cadastral Plan*

The Construction Village proposal involves:

- A 2000 room accommodation village to support construction of the CRM, including ancillary dining, wet mess, recreation and infrastructure provision;
- The establishment of a temporary "fly camp" for the initial construction (for a period of 24 months);
- Operation of a sewerage treatment plant (scaled to service the construction and operations villages);
- Delivery of infrastructure and services to the site and the associated integration of such services with the infrastructure supporting the Caval Ridge Mine Industrial Area (MIA) (located north of Buffel Park), including the return of treated wastewater to the mine.

As the proposed Accommodation Villages are outside the Mining Lease area, development approval is required pursuant to the SPA.

This development application seeks approval for the following aspects of development:

- Temporary Fly Camp Element:
  - » Development Permit for a Material Change of Use for Accommodation Building and, Hotel and Shop (for the Fly Camp, for a maximum relevant period of 24 months);
  - » Development Permit for a Material Change of Use for Environmentally Relevant Activity (ERA) 63 – Sewage Treatment (for the Temporary Fly Camp for a maximum relevant period of 24 months); and

- » Preliminary Approval for Operational Work assessed against the Planning Scheme (earthworks and civil engineering); and
- Permanent Village Element:
  - » Development Permit for a Material Change of Use for Accommodation Building (2000 rooms), Hotel and Shop (in stages);
  - » Development Permit for a Material Change of Use for ERA 63 – Sewage Treatment (in stages);
  - » Preliminary Approval for Building Works; and
  - » Preliminary Approval for Operational Work assessed against the Planning Scheme (earthworks, civil engineering, and landscaping).

Under the Belyando Planning Scheme, the site is within the Rural Zone. Development of an accommodation village under the Planning Scheme falls within the definition of “Accommodation Building”. Ancillary to the accommodation building land use of the proposal is the sale of alcohol to the resident workforce within a wet mess (defined as “hotel” in the Planning Scheme) and, for the permanent village, the low key retailing of convenience items (within the Planning Scheme’s definition of “shop”).

Within the Rural Zone, these uses are subject to Impact Assessment. Under Schedule 9 of the *Sustainable Planning Regulation 2009*, the ERAs for the development are subject to Code Assessment.

The Development Application triggers referral to the following agencies for assessment under the IDAS:

- Department of Environment and Resource Management (DERM):
  - » Material Change of Use for an ERA;
  - » Development involving the clearing of native vegetation;
- Department of Transport and Main Roads (DTMR):
  - » Development on land relating to a State-controlled road;
  - » Public passenger transport (residential purpose on a site greater than 5 ha);
  - » Railway safety and efficiency (residential purpose and abuts rail corridor land); and
- Powerlink:
  - » Premises subject to an easement in favour of a distribution entity.

Due to the interaction of this application with the SDPWOA, despite being subject to Impact Assessment, this application is not required to fulfil Public Notification requirements in accordance with Section 295(1) of the SPA.

The key issues arising from the proposal include:

- Provision of an accommodation village on land adjoining a natural resource, namely the Caval Ridge coal mine;
- The sequential expansion of the construction village and integration with the operations village;
- Removal of remnant and regrowth vegetation on the site of the accommodation village;
- Management of air quality impacts from the Caval Ridge mine on future occupiers;
- Management of noise impacts from the operation of the accommodation village;
- Treatment, disposal and reuse of wastewater from the accommodation village;
- Provision of a suitable extent of car parking and associated transport to and from the village for travel to work and home;
- Management of the visual impact of the proposals within the rural landscape; and
- Provision of the temporary “fly camp” to house the workforce building the construction village for a period of up to 24 months.

This report provides greater detail on the nature of the proposal, and provides an assessment of the proposal against the intents and code requirements of relevant statutory planning documents. Technical issues associated with the proposal are addressed in the appended technical reports.

The proposal is required as supporting infrastructure for the CRM. The use of the land outside urban area for accommodation buildings, when immediately adjoining a natural resource, is considered appropriate under the Planning Scheme where operating for this period of time.

Approval is recommended subject to reasonable and relevant conditions.

**Table I: Summary Table**

Site Details			
<b>Site Address:</b>	Buffel Park, Peak Downs Highway, Moranbah		
<b>Local Government:</b>	Isaac Regional Council, Division 1		
<b>Real Property Description:</b>	Lot 12 on SP151669		
<b>Site Area (approximate):</b>	10,074 hectares	(Buffel Park)	
	130 hectares	(Total of Accommodation Villages)	
	85 hectares	(Construction Village component)	
<b>Regional Plan (Non-Statutory):</b>	Whitsunday, Hinterland and Mackay Regional Plan		
<b>Planning Scheme:</b>	Belyando Planning Scheme: Rural Zone		
<b>Name of Owner:</b>	BHP Coal Pty Ltd UMAL Consolidated Pty Ltd BHP Queensland Coal Investments Pty Ltd Mitsubishi Developments Pty Ltd QCT Investment Pty Ltd QCT Mining Pty Ltd QCT Resources Pty Ltd		
Type of Application			
Aspect of Development	Preliminary Approval	Development Permit	
Making a Material Change of Use	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Reconfiguring a Lot	<input type="checkbox"/>	<input type="checkbox"/>	
Carrying out Building Work	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Carrying out Operational Work	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Prelodgement/Consultation			
Entity	Yes/No	Date	Contact Name
Council DA Team:	<input type="checkbox"/> <input checked="" type="checkbox"/>		
Council (Other):	<input type="checkbox"/> <input checked="" type="checkbox"/>		
Referral Agency/s	<input type="checkbox"/> <input checked="" type="checkbox"/>		
Community:	<input type="checkbox"/> <input checked="" type="checkbox"/>		
Local Councillor:	<input type="checkbox"/> <input checked="" type="checkbox"/>		
Proposal			
<b>Brief Description/ Purpose of Proposal:</b>			
Accommodation Building, Hotel and Shop: Temporary Fly Camp and Construction Village (in Stages) associated with the Caval Ridge Mine			
<b>Development Staging:</b>	Yes		
Referral Agencies			
Agency	Concurrence Agency	Advice Agency	Pre-lodgement Response
DTMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
DERM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Powerlink	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Other	
<b>Level of Assessment:</b>	<input type="checkbox"/> Code <input checked="" type="checkbox"/> Impact
<b>Public Notification</b>	No – due to SDPWOA
<b>Superseded Planning Scheme Application:</b>	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
<b>Assessment Manager/Council Officer/s Previously Involved:</b>	None Applicable
<b>Applicant Contact Person:</b>	Gavin Edwards and Wayne Window, RPS

# I Site Information

## 1.1 Site Details

Key details of the subject site are as follows.

<b>Address:</b>	Buffel Park Peak Downs Highway Moranbah  <i>Refer to Figure 1</i>
<b>Real Property Description:</b>	Lot 12 on SP151669  <i>Refer to Figure 2</i>
<b>Site Area:</b>	10,074 hectares (Buffel Park) 130 hectares (Total of Accommodation Villages) 85 hectares (Construction Village component)
<b>Land Owner:</b>	BHP Coal Pty Ltd UMAL Consolidated Pty Ltd BHP Queensland Coal Investments Pty Ltd Mitsubishi Developments Pty Ltd QCT Investment Pty Ltd QCT Mining Pty Ltd QCT Resources Pty Ltd  <i>Refer to Appendix B: Searches and Site Information</i>
<b>Local Government:</b>	Isaac Regional Council

## 1.2 Planning Context

The planning context is as follows.

<b>Regional Plan (Non-Statutory):</b>	Whitsunday, Hinterland and Mackay Regional Plan
<b>Planning Scheme:</b>	Belyando Planning Scheme
<b>Strategic Plan designation:</b>	None Applicable
<b>Zoning:</b>	Rural
<b>Land Characteristic Maps:</b>	Good Quality Agricultural Land Map: Part GQAL Class C1 Features Map: Adjoins State-controlled road network

The local zoning and key planning context matters are illustrated in Figure 3.



Figure 2: Cadastral Plan

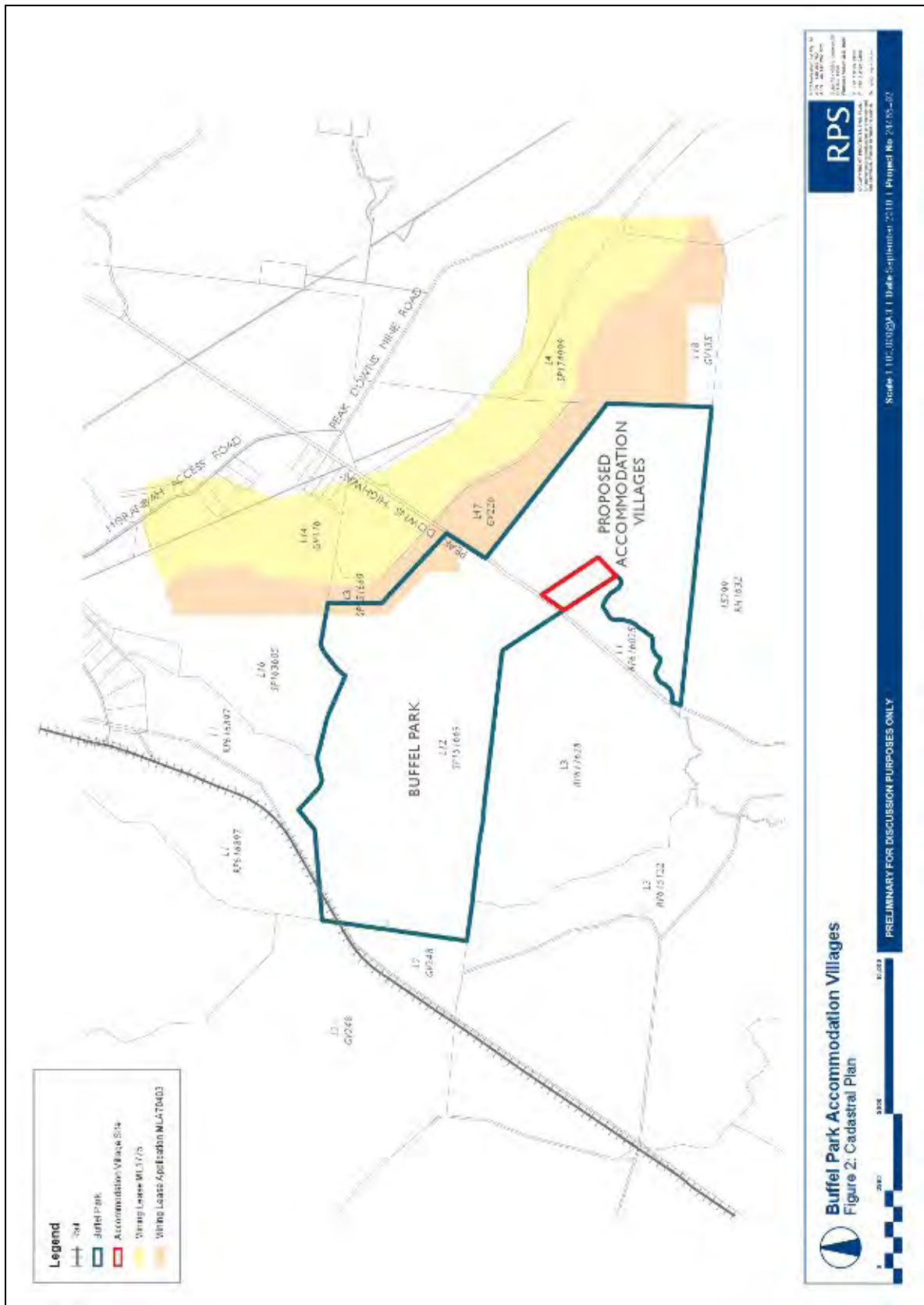
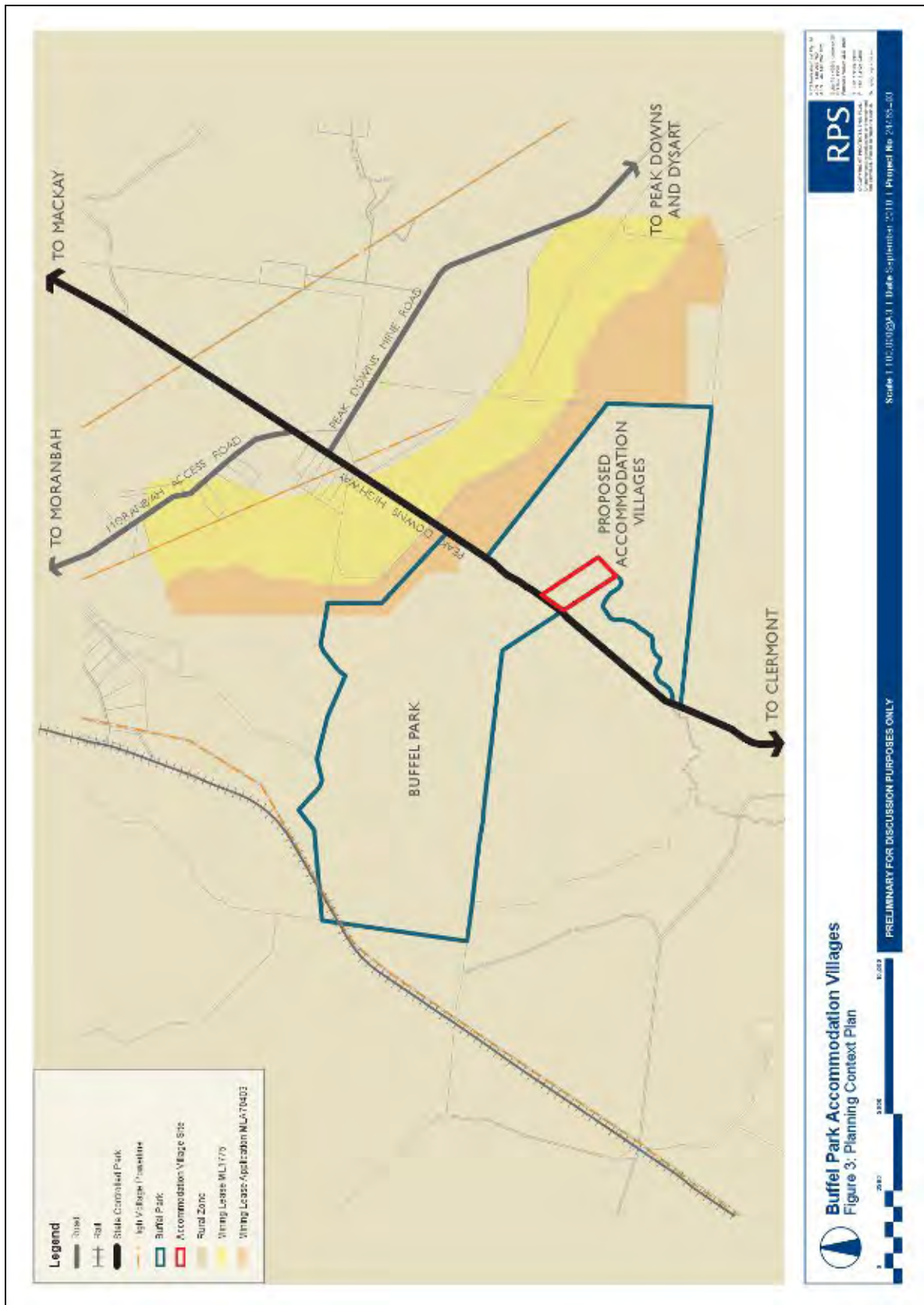




Figure 3: Planning Context





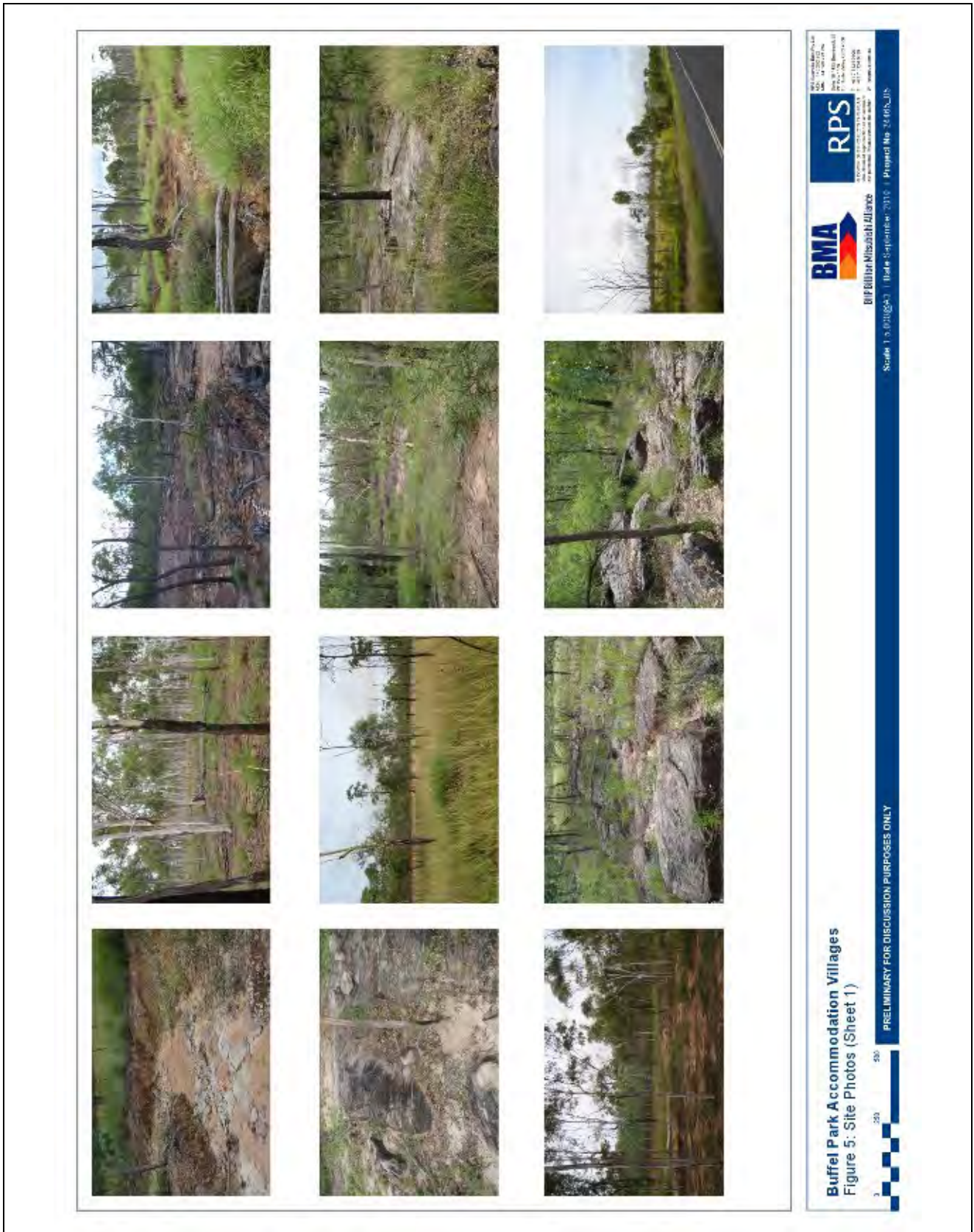
### 1.3 Site Characteristics

A site inspection and searches of local and state government records have been undertaken, and are summarised below.

<b>Existing use of site:</b>	<p>Buffel Park is presently used for grazing.</p> <p>A house and rural sheds/outbuildings are present on the portion of the property that lies to the west of the Peak Downs Highway.</p> <p>An aerial photograph of the site is included as Figure 4.</p> <p>A number of photographs of the site and immediate environs are presented as Figure 5 (two plates).</p>
<b>Neighbouring uses:</b>	<p>Neighbouring properties to the south and west are used for grazing. The Caval Ridge mine adjoins the northern boundary of the property, as seen in Figure 2.</p> <p>A house is located on the adjoining property to the south (Skyville Stud).</p>
<b>Road Frontages:</b>	<p>Buffel Park has frontage to the Peak Downs Highway.</p>
<b>Services:</b>	<p>There are no existing services on the site the subject of the development application, other than electricity and communications to the house.</p>
<b>Topography:</b>	<p>The site has an undulating topography, which rises gently from the road. The site features three knolls and separated by saddles. Drainage lines, including some extensively weathered and eroded overland flow paths cross through the site. Slopes within the site are gentle, and range from 1% - 4%.</p>
<b>Waterways:</b>	<p>The subject site does not contain any defined waterways. The wider Buffel Park property features a number of creeks and waterways, including Nine Mile Creek and Cherwell Creek.</p>
<b>Vegetation:</b>	<p>Vegetation occurring within the study area consists of a mosaic of woodlands and open woodlands with a grassy understorey and pastures. Common canopy species throughout the site area include a range of eucalypts and acacias.</p> <p>Current RE mapping (Version 6.0) provided by DERM indicates that four RE types occur within the development footprint. A Property Map of Assessable Vegetation (PMAV) provided by DERM indicates that a large portion of the study area is mapped as Category X (DERM, 2010).</p> <p><i>Refer to Appendix B: Searches and Site Information</i></p> <p>Ground truthing of the site has been undertaken by RPS, as summarised in the Ecological Assessment. This site analysis has identified several vegetation communities within the area the subject of the application. These vegetation communities have been mapped and assessed in the Ecological Assessment.</p> <p><i>Refer to Appendix I: Ecological Assessment</i></p>



Figure 5: Site Photographs










**Buffel Park Accommodation Villages**  
 Figure 5: Site Photos (Sheet 2)

Scale 1:5,000 (50') | Date: 8-19-2015 | Project No. 14105-01R

PRELIMINARY FOR DISCUSSION PURPOSES ONLY

Although not mapped on the RE mapping, a brigalow (*Acacia harpophylla* dominant and co-dominant) vegetation community lies on the site. This vegetation community is listed as a Threatened Ecological Community (Endangered) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA).

**Wetlands:**

Wetland mapping prepared by the DERM indicates that there are no wetlands within the subject site area or more broadly within the Buffel Park property.

*Refer to Appendix B: Searches and Site Information*

The Ecological Assessment prepared by RPS has reviewed the ecosystems found on site, and determined that wetlands are not present.

*Refer to Appendix I: Ecological Assessment*

**Good Quality Agricultural Land:**

The Belyando Planning Scheme land characteristic mapping has included a portion of the subject site within Good Quality Agricultural Land (GQAL) Class C1. The balance of the site is not mapped in the Planning Scheme as having soils with GQAL characteristics.

An assessment of the soil types across the subject site has been completed by GSS Environmental, as contained in Appendix P. GSS Environmental's reporting identified that the majority of the development footprint contains C2 and C3 class land, with C1 soils found only in the north-western corner.

*Refer to Appendix P: Good Quality Agricultural Land*

**Contaminated Land:**

The site is not listed on the EMR or the CLR.

*Refer to Appendix B: Searches and Site Information*

**Cultural Heritage:**

An Indigenous cultural heritage site assessment has been undertaken by Woorra Consulting. The assessment identified Culturally Significant Sites, and that these sites' significant items have been salvaged. Monitoring of two areas during construction is recommended.

*Refer to Appendix S: Cultural Heritage Clearance*

The subject site area does not feature non-Indigenous cultural heritage.

## 2 Application Details

### 2.1 General Description

**Aspects of Development Sought:** Development Permit for a Material Change of Use for Accommodation Building and Hotel (for the Temporary Fly Camp, for a maximum relevant period of 24 months);

Development Permit for a Material Change of Use for an Environmentally Relevant Activity (ERA 63 – Sewage Treatment) for the Temporary Fly Camp (for a maximum relevant period of 24 months);

Development Permit for a Material Change of Use for Accommodation Building, Hotel and Shop (in stages);

Development Permit for a Material Change of Use for an Environmentally Relevant Activity (ERA 63 – Sewage Treatment) (in stages);

Preliminary Approval for Building Works; and

Preliminary Approval for Operational Work assessed against the Planning Scheme (earthworks, civil engineering and landscaping).

**Applicant:**

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**Contact Persons:**

Gavin Edwards and Wayne Window  
RPS Australia East Pty Ltd

## 3 Background

BMA is a jointly-owned entity of BHP Billion Ltd and Mitsubishi Development Pty Ltd.

BMA has equal ownership and management of seven Central Queensland coal mines: Peak Downs, Goonyella Riverside, Broadmeadow, Saraji, Norwich Park, Gregory Crinum and Blackwater, and also manages the Hay Point Coal Terminal near Mackay, Queensland.

### 3.1 Bowen Basin Coal Growth Project

BMA's Bowen Basin Coal Growth Project (BBCGP) involves the growth of BMA's coal mining operations in the northern section of the Bowen Basin, centred on Moranbah. The BMA BBCGP Initial Advice Statement to the Coordinator General outlined that the production of an additional 21.5 Mtpa of coal products through the development of two new coal mining operations, and expansion of an existing operation.

The Coordinator General has declared the BBCGP a significant project under the *State Development and Public Works Organisation Act 1971*. The resulting Terms of Reference allow for the completion of a number of Environmental Impact Statements (EISs) to address different parts of the project.

The Caval Ridge Mine and the Daunia Mine are to be new operations, whilst the operating Goonyella Riverside Mine and Peak Downs Mine will be expanded. Associated mine infrastructure will be developed at each of these operations.

### 3.2 The Caval Ridge Project

The Caval Ridge Mine will be a new open cut coal mine north of and adjacent to BMA's existing Peak Downs Mine. The mine area is approximately 17 km long and 4 km wide (excluding supporting infrastructure), and spans the Peak Downs Highway. The northern most boundary of the mine will be approximately 6 km from Moranbah, while the mine industrial area (MIA) will be about 16 km from Moranbah, situated on the Peak Downs Highway.

The Caval Ridge Mine site is located north of the existing operational BMA Peak Downs Mine and covers the northern extent of the BMA Mining Lease (ML 1775). A new mining lease application (MLA 70403), immediately to the west of ML 1775, will be used for site infrastructure and supporting activities.

The proposed Caval Ridge Mine will be accommodated within the area of the existing Peak Downs Mining Lease (ML1775) and a new mining lease (presently MLA70403). These areas are illustrated on the Location Plan (Figure 1) and Cadastral Plan (Figure 2).

The life of the mine is expected to be at least 30 years.

The Caval Ridge Mine has been assessed and approved by the Queensland Government as a significant project under the *State Development and Public Works Organisation Act 1971* (SDPWOA). The Environmental Impact Statement (EIS) and Supplementary EIS (SEIS) for the CRM Project did not include a detailed assessment of the workforce accommodation arrangements for either the construction or operational phases of the mine, but noted the availability of Denham Village as an approved accommodation location. The Coordinator-General's Report issued for the CRM acknowledged this arrangement.

# 4 Proposal

## 4.1 Overview of Proposal

The proposed Buffel Park Accommodation Village has two components:

- a Construction Village of 2000 rooms associated with the development and construction of the Caval Ridge Mine and its on-going maintenance (including the initial provision of a temporary fly camp to facilitate building of the Construction Village), and
- an Operations Village of 500 rooms for the mine operations workforce.

The two components are co-located on the Buffel Park property and share key infrastructure items. Each village will be established in a staged manner, and will be subject to separate development approvals. Development of the Operations Village will occur following the occupation of the early stages of the Construction Village.

This application considers the proposed Fly Camp and the Construction Village.

The proposed Construction Village of 2000 rooms, to be occupied by:

- The mine construction workforce (which includes a contingency to maintain project delivery schedules);
- Village construction workforce (initially in the fly camp then relocated into the construction village);
- Village management and support staff;
- Workforce constructing miscellaneous CRM off-lease infrastructure; and
- Periodic maintenance personnel.

Note, a “float”, being an allowance for temporarily unavailable rooms (eg undergoing maintenance) has also been included in the 2000 room calculation.

The village will provide dining, laundry and recreation facilities for the residents, along with a “wet mess” where alcohol will be sold to residents. Such alcohol sales will not be available to non-residents.

The site will generally not be accessible to non-residents, other than persons associated with BHP/BMA’s operations that need to visit the accommodation villages or operational locations.

## 4.2 Accommodation Village Masterplanning

Design development for the two accommodation villages has been completed through a masterplanning exercise over the site which considered site constraints, environmental factors, infrastructure and servicing, the capacity, staging and sequencing requirements for each village.

### 4.2.1 Design Philosophy

The philosophy behind the design development of the masterplan has been to locate the accommodation villages within the existing bushland setting to the greatest degree possible. Where possible the design has been prepared to share services and facilities in order to minimise the environmental effects of the accommodation villages.

### 4.2.2 Masterplan

The Accommodation Villages Masterplan Structure (RPS Drawing 24465\_09 ), contained in Appendix C illustrates the overall pattern of development, showing:



- The access and service road extending from the Peak Downs Highway into the site;
- The common infrastructure and services area located to the north of the service road;
- The Construction Village, including its core facilities as the western portion of the development footprint;
- The Operations Village, including its core facilities as the eastern portion of the development footprint; and
- Bushland and open space around the periphery of the site providing a landscape buffer, including areas where revegetation is proposed to minimise the visual impacts of the development and provide opportunities for active and passive recreation.

In support of the Masterplan Structure, an Illustrative Masterplan (RPS Drawing 24465\_08, contained in Appendix C), demonstrates the setting of the Accommodation Villages in their entirety within the existing bushland setting.

### 4.3 Staging and Sequencing

Construction of the Caval Ridge Mine is expected to commence in mid-2011, with the first coal to be produced in early 2014. Accordingly, the staging of the accommodation villages has been programmed to allow for the completion of rooms ahead of demand in both the construction and operations villages.

The Construction Village is intended to be completed in a sequential manner, comprising:

- Phase A: Temporary Fly Camp
- Phase B: Construction Village Stages 1 to 6.

The Construction Village will be completed in staged manner, as illustrated on the Sequencing Plans (RPS Drawing Series 24465\_12 to 24465\_17 as contained in Appendix D) and the layout drawings prepared by SKM (Drawings DG-1106 and DG-1107 included in Appendix L).

*Refer to Appendix D: Construction Village Sequence and to Appendix L: Engineering Drawings*

The initial establishment of the fly camp is required to allow building the first stage of the Construction Village. Staging is proposed to allow the gradual occupation of the Construction Village upon the completion of building works and the issue of Certificates of Classification by a Building Certifier and the satisfaction of all relevant development approval conditions. Within the Development Approval for this application, separate approvals are sought for the fly camp and each proposed stage.

Whilst the Operations Village does not form part of this application, the staging of these works are included within Table 2 below for reference to assist in understanding the sequence of construction and the availability of rooms and services.

**Table 2: Anticipated Staging of Rooms at Buffel Park**

Temporary Fly-Camp	Construction Village	Operations Village*	Cumulative
Fly Camp – 500 rooms			NA
	Stage 1 – 516 rooms		516 rooms
	Stage 2 – 504 rooms		1020 rooms
	Stage 3 – 272 rooms	Stage 1 – 250 rooms*	1542 rooms
	Stage 4 – 208 rooms	Stage 2 – 250 rooms*	2000 rooms
	Stage 5 – 224 rooms		2224 rooms
	Stage 6 – 272 rooms		2496 rooms

\* Not part of this application

*Note: Room numbers in stages are indicative and may be adjusted marginally due to detailed engineering design and construction program requirements.*

The construction program intention as expressed in Table 2 indicates the room numbers to be provided. Personnel accommodated in the villages at any one time will not exceed the availability of rooms.

#### **4.3.1 Temporary Fly Camp**

The Temporary Fly Camp is the first phase of activity on the site. Initial accommodation and facilities are proposed to be provided by way of a fly camp of up to 500 rooms in size. The temporary fly camp will be self sufficient in terms of infrastructure and services until such time as the Stage 1 common facilities are brought on line.

The Temporary Fly Camp will accommodate workers involved with building the Construction Village.

#### **4.3.2 Stage 1**

Stage 1 of the Construction Village comprises:

- 516 rooms (including 12 rooms for people with disabilities);
- the majority of the core facilities, including the entrance and front of house facilities, kitchen and dining facilities, wet mess, recreation areas and training room;
- the bus parking and bus stop area and car parking areas; and
- common infrastructure and services, including the access road to the Operations Village (terminating at the point of entry to the car parking areas)

#### **4.3.3 Stage 2**

Stage 2 of the Construction Village comprises:

- 504 rooms;
- supplementary core facilities, including an additional recreation building, gym and multi-purpose sports court; and
- additional long term car parking areas.

#### **4.3.4 Stages 3 to 6**

Stages 3 to 6 of the Construction Village comprises the remainder of the accommodation rooms (272, 208, 224 and 272 rooms respectively). Expansion of the water treatment and sewage treatment facilities is expected to be completed in line with Stage 3.

### **4.4 Temporary Fly Camp**

It is proposed that accommodation requirements for the construction village are fully catered for within the project scope. Initial accommodation is proposed to be provided by way of a fly camp. This camp up to 500 rooms in size is proposed to be fully self-contained with elements removed as permanent facilities and rooms become available.

These elements are expected to be in place for a maximum of 24 months. The Temporary Fly Camp is to be located on the future area of Construction Village Stages 5 and 6. The extent of the Temporary Fly Camp within the Accommodation Village development footprint is shown on RPS Drawing 24465\_10, contained in Appendix E.

Because of the nature and form of operation of the fly camp, a separate approval is sought for this aspect of the proposal, including a separate approval for the package sewage treatment plant that will service the fly camp. Elements and linkages to the construction village are listed below. Imagery of typical temporary fly

camp improvements are contained in Appendix F.

*Refer to Appendix E: Temporary Fly Camp Extent and to Appendix F: Temporary Fly Camp*

#### **4.4.1 Accommodation**

Up to 500 en-suited rooms are to be provided along with covered verandahs and all weather pathways to central facilities. These rooms will be removed progressively as permanent rooms become available within the construction village. It is proposed that all rooms will be removed from site within 24 months.

#### **4.4.2 Central Facilities**

The following central facilities will be provided to service the residents of the fly camp:

- Kitchen Diner;
- Office;
- Ice Machine;
- Wet Mess/Recreation Facility;
- Cinema/TV Room;
- Recreation Room;
- First Aid Room;
- Central Ablutions Facility; and
- Fully Equipped Gymnasium.

These central facilities will be removed progressively as permanent facilities are provided within the construction village through the completion of Stage 1.

#### **4.4.3 Infrastructure**

The following infrastructure is to be provided for the fly camp.

- A temporary access road from the Peak Downs Highway generally adjacent to the alignment proposed for the permanent access road;
- Generators with associated fuel storage to provide power;
- Water storage tanks for raw water storage and fire fighting;
- A water treatment plant to provide potable water to the camp;
- A waste water treatment plant to provide treat waste water from the facility to “A” standard;
- A communications facility including phone and internet access; and
- Temporary car parking

These elements are to be removed as infrastructure is provided for the construction village, and will be totally removed within 24 months from the commencement of the use.

### **4.5 Construction Village**

The proposed construction village is an accommodation centre for personnel working on the Caval Ridge coal mine project, and includes accommodation capacity for periodic maintenance personnel. The village will provide dining, laundry, recreation facilities and a small scale retail convenience area for the residents. It will also provide a “wet mess”, where alcohol will be sold to residents. The retail and alcohol sales will not be available to non-residents.

#### **4.5.1 Method of Operation**

The Construction Village will operate on a permanent basis. The anticipated manner of operation is a week on / week off roster. Construction staff will generally work a 12-hour day, running 06:30 – 18:30. On-site facilities will operate as necessary to accommodate the construction patterns at any particular point of the

Caval Ridge construction program.

The Construction Village will be occupied by mine construction teams, construction teams for the Accommodation Villages, construction/project management, equipment teams, village administration and periodic maintenance personnel.

#### **4.5.2 Design Intent**

The Construction Village is located approximately 200m from the road reserve and 50m behind a natural buffer of existing vegetation. New buffer planting will be established to the northern and southern edges of the front face of the development footprint assisting in buffering the development from the main road. The intent is to provide a neutrally coloured low key building typology placed within the existing vegetation to blend the built form with its natural surrounds. Large areas between buildings will consist of tubestock planting primarily comprising of grasses and groundcovers endemic to the area. The existing bushland surrounds will comprise of revegetation and weed eradication to areas that require it.

Swales will follow the existing topography and will consist of erosion control matting where required, with and rock/planting pockets near path intersections. Shade trees and boulders randomly positioned in decomposed granite paving surrounds the barbecue shelters.

#### **4.5.3 Construction Village Built Form and Facilities**

As described above in relation to the Masterplan Structure and shown indicatively on the Illustrative Masterplan, the Construction Village and the Shared Infrastructure and Services occupy the western portion of the Accommodation Villages site.

The overall layout of the Accommodation Villages and the relationship of the Construction Village to the Operations Village is shown on SKM Drawing DG-1105 Overall Layout Plan dated June 2010, as contained in the Engineering Report contained in Appendix K.

The detailed layout of the Construction Village is shown on SKM Drawing DG-1104 Layout Plan dated June 2010, as contained in the Engineering Report and presented separately in Appendix L.

As shown on the Layout Plan (SKM Drawing DG-1104) and illustrated as applicable on the Architectural plan series (Appendix G), the proposed Construction Village will provide a range of facilities and building types:

- ensuite accommodation rooms;
- core facilities to support the Construction Village, consisting of:
  - » Reception Building And Kiosk;
  - » Dining Hall And Kitchen;
  - » Wet Mess And Recreational Building;
  - » Recreational Buildings, Multi Purpose Sports Court, Gymnasium(s), and BBQ areas;
  - » Car parking (400 long term spaces over two areas and 30 short term/visitor spaces);
  - » Bus Set down and bus parking;
  - » Laundry facilities and linen stores;
  - » Drug And Alcohol Testing, Multi Purpose Shelter, Training Room
  - » Maintenance Building, generator shed;
- infrastructure and services that will be shared with the Operations Village:
  - » Main Entrance, Boom Gate and Gate House
  - » Light Vehicle Wash
  - » Maintenance Building
  - » 66 / 11kv Sub Station
  - » Water Treatment Plant
  - » Sewage Treatment Plant
  - » Sports Field (Medivac Provision)
  - » Truck Turn Around
  - » Communications Room
  - » Backup Diesel Generator; and
  - » Linen Room.

Key buildings are described in more detail below.

Generally, all buildings will be of a pre-fabricated modular construction, transported to and installed on the site. The buildings will be finished in colourbond steel with zincalume roofing. Materials descriptions are shown on the architectural drawings.

### **Accommodation Unit (Standard)**

The Accommodation Unit (Standard) are prefabricated structures and comprise four (4) “outward facing” ensuite bedrooms arranged in clusters of four (4) buildings with a shared common services area that accommodates air-conditioning units and hot water services.

Typical plans and elevations of the Accommodation Unit (Standard) are shown on SKM Drawing DG-0005 Rev E (contained in Appendix G). The drawing also illustrates the spacing and arrangement of a cluster of units. Each accommodation cluster comprises 16 rooms.

### **Accommodation Unit (PWD)**

The Accommodation Unit (PWD) are prefabricated structures and comprise three (3) “outward facing” ensuite bedrooms configured to accommodate people with disabilities.

These units are arranged in two (2) clusters with a shared common services area that accommodates air-conditioning units and hot water services.

Typical plans and elevations of the Accommodation Unit (–PWD) are shown on SKM Drawing DG-0005 Rev E dated (contained in Appendix G). The drawing also illustrates the spacing and arrangement of a cluster of units. Each accommodation cluster comprises 16 rooms.

### **Reception Building and Kiosk**

The Reception Building provides administrative facilities for the operation of the camp. It also provides a small kiosk for the sale of convenience items.

The Village Reception Building is shown on SKM Drawing DG-006 (contained in Appendix G).

### **Dining and Kitchen Building**

The Dining and Kitchen Building is located within the central area of the core facilities.

The building provides kitchen and storage facilities for the overall Construction Village, and dining room space capable of accommodating the number of workers present on the site at any point in time. It also provides for transit lounge facilities for workers departing at the end of a roster.

The Dining and Kitchen Building is shown on SKM Drawings DG-0001, DG-0002, DG-0003 and DG-0004 contained in Appendix G.

### **Wet Mess and Recreational Building**

The Wet Mess and Recreational Building provides for indoor recreational and entertainment spaces and a facility for the consumption of alcohol. This building falls within the definition of “hotel” under the Belyando Planning Scheme.

The Wet Mess and Recreational Building is located in the core facilities area adjacent to the Dining and Kitchen Building and with convenient access to the bus stop facilities.

The Wet Mess and Recreation Building is shown on SKM Drawing DG-0007 (contained in Appendix G).

## **Other Recreational Facilities**

A gymnasium building is proposed in Stage 1, whilst provision for a second gymnasium has been made in the Stage 2 area. The second gymnasium will be provided depending upon demand, and may be completed in a subsequent stage.

A number of BBQ areas and shelters are proposed throughout the accommodation areas. These are to support gatherings of work teams. Shelters will generally provide a BBQ, table and seats, and will have an enhanced landscape setting.

The BBQ shelters are shown on SKM Drawing DG-00010 Rev E (contained in Appendix G).

## **Laundry facilities**

The laundry units are located at node points within the layout of Accommodation Building. Areas adjacent to the laundries will have a greater extent of landscape treatment and sitting areas to encourage informal social gathering.

Typical plans and elevations of the Laundry Units are shown on SKM Drawing DG-0006 Rev F dated (contained in Appendix G). A PWD accessible laundry is to be located in Stage 1.

## **4.6 Construction Village Landscaping**

The landscaping concept for accommodation villages has been prepared in an overarching manner, considering the landform, natural vegetation types and ecosystems along with the proposed character and operational manner of each part of the site.

Appendix H contains the overall landscape concept for the Construction Village, along with example detailed plans and planting palettes. This level of detail is provided to outline the proposed landscape intent. The detailed landscape design will be completed following the issue of a Development Permit. Approval of these details is able to be addressed through the Compliance Assessment process.

## **4.7 Infrastructure and Services**

### **4.7.1 Transport and Movement**

#### **Site Access**

Access to the Accommodation Villages will be gained from Peak Downs Highway. The proposed access point is located approximately 300m north of the common boundary with Lot 1 on RP616025 (Skyville Stud, the adjoining property to the south).

The access point will be shared between the Construction Village and the Operations Village.

The proposed site access is designed as an at-grade intersection, and will provide a protected right turn and a left-turn deceleration lane. The intersection is diagrammatically shown in the SKM Traffic Study (Appendix L) as Figure 5.3.

A gatehouse will be installed within the site area to control access to the site. Truck turning facilities will be provided between the road reserve and the gatehouse.

#### **Internal Movement Network**

From the site access point, a single spine road services the Accommodation Villages. Parking and servicing areas branch from the spine road to provide access to individual accommodation areas, common areas and

the infrastructure facilities.

The spine road has a width of 9.0m and will be finished in asphaltic concrete. Within the accommodation areas, 3.0m wide paths are provided for fire access and servicing of units by light vehicles (eg golf carts).

Pedestrian paths are proposed throughout the Construction Village, providing for movement between the accommodation areas, common facilities and the parking areas. Where possible, the pedestrian paths have been separated from the vehicular routes. Paths are generally to be 1.5m in width.

### **Trip Generation, Traffic Management and Parking Provision**

The management of movement to and from the Accommodation Villages is a key component of the proposal, and has been a design driver within the development of the proposals.

The Construction Village will be operated as a fly-in / fly-out (FIFO) facility.

The overall trip generation patterns are considered in detail the Traffic Impact Assessment prepared by SKM (Appendix L), but in summary consist of:

- The majority of workers will fly in to the Moranbah airport and will be transported by bus to the accommodation village (and vice versa at the completion of rosters);
- A small proportion of workers from the Mackay and hinterland region will access the site by private vehicle;
- Workers active on building the Accommodation Village will access worksites on foot;
- Workers active on other components of the Caval Ridge project will access worksites by bus (80% of workers) and light vehicles (20%); and
- Servicing of the site and delivery of construction materials will occur as required.

As a consequence of the managed trip generation of the development, a limited amount of on-site car parking is required:

- 400 long term car parking spaces (with a minimum provision of 300 spaces within Stage 1 -4); and
- 30 short term car parking spaces adjacent to the reception building to assist in the arrival of contractors to the site and other visitors.

Refer to the overall trip generation patterns are considered in detail the Traffic Impact Assessment prepared by SKM (Appendix L).

*Refer to Appendix L: Appendix L .*

As a consequence of the managed trip generation of the development, a limited amount of on-site car parking is required.

### **External Works**

As outlined in SECTION 5 of the Traffic Report (Appendix L), external works required to address the impacts of the development on the existing road network are limited to construction of the new site access intersection.

External works and related infrastructure agreement arrangements are reflected in the Coordinator-General's Report of 9 August 2010 and Change Report.

### **Servicing Strategy**

Service facilities will be provided on site, and have been designed in compliance with AS2890.2-2002 *Parking Facilities – Off Street Commercial Vehicle Facilities* in terms of access and circulation roadway design, service bay dimensions and provision of minimum radius turning paths.

Deliveries to the construction village will be to the unloading docks at the kitchen and wet mess. Construction related deliveries for the Construction Village will be directed to the appropriate location by site



supervisors.

Refuse collection will be undertaken by a private contractor. Refuse storage areas are provided in the maintenance area, adjacent to the kitchen and as required within the infrastructure areas.

#### **4.7.2 Infrastructure**

As outlined in Section 4.5.3 above, the Construction Village is to be serviced by an on-site water treatment plant, an on-site sewerage treatment plant and a 66/11kV substation that are to be shared with the Operations Village.

The overall infrastructure provision strategy and the associated stormwater management plan has been prepared by SKM, as contained in Appendix K, and referred to hereafter as the Engineering Report.

*Refer to Appendix K: Engineering Report*

An infrastructure and services corridor providing connections to the Accommodation Villages from the Caval Ridge mine and existing infrastructure is proposed to be provided within and parallel to the Peak Downs Highway, shown on SKM Drawing DG-1170 (as contained in Appendix L).

#### **Earthworks**

The Engineering Report (Appendix K) sets out the works considered necessary for preparation of the site, bulk earthworks and the management and control of erosion and sediment during the construction phase.

The design intention behind the bulk earthworks proposals is to achieve platforms for the construction of the core facilities and shared infrastructure, the road and drainage networks and localised services provision. A cut/fill study will be undertaken to minimise the requirement for importing fill.

Section 3 of the engineering report and a series of associated drawings at Appendix L outline the proposed earthworks.

#### **Water**

Section 6 of the Engineering Report sets out the overall strategy for the provision of water supply to the Accommodation Villages. In summary, the water supply system will be shared between the Construction Village and Operations Village, and will comprise:

- A raw water supply main
- Raw water storage of 0.5ML
- A modular water treatment plant (WTP) with a daily treatment capacity of approximately 0.75ML;
- Potable water storages of 1ML (to accommodate 0.75ML for consumption with an allowance of 0.25ML for fire fighting); and
- Pumped reticulation.

The raw water will be sourced from a connection to the BMA water supply network, through the construction of a pipeline within the infrastructure corridor on the Peak Downs Highway (refer to SKM Drawing DG-1170 as contained in the Engineering Report and presented separately in Appendix L). This raw water meets all of the supply needs of the Accommodation Villages; rainwater tanks are therefore not proposed. The combined Accommodation Villages will require approximately 0.6ML per day, or approximately 250L/person/day. This supply calculation is determined on a maximum combined occupation of both villages of 2250 rooms, based on projected workforce profiles across the construction period and initial occupation of the Operations Village.

The configuration of the WTP, storages and reticulation is shown in SKM Drawings DG-1160 and DG-1170 (as contained in the Engineering Report at Appendix K and presented separately in Appendix L). The treatment and storage facilities are to be located north of the internal access road.

The water supply treatment and storage facilities are intended to be provided in two stages, initially at Stage



1 and in line with provision of further water supply. This will be determined in conjunction with detailed Operational Works design.

The treatment of approximately 0.75ML of water per day is not an ERA under the EPR.

### **Wastewater System and Sewage Treatment**

Section 1 of the Engineering Report sets out the overall strategy for the provision of sewerage collection, treatment and disposal for the Accommodation Villages. In summary, the wastewater system will be shared between the Construction Village and Operations Village, and will comprise:

- Gravity sewers, pump stations and rising mains;
- A sewage treatment plant (STP); and
- A recycled water management system.

This system is illustrated on SKM Drawing DG-1161 contained in Appendix L.

All wastewater generated within the Accommodation Villages will be managed at the shared sewage treatment plant. It is intended that the plant will be staged using a modular design, with capacity brought on-line commensurate with the completion of development stages. The first stage of the plant will be available concurrently with the completion of Stage 1 of the Construction Village, if not earlier.

The STP is to be located north of the internal access road and will provide tertiary treatment for all wastewater. The design capacity of the STP will be for 2250 equivalent persons, which is the anticipated maximum number of people on site in the combined villages at any one point in time. This level of operation is an ERA under the EPA (ERA63, threshold 2(c)).

All effluent produced by the STP will be Class A+ wastewater. This water will be reused on site for irrigation purposes (including to the sporting fields). A tank with a 1 day storage capacity will be provided to accommodate irrigation requirements. Excess water to be pumped to the Caval Ridge mine for use in dust suppression.

### **Stormwater**

Section 5 of the Engineering Report sets out a site based stormwater management plan that considers the quantitative and qualitative measures required to ensure the disposal of stormwater does not adversely affect the surrounding environment.

Modelling undertaken in preparing the stormwater management plan has included a RAFTS model and a MUSIC model, which have identified that:

- three detention basins across the Accommodation Villages site, to be situated in natural overland flow paths, in order to detain peak flows and restrict outflows to that of the existing conditions and provide for sediment capture; and
- vegetated swales, detention/sedimentation basins, and bio-retention basins/trenches are necessary as part of the water sensitive urban design measures required to ensure outflows meet relevant water quality objectives.

The stormwater management elements are discussed in the Engineering Report and illustrated on the relevant SKM Drawings.

*Refer to Appendix K: Engineering Report*

### **Electricity**

BMA operates a privately owned electricity supply network, including a 66kV transmission line that runs from an existing Ergon substation in Moranbah to the Peak Downs mine. The Caval Ridge mine will be supplied from this transmission line.

Electricity supply for the Accommodation Villages will be provided by the construction of a new 66kV spur

line that will be connected into the supply for the Caval Ridge mine. The spur line will run within the infrastructure corridor parallel to the Peak Downs Highway. A 66 / 11kv Sub Station is to be provided on site, along with a number of pad mounted transformers to provide low voltage supplies. Where applicable, the creation and operation of this 66kV spur line is exempt development through the provisions of the *Sustainable Planning Regulation 2009* Schedule 4 Table 4 Item 9.

Diesel fuelled generators will be installed to provide backup electricity supplies for the kitchen and refrigeration units. The proposed generators will have an output of approximately 600-700kVA with a fuel burn rate of around 130 litres per hour. A self bunded tank would supply the generator, with a maximum capacity of 1400 litres. Further generators are anticipated at the water treatment plant and sewage treatment plant to support treatment and pumping operations. The specification of generator sets at these locations has not been undertaken. The fuel burning capacities and extent of fuel storage will be maintained under the thresholds for ERAs 8 and 15.

Additional fuel storage is not required, as all generators are required for backup purposes only. The supply of electricity to the Caval Ridge mine is critical to the operation of the mine. Consequently, as the supply network has a high level of redundancy and any power outages would only be for short periods, the operation of the backup generators within the Accommodation Villages is expected to be minimal.

### **Communications**

Copper and Fibre optic telecommunications networks will be extended to the Accommodation Villages from the Caval Ridge mine. The network connection to the mine will utilise existing communications infrastructure within the Peak Downs Highway with a local connection running into the site.

### **Lighting**

External lighting is generally proposed to be low level bollard lighting, with high level pole mounted lights provided only within plant areas, the bus facilities, car parks, core facilities areas and loading areas.

#### **4.7.3 Security**

The Buffel Park property presently has low level rural fencing associated with the existing grazing operations. Perimeter security fencing to the Accommodation Villages is not proposed although a secure vehicular access to the site is proposed off Peak Downs Highway, including a section of appropriate fencing along the road.

Electronic access and monitoring is to be provided as required throughout the Accommodation Villages.

## **4.8 Vegetation Clearing**

Construction of the Construction Village and the provision of the services will require the clearing of vegetation from the site.

Much of the vegetation within the development footprint lies within the area of the Property Map of Assessable Vegetation (PMAV) approved by the DERM, though it is noted that areas of remnant vegetation within the infrastructure corridor parallel to the Peak Downs Highway will require removal and are not fully captured by the PMAV.

The vegetation clearing component is to be considered by the DERM as a Concurrence Agency to this application.

## **4.9 Construction Management Plan**

A Construction Management Plan (CMP) has been prepared by SKM (Appendix Q) which addresses the aspects of construction work which generally create a range of health, safety and logistical operational and

managerial issues.

The proposed CMP addresses those corresponding impacts and identifies the mitigating measures necessary that are associated with; the nature of works; likelihood of disruption; the dangers/risks involved and those general impacts on the local amenity throughout the course of the development. Elements of the proposed CMP include:

- General Health and Safety Management (Operative and Public), Amenity and Site Security;
- Hours of Operation and Noise related issues;
- Air / Dust Management;
- Stormwater and Sediment Control;
- Waste Management (including Re-use & Recycling); and
- Traffic Management.

The CMP deals with the staged method of construction.

## 4.10 Supporting Technical Reports

This Development Application is supported by the following technical reports, contained as Appendices to the Planning Report:

- Ecological Assessment
- Bushfire Management Plan
- Engineering Report;
- Engineering Drawings;
- Traffic Report;
- Air Quality Report;
- Acoustic Assessment;
- Good Quality Agricultural Land;
- Construction Management Plan; and
- Visual Assessment.

## 4.11 Approval Requirements

### 4.11.1 Currency Period and Staging

Due to BMA's requirement to stage the construction and occupation of the Accommodation Villages, particularly the Construction Village, the provision of a relevant period under Section 341 of the SPA with suitable flexibility is required.

Within the Construction Village, the Temporary Fly Camp will be provided first but must be removed after 24 months. Stage 1 includes the key infrastructure elements and must be completed as the next phases of activity. The remaining stages of the Construction Village are dependant upon these stages, but themselves can be completed in any order provided the provision of sufficient long term car parking is maintained.

### 4.11.2 Approval Documents

A list of documents and drawings recommended for approval are contained in Appendix U.

*Refer to Appendix U: Documents and Drawings for Approval*

## 4.12 Subsequent Approvals

A number of approvals will be required following the issue of a Development Permits for the Temporary Fly Camp and the Construction Village. Where possible, it is recommended that subsequent development approvals for Operational Works are subject to the Compliance Assessment Process set out in the SPA.

### 4.12.1 IDAS Approvals

#### **Building Work**

Construction of the Accommodation Villages will require the submission and approval of Development Applications seeking Development Permits for Building Work.

#### **Operational Work**

Construction of the Accommodation Villages will require the submission and approval of Development Applications seeking Development Permits for Operational Work for the undertaking of the infrastructure provision, civil engineering, earthworks and landscaping.

### 4.12.2 Non-IDAS Approvals

#### **Plumbing and Drainage Approval**

Plumbing and Drainage approvals will be required for the water supply and sewer networks within the site.

#### **Road Corridor Permit**

Transport and Main Roads regulates structures, works and activities that occur inside a state-controlled road to ensure the safe and efficient operation of the road network. These activities are regulated under the *Transport Infrastructure Act 1994* and the *Transport Infrastructure (State-controlled Roads) Regulation 2006*.

A Road Corridor Permit (previously an Ancillary Works Encroachment Application) is required under the *Transport Infrastructure Act 1994* to enable the installation of infrastructure within the State-controlled road corridor of the Peak Downs Highway, including:

- Water and sewerage pipes
- Telecommunications and electricity cables
- Site access works including associated traffic islands and stormwater management devices; and
- Signage.

#### **Environmentally Relevant Activity Licences**

The Sewage Treatment Plants provided within the Temporary Fly Camp and in Stage 1 of the Construction Village are both ERAs. These uses require licensing by the DERM upon the commencement of their operation.

#### **Dangerous Goods Licences**

Dangerous Goods Licences will be obtained for the storage of any chemicals or materials required for the development or occupation of the Construction Village. The identification of such chemicals or materials will be undertaken during the detailed design phase for the proposal.

#### **Liquor Licensing**

Under the *Liquor Act 1992*, the wet mess will require a Commercial Other (Industrial Canteen) Licence. The principal activity of a business conducted under an industrial canteen licence is the sale of liquor on the licensed premises located within a remote industrial locality. Under the *Liquor Act*, a remote industrial locality is defined as being a location which has no permanent residential population and mining, rail or road

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construction activities are happening.

Under the Industrial Canteen licence, liquor may be sold to a person working at the remote industrial location where the premises are located or a member of the family or a guest of the abovementioned person. The liquor may be sold to the abovementioned persons on the licensed premises for consumption on or off the premises.

BMA propose that liquor will be made available only within the Wet Mess. Consumption in other locations will generally be discouraged.

BMA supports the responsible consumption of alcohol and does not condone the use of drugs. The Construction Village includes facilities for both self and supervised testing for drugs and alcohol, as workers will not be permitted to access worksite when adversely affected.

## 5 Key Planning Issues

The key issues arising from the proposal include:

- The land use requirement for the provision of an accommodation village on this location;
- The sequential expansion of the construction village and integration with the operations village (to be completed separately to this development);
- Removal of remnant and non-regulated regrowth vegetation on the site of the accommodation village;
- Management of air quality impacts from the Caval Ridge mine on future occupiers;
- Management of noise impacts from the operation of the accommodation village;
- Treatment, disposal and reuse of wastewater from the accommodation village;
- Provision of a suitable extent of car parking and associated transport to and from the village for travel to work and home; and
- Management of the visual impact of the proposals within the rural landscape.

These matters are addressed in turn.

### 5.1 Land Use and Need

The principal planning issue associated with the development is the issue of need for the Accommodation Villages, and the Construction Village in particular, to be located on the subject site. Associated with this issue is the scope of the development and the nature of the land uses proposed within the development.

#### 5.1.1 Location

This matter is addressed below in Section 7.4 in relation to the Belyando Planning Scheme, where consideration is given to Section 4.1.2.2(f) of the provisions relating to the Rural Zone. Within the Rural Zone, the Planning Scheme notes that accommodation buildings are an appropriate use in certain circumstances:

*“caravan or relocatable home park” or “accommodation building” for the purposes of accommodating workers, where the use is: directly and primarily associated with rural production or a natural resource related industry on the same site or on an immediately adjoining site; compatible with the amenity and character of the surrounding uses; intended to be established only for a defined period; and cannot reasonably be located in the Urban “Zone”.*

As discussed below, the Buffel Park site adjoins the existing Peak Downs Mine and the site of the proposed Caval Ridge mine, as delineated by ML1775 and MLA70403. The location of these proposed facilities adjacent to the mine site is envisaged by the Planning Scheme.

#### 5.1.2 Scale and Method of Occupation

The scale of the proposed Construction Village, at a maximum of 2000 rooms and the relatively short period in which this accommodation must be provided, is such that the use cannot be comfortably located within the existing urban area of Moranbah. The proposed method of undertaking the construction program for the Caval Ridge mine project is such that workers require a high degree of support, such as dining and laundry facilities, in order to meet the project timelines. It is submitted this level of support and servicing cannot be accommodated within Moranbah or in a non-village setting.

#### 5.1.3 Defined Land Uses

As set out in the proposal description above (refer to Section 2) and the detailed discussion of the proposed buildings, the Construction Village incorporates the land uses of “Accommodation Building”, “Hotel” and “Shop” as included within the Belyando Planning Scheme.

Part 2 of the Belyando Planning Scheme sets definitions applicable to the Planning Scheme. Under these definitions, the principal activities of the proposed use are consistent with an “Accommodation Building”.

**“Accommodation building”** – means “premises” comprising primarily of “Accommodation Building” such as motels, boarding-houses, guest-houses, accommodation centres or villages, hostels, unlicensed hotels, nursing homes, serviced rooms, or residential clubs. The term includes dining, laundry and recreation facilities which cater exclusively for the residents of the accommodation building and a manager’s office and residence. The term does not include a “shop” or “hotel” as herein defined.

The wet mess activities involve the sale of liquor for consumption on the premises, and thus fall the defined use of “hotel”:

**“Hotel”** – means “premises” used for the sale of liquor for consumption on the “premises”, or on and off the “premises”, and may include the provision of meals and accommodation.

It is considered that the wet mess is ancillary to the primary use of the site as an “accommodation building”, as it will not be accessible to non-residents.

A small amount of retail activity will occur within the reception area of the building, providing for the sale of convenience items such as toiletries, non-alcoholic drinks, snacks, newspapers and magazines to residents in transit. This retail use is consistent with the definition of “shop” under the Planning Scheme:

**“Shop”** – means “premises” (not elsewhere defined in this section) used for the displaying or offering of goods for sale by retail or hire. The term includes an integrated “premises” commonly referred to as shopping centre involving “shops” and other “uses” such as “catering premises” and “commercial premises”, as well as a showroom, retail warehouse, liquor store or market.

As with the wet mess, the shop activities are ancillary to the primary purpose of the accommodation village, and will not be accessible to non-residents.

The conduct of these three defined land uses on the Buffel Park site is considered to be appropriate given the above arguments regarding the location, scale and manner of occupation of the proposed Accommodation Village and its relationship to the Caval Ridge mine.

The inclusion of hotel and shop as uses within the proposal description has been undertaken to ensure completeness of the application, considering the limitations within the “accommodation building” definition with respect to these activities.

## 5.2 Environmental Management

### 5.2.1 Good Quality Agricultural Land

As noted in the site analysis above (refer to Section 1.3), an assessment of the soil types across the subject site has been completed by GSS Environmental, as contained in Appendix P. GSS Environmental’s reporting identified that the majority of the development footprint contains C2 and C3 class land, with C1 soils found only in the north-western corner.

*Refer to Appendix P: Good Quality Agricultural Land*

Consideration of the State Planning Policy regarding Good Quality Agricultural Land is undertaken below at Section 7.3, but in summary it is clear that the development of the Construction Village on the subject site will not adversely impact upon the availability of land suitable for horticulture or cropping.

### 5.2.2 Ecological Assessment

The Ecological Assessment undertaken by RPS (Appendix I) included desktop analysis of existing mapping and available reporting and a site visit.



Published mapping across the site by the DERM comprises Version 6 Regional Ecosystem Mapping and a Property Map of Assessable Vegetation (PMAV), which are reproduced in Appendix B. It is noted that the RE Map retrieved from the DERM website, as contained in Appendix B, illustrates vegetation patterns different to those provided by DERM's GIS shapefile extract.

Site assessment over the application site area indicates the presence of different vegetation communities to those shown on the RE Map and PMAV. The Ecological Assessment has mapped the vegetation communities found on the site, including the area that is covered by the PMAV. Several distinct vegetation communities were identified.

It is noted that within the PMAV area lies an area of brigalow, which is a threatened ecological community under both the VMA and the EPBCA. The brigalow community was found to be in poor vegetative condition, and its removal is not considered to be significant to the overall conservation status of brigalow.

In relation to fauna, a significant number of bird species along with kangaroos and wallabies were observed on site, along with koala scats. The ecological assessment concluded that the site may provide habitat to a range of listed fauna species, though such species were not identified during the site visit.

The ecological assessment concludes that the site is both fragmented and isolated, though it does have several linkages to local habitat areas and large regions of remnant vegetation on nearby sites to the south and west.

A number of mitigation measures are recommended in the Ecological Assessment to ameliorate the impacts of the development, including:

- the inclusion of native trees in the landscaping
- revegetation of the retained bushland with site appropriate species;
- offsetting the loss of the brigalow;
- inclusion of fauna habitat and food species in the landscaping;
- directionally appropriate sequential clearing during construction to allow fauna time to move from the clearing site into retained areas;
- demarcation of vegetation clearing/retention areas;
- monitoring for koalas during construction;
- erosion and sediment control measures are implemented during construction;
- water sensitive urban design principles should be included within the stormwater management infrastructure ;and
- weed management throughout the area to be disturbed by development.

These mitigation measures have been incorporated into the landscape strategy and planting palette and the proposed engineering practices.

*Refer to Appendix I: Ecological Assessment*

### **5.2.3 Bushfire Management**

A Bushfire Management Plan has been prepared by RPS (Appendix J) to review the bushfire hazards present on the site and the potential management regimes for development in line with SPP1/03.

In general terms, the Bushfire Management Plan identifies that the site has medium bushfire hazards, and that therefore a range of design measures should be included within the development, including:

- Building setbacks from retained vegetation of 1.5 times the canopy height;
- Fire breaks between buildings and hazardous vegetation;
- On-going landscape management within and surrounding the Accommodation Villages to ensure that over time threats do not increase; and
- Consideration of building and infrastructure design in line with best practice and adopted standards.

*Refer to Appendix J: Bushfire Management Plan*



## 5.3 Visual Impact and Landscape Treatment

It is acknowledged that the Buffel Park site has a rural setting, and that the location is distant from both Moranbah's urban character and the industrial/mining character that will eventuate around the Caval Ridge mine.

Consequently, a Visual Assessment of the proposal has been undertaken in order to consider the impact of the introduction of the built form of the development within the rural landscape from publicly accessible locations along Peak Downs Highway.

The Visual Assessment has been prepared by RPS and is included as Appendix R. The Visual Assessment has considered the topography and vegetation present on site from vantage points along the Peak Downs Highway. The Visual Assessment concludes that separation of the buildings from the road reserve by some 200m, the rising terrain and the existing landscape character will make the buildings difficult to see from the highway.

Nonetheless, supplementary vegetative screening is recommended in the Visual Assessment in order to minimise the impact of the development and to provide additional buffering to the site.

The Visual Assessment considered the potential visibility of the development from adjoining houses, particularly the adjacent dwelling to the south (Skyville Stud). It is noted that there is an intervening ridgeline between the site and that house which obscures views.

## 5.4 Environmental Amenity

### 5.4.1 Noise and Vibration

An assessment of the proposal has been undertaken by Heggies, and is included in Appendix O.

The Noise and Vibration Assessment identifies that potential impacts are as follows:

- Noise
  - » Noise impacts from construction of the accommodation camps on existing residences.
  - » Noise impacts from operational plant and vehicle movements at the accommodation villages on existing residences and the accommodation villages themselves.
  - » Noise impacts from the mine construction and operation on the accommodation villages.
- Vibration
  - » Vibration and air blast impacts on the accommodation villages from blasting.

Heggies' consideration of impacts during construction of the Accommodation Villages was based on the existing noise environment, the proposed Construction Management Plan and BMA's ability to control all facets of the activities on the Accommodation Village site and the Caval Ridge mine site.

#### **Construction Period**

The proposed construction working period of 06:30 – 18:30 is in line with the requirements of the Environmental Protection Policy (Noise), and therefore no further consideration of noise impacts during construction of the Construction Village are required.

#### **Occupation Period**

During occupation of the Construction Village, noise levels are likely to exceed the established external noise criterion without specific mitigation. These impacts will occur from the operation of plant and equipment such as air conditioners, refrigeration units, pumps and generators. Mitigation measures are recommended, with assessments conducted during the detailed design phase once specific pieces of equipment have been selected.

Occupation of the Construction Village will not be adversely affected by activities at the mine or road traffic noise.

The occupation of the Construction Village is not likely to result in noise impacts to the nearest sensitive receiving environment, being the house located on Skyville Stud (Lot 1 on RP616025).

#### 5.4.2 Air Quality

Due to the proximity of the accommodation villages to the Caval Ridge Mine, an assessment of air quality at the accommodation villages has been undertaken by URS (Appendix N).

The Air Quality Assessment focused on impacts associated with emissions of dust from the mine. The air quality assessment methodology is based on that utilised by URS for the Caval Ridge EIS and supplementary EIS air quality technical reports. The local meteorological conditions are such that wind directions are predominantly from the south-east to east, with the Caval Ridge mine located to the north of the proposed Accommodation Villages.

For this assessment, dust impacts at the Buffel Park Accommodation Villages have been modelled for three years of dust-generating activities from Caval Ridge Mine site:

- Year 1, representing construction of the initial box cut in the Horse pit, and mining operations in the existing Heyford pit ;
- Year 2, representing the first year of mining operations on the western side of the mining area; and
- Year 20, representing mining towards the eastern side of the mining lease.

For each of the three years, two scenarios have been modelled representing typical operations and worst-case emissions of dust from Caval Ridge Mine.

Results of the modelling suggest that the ground-level concentrations of PM<sub>2.5</sub> and total suspended particulates will not exceed the relevant EPP(Air) objectives at receptor locations within either the accommodation villages for all years assessed. Additionally, dust deposition is not predicted to exceed the relevant air quality goals at any of the receptor locations.

The air quality assessment notes that elevated ground-level concentrations of PM<sub>10</sub> above the EPP(Air) objective of 50 µg/m<sup>3</sup> for the 24-hour average concentration are predicted to occur a maximum of 6 times per year during Year 20. This finding represents worst case impacts, and is dependant upon a particular method of activity within the mine occurring at optimal capacity for a full 24 hour period in conjunction with certain meteorological conditions.

Air quality modelling is dependant upon the limitations inherent in the software and the level of detail utilised in the construction of the model, and therefore the results do exhibit a degree of generalisation. However, the level of dust impacts on air quality is relatively low and with the introduction of mitigation measures both within the mine operations and at the Accommodation Villages, the impacts on occupation of the villages can be minimised.

All accommodation and staff buildings in the Construction Village will be air conditioned, including the use of high quality ultra-fine filters to prevent the passage of dust.

## 6 Legislative Requirements

### 6.1 Sustainable Planning Act 2009

This section provides an overview of the legislative context of the application under the provisions of the *Sustainable Planning Act 2009*.

#### 6.1.1 Confirmation that Development is not Prohibited

The SPA and a number of subordinate statutory instruments given effect by the SPA result in the prohibition of development.

A review of the SPA and the following relevant instruments has concluded that the proposed development is not prohibited:

- State Planning Regulatory Provisions; and
- Prohibited Development defined at Schedule 1 of the Sustainable Planning Regulations 2009.

#### 6.1.2 Assessable Development

Under Section 231 of the SPA, all development is exempt unless it is made otherwise by a statutory instrument. Section 232(1) of the SPA establishes that a regulation may prescribe that development is self-assessable, development requiring compliance assessment or assessable development. Section 9 of the SPR gives effect to Schedule 3 of the SPR.

Additionally, Section 88 of the SPA establishes that a Planning Scheme is to identify assessable development (amongst other matters).

The following table identifies those aspects of development proposed by this application that are assessable development pursuant to Schedule 3 of the SPR or the Belyando Planning Scheme.

**Table 3: Assessable Development**

Proposed Aspects of Development	Statutory Instrument
Making a material change of use assessable under the planning scheme	Planning Scheme
Carrying out associated work made assessable by the planning scheme (operational work)	Planning Scheme
Making a material change of use for an environmentally relevant activity	SPR Schedule 3 Part 1, Table 2, Item 1

#### 6.1.3 Assessment Manager

Under Section 246 of the SPA, Section 12 of the SPR gives effect to Schedule 6 to designate the Assessment Manager for Development Applications.

As this Development Application is completely within a single local government area and a component the development is assessable against the Planning Scheme, Isaac Regional Council is the Assessment Manager.

#### 6.1.4 Level of Assessment

The table below summarises the assessable development subject of this application and the relevant level of assessment for each aspect of development.

**Table 4: Level of Assessment**

Aspect of Development	Planning Instrument that determines Level of Assessment	Level of Assessment
Material Change of Use	Planning Scheme	Impact Assessment
Operational Work	Planning Scheme	Code Assessment
Environmentally Relevant Activity	SPR	Code Assessment

There are no inconsistencies in the level of assessment for the proposed development, therefore this application is subject to both Impact Assessment and Code Assessment.

#### 6.1.5 Statutory Considerations for Assessable Development

As the development is subject to both Code and Impact Assessment, the Assessment Manager must consider Sections 313, 314, 324 and 326 of the *Sustainable Planning Act 2009* in making the decision. These Sections have been assessed in Section 7 of this Town Planning Report.

#### 6.1.6 Referral Agencies

The Referral Agencies triggered by this proposal and their jurisdictions have been established with reference to Schedule 7 of the *Sustainable Planning Regulations 2009* and the applicable codes, laws and policies by reference to Schedule 5 of the *Sustainable Planning Regulations 2009* as follows:

**Table 5: Referral Agencies**

Reference	Referral Agency	Referral Trigger	Critical Issues
SPR Sch. 7 Table 2 Item 1	Department of Environment and Resource Management (concurrence)	Material Change of Use for an ERA	Purposes of the <i>Environmental Protection Act 1994</i> regarding the management of wastewater disposal
SPR Sch. 7 Table 3 Item 1	Department of Transport and Main Roads (concurrence)	Development on land relating to a State-controlled road	The purposes of the <i>Transport Infrastructure Act 1994</i> regarding the effects of development on the safety and capacity of the Peak Downs Highway
SPR Sch. 7 Table 3 Item 7	Powerlink (advice)	Premises subject to an easement in favour of a distribution entity	The purposes of the <i>Electricity Act 1994</i> and the <i>Electrical Safety Act 2002</i> .
SPR Sch. 7 Table 3 Item 10	Department of Environment and Resource Management (concurrence)	Clearing of native vegetation	The purposes of the <i>Vegetation Management Act 1999</i>
SPR Sch. 7 Table 3	Department of Transport and Main Roads	Public passenger transport (residential)	Land use and transport coordination under the

Reference	Referral Agency	Referral Trigger	Critical Issues
Item 12	(concurrence)	purpose on a site greater than 5 ha)	<i>Transport Planning and Coordination Act 1994</i>
SPR Sch. 7 Table 3 Item 15	Department of Transport and Main Roads (concurrence)	Railway safety and efficiency (residential purpose on a site greater than 5 ha; site abuts rail corridor land)	

### 6.1.7 Public Notification

Due to the interaction of this application with the SDPWOA, despite being subject to Impact Assessment, this application is not required to fulfil Public Notification requirements in accordance with Section 295(1) of the SPA.

### 6.1.8 State Resource

The proposal does not involve any State Resources.

## 6.2 State Development and Public Works Organisation Act

This Development Application is made pursuant to the SPA subsequent to the issue of a Coordinator-General's Change Report on the CRM Project that addresses the inclusion of the Construction Village into the project.

Consequently, the Coordinator-General's Report has considered the statutory matters and environmental impacts of this development proposal.

The SDPWOA sets out in Sections 36 to 42 how the EIS process and the IDAS processes interact where a significant project involves development that requires approval. Key points are as follows.

- (1) Under Section 37(1), where a Development Application is for a Material Change of Use (MCU) or requires Impact Assessment:
  - (a) the Information and Referral Stage and the Notification Stage of IDAS do not apply to the application (Section 37(1));
  - (b) there are no referral agencies under the SPA for the application (Section 37(1));
  - (c) a properly made submission about the EIS is taken to be a properly made submission about the application under IDAS (made during the submission period for the EIS or a subsequent Change) (Section 37(1));
  - (d) the Coordinator-General's report is taken to be a concurrence agency's response for the application under IDAS (until such time as the Development Approval takes effect) (Section 37(d)(i)); and
  - (e) the Coordinator-General may exercise the powers of entities which would otherwise have been a concurrence agency for the application, that is, the Coordinator-General assumes the roles and responsibilities of Concurrence Agencies under the SPR (Section 37(1)(d)(ii).
- (2) Under Section 39, the Coordinator-General's Report may state for an Assessment Manager:
  - (a) the conditions that must attach to the development approval, or

- (b) that the development approval must be for part only of the development, or
  - (c) that the approval must be a preliminary approval only.
- (3) The Decision Stage of the IDAS for the application:
- (a) starts upon receipt of the Coordinator-General's Report by the Assessment Manager (Section 38(a));
  - (b) allows the Assessment Manager to assess the application in the context of the conditions set by the Coordinator-General (Section 39).
  - (c) In setting conditions for a future IDAS approval, the Coordinator-General can designate an agency that is to have jurisdiction for that condition. This agency becomes a concurrence agency for that condition under the SPA (Sections 39(6) and 41).

Accordingly, under Section 268 of the SPA, the Isaac Regional Council as Assessment Manager would prepare and issue an Acknowledgement Notice on the basis that normal IDAS referral and public notification requirements do not apply due to the provisions outlined above. Following issue of the Acknowledgement Notice, the Development Application(s) would progress straight to the Decision Stage.

The referral agencies noted above in Section 6.1.6 would not be involved in the application, as the assessment of the relevant matters under their jurisdiction would have been addressed through the Coordinator-General's Change Report and any conditions imposed by the Coordinator-General.

Finally, the Coordinator-General may have set some conditions on the MCU on behalf of the IRC. The Council is able to set further conditions.

### **6.3 Environmental Protection and Biodiversity Conservation Act**

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) sets out protection and approval mechanisms for nationally and internationally significant species and habitats.

Projects, developments and activities which have, or are likely to have, a significant impact on a matter of national environmental significance require approval from the Australian Government Environment Minister under the EPBCA.

As noted on in the site analysis, clusters of brigalow vegetation are located on the site. This vegetation will require removal to allow for development of the accommodation villages. Brigalow is a listed threatened species under Sections 18 and 18A of the EPBCA.

BMA will address the determination of whether the clearing of the affected brigalow is a controlled action with the with the Commonwealth Minister. Any required referral of the proposals to the Commonwealth will be undertaken separately to this Development Application.

# 7 Statutory Planning Assessment

## 7.1 Overview

This section assesses the application against relevant statutory provisions for the application.

Statutory Instruments applicable to the development are:

- *Sustainable Planning Act 2009, Sustainable Planning Regulation 2009* and integrated legislation triggered by the proposals;
- Belyando Planning Scheme 2008; and
- *State Development and Public Works Organisation Act 1971*.

It is confirmed that:

- There is no applicable statutory Regional Plan;
- The site is not subject to a Structure Plan;
- The site is not located in a Declared Master Plan Area;
- No temporary local planning instruments are relevant to this development application; and
- No preliminary approvals overriding the planning scheme pursuant to Section 3.1.6 of the *Integrated Planning Act 1997* or Section 242 of the *Sustainable Planning Act 2009* are relevant to this site.

## 7.2 State Planning Regulatory Provisions

The applicability of current State Planning Regulatory Provisions to the proposed development is addressed in the table below. This table also demonstrates compliance with relevant provisions.

**Table 6: State Planning Regulatory Provisions**

Regulatory Provision	Comment
Far North Queensland Regulatory Provisions	The site is not located within the area to which these SPRP apply.
South East Queensland 2009-2031 Regulatory Provisions	The site is not located within the area to which these SPRP apply.
Draft South East Queensland Koala State Regulatory Provisions	The site is not located within the area to which these SPRP apply.
Draft State Planning Regulatory Provisions – Adult Stores	The proposal does not incorporate an adult store or adjoin premises where an adult store may be established.
Draft South East Queensland Koala Conservation State Planning Regulatory Provisions	The site is not located within the area to which these SPRP apply.
Gurugunbah State Planning Regulatory Provision	The site is not located within the area to which these SPRP apply.
Draft Wide Bay Burnett State Planning Regulatory Provisions	The site is not located within the area to which these SPRP apply.



### 7.3 State Planning Policies

State Planning Policies are relevant to the assessment of this application where they are not appropriately reflected in either a Regional Plan or Planning Scheme relevant to the site. The applicability of relevant State Planning Policies is identified in the table below. Compliance with relevant provisions from State Planning Policies is also addressed in the table below.

**Table 7: State Planning Policies**

No.	Title	Commencement	Comment
SPP 1/92	Development and the Conservation of Agricultural Land 1.0	18/12/1992	The proposal is not inconsistent with the continued use of the balance site for grazing purposes. SPP1/92 has been incorporated into the Belyando Planning Scheme.
SPP 1/02	Development in the Vicinity of Certain Airports and Aviation Facilities 1.0	03/08/2002	The site is not in close proximity to an airport or other aviation facilities, and is not: <ul style="list-style-type: none"> <li>▪ beneath, or in the vicinity of, operational airspace;</li> <li>▪ within areas defined by the 20 Australian Noise Exposure Forecast (ANEF)2 contour at and around each airport; or</li> <li>▪ the public safety areas identified in Annex 3 of the SPP.</li> </ul>
SPP 2/02	Planning and Managing Development Involving Acid Sulfate Soils 1.0	18/11/2002	The site is not within the area to which the SPP applies.
SPP 1/03	Mitigating the Adverse Impacts of Flood, Bushfire and Landslide 1.0	01/09/2003	A Bushfire Management Plan has been prepared by RPS (Appendix J) which includes a qualitative and quantitative assessment of the site, undertaken in line with the processes set out under the SPP. The assessment has identified that the site has predominantly medium bushfire risk. This is as a result of the vegetation characteristics and the most likely direction of bushfire attack given the prevailing easterly wind. <p>In accordance with the SPP 1/03 guidelines, the development has been designed so that:</p> <ul style="list-style-type: none"> <li>▪ buildings will be sited with setbacks of at least 10m or 1.5 times the predominant mature canopy tree height (whichever option provides the greatest setback);</li> <li>▪ a 25m setback is provided suitable from vegetation adjacent to the proposed infrastructure;</li> <li>▪ 25m fire breaks are to be placed between buildings and hazardous vegetation</li> <li>▪ Access to water supply and fire fighting services are provided throughout.</li> </ul> <p>Additionally, the Bushfire Management Plan recommends preparation and implementation of a fire response strategy along with a number of management regime</p>

No.	Title	Commencement	Comment
			practices.
SPP 1/07	Housing and Residential Development including Guideline 1.0	29/01/2007	This SPP is applicable only to the preparation of a Planning Instrument under the SPA, and therefore is not relevant to assessment of this development application.
SPP 2/07	Protection of Extractive Resources and Guideline	03/09/2007	The subject site is not within a Key Resource Area.
SPP 1/09	Reconfiguration of a lot code for land in Indigenous local government areas to which a local planning scheme does not apply	20/11/2009	The subject site is not within an Indigenous Local Government Area.
SPP 2/09	Acceleration of compliance assessment	18/12/2009	The present proposal is not subject to compliance assessment.
NA	State Coastal Management Plan	27/02/2002	The site is not within the immediate environs of the coast, and so assessment against the coastal management framework is not considered to be relevant.
NA	SEQ Regional Coastal Management Plan		The site is not within the immediate environs of the coast, and so assessment against the coastal management framework is not considered to be relevant.
Draft	Queensland Coastal Plan 2009		The site is not within the immediate environs of the coast, and so assessment against the coastal management framework is not considered to be relevant.
Draft	State Planning Policy Coastal Protection 2009		The site is not within the immediate environs of the coast, and so assessment against the coastal management framework is not considered to be relevant.
Draft	State Planning Policy Guideline for Healthy Waters 2009		Reporting on stormwater, waste water and non-tidal artificial waterways has been addressed as part of the development. The reporting utilises best practice measures for stormwater, waste water and waterways. The reporting does not directly respond to the Development Assessment Code of this draft policy, but the design ensures environmental values are protected.
Draft	State Planning Policy: Air, Noise and Hazardous Materials		An ERA for a sewerage treatment facility is proposed as part of the development. The scale of the ERA is deemed to be a low impact industrial activity under the draft SPP. Such activities need to be located 250 metres from the nearest zone for a sensitive use. The ERA is within 250 metres of the nearest accommodation unit, but is part of an integrated planning unit. External sensitive uses well exceed the 250 metre separation requirements.

In the compliance assessment above no inconsistencies were identified.

## 7.4 Planning Scheme

The relevant provisions of the Belyando Planning Scheme 2008 are identified and compliance with these addressed in the sub-sections below.

### 7.4.1 Strategic Plan

Part 3 of the Belyando Planning Scheme sets out a series of Desired Environmental Outcomes (DEOs) for the Shire, along with strategies by which these DEOs will be sought to be achieved. A response to the DEOs follows.

**Table 8: Strategic Direction**

Desired Environmental Outcomes	Comment
<b>3.1 Natural Environment and Cultural Heritage</b>	
<i>(1) Desired Environmental Outcome</i>	
In Belyando Shire, ecological systems, the natural environment (including natural features and unique habitats such as Peak Range National Park, Mazeppa National Park, Narrien Range National Park, Epping Forest National Park, Wilandspey Conservation Park, Doongmabulla Springs Important Wetland and the declared catchment), and items and places of cultural and heritage significance are protected such that biodiversity, cultural heritage values and existing or intended landscape character are maintained.	The construction village proposal has been designed taking into account ecological systems, the natural environment and cultural heritage matters to ensure that these values are recognised and where appropriate, maintained. Reporting on ecology, the natural setting through landscape design and visual assessment and cultural heritage have been undertaken and are included as part of the development application. This reporting concludes that the proposal is sympathetic to the natural environment and cultural heritage.
<i>(2) Strategies</i>	
(a) Development is regulated to minimise any adverse impacts on air and water quality, to prevent land degradation, loss of unique habitat and biodiversity and to maintain the integrity of riparian areas, ridgelines and escarpments.	The construction village has been designed to ensure that the proposal has minimal impact on the surrounding environment and its rural setting. The minimisation of impacts has been achieved through a detailed masterplanning and siting assessment, best practice engineering and building techniques, integration of facilities and a coordinated transport solution for workers.
(b) Development is regulated to be compatible with the environmental, habitat, biodiversity and landscape values and historic significance of protected areas (including Peak Range National Park, Mazeppa National Park, Narrien Range National Park, Epping Forest National Park, Wilandspey Conservation Park, Doongmabulla Springs Important Wetland and the declared catchment) and areas, local items and places of cultural significance (including areas along water courses).	It is submitted the proposed design of the construction village is compatible with the environment and can be regulated accordingly. A key design criteria was to site the development within the site, minimising earthworks and land disturbance. An Indigenous cultural heritage assessment has been completed by Woorra Consulting which has determined that the development will, with appropriate management during construction, not harm places or items of cultural significance.
<b>3.2 Economic Development</b>	
<i>(1) Desired Environmental Outcome</i>	
The viability of the mining industry is protected, while the economy of Belyando Shire is diversified in a manner that supports the intended land use structure and character of the	The construction village is associated with the Caval Ridge mine, which is part of the Bowen Basin Coal Growth Project being undertaken by BMA. The Caval Ridge Mine represents an estimated \$4b

Desired Environmental Outcomes	Comment
urban centres of Clermont and Moranbah and the rural parts of the Shire.	investment by BMA. The establishment of a construction camp associated with the mine is integral to its commencement and ultimate winning of the coal resource. Given the scale of the construction village, it is not able to locate within an urban area, however is immediately adjoining the mine. The construction village in its design and operation is respectful of its rural setting.
Activities that do not require a rural location are consolidated within the towns of Clermont and Moranbah, so that investment in the towns is maximised.	Due to the scale of the construction village, it is unable to locate within an urban setting. Buffel Park was chosen as it satisfies the planning scheme criteria of being located immediately adjoining the natural resource, being Caval Ridge mine and designed to be compatible with the amenity and character of the area.
Moranbah's role as the primary service centre for the northern Bowen Basin mining industry is enhanced.	The proposal is approximately 10 kilometres outside of Moranbah and does not diminish its role as the primary service centre for the northern Bowen Basin.
Town centres in each of the Shire's urban communities form vibrant and compact commercial and community cores. Industrial nodes in Clermont and Moranbah are consolidated.	The proposal is not within the urban zone.
Natural resources (including land, water and mineral resources) are used sustainably.	The proposal is associated with the Caval Ridge mine. The sustainable operation of the mine is being regulated through the EIS process.
<b>(2) Strategies</b>	
(a) The planning scheme reinforces the roles of Clermont and Moranbah as the principal places for administrative services, business, industry, retail, education and community services and transport services within the Shire.	The proposal does not impact on these objectives.
(b) Sufficient and suitable areas are identified for urban development, and key transport infrastructure are identified and protected.	Due to the scale of the proposal an urban solution is not available that would be in accordance with the provisions of the Planning Scheme and could provide the extent of housing required within the Caval Ridge project timeframe.
(c) Residential activities (with minor exceptions) are required to be located within the towns of Moranbah and Clermont.	<p>Due to the scale of the proposal an urban solution is not available for the construction village. The planning scheme does allow for accommodation buildings to be located within the rural zone where certain criteria are satisfied. It is submitted that these criteria are satisfied as a part of the proposal, namely;</p> <ul style="list-style-type: none"> <li>▪ Accommodating workers</li> <li>▪ The accommodation building is directly associated with a natural resource related industry;</li> <li>▪ The use of the Accommodation Villages is for a defined period;</li> <li>▪ The Accommodation Village has been designed to be compatible with the character and amenity of the rural locality; and</li> </ul>

Desired Environmental Outcomes	Comment
	<ul style="list-style-type: none"> <li>The use is on an immediately adjoining site to the proposed Caval Ridge mine</li> </ul>
(d) Commercial activities are limited (with minor exceptions) to identified centres in the towns of Clermont and Moranbah.	No commercial activities are proposed as part of the construction village that are not ancillary or allied to the function and operation of an accommodation village of this scale. Shop and hotel uses are included within the proposal, but are for the exclusive use by residents of the village only.
(e) Confidence in investment in the Shire's towns and in its major industries is maintained by identifying clear development intentions.	The planning scheme identifies that the proposed use can locate within rural areas where certain criteria are satisfied. It is submitted the proposal satisfies these criteria.
(f) Urban and other sensitive forms of development are regulated to avoid or minimise potential conflicts with existing or future mining operations.	The proposed construction village is a residential activity. It has been sited to ensure that the operations of the mine do not have adverse impacts on the residents of the village. The village is directly associated with BMA's proposed Caval Ridge mine.
(g) Productive rural land, rural industries and unique natural features (including mineral and extractive resources and tourist resources such as national parks, conservation parks and wetlands) are protected to preserve their continued economic potential and viability.	A Good Quality Agricultural assessment has been completed as part of the proposal. It concludes that productive rural land is not being taken up by non-rural activities. No mineral resources of commercial significance occur on the Buffel Park land holding.
(h) Industrial activities are directed to identifiable industrial nodes in the towns of Moranbah and Clermont.	The proposal does not include industrial activities.
<b>3.3 Community Wellbeing</b>	
<i>(1) Desired Environmental Outcome</i>	
Moranbah and Clermont provide a wide range of government and community services and employment opportunities. Moranbah continues to have a significant role as the primary service centre for the northern Bowen Basin mining industry.	The scale of the development does not allow it to occur within the Moranbah township. The proposal is consistent with the criteria within the planning scheme to locate within a rural location.
The towns of Moranbah and Clermont accommodate strong, connected and vibrant communities, well supported by recreational and other community facilities, highly accessible by walking and cycling. Town centres provide a clear community focal point.	The proposal does not detract from this objective.
Moranbah and Clermont are characterised by a strong and growing permanent resident population. A wide range of affordable housing types is available and all housing is designed to contribute to the quality of the urban environment. Dwelling units providing for permanent accommodation are predominant, with a significantly smaller proportion of other forms of accommodation intended for temporary residents.	Due to its scale, the development is unable to locate within Moranbah.
The rural amenity and productive capacity of other parts of the Shire is maintained.	It is submitted that the proposal respects the rural amenity and does not take up productive capacity with non-productive activities. The construction

Desired Environmental Outcomes	Comment
	village is sited amongst the existing vegetation when viewed from the Peak Downs Highway and the property to the south. Visual assessment was a key consideration in respecting the surrounding rural setting.
(2) <i>Strategies</i>	
(a) The planning scheme seeks to ensure that people are connected to public spaces (including recreational areas) and community services through an appropriate land use structure and the provision of infrastructure within the towns of Clermont and Moranbah.	The proposal is consistent with the criteria under the planning scheme for locating within the rural zone.
(b) Increased opportunities are created for a larger proportion of the mining (and related) workforce and their families to permanently reside in the Shire's towns through: <ul style="list-style-type: none"> <li>▪ the designation of sufficient urban land to accommodate expected population growth;</li> <li>▪ the encouragement of medium density, small lot and other forms of permanent housing to increase housing choices available within the Shire's towns; and</li> <li>▪ limitations on the size of accommodation facilities for non resident workers.</li> </ul>	Due to the scale of the proposal, the construction village cannot be located within the Moranbah township. It is submitted the proposal complies with the planning scheme criteria for location within the rural zone.
(c) The planning scheme seeks to ensure all residential activities (with minor exceptions) are located within the towns of Clermont and Moranbah.	Due to the scale of the proposal, the construction village cannot be located within the Moranbah township. It is submitted the proposal complies with the planning scheme criteria for location within the rural zone.
(d) All forms of "residential activities" (including accommodation intended for visitors and temporary residents) are required to be designed to integrate with the surrounding urban environment and be of a high quality urban design.	Due to the scale of the proposal, the construction village cannot be located within the Moranbah township. It is submitted the proposal complies with the planning scheme criteria for location within the rural zone. The construction village has been designed taking into account its form, function, operation and the surrounding uses to ensure it integrates suitably and effectively.
(e) Development is regulated to protect the health and safety of people.	The location and design of the construction village ensures the residents health and safety is maintained.
(f) Infrastructure reflects community expectations and needs, meets appropriate engineering and environmental standards and is provided in an orderly and logical sequence to ensure cost effectiveness.	Infrastructure associated with the proposal is commensurate with the construction village's requirements. Sustainability initiatives have been incorporated where possible. Due to the residential activities being located within the rural zone, the infrastructure is 'self contained' providing on site solutions for water and waste water treatment. All infrastructure regularly associated with a residential activity will be provided to the construction village.
(g) Rural communities are protected from incompatible forms of development, and rural residential development is not supported by the planning scheme.	Due to the scale of the proposal, the construction village cannot be located within the Moranbah township. It is submitted the proposal complies with the planning scheme criteria for location within the



Desired Environmental Outcomes	Comment
	rural zone.

#### 7.4.2 Zone

The Buffel Village site is zoned Rural under the Planning Scheme. The Planning Scheme does not set out a specific intent for the zone, but it does include several outcomes that establish the purpose of the Rural Code. The principal outcomes sought for the Rural Zone pursuant to Section 4.1.2.2 of the planning scheme are:

- (1) The retention of the Rural Zone’s viability as an area of primary production and natural resource use, including mining; and
- (2) “Rural activities” and mining are appropriately located within the Rural “Zone” and are not prejudiced by inappropriate development.

A Good Quality Agricultural Land assessment has been undertaken for the proposed accommodation villages. In relation to the construction village aspect of the proposal the assessment concluded that the agricultural land value is low to moderate. Based on this assessment the proposal does not impact on the primary production value. Furthermore, the footprint of the Construction Village is approximately 85 ha and is located in the south-west corner of the Buffel Park landholding, at the periphery of the property. Buffel Park is 10,074 ha in area. The proposed development footprint represents 0.85% of the Buffel Park land holding. Buffel Park is owned by BMA with agistment rights being granted to the previous owner for grazing purposes, therefore maintaining for a limited period a primary production purpose. The agistment rights being granted represent the same grazing activities that occurred prior to the sale (approximately 300 stock).

Limited coal resource exists on Buffel Park. This was identified through the mining lease application process by BMA for Caval Ridge. It is submitted that the proposal does not affect any mining capacity of Buffel Park.

The proposed construction village is linked with the Caval Ridge mine. The village is to accommodate construction workers associated with the commissioning of the coal mine. The location of the accommodation building has been determined through criteria provided by the planning scheme, that is, residential activities within the rural zone. The proposal will not impact on the adjoining mining activities. Furthermore the proposal is respectful of the rural property to the south, being Skyville Stud. The accommodation village will not prejudice the activities occurring on Skyville Stud due to the buffers that have been incorporated providing setbacks to the common boundary, landscape solutions and visual assessment. Noise generating activities have been ‘internalised’ within the design of the construction village, that is away from the common boundary.

The following additional outcomes contribute to the purpose of the rural zone code. Responses to each of these outcomes relating to the proposal are provided below.

**Table 9: Rural Zone Purposes**

Rural Zone Purposes	Comment
<i>(3) Within the Rural “Zone”, “development”:</i>	
(a) maintains the environment, including soil, air and water, compatible with healthy natural systems and ensures public health and safety;	The development and occupation of the Accommodation Villages will be conducted in as environmentally sensitive manner as possible, guided by the masterplanning intent to achieve a bushland setting and BMA’s corporate environmental responsibilities and targets.
(b) protects good quality agricultural land (GQAL) from fragmentation, alienation or encroachment of incompatible land “uses” in accordance with State Planning Policy 1/92 – Development and	A GQAL assessment has been completed as part of the proposal in accordance with the SPP. It concludes that the site has limited agricultural values, and the proposal will not fragment or alienate



Rural Zone Purposes	Comment
Conservation of Agricultural Land;	suitable agricultural land. As mentioned above, agistment rights are being granted by BMA to the previous owner for a limited period. The development footprint represents 0.85% of the Buffel Park landholding.
(c) is located, designed and operated in a manner that protects and enhances the predominant rural scale, intensity, form and character;	<p>The location and design of the proposed construction village has involved an iterative masterplanning process to ensure that it is respectful of the rural character. The scale of the development is commensurate with the needs to commission the Caval Ridge mine. However this factor has been balanced through a thorough design process to ensure it sits comfortably within its surrounds.</p> <p>Locational and design considerations include:</p> <ul style="list-style-type: none"> <li>▪ Selection of a site immediately adjacent to the Caval Ridge mine;</li> <li>▪ Establishing an intersection with the Peak Downs Highway that maximises sight distances. The present eastern access to Buffel Park would not support the proposal from a design and safety perspective;</li> <li>▪ Sites the accommodation buildings behind established vegetation on the property. Approximately 50 metres depth of existing vegetation is to be maintained, which retains and protects the existing form and character of the site when viewed externally. The development footprint commences some 200m off the highway;</li> <li>▪ Sympathetic materials and colours are proposed for the structures to allow them to integrate with the surrounding environment;. and</li> <li>▪ Proposed landscaping will use endemic species, being an interpretation of the existing conditions of the property.</li> </ul> <p>The operation of the proposed accommodation village will mitigate impacts on the surrounding rural environment. This will be achieved through:</p> <ul style="list-style-type: none"> <li>▪ Restriction of the provision of private vehicle car parking.</li> <li>▪ The use of buses/coaches to transport workers to and from the mine site. This overcomes the introduction of high volumes of mine related traffic on rural roads.</li> <li>▪ The co location of the construction village with the Caval Ridge Mine. The construction village immediately adjoins the mine ensuring limited travel distances are achieved.</li> <li>▪ BMA will regulate the conduct of residents on the site to ensure minimal disturbances occur to surrounding areas.</li> <li>▪ The engagement of a private operator to maintain and run the facility to ensure the coordination of all activities occurring on the site.</li> </ul>
(d) maintains the rural amenity;	Through the design and operation described above, it is considered that the proposal will maintain the

Rural Zone Purposes	Comment
	rural amenity of the area.
(e) does not prejudice or impact adversely on other “uses”, particularly “sensitive land uses”, including those within other “zones”;	The proposal will not prejudice or adversely impact on sensitive land uses. The closest sensitive land use is the homestead on Skyville Stud. This is approximately 1.7km to the south of the proposed construction village. There is no direct line of sight to the Skyville Stud homestead, with topographic relief providing this visual disconnection. The acoustic report that has been prepared as part of the application identifies surrounding sensitive land uses and concludes that there will be no impact on the same.
(f) does not prejudice or unduly impact on mineral resources or their extraction;	As described above, BMA have completed a resource assessment of Buffel Park and concluded that it does not have commercial quantities of suitable coal. Accordingly the accommodation village does not impact or unduly fetter the winning of any resources on the site.
(g) has an appropriately designed access to the road network, and traffic generated by the development does not impact adversely on the local road network;	The proposed development adjoins the Peak Downs Highway, which is a State controlled road under the jurisdiction of the Department of Transport and Main Roads (DTMR). A new intersection to accommodate the proposed construction village has been designed in accordance with DTMR standards. A traffic assessment has also been completed and forms part of the application which reports on the traffic generation of the proposal and how this interacts with the surrounding road network.
(h) does not adversely impact on areas and sites of conservation importance, including cultural and high landscape values;	An Indigenous cultural heritage assessment has been undertaken over the construction village footprint (refer to Appendix S). Areas of cultural significance have been salvaged. Monitoring is to occur during land disturbing activities. The site is not considered to have high landscape values. Notwithstanding, the design of the construction village responds to the rural setting, ensuring it is visually sympathetic to its surrounds.
(i) is located and designed in ways that minimise the need for flood and landslide mitigation, and to protect people and premises from such natural events;	A stormwater quantity and quality assessment has been completed for the proposed construction village, and concludes that the site is not hydraulically constrained, therefore supporting the development footprint, nor will the development result in any adverse hydraulic impacts external to the site.
(j) has water supply, stormwater disposal, sustainable effluent and waste disposal and power, to appropriate standards, adequate for the “use”; and	The requirements and provision of infrastructure necessary for the construction village has been reported on as part of the proposal. This includes: <ul style="list-style-type: none"> <li>▪ The provision of water supply;</li> <li>▪ Stormwater treatment and disposal;</li> <li>▪ Effluent capture, treatment and disposal; and</li> <li>▪ Electricity and telecommunication supply.</li> </ul>
(k) does not impact adversely on infrastructure.	The infrastructure solution for the most part of the construction village adopts a ‘self containment’ approach. That is, water and sewerage treatment

Rural Zone Purposes	Comment
	plants are to be constructed as part of the construction village. Augmentation to the site of nearby electricity and telecommunications is proposed. It is proposed that excess treated water from the construction village will be piped back to the Caval Ridge mine for use in mining activities.
(4) <i>Within the Rural “Zone”, the following are appropriate “uses”:</i>	
(a) “agriculture” and “grazing”;	Not applicable to the proposal.
(b) “intensive animal industries” and “extractive industries”, where they are located and operated so as to ensure no unacceptable detrimental impact on surrounding “uses” or on the environment;	Not applicable to the proposal.
(c) limited industrial “uses”, where it can be demonstrated those “uses” are associated with rural production or natural resource use and cannot reasonably be established in the Industrial “Zone”;	Not applicable to the proposal.
(d) “bed and breakfast premises” and “home business” where they are of a small scale and are compatible with surrounding “uses”;	Not applicable to the proposal.
(e) “caravan or relocatable home park” for the purposes of tourist accommodation where it is: of a small scale; compatible with the amenity and character of surrounding uses; and directly and primarily associated with rural production, the natural environment or cultural resources in the surrounding area; and	Not applicable to the proposal.
(f) “caravan or relocatable home park” or “accommodation building” for the purposes of accommodating workers, where the use is: directly and primarily associated with rural production or a natural resource related industry on the same site or on an immediately adjoining site; compatible with the amenity and character of the surrounding uses; intended to be established only for a defined period; and cannot reasonably be located in the Urban “Zone”.	<p>The proposed construction village is an accommodation building for the purposes of the planning scheme. Other uses that form part of the application include hotel and shop, but these are ancillary to the primary accommodation building land use.</p> <p>It is submitted that the proposal is an appropriate use within the rural zone, and satisfies Section 4.1.2.2(4)(f) of the planning scheme as follows:</p> <ul style="list-style-type: none"> <li>▪ The primary use is an accommodation building;</li> <li>▪ The use is to accommodate workers associated with the Caval Ridge Mine;</li> <li>▪ The use is directly associated with a natural resource related industry (Caval Ridge coal mine);</li> <li>▪ The natural resource related industry is on the immediately adjoining site to the north of Buffel Park;</li> <li>▪ The design and location of the construction village ensures that is sympathetic and compatible with the amenity and character of the surrounding rural and mining environments;</li> <li>▪ The construction village is to be established for a defined period, being the life of the Caval Ridge</li> </ul>

Rural Zone Purposes	Comment
	<p>Mine; and</p> <ul style="list-style-type: none"> <li>Due to the scale of the proposed construction village it is unable to be located within the urban zone. The scale of the accommodation village is commensurate with the delivery of the Caval Ridge mine. The planning scheme limits the size of accommodation buildings within the urban zone to 200 Accommodation Units. The proposed construction village is for up to 2000 Accommodation Units.</li> </ul>

### 7.4.3 Relevant Overlays

The following overlay maps apply to the site as mapped under the Planning Scheme. The table below identifies relevant overlay mapping, the implications for the site and the Applicant's response to these.

**Table 10: Relevant Overlays**

Overlay Map	Implications for Site	Response
Land Characteristics Map Features Map Sheet 1 of 3	Peak Downs Highway is mapped as a State-controlled Road	<p>Referral to the Department of Main Roads is required as part of the application. The proposal introduces a new intersection with the Peak Downs Highway which improves safety and efficiency for ingress and egress to the eastern part of Buffel Park.</p> <p>A detailed traffic report has been prepared and accompanies the application, which reports on amongst other things the state controlled road network.</p> <p>It is anticipated that the access arrangements to the accommodation village will be incorporated into the infrastructure agreement between BMA and TMR required under Imposed Conditions appended to the Coordinator-General's Report.</p>
Land Characteristics Map Good Quality Agricultural Land Sheet 2 of 3	Portions of the site are mapped as Class C1	A GQAL assessment has been completed, and has identified that there is only a minimal area of Class C1 soils. C class soils are not considered productive agricultural soil, being more suited to grazing.

### 7.4.4 Applicable Codes

The table below identifies the Planning Scheme Codes applicable to the development and critical issues. Responses to the Codes are found in Appendix S.

**Table 11: Applicable Codes**

Applicable Code	Trigger	Critical Issues
Rural Zone Code	Development in the rural zone	Accommodation uses are deemed to be an appropriate use in the rural zone where certain criteria are met. It is submitted that the application meets the criteria listed in Section 4.1.2.2(4)(f) of the planning scheme as set out above in Section 7.4.2.

It is noted that whilst the Level of Assessment Table does not directly refer to the Rural Zone Code for Impact Assessment development within the Rural Zone, the Rural Zone Code does provide a suitable context for consideration of the development proposals.

#### **7.4.5 Infrastructure Charging**

The Belyando Planning Scheme does not incorporate infrastructure charging.

#### **7.4.6 Planning Scheme Conflict**

In the compliance assessment above no inconsistencies were identified.

### **7.5 Other applicable Codes identified for IDAS under the Sustainable Planning Act 2009 or another Act**

The following applicable codes and provisions in those codes are considered to be relevant to this application:

**Table 12: Other Applicable Codes under SPA**

Applicable Code	Trigger	Location of Response	Critical Issues
Regrowth Vegetation Code - On Freehold and indigenous land and leasehold land for agriculture and grazing— version 1 – Schedule 3A of the Vegetation Management Regulation 2000	<i>Sustainable Planning Regulation 2009</i>	Appendix T	Clearing of vegetation along the infrastructure corridor and areas outside the PMAV.

In the compliance assessment above no inconsistencies were identified.

### **7.6 Common Material**

The relevant common material for this application is listed below:

- Town Planning Assessment Report;
- Supporting technical reports, plans and drawings;

- 
- Information Request response material (if applicable);
  - Concurrence Agency responses when received;
  - Third party material received by the Assessment Manager (if applicable);

Pursuant to Sections 313(3)(a) and 314(3)(a) of the SPA, the common material provides the context against which performance assessment is to be carried out.

## 8 Conclusion

The Buffel Park Construction Village is required to support the 2000 room proposal accommodating the construction and periodic maintenance workforce that will be responsible for building and maintaining the proposed Caval Ridge Mine by BMA. Caval Ridge is a new coal mine proposal that falls within the Bowen Basin Coal Expansion Project, and has been assessed by the Coordinator-General pursuant to the SDPWOA.

This development application has been prepared to support the land uses associated with the construction village, namely accommodation building and ancillary hotel and shop as defined under the Belyando Planning Scheme. The construction village application is a 'combined' application for a temporary 'fly-camp' and staged permanent construction village. The requisite elements of the application are:

- The fly camp will provide 500 rooms to support initial building of the construction village. It is proposed to have a relevant period of a maximum of 24 months, and is sited in proposed Stages 5 and 6 of the permanent construction village. Infrastructure associated with the fly camp will be self contained.
- The permanent construction village will be constructed in stages and is for 2000 rooms. The construction village is proposed to be in existence for the life of the Caval Ridge mine.

Buffel Park is zoned Rural under the Belyando Planning Scheme. Pursuant to the planning scheme the proposed construction village is an appropriate use within the rural zone where amongst other things it immediately adjoins a natural resource activity. Buffel Park immediately adjoins the Caval Ridge mine, and cannot be reasonably located in the urban zone.

The construction village has undergone a detailed land use and design process to ensure that it is compatible with its surrounds. Amongst other things this includes:

- Site master planning;
- Visual assessment;
- Ecological assessment;
- Traffic assessment; and
- Integrated infrastructure assessment and delivery.

A key operational aspect of the construction village is that it is based on a fly-in-fly-out and bus-in-bus-out arrangement. This will ensure that dependence on private vehicles is minimised.

This application and detailed supporting documentation demonstrate the suitability and compatibility of the proposed construction village on Buffel Park. This report therefore recommends approval of the application subject to reasonable and relevant conditions.



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# Appendix A IDAS Forms

Prepared by

RPS

IDAS Forms		
Form No.	IDAS Form Name	Version
1	Application details	18 Dec 2009
5	Material change of use assessable against a planning scheme	18 Dec 2009
6	Building or operational work assessable against a planning scheme	18 Dec 2009
8	Environmentally relevant activity	18 Dec 2009
Checklist	Name	Version
1	Development assessment checklist	18 Dec 2009
2	Material change of use	18 Dec 2009

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# Appendix B Searches and Site Information

Compiled by

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Searches and Site Information		
Search	Source	Date
<i>Certificate of Title</i>		
L12 on SP151669	DERM	
<i>Environmental Management Register and Contaminated Land Register</i>		
L12 on SP151669	DERM	
<i>Environmental Mapping</i>		
Regional Ecosystem Map	DERM	
Regrowth Map	DERM	
PMAV Map	DERM	
Referrable Areas Mapping	DERM	
Wetland Areas Mapping	DERM	

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# Appendix C Accommodation Villages Masterplan

Prepared by

**RPS**

Accommodation Villages Masterplan			
Reference	Title/Name	Prepared By	Date
24465_09	Masterplan Structure	RPS	September 2010
24465_08	Illustrative Masterplan	RPS	September 2010

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# Appendix D Construction Village Sequence

Prepared by

**RPS**

Construction Village Sequence			
Reference	Title/Name	Prepared By	Date
24465_12	Construction Village Sequencing – Stage 1	RPS	September 2010
24465_13	Construction Village Sequencing – Stage 2	RPS	September 2010
24465_14	Construction Village Sequencing – Stage 3	RPS	September 2010
24465_15	Construction Village Sequencing – Stage 4	RPS	September 2010
24465_16	Construction Village Sequencing – Stage 5	RPS	September 2010
24465_17	Construction Village Sequencing – Stage 6	RPS	September 2010

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# Appendix E Temporary Fly Camp Extent

Prepared by

RPS

Temporary Fly Camp Extent			
Reference	Title/Name	Prepared By	Date
24465_10	Fly Camp	RPS	September 2010

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# Appendix F Temporary Fly Camp Imagery

Compiled by

RPS

Temporary Fly Camp Imagery			
Reference	Title/Name	Prepared By	Date
-	Typical Image of Fly Camp	-	-

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Typical Image of Fly Camp





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# Appendix G Construction Village Architectural Plans

Prepared by

**SKM**

Drawing Series: PHCVM03-7311-AA

Construction Village Architectural Plans			
Reference	Title/Name	Prepared By	Date
DG-0001 Rev E	Kitchen and Dining Building: Plan and Elevations	SKM	May 2010
DG-0002 Rev D	Kitchen and Dining Building: Item Description Table	SKM	May 2010
DG-0003 Rev D	Dining Room: Plan	SKM	May 2010
DG-0004 Rev D	Kitchen and Store: Plan	SKM	May 2010
DG-0005 Rev E	Accommodation Units: Plans and Elevations	SKM	May 2010
DG-0006 Rev F	Village Reception Building and Laundry Unit: Plans and Elevations	SKM	May 2010
DG-0007 Rev F	Wet Mess and Recreation Building: Plan	SKM	May 2010
DG-0008 Rev E	Wet Mess and Recreation Building: Elevations and Sections	SKM	May 2010
DG-0009 Rev F	Training, Linen Stores & Bus Shelter: Plans, Elevations and Sections	SKM	May 2010
DG-0010 Rev E	Maintenance Building and Barbeque Shelter: Plans, Elevations and Sections	SKM	May 2010
DG-0011 Rev E	Gymnasium: Plans, Elevations and Sections	SKM	May 2010
DG-0012 Rev c	Main External Shelter, Main Comms & Gatehouse: Plans, Elevations and Sections	SKM	May 2010

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# Appendix H Landscape Plans

Prepared by

**RPS**

Landscape Plans			
Reference	Title/Name	Prepared By	Date
24465-11	Construction Village – Landscape Masterplan	RPS	September 2010
24465-18	Construction Village – Detail Plan	RPS	September 2010
24465-19	Construction Village – Character Imagery and Materials Palette (Sheet 1)	RPS	September 2010
24465-20	Construction Village – Character Imagery and Materials Palette (Sheet 2)	RPS	September 2010
24465-21	Construction Village – Plant Palette	RPS	September 2010
24465-22	Construction Village – Typical Sections	RPS	September 2010

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# Appendix I Ecological Assessment

Prepared by

RPS

Ecological Assessment			
Reference	Title/Name	Prepared By	Date
24465-EA	Ecological Assessment	RPS	September 2010

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# Appendix J Bushfire Management Plan

Prepared by

**RPS**

<b>Bushfire Management Plan</b>			
<b>Reference</b>	<b>Title/Name</b>	<b>Prepared By</b>	<b>Date</b>
24465-BMP	Bushfire Management Plan	RPS	September 2010



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# Appendix K Engineering Report

Prepared by

**SKM**

Series PVCVR02-7311-CC

Engineering Report			
Reference	Title/Name	Prepared By	Date
RP-0001	Infrastructure Servicing Plan and Site Based Stormwater Management Plan	SKM	September 2010

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# Appendix L Engineering Drawings

Prepared by

**SKM**

Engineering Drawings			
Reference	Title/Name	Prepared By	Date
DG-1101 Rev C	Locality Plan	SKM	June 2010
DG-1102 Rev C	Drawing Schedule	SKM	June 2010
DG-1103 Rev C	Aerial Photograph	SKM	June 2010
DG-1104 Rev C	Layout Plan	SKM	June 2010
DG-1105 Rev C	Overall Layout Plan	SKM	June 2010
DG-1106 Rev C	Staging Plan	SKM	June 2010
DG-1107 Rev C	Overall Staging Plan	SKM	June 2010
DG-1108 Rev C	Existing Topography Drainage Patterns	SKM	June 2010
DG-1109 Rev C	Proposed Topography and Drainage Patterns	SKM	June 2010
DG-1110 Rev C	Bulk Earthworks Cross Sections Sheet 1 of 2	SKM	June 2010
DG-1111 Rev C	Bulk Earthworks Cross Sections Sheet 2 of 2	SKM	June 2010
DG-1112 Rev C	Peak Downs Highway Longitudinal Section	SKM	June 2010
DG-1113 Rev C	Access Road Longitudinal Section Sheet 1 of 2	SKM	June 2010
DG-1114 Rev C	Access Road Longitudinal Section Sheet 2 of 2	SKM	June 2010
DG-1115 Rev C	Typical Road Cross Sections Sheet 1 of 2	SKM	June 2010
DG-1116 Rev C	Typical Road Cross Sections Sheet 2 of 2	SKM	June 2010
DG-1117 Rev C	Typical Drainage Details Sheet 1 of 2	SKM	June 2010
DG-1118 Rev C	Typical Drainage Details Sheet 2 of 2	SKM	June 2010
DG-1119 Rev C	Accommodation Units Earthworks Details Sheet 1 of 2	SKM	June 2010
DG-1120 Rev C	Accommodation Units Earthworks Details Sheet 2 of 2	SKM	June 2010
DG-1121 Rev C	Existing Catchments, Rafts Schematic and Outlet Points	SKM	June 2010
DG-1122 Rev C	Proposed Catchments, Rafts Schematic and Outlet Points	SKM	June 2010
DG-1130 Rev C	Rational Method Flow Paths	SKM	June 2010
DG-1140 Rev C	Water Sensitive Urban Design Measures Layout Plan	SKM	June 2010
DG-1141 Rev C	Music Schematic and Results	SKM	June 2010
DG-1150 Rev C	Erosion and Sediment Control Layout Plan	SKM	June 2010

### Engineering Drawings

DG-1151 Rev C	Erosion and Sediment Control Typical Notes	SKM	June 2010
DG-1152 Rev C	Erosion and Sediment Control Typical Details	SKM	June 2010
DG-1160 Rev C	Water Reticulation Plan	SKM	June 2010
DG-1161 Rev C	Sewerage Reticulation Layout Plan	SKM	June 2010
DG-1162 Rev C	Vehicle Manoeuvring Paths Layout Plan	SKM	June 2010
DG-1170 Rev C	External Infrastructure Layout Plan	SKM	June 2010
DG-1180	Village Electrical Site Plan	SKM	June 2010
DG-1181	Transformer Single Line Diagram	SKM	June 2010

# Appendix M Traffic Report

Prepared by

**RPS**

Series PHCVR02-7111-UZ

Traffic Report			
Reference	Title/Name	Prepared By	Date
RP-0003	Traffic Report	SKM	August 2010

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# Appendix N Air Quality Report

Prepared by

URS

Air Quality Report			
Reference	Title/Name	Prepared By	Date
42626420	Buffel Park Accommodation Villages – Air Quality Assessment	URS	April 2010



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# Appendix O Noise and Vibration Assessment

Noise and Vibration

Prepared by

Heggies

Noise and Vibration Assessment			
Reference	Title/Name	Prepared By	Date
20-2028-R3	Construction and Operational Noise and Vibration Assessment	Heggies	April 2010

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# Appendix P Good Quality Agricultural Land Report

Prepared by

**GSS Environmental**

Good Quality Agricultural Land Report			
Reference	Title/Name	Prepared By	Date
URS03-010	Agricultural Land Class Survey	GSS Environmental	April 2010

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# Appendix Q Construction Management Plan

Prepared by

SKM

Construction Management Plan			
Reference	Title/Name	Prepared By	Date
QN10130_ R02	Construction Management Plan_	SKM	May 2010

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# Appendix R Visual Assessment

Prepared by

RPS

Visual Assessment			
Reference	Title/Name	Prepared By	Date
24465	Visual Assessment	RPS	September 2010



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# Appendix S Cultural Heritage Clearance

Prepared by

Woorra Consulting

Cultural Heritage Clearance			
Reference	Title/Name	Prepared By	Date
-	Cultural Heritage Clearance	Woorra Consulting	April 2010

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# Appendix T Code Responses

Prepared by

**RPS**

Code Responses			
Reference	Title/Name	Prepared By	Date
24465-CDE	Rural Zone Code	RPS	September 2010

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# Appendix U Documents and Drawings for Approval

Schedule compiled by

RPS

Documents and Drawings for Approval			
Reference	Title/Name	Prepared By	Date
NA	Schedule of Documents and Drawings for Approval	RPS	September 2010

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### Schedule of Documents and Drawings for Approval

Reference	Title/Name	Prepared By	Date
24465_09	Masterplan Structure	RPS	September 2010
24465_08	Illustrative Masterplan	RPS	September 2010
24465_12	Construction Village Sequencing – Stage 1	RPS	September 2010
24465_13	Construction Village Sequencing – Stage 2	RPS	September 2010
24465_14	Construction Village Sequencing – Stage 3	RPS	September 2010
24465_15	Construction Village Sequencing – Stage 4	RPS	September 2010
24465_16	Construction Village Sequencing – Stage 5	RPS	September 2010
24465_17	Construction Village Sequencing – Stage 6	RPS	September 2010
24465_10	Fly Camp	RPS	September 2010
DG-0001 Rev E	Kitchen and Dining Building: Plan and Elevations	SKM	May 2010
DG-0002 Rev D	Kitchen and Dining Building: Item Description Table	SKM	May 2010
DG-0003 Rev D	Dining Room: Plan	SKM	May 2010
DG-0004 Rev D	Kitchen and Store: Plan	SKM	May 2010
DG-0005 Rev E	Accommodation Units: Plans and Elevations	SKM	May 2010
DG-0006 Rev F	Village Reception Building and Laundry Unit: Plans and Elevations	SKM	May 2010
DG-0007 Rev F	Wet Mess and Recreation Building: Plan	SKM	May 2010
DG-0008 Rev E	Wet Mess and Recreation Building: Elevations and Sections	SKM	May 2010
DG-0009 Rev F	Training, Linen Stores & Bus Shelter: Plans, Elevations and Sections	SKM	May 2010
DG-0010 Rev E	Maintenance Building and Barbeque Shelter: Plans, Elevations and Sections	SKM	May 2010
DG-0011 Rev E	Gymnasium: Plans, Elevations and Sections	SKM	May 2010
DG-0012 Rev c	Main External Shelter, Main Comms & Gatehouse: Plans, Elevations and Sections	SKM	May 2010
24465-11	Construction Village – Landscape Masterplan	RPS	September 2010
24465-18	Construction Village – Detail Plan	RPS	September 2010



### Schedule of Documents and Drawings for Approval

24465-19	Construction Village – Character Imagery and Materials Palette (Sheet 1)	RPS	September 2010
24465-20	Construction Village – Character Imagery and Materials Palette (Sheet 2)	RPS	September 2010
24465-21	Construction Village – Plant Palette	RPS	September 2010
24465-22	Construction Village – Typical Sections	RPS	September 2010
24465-EA	Ecological Assessment	RPS	September 2010
24465-BMP	Bushfire Management Plan	RPS	September 2010
DG-1101 Rev C	Locality Plan	SKM	June 2010
DG-1102 Rev C	Drawing Schedule	SKM	June 2010
DG-1103 Rev C	Aerial Photograph	SKM	June 2010
DG-1104 Rev C	Layout Plan	SKM	June 2010
DG-1105 Rev C	Overall Layout Plan	SKM	June 2010
DG-1106 Rev C	Staging Plan	SKM	June 2010
DG-1107 Rev C	Overall Staging Plan	SKM	June 2010
DG-1108 Rev C	Existing Topography Drainage Patterns	SKM	June 2010
DG-1109 Rev C	Proposed Topography and Drainage Patterns	SKM	June 2010
DG-1110 Rev C	Bulk Earthworks Cross Sections Sheet 1 of 2	SKM	June 2010
DG-1111 Rev C	Bulk Earthworks Cross Sections Sheet 2 of 2	SKM	June 2010
DG-1112 Rev C	Peak Downs Highway Longitudinal Section	SKM	June 2010
DG-1113 Rev C	Access Road Longitudinal Section Sheet 1 of 2	SKM	June 2010
DG-1114 Rev C	Access Road Longitudinal Section Sheet 2 of 2	SKM	June 2010
DG-1115 Rev C	Typical Road Cross Sections Sheet 1 of 2	SKM	June 2010
DG-1116 Rev C	Typical Road Cross Sections Sheet 2 of 2	SKM	June 2010
DG-1117 Rev C	Typical Drainage Details Sheet 1 of 2	SKM	June 2010
DG-1118 Rev C	Typical Drainage Details Sheet 2 of 2	SKM	June 2010
DG-1119 Rev C	Accommodation Units Earthworks Details Sheet 1 of 2	SKM	June 2010
DG-1120 Rev C	Accommodation Units Earthworks	SKM	June 2010

## Schedule of Documents and Drawings for Approval

Details Sheet 2 of 2

DG-1121 Rev C	Existing Catchments, Rafts Schematic and Outlet Points	SKM	June 2010
DG-1122 Rev C	Proposed Catchments, Rafts Schematic and Outlet Points	SKM	June 2010
DG-1130 Rev C	Rational Method Flow Paths	SKM	June 2010
DG-1140 Rev C	Water Sensitive Urban Design Measures Layout Plan	SKM	June 2010
DG-1141 Rev C	Music Schematic and Results	SKM	June 2010
DG-1150 Rev C	Erosion and Sediment Control Layout Plan	SKM	June 2010
DG-1151 Rev C	Erosion and Sediment Control Typical Notes	SKM	June 2010
DG-1152 Rev C	Erosion and Sediment Control Typical Details	SKM	June 2010
DG-1160 Rev C	Water Reticulation Plan	SKM	June 2010
DG-1161 Rev C	Sewerage Reticulation Layout Plan	SKM	June 2010
DG-1162 Rev C	Vehicle Manoeuvring Paths Layout Plan	SKM	June 2010
DG-1170 Rev C	External Infrastructure Layout Plan	SKM	June 2010
DG-1180	Village Electrical Site Plan	SKM	June 2010
DG-1181	Transformer Single Line Diagram	SKM	June 2010
RP-0003	Traffic Report	SKM	August 2010
42626420	Buffel Park Accommodation Villages – Air Quality Assessment	URS	April 2010
20-2028-R3	Construction and Operational Noise and Vibration Assessment	Heggies	April 2010
URS03-010	Agricultural Land Class Survey	GSS Environmental	April 2010
QN10130_ R02	Construction Management Plan_	SKM	May 2010
24465	Visual Assessment	RPS	September 2010