



# **Appendix R**

## Social Impact Assessment Report





## Hume Coal Project

Environment Impact Statement | Appendix R  
| Social Impact Assessment Report  
Prepared for Hume Coal Pty Limited | 24 February 2017





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Environment Impact Statement | Appendix R  
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## Hume Coal Project

Final

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Date	13 August 2016	24 February 2017	Date	24 February 2017

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# 1 Introduction

## 1.1 Overview of the project

Hume Coal Pty Limited (Hume Coal) proposes to develop and operate an underground coal mine and associated mine infrastructure (the 'Hume Coal Project') in the Southern Coalfield of New South Wales (NSW). Hume Coal holds exploration Authorisation 349 (A349) to the west of Moss Vale, in the Wingecarribee local government area (LGA). The underground mine will be developed within A349 and associated surface infrastructure facilities will be developed within and north of A349. The project area and its regional and local setting are shown in Figure 1.1 and Figure 1.2.

The project has been developed following several years of technical investigations to define the mineable resource and identify and address potential environmental, social and economic constraints. This has allowed for the development of a well-considered, practical and economic project design that will enable effective resource recovery, while minimising adverse impacts to the environment and community, and delivering socio-economic benefits. Low impact mining methods will be used that will have negligible subsidence impacts and thereby protect the overlying aquifer and surface features, and allow existing land uses to continue at the surface. Post-mining, all mine surface infrastructure will be decommissioned and areas rehabilitated to a state where they can support land uses similar to the current land uses.

Approval for the Hume Coal Project is being sought under Part 4, Division 4.1 of the NSW Environmental Planning and Assessment Act 1979 (EP&A Act) and the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). An environmental impact statement (EIS) is a requirement of the approval processes. This social impact assessment forms part of the EIS. It documents the social profile of the area; the assessment methods and results; the initiatives Hume Coal has used to avoid, minimise or enhance social impacts or opportunities; and the additional management measures proposed to address any residual impacts unable to be avoided.

## 1.2 Project description

The project involves developing and operating an underground coal mine and associated infrastructure over a total estimated project life of 23 years. Indicative mine and surface infrastructure plans are provided in Figure 1.3 and Figure 1.4. A full description of the project, as assessed in this report, is provided in Chapter 2 of the main EIS report (EMM 2017a).

In summary it involves:

- Ongoing resource definition activities, along with geotechnical and engineering testing, and other fieldwork to facilitate detailed design.
- Establishment of a temporary construction accommodation village.
- Development and operation of an underground coal mine, comprising of approximately two years of construction and 19 years of mining, followed by a closure and rehabilitation phase of up to two years, leading to a total project life of 23 years. Some coal extraction will commence during the second year of construction and hence there will be some overlap between the construction and operational phases.



- Extraction of approximately 50 million tonnes (Mt) of run-of-mine (ROM) coal from the Wongawilli Seam, at a rate of up to 3.5 million tonnes per annum (Mtpa). Low impact mining methods will be used, which will have negligible subsidence impacts.
- Following processing of ROM coal in the coal preparation plant (CPP), production of up to 3 Mtpa of metallurgical and thermal coal for sale to international and domestic markets.
- Construction and operation of associated mine infrastructure, mostly on cleared land, including:
  - one personnel and materials drift access and one conveyor drift access from the surface to the coal seam;
  - ventilation shafts, comprising one upcast ventilation shaft and fans, and up to two downcast shafts installed over the life of the mine, depending on ventilation requirements as the mine progresses;
  - a surface infrastructure area, including administration, bathhouse, washdown and workshop facilities, fuel and lubrication storage, warehouses, laydown areas, and other facilities. The surface infrastructure area will also comprise the CPP and ROM coal, product coal and emergency reject stockpiles;
  - surface and groundwater management and treatment facilities, including storages, pipelines, pumps and associated infrastructure;
  - overland conveyors;
  - rail load-out facilities;
  - a small explosives magazine;
  - ancillary facilities, including fences, access roads, car parking areas, helipad and communications infrastructure; and
  - environmental management and monitoring equipment.
- Establishment of site access from Mereworth Road, and construction of minor internal roads.
- Coal reject emplacement underground, in the mined-out voids.
- Peak workforces of approximately 414 full-time equivalent employees during construction and approximately 300 full-time equivalent employees during operations.
- Decommissioning of mine infrastructure and rehabilitating the area once mining is complete, so that it can support land uses similar to current land uses.

The project area, shown in Figure 1.2 is approximately 5,051 hectares (ha). Surface disturbance will mainly be restricted to the surface infrastructure areas shown indicatively on Figure 1.4 though will include some other areas above the underground mine, such as drill pads and access tracks. The project area generally comprises direct surface disturbance areas of up to approximately 117 ha, and an underground mining area of approximately 3,472 ha, where negligible subsidence impacts are anticipated.

A construction buffer zone will be provided around the direct disturbance areas. The buffer zone will provide an area for construction vehicle and equipment movements, minor stockpiling and equipment laydown, as well as allowing for minor realignments of surface infrastructure. Ground disturbance will generally be minor and associated with temporary vehicle tracks and sediment controls as well as minor works such as backfilled trenches associated with realignment of existing services. Notwithstanding, environmental features identified in the relevant technical assessments will be marked as avoidance zones so that activities in this area do not have an environmental impact.

Product coal will be transported by rail, primarily to Port Kembla terminal for the international market, and possibly to the domestic market depending on market demand. Rail works and use are the subject of a separate EIS and State significant development application for the Berrima Rail Project.

### 1.3 General site description

The project area is approximately 100 km south-west of Sydney and 4.5 km west of Moss Vale town centre in the Wingecarribee LGA (refer to Figure 1.1 and Figure 1.2). The nearest area of surface disturbance will be associated with the surface infrastructure area, which will be 7.2 km north-west of Moss Vale town centre. It is in the Southern Highlands region of NSW and the Sydney Basin Biogeographic Region.

The project area is in a semi-rural setting, with the wider region characterised by grazing properties, small-scale farm businesses, natural areas, forestry, scattered rural residences, villages and towns, industrial activities such as the Berrima Cement work and Berrima Feed Mill, and some extractive industry and major transport infrastructure such as the Hume Highway.

Surface infrastructure is proposed to be developed on predominately cleared land owned by Hume Coal or affiliated entities, or for which there are appropriate access agreements in place with the landowner. Over half of the remainder of the project area (principally land above the underground mining area) comprises cleared land that is, and will continue to be, used for livestock grazing and small-scale farm businesses. Belanglo State Forest covers the north-western portion of the project area and contains introduced pine forest plantations, areas of native vegetation and several creeks that flow through deep sandstone gorges. Native vegetation within the project area is largely restricted to parts of Belanglo State Forest and riparian corridors along some watercourses.

The project area is traversed by several drainage lines including Oldbury Creek, Medway Rivulet, Wells Creek, Wells Creek Tributary, Belanglo Creek and Longacre Creek, all of which ultimately discharge to the Wingecarribee River, at least 5 km downstream of the project area (Figure 1.2). The Wingecarribee River's catchment forms part of the broader Warragamba Dam and Hawkesbury-Nepean catchments. Medway Dam is also adjacent to the northern portion of the project area (Figure 1.2).

Most of the central and eastern parts of the project area have very low rolling hills with occasional elevated ridge lines. However, there are steeper slopes and deep gorges in the west in Belanglo State Forest.

Existing built features across the project area include scattered rural residences and farm improvements such as outbuildings, dams, access tracks, fences, yards and gardens, as well as infrastructure and utilities including roads, electricity lines, communications cables and water and gas pipelines.

Key roads that traverse the project area are the Hume Highway and Golden Vale Road. The Illawarra Highway borders the south-east section of the project area.

Industrial and manufacturing facilities adjacent to the project area include the Berrima Cement Works and Berrima Feed Mill on the fringe of New Berrima. Berrima Colliery's mining lease (CCL 748) also adjoins the project area's northern boundary. Berrima colliery is currently not operating with production having ceased in 2013 after almost 100 years of operation. The mine is currently undergoing closure.

## 1.4 Assessment requirements

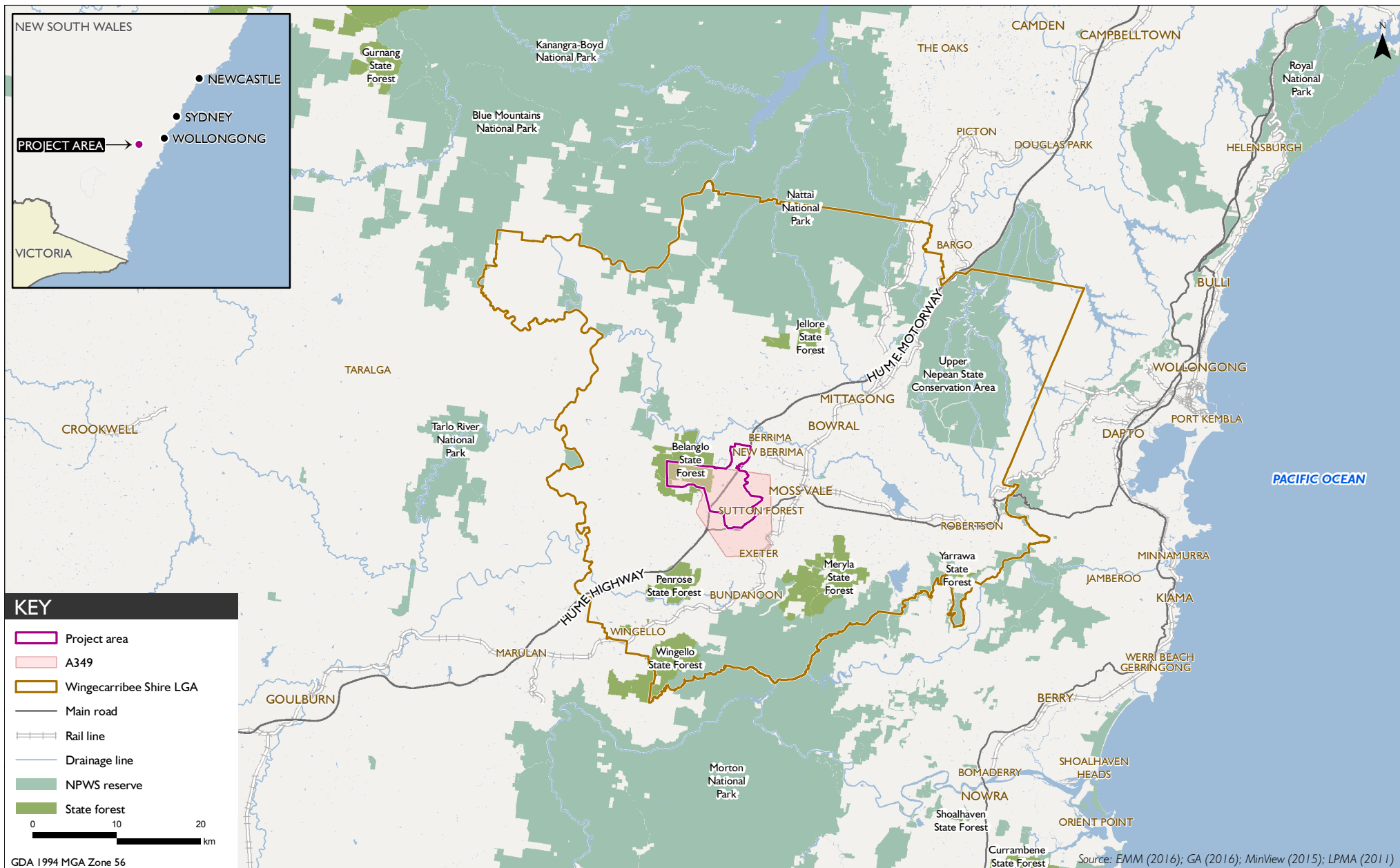
This assessment has been prepared in accordance with the relevant governmental assessment requirements and in consultation with the relevant government agencies. The individual requirements relevant to the social assessment, and where they are addressed, are listed in Table 1.1 below:

**Table 1.1 Social-related SEARs**

Requirement	Section addressed
An assessment of the likely social impacts of the development	Chapter 7
Consultation with relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners.	Chapter 6
The demand for the provision of local infrastructure and services, having regard to Wingecarribee Shire council's requirements.	Chapter 7

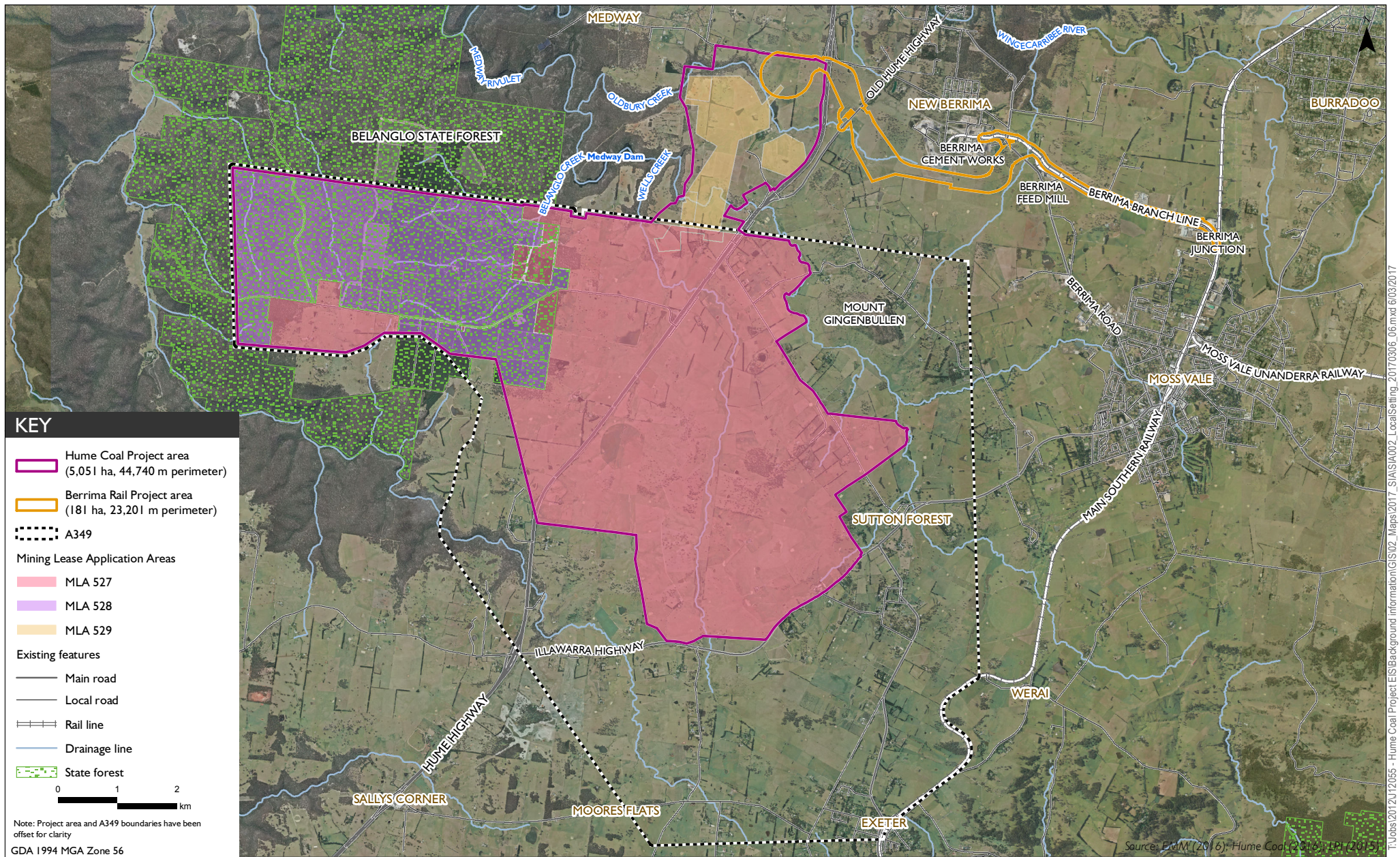
*Note: WSC did not specify any requirements.*

To inform preparation of the SEARs, DP&E invited other government agencies to recommend matters for address in the EIS. These matters were then taken into account by the Secretary for DP&E when preparing the SEARs. Copies of the government agencies' advice to DP&E was attached to the SEARs. No agency raised matters relevant to the social impact assessment.



**Regional context**  
Hume Coal Project  
Social Impact Assessment  
Figure I.1



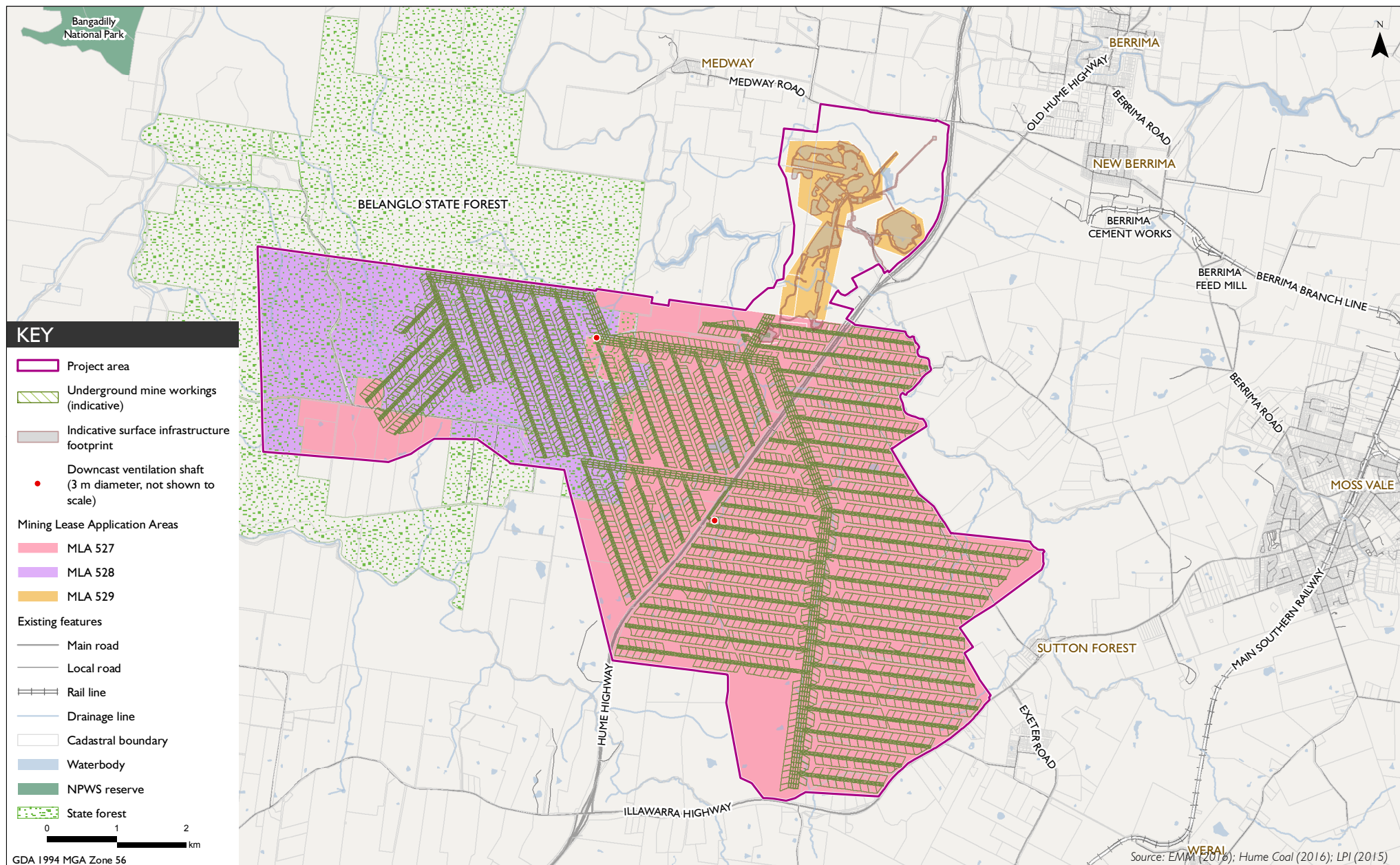


## Local context

Hume Coal Project  
Social Impact Assessment

Figure I.2





Indicative project layout

Hume Coal Project  
Social Impact Assessment

Figure I.3



Indicative surface infrastructure layout

Hume Coal Project  
Social Impact Assessment

Figure I.4

## 1.5 Adoption of leading practices

Hume Coal has adopted a number of leading practices to result in a mine design that avoids and minimises potential environmental and social impacts and enhance socio-economic benefits to the local community. Extensive technical investigations have taken place over several years to develop and refine the project, and arrive at the current design.

Leading practice guidelines or policies referred to in this study are as follows:

- Community Development Toolkit (Energy Sector Management Assistance Program, the World Bank and the International Council on Mining and Metals 2012);
- Leading Practice Strategies for Addressing the Social Impacts of Resource Development (Centre for Social Responsibility in Mining, Sustainable Minerals Institute, University of Queensland 2009);
- Cumulative Impacts – A Good Practice Guide for the Australian Coal Mining Industry (Centre for Social Responsibility in Mining, Sustainable Minerals Institute, University of Queensland 2010);
- Social Impact Assessment of Resource Projects (International Mining for Development Centre 2012); and
- Approaches to Understanding Development Outcomes from Mining (International Council on Mining and Metals 2013).

Often, SIAs only examine the negative social impacts of a project but this SIA follows leading practice in the assessment of social changes and identifies both positive and negative social impacts. In doing so, this SIA considers measures to enhance social opportunities from the project as well as measures to mitigate negative impacts during all its phases. This approach goes beyond regulatory compliance and is consistent with Hume Coal's commitment to adopting leading practices.

## 1.6 Enhancing local participation and opportunities

In line with leading practices adopted in this SIA, input has been sought from community members and stakeholders to guide the assessment of the project's social impacts. For example, during the preparation of this SIA, the project team and community were assisted by a Social Reference Group (SRG). This voluntary group of local community and businesspeople met with the project team on a number of occasions to provide advice on social priorities and opportunities for local business participation in the project and community enhancement generally.

Hume Coal has engaged with local people and businesses since commencement in 2011 and aims to form partnerships within the community to enhance the local benefits of the project. For example, Hume Coal will procure local goods and services during all phases of the project where they can be reliably and competitively supplied, and can meet applicable quality standards. To ensure this occurs to the greatest extent possible, Hume Coal has sponsored various capability building programs for selected local businesses, including helping to train employees through apprenticeships, and providing specialised training for potential recruits.



## 2 Methodology

This SIA completed the eleven steps described below and illustrated in Figure 2.1.

### Step 1: Social aspects of the project

- Documenting social aspects of the project, particularly the required workforce and its likely origins, that is whether workers will be sourced locally or from elsewhere and thus be 'in-migrants'. This step takes into account the effects of Hume Coal's approach to local procurement and participation.

### Step 2: Workforce catchment

- Defining the project's 'workforce catchment area'. This covers both the area from which local workers will be recruited and to where workers who are recruited more broadly in Australia will relocate. It is the area in which most social impacts will occur.

### Step 3: Residential distribution and population change

- Estimating the future residential distribution of the project's workforce and the associated population changes that will result.

### Step 4: Community characteristics

- Describing the current population of the local community (i.e. within the workforce catchment area), including the characteristics and skills of its workforce, and the housing, services and other infrastructure available, as well as the local and regional planning policies that apply in the area. This step also included consulting with key stakeholders, including landowners, community groups, councils, government agencies and service providers.

### Step 5: Community impacts and opportunities

- Determining the likely social impacts of the project alone and cumulatively, that is with other major projects scheduled for development over the same time period as the project. Identifying opportunities for the project to enhance its local effects and to add value to the broader community.

### Step 6: Land use change

- Identifying land uses and other activities that will be affected by the project and determining the associated impacts and measures to mitigate adverse effects.

### Step 7: Mitigation of adverse impacts

- Devising measures to effectively mitigate adverse impacts.

### Step 8: Adding value and community enhancement

- Describing project activities that will stimulate local businesses and other investments that will be made in community enhancement.



#### Step 9: Monitoring and reporting

- Identifying monitoring and reporting processes to ensure social impacts are responsively managed over time, and ensuring the community remains well informed and engaged.

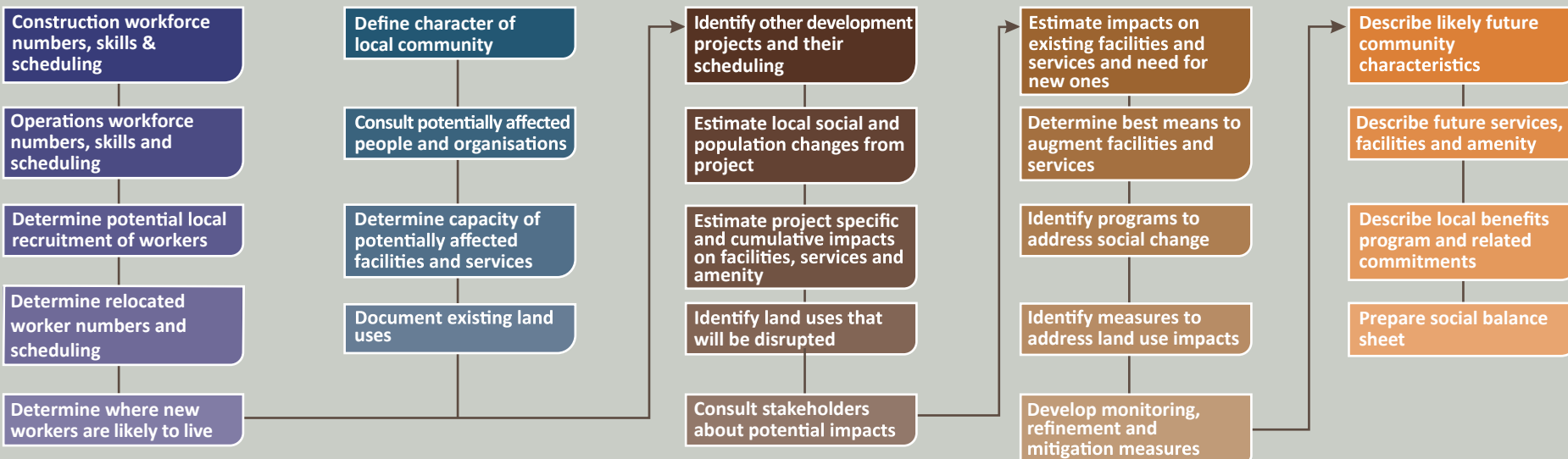
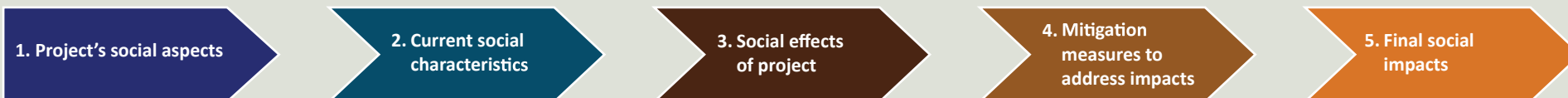
#### Step 10: Social balance sheet

- Listing and comparing all the project's positive and negative social impacts to show its overall or net effects.

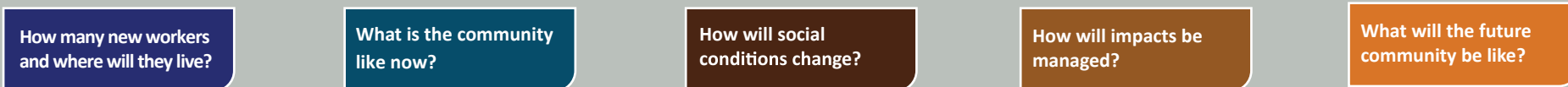
#### Step 11: Informing interested parties

- Preparing the SIA report – that is documenting social impacts in a way that is factual and clear so that the affected community can properly understand the effects of the project.

# STEPS



# OUTCOMES



## Summary of SIA method

Hume Coal Project  
Social Impact Assessment

Figure 2.1

