

Appendix C

Social Impact Assessment



WELCOME TO MORANBAH

WINCHESTER SOUTH PROJECT

Environmental Impact Statement



WHITEHAVEN COAL



Resource
Strategies

Social Impact Assessment

Winchester South Project

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Executive Summary

Introduction

Whitehaven Coal Limited (Whitehaven) is Australia's largest independent listed coal producer, with four mines currently in operation in the Gunnedah Basin of north west New South Wales (NSW). Whitehaven WS Pty Ltd (Whitehaven WS) (a wholly owned subsidiary of Whitehaven) is the Proponent for the Winchester South Project (the Project). The Proponent is proposing to expand its operations to Queensland's Bowen Basin by developing the Project, located approximately 30 kilometres (km) south east of Moranbah. The Project would be a greenfield development and consist of a predominantly metallurgical open cut coal mine and associated infrastructure. The Project is forecast to extract approximately 15 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal, with a forecast peak extraction of up to 17 Mtpa, for approximately 30 years.

The Queensland Coordinator-General has declared the Project to be a 'coordinated project for which an Environmental Impact Statement (EIS) is required' under section 26(1)(a) of the *State Development and Public Works Organisation Act 1971* (SDPWO Act). This declaration initiates the statutory environmental impact assessment procedure of Part 4 of the SDPWO Act, which requires the Proponent to prepare an EIS for the Project. As a 'large resource project' which requires an EIS, the *Strong and Sustainable Resource Communities Act (2017)* (SSRC Act) also applies; a key requirement of which is the preparation of a Social Impact Assessment (SIA). This SIA has been prepared by SMEC Australia Pty Limited (SMEC) as one of the specialist technical assessments informing the EIS.

Purpose

The purpose of the SIA is to identify and assess the social effects which are predicted to occur in local and regional communities as a result of the Project and how such effects might be mitigated or enhanced. The SIA has been prepared to meet Queensland's statutory requirements and the Terms of Reference (ToR) which were issued for the Project, as further discussed in Section 3.

The objectives of the SIA were to:

- define the communities potentially affected by the Project having regard to the EIS ToR, SSRC Act, and the Coordinator-General's SIA Guideline (2018);
- provide stakeholders with the opportunity to provide inputs into the SIA, including the scope of assessment, the impacts which may be experienced in different localities and by various stakeholders and how they might be avoided or mitigated;
- develop a robust socio-economic baseline against which potential changes may be assessed;
- provide a detailed assessment of benefits and impacts on the social baseline for each Project stage;
- derive mitigation and enhancement commitments which serve to avoid or reduce impacts and enhance benefits; and
- provide a monitoring and reporting strategy to support the adaptive management of social impacts.

SIA study areas

Applicable SIA study areas were defined with reference to a number of factors including:

- The EIS ToR along with the SSRC Act and SIA Guideline (2018).
- Each element of the Project description and the associated geographical and temporal extent of potential socio-economic impacts as identified in the scoping phase of the SIA.
- The location of appropriately skilled and experienced mining industry personnel and businesses who could supply the Project.
- The nature of communities in the region including their culture, identity and resilience.
- The potential for local and/or regional communities to be affected by the Project.
- Worker fatigue management requirements with regard to a safe commute distance.
- SIA scoping interviews with Isaac Regional Council (IRC) and Office of the Coordinator-General.

The issued ToR requires the SIA to include an analysis of the capacity of towns within a 125 km radius of the main access to provide workers for the construction and operational phases of the Project. As per the SSRC Act, applicable towns were defined by the Australian Bureau of Statistics (ABS) statistical geography of 'Urban centres and localities' (UCLs). All townships within a direct 125 km radius from the Project entrance were identified using a Geographical Information System (GIS). This resulted in 9 towns (ABS UCLs) being identified as 'nearby regional communities'.

To facilitate effective identification and assessment of socio-economic impacts, three distinct SIA study areas were defined.

Primary local study area – Moranbah town

The primary local study area for the purpose of the SIA is defined as the populated area in closest proximity to the Project site and thereby likely to experience the most significant impacts, both negative and positive. Moranbah (at Statistical Area Level 2 [SA2] statistical geography) is the closest populated centre to the Project, located approximately 29 km from the Project's main access, or around a 30-minute drive. Moranbah is a key population and service centre for the Bowen Basin. It is also the centre of governance for the IRC.

Secondary local study areas – Dysart and Coppabella towns

The secondary local study area includes those communities located within a safe commuting distance from the Project's main access and meet the criteria for a 'nearby regional community' as defined by the SSRC Act (refer to Table 3-2 for identified nearby regional communities). In terms of towns which are within a safe commute distance of the Project site, reference was made to the Department of Natural Resources, Mines and Energy Guidance Note for Fatigue Risk Management. This states that a commute time any more than one hour, with a 12-hour shift length can overtly influence the opportunity for sleep and other essential daily activities (Department of Natural Resources, Mines and Energy, 2013). Accordingly, a maximum one-hour drive time from the Project site was adopted to identify towns from where residents would be able to live and commute to work on the Project on a daily basis.

Outside of Moranbah, only one 'nearby regional community' is located within a safe commute distance, being Dysart (located around a 40-minute drive from the Project's main access). Another town, Coppabella, is also located within a commute time of one hour (with a predicted drive time of approximately 30 minutes from the Project's main access). However, Coppabella is not defined as a UCL by the ABS and is defined as an ABS State Suburb (SSC). Regardless of this technicality, Coppabella was included in the secondary local study area as workers could safely reside in Coppabella and commute to the Project on a daily basis.

Regional study areas – Isaac LGA and Mackay LGA

The regional study area adopted for the SIA is the Isaac local government area (LGA) and Mackay LGA. The Project is located within the Isaac LGA which encompasses 58,862 square kilometres (km²), stretching from the Central Queensland coast to the Bowen Basin coalfields. The Isaac LGA includes the towns of Moranbah, Dysart, Middelmount, Coppabella, Nebo, Clermont and Glenden which have been identified as 'nearby regional communities' for the Project. The Project is located approximately 180 km by road from Mackay, which is the principal service centre for the broader region. Mackay is a well-developed source of resource sector employees, contract labour, supplies and services to the Bowen Basin. The Project anticipates that the Isaac LGA and Mackay LGA would be integral to its supply chain as a source of employees; construction services, labour and equipment; supply of goods and services to the operation; and social infrastructure and services for Project employees and families.

SIA stakeholder engagement

Stakeholder engagement was an integral part of the SIA approach and directly informed the definition of baseline conditions, identification of potential impacts and benefits and how these may be managed. The feedback received during the stakeholder engagement also informed the Social Impact Management Plan (SIMP) (Section 7). The primary means of SIA engagement was via semi-structured interviews and meetings with key stakeholders. This has proven to be the most effective means of capturing genuine insights into what is currently occurring in the community, how the Project might interact with social values and processes, and how this can best be managed.

A broad range of local stakeholders were directly engaged as part of the SIA. This included multiple meetings with the following key stakeholder groups:

- Local government: IRC and Mackay Regional Council (both Councillors and key Council Staff).
- State agencies: Office of the Coordinator-General Coordinated Project Delivery Division, Department of Aboriginal and Torres Strait Islander Partnerships (DATSIP), Department of State Development, Manufacturing, Infrastructure and Planning, and Department of Employment, Small Business and Training.
- Local and regional employment and training providers: Moranbah State School, Coalfield Training Excellence Centre, Regional Industry Network (RIN), Resource Training Excellence Centre, and MRAEL.
- Public and private housing providers: Department of Housing and Public Works, Mackay Housing Service Centre, Isaac Region Affordable Housing Trust, Emergency and Long-term Accommodation Moranbah, and real estate agents in Moranbah.
- Local and regional commerce and community development groups: Moranbah Traders Association, Construction, Forestry, Maritime, Mining and Energy Union, Barada Barna Aboriginal Corporation, and a variety of local business owners.
- Social and public service providers: Moranbah State School, Moranbah Primary School, Moranbah East Primary School, Dysart State School, Dysart State High School, Coppabella State School, Simply Sunshine Childcare Centre, Moranbah Early Learning Centre, Moranbah and District Support Services, Dysart Community Centre, and Moranbah Men's Shed.
- Emergency services: Moranbah Police Station, Dysart Police Station, and Queensland Ambulance Service.
- Health services: Moranbah Hospital, Moranbah District Mental Health Service, Dysart Hospital, Mackay General Practitioner clinics and the Whitsunday Isaac Suicide Prevention Network.

Whilst directly affected landholders were not directly engaged as part of the SIA, there has been extensive and ongoing engagement between landholders and Whitehaven, the records of which were appraised and drawn upon to inform the SIA.

A considerable amount of primary data was generated through the course of in-depth semi-structured interviews with Project stakeholders. Key engagement findings included:

- The overwhelming response was that Moranbah is a place where residents are proud of the community they have formed and enjoy living. It is a well-connected community which has access to adequate services and a good range of recreational and social opportunities. It is demographically a young town where families enjoy having access to employment opportunity. There are some social concerns relating to alcohol and substance abuse and domestic violence. The housing market is highly volatile with rental prices subject to rapid and substantial change. In spite of these challenges, people interviewed expressed that they enjoy living in Moranbah and that it is a strong and resilient community.
- The Project was viewed as making a positive contribution to the local economy by generating local employment and providing opportunities for local business and industry procurement. Whilst there are multiple projects currently being advanced in the Bowen Basin, stakeholders were particularly supportive that Whitehaven (as an experienced Australian operator) establish in the Bowen Basin.
- IRC and other stakeholders expressed a desire for the Proponent to make a commitment to housing availability and affordability in Moranbah. A feature of the town is that the housing market is subject to rapid change. Service providers, such as the police, the hospital, schools and childcare centres have needed to invest in housing in order to maintain service provision. The position of IRC and other stakeholders is that if a mining project is committed to the town, they should invest in housing in local communities such as Moranbah.
- Other key issues raised include: (i) Childcare is at a crisis point in Moranbah and there is an urgent need for a solution; (ii) Domestic violence is an unfortunate driver of emergency accommodation demand; (iii) There are now more elderly persons in Moranbah yet a lack of services for older generations; and (iv) Local people and service providers would prefer that a proportion of workers who work in local mining projects also live locally as this genuinely contributes to the sustainability and vitality of local communities.

Socio-economic baseline

The socio-economic baseline of the Project's SIA study areas describes key socio-economic conditions with an emphasis on the resources and receptors that may be impacted by the Project so as to inform judgement about the sensitivity, vulnerability and/or social importance of such resources and receptors. The findings of the baseline study were used to assess the potential impacts and opportunities of the Project on socio-economic characteristics. Socio-economic baseline information for each study area has been compiled as follows:

- **Primary local study area (including Moranbah):** A comprehensive baseline of Moranbah is provided and compared against prevailing socio-economic characteristics of the Isaac LGA. Key indicators reported include: population and demography; labour force profile; income, disadvantage and vulnerable groups; housing and accommodation; business and industry; community values; social infrastructure and services; and crime and justice.
- **Secondary local study areas (including Dysart and Coppabella):** A socio-economic baseline of secondary local study area is provided with a focus on key parameters which may be impacted by the Project including: population and demography; labour force profile; housing and accommodation; social infrastructure; and community values.
- **Nearby regional communities within the 125 km radius from the Project entrance (including Moranbah, Dysart, Coppabella, Capella, Clermont, Finch Hatton, Glenden, Middlemount, Nebo and Tieri):** An employment profile of the ten nearby regional communities is provided to inform analysis as to the availability of suitably skilled and motivated labour to take up the Project-related employment opportunities.
- **Regional study areas (including Isaac LGA and Mackay LGA):** A higher-level socio-economic baseline of regional study areas is provided with a focus on population and demography; labour force profile; business activity; and community health and safety.

The following summarises key socio-economic baseline characteristics of each study area.

Baseline characteristics of primary local study area - Moranbah

Community setting

Moranbah is a town in the Isaac Region, Queensland and is located off the Peak Downs Highway between Mackay and Clermont. Originally settled by pastoralists in the 1850s, open cut coal mining began in the surrounding area in the late 1960s, and Moranbah was established as a purpose-built mining town by Utah Development Authority. Moranbah is identified in the Mackay, Isaac, and Whitsunday (MIW) Regional Plan as the main service centre for the Isaac sub-region providing a hub for employment, housing and urban services and infrastructure.

Demographic characteristics

According to Queensland Government Statistician's Office, as at June 2018, Moranbah's permanent population was 8,540 persons. The estimated non-resident population in Moranbah in June 2018 was 2,465 persons. The non-resident population is added to the resident population estimate to give a full-time equivalent (FTE) population estimate for Moranbah of 11,005 persons. The estimated non-resident population of the Isaac LGA in June 2018 was 12,075 persons. The FTE population estimate for Isaac LGA was therefore 33,070 persons.

Between 2013 and 2018, Moranbah experienced a decline in population with an average annual growth rate of -0.1 per cent. Similarly, the Isaac LGA experienced population decline over the same period at an annual growth rate of -2.1 per cent. Between 2008 and 2018, Moranbah experienced slight annual population growth of 0.9 per cent per year while Isaac LGA's population decreased by 0.3 per cent per year over this ten-year period.

Moranbah's permanent population is projected to reach to 11,939 persons as at 30 June 2041, equivalent to an increase of 1.1 per cent per year over 25 years. Over the same period, Isaac LGA's permanent population is expected to increase by 0.6 per cent per year (equivalent to 24,786 persons as at 30 June 2041).

Income, disadvantage and vulnerable group

At the 2016 ABS Census, median incomes of the household, family, and individual in Moranbah were higher than those in Isaac LGA (\$2,421 per week in Moranbah and \$2,138 per week in Isaac LGA). The proportion of households earning less than \$600 per week in 2011 and \$650 per week in 2016 has increased in Moranbah. In 2011, 4.5 per cent of households in Moranbah reported a gross weekly income of less than \$600 per week, which increased to 6.5 per cent at the 2016 Census. This is likely driven by the outmigration of high-income households between 2011 and 2016 due to a downturn in the mining industry. However, the proportion of households earning a gross income of more than \$3,000 per week increased slightly between 2011 and 2016, from 35.6 per cent to 36.6 per cent.

Regarding the Social-Economic Indexes of Areas, in 2016, 36.8 per cent of the population fell within the least disadvantaged quintile in Moranbah which was substantially higher than Isaac LGA (21.6 per cent of population within the least disadvantaged quintile). Moranbah had no population in the most disadvantaged quintile compared with 3.9 per cent in the most disadvantaged quintile in Isaac LGA. Over the five years to the 2016 Census, the proportion of the population of Moranbah who are potentially more vulnerable to the effects of social change increased: (i) people aged 65 years or older rose from 120 to 167 elderly persons; (ii) the proportion of low-income households earning less than \$650 per week increased by 60.2 per cent; and (iii) the number of unemployed people more than doubled, though more recent estimates indicate the number has now declined.

Labour profile

At the 2016 ABS Census, mining was the top industry of employment with 42.7 per cent and 37.7 per cent of employed persons working in mining industry in Moranbah and Isaac LGA, respectively. The top five industries of employment for Moranbah included: (i) Mining (42.7 per cent); Accommodation and food services (8.2 per cent); Education and training (7.0 per cent); Retail trade (4.9 per cent); and Public administration and safety (4.7 per cent).

The occupation and skills profile in Moranbah and Isaac LGA in 2016 indicates that there is potential to provide labour and skills associated with the construction and mining industries. Both Moranbah and Isaac LGA had high percentage of skilled labour, such as Technicians and trades workers and Machinery operators and drivers.

Housing and accommodation

The housing market in Moranbah is historically influenced by the mining industry's cyclical trends. At the 2016 Census, Moranbah recorded 3,659 private dwellings, of which 70.8 per cent were occupied. This was higher than the private dwelling occupancy rates recorded for Isaac LGA, at 65.5 per cent. In Moranbah, the proportion of unoccupied dwellings grew by about 81.2 per cent between 2011 and 2016, from 590 unoccupied dwellings in 2011 to 1,069 unoccupied dwellings in 2016.

Moranbah recorded higher rates of rented dwellings and lower rates of homeownership compared to Isaac LGA. Around 76.6 per cent of occupied private dwellings in Moranbah were rented in 2016, compared to 63.5 per cent for Isaac LGA. Rates of homeownership in Moranbah declined significantly between 2011 and 2016, by 32.0 per cent, while rates of renting increased by 13.5 per cent. Moranbah and Isaac LGA also feature high proportions of 'other landlord type' for rented dwellings, which in mining towns typically equate to dwellings owned by mining companies with some dwellings owned by Government to provide housing for employees. Around 53.5 per cent of rented dwellings in Moranbah and 54.8 per cent in Isaac LGA were rented from 'other landlord type'.

High rates of company-provided and/or subsidised housing reflect the relatively lower levels of median weekly rents in Moranbah and Isaac LGA, at \$100 and \$90 per week, respectively. Around 36.7 per cent of rented dwellings in Moranbah were managed by real estate agencies. Moranbah and the Isaac LGA recorded lower proportions of social housing, with around 3.4 per cent and 3.5 per cent of rented dwellings constituting social housing, respectively.

The influx of non-resident workers has historically reduced housing availability and affordability in Moranbah. This effect was seen to be exacerbated by mining companies subsidising rent for workers. At the peak of the mining boom to 2012, median house sale prices reportedly reached \$650,000 in Moranbah, with the median house price increasing by \$230,000 (or by 48 per cent) in a single year to 2012. Similar trends were reported for rentals. At the height of the mining construction in 2012, median rent doubled from \$750 per week to \$1,500 per week, at about four times greater than the Queensland benchmark for rent. At the 2016 Census, around 4.5 per cent of rental households in Moranbah were experiencing housing stress, greater than the proportion recorded across Isaac LGA region as a whole. This indicates that residents of Moranbah are more likely to experience housing stress than people who reside elsewhere in the broader Isaac LGA.

Regarding Workforce Accommodation Villages (WAVs), in June 2018, there was a total of 19,052 WAV beds in the Isaac LGA, with a total approved capacity of 32,208 beds (including existing beds). In Moranbah there were a total of 18 WAVs, with 6,411 existing beds and a potential total capacity of 15,020 beds.

Business and industry

The mining industry is a key industry in Moranbah and the broader Isaac LGA region. The total output generated by the Isaac economy is estimated at \$17.641 billion, representing around 2.56 per cent of the output generated in Queensland. Mining accounts for around 84 per cent of Isaac LGA's output. As at 30 June 2018, there were 442 and 1,655 registered businesses in Moranbah and Isaac LGA, respectively. In Moranbah, the industry with the largest number of registered businesses was Construction (15.4 per cent), followed by Agriculture, forestry and fishing (12.9 per cent). Rental, hiring and real estate services had the third largest business count by industry in the town (10.2 per cent).

Community values

Whilst Moranbah retains a strong identity as a mining town, it has more recently established itself as a key regional service and governance centre. Moranbah is a close-knit town characterised by low-rise housing distributed around the town centre. Key aspects valued by residents in Moranbah include: (i) a strong and diverse community spirit; (ii) a casual and relaxed lifestyle; (iii) a range of social infrastructure, facilities, and services to cater for the diverse needs of the community; and (iv) a relatively high access to socio-economic resources. Towns (including Moranbah) throughout the Isaac region show strong connectedness between local people with the additional strength of shared employment in mining. Residents in these mining towns have worked and socialised together, forming strong social networks which provide the basis for robust social capital.

Social infrastructure

Moranbah provides a range of education and health infrastructure including two primary schools and one secondary school, a 12-bed hospital, two doctor surgeries along with dental and allied health practices. There are two long-day childcare centres. However, there is a current under-supply of available spaces. Emergency and justice services in Moranbah include: Moranbah Police Station; Moranbah Ambulance Station; Moranbah Fire and Rescue Service; and Moranbah Court House. Moranbah offers a wide range of community and civic services, and community and family support services, such as Moranbah and District Support Services; Moranbah's Emergency and Long-Term Accommodation; Centacare; and Moranbah Youth and Community Centre. Moranbah offers a wide variety of sport and recreational facilities and several local associations and hobby groups.

Baseline characteristics of secondary study areas – Dysart, and Coppabella

The following summarises key characteristics of the secondary local study area- the towns of Dysart and Coppabella.

Community setting

Dysart is a town and a locality in the Isaac Region. The town was established in 1973 soon after the construction of the Saraji mine. A few years later in 1979, Norwich Park Coal Mine opened approximately 25 km south east of Dysart, contributing to Dysart's population growth. Coppabella is a locality in the Isaac region. The town was established at the intersection of the railway lines to Goonyella and Saraji Mines by Queensland Railways in order to house staff and manage rail transport.

Demographic characteristics

According to the 2016 ABS Census, Dysart had a total population of 2,991 people while Coppabella's population was only 466 people. The median age of people in Dysart was 31 years old which was lower than Coppabella's median age of 38 years old. Coppabella had significantly lower percentages of people aged 14 years or under (7.7 per cent in Coppabella and 26.4 per cent in Dysart) and of people aged 65 years old or older (1.9 per cent in Coppabella and 2.9 per cent in Dysart). Based on Queensland Government Statistician's Office Bowen Basin Population report for 2018, the estimated non-resident population in Dysart UCL in June 2018 was 1,790, comprising 42.7 per cent of the FTE population of Dysart. No data on non-resident population was available for Coppabella.

Labour and employment profiles

Based on the 2016 ABS Census, there were 1,331 people who reported being in the labour force in Dysart and 213 people in Coppabella. The unemployment rate was very low, particularly in Coppabella (1.4 per cent). It was reported that the number of unemployed persons in Dysart rose due an influx of persons seeking state-supplied housing. An analysis of the occupation profile shows that Machinery operators and drivers and Technicians and trades workers are the two most common occupations in Dysart and Coppabella in 2016. In Dysart, the most common occupations included Machinery operators and drivers (29.9 per cent), Technicians and trades workers (19.7 per cent), Labourers (12.6 per cent), Professionals (10.4 per cent), and Clerical and administrative workers (8.8 per cent). The only responses for occupation in Coppabella were Machinery operators and drivers (44.2 per cent), Technicians and trades workers (16.0 per cent), Managers (11.7 per cent), Labourers (8.3 per cent), Clerical and administrative workers (7.3 per cent), Professionals (5.3 per cent) and Community and personal service workers (5.3 per cent).

Housing profile

In 2016, Dysart and Coppabella recorded high rates of unoccupied dwellings at 41.4 per cent and 41.6 per cent, respectively. These rates were higher than that of Isaac LGA at 34.5 per cent. Collectively, there were 611 unoccupied dwellings on Census night between the two towns. It was reported in engagement undertaken to inform the SIA that a considerable proportion of unoccupied dwellings require maintenance and repair.

At the 2016 ABS Census, the percentages of rented housing in Dysart and Coppabella were high. The proportion of rental tenure in Coppabella (77.8 per cent) was higher than Dysart (69.2 per cent) and that in Isaac LGA (63.5 per cent). Coppabella (100 per cent) and Dysart (49.8 per cent) had very high percentage of 'other landlord type' in 2016. In Dysart, a high proportion of housing is owned by mining companies and in Coppabella, dwellings are primarily owned by Aurizon. The percentage of occupied dwellings owned by other landlords ranged from 77.8 per cent in Coppabella to 34.5 per cent in Dysart in 2016. The rental vacancy rate in Dysart has fallen from 6.5 per cent in June 2018 to 4.9 per cent in December 2018. Vacancy rates peaked at 20 per cent in July 2013.

With regard to WAVs of the two towns, Coppabella had the higher number of existing beds at 3,831 and the higher total capacity of 5,712 beds (including beds built) compared with Dysart. The total capacity of approved beds in Coppabella accounted for 18 per cent of Isaac total beds. In Dysart, there were 3,275 existing beds and the town had a potential total capacity of 3,670 beds.

Community values

Dysart has a strong identity as a mining town which has gone through cycles of boom and bust with the fortunes of the mining industry. Dysart is characterised as a friendly community strongly bonded by shared experience. Coppabella has a distinct identity as a railway town. The town is a close-knit community based around a railway connection and the cohesion of Coppabella is built and strengthened by the bonds between railway workers and families.

Employment profile of nearby regional communities

The employment profile of 10 nearby local towns show that at the 2016 ABS Census, the total labour force was 9,235 people, accounting for 50 per cent of the total population of the towns. The size of the labour force was largest in Moranbah (4,369 people), followed by Dysart (1,094 people). The total number of unemployed persons across all towns was 494 people, of which 244 lived in Moranbah and 73 lived in Dysart. All nearby local towns had a high proportion of people employed full-time at an average of 67 per cent. Of note, Coppabella had the highest proportion of people employed full-time at 81 per cent. People employed part-time in all local towns made up 21 per cent of the total labour force. The number of people working in the mining industry was high with 3,692 workers, accounting for 42 per cent of total employed workforce. The occupation profile of nearby regional communities indicates that there was a high number of people with occupations with skills relevant to the mining industry with 6,093 people, accounting for 70 per cent of total employed workforce.

Baseline characteristics of regional study area – Isaac and Mackay LGAs

Regional setting

The Project is located within the Isaac LGA which covers 58,862 km² stretching from the Central Queensland coast to the Bowen Basin coalfields. The area includes a diverse mix of coastal, agricultural and mining communities, and contains a substantial portion of the Bowen Basin coal reserves. Mackay is the principal service and activity centre for the MIW Region. Mackay is a well-developed source of employees, contract labour, supplies and services to the Bowen Basin and is the centre to which many Isaac LGA residents access higher-order health, retail and service requirements.

Demographic profile

As at June 2018, the Isaac LGA had an estimated resident population of 20,934 while the population of Mackay LGA was 116,539 residents. During 2013-2018, each LGA experienced a decrease in population with average annual growth rates of Isaac and Mackay LGAs being -2.1 per cent and -0.4 per cent, respectively. Population decreased during 2013-2018 as a result of contraction in both direct local employment (the result of mining industry redundancies and an increase in fly-in-fly-out [FIFO] employment) and indirect employment (as businesses supported by construction and mining had less capacity to employ). Both Isaac and Mackay LGAs have the capacity to continue to grow if commodity prices continue at levels that inspire industry confidence and population growth in mining regions may become stronger over the next five years.

Employment and labour

As at March 2019, the total labour force in both Isaac and Mackay LGAs was 75,008 with an unemployment rate of 3.9 per cent. Within the region, Mackay LGAs had 62,527 people in the labour force with an unemployment rate of 4.4 per cent. Isaac had smaller workforce (12,481 people) and substantially lower unemployment rate of 1.6 per cent. Collectively, the top industries of employment were: (i) Mining (14.5 per cent); (ii) Preschool and school education (6.0 per cent); (iii) Food and beverage services (4.9 per cent); (iv) Other store-based retailing (4.3 per cent); and (v) Construction services (4.1 per cent). Based on the 2018 ABS Business Register, in 2018, the industry with the largest number of registered businesses in the study area was Agriculture, forestry and fishing (23.3 per cent), followed by businesses in the Construction sector (15.0 per cent) and in Rental, hiring and real estate services (10.4 per cent).

Community health and safety

In Isaac LGA, there were a higher proportion of people aged 18 years or over who had at least one of four health risk factors (smoking, high alcohol use, obesity, or no/low exercise levels in the previous week) compared with residents in Mackay LGA and Queensland as a whole (Age Standardised Rate 86.5 compared with 82.6 for Mackay and 79.0 for Queensland). Residents of Isaac LGA were modelled to have higher hospital admission rates for injury, poisoning and other external causes (3,528.2 per 100,000 compared to 2,953.9 per 100,000 for Queensland), and for parasitic and infectious diseases (admissions modelled at 579.7 per 100,000 compared to 553.2 per 100,000 for Queensland).

The Mackay Hospital and Health Services is recognised as one of the top performing hospitals and health services in Queensland. The Mackay Hospital and Health Services is responsible for providing medical, surgical, emergency, obstetrics, paediatrics, specialist outpatient clinics, mental health, critical care and clinical support services.

Mackay LGA had a relatively high rate of reported offences with 11,102 per 100,000 persons compared to a Queensland rate of 10,084 offences per 100,000 persons. Isaac LGA had a reported offence rate of 7,632 per 100,000 persons.

Impact assessment and mitigation

Impact identification and assessment was undertaken against the key matters identified in the SSRC Act and SIA Guideline (2018) for both the construction and operations phases of the Project¹. The five key impact categories specified in the SIA Guideline (2018) are: Community and Stakeholder Engagement; Workforce Management; Housing and Accommodation; Local Business and Industry Procurement; and Health and Community Well-being.

¹ For the purposes of this assessment, the construction phase also incorporates pre-construction and commissioning, and the operations phase also incorporates maintenance and decommissioning.

Identified impacts were evaluated in accordance with specifications of the SIA Guideline (2018). Across each of the impact categories, consideration was made as to the sensitivity of the affected stakeholder to negative impacts and their capacity to realise positive Project effects. Mitigation and enhancement measures were developed in consultation with key Project stakeholders and are designed to enhance socio-economic benefits and avoid or actively manage any negative impacts associated with the Project. An assessment of residual impact significance was undertaken which assumes the effective implementation of proposed mitigation and enhancement measures.

The key positive and negative social impacts identified in this SIA are summarised below and discussed in further detail in Chapter 6.

Community and stakeholder engagement

There is a broad range of stakeholders with an interest in, or influence on the Project. These range from government regulators and industry groups, to landholders and residents of local and regional communities. The Proponent appreciates the importance of developing and maintaining positive relationships with such stakeholders and has sought to establish and strengthen these relationships through engagement undertaken as part of the EIS and SIA and more broadly.

A common factor contributing to poor relationships with stakeholders in the resource sector is dissatisfaction with the distribution of project-related benefits and opportunities, particularly the benefits which flow to local communities. Numerous stakeholders engaged as part of the SIA highlighted the importance of ensuring that local communities benefitted from the Project, primarily through employment, training and business opportunities. The Proponent has proposed a range of measures to enhance these opportunities.

Workforce management

Project construction would occur over three years and require a peak workforce of 500 workers. Project operations would occur over 28 years and require a workforce of 500 workers. Benefits and impacts associated with the sourcing of labour and workforce integration into the local community were explored as part of the SIA. It is anticipated that 95 per cent of the construction workforce and 80 per cent of the operation workforce would be sourced from local and regional study areas.

The Project is likely to attract currently employed workers as well as persons currently unemployed, particularly those who have previously been employed in the mining sector, and people who would prefer residential positions to a current FIFO position. With a recruitment hierarchy which prioritises local residents, the Project would have a significant positive impact on increased employment opportunities for residents of local and regional communities.

The Project is also likely to enhance skills and capacity in local communities due to the movement of a skilled workforce into the local area, further supported by targeted training and skills development initiatives. However, there are potential negative impacts associated with workforce management including shortage of labour and skills for other local employers due to the levels of demand further contributed by the Project; loss of employment opportunities and associated redundancies following the conclusion of operations; and health and well-being effects of the workforce and their families through roster and shift-scheduling arrangements. The Proponent has proposed a range of measures to enhance benefits and to minimise/avoid negative impacts associated with the workforce assembly and management.

Housing and accommodation

During the construction and operation phases, the Project would result in permanent and temporary increases to the population of local and regional areas. Project-derived demand for housing and accommodation was a key consideration of the SIA. Analysis of demographic and employment characteristics data suggests that up to 35 workers would be able to be sourced from local towns for Project construction, which represents 7 per cent of the peak construction workforce. This equates to a peak temporary accommodation requirement for 465 workers. With regard to operations, it is predicted that up to 50 workers may be sourced from the local area, which represents 10 per cent of the site-based peak operational workforce. Of the remaining 450 site-based operations workers, historical data was analysed to inform an assumption that between 10 per cent and 15 per cent would seek to move to the local area. Whitehaven anticipates that direct inducements such as the 'Live Local' initiative will increase the proportion of workers (compared to historical values) that would seek to move to the local area to 15 per cent. This equates to a total estimated additional housing demand equating to 68 additional households.

By contributing to population growth in the local study area and demand for workforce housing and accommodation, there is a potential for benefits and impacts to be generated by the Project. An increase in the demand for workforce housing and accommodation demand would have a positive impact on property market capitalisation, resulting in higher returns on investment for local property owners. In addition, (temporary) workforce accommodation service providers would be provided with an opportunity to economically benefit from increased demand. However, the Project would contribute to a negative effect on housing availability, affordability, and accessibility in the local study area. Without mitigation, this could particularly impact on disadvantaged and lower-income individuals and families.

Local business and industry procurement

The Project would generate opportunities for local and regional businesses to supply goods and services for the Project's construction and operation. Capital costs over the life of the Project are estimated to be \$1.3 billion in net present value terms. This includes costs associated with construction activities, such as development costs and repayments made on leased mobile equipment, and land compensation costs and sustaining capital repayments. There is robust capacity within the local and regional study areas to provide many of the required goods and services for the Project. The Economic Assessment predict potential revenue of up to \$4.9 billion in net present value terms (or 90 per cent of total capital and operational expenditure) to be available to the local and regional supply chain as a result of the Project. This is a significant benefit to local and regional businesses which the Proponent would seek to enhance by implementing procurement policies that encourage local content and are consistent with the values of the *Queensland Resources and Energy Sector Code of Practice for Local Content*. Additionally, the Economic Assessment estimates that an increase in disposable income of up to \$202 million in net present value terms would accrue to workers in the region, as a result of comparisons between the average wage for the mining industry relative to the average wage in the region. These economic effects are expected to be a significant benefit to businesses within both the local and regional study areas with positive flow-on socio-economic effects.

Health and community well-being

The Project has the potential to both directly and indirectly influence community health outcomes, which include physical and mental health, as well as social, cultural and economic well-being. Project-induced changes to population can directly affect accessibility and capacity of social infrastructure and community facilities. Conversely, such population growth can have a very positive effect in terms of contributing to social capital and the social sustainability of townships.

Towns in the local area have been established due to mining projects and are subsequently familiar with the cycles of the mining industry and the challenges this creates in terms of the provision of social infrastructure and services. The Project would result in a small increase to the local resident population along with an increase in the non-resident population. This would increase the burden on social infrastructure including early childhood education and care services, hospital and health services, and emergency services. The Project is also likely to positively contribute to population retention and growth in the local study area through the generation of employment and other economic opportunities. This population growth would contribute to improved community vitality and resilience and support the ongoing provision of social infrastructure and community services.

The table below summarises the assessment of identified impacts associated with the Project. Note that the residual risk rating assumes the effective implementation of mitigation and enhancement measures as outlined in the SIMP.

Table ES-1 Summary of identified impacts

Impact description	Project Phase	Impact nature	Residual risk
Community and stakeholder engagement			
Deterioration of community and stakeholder relationships, resulting in reputational impacts and being negatively regarded by local communities which potentially affects employee satisfaction and operational efficiency	C, O	Negative	Negligible
Workforce management			
Increased employment opportunities for residents of local and regional communities. This includes opportunities for traditionally underrepresented groups such as women, and Aboriginal and Torres Strait Islander (ATSI) persons	C, O	Positive	Medium

Impact description	Project Phase	Impact nature	Residual risk
Enhanced skills and capacity in local communities due to targeted training and skills development initiatives	C, O	Positive	Medium
Economic opportunity for local businesses due to incidental expenditure by members of the Project (e.g. clothing, food, entertainment)	C, O	Positive	Medium
Shortage of employment and skills in other industries due to additional demand for workers created by the Project	C, O	Negative	Negligible
Health and well-being of the workforce and their families affected through employment conditions, shift scheduling, accommodation and work stress	C, O	Negative	Low
Loss of employment opportunities, and associated redundancies following the conclusion of operations	O	Negative	Low
Housing and accommodation			
Increased business opportunities for housing and accommodation providers (WAVs and rental houses)	C, O	Positive	Low
Stimulation of housing investment	C, O	Positive	Low
Increased housing and accommodation demand due to the influx of the Project's workforce	C, O	Negative	Negligible
Reduced housing and accommodation availability due to increased cumulative demand	C, O	Negative	Low
Economic hardship for lower-income rental market tenants who have less capacity to meet higher housing costs, potentially resulting in increased demand on social welfare, and out-migration to lower-cost communities	C, O	Negative	Low
Local business and industry procurement			
Economic benefits for local businesses due to opportunities to provide goods and services for the Project. This will include targeted opportunities for ATSI-owned businesses	C, O	Positive	Medium
The potential to monopolise goods and services if the Project's demand exceeds the capacity of the local supply chain. This may impact residents of local communities by increasing costs and reducing availability of necessary goods and services	C, O	Negative	Negligible
Health and community well-being			
Population influx contributing to social capital and community spirit	C, O	Positive	Medium
Enhanced community resilience through financial and in-kind contributions to community development initiatives	C, O	Positive	Medium
Increased demand for hospital and health services resulting in increased burden for service providers and reduced level-of-service for existing residents	C, O	Negative	Negligible
Disruption to community cohesion, sense of place and cultural identity due to workforce integration	C, O	Negative	Negligible
Amenity and health impacts for surrounding landholders due to increased noise and vibration from activities such as earthmoving and blasting	C, O	Negative	Low
Amenity impacts for community members due to increased Project-related traffic, resulting in increased congestion and road surface impacts	C, O	Negative	Negligible
Increased demand for early childhood education and care services by the Project workforce, resulting in increased burden for service providers and reduced level-of-service for existing residents	C, O	Negative	Low

Impact description	Project Phase	Impact nature	Residual risk
Increased demand for emergency services by the Project workforce, resulting in increased burden for service providers and reduced level-of-service for existing residents	C, O	Negative	Low
Amenity and health impacts for surrounding landholders and nearby communities due to fugitive dust emissions	C, O	Negative	Medium
Impacts on mental health concerns in the community	C, O	Negative	Low
Perceived level of public safety affected by increased exposure to anti-social or illegal behaviours by members of the Project workforce	C, O	Negative	Low
Increased likelihood of vehicle collisions (and associated injuries) due to increased volume of heavy vehicles and driver fatigue	C, O	Negative	Low

Note: C = construction, O = Operation.

As a form of analysis informing an EIS, SIA is more orientated towards the definition and avoidance or mitigation of potential impacts as opposed to potential social benefits. Accordingly, a total of 18 negative impacts were identified by this SIA compared to eight positive impacts. However, of the negative impacts, there were no impacts which retained a residual risk rating of 'medium' or above. Eight negative impacts were ranked as 'negligible' whilst ten negative impacts retained a 'low' rating assuming the effective implementation of mitigation and enhancement measures. The negative impacts which had the highest assigned level of significance generally related to the health and well-being of the workforce and their families which would be managed through the Whitehaven Coal Health and Safety Management System.

Reduced availability, affordability and accessibility of housing and accommodation was raised as a key concern held by local stakeholders. Increased demand generated by an influx of mining workers from the Project together with other mining projects may cumulatively cause a shortfall in the availability of housing and accommodation, subsequently leading to impacts to the housing market. An increase in housing and rental costs due to increases in the population and housing demand has the potential to lead to economic hardship for lower-income rental market tenants who have less capacity to cope with increased housing costs. To ensure the Project does not adversely affect the affordability and availability of housing in local communities, the Proponent is committed to making an appropriate contribution to both permanent housing and affordable housing stock in Moranbah. As outlined in the SIMP, the proponent has also committed to a broad range of measures which serve to improve accessibility to social infrastructure and support community sustainability, culture and well-being.

Of the eight identified positive impacts, six were rated as 'medium' and the remaining retained a rating of 'low' upon the implementation of enhancement measures. The Project would significantly contribute to increasing employment opportunities for local and regional residents through application of the recruitment hierarchy. The Project would also further enhance skills and capacity in local communities due to targeted training and skills development initiatives and increase business and supply chain opportunities through adopting a procurement policy and plan consistent with the values of the *Queensland Resources and Energy Sector Code of Practice for Local Content* and *Australian Industry Participation Framework*. The Proponent is committed to establishing itself as a long-term community partner which will make a positive contribution to community sustainability and development at a local and regional scale.

Social Impact Management Plan

A draft SIMP has been prepared to address the impacts and benefits identified. The draft SIMP would be reviewed, and if necessary revised, every two years for the first four years of the Project and then every three years up to Project Year 10, to ensure the effectiveness and relevancy of the proposed social management measures. A requirement of the SIA Guideline (2018) is that the SIMP is prepared as part of the SIA which includes sub-plans devoted to:

- Workforce Management;
- Housing and Accommodation;
- Local Business and Industry Procurement;
- Health and Community Well-being; and
- Community and Stakeholder Engagement.

These plans included objectives, measures to mitigate potential negative social impacts or to enhance potential benefits for the Project, and a program to monitor and report on the delivery and effectiveness of management strategies.

The following outlines key management measures contained in each plan.

Workforce Management Plan

- Maximise local employment through application of the Recruitment hierarchy. The scheduling of recruitment will be staggered in accordance with the recruitment hierarchy.
- Fully comply with the relevant provisions in the Anti-Discrimination Act 1991. No job opportunity will be advertised as a FIFO only position.
- Provide additional training opportunities for young people from local communities through funding an education-based traineeship for each year of operation.
- Remove barriers for employees through directly contributing to improved childcare services by way of financial support to local childcare services.
- Maximise employment opportunities for Aboriginal People through supporting Traditional Owners and other relevant Aboriginal groups (e.g. Barada Barna Aboriginal Corporation).

Housing and Accommodation Plan

- Reduce stress on the housing market by increasing permanent housing stock in Moranbah through building new housing in Moranbah for employees.
- Increase availability of affordable housing through supporting the Isaac Affordable Housing Trust and/or Emergency and Long-Term Accommodation Moranbah Inc to construct additional units for affordable housing.
- Provide all employees with genuine housing choice through provision of high-quality workforce accommodation utilising existing worker accommodation facilities rather than building new facilities.
- Provide support to members of workforce seeking to move to local communities through providing connections to the highest quality local advice and support networks provided to all prospective employees looking to move to local area. The 'Live Local Initiative' housing subsidy will be used as a mechanism to both encourage employees to live in local towns whilst also managing potential effects on the local housing market.

Local Business and Industry Procurement Plan

- Prepare and adopt a procurement policy and plan consistent with the values of the *Queensland Resources and Energy Sector Code of Practice for Local Content* and *Australian Industry Participation Framework*.
- Collaborate with Moranbah Traders Association, Local Content Leaders Network and the RIN and any other appropriate stakeholders in establishing a local supplier listing tailored to the Project.
- Develop and implement a local supplier prequalification process and enable low-value transactions with local businesses rather than through complex tendering processes.
- Give preference (through an appropriate criteria weighting) to contractors and sub-contractors who optimise local content where comparative bids are assessed as commercially and technically equivalent.
- Categorise procurement streams according to risk and tailor insurance requirements accordingly so that local businesses are not precluded from tendering for opportunities.
- Facilitate and support delivery of a tender readiness program for Indigenous businesses in collaboration with the Barada Barna Aboriginal Corporation and DATSIP.

Health and Community Well-being Plan

- Directly contribute to improved accessibility to childcare services.
- Reduce additional demands on local health services through the provision of on-site first aid facilities for workers with appropriately trained personnel available that can assist with attending to minor workforce health issues, as well as providing first response services for emergency situations and site accidents.

- Support positive mental health outcomes through funding local and regional mental health and suicide prevention initiatives.
- Address any effect on road safety by developing and implementing a Fatigue Management Standard including the swipe on/swipe off system, use of buses to transport workers to and from worksites and car-pooling arrangements.
- Participate in any community groups assessing and monitoring cumulative dust emissions, including potential contributions to additional dust monitoring stations.
- Support community culture and well-being through the Whitehaven Community Fund which invites community organisations to apply for annual funding.

Community and Stakeholder Engagement Plan

- Maintain a Project officer dedicated as a community contact point.
- Establish, publicise, and maintain a readily accessible community complaints and resolution process.
- Publish and disseminate Project Community Updates.
- Establish and maintain long-term respectful relations with the Barada Barna Aboriginal Corporation including managing cultural heritage in accordance with the Cultural Heritage Management Plan and meeting the requirements of any native title agreement.
- Regularly engage with the IRC in the monitoring of SIMP implementation.
- Engage with the community through inviting applications to the Whitehaven Community Fund.

Acronyms and abbreviations

Term	Definition
ABS	Australian Bureau of Statistics
AHURI	Australian Housing and Urban Research Institute
ASR	Age Standardised Rate
ATSI	Aboriginal and Torres Strait Islander
BMA	BHP Billiton Mitsubishi Alliance
CFMEU	Construction, Forestry, Maritime, Mining and Energy Union
CHPP	Coal Handling and Preparation Plant
CHMP	Cultural Heritage Management Plan
CPDD	Coordinated Project Delivery Division
CSEP	Community and Stakeholder Engagement Plan
CSEMS	Community and Stakeholder Engagement Management Strategy
CTEC	Coalfields Training Excellence Centre
DATSIP	Department of Aboriginal and Torres Strait Islander Partnerships (Queensland)
DEE	Department of the Environment and Energy (Commonwealth)
Deloitte	Deloitte Access Economics
DESBT	Department of Employment, Small Business and Training (Queensland)
DIDO	Drive-in, Drive-out
DNRM	Department of Natural Resources and Mines (Queensland)
DNRME	Department of Natural Resources, Mines and Energy (Queensland)
DSDMIP	Department of State Development, Manufacturing, Infrastructure and Planning (Queensland)
DTMR	Department of Transport and Main Roads (Queensland)
EEO	Equal Employment Opportunity
EIS	Environmental Impact Statement
ELAM	Emergency and Long-Term Accommodation
EP Act	<i>Environmental Protection Act 1994</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPC	Exploration Permit for Coal
ETL	Electrical Transmission Line
FIFO	Fly-in, Fly-out
FTE	Full Time Equivalent
GIS	Geographic Information System

Term	Definition
GP	General Practitioner
HAP	Housing and Accommodation Plan
HCWP	Health and Community Well-being Plan
HCC	Hinterland Community Care
HHS	Hospital and Health Services
IAHT	Isaac Affordable Housing Trust
IAP2	International Association for Public Participation
ICN	Industry Capability Network
IRC	Isaac Regional Council
ISPN	Isaac Suicide Prevention Network
km	Kilometres
km ²	Square Kilometres
kV	Kilovolt
LBIPP	Local Business and Industry Procurement Plan
LGA	Local Government Area
m ²	Square metres
MCIG	Moranbah Cumulative Impacts Group
MDSS	Moranbah and District Social Services
MIA	Mine Infrastructure Area
MIW	Mackay, Isaac, and Whitsunday
MLA	Mining Lease Application
ML	Mining Lease
MPHS	Multi-Purpose Health Service
Mtpa	Million tonnes per annum
NSW	New South Wales
OCG	Office of the Coordinator-General
%	Per cent
QGSO	Queensland Government Statistician's Office
QMEA	Queensland Minerals and Energy Academy
RAP	Reconciliation Action Plan
RIN	Regional Industry Network
ROM	Run-of-mine

Term	Definition
RPI Act	<i>Regional Planning Interests Act 2014</i>
SA2	Statistical Area Level 2 (ABS ASGS)
SCL	State Cropping Land
SCR	State Controlled Road
SDPWO Act	<i>State Development and Public Works Organisation Act 1971</i>
SIA	Social Impact Assessment
SIMP	Social Impact Management Plan
SMEC	SMEC Australia Pty Ltd
SMEs	Small-to Medium Enterprises
SSC	State Suburb (ABS ASGS)
SSRC Act	<i>Strong and Sustainable Resource Communities Act 2017</i>
STEM	Science Technology Engineering and Maths
SWMS	Safe Work Method Statement
TAFE	Technical and Further Education
the Project	Winchester South Project
the Proponent	Winchester South Coal Operation Pty Ltd
ToR	Term of Reference
UCL	Urban Centres and Localities
WAV	Worker Accommodation Village
Whitehaven	Whitehaven Coal Limited
Whitehaven WS	Whitehaven WS Pty Ltd
WMP	Workforce Management Plan
\$	Australian Dollar

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1 Introduction

1.1 Background

Whitehaven Coal Limited (Whitehaven) is Australia's largest independent listed coal producer, with four mines currently in operation in the Gunnedah Basin of north west New South Wales (NSW). Whitehaven's current overall workforce is more than 2,000 personnel, with around 75 per cent of employees living in the local communities near the operations. Whitehaven has contributed over \$1.5 billion in the last 5 years to the local economies around which it operates and works with over 350 local businesses.

Whitehaven WS Pty Ltd (Whitehaven WS) (a wholly owned subsidiary of Whitehaven), proposes to develop the Winchester South Project (the Project), a predominantly metallurgical open cut coal mine and associated infrastructure within the Bowen Basin, located approximately 30 kilometres (km) south east of Moranbah, within the Isaac Local Government Area (LGA). Products would include metallurgical coal for the steel industry and thermal coal for energy production.

The Queensland Coordinator-General has declared the Project to be a 'coordinated project for which an Environmental Impact Statement (EIS) is required' under section 26(1)(a) of the *State Development and Public Works Organisation Act 1971* (SDPWO Act). This declaration initiates the statutory environmental impact assessment procedure of Part 4 of the SDPWO Act, which requires the Proponent to prepare an EIS for the Project. This Social Impact Assessment (SIA) has been prepared to satisfy the requirements of the *Terms of reference for an environmental impact statement – Winchester South Project* (ToR) issued by the Coordinator-General on 4 September 2019.

As a large resource project which requires an EIS, the *Strong and Sustainable Resource Communities Act 2017* (SSRC Act) also applies, a key requirement of which is the preparation of a SIA. This SIA has been prepared by SMEC Australia Pty Limited (SMEC) as one of the specialist technical assessments informing the EIS.

1.2 Purpose of the report

The purpose of the SIA is to identify and assess the social effects which are predicted to occur in local and regional communities as a result of the Project and how such effects might be mitigated or enhanced. The SIA has been prepared to meet Queensland's statutory requirements and the ToR which were issued for the Project, as further discussed in Section 3.

The objectives of the SIA were to:

- define the communities potentially affected by the Project having regard to the EIS ToR, SSRC Act, and the Coordinator-General's SIA Guideline (2018);
- provide stakeholders with the opportunity to provide inputs into the SIA, including the scope of assessment, the impacts which may be experienced in different localities and by various stakeholders and how they might be avoided or mitigated;
- develop a robust socio-economic baseline against which potential changes may be assessed;
- provide a detailed assessment of positive and negative impacts on the social baseline for each Project stage;
- derive mitigation and enhancement commitments which serve to avoid or reduce impacts and enhance benefits; and
- provide a monitoring and reporting strategy to support the adaptive management of social impacts.

1.3 Winchester South Project

1.3.1 Overview

The Project involves the development of an open cut coal mine in an existing mining precinct for export of coal products. The Project would include construction and operation of a mine infrastructure area (MIA), including a Coal Handling and Preparation Plant (CHPP), train load-out facility and rail spur, which would be used for the handling, processing and transport of coal. An infrastructure corridor would also form part of the Project, including a raw water supply pipeline connecting to the Eungella pipeline network, an electricity transmission line (ETL) and a mine access road.

The Project is forecast to extract approximately 15 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal, with a forecast peak extraction of up to 17 Mtpa, for approximately 30 years. The coal resource would be mined by open cut mining methods, with product coal to be transported by rail to port for export.

The capital cost over the life of the Project is estimated to be in the order of \$1 billion. Initial capital is estimated at approximately \$900 million.

The Norwich Park Branch Railway would be used as the connection point into the broader Queensland rail network to transport the product coal by rail and export via, for example, Dalrymple Bay, Abbot Point and Gladstone coal ports through the Goonyella, Newlands and Blackwater rail networks, respectively (based on availability of rail and port allocation). Figure 1-1 below illustrates the Project location.

1.3.2 Site description

1.3.2.1 Regional and local context

Regional context

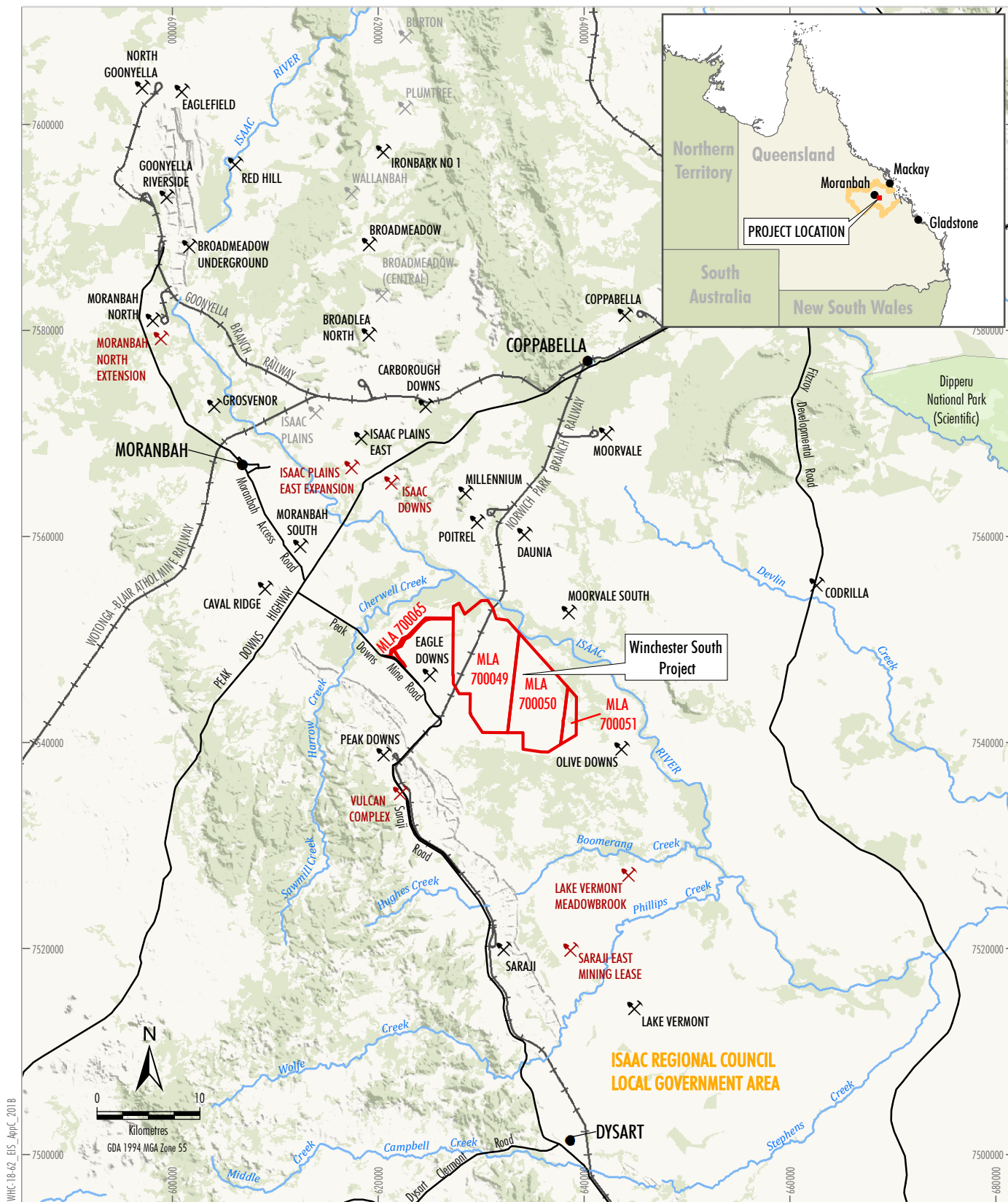
The Project is located approximately 30 km south-east Moranbah and approximately 46 km north of Dysart in the Bowen Basin region of central Queensland, within the Isaac LGA. The closest city is Mackay which is located approximately 200 km north east of the Project. The Project is located:

- within the Brigalow Belt North Bioregion as defined by the *Interim Biogeographic Regionalisation for Australia* (Commonwealth Department of the Environment and Energy [DEE], 2019a);
- within the Fitzroy River Catchment and is subject to the *Water Plan (Fitzroy Basin) 2011* and the Isaac Connors Groundwater Management Area;
- within the Isaac River floodplain as defined by the Queensland Floodplain Assessment Overlay (Department of Natural Resources, Mines and Energy [DNRME], 2019);
- within zones identified and mapped as Regional Landscape and Rural Production Area under the *Mackay, Isaac and Whitsunday Regional Plan* (Department of Local Government and Planning, 2012), and contains three areas mapped as good quality agricultural land;
- outside strategic cropping areas mapped as potential Strategic Cropping Land (SCL) under section 10 of the *Regional Planning Interests Act 2014* (RPI Act);
- within the Barada Barna People's Native Title Determination Area (QC2008/011) registered with the National Native Title Tribunal (2019); and
- within the area covered by the Inland Fitzroy and Southern Burdekin Suitability Framework (Department of Natural Resources and Mines [DNRM] and the Department of Science, Information Technology, Innovation and the Arts, 2013).

The Project is not located within an area of regional interest under the RPI Act. Areas of regional interest include priority agricultural areas, priority living areas, strategic cropping areas (formerly SCL) and strategic environmental areas. The Project is also not located within a declared underground groundwater area under the *Water Regulation 2016*.

The mine access road for the Project would adjoin the Eagle Downs Mine Access Road. The Eagle Downs Mine Access Road runs through a parcel of land (Lot 8 SP277384), owned by the Isaac Regional Council (IRC), which has a Community Infrastructure Designation (ID 503) for the "132 kilovolt (kV) transmission line route between the Moranbah – Peak Downs Tee – Dysart substations". Similarly, the Project ETL would connect to the 132 kV switching station (Eagle Downs Substation) (Lot 7 SP244492) which is also part of the designation (ID 503). It is not expected that the Project infrastructure corridor (i.e. mine access road, ETL and raw water supply pipeline) would have an impact on the future use of Lot 8 SP277384, the existing alignment of the transmission line between this lot and the Eagle Downs Substation, or the Eagle Downs Substation.

No other sites with a Community Infrastructure Designation (or Designation) under the *Planning Act 2016* are located within the Project area.



Source: The State of Queensland (2018 - 2020);
Geoscience Australia (2018).

WHITEHAVEN COAL
WINCHESTER SOUTH PROJECT
Project Location

Figure 1-1

Local context

The Project is bordered by the Isaac River to the north-east and the Olive Downs Project to the east and south-east. The Peak Downs and Saraji Mines are located approximately 6 km to the west and approximately 7 km to the south-west, respectively. Land ownership in the vicinity of the Project is described in Section 1.3.2.2 below.

1.3.2.2 Tenure

Rural property descriptions and land ownership

A significant block of leasehold land exists to the west of the Project, corresponding with the Saraji and Peak Downs Mines. Additionally, a large area of leasehold land to the north-west of the Project corresponds with the Poitrel and Millennium Mines. Land within the Project area and to the east and south is made up of freehold land. The rural properties in the vicinity of the Project are the Winchester Downs, Iffley, and Wynette properties (see Figure 1-2). Winchester Downs is privately owned, Wynette is owned by Whitehaven WS and Iffley is owned by Pembroke.

Tenements

Mining tenements in the vicinity of the Project include Mining Lease Applications (MLAs), Exploration Permits for Coal (EPC), authorities to prospect, Mining Leases (ML) and Petroleum Leases (PL). The Project is located within:

- Mineral Development Lease (MDL) 183 and parts of EPC 1951 and EPC 1949;
- MLA 700049, MLA 700050 and MLA 700051; and
- ML 70389 and PL 485 (MLA 700065).

The proposed production MLAs for the Project within the above tenements include MLA 700049, MLA 700050 and MLA 700051 (replacing the pre-existing MDL 183) held by Whitehaven WS. The transport MLA (MLA 700065) which contains the water supply pipeline, ETL and mine access road is located within ML 70389 and PL 485 (held by South32 Eagle Downs Pty Ltd). A petroleum tenement (Authority to Prospect 1103) (held by Arrow Energy Limited) overlaps the Project area.

Restricted and reserve land

Other than road reserves, two reserves (stock routes) are located in the vicinity of the Project. These reserves form part of the Barada Barna People Native Title Determination Area (QCD2016/007). Although the Project area is located outside these reserves and, as such, there would be no impact to the reserves, Whitehaven WS has formed a Cultural Heritage Management Plan (CHMP) agreement with the Barada Barna Aboriginal Corporation. The CHMP describes the assessment of the cultural heritage values within the area, and the development of appropriate management strategies. The CHMP was approved by the Department of Aboriginal and Torres Strait Islander Partnerships (DATSIP) pursuant to section 107 of the *Aboriginal Cultural Heritage Act 2003* on 31 March 2020.

Forests and conservation tenure

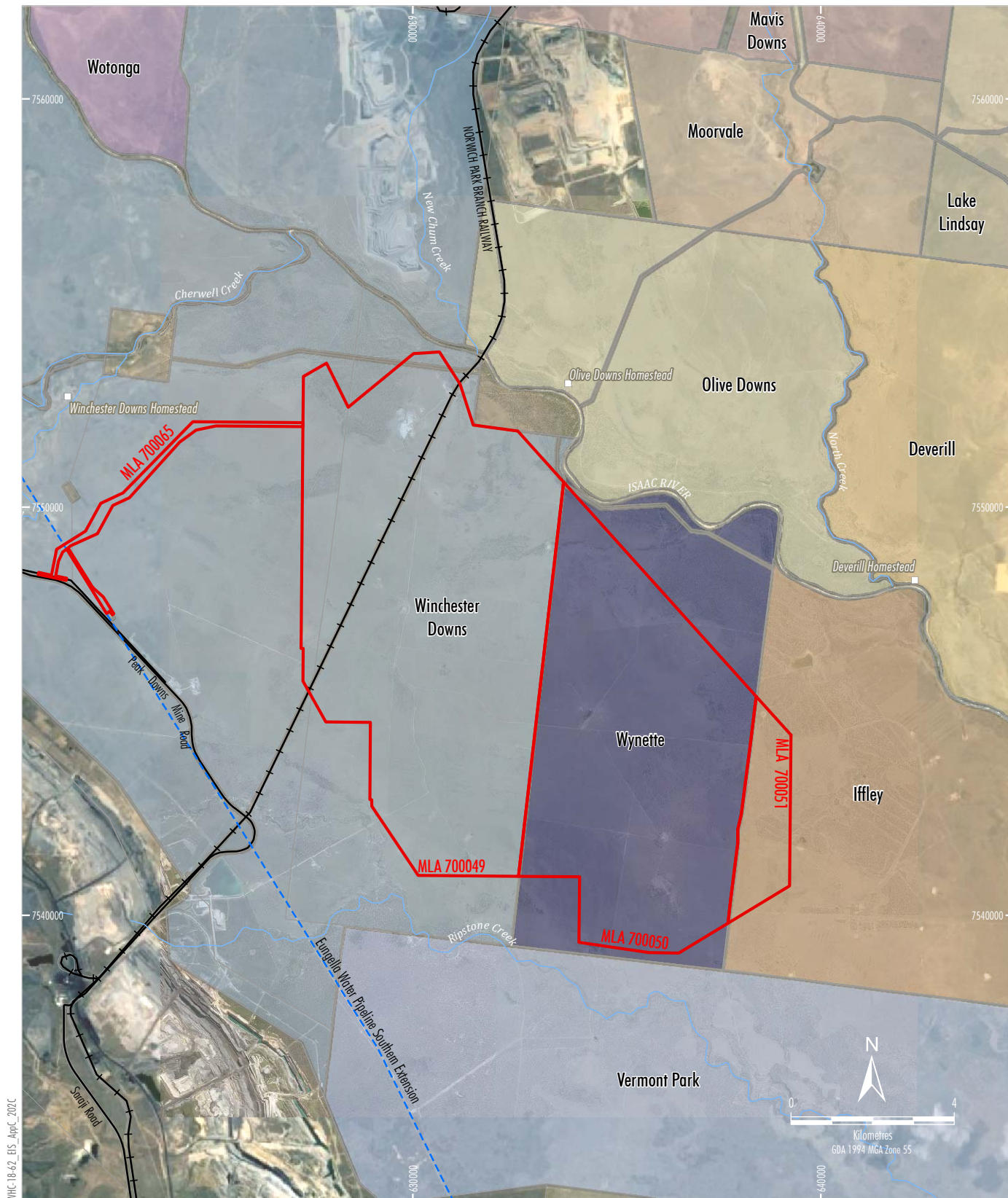
There are no forests or nature conservation areas, including National or State Parks, in the Project area or immediate surrounds. The Dipperu National Park, located approximately 45 km to the north-east of the Project is the closest National Park. Bundoora State Forest is the closest State Forest and is approximately 70 km to the south-west of the Project. Apsley and Blair Athol State Forests are approximately 95 km and 100 km to the south-west of the Project, respectively. There are no Ramsar protected wetland sites, nationally important wetland sites, or World Heritage areas within the Project area or vicinity (DEE, 2019b).

Native title

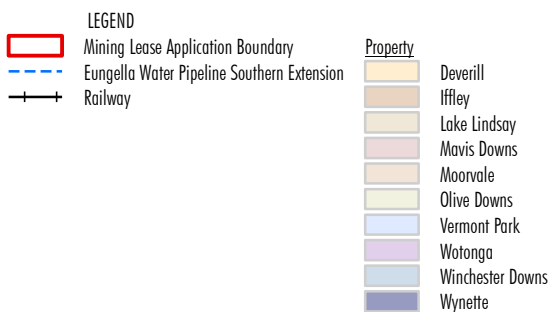
The Barada Barna People are the native title holders for the general Project region (Queensland Government, 2019). Preliminary investigations indicate that native title has been extinguished over the Project area. Whitehaven WS has formed a CHMP with the Barada Barna Aboriginal Corporation. Whitehaven WS has consulted and collaborated with the Barada Barna People during the EIS process (including during SIA consultation) to identify and implement training and skills development initiatives, and facilitate and support delivery of a tender readiness program for Indigenous businesses.

Government infrastructure

The majority of local existing health and education infrastructure are located within the townships of Moranbah and Dysart. The State-owned roads, Peak Downs Mine Road and Fitzroy Development Road are located to the east and west of the Project, respectively.



WHC-18-62_EIS_AprC_2020



Source: The State of Queensland (2018 - 2020); Whitehaven (2020).
 Orthophoto: Google Image (2019); Whitehaven (2017).


WINCHESTER SOUTH PROJECT
Rural Properties in the
Vicinity of the Project

Figure 1-2

Agricultural land uses

The existing land use for properties in the Project area is predominantly grazing.

1.3.3 Main development activities

The main activities associated with the development of the Project would include:

- development and operation of an open cut coal mine within MLA 700049, MLA 700050 and MLA 700051;
- development and operation of an infrastructure corridor within MLA 700065, located outside MDL 183;
- use of open cut mining equipment to extract ROM coal at with a current forecast rate of approximately 15 Mtpa (and up to 17 Mtpa);
- a mine life of approximately 30 years;
- placement of waste rock (i.e. overburden and interburden) in out-of-pit waste rock emplacements and within the footprint of the open cut voids;
- construction and operation of the MIA, including a CHPP, ROM pads, workshops, offices, raw and product handling systems, coal processing plant and train load-out facility;
- construction and operation of a Project rail spur and loop to connect the Project to the Norwich Park Branch Railway (Figure 1-1), including product coal stockpiles for loading of product coal to trains for transport to ports;
- progressive rehabilitation of out-of-pit waste rock emplacement areas;
- progressive backfilling and rehabilitation of the mine voids with waste rock behind the advancing open cut mining operations (i.e. in-pit emplacements);
- installation of a raw water supply pipeline;
- construction of a 132 kV/22 kV electricity switching/substation and 132 kV ETL to connect to the existing regional power network;
- on-site excavation if suitable, and/or the use of the existing hard rock quarry, for construction activities;
- drilling and blasting of competent overburden/waste rock material;
- construction of a mine access road (including associated railway crossing) from the Eagle Downs Mine Access Road, off Peak Downs Mine Road, to the MIA;
- construction and operation of ancillary infrastructure in support of mining, including electricity supply, consumable storage areas and explosives storage facilities;
- connection to the existing telecommunications network;
- co-disposal of coal rejects from the Project CHPP within the footprint of the open cut voids and/or out-of-pit emplacement areas;
- progressive development and augmentation of sediment dams and storage dams, pumps, pipelines and other water management equipment and structures (including up-catchment diversions, drainage channel realignments and levees);
- progressive construction and use of soil stockpile areas, laydown areas and gravel/borrow areas (e.g. for road base and ballast material);
- progressive development of haul roads, light vehicle roads and services;
- wastewater and sewage treatment by a sewage treatment plant;
- discharge of excess water off-site in accordance with relevant principles and conditions of the *Model Water Conditions for Coal Mines in the Fitzroy Basin* (Department of Environment and Science, 2013);
- an on-site landfill for the disposal of selected waste streams generated on-site;
- ongoing exploration activities; and
- other associated minor infrastructure, plant and activities.

1.3.4 Project time frames

Whitehaven WS anticipates that construction activities associated with the Project would commence as soon as practicable after all relevant planning approvals, environmental authority and MLAs (where required) are granted. Table 1-1 below presents the approximate timeframes currently planned for the Project. The construction phase of the Project is expected to be a period of approximately 36 months (i.e. Project Year 1 to Project Year 3). Staged mine plans show the progressive development and rehabilitation of the open cut mining areas over the life of the Project. The actual timing and sequence may vary to take account of: detailed design, project capital decisions, market conditions and contractor requirements. For example, commencement of open cut mining operations may also occur earlier, should conditions allow for this. The Project would extract coal over a period of approximately 28 years.

Table 1-1 Approximate Project timeframes

Timeframe	Project activity
Prior to Year 1	Pre-construction activities follow the Final Investment Decision made by Whitehaven WS to proceed with the Project and involves ongoing planning, technical investigations and engagement with community and stakeholders
Year 1	Construction commences at the Project (including overburden removal) and external ancillary infrastructure requirements (e.g. water supply pipeline, mine access road, ETL, rail spur and overpass)
Year 2	Construction of the MIA, including workshops and offices, and an on-site CHPP to process ROM coal from the Project Overburden removal continues and ROM coal extraction commences
Year 3	Construction of final stage of the CHPP ROM coal extraction ramps up
Year 4 – Year 26	ROM coal extraction reaches maximum extraction rate (17 Mtpa)
Year 27 – Year 29	Mining operations ramp down
Year 30	Mine closure and rehabilitation

1.3.5 Workforce requirement and workforce accommodation

1.3.5.1 Workforce

Employment and other opportunities expected to be generated by the Project include:

- an operational workforce of up to approximately 500 personnel² of which a number of people would be based at an automation control centre, the location of which has not yet been determined;
- a construction workforce in the order of 500 personnel; and
- a decommissioning workforce of approximately 50 personnel (required towards the end of the life of the Project).

In accordance with the SSRC Act the operational workforce for the Project would not be a 100 per cent fly-in fly-out (FIFO) workforce. The Project's recruitment strategy would provide equitable access to employment opportunities and prioritise recruitment of people from the Isaac LGA in the first instance, before seeking candidates from other areas.

The operational hours at the Project would be 24 hours per day, seven days per week. Nominal Project start and finish times at full development are anticipated to be as follows, but subject to change:

- Administration Personnel – 7.00 am to 5.00 pm weekdays.
- Mining Operations (Day) Personnel – 5.30 am to 6.00 pm.

² It should be noted that Whitehaven is investigating automation of the fleet for the Project. Direct employee numbers include consideration of automation. Employee numbers may increase depending on the extent of automation.

- Mining Operations (Night) Personnel – 5.30 pm to 6.00 am.

Construction/development activities would generally be undertaken between 6.00 am and 6.00 pm, Monday to Sunday (inclusive). Activities undertaken outside of these hours would include:

- the delivery of materials of which transport is required, by the Queensland Police Service or Department of Transport and Main Roads (DTMR), to be undertaken for safety reasons outside the normal construction hours; and
- emergency work to avoid the loss of life, damage to property or to prevent environmental harm.

This SIA also considers a manned operations workforce scenario in Section 6. The manned operations workforce scenario does not include automation of the fleet for the Project and would require an operations workforce of up to 750 personnel.

1.3.5.2 Workforce accommodation

Members of the workforce will be provided a genuine choice in terms of accommodation. Workforce accommodation options for the Project include self-accommodation (i.e. home ownership), rental accommodation and utilising existing accommodation villages in Moranbah, Dysart or Coppabella.

Construction workforce accommodation

Construction/development activities (e.g. construction of the mine infrastructure, raw water supply pipeline, ETL) generally require a labour force with highly specialised skills, including specialised welders, fitters, electrical contractors, machinery mechanics and construction engineers. It is therefore anticipated that the majority of the construction workforce would be non-local hires. For the construction workforce, 90 per cent are expected to reside in a local accommodation village. The remaining 10 per cent is expected to reside in the local area (communities of Moranbah, Dysart and Coppabella).

Operational workforce accommodation

Moranbah, Dysart and Coppabella contain a number of accommodation villages, including:

- the Morris accommodation centre in Moranbah;
- the Buffel Park accommodation village;
- the Leichardt accommodation village;
- the Ausco Dysart accommodation village;
- the Civeo accommodation villages in Moranbah, Coppabella and Dysart; and
- the Dysart Staff accommodation village commissioned by the BHP Billiton Mitsubishi Alliance (BMA).

Due to multiple proponents advancing projects in the region at time of SIA preparation along with the unavailability of public data on respective workforce accommodation arrangements, it is not possible to determine which WAV accommodation provider will be utilised for the Project's construction and operational workforces. In addition to the availability of required beds, a range of factors will be considered in determining the preferred WAV including a preference for WAV accommodation in Moranbah which facilitates positive interaction between the workforce and the local community. As there are multiple projects currently advancing near Moranbah, there may be limited supply of WAV beds, therefore necessitating consideration of WAVs located in Dysart and Coppabella.

The Civeo accommodation village in Moranbah provides over 1,200 rooms (Civeo, 2019a), the Coppabella Civeo village over 3,000 rooms (Civeo, 2019b) and the Dysart Civeo village over 1,700 rooms (Civeo, 2019c). The Buffel Park accommodation village, approximately 20 km to the south of Moranbah, services a large portion of the workers from the Caval Ridge Mine, with a capacity of 2,000 rooms (RPS, 2010). It is expected that the existing accommodation options available in the region would meet the Project's construction and operational workforce requirements.

2 Methodology

This section presents the methodology that was employed to conduct the SIA. The methodology for the SIA has been specifically tailored to meet the requirements of the ToR, in particular the SIA Guideline (2018). Figure 2-1 below illustrates the phases of the SIA methodology which was adopted based on the applicable requirements and standards. These phases are described in the following sections.

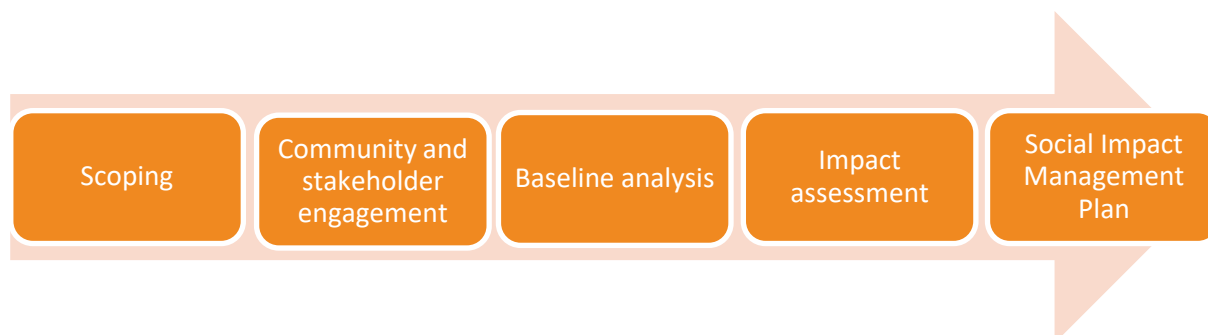


Figure 2-1 Steps in SIA process

2.1 SIA principles

Underpinning the development of the SIA were the principles outlined in Section 2.2 of the SIA Guideline (2018). Table 2-1 describes how this SIA incorporated the principles.

Table 2-1 SIA Principles

SIA Principle	Application to this SIA
Lifecycle-focused	The SIA considered the full lifecycle of the Project, including construction, operations and decommissioning. The cyclical nature of the resource sector and the associated boom and bust effects on communities has been recognised throughout the SIA. Section 3.2 provides a description of the proposed activities for each phase of the Project lifecycle. Section 6 considers the social impacts of each Project phase.
Reasonable	Scoping activities undertaken for this SIA ensured the SIA is commensurate with the nature and scale of the Project and the sensitivity of the potentially affected social environment. As part of scoping, key social changes likely to occur as a result of project development were identified along with the location of stakeholders likely to be affected. These insights were used to define the SIA study areas (Section 3.3) and relevant baseline parameters (Section 5).
Participatory	The community and stakeholder engagement program undertaken for the SIA was inclusive, respectful, meaningful and tailored to the needs of potentially impacted individuals and groups. The community and stakeholder engagement program was guided by the International Associations for Public Participation (IAP2) Principles and was designed with consideration of consultation fatigue in the Bowen Basin. A broad range of stakeholders were engaged via face to face meetings, interviews and interactions as detailed in Section 4.
Rigorous	Rigorous social research methods have underpinned all elements of the SIA. Primary and secondary data has been recorded and interpreted by experienced social scientists who have no conflict of interest or bias. A particular focus was given to ensuring a clear line of sight between the existing baseline condition, the social impact and the significance evaluation of that impact, and the management measure proposed to minimise the impact or to enhance the benefit.
Effective management	The SIA includes effective social management measures that enhance potential benefits and mitigate potential negative impacts. These were developed in collaboration with a range of stakeholders including IRC, housing providers and social infrastructure providers (Sections 6 and 7). Stakeholders were provided an opportunity to review and provide comment on draft management measures to ensure adequacy of management measures.

SIA Principle	Application to this SIA
Adaptive	The SIA was developed in recognition that the social context of the Bowen Basin is fluid and can radically change due to the cyclical nature of the mining industry. Subsequently, each management measure was assigned a monitoring and reporting framework to ensure ongoing effectiveness of management measures, and ineffective management measures are adjusted (Section 7).

2.2 Scoping

The first step in the SIA process is scoping. As defined in Section 2.3.1 of the SIA Guideline (2018), scoping allows the early identification of the likely SIA issues and ensures that the SIA is appropriately scaled and consistent with regulatory requirements. The objective of scoping for this SIA was to ensure that proportionate depth and scope is given to the potentially significant impacts of the Project.

A number of scoping activities were undertaken to achieve this objective, including:

- Understanding the activities involved in each Project phase.
- Determining the regulatory context relevant to this SIA.
- Profiling of potentially affected stakeholders.
- Engagement with IRC and the Office of the Coordinator-General (OCG).

The outcomes of scoping activities informed the definition of the study areas for this SIA, the information to be gathered for the social baseline and the assessment of potential impacts. Outcomes of scoping activities are presented in Section 5.

2.3 Baseline analysis

To provide a suitably robust baseline from which the impacts of the Project may be assessed, a description of relevant social characteristics potentially affected by the Project is required. The social baseline concisely documents the current state of relevant social, economic and land use characteristics within the defined SIA study areas, providing a benchmark against which direct and indirect impacts can be predicted, analysed and measured.

The scope and content of the socio-economic baseline study was tailored to the specific project context and only included indicators and information which is useful and meaningful to the prediction and measurement of impacts. The socio-economic baseline has drawn on a range of primary and secondary information sources. Quantitative information derived through Australian Bureau of Statistics (ABS) Census data and other secondary sources of information was complemented by primary information obtained through engagement. The suite of socio-economic indicators that comprise the baseline were determined with reference to the following:

- Community setting and values.
- Population composition and growth.
- Housing and accommodation availability and affordability.
- Employment, labour force and skills.
- Business and industry.
- Social infrastructure provision.
- Community health and safety indicators.

Presentation of some demographic data of small geographic areas, such as from the ABS Census, may cause the sum of rows of columns to differ by small amounts from table totals. This is due to small populations and the ABS making small random adjustments to all data to protect the confidentiality of data.

The data and analysis presented in this section is based on the information derived from both secondary research and primary data collection. A range of approaches were adopted to ensure compilation of a robust and accurate socio-economic baseline including:

- Desktop review of secondary research regarding the SIA study areas from available and reliable published documentation as well as the results of the Project-related surveys.
- Stakeholder engagement and consultations with different stakeholder groups to enrich the desktop information on socio-economic conditions and to confirm any unclear information found during the secondary research.
- Field observation through visual inspection, taking photos and navigation coordinates to triangulate information from different sources, such as published documentation and interviews.

The social baseline is reported in Section 5 of this SIA.

2.4 Impact assessment

The International Principles for SIA considers that social impacts include all the issues associated with a planned intervention that affect or concern people, whether directly or indirectly (Vanclay, 2003).

The definition of social impact adopted in this SIA is based on the SIA Guideline (2018) which defines a social impact of a project as “positive or negative; tangible or intangible; direct, indirect or cumulative; directly quantifiable, indirectly or partly quantifiable, or only able to be described and assessed in qualitative terms; and experienced differently by different stakeholders or at different times and stages of the Project”.

A sequential approach was employed to facilitate the assessment of impacts:

- Impact identification, to predict the nature and scale of potential social impacts associated with the Project.
- Impact significance evaluation, to evaluate the significance of the identified impact by considering the sensitivity of the affected stakeholder group to the social impact and the magnitude of the effect.
- Mitigation and enhancement of impact, to identify appropriate and justified measures to mitigate negative impacts and enhance benefits.
- Residual impact significance evaluation, to evaluate the significance of the impact assuming effective implementation of impact mitigation and benefit enhancement measures.

The following describes the respective steps of the impact assessment process in more detail.

2.4.1 Impact identification

Identification of impacts is an exercise requiring subjective judgement to determine what is likely to happen to the social environment as a consequence of the Project and its associated activities. Impacts were identified and described using data triangulation of multiple sources of information, including both primary and secondary data. Primary data included the outcomes of community and stakeholder engagement activities as described in Section 4. Secondary data informing impact identification comprised:

- Project description information.
- Demographic, employment, housing and other data available from the ABS, government agencies and local government.
- Government-authored strategic policies, plans and documents.
- EIS assessment of air quality, noise, economic impacts and transport.
- Desktop research of websites, databases and grey literature as referenced.

As this SIA adopted a significance-based assessment which applies the criteria of sensitivity of the affected stakeholder group, social impacts were identified from the lens of the relevant affected stakeholder group/s as they experience them, either physically or in a perceptual sense. Therefore, this SIA recognises that the experience of social impact is subjective; that is, different people experience and perceive changes to their social environment and their impacts on them differently.

Once the impacts were identified, they were categorised based on the nature of each impact, including:

- Positive impact (benefit): where the affected stakeholder group/s would be 'better off' or would benefit due to the proposed Project, and/or the quality of life of affected stakeholders is improved.
- Negative impact: where the affected stakeholder group/s would be 'worse off' due to the proposed Project and/or the quality of life of affected stakeholder group/s is diminished.

The identified impacts were predicted based on the social conditions in the SIA study areas at the time when the SIA was undertaken. It is recognised that the predicted social impact and their assessment may change with any alterations to the socio-economic or political context or as stakeholder perceptions change over time as more information about the Project becomes available.

2.4.2 Impact significance evaluation

As stipulated in Section 2.3.4 of the SIA Guideline (2018), a significance-based approach was used for impact evaluation. The significance-based approach typically assesses the significance of a social impact by considering the sensitivity of the affected stakeholder group/s and the magnitude of the effect before the application of management measures.

The objective of the impact significance evaluation was to undertake an evaluation to determine the extent to which potentially affected stakeholder groups may be affected, whether positively or negatively. This approach assumes the impact will occur and that the worst case is identified and assessed. The significance-based approach is also suitable for assessing the significance of Project benefits, as it enables analysis of a stakeholder group's capacity to benefit from the change to their social environment.

The first step of the significance evaluation process is to assess the sensitivity of the affected stakeholder groups to the identified social impact, which typically involves context-specific value dimensions and subjective judgement. The sensitivity evaluation considered a stakeholder group's likely response to the change in their environment and their ability to adapt to, and manage, the effects of the change. Changes to the social environment invoked by a project activity can have varying effects on different people or groups within a community (Slootweg et al., 2001). Some stakeholder groups (i.e. local retail businesses) may be able to adapt quickly and exploit the opportunities of a new situation, such as an influx of workers increasing patronage. Others (i.e. low income households) may be less able to adapt and will bear most of the negative consequences of change.

Evaluating sensitivity of a stakeholder group was a subjective exercise and required rigorous and in-depth qualitative analysis. A robust understanding of the existing social values and the analysis of primary data assisted with the evaluation of sensitivity of stakeholder groups.

Criteria for determining sensitivity of stakeholder group include low, medium, and high and are defined in Table 2-2.

Table 2-2 Sensitivity of stakeholder group criteria

Classification		Negative impact (vulnerability to impact)	Positive impact (capacity to benefit)
A	High	Stakeholder group is highly sensitivity to the consequences of this potential negative impact, more so than most other stakeholder groups within the area of influence. This may be because of heightening vulnerability to negative effects.	Stakeholder group is highly sensitive to the benefit of this potential positive impact, more so than most other stakeholder groups within the area of influence. This may be because of enhanced capacity to benefit from positive effects.
B	Medium	Stakeholder group does not have any particular sensitivity to the consequences of this negative impact. Vulnerability to negative effects is broadly comparable to other stakeholder groups within the area of influence.	Stakeholder group does not have any particular sensitivity to the beneficial effects of this positive impact. Vulnerability to positive effects is broadly comparable to other stakeholder groups within the area of influence.
C	Low	Stakeholder group has little sensitivity to the consequences of this potential negative impact when compared to others within the area of influence. This may be because of low vulnerability to negative effects.	Stakeholder group has little sensitivity to the benefits of this positive impact when compared to others within the area of influence. This may be because of low capacity to benefit from positive effects.

The magnitude of the effect was then applied to the identified sensitivity of impact. The magnitude of effect typically focuses on the physical dimensions of an impact. These dimensions included:

- The type of impact: a description indicating the relationship of the impact to the Project (in terms of cause and effect) such as direct, indirect and induced.
- The extent of impact: the spatial extent of the impact (for example, confined to a small area around the project footprint, projected for several kilometres such as local and regional areas).
- Likelihood: ranging from almost certain, likely, possible, unlikely, and rare.
- Reversibility: ranging from permanent requiring significant intervention to return to 'baseline' to 'no change'.
- The duration of impact: the time period over which a stakeholder group is affected such as temporary, short-term, long-term, or permanent.

An assessment of overall magnitude of the effect (both negative and positive) was provided by taking into account all the dimensions described above and were categorised as major, moderate, minor or minimal, which are defined in Table 2-3.

Table 2-3 Criteria for magnitude of the effect

Classification		Negative impact	Positive impact
1	Major	Long-term consequences for the stakeholder group covering a broad area are likely to occur. Measurable effects may persist beyond the life of the Project.	Long-term benefits for the stakeholder group covering a broader area are likely to occur, and may persist beyond the life of the Project.
2	Moderate	Long-term consequences for the stakeholder group covering a small area, or short-term consequences for stakeholder group covering a larger area, are likely to occur. Probability of persistence is variable.	Long-term benefits for the stakeholder group in a small area, or short-term benefits for the stakeholder group over a larger area, are likely to occur. Probability of persistence is variable.
3	Minor	Limited short-term consequences for the stakeholder group may occur. Size of affected area may vary, but effects are unlikely to persist long-term.	Limited short-term benefits for the stakeholder group may occur. Size of affected area may vary, but effects are unlikely to persist long-term.
4	Minimal	Noticeable consequences for the stakeholder group are unlikely to occur. Any perceptible effects that did occur are likely to be temporary, limited to a small area, and are unlikely to persist.	Noticeable benefits for the stakeholder group are unlikely to occur. Any perceptible effects that did occur are likely to be temporary, limited to a small area, and are unlikely to persist.

Overall impact significance was then assessed by taking into account the interaction between magnitude and sensitivity as presented within the impact significance matrix in Table 2-4.

Table 2-4 Impact significance matrix

			Magnitude of effect										
			Negative / adverse				Positive / beneficial						
			1	2	3	4	4	3	2	1			
			Major	Moderate	Minor	Minimal	Minimal	Minor	Moderate	Major			
Sensitivity of receptor (vulnerability to impact)	A	High	High (A1)	High (A2)	Medium (A3)	Low (A4)	Negligible (A4)	Low (A3)	Medium (A2)	High (A1)	High	A	Sensitivity of receptor (capacity to benefit)
	B	Medium	High (B1)	Medium (B2)	Low (B3)	Negligible (B4)	Negligible (B4)	Low (B3)	Medium (B2)	High (B1)	Medium	B	
	C	Low	Medium (C1)	Medium (C2)	Low (C3)	Negligible (C4)	Negligible (C4)	Negligible (C3)	Low (C2)	Medium (C1)	Low	C	

The impact significance matrix reflects that SIA is a technical analysis undertaken to inform the EIS which fundamentally seeks to assess potential environmental, economic and social impacts of the project. In this context it is considered more of a risk to understate the significance of negative impacts and overestimate the significance of benefits. Accordingly, the impact significance matrix is slightly orientated towards a conservative approach which accentuates the significance of negative impacts.

The significance of impacts was categorised as negligible, low, medium or high (Table 2-5).

Table 2-5 Significance definition

Overall significance	
High	This potential impact is expected to have major or substantial effect on the well-being of the affected stakeholder group.
Medium	This potential impact is expected to have noticeable effect on the well-being of the affected stakeholder group.
Low	This potential impact is expected to have a small but perceptible effect on the well-being of the affected stakeholder group.
Negligible	This potential impact is expected to have a minimal or imperceptible effect on the well-being of the affected stakeholder group.

2.4.3 Impact mitigation and benefit enhancement

The social impact management measures outlined in this SIA seek to both enhance the benefits for the stakeholders and communities as well as mitigate negative impacts from Project development. The SIA also draws upon the various EIS technical studies for mitigation/management of specific impacts, such as air quality, noise, economic impacts, and transport as specified in Section 6. The recommended management measures were developed using adaptive management principles, recognising that impacts may change over time, and that ongoing monitoring of impacts would provide the flexibility to accommodate such changes.

Impacts with a significance rating of medium and high require mitigation or management actions. Where feasible, the following hierarchy of mitigation measures will be applied to ensure that all residual impacts levels can be reduced to low or negligible:

- Changes in technology choice.
- Avoidance and reduction of impacts through design (embedded mitigation).
- Abate impacts at source or at receptor.
- Repair, restore or reinstate to address temporary effects.
- Compensation and offsetting for loss or damage.

Consideration has also been given to the identification of enhancement measures. These measures are actions and processes that:

- create new positive impacts or benefits;
- increase the reach or amount of positive impacts or benefits; and/or
- distribute positive impacts or benefits more equitably.

The proposed mitigation/enhancement measures are integrated into the relevant impact assessment and a residual impact level defined. All the proposed mitigation/enhancement, management, and monitoring measures to reduce impacts to acceptable levels will be consolidated and integrated into the Social Impact Management Plan (SIMP) presented within Section 7.

2.4.4 Residual impact evaluation

Residual impacts are those that remain after the application of mitigation and enhancement measures. Once mitigation and enhancement measures are declared, the next step of the impact process is to assign residual impact significance. This is essentially a repeat of the impact assessment steps discussed above, considering the assumed effective implementation of the proposed mitigation and enhancement measures.

2.4.5 Cumulative impact evaluation

A community may experience cumulative impacts when multiple projects occur in a similar timeframe. Simultaneous advancement of multiple projects exacerbates social and economic impacts and benefits. The potential cumulative impacts of proposed mining projects which have completed or are undergoing an EIS process were identified and considered. Projects identified as being relevant to cumulative impacts were those which would likely contribute to changed social conditions in the Primary and Secondary local study areas (i.e. Moranbah, Dysart and Coppabella). These are communities which have historically been affected by boom and bust mining cycles and are therefore the focus of the assessment of cumulative impacts. Projects which are located further afield (such as in the Mackay LGA) have not been considered as they would have a negligible effect upon social conditions experienced in the communities which comprise the local study area.

Projects were identified on the basis that there would be a likely scheduled overlap with the construction phase or first three years of the operations phase of the Project. This includes the following projects:

- Saraji East (BMA).
- Red Hill (BMA).
- Olive Downs (Pembroke).
- Isaac Downs (Stanmore Coal).
- Eagle Downs (South 32/Aquila Resources).
- Moranbah South (Anglo Coal/Exxaro).
- Lake Vermont Meadowbrook (Bowen Basin Coal).

Analysis was undertaken of proposed workforces associated with respective projects and the capacity of 'nearby regional communities' to provide for cumulative demand. This provides insights into the potential effects on the local housing market along with other cumulative impacts.

2.5 Social Impact Management Plan

The SIA includes an initial draft SIMP (subject to regular review during the Project life) which incorporates five management strategies to address potential changes in the socio-economic environment. The management strategies include:

- Workforce Management.
- Housing and Accommodation.
- Health and Community Wellbeing.
- Local Business and Industry Procurement.

- Community and Stakeholder Engagement.

A monitoring program is provided, including outcomes sought, how management of the impact will be monitored and reported, and the timing and frequency of monitoring. The effectiveness of SIMP strategies aimed at protection of key community values (e.g. housing affordability, community cohesion and local employment) will be monitored throughout the Project's implementation. This will include stakeholder engagement and the regular monitoring of social indicators.

2.6 Community and stakeholder engagement

Underpinning all elements of the SIA process was community and stakeholder engagement to ensure the SIA was informed by inputs from affected and interested stakeholders. Principles guiding SIA stakeholder engagement included:

- Providing local stakeholders with the opportunity to define local values and the characteristics of potentially affected communities.
- Ensuring stakeholders understand the Project details, timing, and workforce arrangements so that discussions about impacts and benefits are meaningful.
- Providing stakeholders with the opportunity to identify and assess potential social impacts and applicable mitigation and management strategies.
- Ensuring the SIA considers the interests and perspectives of stakeholders who may be affected by Project impacts.
- Integrating with broader EIS and Project engagement activities so as to provide a range of opportunities for community members and key stakeholders to provide feedback.

The engagement approach was structured to meet the requirements of the ToR and SIA Guideline (2018) and provided stakeholders with the opportunity to provide meaningful input into the identification of social impacts and how they may be managed through the SIMP and respective sub-plans. The engagement process commenced with the identification of stakeholders and their interests. IAP2's Public Participation Spectrum was applied to select an appropriate level of engagement for respective stakeholders as provided in Appendix A.

The primary means of SIA engagement was via semi-structured interviews and meetings with targeted key stakeholders. This was the most effective way in which to meaningfully engage and gain genuine input into social impact definition and management.

The SIA interviews were structured so as to:

- Enable local stakeholders to define local values and the characteristics of potentially affected communities.
- Provide stakeholders with an understanding of the Project including timing and workforce arrangements.
- Collect stakeholder input specifically regarding potential social impacts and benefits.
- Collect stakeholder input specifically regarding applicable mitigation and enhancement strategies.

A large body of information was recorded and provides accurate insights into the characteristics and social trends occurring in the communities of the study areas and how such communities may be affected by the Project. The SIA stakeholder engagement process including a detailed recording of feedback generated through the engagement process and its outcomes are detailed in Section 4.

A Community and Stakeholder Engagement Management Strategy (CSEMS) for the Project has been prepared with the aim of providing a platform for consultation and disclosure with Project stakeholders through all phases of the development (see Section 4). The CSEMS sets out the approach to implementing an effective engagement program with stakeholders throughout the SIA process and beyond. Good relations between the Project and its affected communities and relevant stakeholders will be an essential condition for the Project to establish and maintain a social licence to operate, providing an important mechanism for receiving community feedback on project-related concerns and disseminating project-related information back to the community.

3 Scope of SIA

Scoping was undertaken to inform the nature and scale of the SIA, and to meet the requirements outlined in Section 2.3.1 of the SIA Guideline (2018). The scope of this SIA has been developed with regard to:

- Statutory requirements, including the ToR for the Project, the SSRC Act, and the Coordinator-General's SIA Guideline (2018).
- Outcomes of scoping meetings with IRC and the OCG.
- The nature of the Project and the socio-economic effects generated by similar projects.
- The social characteristics and values of potentially affected communities.

Outcomes of these activities then informed the determination of the study areas for the SIA (Section 1.1). The following sub-sections detail the outcomes of the scoping activities.

3.1 Statutory Framework

Informing the scope of the SIA is the statutory and policy framework.

3.1.1 State Development and Public Works Organisation Act

The Coordinator-General has declared the project to be a 'coordinated project for which an EIS is required' under section 26(1)(a) of the Queensland SDPWO Act. This declaration initiates the statutory environmental impact assessment procedure of Part 4 of the SDPWO Act, which requires a proponent to prepare an EIS for the project.

The ToR for the Winchester South EIS was issued in September 2019. The ToR requires the SIA for the Project is prepared to be consistent with the requirements of the SSRC Act and the Coordinator-General's SIA Guideline (March 2018). The SIA is to be developed in consultation with the Coordinated Project Delivery Division (CPDD) in the OCG, Department of State Development, Manufacturing, Infrastructure and Planning. The ToR requirements specifically relevant to the assessment of social considerations are outlined in Section 9.12 of the ToR and summarised in Table 3-1 below.

Table 3-1 EIS Term of Reference Requirements - Social Impacts

Objective and outcomes	Requirements	Where addressed in the SIA
The construction and operation of the proposed project should aim to: <ul style="list-style-type: none"> • avoid or mitigate adverse social impacts arising from the Project; and • enhance benefits for local and regional communities. 	1. Impact assessment The SIA is required to include detailed assessment of the following key matters in accordance with the SIA guideline <ul style="list-style-type: none"> • community and stakeholder engagement • workforce management • housing and accommodation • local business and industry procurement • health and community well-being. 	Chapter 6
	The SIA is to describe the potential social impacts (both positive and negative) of the proposed project.	Chapters 2 and 6
	The SIA is to include an analysis of the capacity of towns within 125 km radius of the main access to provide workers for the construction and operational phases of the project and the impacts of a resident workforce on housing and social infrastructure.	Chapters 2 and 5

Objective and outcomes	Requirements	Where addressed in the SIA
	2. Community and stakeholder engagement The SIA is to be informed by an inclusive and collaborative community and stakeholder engagement process, consistent with the SIA guideline. Community and stakeholder engagement is to be iterative throughout preparation of the SIA and engagement with local government must commence at an early stage.	Chapter 4
	The SIA is to demonstrate evidence of engagement outcomes from local government, state agencies, local and regional employment and training providers, public and private housing providers, local and regional commerce and community development groups, social and public services providers. The SIA must be informed by the results from community and stakeholder engagement.	Chapters 4 and 5
	3. Key SIA outcomes The SIA must include a social impact management plan SIMP with solutions to mitigate the impacts identified in the assessment of the five key matters listed above and enhance social benefits in accordance with the SIA guideline. In particular, the SIMP must: <ul style="list-style-type: none"> • provide solutions for barriers that may impact choice for people in local and regional communities to engage in project employment opportunities, and for workers to permanently reside in local and regional communities during the construction and operational phases of the project • provide solutions to accommodate workers to ensure availability and affordability of local and regional housing is not adversely impacted. The SIMP will describe solutions, a practical basis for the implementation of management measures identified through the SIA process. The SIMP is to include timeframes for implementation of solutions, roles and responsibilities, stakeholders and potential partnerships. The SIMP must include a process of review throughout the project lifecycle to ensure solutions continue to be effective and ineffective solutions are amended to appropriately mitigate impacts.	Chapter 7
	The SIA must describe how the recruitment hierarchy for workers in section 9(3A) of the SSRC Act will be implemented.	Chapters 6 and 7
	The SIA will need to assess a target of no more than 50 per cent FIFO workforce during construction and no more than 25 per cent FIFO during operations to ensure the project benefits local communities. All FIFO workforces must be justified.	Chapters 6 and 7
	The SIA must clearly identify measures for managing any FIFO workforce in accordance with the SIA guideline and with reference to sections 6 and 8 of the SSRC Act and relevant provisions in the <i>Anti-Discrimination Act 1991</i> .	Chapters 6 and 7

3.1.2 Strong and Sustainable Resource Communities Act

As a resource project which requires the preparation and submission of an EIS, the provisions of the SSRC Act are also applicable. An over-riding objective of the SSRC Act is to enable the benefits which accrue from large resource projects to be experienced by communities which are located in the vicinity of such projects, a key requirement of which is the preparation of a SIA.

The SSRC Act applies to 'large resource projects' that have a 'nearby regional community'. A 'large resource project' is defined as one for which an EIS is required or that holds a site-specific environmental authority under the *Environmental Protection Act 1994* (EP Act) and has, or is projected to have, a workforce of 100 or more workers; or has a smaller workforce decided by the Coordinator-General and notified in writing by the Coordinator-General to the owner of the project. A 'nearby regional community', for a large resource project, is defined as a town (that has a population of more than 200 people) which is located within a 125 km radius of the main access to the project.

Key specifications of the SSRC Act include:

- Prohibition of 100 per cent FIFO workforce arrangements for large resource projects.
- Prevention of discrimination against residents of nearby regional communities in the workforce recruitment process.
- Preparation of a SIA.

The SSRC Act requires that large resource projects prepare an SIA in accordance with the SIA Guideline (2018) as published on the Coordinator-General's website. The Guideline outlines key matters to be addressed by the SIA according to the following themes:

- Community and stakeholder engagement.
- Workforce management.
- Housing and accommodation.
- Local business and industry procurement.
- Health and community well-being.

The SIA Guideline (2018) further requires the development of a SIMP which comprises sub-plans attributed to each of the key matter themes outlined above. The SIMP is required to outline management strategies and to include processes to ensure the effectiveness of management measures is monitored.

The issued ToR requires the SIA to include an analysis of the capacity of towns within a 125 km radius of the main access to provide workers for the construction and operational phases of the Project. As per the SSRC Act, applicable towns were defined by ABS statistical geography of 'Urban centres and localities' (UCLs). All townships within a direct 125 km radius from the Project entrance are identified using a Geographic Information System (GIS). The result shows that there are nine towns defined by ABS's UCLs which are listed in Table 3-2 below. Figure 3-1 illustrates all nine towns defined by ABS's UCLs within a 125 km radius from the Project entrance.

Table 3-2 List of towns defined by ABS's Urban Centres and Localities within 125 km radius from the Project entrance

No	Town	Relevant LGA	Approximate Distance to Project entrance by straight line (km)	Estimated driving distance on road by time to Project entrance
1	Capella	Central Highlands Region	102	1 hour 30 minutes
2	Clermont	Isaac region	94	1 hour 30 minutes
3	Dysart	Isaac region	46	40 minutes
4	Finch Hatton	Mackay region	124	2 hours 50 minutes
5	Glenden	Isaac region	94	1 hour 50 minutes
6	Middlemount	Isaac region	84	1 hour 20 minutes
7	Moranbah	Isaac region	29	30 minutes
8	Nebo	Isaac region	73	1 hour 20 minutes
9	Tieri	Central Highlands Region	98	1 hour 50 minutes

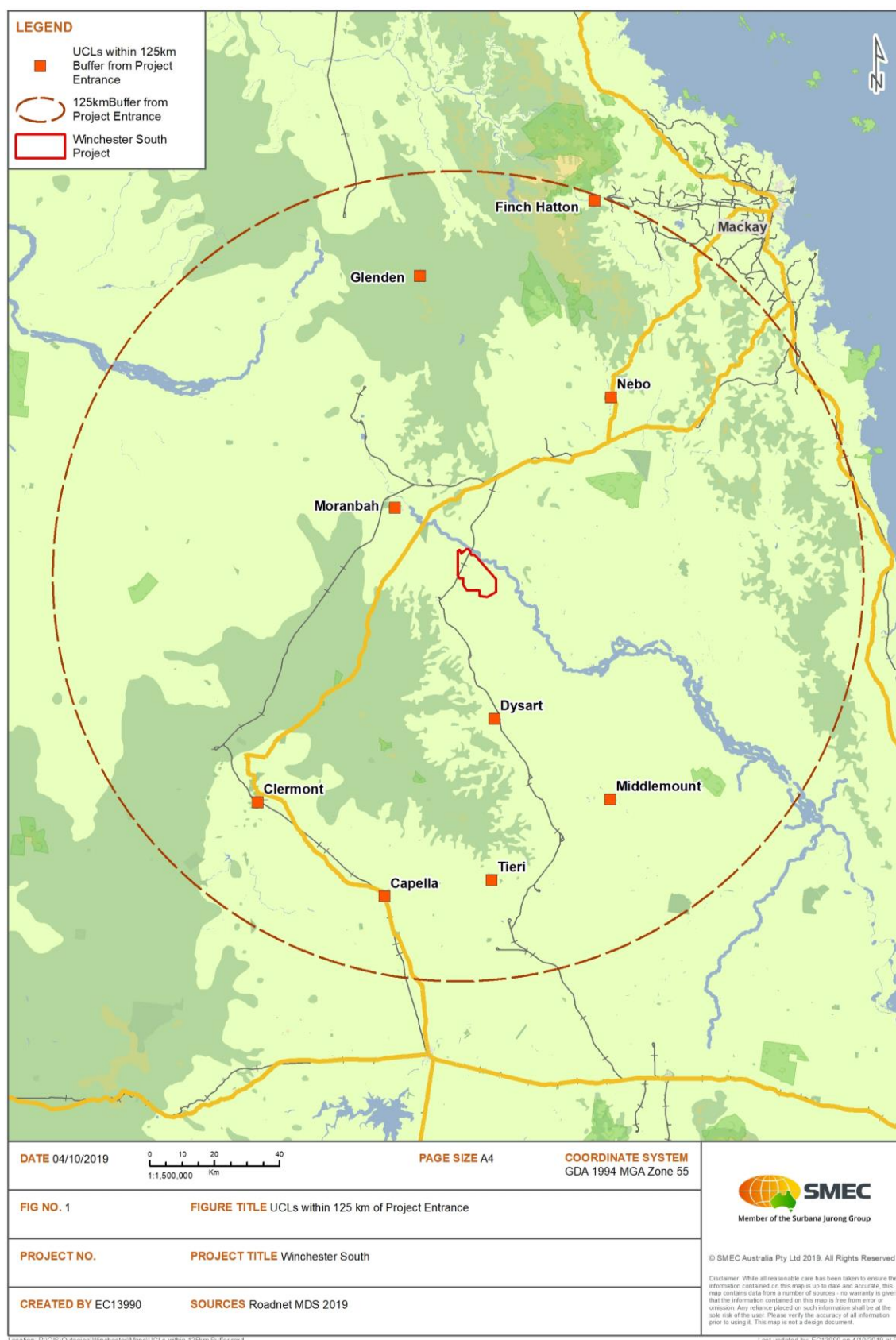


Figure 3-1 Towns identified within 125 km radius from the Project entrance

3.1.3 Planning Act 2016

The *Planning Act 2016* provides the legislative framework of the land use planning system which operates across Queensland. Of key relevance to the SIA, a stated objective of the legislation is ‘the maintenance of the cultural, economic, physical and social wellbeing of people and communities’ through:

- Creating and maintaining well-serviced, healthy, prosperous, liveable and resilient communities with affordable, efficient, safe and sustainable development.
- Conserving or enhancing places of special aesthetic, architectural, cultural, historic, scientific, social or spiritual significance.
- Providing for integrated networks of pleasant and safe public areas for aesthetic enjoyment and cultural, recreational or social interaction.
- Accounting for potential adverse impacts of development on climate change and seeking to address the impacts through sustainable development.

3.1.4 SIA Guideline

The SSRC Act requires that large resource projects prepare an SIA in accordance with the SIA Guideline (2018) as published on the Coordinator-General’s website. This assessment has been conducted in accordance with the SIA Guideline (2018), through including:

- Consultation with the OCG and IRC regarding the geographic extent and scope of impacts to be assessed.
- Identification of the SIA study areas, taking into account the Guideline’s detailed considerations (Section 2.3.1 of the SIA Guideline).
- Identification of SIA stakeholders, provision of an inclusive process for consulting with them, and provision of the results of consultation.
- A social baseline of SIA study areas describing the existing social conditions and trends within the SIA study areas and providing a benchmark against which potential social impacts can be assessed.
- Consideration of the SIA Guideline’s five key matters (including community and stakeholder engagement; workforce management; housing and accommodation; local business and industry procurement; and health and community well-being) and assessment of impacts and opportunities across all relevant matters, for each stage of the project lifecycle, including cumulative impacts.
- Provision of a SIMP which incorporates management strategies for the five key matters and includes processes to ensure the effectiveness of management measures is monitored, and ineffective measures are amended.

3.2 Project activities

The SIA is to consider the full lifecycle of the Project. To inform the scope and scale of the SIA, an understanding of each of the Project phases and their activities is provided. Table 3-3 provides a description of the anticipated activities associated with each project phase.

Table 3-3 Project timeframes

Project phase	Timeframe	Project activity	Potential social impact areas
Pre-construction	Following Final Investment Decision – Year 1	<ul style="list-style-type: none"> • Ongoing Project planning and technical investigations • Ongoing engagement with community and stakeholders 	<ul style="list-style-type: none"> • Changes to community perceptions towards the Project • Generation of employment and business opportunities
Construction	Year 1 – Year 3	<ul style="list-style-type: none"> • Once approvals have been granted, early works may include construction of external ancillary infrastructure requirements (e.g. water supply pipeline, access road, electricity transmission line, rail loop, an on-site temporary accommodation camp, etc.) • Construction of MIA, including workshops, offices and an on-site CHPP to process ROM coal from the Project • Requirement of approximately 500 personnel 	<ul style="list-style-type: none"> • Changes to access and connectivity • Changes to rural amenity • Generation of employment and business opportunities • Changes in demand on social infrastructure and emergency services
Operations	Year 2 – Year 26	<ul style="list-style-type: none"> • Overburden removal and ROM coal extraction commences • ROM coal extraction ramps up to and reaches maximum extraction rate (up to 17 Mtpa) • Requirement of approximately 500 personnel 	<ul style="list-style-type: none"> • Changes to perceptions of community safety • Changes in housing supply and demand • Generation of employment and business opportunities • Changes in demand on social infrastructure and emergency services
	Year 27 – Year 29	<ul style="list-style-type: none"> • Mining operations ramp down 	<ul style="list-style-type: none"> • Loss of employment and business opportunities
Mine closure and Rehabilitation	Year 30	<ul style="list-style-type: none"> • Removal of buildings and infrastructure, sealing access portals • Rehabilitation works to provide a suitable post-mining land use 	<ul style="list-style-type: none"> • Changes to amenity

3.3 SIA Study Areas

Applicable SIA study areas were defined with reference to a number of factors including:

- The EIS ToR along with the SSRC Act and SIA Guideline (2018).
- Each element of the Project description and the associated geographical and temporal extent of potential socio-economic impacts as identified in the scoping phase of the SIA.
- The location of appropriately skilled and experienced mining industry personnel and businesses who could supply the Project.
- The nature of communities in the region including their culture, identity and resilience.
- The potential for local and/or regional communities to be affected by the Project.
- Worker fatigue management requirements with regard to a safe commute distance.
- SIA scoping interviews with IRC and OCG.

To facilitate effective identification and assessment of socio-economic impacts, SIA study areas include:

- Primary local study area.
- Secondary local study area.
- Regional study area.

The following describes the SIA study areas and relevant potentially affected communities.

3.3.1 Primary local study area

The primary local study area for the purpose of the SIA is defined as the populated area in closest proximity to the Project site and thereby likely to experience the most significant impacts, both negative and positive. Moranbah is the closest populated centre to the Project, located approximately 29 km from the Project's main access, or around a 30-minute drive. Moranbah is a key population and service centre for the Bowen Basin. It is also centre of governance for the IRC.

3.3.2 Secondary local study area

The secondary local study area includes those communities located within a safe commuting distance from the Project's main access and meet the criteria for a 'nearby regional community' as defined by the SSRC Act (refer to Table 3-2 for identified nearby regional communities). In terms of towns which are within a safe commute distance of the Project site, reference was made to the DNRME Guidance Note for Fatigue Risk Management. This states that a commute time any more than one hour, with a 12-hour shift length can overtly influence the opportunity for sleep and other essential daily activities (DNRME, 2013). Accordingly, a maximum one-hour drive time from the Project site was adopted to identify towns from where residents would be able to live and commute to work on the Project on a daily basis.

Outside of Moranbah, only one 'nearby regional community' is located within a safe commute distance, being Dysart (located around a 40-minute drive from the Project's main access). Another town, Coppabella, is also located within a commute time of one hour (with a predicted drive time of 32 minutes from the Project's main access). However, Coppabella is not defined as a UCL by the ABS and is defined as an ABS State Suburb (SSC). Regardless of this technicality, Coppabella was included in the secondary local study area as workers could safely reside in Coppabella and commute to the Project on a daily basis.

Subsequently, Dysart and Coppabella are considered to be the secondary local study area as they are not likely to be the primary choice of location for those seeking to relocate to the region due to distance from the Project site, relative deficiency of housing stock, lack of infrastructure and services, and small populations.

3.3.3 Regional study areas

The regional study area adopted for the SIA is the Isaac LGA and Mackay LGA. The Project is located within the Isaac LGA which encompasses 58,862 square kilometres (km²), stretching from the Central Queensland coast to the Bowen Basin coalfields. The Isaac LGA includes the towns of Moranbah, Dysart, Middlemount, Coppabella, Nebo, Clermont and Glenden which have been identified as 'nearby regional communities' for the Project. The Project is located approximately 180 km by road from Mackay, which is the principal service centre for the broader region. Mackay is a well-developed source of resource sector employees, contract labour, supplies and services to the Bowen Basin. The Project anticipates that the Isaac LGA and Mackay LGA will be integral to its supply chain as a source of employees; construction services, labour and equipment; supply of goods and services to the operation; and social infrastructure and services for Project employees and families.

The 'nearby regional communities' of Tieri, Capella and Finch Hatton are not included in the regional study area adopted for the SIA as they are very unlikely to experience social changes as a result of the Project. This is due to their distance from the Project, small population size, and proximity to other nearby large resource projects. Table 3-4 below provides a summary of SIA study areas. Figure 3-2 illustrates the identified SIA study areas.

Table 3-4 SIA study areas

Study area	Level	Locality	ABS statistical code	Description
Local study area	Primary	Moranbah SA2	312011341	Moranbah is the nearest populated centre to the Project. Resident workers are likely to reside in Moranbah and commute to the Project daily.
	Secondary	Dysart UCL	UCL315029	Dysart is located within safe commuting distance from the Project and some workers may choose to reside in Dysart and commute to the Project daily.
		Coppabella SSC	SSC30719	Coppabella is located within safe commuting distance from the Project and some workers may choose to reside in Dysart and commute to the Project daily.
Regional study area		Isaac LGA	LGA33980	The local study area and the Project are located within Isaac LGA.
		Mackay LGA	LGA34770	Mackay LGA is a likely source of drive-in, drive-out (DIDO) workers and businesses and industry to supply to the Project.

Note: SA2 = Statistical Area Level 2

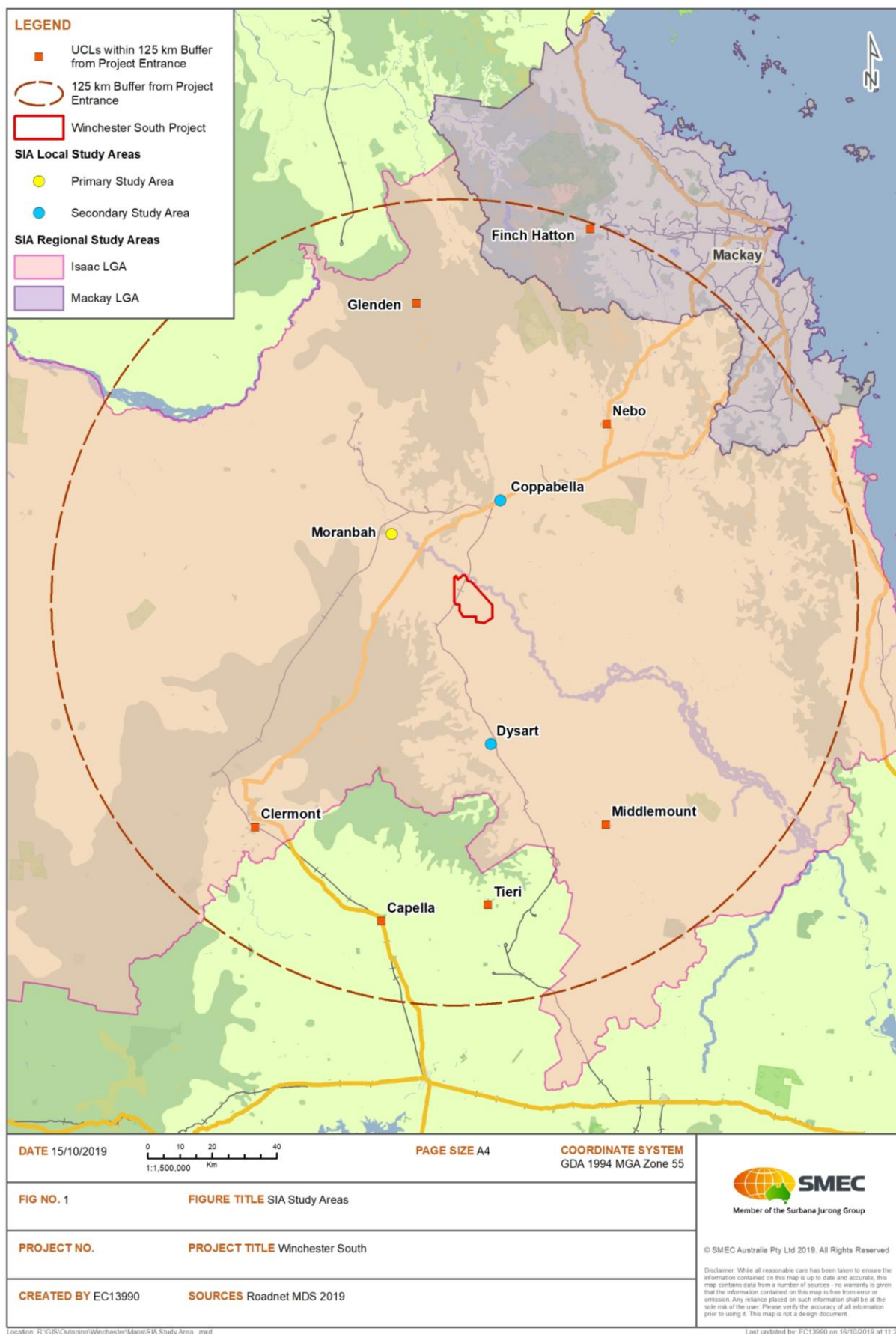


Figure 3-2 Map of SIA Study areas

4 Stakeholder engagement

4.1 Overview

In accordance with the engagement requirements outlined in the ToR, the SIA has been structured so that it is informed by an inclusive and collaborative stakeholder engagement process. Information gained through the direct engagement with Project stakeholders has been used to inform key elements of the SIA including baseline conditions and social trends occurring in different communities, identification and assessment of potential impacts and benefits and how these may most effectively be mitigated and managed.

Accordingly, the objectives of SIA engagement were to:

- provide local stakeholders with the opportunity to define local values and the characteristics of potentially affected communities;
- ensure stakeholders understood the Project details, timing, and workforce arrangements so that discussions about impacts and benefits were meaningful;
- provide stakeholders with the opportunity to identify and assess potential social impacts and applicable mitigation and management strategies;
- ensure the SIA considers the interests and perspectives of stakeholders who may be affected by Project-related impacts; and
- integrate with broader EIS and Project engagement activities so as to provide a range of opportunities for community members and key stakeholders to provide feedback.

Stakeholder engagement has been iterative throughout the SIA and began with the preparation of the Winchester South SIA Engagement Plan which included a process of stakeholder identification. The ToR specifies the stakeholder groups to be engaged as part of the SIA:

- Local government.
- State agencies.
- Local and regional employment and training providers.
- Public and private housing providers.
- Local and regional commerce and community development groups.
- Social and public services providers.
- Emergency services.
- Public health providers.
- Local communities.

Against each of these stakeholder categories, relevant entities which operate in the Local and Regional SIA study areas were identified. The stakeholder identification process was undertaken in collaboration with Whitehaven WS and the IRC and built upon previous stakeholder engagement activities. The stakeholder listing was further refined throughout the course of the SIA engagement process as additional stakeholders were identified, including relevant organisations who service the needs of vulnerable groups such as the elderly, people with disability, and young persons.

The engagement approach was structured so as to provide stakeholders with the opportunity to provide meaningful input into the definition of key social issues and trends, the identification of social impacts and how they may be managed. As discussed and agreed with the OCG, SIA engagement was not to include any opinion poll style broad community sentiment survey. Considering the nature of the Project and the heritage and social characteristics of potentially affected communities and the consultation fatigue which existing in the community; such a poll was not required to inform the SIA. Furthermore, insight from local communities was gathered from direct engagement with political representatives, such as the Deputy Mayor of IRC, who represent the local community. Local community insight was further strengthened through engagement with local service providers.

The primary means of SIA engagement was via semi-structured interviews (provided as Appendix C) and meetings with targeted key stakeholders. Based on the experience of undertaking numerous SIAs for mining projects in the Bowen Basin, this has proven to be the most effective way in which to meaningfully engage and gain genuine input into social impact definition and management. The SIA interviews were structured so as to:

- enable local stakeholders to define local values and the characteristics of potentially affected communities;
- provide stakeholders with an understanding of the Project including timing and workforce arrangements;
- collect stakeholder input specifically regarding potential social impacts and benefits; and
- collect stakeholder input specifically regarding applicable mitigation and enhancement strategies.

Table 4-1 provides an overview of the stakeholder engagement program undertaken for the SIA.

Table 4-1 Overview of SIA stakeholder engagement program

Category	Stakeholder Entity	Method of Engagement	When Occurred
Local Government	IRC- elected representatives (Mayor, Deputy Mayor and Councillors) *	Presentation to and discussion with members of the IRC Standing Committee	October 2019
		Presentation of SIA findings and SIMP	November 2020
	IRC- key Council staff (Director Planning Environment and Community Services and Manager Corporate Properties)	Face to face interview	October 2019
		Ongoing discussions regarding the SIMP	Ongoing
	Mackay Regional Council- elected representatives (Mayor)	Face to face interview	October 2019
	Mackay Regional Council- key Council staff (Principal Economic Development Officer)	Face to face interview	October 2019
State Agencies	OCG CPDD	Meeting- multiple agencies	August 2019
		State Agency Meeting	December 2019
	DATSIP - Manager, Mackay Region	Face to face interview	October 2019
	Department of State Development, Manufacturing, Infrastructure and Planning- Principal Economic Development Officer	Face to face interview Email exchanges	October 2019
	Department of Employment, Small Business and Training- Regional Director, Central Queensland Region	Face to face interview	October 2019
Local and regional employment and training providers	Moranbah State School/ Coalfield Training Excellence Centre (CTEC) or "Blue Shed" - Deputy Principal	Face to face interview	October 2019
	Regional Industry Network (RIN) Resources Training Excellence	Face to face interview	October 2019

Category	Stakeholder Entity	Method of Engagement	When Occurred
Public and private housing providers	Centre- Membership Engagement Manager		
	MRAEL- Training Specialist	Face to face interview	October 2019
	Department of Housing and Public Works- Area Manager Mackay Housing Service Centre	Face to face interview	October 2019
	Isaac Region Affordable Housing Trust- Director	Face to face interview	October 2019
	Emergency and Long-Term Accommodation Moranbah- Director	Face to face interview	October 2019
Local and regional commerce and community development groups	Real estate agents- Moranbah - Principal Agents	Face to face interview	October 2019
	Moranbah Traders Association- Director	Face to face interview	October 2019
	Construction, Forestry, Maritime, Mining and Energy Union (CFMEU)	'Zoom' interview	June 2020
	Barada Barna Aboriginal Corporation- Board Member	Face to face interview	October 2019
Social and public service providers	Local business owners	Face to face interviews	October 2019
	Moranbah State School- Deputy Principal	Face to face interview	October 2019
	Moranbah Primary School- Principal	Face to face interview	October 2019
	Moranbah East Primary School- Principal	Face to face interview	October 2019
	Dysart State School- Principal	Telephone interview	December 2019
	Dysart State High School- Principal	Telephone interview	December 2019
	Coppabella State School- Teaching Principal	Telephone interview	December 2019
	Simply Sunshine Childcare Centre- Director	Face to face interview	October 2019
	Moranbah Early Learning Centre- Director	Face to face interview	October 2019
	Moranbah and District Support Services- Manager	Face to face meetings	October 2019
	Dysart Community Centre- Manager	Telephone interview	December 2019
Emergency services	Moranbah Men's Shed- Organiser	Face to face meeting	October 2019
	Moranbah Police Station- Officer in Charge*	Face to face interview	October 2019

Category	Stakeholder Entity	Method of Engagement	When Occurred
	Dysart Police Station- Officer in Charge	Telephone interview	December 2019
	Queensland Ambulance Service- Mackay Manager of Operations*	Face to face interview	October 2019
	Moranbah Hospital (including Moranbah District Mental Health Service) - Director of Nursing*	Face to face interview	October 2019
Public and private health providers	Dysart Hospital- Director of Nursing	Telephone interview	December 2019
	General Practitioner clinics- Oaktree Family Medical Centre and Sonic HealthPlus Moranbah	Face to face interview	October 2019
	Mackay, Whitsunday Isaac Suicide Prevention Network	Face to face interview	October 2019

* Stakeholder is a member of the Local Disaster Management Group

While Table 4-1 outlines the engagement undertaken for the SIA, it should be noted that engagement will be ongoing as part of SIMP implementation in recognition that the SIMP is an adaptive management tool. As such, collaboration between Whitehaven WS and IRC will be ongoing to finalise, implement and if necessary revise, the SIMP.

As outlined in Table 4-1, the primary means of engagement was by way of semi-structured interviews directly between SMEC and the individual stakeholder. For a majority of interviews a representative from Whitehaven WS also participated. SMEC recorded all notes from the interviews, a summary of which is presented below.

4.2 Stakeholder engagement feedback

A considerable amount of primary data was generated through the course of in-depth interviews with key stakeholders. This section provides a summary of feedback provided by each of the stakeholder categories.

4.2.1 Local government

Isaac Regional Council- elected representatives

A primary Project stakeholder is the IRC. Accordingly, engagement has occurred on multiple levels with the IRC in the course of the SIA. An initial presentation of the Project and the SIA process was made to the IRC Standing Committee in October 2019, which was attended by six Councillors along with senior IRC staff.

At this meeting, the SIA engagement approach was presented, and feedback was directly sought from the Standing Committee (and associated senior IRC staff in attendance) as to the identified stakeholders and whether there were any additional entities which should also be considered. A number of additional stakeholders were identified and subsequently added to those to be engaged as part of the SIA.

IRC advised that key issues being faced in the community include housing availability and fluctuating values and costs, the lack of availability of child care services and the ongoing challenges of mental health related issues in the community. A strong message from IRC is that they prefer proponents to invest in existing initiatives rather than attempt to establish new ones. Key examples of existing services and facilities included the Blue Shed and the Moranbah Youth and Community Centre (out of which operate Moranbah and District Social Services [MDSS], Emergency and Long-Term Accommodation in Moranbah Inc. [ELAM], etc.). Contributions to maintain the long-term sustainability of existing services has been vital to the provision of community infrastructure which services the community.

There was broad discussion around roster flexibility options and whether this presented an opportunity to facilitate further workforce involvement in the community. Members of IRC purported that the ‘employer of choice’ is not necessarily the one which pays the highest wages, but the employer which provides additional support in terms of shift scheduling to allow time with families and participating in the community. Mental health is a major issue in the community. IRC’s position is that local living greatly reduces mental health issues as workers get to enjoy the social connections and facilities which are provided locally.

It was advised by IRC that there are clear signs that economic activity is starting to heat up again in Moranbah with subsequent effects on the housing market. In particular, rental costs are rising and IRC wants to ensure that the major fluctuations which occurred previously are not experienced again. Accordingly, IRC considers that proponents need to invest in housing so that project related effects on the local housing market are managed. IRC is also committed to advocating wherever possible for opportunities to be provided to local businesses as the economic wellbeing of communities in the LGA is reliant upon projects using local providers.

IRC recognised that many of the social impacts associated with projects are cumulatively driven. In addition to projects coming online, the IRC also highlighted the need to recognise the projects which are coming to end of life. It was recognised that it is sometimes difficult to get an accurate understanding of which projects are likely to start and which are coming to end of life. IRC maintains communications with proponents and may be able to assist in terms of providing up to date information on projects.

A key aim of IRC is to keep the community vibrant and sustained. Funding and support for infrastructure and services is therefore highly appreciated. A case in point is the current under-supply of childcare services.

IRC also expressed a keen interest in rehabilitation. With so many projects around the region, IRC is eager to learn more about Whitehaven WS’s approach to rehabilitation.

The findings of the SIA were presented to a full meeting of the IRC Standing Committee in March 2020. At this meeting, key proposed commitments as outlined in the SIMP were discussed.

Isaac Regional Council- Council officers

To inform the SIA, meetings were held with key IRC staff including the Director Planning, Environment and Community Services and the Manager Corporate Properties. It was advised that two key principles guiding their review of project approval documentation (such as EISs) and informing the development of recommendations are:

- *Building local resilient communities*- Does the recommendation improve the capacity, capability, liveability and well-being of locally affected communities? IRC prioritises the support, value-add or expansion of existing local collaborative community and economic development programs within the Isaac Region which improve liveability and socio-economic outcomes for the region. These existing programs are grounded in the community through trusted relationship networks and are best placed to efficiently respond and adapt to the immediate and future needs of the communities in which they operate.
- *Enabling choice*- Does the recommendation address and/or remove barriers that affect people’s ability to make choices freely? IRC respectfully recommends measures which address barriers that impact genuine choice for people to permanently reside in the Isaac Region both during the construction and operational phase of projects.

IRC is focused on the cumulative demands and impacts of mining projects on the Isaac Region and notes the absolute need for a coordinated, collective response. When proponents contribute to existing programs within the Isaac Region in response to cumulative community impacts, it benefits not just proponent workforces, but the whole community. IRC looks to focus on things which make a difference to the sustainability of the community such as local employment and core infrastructure including water, waste and roads.

IRC is eager to collaborate with Whitehaven WS in developing and implementing the SIMP. It was agreed that Whitehaven WS and SMEC would continue to engage with IRC, including potentially organising a workshop, with regard to the SIMP as part of its finalisation and implementation.

IRC has been involved in establishing the Isaac Affordable Housing Trust (IAHT). There is a need to protect service workers and those on lower wages. IRC strongly recommend working through established mechanisms such as the IAHT than embarking on individual initiatives.

It was recognised that there would be benefit in the OCG CPDD also being involved in such a collaborative approach. There are some lessons learned from other recent projects which can reduce potential delays to the finalisation and implementation of the SIMP process.

Mackay Regional Council- elected representatives

In a meeting with the Mayor specifically to inform the SIA, a full update on the progression and timeframes of the Project was provided. The Mayor indicated that Mackay Council is supportive of the project coming to fruition as the resource sector has a key influence on the health of the regional economy.

The Mayor advised that Mackay is getting back on its feet again after going through some tough times over the last 5-6 years. There was a loss of some 6,000 people from Mackay over this period; however, it should also be acknowledged that there was growth of 26,000 people over the preceding 10 years when the resource sector was booming. In the good times, a lot of people made a lot of money.

People remain wary about moving to/moving back to Mackay. Some people lost a lot of money on real estate- houses which were bought for \$800,000 were all of a sudden only worth \$300,000. Many people had also bought luxury items such as cars, jet skis, etc., not anticipating that jobs and wages would constrict. They found themselves over-capitalised and subsequently suffered.

The Mayor advised that fortunately economic conditions had picked up in recent times and that there are over 1,300 jobs currently advertised in Mackay- across a broad array of sectors. There are already skills shortages in sectors such as construction. The challenge for Mackay is to draw people to/back to the region. An associated challenge for projects such as the Project is to attain a skilled workforce. A potential advantage is that housing prices are still relatively low in Mackay, which makes it a more attractive place to move to in taking up a resource sector job in the Bowen Basin.

The Mayor spoke of the high standards of infrastructure and good lifestyle attractions in and around Mackay. There are also some social challenges which need to be addressed. Rates of domestic violence are too high- as are rates of suicide and mental health issues. A considerable proportion (up to 60 per cent) of police resources are committed to domestic violence call outs. Council has been committed to addressing the issue through persistent awareness campaigns, etc. Council recently held an industry leader forum on the issue of domestic violence and attendees were genuinely shocked to learn how prevalent the issue was in the Mackay region. The Mayor is personally committed to addressing domestic violence along with suicide and mental health.

Mackay Regional Council- Council officers

As part of the SIA, SMEC and a representative of Whitehaven WS met with the Principal Economic Development of Mackay Regional Council. It was advised that Mackay promotes itself as the service centre for the Bowen Basin. There have been clear indications in Mackay that things are starting to really pick up again in the Bowen Basin- the unemployment rate is coming down and there is noticeably more money circulating in the economy.

There are currently 1,500 jobs available in Mackay. There is a need to attract more skills back into the region. Council is working with other government agencies (such as through the Greater Whitsunday Alliance) to build skills. Council is also working with schools and with Jobs Skills Queensland to track and identify current and future skills requirements and ensuring that these are fostered in the region.

Between 2013 and 2018, there was a substantial downturn in Mackay. Housing prices dropped from a median of \$530,000 to \$300,000 and there remains a high degree of capacity in the Mackay housing market with affordable options. The challenge is now to build back the trust in Mackay's housing market and stability of employment opportunities.

Mackay provides very high levels of hard and soft infrastructure and provides a liveable and attractive lifestyle. Council is very keen to see proponents maximise local content in procurement as this enables benefits to flow back to the region. Specific mention was made of Job Link (CQ Job Link) to access locally sourced employment. Also supports the use of regional procurement portals.

Council is looking to further diversify the regional economy including further investments in manufacturing, defence and tourism. Sugar remains a key industry however it goes through cycles of boom and bust similar to the resources sector. Council has partnered with the RIN and others in establishing the Resources Centre of Excellence. This training facility is currently being constructed and will provide an important training facility with underground mining simulators and other cutting-edge training resources.

4.2.2 State agencies

Office of the Coordinator-General

As specified in the ToR, the SIA ensured that the direction of the OCG CPDD was sought out and integrated into the SIA process. Initial engagement with the OCG was through a presentation of the proposed SIA methodology to a meeting in August 2019 involving multiple State Government agencies. A focus of the meeting was specific elements of the draft ToR.

CPDD advised that their role was to administer the requirements of the SSRC Act. A key focus of the SSRC Act is to enable local communities to benefit from major resource projects, particularly through access to employment opportunities.

CPDD advised that whilst the SSRC Act nominates a distance of 125 km from the Project entrance as ‘nearby regional communities’, the expectation is that typical SIA study areas are defined and provide the geographic extent of the assessment. The analysis of the nearby regional communities specifically relates to the sourcing of employment, whilst typically an applicable ‘Local’ and ‘Regional’ study area is defined for the SIA. SMEC confirmed that this was the approach adopted and that the local study area comprised the towns of Moranbah, Dysart and Coppabella with reference to a safe commute time to the Project. The regional study area is the Isaac LGA and Mackay LGA.

Clarification was sought regarding the targets specified in item 11.106 of the draft ToR (no more than 50 per cent FIFO workforce during construction/ no more than 25 per cent FIFO during operations). CPDD acknowledged that ‘targets’ specified in the draft ToR were very challenging in the context of the limited availability of skills in local and regional areas. Data clearly indicates that the total size of the labour pool is small, the unemployment rate is extremely low and competition for skilled labour is already high. In addition, there are multiple other major coal projects being proposed in the same location and same timeframe as the Project.

CPDD explained that the objective was to ensure that proponents did everything possible to maximise local employment opportunity. A representative of Whitehaven WS explained that they maximise local employment on all of their projects and that would also be the case for the Project. CPDD acknowledged the feedback provided and committed to reviewing the draft ToR prior to finalisation of the ToR.

A representative of Whitehaven WS/ SMEC advised that the key social impacts experienced by communities in the Bowen Basin (such as housing, service shortages, etc.) are the result of multiple projects occurring simultaneously. They are cumulatively created and therefore require a cumulative ‘solution’. It is not realistically possible for proponents to all independently derive solutions to complex social issues. CPDD advised that they had a role in coordinating agency responses and inputs during the EIS process. CPDD also advised that they take into consideration cumulative issues in their evaluation of SIAs subjected to the EIS process. In particular, they noted that they obtain SIA information from other projects to inform their assessment of the SIA, including the management measures proposed in the SIMP.

A representative of Whitehaven WS/ SMEC advised that there was a clear need for an entity to provide a coordination role regarding the emerging cumulative social impacts associated with multiple projects moving to development simultaneously. This has also been recognised by IRC who have clearly stated that they do not feel it appropriate that they fulfil this role as they are focused on advocating for the community. There was consensus that this was an issue which required further consideration.

In December 2019, a second meeting was held involving the OCG CPDD along with an array of Queensland Government Departments which are responsible for services and facilities which may be affected by major projects. Representatives from the IRC were also in attendance via tele-link.

A representative of Whitehaven WS/ SMEC provided the meeting with an overview of the objectives of the SIA and the process by which social effects associated with the Project would be identified and assessed. The SIA study areas were presented which encompassed Moranbah as the primary local study area and Dysart and Coppabella as the secondary local study area, along with the Isaac and Mackay LGAs as the regional study area for the purpose of assessing social impacts.

It was acknowledged by meeting participants that due to the infrastructure and services provided in Moranbah, it is likely that this would be the preferred community for those who move to the region due to project employment.

Key findings from the SIA baseline were described for the benefit of the meeting participants. It was recognised that there is a discrepancy between ABS Census data and that produced by the Federal Department of Employment, Small and Family Businesses- which are produced on a quarterly basis, and discussion as to the most accurate unemployment rate to apply. It was acknowledged that use of the September edition of the Department of Employment estimates would be appropriate.

It was mentioned by Council that there has been a steady rise in activity over the last year and that this will eventually translate into housing shortages and escalation of housing rental and purchase prices. It was brought to the attention of the meeting that Moranbah continues to be under-resourced with regard to health services. The Moranbah Hospital is severely under-resourced and under-staffed. The representative from Queensland Police added that the need to escort transferrals to Mackay or Rockhampton placed an additional demand on finite resources. Council advised that attracting staff is a constant struggle for service providers in the region. There is a need to incentivise through the provision of housing and higher wages, which puts additional strain on budgets.

Queensland Treasury recommended the use of the non-resident workforce publications- Bowen Basin population and non-resident population reports (Queensland Government Statistician's Office, 2018; 2019b). Council highlighted that community security and resilience should be built into the business model for new projects. Council also highlighted that provision of true housing choice is of paramount importance.

Queensland Police provided an overview of the problems associated with protesters (against climate change/ coal projects). These draw police resources away from where they are needed, which puts members of the community at risk.

Department of Aboriginal and Torres Strait Islander Partnerships

DATSIP offers support to Whitehaven WS to connect with job seekers and Indigenous businesses and also provide assistance and mentoring in terms of Indigenous employment retention and other advice.

DATSIP provided an overview of a local employment provider who are involved in a program to work with people over a prolonged period. This is an important trial in Mackay and looks to get better results over time. There is a wish to move the mentality away from 'we need 10 Indigenous employees' to looking at younger people and the skills they need to gain these positions and putting in the long-term programs which make it happen.

DATSIP tracks students post Year 12 and there are still many who are not working or studying following school. There is a need to attempt to break inter-generational disadvantage. Employment and training programs can make a very positive contribution. Employment is a lot more than giving people a job. It is a longer-term process of breaking down barriers to employment. DATSIP strongly encourage mining proponents to have structured programs in place to maximise Indigenous employment.

DATSIP maintain an unemployed database of people who are actively looking for work (currently over 200 in region). They work with Indigenous businesses, supporting them to identify and access opportunities. DATSIP can provide proponents such as Whitehaven WS with assistance in engaging with Indigenous businesses. The objective is to create long lasting partnerships with Indigenous businesses.

DATSIP and other Queensland Government Departments are working with schools such as Moranbah High School which was identified as one of the high priority schools. Engagement with these schools focusses on working on training programs for Indigenous young people. A key concern is that there are groups of young people coming through who lack any skills. There is a need to create more traineeship and apprenticeship opportunities which specifically target this group. DATSIP can assist with this and can also assist with connecting with Indigenous businesses as part of procurement opportunities in both construction and operations.

Department of State Development, Manufacturing, Infrastructure and Planning

The Department of State Development, Manufacturing, Infrastructure and Planning (DSDMIP) Mackay office works closely with stakeholders including project proponents, contractors, investors, advocacy groups and all levels of government to connect buyers and major contractors with local businesses seeking to expand their supply chains, improve their understanding of procurement principles or position themselves to win project work.

DSDMIP explained that they have developed a Supply Chain Development Program for proponents and prime contractors of major projects in the Mackay, Isaac and Whitsundays (MIW) Region. The program includes a suite of products and services (including the Industry Capability Network [ICN]) which proponents and tier 1 contractors can access to support job creation, regional growth, increase innovation and the improvement and development of regional supply chains. The program seeks to work directly with local businesses to ensure they are provided with full, fair and reasonable opportunity to participate in projects in regional Queensland.

The Department has a Project/ contractor development program which invites participants to workshop on how to connect with regional businesses including Indigenous businesses. The objective is to link suppliers with the buyers at critical points in the project phase to maximise local supplier understanding of project needs, requirements, and timelines. A recommendation is that effort is made to break down procurement requirements into specific packages of work as this greatly assists smaller providers to access such opportunities.

The Department can work with Whitehaven WS to set up a Project page for Winchester South that links with ICN and enables suppliers to provide expressions of interest for various packages.

In terms of other projects in the region which may have a cumulative demand on the availability of construction labour; in addition to other mining projects currently being advanced in the Bowen Basin, the Shoalhaven upgrade (Department of Defence) is a major project which may overlap with Winchester South. There is also the proposed Clark Creek windfarm.

Department of Employment, Small Business and Training

The Department of Employment, Small Business and Training (DESBT) provides a variety of initiatives designed to get people back into the workforce and assist small businesses to start up and be sustained. They also look to link people with training and skills development organisations which improves their job opportunities. DESBT provides a 'Back to Work' program for persons who have been unemployed for 4 weeks. The program offers assistance of up to \$20,000 per person to organisations for them to take on an unemployed person (maximum of 5 applicants per organisation).

DESBT recognises skills shortages in the region in certain occupations such as boiler makers, diesel fitters, trade and construction skills. There is an opportunity to attract people back to the region through strong jobs demand.

DESBT links to the ICN and can assist in ICN targeted assistance to key businesses in the Project's supply chain and other ICN business matching activities. There are also various government-funded programs which can be tapped into- under 'Skilling Queenslanders for Work'.

DESBT would be very interested in working with/supporting Whitehaven WS in any training initiatives (particularly for the 18-25-year-old cohort).

4.2.3 Local and regional employment and training providers

Coalfield Training Excellence Centre or the "Blue Shed"

Operating out of Moranbah High School, the 'Blue Shed' has been one of the most successful school-based apprenticeship programs in Australia. There are around 40 school-based apprentices each year and they all get employment. Not every student who wants a school-based apprenticeship gets one - there is competition for positions.

The Blue Shed provides Certificate 1 and Certificate 2 Engineering, Resources and Industry Pathways. They have recently phased out the Graduate Diploma course and replaced it with a two-year full-time course.

Youth unemployment is an issue in the region. Kids who do not get onto a school-based apprenticeship struggle to find employment- particularly any form of meaningful employment. As a result, there's a need for some young people to move away from the town and seek other opportunities.

An ongoing challenge is finding and retaining skilled staff. One of the key trainers is retiring and finding a replacement is difficult as the person needs to have accreditation across both trades and teaching.

The Queensland Minerals and Energy Academy (QMEA) does a great job in supporting Science Technology Engineering and Maths (STEM) integration into the school curriculum. They support programs and provide equipment such as drones which enable hands-on training and skills development.

Regional Industry Network / Resources Training Excellence Centre

The Centre of Excellence training facility is a partnership with Mackay Regional Council, with Council providing the land and a portion of the capital required to construct the facility. The Centre of Excellence will provide innovative training and skills development facilities such as underground mining simulation.

The RIN is a not-for-profit organisation which relies on the support of members to undertake their work. RIN is pro-active in bringing together people and organisations in the resources sector in the region. This facilitates the relationships and partnerships which are so important to business success.

RIN sponsor numerous events which provide a platform for new entrants to the region (such as Whitehaven WS) to be exposed to and connect with the support industries which are available in the region. RIN provide membership listings and can work with Whitehaven WS to connect with entities as part of the procurement supply chain.

Construction, Forestry, Maritime, Mining and Energy Union

CFMEU are a major provider of apprenticeships and training- the second largest employer of apprentices in Queensland, contributing \$12-\$15 million/year to apprenticeships. They have a very high completion rate (95 per cent) and a high Indigenous completion rate when compared to the completion rates for other apprenticeship programs which can be as low as 30 per cent. It is notable that mining companies which used to run large apprenticeship programs are now far less prevalent.

CFMEU supports local people accessing local jobs. Also recognise that construction workforces are quite mobile and itinerant by nature. It is assumed that a sizeable proportion of the construction workforce would be sourced out of the Mackay region. Whilst sourcing local labour is a priority, the imposition of unrealistic targets as part of approval processes is not supported and only causes unnecessary complications. The unique context of every project needs to be recognised and the reality is that there is highly limited supply of construction personnel in the Bowen Basin region. It therefore needs to be sourced from places such as Mackay. In terms of skills shortages, there are no pronounced shortages across the sector. There may be some highly specialist skill shortages; but overall there is a good level of supply of construction skills in the Mackay and Rockhampton regions.

A key concern of CFMEU is the health and welfare of the workforce. Rostering arrangements have a significant effect upon the workforce experience and therefore the well-being of workers and their families. There needs to be a degree of flexibility in determining the optimal roster arrangement- it needs to be tailored to the specific project and its characteristics. Managing workforce fatigue is a key issue in terms of workforce welfare and some companies are better at this than others. It is often a combination of small interventions which collectively make a difference.

CFMEU recommends the negotiation of a Construction Agreement, particularly for large greenfield projects. What is important to CFMEU is maximising the positive legacy which projects leave behind such as through employment and training opportunities for local people and for young people.

MRAEL

MRAEL specialise in the provision of upskilling programs such as upskilling from a trade-accredited qualification to a higher-level qualification. There are state and federally funded programs which may connected with- these provide direct funding for apprentice and workforce upskilling programs.

MRAEL connects proponents with available funding support and programs, and with Registered Training Providers.

MRAEL can manage and structure workforce training and upskilling programs on behalf of proponents and connect with funding bodies. MRAEL have recently completed child-care training programs as part of the 'Skilling Queenslanders for Life Program'. Indigenous specific programs can also be structured- there are additional subsidies available for Indigenous programs.

In Moranbah there is an issue with youth who do not get into school-based apprenticeships- they find that their opportunities are limited after school and fall through the cracks. The extent of this issue is under-reported in Centrelink and social security data as they are often living at home and earning part-time/ casual wages. As they are living at home they do not qualify for benefits, despite the fact that their future outlook may be bleak.

4.2.4 Public and private housing providers

Department of Housing and Public Works

It was explained that the primary purpose of the Department of Housing and Public Works is to provide accommodation to those who are the most disadvantaged in the community. The Department of Housing and Public Works currently has approximately 70 houses in Moranbah which are all occupied, however they are looking to offload stock and have sold off 15 houses over the last 12 months. Some of the Department of Housing and Public Works-owned stock is of poor quality. There are asbestos issues which can make repairs and upgrades overly expensive and not commercially viable.

There is not a high level of demand for Departmental housing. It is difficult to access social housing in terms of meeting the necessary criteria- household income needs to be lower than about \$70,000. Subsequently, even though people may be on a relatively low wage (by Moranbah/ Bowen Basin standards) they will not qualify for Department of Housing and Public Works housing unless there is a crisis situation such as domestic violence or a single unemployed parent.

There are signs that activity is picking up in Moranbah. People are moving back there and rents are increasing. Rental accommodation is the real pressure point- landlords look to profit when they can and subsequently rents rise rapidly when demand rises due to mining projects. These employees are on high wages and are willing to pay higher rents. As there is limited rental stock, those on lower wages get forced out of the market.

The Department of Housing and Public Works also provides rental grants for private rental houses to persons who qualify. Rental prices for houses owned by the Department of Housing and Public Works are based on income rather than the market- rents are priced at 25 per cent of household income. All Department of Housing and Public Works-owned stock in Moranbah is currently occupied but there have been many houses vacant over the last 5 years.

It was acknowledged that BMA is currently building additional permanent housing stock in Moranbah. It was explained that BMA had previously gifted to the Department of Housing and Public Works some of their older housing stock. BMA also own a substantial amount of housing stock in Dysart.

Isaac Region Affordable Housing Trust

Established 12 years ago, the IAHT is a registered not for profit organisation which specifically seeks to provide housing to low-to-middle income earners. These are people who do not meet the requirements for crisis accommodation as provided by the Department of Housing and Public Works but are vulnerable to escalating housing prices as they are on comparatively lower wages than those employed by mining companies. These are essential service workers and the community suffers if they cannot be kept in town.

In recent times, there has been a steady rise in pressure upon the rental market in Moranbah. This is due to the overall size of the rental market not being extensive once the proportion of sub-standard and privately-owned rental stock is taken into consideration. The purchase market in Moranbah is slowly recovering. There are still a sizeable number of houses in Moranbah held by financial institutions. There has been very little building activity in Moranbah in recent years.

The IAHT was formed due to a \$5.5m contribution by BMA. Rio Tinto provided the Trust with land in Clermont and the Urban Land Development Authority donated 7 blocks of land in Moranbah. The IAHT currently has a total of 19 units of accommodation, of which 12 are in Moranbah. All houses are rented out at rates at least 20 per cent below market value. The National Rental Affordability Scheme is used to benchmark eligibility requirements which roughly equate to a family earning less than \$70,000 per year being eligible for assistance.

With the land which is owned in Moranbah there is an opportunity to build up to 21 additional units (medium density) of accommodation. A Development Application is soon to be lodged with IRC (located in the Bushlark Grove development). It is expensive to build in Moranbah due to the competition for trade skills with mining projects. It is estimated that each unit of accommodation would cost \$200,000-\$250,000 to build. It would therefore cost between \$4-\$5 million to construct the 21 units of accommodation. The IAHT is seeking contributions from proponents to raise the necessary capital.

Emergency and Long-Term Accommodation Moranbah

ELAM predominantly work to a 12-week program in finding emergency accommodation for persons in times of crisis. They currently have 9 houses which are provided by the Department of Housing. Domestic violence is the primary cause of persons seeking crisis accommodation.

All the available houses are generally fully booked, and they sometimes have to turn clients away. The Black Nugget provides accommodation when there is a shortage, however sometimes they are also booked out. Of the people which ELAM assists, approximately 75 per cent progress through the Department of Housing system to attain long term accommodation. Approximately 10 per cent relocate to other locations.

There is an upcycle happening now with consequential effects on housing affordability and demand for crisis accommodation. There are currently people who are couch-surfing waiting for an accommodation option to emerge.

Mental health is a major issue which is ever more emerging in Moranbah. ELAM recommend that project proponents offer psychological assistance and assessment to their workforces along with their families. They could offer free psychological assessments and identify high risk situations for domestic violence. The key means of addressing the issue is avoiding it occurring in the first place.

Youth are quickly becoming the demographic group which is most in need of support. It is common for both parents to be working and therefore youth are often left to their own devices and fall into trouble. There needs to be more things for youth to do and programs which divert them falling into delinquency. ELAM offer a Youth Program (8 – 21 years) focussing on disengaged youth. They support up to 12 clients at any one time and frequently they have experienced domestic violence and refuse to go to school.

Real Estate Agents- Moranbah

It was reported by real estate agents in Moranbah that the value of real estate in Moranbah has always fluctuated with the boom and bust cycles of commodity (coal) prices. In 2011 and 2012, housing in Moranbah was extremely expensive- the average price for a house was \$750,000 and rents were averaging over \$1,000/ week. When the market is in this state, local people who are renting or looking to enter the housing market are highly affected. In late 2012/ 2013, a drop in the coal price along with the finalisation of the construction phase of a number of major projects resulted in a sharp reduction in demand for housing in Moranbah. As a result, the housing market plummeted, with prices falling by over 80 per cent to a median housing price in June 2016 of just \$155,000.

It was reported there had been recent releases of houses onto the market by banks/ investment organisations. This is housing stock which was repossessed when there was a decline in the market and investors could no longer afford loan repayments. In the last six to eight months, there has been an upturn in the value of real estate in Moranbah. There has been a notable increase in the demand for rental accommodation (current vacancy rates estimated to be less than 2 per cent) and subsequent rising rental prices. There is still relatively high level of availability of housing for purchase with approximately 80 houses currently on the market.

4.2.5 Local and regional commerce and community development groups

Moranbah Traders Association

Moranbah Traders Association is a group of businesses which network in order to build business resilience through sharing knowledge. It is a voluntary, community owned entity which has been operating for 25 years. There are about 120 members with a core group of 25 who regularly meet on the first Wednesday of every month- Whitehaven WS is invited to come to a meeting and advise on the project and connect with local businesses.

Different companies have different local buy initiatives. BMA provide a voucher system for staff to spend money in town with local businesses- around 30 different shops which are part of the program. From experience, the key thing which makes a difference in terms of local procurement is having a person based locally who actively forms the local relationships with businesses and works with them to structure supply chain opportunities.

There are registers of local providers which can be shared with Whitehaven WS. Companies such as BMA maintain a detailed Local procurement process- C- res. Whilst it does have some positive elements it is administrative-heavy. In many ways it seems as though a relationship-based approach works better.

A major challenge is ensuring that contractors have the same commitment to local procurement as proponents. Contractors often have existing relationships with non-local suppliers and do not bother to engage with local businesses. Highly recommend that requirements regarding local procurement commitments are reflected in contracts with major Project contractors.

Barada Barna Aboriginal Corporation

In 2016, the Barada Barna People were recognised to hold Native Title over land and waters located south-west of Mackay and in the Bowen Basin. The Barada Barna Aboriginal Corporation are looking to build long-term relationships with proponents such as Whitehaven WS and highly appreciated the recent initiative of Whitehaven WS to take members of the Barada Barna Board to go down and view what they have done in operations in NSW.

The Barada Barna Aboriginal Corporation also very much appreciate the progress made on the Reconciliation Action Plan (RAP) (Stage 2). The Barada Barna Aboriginal Corporation are looking to maximise employment opportunities. They are setting up a training facility and construction business in Nebo. This is not just about technical training but also all the other levels of support, such as money management etc., which delivers sustained employment outcomes. They would like to see proponents prioritise sustainable employment pathways for traditional owners and not just employ Aboriginal people from anywhere in order to meet targets/ quotas.

There are no traditional owners currently living on country and there are also no services for Indigenous people in Moranbah. There are more Aboriginal people in Moranbah and other towns due to employment programs of mining companies which focus on looking to reach quotas for Aboriginal staff. The Barada Barna Aboriginal Corporation would prefer a focus on creating sustainable employment opportunities for young people. Mentoring is considered to be key to generating successful employment outcomes for young people. This is what the Barada Barna Aboriginal Corporation would like to focus on.

The Barada Barna Aboriginal Corporation see an opportunity to develop a business case for opening a new child care centre in Moranbah. The Barada Barna Aboriginal Corporation owns a block of land (4000 square meters [m²]) located near Newman Street. It would be suitable for development of a long day care centre. There is a successful example to follow in Mackay- the C&K run Mackay Family Day Care Centre which is Indigenous-owned and has a high proportion of Aboriginal staff. This was considered a potential opportunity to do something innovative in this space in Moranbah.

Local businesses

A variety of local businesses were engaged as part of the SIA including Moranbah Newsagency, Moranbah Workers Club, the bakery and a variety of other food and beverage businesses. It was reported that in Moranbah there are a core group of approximately 30 businesses which have been servicing mines for a prolonged period. There is a degree of constant turnover of staff as Moranbah is quite a transient town.

There are signs the local economy in Moranbah is picking up and housing costs are rising- particularly rental accommodation. This makes it very difficult to get staff. The only option for businesses and service providers is to invest in housing. Businesses such as the Moranbah Workers Club has nine houses which are provided to staff at subsidised rents. This is the only way to attract and retain staff.

It has always been a challenge getting good staff in Moranbah; but as mining activity ramps up it becomes even more difficult. Local businesses lose staff to the mines as they cannot compete in terms of wages.

It was recommended that the most effective way of benefiting local businesses is to do the little things well- engage with local providers and work with them to understand what they can provide.

In terms of the broader community, the group most requiring assistance are young people. There are local youth who would benefit from additional support in terms of building skills and accessing employment. Businesses in Moranbah always welcome new projects and all they expect is an equal opportunity to tender for supply opportunities. Investing in relationships is the key to realising business opportunities.

4.2.6 Social and public service providers

Moranbah State High School

Moranbah High currently has 680 students (years 7-12) and is expecting this to grow to 750 for next year (2020). Continued growth has led to the school struggling to maintain adequate supply of space and teachers. Attracting teachers to Moranbah is a challenge however not as difficult as some other places. There is a need to provide incentives such as housing in order to get staff. The school will need to find additional staff for 2020.

Youth experience a number of issues. There are persistent bullying issues including social media-related bullying- like anywhere in Australia.

A side effect of the recent BMA policy of a 50 per cent female workforce has been a big increase in the number of au-pairs in Moranbah. It has been reported by teachers that there is a notable decrease in the overall aptitude of students when both parents are working. Kids are not getting read stories or getting help with homework and assignments. It is a social effect associated with enabling maximum local employment. Both parents sometimes take advantage of the lucrative job opportunities; however, there are effects in terms of time available for providing parental activities.

Moranbah East Primary School

A key characteristic of Moranbah is that it is a young demographic- prevalence of young families. A majority of these young families do not have any extended family in the area which has an effect upon after school care and childcare.

There is a strong sense of community in the town- particularly those who have lived in Moranbah for some time. People who are from out of town tend to have a more negative perception of the town.

The school would greatly appreciate any assistance which could be made available to the integration of STEM into the curriculum. Whilst high schools are supported through QMEA, there would be benefit in doing a lot more in the primary years. In recognition of how important this is, the school has spent the discretionary funding it had to employ a person on a part time basis for STEM related teaching; however, there is no certainty on this funding going forward.

The only way in which the school is able to attract staff is through the provision of housing packages. As a result, the school manages a sizable housing portfolio. There is a detailed system for the allocation of houses to staff- competition for houses is always fierce.

Moranbah Primary School

The school has 640 students and is growing. To cope with demand the school is currently progressing development of a number of new buildings. There are signs that mining activity is ramping up. This often results in both parents working which has an effect on the kids. Parents do not have time to be parents.

Generally, everyone who lives in town wants workers to live in town and be committed to the town. Every additional person who commits to the town makes a difference.

The school would greatly appreciate any assistance which could be provided with regard to STEM being better integrated into the primary school curriculum. It would also appreciate as much fore-warning as possible as to likely numbers of people so that this can be factored into planning.

Dysart State Primary School

Dysart State School is a small/medium-sized school providing Prep to Year 6. There are currently around 350 students enrolled. Numbers have been relatively consistent over recent years; however, there is typically a high degree of transience in mining communities. At the height of boom times there have been up to 880 kids enrolled.

Dysart is the town which is most central to the mines in the Bowen Basin. Other towns have some of the larger mines in close proximity; however, Dysart is the natural central point of the Bowen Basin. Dysart as a town would cease to exist if there were no mines- the town has been built to service mining projects and is dependent on the industry for its long-term viability.

A major issue which is rapidly emerging is the 4th Industrial Revolution- which is where advances in technology fundamentally change the way people live and work. The school does everything possible to ensure that STEM is incorporated into the curriculum and looks to provide kids with every opportunity to build skills necessary for a changing workforce.

BMA have recently funded the acquisition of OZMO robots (\$9,000 each) which provides students with an opportunity to build skills in robotics and participate in initiatives such as the robotics challenge.

Estimates that approximately 90 per cent of the kids at the school are from families where either one or both parents work in the mines or in a mining related activity. Most of the businesses in Dysart are mining related. Mining companies make a much-appreciated contribution to the school and other services in Dysart.

In terms of things the school really needs, they really struggle with internet bandwidth which limits the ability of children to maximise IT learning opportunities. The school desperately needs hardware technology for the children to use. They need a new suite of iPads for student use.

Dysart State High School

Current enrolment at the school is 165 students- it is a highly transient as many of the students are from mining families. There are three primary groups in town with each accounting for approximately one third of the population each. There are local residents, the employees and families of those who work on mining projects, and lower income families.

In terms of the student body, a majority aspire a vocational pathway rather than a higher education pathway. Only around 20 per cent of students aspire to go to university. QMEA does an excellent job in supporting the integration of STEM into the curriculum. They run variety of programs and initiatives for schools which include engineering, robotics and science.

A constant challenge for the school is the attraction and retention of staff. The school is generally running on a short-staffed basis with teachers needing to cover off gaps in staffing. It is difficult to attract staff to Dysart, even with the provision of housing and other incentives. There is a high degree of turnover of staff as people leave the community.

The school highly values the relationships it has with mining companies, which have always provided support in various forms. Apprenticeships with major mining companies are highly sought after. They run a merit-based process and there is competition for available places.

School-based apprenticeships are offered to Year 11 students. Due to the small size of the school it is not able to offer all subjects. For example, there are no senior physics or chemistry classes offered as the demand isn't there (only one or two students).

In terms of what the school is lacking, other than additional teaching staff, it would benefit from additional sporting equipment and facilities.

Coppabella State School

Coppabella State School currently has 23 students. The school provides Kindy through to Year 6. Enrolments have been quite consistent as the town has not grown. Coppabella is one of just three towns in Queensland which are privately owned.

The permanent population of Coppabella is just 300 persons. Every household in Coppabella works for the railway- with the exception of those who associated with the school. Adjacent to the town is a workers camp (Civeo Coppabella) with capacity for 7,000 beds. There is some interaction between the town and the camp.

There are three staff- two teaching staff. There are also four part-time aides. There are three Department of Housing and Public Works supplied houses for teaching staff. The school has community partnerships in place with entities such as Peabody who sponsor events and assist in other ways.

A major issue for the school is the lack of internet bandwidth. Telstra built the internet capacity according to what was required for a 400-person town. However, with the 7,000-person camp right next door the internet is very slow and intermittent. This directly affects the ability to use the internet to access learning resources. It would make a huge difference to the school if this issue could be fixed.

In spite of limitations, the school provides a good service and the kids are well supported.

Simply Sunshine Childcare Centre

The Simply Sunshine centre has current capacity for 74 children. The waiting list is approximately 90 children. It is very difficult to attract and maintain staff- particularly those willing to do long day care. This issue is exacerbated by recently introduced qualification requirements for child care staff. All premises must have one or two Bachelor degree qualified staff- Early Learning is a 4-year degree course. There is a substantial under-supply of degree-qualified staff and therefore competition is very high.

There was previously another childcare centre (Altitude Kids Childcare) which had capacity for up to 200 children. The centre closed in 2011 due to unprofitability and difficulty in attracting and retaining staff. Investors lost substantial money as the centre was purchased when the real estate market was close to peak. Investors are consequently now more cautious.

The ability to attract staff is made more difficult by comparatively high housing and other costs of living in Moranbah. The Sunshine Childcare Centre owns one house (donated by BMA) and is hoping to receive another.

Moranbah Early Learning Centre

The Moranbah Early Learning Centre has a current capacity of 102 children. They also work with Moranbah State School to provide before and after school care for approximately 30 children. The waiting list is approximately 90 children.

Demand has only relatively recently substantially outstripped supply. Until mid-2018, centres were running at around 70-80 per cent capacity. Demand seems to have almost doubled in the last year. Alternative options to 'non-institutional' childcare alternatives such as stay at home day-care do not attract the government childcare subsidy; therefore, demand for subsidised places at accredited centres will remain strong.

The recent surge in female employment at some of the mines is likely to have led to a further increase in demand for places. There is no ready solution to the lack of childcare in Moranbah. Childcare centres are very expensive to build and fit out to meet stringent government specifications. The Moranbah Early Learning Centre has building plans in place to expand the centre from 102 capacity to 130. This will cost \$2-\$2.5 million.

The Moranbah Early Learning Centre is working with the IRC and others such as the Moranbah State School to advance solutions to the childcare shortage and would welcome industry support.

Moranbah and District Support Services

Moranbah is a well-connected and resilient community- there is a sense of community spirit and pride.

MDSS offer three main programs:

- Domestic violence program.
- Rural families.
- Neighbourhood centre.

They also deliver a variety of programs for youth, migrants and other forms of community support.

Funding is a constant challenge. Grant applications require highly detailed submissions which take a lot of resources to put together. Ideally, there would be properly funded services instead of constantly needing to search for funds to prop up services. Support from mining proponents is highly appreciated. A contribution made by BMA has funded the construction of the Youth and Community Centre.

Youth are a group which needs more support and MDSS are looking to put on a Youth Development/ Engagement officer. Young people are facing some complex issues such as (cyber) bullying and if something is not done now there is a high risk of there being too many disengaged young people.

As there has traditionally been very few elderly residents, there are very limited services for this demographic. There are only nine units of pensioner style accommodation in town. There are no aged care services. MDSS is attempting to address this service deficiency through the 'Seniors Connect' program.

Things are starting to pick up again in town. An issue associated with the 'down time' of the last five years is that there has been an influx of people and families accessing social housing and affordable housing. When mining activity scales up again and accommodation costs rise, these people become vulnerable. They typically have minimal family support networks and limited capacity.

Finding qualified and experienced staff is very difficult- across all elements of society. A pre-occupation with local employment quotas isn't completely realistic as there are limited numbers of people available for employment.

There are mental health issues occurring in camps. Suicide and substance abuse are prevalent and result in negative social outcomes. The preference is that people who work here also live here- this makes it possible to create a place where people want their families to grow up.

Moranbah Men's Shed

The Men's shed is all about providing men with an opportunity to build connections and be a part of the community. It is a small and tightly-connected community in Moranbah. The transient nature of project workforces does have an effect on the community. The preference is for people to live in the community. This allows community connections to grow and foster commitment to the sustainability of the town.

Vulnerable groups include the elderly- it is only recently that there have been older generations in town and there are no services. Single people are also vulnerable- the town is orientated towards families and subsequently there is not a lot for single people to do.

There has been a notable upswing in mining activity over the last six months. This is a relief as the economy has been very tough for the last five years- many people went out of business and had to leave town. Money is starting to come back into the town. Housing rents are starting to go up in Moranbah. There is a lack variety in the accommodation stock. Competition gets intense for better quality housing.

There are no major issues regarding the behaviour of the mine workforces in Moranbah- overall it is managed pretty well.

4.2.7 Emergency Services

Moranbah Police Station

There is a strong sense of community in the town- particularly amongst the longer-term residents. There is a preference for members of workforces to move to town and be a part of the community. People who live in workers camps and only come into town occasionally generally have a more antagonistic attitude and do not have the civic pride which local residents possess.

Overall rates of crime are not too bad in Moranbah. The major issues are domestic violence-related along with traffic offences. There are some minor issues with young people not having much to do and occasionally getting into trouble. There are drugs in the community, however it is not too bad. There is little property crime. The 'Assault Free Zone' initiative has been very successful with a 35 per cent reduction in common assaults etc.

Mental health is a serious issue. People are isolated from family and fall into a lifestyle of long work hours and alcohol abuse. Traffic is also a major issue and there are frequent incidents. Most incidents are single vehicle roll overs- fatigue would seem to be the primary issue- also looking at mobile phone. Police are keen to work with proponents regarding the camps. Whilst there are not many call-outs to camps, when there are it is usually a pretty serious situation. It would be beneficial to have more of a casual police presence in the camps, just to remind residents that they are still part of the broader community.

Police are working with other agencies such as Queensland Ambulance and social service providers such as MDSS and ELAM- sharing information and integrating service delivery. Early intervention is the most effective means of reducing negative activity.

Dysart Police Station

Dysart has been going through a relatively slow period but there are signs that this may change. One of the characteristics of these sort of towns is that change can happen quickly. Accommodation in Dysart is more constrained than appears. A majority of the empty houses in town are BMA-owned. They are hanging on to the stock as they may need it if they progress projects such as Eagle Downs or re-opening of Norwich Park. Projects such as Saraji East, Dysart East, Eagle Downs and Olive Downs are all potentially going to progress to development. If this happens there is rapidly going to be an accommodation shortage in Dysart.

There was an influx of people with limited socio-economic resources into Dysart following the housing market crash. People took advantage (or were requested to move by social security agencies) of housing prices as low as \$30,000. People moved to Dysart not knowing anything about the place. They did not realise that there is no public transport and limited facilities.

There is a prevalence of crime in the camps. These are big camps of over 1,000 people each yet there is very little security provided. Property crimes are relatively common- stealing of tools out of utes and that sort of thing. There are some drug issues.

Traffic accidents and traffic offences occur regularly. Many of the accidents are due to swerving to miss a kangaroo or some other wildlife. Fatigue is also a factor. Since the mines have been providing bus services for employees, there has been a reduction in the number of cars on the road and a related reduction in the prevalence of accidents.

One of the biggest emerging policing issues in Dysart is parents leaving their kids at home alone whilst both parents working. This has particularly become an issue with BMA providing incentives for female employment. Kids as young as 5 years old are being left home alone. Police pick up kids roaming the streets late at night after their parents have given them \$50 to take care of themselves and gone to work.

With regard to the Project, most of the effect is likely to occur in Moranbah rather than Dysart; however, it is cumulative effect on housing and accommodation which is the major issue which needs to be worked through. If these projects start up, there is a need for a Cumulative Working Group to identify the interventions needed to protect social outcomes.

Queensland Ambulance Service

Queensland Ambulance Service appreciates major projects keeping them informed of developments which impact upon their ability to service areas. Rural areas are particularly difficult to service both because of the large areas needing to be covered and a shortage of suitably qualified staff.

Since 2018, there has been a requirement for all ambulance staff to be a registered paramedic (registered through the Australian Health Practitioner Regulation Agency). It is up to the individual to make sure that they are registered and generally this has not led to any increased shortage in qualified staff.

Ambulance do get call-outs to workers camps. Whilst the larger camps have medical first aid capability, the Ambulance is called for more serious matters. This includes mental health issues which can be challenging for paramedic staff. Fatigue seems to be a major cause of accidents- people are working very long shifts and alternating between day shift and night shifts. It is not surprising that there are resultant accidents.

The primary request from Queensland Ambulance is just to be kept informed as to when workforces are ramping up and where they will be accommodated so that they can factor this into service planning. DTMR does a standard notification to Ambulance and other emergency services regarding Project related effects on highways etc. which may impinge on ability to deliver services.

4.2.8 Public and private health providers

Moranbah Hospital (including Moranbah District Mental Health Service)

Moranbah goes through cycles of boom and bust which causes real challenges to services such as the hospital. Things are now in the upturn phase and subsequently rental prices are going up. The hospital struggles to attract nursing staff when housing is too expensive. There are more and more elderly people in town now- there used to be very few, but now grandparents are coming and taking care of children (as there is such a shortage of childcare services). An issue is that there are no services for older people- Moranbah has always been a young person's town.

The hospital has an arrangement with Sonic HealthPlus for the supply of doctors. They supply two doctors who are on call. There is an undersupply of doctors. Ideally there would be a full-time doctor associated with the hospital.

The hospital lacks some basic equipment which would make a real difference. It needs a Laryngoscope which has a video attachment and a vio-light vein scanner. It could do with another electrocardiography machine. Many patients need to be transported to Mackay due to the limited services available at the hospital.

The hospital does get people from mining companies coming in for relatively minor ailments- they are chasing a sick leave certificate. This unnecessarily burdens already stretched resources. There are issues around substance abuse/ alcohol abuse and domestic violence which leads to presentations at the hospital. There are more and more mental health presentations which causes real problems for the hospital. A psychiatrist only visits one day every two weeks. Patients cannot wait that long as often they are experiencing substantial trauma. The only option is to transport them to Mackay.

The Moranbah District Mental Health Service lacks an integrated space for clinical psychology sessions. They make use of a demountable facility next to the office entrance which lacks proper security.

Dysart Hospital

The Dysart Hospital has a total of nine beds. There are usually around 3 – 4 times a year when all beds are occupied. There is only one doctor in town who has their own practice but also services the hospital. The hospital only has one registered nurse and one support nurse. Staff turnover is generally high, and it is very difficult to get staff. Due to staff shortages, the hospital often has to use agency staff who are on contracts at higher wages. The hospital does provide housing to some staff. This is two-bedroom unit shared accommodation. There are a total of 15 rooms, 10 of which are occupied most of the time. Rooms are kept available for visiting specialists.

With the steep decline of housing prices in Dysart, there was an influx of people with limited socio-economic resources including more elderly people. These people can become isolated as there are no taxi or public transport options in Dysart. This has placed additional demand on health services; however, the hospital does not provide some of the more complex health services they require. An issue is that hospital funding is largely based on resident population; however, a majority of patients are non-resident mine workers. It is estimated that around 60 per cent of hospital admissions are mine workers and 40 per cent from the resident population.

Patients suffering from more complex issues typically need to be transferred to Mackay. The only viable option is often the helicopter retrieval service. There are only two Ambulance officers in Dysart, and therefore cannot be missing from the community for the 7 hour round trip to Mackay.

The workers living in the camps are often not very healthy or happy. They experience loneliness and family breakdowns. Mental health is a real concern and they really should look at having psychologists at the camp site, working with the workforces. It is very common for there to be mental health related hospital presentation and admissions- there are 2–3 every week.

General Practitioner Clinics- Oaktree Family Medical Centre and Sonic HealthPlus, Moranbah

There are six full time doctors on staff at Oaktree Family Medical Centre along with approximately twenty support staff. There are also a number of specialists which operate on a locum (largely monthly) basis. All six doctors currently live in Moranbah; however, one regularly returns to Brisbane and rents a house which is arranged through the clinic.

Demand has been consistently high, but not to the point of not being able to be managed. All consulting rooms are currently occupied which constrains the ability to put on additional doctors. Oaktree Family Medical Centre is looking to expand clinic space into the adjacent vacant building. Demand for services comprises a mix of local people and non-resident workers. Oaktree Family Medical Centre provides employment medicals and direct services to some workers camps.

Sonic HealthPlus has three permanent doctors on staff along with three who work on a locum basis. There are also six support staff. Whilst one doctor used to be resident in Moranbah, all three are now non-resident and work on a DIDO basis.

Demand for General Practitioner (GP) services at Sonic HealthPlus has been steadily high and they are seeking to recruit an additional full-time doctor. There has been a recent increase in demand with seemingly more families moving into Moranbah. Recruiting full time doctors is an ongoing challenge.

Sonic HealthPlus supplies doctors to the Moranbah Hospital. The two doctors which service the hospital are provided accommodation at the hospital. A majority of patients at Sonic HealthPlus are local residents, though they also receive non-resident persons from workers camps and provide pre-employment medicals and other services to these people.

Mackay, Whitsunday Isaac Suicide Prevention Network

The Isaac Suicide Prevention Network (ISPN) was established just over two years ago in response to a clear need for support. ISPN is based on the Life-span Model developed by Dr John Mendoza. ‘Conversations for Life’ is the early suicide prevention training program which prepares people for dealing with vulnerable people who are vulnerable to suicide.

The focus is the community as a whole- building the community connections and awareness which result in the prevention of suicide. There is evidence that this results in a 30 per cent reduction in the prevalence of suicide attempts. Communities in the Bowen Basin are highly vulnerable as families are commonly isolated without family support systems. Additional influences such as long shift work and substance abuse lead to volatile situations.

ISPN would like to see mining companies really listen to the risk of suicide created by the prevailing work conditions and lifestyles. There are major issues and the only way forward is to recognise the risks and prepare accordingly.

‘Yarns for Life’ is the Indigenous version of the ‘Conversations for Life’ program. In both programs the objective is to build awareness in the network of people with whom at-risk sectors of the community are in regular contact with.

The ‘Moranbah Community Connect’ App also facilitates community connection to services which they need at the time they need it. This App was established a couple years ago but now needs to be updated. It provides easy connection with crisis and emergency support.

4.2.9 Landholders

A key feature of the Project is the very low number of landholders directly affected by the Project. There are three cattle stations which would be directly affected by the project- 'Iffley', 'Wynette' and 'Winchester Downs'. Wynette is owned by Whitehaven WS and Iffley is owned by Pembroke, while Winchester Downs is privately owned.

There has been extensive and ongoing engagement between Winchester and landholders potentially affected by the Project. Such engagements include a broad range of day to day operational issues such as land access to enable technical investigations along with complex compensatory negotiations. Due to the sensitive nature of these negotiations, landholders were not directly engaged as part of the SIA.

It is notable that the Project mining area has been largely cleared through past agricultural practices, and currently the main land use is cattle grazing (there is no strategic cropping land affected). Landholders affected all have extensive experience in negotiating arrangements with mining companies and a high degree of capacity in this regard.

5 Socio-economic baseline

5.1 Overview

This section outlines the current socio-economic conditions in the SIA study areas. The baseline focuses on socio-economic characteristics relevant to potential changes caused by Project activities and the interaction of the Project with social values and stakeholder groups. The baseline provides information on the values and stakeholder groups that may be affected by the Project so as to inform conclusions regarding their relative sensitivity, vulnerability and/or importance.

The socio-economic baseline is presented by the defined SIA study areas outlined in Section 3.3 (Table 5-1). Some indicators are only reported at the regional study area level due to a deficiency of data at the local level. For example, health indicators are only available at the LGA level, and subsequently reported at the regional study area level.

Table 5-1 Outline of socio-economic baseline

SIA study area	Locality	Baseline indicators
Primary local study area	Moranbah SA2	<p>A comprehensive baseline of Moranbah is provided and compared against prevailing socio-economic characteristics of the Isaac LGA. Key indicators reported include:</p> <ul style="list-style-type: none"> • Population and demography • Labour force profile • Income, disadvantage and vulnerable groups • Housing and accommodation • Business and industry • Community values • Social infrastructure • Crime and justice
Secondary local study area	Dysart SSC Coppabella SSC	<p>A socio-economic baseline of secondary local study area is provided with a focus on key parameters which may be impacted by the Project including:</p> <ul style="list-style-type: none"> • Population and demography • Labour force profile • Housing and accommodation • Social infrastructure • Community values • Crime and justice
Nearby Regional Communities	Moranbah UCL Dysart UCL Coppabella SSC Capella UCL Clermont UCL Finch Hatton UCL Glenden UCL Middlemount UCL Nebo UCL Tieri UCL	<p>An employment profile of the ten nearby regional communities is provided to inform analysis as to the availability of suitably skilled and motivated labour to take up Project employment opportunities</p>

SIA study area	Locality	Baseline indicators
Regional study area	Isaac LGA Mackay LGA	<p>A higher-level socio-economic baseline of regional study area is provided with a focus on:</p> <ul style="list-style-type: none"> • Population and demography • Labour force profile • Business activity • Community health and safety

The findings presented in this section will be used as a baseline from which to assess potential socio-economic impacts of the Project.

5.2 Primary local study area – Moranbah

5.2.1 Community setting

Moranbah township is located on the traditional country of the Barada Barna People in the Bowen Basin, Queensland. Prior to the advent of mining activity in the 1960s, the area was sparsely populated and economic activity primarily consisted of sheep and cattle grazing. In the 1960s, mining companies started to invest in the construction of company towns to provide company-built accommodation for their employees.

Moranbah was one of three towns in the Bowen Basin built for the purpose of housing mine employees, with the township established in 1969 to initially support the Goonyella and Peak Downs mines. Over time, additional mines were established near to Moranbah, further contributing to the town's population growth. As a purpose-built mining town, Moranbah has been vulnerable to the boom and bust cycle associated with the mining industry over the last 50 years, with population change catalysing a range of social and economic effects.

According to the MIW Regional Plan, Moranbah is considered as the key service centre for the Isaac region, providing a hub for employment, housing and infrastructure. Features of Moranbah include:

- the main service centre for the region;
- a viable town encompassing street shopping, government offices, parklands, the Civic Centre, Aquatic Centre and Black Nugget Hotel;
- an adjacent commercial area including hotels, short-term accommodations, the Moranbah Workers Club, and an indoor retail centre;
- good communication and transport links with an airport located 6 km south of the town and operated by BHP;
- two primary and one high schools, a hospital, a Training and Further Education (TAFE), a CTEC, and a variety of sporting, recreational, and cultural facilities as well as community and civic services;
- low density detached dwellings and a range of WAVs; and
- a strong identity as a mining town.

The following describes key social and economic indicators of Moranbah with the Isaac LGA as a comparator.

5.2.2 Demographic profile

5.2.2.1 Population trends

Population levels in Moranbah has fluctuated due to the cyclical trends of the mining industry. Recent estimates published by the Queensland Government Statistician's Office (QGSO) indicate that Moranbah had a resident population of 9,088 people at June 2018 (Table 5-2).

Table 5-2 Resident population as at 30 June 2018, Moranbah SA2 and Isaac LGA

Locality	2008	2013	2018	Average annual growth rate (%)	
				2008-2018	2013-2018
Moranbah SA2	8,277	9,151	9,088	0.9	-0.1
Isaac LGA	21,632	23,284	20,934	-0.3	-2.1

Source: Queensland Government Statistician's Office (2019a), Queensland Regional Profiles Moranbah Statistical Area Level 2 (SA2) compared with Isaac LGA (derived on 19 November 2019)

Between 2013 and 2018, Moranbah experienced a decline in residential population with an average annual growth rate of -0.1 per cent. This decline may be attributed to the downturn of mining activity from 2012, including closures of nearby mines such as the Blair Athol Mine near Clermont and the Norwich Park Mine near Dysart.

Since 2006, population levels peaked for Moranbah and Isaac LGA in 2011 and 2012 respectively. In 2011, Moranbah's population peaked at 9,202 people, while in 2012 Isaac LGA population peaked at 23,344 people (Figure 5-1).

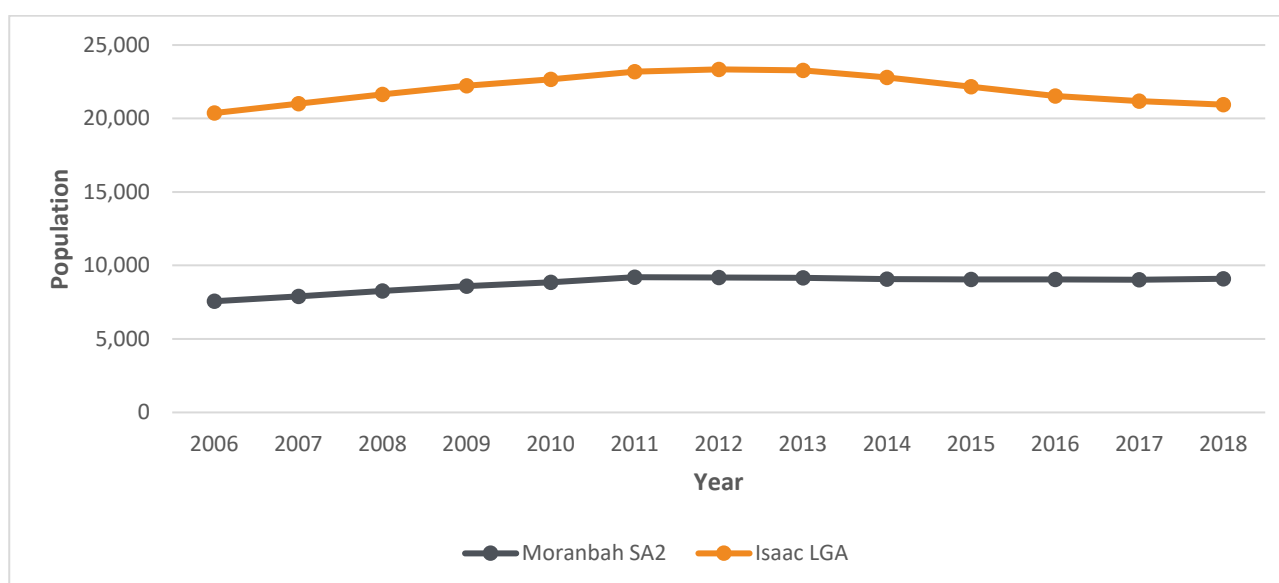


Figure 5-1 Population change in Moranbah SA2 and Isaac LGA, 2006 to 2018

Source: Queensland Government Statistician's Office (2019a), Queensland Regional Profiles Moranbah Statistical Area Level 2 (SA2) compared with Isaac LGA (derived on 19 November 2019)

QGSO also publishes estimates on the full-time equivalent (FTE) population for the towns (at UCL level) within Isaac LGA. At June 2018, it was estimated that Moranbah UCL comprised a FTE population of 11,005 people, of which 22.4 per cent were non-residents (Table 5-3).

Table 5-3 Full-time equivalent population estimates, June 2018

Locality	Resident population		Non-resident population		FTE population
	Number	Per cent	Number	Per cent	
Moranbah UCL	8,540	77.6	2,465	22.4	11,005
Isaac LGA	20,990	63.5	12,075	36.5	33,065

Source: Bowen Basin Population Profile, Queensland Government Statistician's Office (2018)

Non-residents are people who FIFO (including DIDO) to work and live in the area temporarily while rostered on shift, and who have their usual place of residence elsewhere (QGSO, 2019). Moranbah's non-resident population is lower than that recorded for Isaac LGA as a whole, indicating that the town supports a greater permanent population. The estimated FTE population for Isaac LGA was 33,070 people, of which 36.5 per cent are non-residents.

Moranbah's population is projected to reach 11,939 persons by 2041, equating to an increase of 1.1 per cent per year over 25 years (Table 5-4). Over the same period, Isaac LGA's population is expected to increase by 0.6 per cent per year (equivalent to 24,786 persons by 2041). However, this population growth is likely to be affected by changes to the mining industry.

Table 5-4 Projected population, Moranbah and Isaac LGA

Locality	2016	2021	2026	2031	2036	2041	Av. annual growth rate 2016-2041
	Number	Number	Number	Number	Number	Number	Per cent
Moranbah SA2	9,029	9,288	9,919	10,590	11,270	11,939	1.1
Isaac LGA	21,563	20,762	21,556	22,709	23,852	24,786	0.6

Source: Queensland Government Statistician's Office (2019a), Queensland Regional Profiles Moranbah Statistical Area Level 2 (SA2) compared with Isaac LGA (derived on 19 November 2019)

Overall, the population of Moranbah is typically younger with a lower median age relative to Isaac LGA, is comprised of more males than females, and has a higher proportion of residents who identify as ATSI relative to Isaac LGA (Table 5-5).

Table 5-5 Demographic characteristics, Moranbah and Isaac LGA, 2016

Characteristic	Moranbah SA2		Isaac LGA	
	Number	Per cent	Number	Per cent
Population	8,735	-	20,940	-
Male	4,650	53.2	11,419	54.5
Female	4,081	46.7	9,516	45.5
Aboriginal and/or Torres Strait Islander peoples	342	3.9	744	3.6
Median age	30	-	32	-
Age 14 years or younger	2,501	28.6	5,304	25.3
Age 15 to 64 years (working aged population)	6,070	69.5	14,508	69.3
Age 65 years or older	167	1.9	1,124	5.4
Number of families	1,982	-	4,610	-
<i>Couple family with no children</i>	594	30.0	1,622	35.2
<i>Couple family with children</i>	1,146	57.8	2,468	53.5
<i>One-parent family</i>	225	11.4	492	10.7
Completed Year 12 or equivalent	3,077	49.3	6,503	44.5

Source: 2016 Census of Population and Housing, General Community Profiles (Cat. No. 2001.0), ABS

The age profile of Moranbah reflects the family-oriented nature of Moranbah, and the small proportion of residents who were 65 years or older suggest there is a lack of aged care infrastructure and services available in the town. Further, residents who retire are typically more likely to migrate out of Moranbah and retire elsewhere.

Moranbah also recorded a high proportion of people who identified as ATSI at the 2016 Census compared to Isaac LGA. Around 3.9 per cent, or 342 people, of Moranbah's population identified as ATSI, compared to 3.6 for Isaac LGA as a whole.

There were 1,982 families residing in Moranbah at the 2016 Census, of which more than half were couple families with children. Moranbah recorded a higher rate of couple families with children than Isaac LGA, confirming the town has a strong family presence. More residents in Moranbah were also reported to have completed Year 12 or equivalent compared to Isaac LGA as a whole. This may reflect the in-migration of skilled residents who take up employment with nearby mining operations.

5.2.3 Income, disadvantage and vulnerable groups

Mining towns are historically high-income towns. At the 2016 Census, median incomes of the household, family and individual in Moranbah were higher than that recorded for Isaac LGA (Table 5-6). For example, the median household income in Moranbah was \$2,421 per week, which was higher than Isaac LGA (\$2,138 per week). Average household sizes were similar in both Moranbah and Isaac LGA (2.8 persons per dwelling in Moranbah and 2.7 persons per dwelling in Isaac LGA). Median total family incomes were \$2,716 per week and \$2,365 per week in Moranbah and Isaac LGA, respectively. Median weekly personal income in Moranbah (\$1,209 per week) was higher than that in Isaac LGA (\$1,030 per week).

Table 5-6 Selected medians and averages, Moranbah SA2 and Isaac LGA, 2016

Locality	Median total family income (\$/week)	Median total household income (\$/week)	Median total personal income (\$/week)	Average household size (persons)
Moranbah SA2	2,716	2,421	1,209	2.8
Isaac LGA	2,365	2,138	1,030	2.7

Source: Queensland Government Statistician's Office (2019a), Queensland Regional Profiles Moranbah Statistical Area Level 2 (SA2) compared with Isaac LGA (derived on 19 November 2019)

The proportion of households earning less than \$600 per week in 2011 and \$650 per week in 2016 has increased in Moranbah. In 2011, 4.5 per cent of households in Moranbah reported a gross weekly income of less than \$600 per week, which increased to 6.5 per cent at the 2016 Census (Table 5-7). This is likely driven by the outmigration of high income households between 2011 and 2016 due to a downturn in the mining industry. However, the proportion of households earning a gross income of more than \$3,000 per week increased slightly between 2011 and 2016, from 35.6 per cent to 36.6 per cent.

Table 5-7 Total household income (weekly) in Moranbah SA2 and Isaac LGA, 2011 and 2016

Locality	Moranbah SA2		Isaac LGA	
	2011	2016	2011	2016
Less than \$600 (at 2011 Census) and \$650 (at 2016 Census) gross household weekly income (%)	4.5	6.5	10.1	11.6
More than \$3,000 gross household weekly income (%)	35.6	36.6	27.5	27.4

Source: 2016 and 2011 Census QuickStats, Moranbah SA2 and Isaac LGA, Australian Bureau of Statistics (derived on 11 August 2020)

To assess the welfare and to determine social and economic well-being of Australian communities, the ABS has developed the Social-Economic Indexes of Areas. The indexes are based on information from a five-yearly Census of Population and Housing. The index provides a measure of socio-economic status based on low-income earners, relatively lower education attainment, high unemployment, people's access to material and social resources and their ability to participate in society. Low index values represent areas of most disadvantage and high values represent areas of least disadvantage (ABS, 2016).

Table 5-8 below shows population by index of relative socio-economic disadvantage quintiles in Moranbah and Isaac LGA. The result shows that in Moranbah, 36.8 per cent of the population fell within the least disadvantaged quintile which was substantially higher than Isaac LGA (21.6 per cent of population within the least disadvantaged quintile). Moranbah had no population in most disadvantage quintile compared with 3.9 per cent in most disadvantaged population in Isaac LGA. Overall, in 2016, Moranbah was less disadvantaged than Isaac LGA.

Table 5-8 Population by index of relative socio-economic disadvantage quintiles, Moranbah SA2 and Isaac LGA, 2016

Locality	Quintile 1 (most disadvantaged)	Quintile 2	Quintile 3	Quintile 4	Quintile 5 (least disadvantaged)
	Per cent	Per cent	Per cent	Per cent	Per cent
Moranbah SA2	0.0	17.7	29.0	16.5	36.8
Isaac LGA	3.9	27.6	28.5	18.3	21.6

Source: Queensland Government Statistician's Office (2019a), Queensland Regional Profiles Moranbah Statistical Area Level 2 (SA2) compared with Isaac LGA (derived on 19 November 2019).

Vulnerability relates to a group's capacity to adapt to, or cope with, changes to their social environment (Cutter et al., 2008). An understanding of the vulnerable groups relevant to the Project is necessary as groups who display greater levels of vulnerability are likely to experience an impact differently. For example, low income households may have less capacity to benefit from the change. Understanding vulnerability and vulnerable groups in local and regional areas facilitates understanding of the differential distribution of impacts across stakeholder groups.

There are certain demographic and social characteristics that make some groups more vulnerable than others. Broadly, social indicators associated with vulnerability include:

- Age, such as the very young and the elderly who are more likely to require care.
- Socio-economic status, such as people who are recipient to welfare and/or social housing and/or who are unemployed.
- People with a need for assistance, such as those people requiring assistance in the core activities of self-care, mobility and/or communication because of disability, long-term health condition or old age.
- Culturally and linguistically diverse populations, such as those people who do not speak English as a primary language.

Table 5-9 depicts changes to key vulnerable groups in Moranbah, with Queensland for comparison.

Table 5-9 Indicators of potentially vulnerable groups in Moranbah with Queensland comparison

Indicator	Moranbah SA2 (No.)		Per cent change 2011 to 2016	
	2011	2016	Moranbah SA2	Queensland
Population	8,965	8,735	-2.6	8.6
People aged 14 years or under	2,483	2,501	0.7	4.9
People aged 65 years or older	120	167	39.2	26.2
Youth (15 to 24 years)	1,181	982	-16.9	4.3
Households earning less than \$600/\$650 per week	98	157	60.2	-63.3
People who need assistance	92	97	5.4	26.7
People who reside in social housing	115	68	-40.9	-3.1
Internet not accessed from dwelling	229	198	-13.5	-20.1
Unemployed	111	252	127	33.3

Source: 2016 and 2011 Census of Population and Housing, General Community Profiles (Cat. No. 2001.0), Australian Bureau of Statistics.

Over the five years to the 2016 Census, some vulnerable groups in Moranbah have increased in size despite an overall decline in population. The growing vulnerable groups in Moranbah include:

- People aged 65 years or older, from 120 elderly persons to 167 elderly persons.
- Low-income households earning less than \$650 per week, with the number of low-income households increasing by 60.2 per cent.
- Unemployed people, with the number of unemployed people having more than doubled; however, more recent estimates indicate the number of unemployed people is significantly lower (see Section 5.2.4).

Homeless persons represent another vulnerable group in Moranbah. At the 2016 Census, there were 29 homeless persons in Moranbah SA2, accounting for 24 homeless persons per 10,000 persons. This rate was higher than that recorded in Isaac LGA as a whole, at a rate of 16.1 homeless persons per 10,000 persons (ABS, 2016).

5.2.4 Labour profile

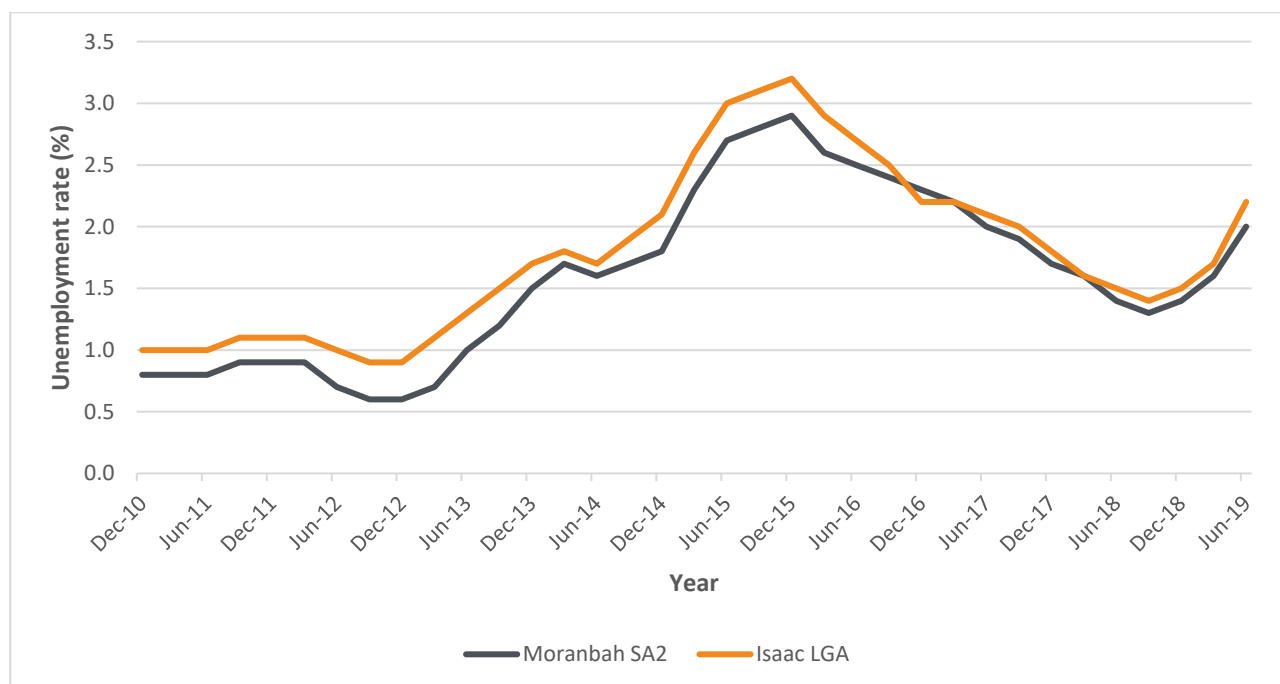
Labour supply and demand in Moranbah and the broader Isaac LGA is characterised by its reliance on the mining industry. Overall, labour force characteristics in Moranbah is comparable to those recorded for Isaac LGA as a whole. At June 2019, 5,194 residents of Moranbah participated in the labour force, while Isaac LGA reported 11,919 residents participating in the labour force (Table 5-10).

Table 5-10 Labour force profile, June quarter 2019

Locality	Labour force	Unemployment	
	Number	Number	Per cent
Moranbah SA2	5,194	105	2.0
Isaac LGA	11,919	260	2.2

Source: Small Area Labour Markets, Australian Government Department of Employment, Skills, Small and Family Business.

Unemployment rates for Moranbah and Isaac LGA were similar, at 2.0 per cent and 2.2 per cent respectively. Since 2010, the unemployment rate in Moranbah has been consistently lower than the broader Isaac LGA, except for the December 2016 quarter (Figure 5-2).



Source: Australian Government Department of Jobs and Small Business, *Small Area Labour Markets Australia*, various editions

Figure 5-2 Unemployment rate, Moranbah and Isaac LGA, 2010 to 2019

Unemployment rates peaked for both Moranbah and the Isaac LGA in December quarter 2015, at 2.9 per cent and 3.2 per cent, respectively. The peak in unemployment rates during this time period may be attributed to closures of nearby mines and job losses at other mining operations due to a downturn in the mining industry. However, unemployment rates for Moranbah and Isaac LGA consistently remained significantly lower than unemployment rates recorded for Queensland as a whole.

Mining has been the dominant industry of employment in Moranbah since the town's establishment in the 1970s. At the 2016 Census, almost half (42.7 per cent) of employed residents in Moranbah were employed in the mining industry, while 37.7 per cent of employed residents across the Isaac LGA were employed in the mining industry. The top five industries of employment for Moranbah were as follows:

- Mining (42.7 per cent)
- Accommodation and food services (8.2 per cent)
- Education and training (7.0 per cent)
- Retail trade (4.9 per cent)
- Public administration and safety (4.7 per cent).

Table 5-11 below provides details of employment by industry in Moranbah and Isaac LGA.

Table 5-11 Employment by industry, Moranbah and Isaac LGA, 2016

Industry	Moranbah SA2		Isaac LGA		Specialisation ratio
	Number	Per cent	Number	Per cent	
Agriculture, forestry and fishing	29	0.7	1,041	10.4	0.06
Mining	1,846	42.7	3,757	37.7	1.13
Manufacturing	174	4.0	297	3.0	1.35
Electricity, gas, water and waste services	41	0.9	109	1.1	0.87
Construction	143	3.3	346	3.5	0.95
Wholesale trade	72	1.7	130	1.3	1.28
Retail trade	212	4.9	510	5.1	0.96
Accommodation and food services	355	8.2	650	6.5	1.26
Transport, postal and warehousing	174	4.0	401	4.0	1.00
Information media and telecommunications	14	0.3	19	0.2	1.70
Financial and insurance services	16	0.4	30	0.3	1.23
Rental, hiring and real estate services	63	1.5	102	1.0	1.42
Professional, scientific and technical services	69	1.6	143	1.4	1.11
Administrative and support services	172	4.0	355	3.6	1.12
Public administration and safety	202	4.7	406	4.1	1.15

Industry	Moranbah SA2		Isaac LGA		Specialisation ratio
	Number	Per cent	Number	Per cent	
Education and training	304	7.0	657	6.6	1.07
Health care and social assistance	186	4.3	386	3.9	1.11
Arts and recreation services	32	0.7	55	0.6	1.34
Other services	130	3.0	308	3.1	0.97
Total	4,328	100.0	9,972	100.0	1.00

Source: Queensland Government Statistician's Office (2019a), Queensland Regional Profiles Moranbah Statistical Area Level 2 (SA2) compared with Isaac LGA (derived on 19 November 2019)

A proportion of people employed in the Accommodation and Food Services industry may be in roles supporting the mining industry, such as in WAVs located in Moranbah.

Analysis of the occupation profile shows that in 2016, the two common occupations in Moranbah and Isaac LGA were Technicians and trades workers (24.1 per cent in Moranbah and 20.7 per cent in Isaac LGA) and Machinery operators and drivers (22.8 per cent in Moranbah and 23.7 per cent in Isaac LGA). The highest specialisation ratio between Moranbah and Isaac LGA was in the occupation of Professionals, accounting for a 1.2 ratio. In 2016, the top five occupation sub- groups of employment for Moranbah were:

- Machine and Stationary Plant Operators (16.7 per cent).
- Automotive and Engineering Trades Workers (10.1 per cent).
- Engineering, Information and Communication Technology and Science Technicians (5.5 per cent).
- Electro-technology and Telecommunications Trades Workers (4.5 per cent).
- Road and Rail Drivers (4.3 per cent).

Table 5-12 below shows the proportion of occupational groups across Moranbah and the Isaac LGA.

Table 5-12 Employment by occupation, Moranbah and Isaac LGA, 2016

Occupation	Moranbah SA2		Isaac LGA		Specialisation ratio
	Number	Per cent	Number	Per cent	
Managers	358	8.3	1,291	12.9	0.64
Professionals	554	12.8	1,063	10.7	1.20
Technicians and trades workers	1,042	24.1	2,067	20.7	1.16
Community and personal service workers	293	6.8	606	6.1	1.11
Clerical and administrative workers	413	9.5	869	8.7	1.10
Sales workers	217	5.0	467	4.7	1.07
Machinery operators and drivers	987	22.8	2,364	23.7	0.96
Labourers	404	9.3	1,112	11.2	0.84
Total	4,328	100.0	9,972	100.0	1.00

Source: Queensland Government Statistician's Office (2019a), Queensland Regional Profiles Moranbah Statistical Area Level 2 (SA2) compared with Isaac LGA (derived on 19 November 2019)

The occupation profile in Moranbah and Isaac LGA in 2016 indicates that there is potential to provide labour and skills associated with the construction and mining industries. Both Moranbah and Isaac LGA had a high percentage of skilled labour, such as Technicians and trade workers and Machinery operators and drivers. Based on the Australian Industry Group Construction Outlook survey conducted in 2018, the top three occupations where construction businesses expect to experience the greatest skill shortages were technicians, trade workers, as well as machinery operators and drivers (Australian Industry Group and Australian Constructors Association, 2018).

The number of Moranbah residents employed in the construction and mining industries has significantly declined over the five-year period to 2016. The number of residents employed in the mining industry declined from 2,185 workers in 2011 to 1,846 worked in 2016 (Table 5-13).

Table 5-13 Changes in employment numbers for Moranbah SA2 residents by industry, 2011 and 2016

Industry	2011	2016	Change 2011-2016	Change 2011-2016
	Number	Number	Number	Per cent
Mining	2,185	1,846	-339	-15.5
Construction	348	143	-205	-58.9
Total (all industries)	4,940	4,328	-612	-12.4

Source: 2016 and 2011 Census of Population and Housing, General Community Profiles (Cat. No. 2001.0), Australian Bureau of Statistics.

The reduction in numbers of employed residents in the construction and mining industries in Moranbah is likely to reflect the general downturn of mining activity in the region from 2012.

At the 2016 Census, there were more jobs recorded in Moranbah than employed residents. In particular, there were more than double jobs in the mining industry in Moranbah than residents employed in the industry (Table 5-14). The ratio of jobs to residents in the mining industry has increased between 2011 and 2016, suggesting that a significant proportion of mining jobs in Moranbah are held by people who reside elsewhere. There were also more construction jobs in the region than residents employed in construction, though at a smaller ratio that recorded for the mining industry. There were 271 people working in the construction industry within Moranbah, while only 143 Moranbah residents worked in the construction industry.

Table 5-14 Jobs to workers ratio in mining and construction industries in Moranbah SA2, 2011 and 2016

Industry	2011			2016		
	Jobs in Moranbah SA2	Employed residents	Ratio of jobs to residents	Jobs in Moranbah SA2	Employed residents	Ratio of jobs to residents
	Number	Number		Number	Number	
Mining	3,322	2,185	1.5	4,533	1,846	2.5
Construction	961	348	2.8	271	143	1.9

Source: 2016 Census of Population and Housing, Working Population Profile (Cat. No. 2006.0), Australian Bureau of Statistics.

In the month leading to 12 December 2019, there were around 40 jobs advertised locally in Moranbah (CQ Job Link, 2019). These job advertisements include roles for: six au pairs; seven roles in the mining industry; mystery shopper; two GPs; aviation security officer; two labourers; physiotherapist; customer service roles in local retail; electrician; car detailer; cook; cleaner for a WAV; and an administration assistant.

5.2.5 Housing and accommodation

The housing market in Moranbah is historically influenced by the mining industry's cyclical trends. At the 2016 Census, Moranbah recorded 3,659 private dwellings, of which 70.8 per cent were occupied (Table 5-15). This was lower than the private dwelling occupancy rates recorded for Isaac LGA, at 65.5 per cent. A private dwelling may be unoccupied because it is awaiting maintenance, is on the market for purchase or rental, or is off the market due to low demand (ABS, 2016). Some unoccupied dwellings in Moranbah are likely to be owned by mining companies and are vacant or reserved for future resident employees, or are awaiting sale.

Table 5-15 Occupancy of private dwellings, 2011 and 2016

Locality	Occupied private dwellings (%)		Unoccupied private dwellings (%)		Total private dwellings (no.)		Change in total private dwellings (%)
	2011	2016	2011	2016	2011	2016	
Moranbah SA2	81.6	70.8	18.4	29.2	3,198	3,659	14.4
Isaac LGA	76.0	65.5	24.0	34.5	8,751	9,440	7.9

Source: 2016 and 2011 Census of Population and Housing, General Community Profiles (Cat. No. 2001.0), Australian Bureau of Statistics.

In Moranbah, the proportion of unoccupied dwellings grew by about 81.2 per cent between 2011 and 2016, from 590 unoccupied dwellings in 2011 to 1,069 unoccupied dwellings in 2016. The increase in the proportion of unoccupied private dwellings is likely reflective of the town's declining population, with more people migrating out of town than people migrating in. The high number of unoccupied private dwellings indicates that Moranbah has housing available to support absorption of new residents through in-migration.

Reflective of the transient nature of mining workers, Moranbah recorded higher rates of rented dwellings and lower rates of homeownership. Around 76.6 per cent of occupied private dwellings in Moranbah were rented in 2016, compared to 63.5 per cent for Isaac LGA (Table 5-16). Rates of homeownership in Moranbah declined significantly between 2011 and 2016, by 32.0 per cent, while rates of renting increased by 13.5 per cent.

Table 5-16 Dwelling tenure, 2011 and 2016

Locality	Owned outright or with a mortgage (%)		Change in rates of home-ownership 2011-2016 (%)	Rented (%)		Change in rates of rented dwellings 2011-2016 (%)
	2011	2016		2011	2016	
Moranbah SA2	30.6	20.8	-32.0	67.5	76.6	13.5
Isaac LGA	35.5	32.4	-8.7	60.8	63.5	4.4

Source: ABS 2016 and 2011 Census of Population and Housing, General Community Profiles (Cat. No. 2001.0).

Moranbah and Isaac LGA also feature high proportions of 'other landlord type' for rented dwellings, which in mining towns typically equate to dwellings owned by mining companies with some dwellings owned by Government to provide housing for employees. Around 53.5 per cent of rented dwellings in Moranbah and 54.8 per cent in Isaac LGA were rented from 'other landlord type' (Table 5-17). High rates of company-provided and/or subsidised housing reflect the relatively lower levels of median weekly rents in Moranbah and Isaac LGA, at \$100 and \$90 per week respectively. Around 36.7 per cent of rented dwellings in Moranbah were managed by real estate agencies. Moranbah and the Isaac LGA recorded lower proportions of social housing, with around 3.4 per cent and 3.5 per cent of rented dwellings constituting as social housing respectively.

Table 5-17 Rental landlord of occupied private dwellings, 2016

Locality	Real estate agent (%)	Social housing ³ (%)	Other (including employer) ⁴ (%)	Median rent (\$ per week)
Moranbah SA2	36.7	3.4	53.5	100
Isaac LGA	30.3	3.5	54.8	90

Source: 2016 Census of Population and Housing, General Community Profiles (Cat. No. 2001.0), Australian Bureau of Statistics.

The influx of non-resident workers has historically reduced housing availability and affordability in Moranbah. This effect was seen to be exacerbated by mining companies subsidising rent for workers. At the peak of the mining boom to 2012, median house sale prices reportedly reached \$650,000 in Moranbah, with the median house price increasing by \$230,000 (or by 48 per cent) in a single year to 2012 (UQCCSG, 2018). Similar trends were reported for rentals. At the height of the mining construction in 2012, median rent doubled from \$750 per week to \$1,500 per week, at about four times greater than the Queensland benchmark for rent (UQCCSG, 2018). While housing costs in Moranbah and the Isaac LGA have normalised over the past five years, the high percentage of dwellings owned by companies prevents a normalisation of ownership, and leaves communities vulnerable to industry trends and policy changes.

In 2018, there were 84 dwelling sales in Moranbah, equating to a median sale price of \$200,000 (Table 5-18). The median sale price of dwellings in Moranbah has increased from one year prior to 2018, by 14.3 per cent. However, median sale price of dwellings has remained significantly less than the median recorded in five years ago, at \$380,000.

Table 5-18 Sales market for dwellings, 2018

Locality	Sales	Median sale	Annual median sale (1yr ago)	1 yr change	Annual median sale (5 yrs ago)	5yr change
	No.	\$	\$	%	\$	%
Moranbah	84	200,000	175,000	14.3	380,000	-47.4
Isaac LGA	170	171,000	138,500	23.5	352,500	-51.5

Source: Queensland Market Monitor, March 2019 Issue 41, Real Estate Institute of Queensland.

In relation to rental costs and availability, in the 12 months ending 30 September 2019, the median weekly rent in Moranbah for a house (including three- or four-bedroom ones) was higher than that in Isaac LGA. The median rent in Moranbah for a three-bedroom house was \$320 per week compared with \$280 per week in Isaac LGA. The cost of weekly rent for a four-bedroom house in Moranbah was \$420 per week while Isaac LGA as a whole had a median rent of \$350 per week for the same dwelling type. The median weekly rental cost for a one-bedroom flat/unit in Moranbah (at \$300 per week) was higher than Isaac LGA (\$280 per week). Isaac LGA (\$200 per week) had a higher median weekly rental cost for a two-bedroom flat/unit compared to Moranbah (\$190 per week).

Review of median rental costs for a three-bedroom house in Moranbah and Isaac LGA shows that from March 2008 to September 2019, weekly rental fluctuated substantially. The highest median weekly rent of a three-bedroom house occurred in 2012 (rental ranges from \$1,000 to \$1,500 per week in Moranbah and from \$1,000 to \$1,300 per week in Isaac LGA). The overall trend shows that median rent of the three-bedroom house decreased over this 12-year period. Table 5-19 below shows. Figure 5-3 illustrates the fluctuation of median rent of a three-bedroom house in the two areas from 2008 to 2019.

The number of lodgements and median rent by dwelling type in Moranbah and Isaac LGA as at 30 September 2019.

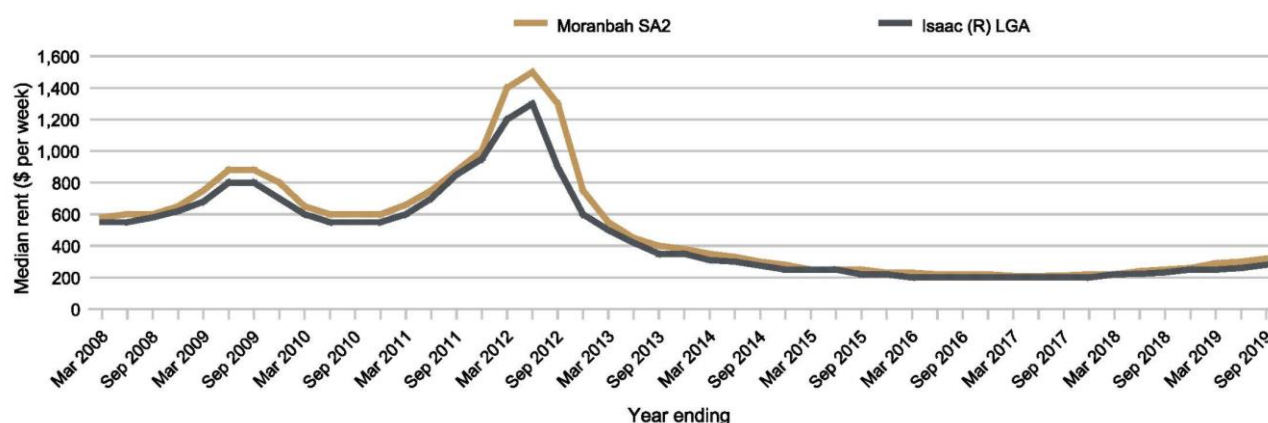
³ Social housing includes state or territory housing authority, and housing co-operative/community/church group.

⁴ Other includes Government and other employer.

Table 5-19 Lodgements and median rent by dwelling type, Moranbah SA2 and Isaac LGA, 12 months ending 30 September 2019

Locality	Lodgements (no.)				Median rent (\$ per week)			
	1 bed flat/unit	2 bed flat/unit	3 bed house	4 bed house	1 bed flat/unit	2 bed flat/unit	3 bed house	4 bed house
Moranbah SA2	21	99	303	198	300	190	320	420
Isaac LGA	26	186	607	317	280	200	280	350

Source: Residential Tenancies Authority, Rental Bonds data (Queensland Government Statistician's Office derived)



Source: Residential Tenancies Authority, Rental Bonds data (Queensland Government Statistician's Office derived)

Figure 5-3 Median rent of three-bedroom house, Moranbah and Isaac LGA

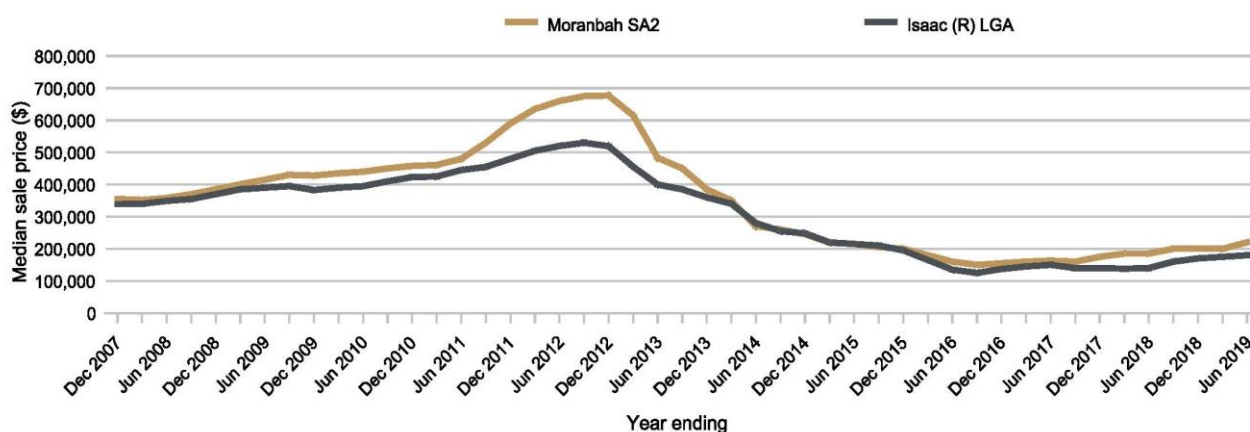
A review of online property listings at December 2019 indicated that there were 41 properties listed for rent and 131 dwellings available for purchase in Moranbah (Table 5-20).

Table 5-20 Houses available for purchase and rent

Locality	Available for purchase			Available for rent		
	Oct 2019	Nov 2019	Dec 2019	Oct 2019	Nov 2019	Dec 2019
Moranbah	132	129	131	35	38	41

Source: www.realestate.com.au

The properties available for rent range from \$210 per week for a two-bedroom dwelling to \$1,200 per week for a fully furnished, 10-bedroom dwelling. The properties available for sale range from \$98,000 for residential land spanning 262 m² to \$780,000 for a five-bedroom dwelling. Median values of residential dwelling sales peaked in Moranbah and Isaac LGA in 2012 due to boom and bust mining cycles, and then declined since 2013. Whilst median house sale prices remain below what they were 11 years ago (see Figure 5-4 below), there have recently been indications that housing prices are rising.



Source: Queensland Government Statistician's Office, Queensland regional Profile: Moranbah SA2 and Isaac LGA

Figure 5-4 Median value of residential dwelling sale, Moranbah and Isaac, December 2007 – June 2019

5.2.5.1 Affordable housing

Affordable housing typically describes a range of subsidised housing products that are affordable to those on low to moderate incomes. More specifically, affordable housing can be defined as a dwelling available through a housing assistance program that provides a specific level of below-market rent prices, such as public housing provided by the Queensland Department of Housing and Public Works (Australian Housing and Urban Research Institute [AHURI], 2019).

Typically, housing that is affordable for low to moderate income households are when housing costs are low enough to enable the household to meet other basic, long-term living costs. A measure of households experiencing housing stress is associated with housing costs that are 30 per cent or more of a household income. At the 2016 Census, around 4.5 per cent of rental households in Moranbah were experiencing housing stress, greater than the proportion recorded across Isaac LGA region as a whole (Table 5-21). This indicates that residents of Moranbah are more likely to experience housing stress than people who reside elsewhere in the broader Isaac LGA.

Table 5-21 Housing stress, 2016

Indicator	Moranbah SA2		Isaac LGA	
	2011	2016	2011	2016
Households where rent payments are greater than or equal to 30% of household income (%)	8.5	4.5	5.4	3.7
Households with mortgage repayments greater than or equal to 30% of household income (%)	1.8	1.3	2.2	1.9

Source: 2016 Census of Population and Housing, General Community Profiles (Cat. No. 2001.0), Australian Bureau of Statistics.

In July 2019, there were seven applications waitlisted for Queensland Government managed social housing in Isaac LGA. They have been on the waitlist ranging from zero months to eight months (Department of Housing and Public Works, 2019). Of the seven waitlisted applications, four expressed preference to be located in Moranbah, two in Clermont and one in Middlesbrough. At June 2019, Queensland Government reported that Moranbah had 15 public housing dwellings providing long-term affordable housing, of which ten comprise three bedrooms and the remaining five comprise one bedroom (Department of Housing and Public Works, 2019).

5.2.5.2 Short-term accommodation

Moranbah comprises a number of short-term accommodation options, ranging from hotels and motels to caravan parks. They include:

- Oaks Moranbah.
- Coal Country Caravan Park.
- Direct Hotels – Monterey Moranbah.

- Western Heritage Motor Inn.
- Moranbah Motor Inn.
- Moranbah Outback Hotel.
- Black Nugget Hotel Motel.
- Isaac Motel Moranbah.

Guests of these short-term accommodation providers are likely to be people travelling on business. According to Tourism Research Australia's Local Government Area Profile, the Isaac LGA welcomed 468,000 domestic overnight visitors in 2016 (Austrade, 2016). Business travel dominates Isaac's purpose of visit with approximately 56 per cent of the market share. Tourism holds around 23 per cent of the share and visiting friends and relatives comprised 17 per cent of the share.

5.2.5.3 Workforce accommodation villages

IRC keeps a register of all known WAVs across the region including the total number of beds built and those approved but not yet built. Table 5-22 below shows the number of existing WAV beds and the total approved beds (including existing beds) in Moranbah and Isaac LGA in June 2018. The data shows that there was a total of 19,052 WAV beds in the Isaac LGA, with a total approved capacity of 32,208 beds (including existing beds). Moranbah town had a total of 18 WAVs, with 6,411 existing beds and a potential total capacity of 15,020 beds. Of these camps, some accommodate personnel from a specific mine and would not be available to the Project.

Table 5-22 WAV accommodation in Moranbah, 2018

Area	Camp	Existing beds	Total beds approved
Moranbah	Moranbah SPV BMA Village (Moranbah Accommodation Village) MS	567	567
	Curtin House (closed but rooms remain at site) MS	62	62
	Ausco	0	546
	Civeo Mine Accommodation Village, Acacia Street (formerly Mac)	1,240	1,240
	Civeo Mine Accommodation Village, Railway Station Road (formerly Mac)	0	3,258
	Spotless - Grosvenor Village Moranbah North	498	498
	Buffel Village Caval Ridge MS	1,442	1,945
	Caval Ridge Fly Camp (decommissioned and removed from site)	0	616
	Morris Corporation	52	52
	Moranbah Smart Stay Villages	144	144
	Leichardt Accommodation Village	540	540
	Coal Country Caravan Park	0	486
	Red Hill Mine	0	3,000
	ESS Compass Group - Eureka Village Camp	1,486	1,486
	Daunia Mine Village MS	300	300
	Lancewood (decommissioned)	0	200
	MCG Quarry MS	80	80

Area	Camp	Existing beds	Total beds approved
	Moranbah - General Access	3,960	11,450
	Moranbah total	6,411	15,020
Isaac LGA	Total beds in all camps in the region	19,052	32,208

Source: Elliott Whiteing, 2019.

An analysis on current and future availability of beds across the WAVs is not able to be provided due to a lack of public data. This is further compounded by a lack of public detail on proposed accommodation arrangements of other proposed projects advancing, such as the Saraji East Mining Lease Project, the Vulcan Complex Project, and the recommissioning of the Eagle Downs Project.

5.2.6 Business and industry

The mining industry is a key industry in Moranbah and the broader Isaac LGA region. The total output generated by the Isaac economy is estimated at \$17.641 billion, representing around 2.56 per cent of the output generated in Queensland. Mining accounts for around 84 per cent of Isaac LGA's output (REMPAN, 2019).

Business counts are based on snapshots of actively trading businesses at June 2018, derived from the ABS business register. Based on the 2018 ABS business register, in 2018, there were 442 and 1,655 registered businesses in Moranbah and Isaac LGA, respectively. In Moranbah, the industry with the largest number of registered businesses was Construction (15.4 per cent), followed by Agriculture, forestry and fishing industry (12.9 per cent). Rental, hiring and real estate services was the third largest business counts by industry in the town (10.2 per cent). These three industries also had the largest number of registered businesses in Isaac LGA (40.8 per cent of businesses in Agriculture, forestry and fishing industry, 10.8 per cent of businesses in Construction and 7.9 per cent of businesses in Rental, hiring and real estate services). Table 5-23 below provides the number and percentage of registered businesses by industry in Moranbah and Isaac LGA.

Table 5-23 Registered businesses by industry, Moranbah SA2 and Isaac LGA, at June 2018

Industry	Moranbah SA2		Isaac LGA		Specialisation ratio
	Number	Per cent	Number	Per cent	
Agriculture, forestry and fishing	57	12.9	679	40.8	0.32
Mining	10	2.3	23	1.4	1.64
Manufacturing	14	3.2	30	1.8	1.76
Electricity, gas, water and waste services	0.0	0.0	0.0	0.0	-
Construction	68	15.4	179	10.8	1.43
Wholesale trade	9	2.0	27	1.6	1.26
Retail trade	25	5.7	80	4.8	1.18
Accommodation and food services	25	5.7	53	3.2	1.78
Transport, postal and warehousing	24	5.4	75	4.5	1.21
Information media and telecommunications	3	0.7	3	0.2	3.77
Financial and insurance services	28	6.3	58	3.5	1.82
Rental, hiring and real estate services	45	10.2	131	7.9	1.29

Industry	Moranbah SA2		Isaac LGA		Specialisation ratio
	Number	Per cent	Number	Per cent	
Professional, scientific and technical services	25	5.7	60	3.6	1.57
Administrative and support services	30	6.8	44	2.6	2.57
Public administration and safety	0	0.0	3	0.2	0.00
Education and training	4	0.9	14	0.8	1.08
Health care and social assistance	25	5.7	43	2.6	2.19
Arts and recreation services	3	0.7	4	0.2	2.83
Other services	37	8.4	109	6.5	1.28
Not classified	10	2.3	23	1.4	1.64
Total	442	100.0	1,665	100.0	1.00

Source: Queensland Government Statistician's Office (2019a), Queensland Regional Profiles Moranbah Statistical Area Level 2 (SA2) compared with Isaac LGA (derived on 19 November 2019)

5.2.7 Community values

5.2.7.1 Culture and identity

In 2015, IRC developed the 2035 Community Strategic Plan- IRC's 20-year vision which was informed by extensive community inputs. The plan reflects shared community values of the local towns as follows:

- Residents value the community lifestyle as well as town atmosphere.
- A strong and diverse community that support all to live, work and raise families.
- A place provides a range of services to cater for the diverse needs of the community.
- A commitment to delivering a secure and sustainable future for children, the elderly and vulnerable people.
- People are passionate about conserving and protecting environmental qualities.

Stakeholders during the SIA engagement reported that they were able to enjoy the small town feel of Moranbah despite its growth. The town has a strong identity as a mining town. This is because Moranbah was established by mining companies and the mining sector is currently still dominant in the town's economy. Moranbah is considered as a workers' coal mining town, but also a family town with young population. Whilst the town retains a strong identity as a mining town, it has more recently established itself as a key regional service and governance centre.

5.2.7.2 Amenity and quality of life

Based on the Isaac Community Plan consultation outcomes, almost all respondents had chosen to live in the Isaac LGA. Participants valued community itself, lifestyle, and liveability of the region. The Isaac region's 2035 Community Strategic Plan highlights the strength of the community as follows:

- A good place to bring up a young family, some great, family-friendly facilities.
- Long standing heritage towns with strong supportive cultures.
- Safe communities with low crime.
- A younger than average population.
- An existing arts and culture community (Isaac Regional Council 2015, p14).

Many stakeholders during the SIA engagement said that Moranbah is a close-knit town with a strong community spirit. The residents enjoy the casual and relaxed lifestyle of the town which is centred on young family, sports and cultural recreational facilities. Residents in the town work hard, play sport and support each other. Participants in the SIA consultation articulated that Moranbah is a good town to live in as the town offers a wide range of sporting activities, access to community centres and a range of local retail services.

5.2.7.3 Community cohesion

Moranbah has strong local network, community connections, and support which engender a high degree of community cohesion. In terms of local network and community connection, Isaac LGA runs community events every year, which bring people of diverse backgrounds together. For example, recent events include the Minerals and metals exhibition from 6 March 2019 to 20 December 2019, Dysart Recreation Centre from 1 July 2019 to 11 July 2019, Anzac Day, Youth Week, and Inspiring Woman in Isaac Awards⁵. These events provide opportunities for people to meet and interact with each other with informal connections and networks building a sense of community and belonging. Similarly, in Moranbah itself there are a broad range of community events held each year. These include Community Events, Sporting Events, Expos, Sunday Markets, Movies in the Park and a multitude of Fundraiser, Charity and Social Events.

Local towns throughout the Isaac region show strong cohesion between local people with the additional strength of shared employment in mining. People in these mining towns have worked and socialised together, forming strong social networks which provide the basis for robust social capital. The networks of relationship among residents through social and cultural and sporting organisations have been developed. For example, Moranbah Workers' Club is established by the community. The Workers' Club - a not-for-profit organisation- runs a hub for social interaction and recreation. The Club also has a Community Partnerships Program which provides funding for community groups, further strengthening community cohesion.

Engagement with stakeholders and community in Moranbah indicate that many residents and visitors access information and advice on Moranbah and surrounds via the Moranbah Community Notice Board Facebook Group, which has over 20,000 members as at December 2019. The Facebook Group is the popular communication medium for residents and visitors of Moranbah to be informed of events, local business specials and other matters, including providing a channel for members to ask questions. High levels of engagement with online forums for community information and advice reflect the high proportion of Moranbah residents who have internet access at their dwelling. At the 2016 Census, the percentage of households having internet access in Moranbah (90.1 per cent) was higher than that recorded for Isaac LGA (85.1 per cent) (ABS, 2016).

5.2.7.4 Influence of industry trends

Cyclical industry trends establish pressure on local communities in towns in the Isaac region. During mining boom times, there would be challenges associated with accommodation shortage and affordability, labour draw, and competition for local services. However, industry declines put pressure on employment levels, business activities, and community confidence. Mining towns including Moranbah have experienced the cyclical effects of the coal mining industry. For example, the mining industry peaked from 2008 and 2012 and thus the Isaac region (particularly in and around Moranbah) experienced significant investment in coal mining and supporting infrastructure. This has led to a shortage of housing and a significant increase in housing prices. In addition, the mining boom period caused population turnover as workers and lower income families could not afford the elevated costs of living. During this time, there was also high demand for health and emergency services and the towns experienced an alteration in culture due to the influx of non-local workers. These non-local workers were perceived by some as eroding social capital since they used local resources but did not give back to the community. The existence of non-local people living in local communities was experienced as disruptive.

In contrast with the mining industry boom in 2012, mining towns in the Isaac region experienced a sharp decline in local housing market in 2013 as the construction of several projects was finalised and coal prices dropped. The non-resident workers moved away from the mining towns and consequently, demand for services and supplies decreased. Social resilience has also been challenged by a move towards more flexible labour hire contracts. Such non-permanent staffing arrangements are not conducive to workers committing to living permanently in the local area. Shift scheduling also has an effect on the ability of mine workforces interacting with the community.

⁵ Assessed on 19 November 2019 from <https://www.isaac.qld.gov.au/community>

5.2.8 Social infrastructure

The provision of infrastructure, facilities and services is a critical factor affecting community well-being. Deficient social infrastructure can have adverse impacts on the region's ability to attract inward migration and to retain a permanent population to contribute to community development and economic growth. Major projects may impact both demand for and supply of social infrastructure. This section describes the key infrastructure, facilities, and community services in Moranbah town.

5.2.8.1 Early childhood education and care services

Table 5-24 below provides an overview of early childhood education services in Moranbah and Isaac LGA as at 31 August 2019. Types of early childhood education and care services include family day care, kindergartens, long day care, school-aged care and limited hours care. The number of early childhood education and care services in the town was five services, which accounted for 42 per cent of total early childhood education services of the Isaac region (12 early childhood education and care services in Isaac LGA). These include two long day care centres (Simply Sunshine and Moranbah Early Learning Centre), the Kindergarten and after hours care at Moranbah Primary and Moranbah East Primary schools. As at 31 August 2019, there was no provision of family day care and limited hour care in the Isaac region.

Table 5-24 Early childhood education and care services, Moranbah and Isaac LGA

Locality	Family day care	Kindergartens	Long day care	School aged care	Limited hours care	Total
	Number					
Moranbah SA2	0	1	2	2	0	5
Isaac LGA	0	5	5	3	0	12

Source: Queensland Government Statistician's Office (2019a), Queensland Regional Profiles Moranbah Statistical Area Level 2 (SA2) compared with Isaac LGA (derived on 19 November 2019)

5.2.8.2 Schools, hospitals, and emergency services

Information on schools, emergency services, and hospitals is provided in Table 5-25 below as sourced from administrative custodian agencies.

Table 5-25 Emergency services, schools and hospitals

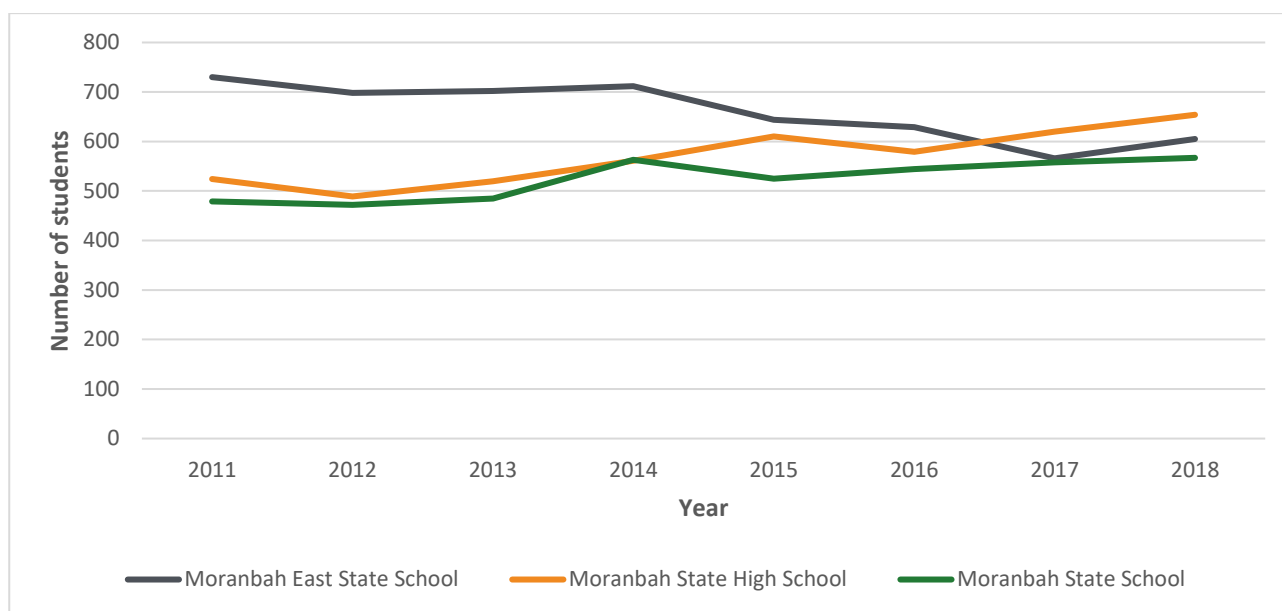
Locality	Police stations	Ambulance stations	Fire stations	Schools	Hospitals
Moranbah SA2	1	1	1	3	1
Isaac LGA	8	8	5	19	3

Source: Department of Education; Queensland Ambulance Service; Queensland Fire and Emergency Services; Queensland Health; Queensland Police

There are three schools in Moranbah, which accounts for 15 per cent of total schools in the Isaac region (19 schools in Isaac LGA). The three schools in the town include:

- Moranbah East State School (Prep to Year 6), with 605 students enrolled and 35 teaching and 30 non-teaching staff in 2018.
- Moranbah State High School, with 654 students enrolled and 56 teaching and 30 non-teaching staff in 2018.
- Moranbah State School, with 567 students enrolled and 42 teaching and 31 non-teaching staff in 2018.

School enrolment trends across the three schools were relatively similar, with Moranbah State High School exhibiting a gradual increase in student enrolments, while Moranbah East State School experienced a gradual decline in student enrolments (Figure 5-5).



Source: myschool.edu.au

Figure 5-5 Number of students enrolled at Moranbah Schools, 2011 to 2018

As shown in Table 5-25, emergency and justice services in Moranbah include:

- Moranbah Police Station;
- Moranbah Ambulance Station;
- Moranbah Fire and Rescue Service; and
- Moranbah Court House.

Moranbah has a modern Police Station built in 1996. The station was a modern watchhouse facility with secure vehicle bay. Moranbah Police Station covers the area to Coppabella, halfway to Nebo and halfway to Glenden. The Moranbah Ambulance Station has four paramedics and an officer-in-charge, as well as three ambulance vehicles. The town is also serviced by an auxiliary fire brigade made up of 20 volunteer members. Further, the State Emergency Service (SES) Moranbah provides support for statutory services where an emergency is beyond the resources of those services. Moranbah town has a Magistrates Court House providing justice-related services in the town and surrounding areas.

Regarding hospital services, the Isaac LGA is serviced by hospitals at Moranbah, Dysart, and Clermont and a nurse-led Community Health Centre at Middlemount. As shown in Table 5-26, as of 2017, Moranbah Hospital offered 12 beds. General medical services of Moranbah hospital include accident and emergency services, admissions, diabetic education, aged care and outpatient services.

Table 5-26 Hospital and health service profile, Moranbah

Facility	Number of beds	Services	Allied health	Visiting services
Moranbah Hospital	12 beds	24-hour acute and emergency care. Clinics include general practice (doctors provided through Sonic HealthPlus), outpatients and a diabetic education group.	Speech pathology, physiotherapy and social work.	Psychiatrist, a paediatrician, and the Royal Flying Doctor Service's Women's Health Clinic. Telehealth services are available to link patients with specialists in other areas.

Source: Queensland Health 2017; Hospital and Health service profiles

Allied health services are provided through Moranbah Community Health Centre. The Centre provides services such as speech pathology, physiotherapy, and social work. Patients who require higher level services typically travel to Mackay to access.

There are two medical centres in Moranbah providing General Practice services. The Oaktree Family Medical Centre comprises seven GPs, a physiotherapist, an occupational therapist and a registered nurse. Sonic HealthPlus Moranbah provides general practice, occupational health and travel medicine services, and is currently staffed by two GPs and a registered nurse. The two medical centres are open daily from 7am to 6pm, and on Saturday and Sunday mornings. As at December 2019, Sonic HealthPlus Moranbah were recruiting for a third GP to join the practice.

5.2.8.3 Community and civic services

There are a variety of community and civic facilities as well as community and family support services in Moranbah as listed in Table 5-27. For example, the MDSS is a small not-for-profit organisation that is funded through the Department of Communities, Child Safety and Disability Services which serves the communities of Moranbah, Dysart, Clermont, Coppabella, Middlemount, Nebo and Glenden. MDSS provides targeted programs such as Neighbourhood Centre Program, Rural Family Support Program, and Settlement Program. MDSS also provides other services including assistance to complete legal and other government forms, health and wellness events and activities, video conferencing etc. ELAM seeks to assist individuals and families in Moranbah and district who are homeless or in crisis and at imminent risk of homeless to achieve the maximum possible degree of self-reliance and independence, through the provision of support and accommodation. ELAM provides services such as long-term housing, Centrelink Agency, Youth Worker Program, Youth Accommodation etc. ELAM is the key social housing provider in the Moranbah and Dysart areas. Centacare offers community programs in a range of sectors, including disability, family, youth and children, health and well-being, employment, education and training, homelessness and domestic violence. Employment support services in Moranbah and the surrounding areas are provided through Community Solutions. Salvation Army Moneycare program provides financial counselling.

Table 5-27 Community services and facilities in Moranbah, 2019

Service type	Facility
Community and family support	MDSS Moranbah Youth and Community Centre ELAM Centacare Community Solutions Salvation Army Moneycare Program Hinterland Community Care Inc
Community centres	Moranbah Community Centre Moranbah Youth and Community Centre
Sport and recreation	Greg Cruikshank Aquatic Centre Darryl Bourke Oval, Will Kiehle Oval, Ted Rolfe Oval and Eastern Sporting Field Moranbah Speedway and Association BMX Track and Club Moranbah Pony Club and Rodeo Grounds Moranbah Golf Club Moranbah Miners' League Club Moranbah Tennis Courts Moranbah Bowls Club Moranbah Rifle Range and Pistol Club Clubs and organisations including football, hockey, netball, Basketball, Volleyball, Cricket, Gymnastics, Boxing Club, Karate, Fishing, Darts, Motorcycle Riders, Race Club

Service type	Facility
Arts, culture and amenity	Moranbah Library
	Coalface Art Gallery
	Moranbah Arts Council
	Moranbah Civic Centre
Religious	Moranbah Anglican Church
	Moranbah Christian Fellowship
	St Joseph the Worker Catholic Church
	Oasis Life Church

The town offers a variety of recreational and cultural facilities. There are several local association and hobby groups in Moranbah such as the Moranbah Miners' League Club, Moranbah Golf Club, Moranbah Tennis Court, Moranbah Bowls Club, Greg Cruikshank Aquatic Centre etc. In Moranbah, there are also cultural and civic centres and facilities such as Coalface Art Gallery, Moranbah Arts Council, Moranbah Library and Moranbah Civic Centre. These facilities provide a range of cultural programs and events for residents in the town and surrounding areas.

5.2.8.4 Transportation networks

Moranbah is connected to the Peak Downs Highway by the Moranbah Access Road, and is about 200 km by road west of Mackay. The primary means of transportation within and around the town is private car and walking. Public transport is not available within Moranbah and there are no passenger train services to Moranbah. There is a daily bus service running between Mackay and Moranbah. The majority of bus services that operate in and around Moranbah are for mining workers. There are also two school bus routes using Peak Downs Highway to provide transportation to the schools in Moranbah. Direct flights from Brisbane to Moranbah airports are available and there are regular flights between Brisbane and the nearby regional centres such as Mackay.

5.2.9 Crime and justice

Table 5-28 below provides a summary of offences recorded Moranbah town in comparison with Isaac LGA during 2018 and 2019.

Table 5-28 Reported offences, Moranbah SA2 and Isaac LGA, 2018-2019

Locality	Offences against the person		Offences against property		Other offences		Total	
	No.	Rate ^(a)	No.	Rate ^(a)	No.	Rate ^(a)	No.	Rate ^(a)
Moranbah SA2	38	415	224	2,449	558	6,100	820	8,964
Isaac LGA	93	450	462	2,233	968	4,679	1,523	7,362

(a) Rate per 100,000 persons

Source: Queensland Government Statistician's Office (2019a), Queensland Regional Profiles Moranbah Statistical Area Level 2 (SA2) compared with Isaac LGA (derived on 19 November 2019)

Moranbah had 820 offences, accounting for 53.8 per cent of the Isaac LGA's total offences. The rate of total reported offences for Moranbah was high at 8,964 per 100,000 persons, compared with 7,362 per 100,000 persons in the Isaac LGA. By comparison, Queensland had 505,532 reported offences with the rate of 10,084 per 100,000 persons. Of all offences in Moranbah, there were 38 offences against the person, 224 offences against property, and 558 other offences.

5.3 Secondary local study area – Dysart and Coppabella towns

5.3.1 Community setting

Dysart

Dysart is a town and a locality in the Isaac Region. Dysart was established in 1973 to cater to the coal mines of Saraji and Norwich Park as well as the many surrounding cattle and grain properties. The name Dysart comes from the name of a pastoral run and a parish in the area. The township was part of the former Broadsound Shire which existed up until 2008 when it amalgamated to form the IRC.

According to the 2016 ABS Census, the population of Dysart SSC was 2,991 residents. The town's land use is largely urban residential. There are several parklands in the areas such as Centenary Park, Lions Park, Fox Park, Leichardt Oval and Recreation Park. Dysart is a friendly community with modern facilities, including an Olympic-sized pool and nine-hole golf course. In addition, the Peak Range National Park, which is located 40 km west of Dysart, offers recreational opportunities. The Peak range is a change of prominent and picturesque mountains between Moranbah, Clermont, and Dysart.

Coppabella

Coppabella is a locality in the Isaac region. The town is in the Galilee Basin mining area. The Peak Downs Highway passes through the town from north-east to south-west. The town was designed to service the intersection of two railway lines, one from Goonyella and the other from Saraji Mine. The Goonyella to Hay Point Railway and the Coppabella Railway Station were opened in November 1971. Coppabella has been described as a closed town in that it lives and exists only because of railway.

Based on the 2016 ABS Census, Coppabella SSC had a population of 466 residents. Coppabella is considered being unique in the region since the town does not form around an existing pub and was built entirely by a government department and passed to local government to administer. Services and facilities in Coppabella include CIVEO centre, hotels, caravan park, sport facilities, shops, ambulance and fire brigade.

Workers' accommodation villages near Coppabella include the Coppabella Village (CIVEO centre) and the Moorvale Camp.

5.3.2 Demographic profile

At the 2016 Census, Dysart had a residential population of 2,991 people while Coppabella's residential population was 466 people (Table 5-29).

Table 5-29 Demographic characteristics, Dysart and Coppabella, 2016

Characteristic	Dysart SSC		Coppabella SSC	
	Number	Per cent	Number	Per cent
Population	2,991	-	466	-
Male	1,691	56.6	314	67.4
Female	1,297	43.4	149	32.0
Aboriginal and/or Torres Strait Islander peoples	134	4.5	22	4.7
Median age	31	-	38	-
Age 14 years or younger	791	26.4	36	7.7
Age 15 to 64 years (working aged population)	2,110	70.5	438	94.0
Age 65 years or older	87	2.9	9	1.9
Number of families	589	-	33	-
<i>Couple family with no children</i>	200	34.0	14	42.4
<i>Couple family with children</i>	311	52.8	18	54.5

Characteristic	Dysart SSC		Coppabella SSC	
	Number	Per cent	Number	Per cent
<i>One-parent family</i>	71	12.1	3	9.1
Completed Year 12 or equivalent	794	38.7	91	20.8

Source: ABS Census of Population and Housing 2016, General Community Profile

Dysart and Coppabella recorded more males than females. Coppabella particularly recorded significantly more males, at 67.4 per cent of its total population. This is likely to reflect Coppabella's purpose as a purpose-built town to house railway workers. The median age of people in Dysart was 31 years old which was lower than Coppabella's median age of 38 years old. Coppabella had a higher proportion of working age population (94 per cent in Coppabella and 70.5 per cent in Dysart). However, Coppabella had significantly lower percentages of people aged 14 years or under (7.7 per cent in Coppabella and 26.4 per cent in Dysart) and of people aged 65 years old or older (1.9 per cent in Coppabella and 2.9 per cent in Dysart). The age profiles reflect the employment-oriented nature of the two towns especially Coppabella. Further, residents who retire are likely to migrate out of the towns and retire elsewhere.

Further analysis of ABS 2016 Census data for Dysart and Coppabella indicate that there are few disadvantaged or vulnerable groups resident in the towns. The populations of Dysart and Coppabella are relatively high-income, record low proportions of elderly people and people with a need for assistance, and comprise small numbers of social housing (with no social housing available in Coppabella), compared to Isaac LGA as a whole.

5.3.3 Labour and employment profile

Based on the 2016 ABS Census, there were 1,331 people who reported being in the labour force in the week before Census night in Dysart Table 5-30. Of these, 69.0 per cent were employed full-time, 19.5 per cent were employed part-time and 6.1 per cent were unemployed. In Coppabella, there were 213 people who reported being in the labour force. Of these, 80.8 per cent were employed full-time and 11.3 per cent were employed part-time. Unemployment rate in Coppabella was significantly lower than Dysart with only 1.4 per cent. The labour force participant rate in Dysart (63.1 per cent) was higher than that in Coppabella (48.6 per cent).

Table 5-30 Labour force characteristics in Dysart and Coppabella in 2016

Locality	Labour force	Labour force participation rate	Employed full-time	Employed part-time	Unemployment rate
	Number	Per cent	Per cent	Per cent	Per cent
Dysart SSC	1,331	63.1	69.0	19.5	6.1
Coppabella SSC	213	48.6	80.8	11.3	1.4

Source: ABS Census of Population and Housing 2016

Similar to Moranbah, mining is the dominant industry of employment of residents of Dysart and Coppabella. At the 2016 Census, of the employed people in Dysart, 48.6 per cent worked in Coal Mining while 38.9 per cent of employed residents in Coppabella worked in this industry (Table 5-31). The second and third major industries of employment in Dysart included Beef Cattle Farming (Specialised) 4.2 per cent and Building and Other Industrial Cleaning Services 3.3 per cent. In Coppabella, the other major industries of employment after Coal Mining included Rail Freight Transport (18.4 per cent) and Beef Cattle Farming (Specialised) (10.0 per cent).

Table 5-31 Top three industries of employment in Dysart and Coppabella in 2016

Locality	Industry of employment of employed people aged 15 years and over					
	First major industry	%	Second major industry	%	Third major industry	%
Dysart SSC	Coal mining	48.6	Beef cattle farming (specialised)	4.2	Building and other industrial cleaning services	3.3
Coppabella SSC	Coal mining	38.9	Rail freight transport	18.4	Beef cattle farming (specialised)	10

Source: ABS Census of Population and Housing 2016

An analysis of the occupation profile shows that Machinery operators and drivers and Technician and trades workers are the two most common occupations in Dysart and Coppabella in 2016. In Dysart, the most common occupations included Machinery operators and drivers (29.9 per cent), Technicians and trades workers (19.6 per cent), Labourers (12.6 per cent), Professionals (10.4 per cent), and Clerical and administrative workers (8.8 per cent). The only responses for occupation in Coppabella were Machinery operators and drivers (44.2 per cent), Technicians and trades workers (16.0 per cent), Managers (11.7 per cent), Labourers (8.3 per cent), Clerical and administrative workers (7.3 per cent), Professionals (5.3 per cent) and Community and personal service workers (5.3 per cent). Table 5-32 shows the proportion of occupational groups in the two towns in 2016.

Table 5-32 Summary of occupation groups in Dysart and Coppabella in 2016

Occupation group	Dysart SSC		Coppabella SSC	
	Number	Per cent	Number	Per cent
Machinery Operators and Drivers	376	29.9	91	44.2
Technicians and Trades Workers	247	19.7	33	16.0
Labourers	158	12.6	17	8.3
Professionals	131	10.4	11	5.3
Clerical and Administrative Workers	111	8.8	15	7.3
Managers	95	7.6	24	11.7
Community and Personal Service Workers	67	5.3	11	5.3
Sales Workers	61	4.9	0	0.0

Source: ABS Census of Population and Housing 2016

Like the occupation profile in Moranbah and Isaac LGA in 2016, the occupational profile of the SIA study area also shows that there is potential to provide labour and skills associated with the construction and coal mining industries. Both Dysart and Coppabella had high percentage of skilled labours such as Machinery operators and drivers and Technicians and trades workers.

5.3.4 Housing profile

5.3.4.1 Dwelling type and occupancy

Dwelling type and occupancy of Dysart and Coppabella towns in comparison with Isaac LGA is provided in Table 5-33 below. Review of private dwelling types of these two towns shows Dysart had the higher number of private dwellings at 1,385, of which 41.4 per cent were unoccupied. There were no attached dwellings in Coppabella. Dysart and Coppabella had high rates of unoccupied dwellings at 41.4 per cent and 41.6 per cent, respectively. These rates were higher than that of Isaac LGA at 34.5 per cent. Collectively, the two towns had 611 unoccupied dwellings on Census night compared with 3,253 unoccupied houses in Isaac LGA. In 2016, a relatively large number of unoccupied dwellings were recorded by the ABS Census. It was reported in engagement undertaken to inform the SIA that a considerable proportion of these require maintenance and repair. The quality of housing stock is a reflection of the way in which towns were established- often to service Projects rather than for the long-term. Consequently, it is not economically viable to bring such unoccupied housing stock up to a habitable standard. Additionally, a proportion of unoccupied housing stock is owned by mining companies and corporate interests such as Aurizon (i.e., in Coppabella) and not publicly available for occupation.

Table 5-33 Private dwelling types 2016 – Dysart, Coppabella, and Isaac LGA

Dwelling types	Dysart SSC	Coppabella SSC	Isaac LGA
Separate house (No.)	739	55	5,339
Separate house, occupied dwellings (%)	91.0	100.0	86.3
Semi-detached, row, terrace or townhouse (No.)	22	0	353
Flat or apartment (No.)	43	0	312
Attached dwellings, occupied dwellings (%)	8.0	0	10.8
Other dwellings (No.)	4	0	128
Total occupied dwellings (No.)	812	54	6,186
Unoccupied dwellings (No.)	574	37	3,253
Unoccupied (%)	41.4	41.6	34.5
Total private dwellings (No.)	1,385	89	9,440

Source: ABS Census of Population and Housing 2016; General Community Profiles

5.3.4.2 Housing tenure

Housing tenure in the secondary local study area is shown in Table 5-34 below. The most outstanding feature is that the percentages of rented housing in Dysart and Coppabella were high. The proportion of rental tenure in Coppabella was highest at 77.8 per cent, followed by Dysart (69.2 per cent). The percentages of dwellings rented in Dysart and Coppabella were higher than that in Isaac LGA (63.5 per cent). The other key feature is that Coppabella (100 per cent) and Dysart (49.8 per cent) had very high percentage of 'other landlord type'. In Dysart, a high proportion of housing is owned by mining companies and in Coppabella dwellings are primarily owned by Aurizon. The percentage of occupied dwellings owned by other landlords ranged from 77.8 per cent in Coppabella to 34.5 per cent in Dysart.

Table 5-34 Housing tenure, Dysart, Coppabella, and Isaac LGA 2016

House Tenure	Dysart SSC	Coppabella SSC	Isaac LGA
Owned outright	133	6	1,093
Owned with a mortgage	97	0	913
Rented	562	42	3,928
Rented as % of all dwellings	69.2%	77.8%	63.5%

House Tenure	Dysart SSC	Coppabella SSC	Isaac LGA
Rented - other landlord types	280	42	2,153
Percentage other landlord type of rental dwellings	49.8%	100%	54.8%
Other landlord as % total dwellings	34.5%	77.8%	34.8%
Rented - real estate agent	195	0	1,192
Rented - person not in same household	53	0	325
Rented - State or territory housing authority	17	0	119
Rented - housing co-op/community/ church	3	0	19
Total percentage social housing of all dwellings	2.5%	0%	2.2%
Landlord type not stated	7	0	117
Total Rented	562	42	3,928
Other tenure type/not stated	24	7	258
Total	812	54	6,186

Source: ABS Census of Population and Housing 2016; General Community Profiles

5.3.4.3 Rental housing

The rental vacancy rate in Dysart has fallen from 6.5 per cent in June 2018 to 4.9 per cent in December 2018. Vacancy rates peaked at 20 per cent in July 2013. As at 14 June 2019, there were 23 dwellings available for rent in Dysart being: 16 three-bedroom homes; 5 four-bedroom homes; 0 townhouses and one unit. This equated to approximately 1.7 per cent of total dwellings available for rent. The asking price for Dysart rentals fell dramatically in April 2013 from \$750 per week, before stabilising at \$170 per week in April 2018. Based on current available rentals, the average weekly house rent was \$180 while the average weekly unit rent was \$203 (Dysart housing dashboard).

Regarding the house sales market, as at 14 June 2019, there were 20 dwellings available for sale in Dysart being: 12 three-bedroom homes; 6 four-bedroom homes, 1 townhouse and 1 unit. This equated to approximately 1.4 per cent of Dysart's total dwellings available for sale. The average house price was listed at \$80,000 while the average unit price was listed at \$180,000. Property prices across all housing stock in this township fell dramatically in April 2012 and have just started to rise since October 2018.

As previously mentioned, Coppabella is a private town and was established mainly to accommodate Queensland rail workers; however, it has built an extensive non-resident population through large-scale WAVs which predominantly service the surrounding mining industry. Based on the 2016 IRC's records, in March 2019, Coppabella had 3,831 existing WAV beds in operation, with a further 1,881 WAV beds approved but either not-yet built or operational (Coppabella housing dashboard).

5.3.4.4 Workforce accommodation village profile

Table 5-35 below shows the number of existing WAV beds approved and built and the total approved beds (including beds built) in Dysart and Coppabella towns in comparison with Isaac LGA as at June 2018.

Table 5-35 WAV accommodation, Dysart and Coppabella towns, 2018

Locality	Existing beds approved and built	Total beds approved (including beds built)	Total outstanding
Dysart	3,275	3,670	395
Coppabella	3,831	5,712	1,881
Isaac LGA total beds	19,052	32,208	13,152

Source: IRC, 2019.

Data provided by IRC indicate that of the two towns, Coppabella had the largest number of existing beds at 3,831 with the highest total capacity of 5,712 beds (including beds built). This is likely to reflect the Civeo Coppabella Village, which features more than 3,000 rooms. The total capacity of approved beds in this town accounted for 18 per cent of Isaac LGA's total beds. In Dysart, there were 3,275 existing beds and the town had a potential total capacity of 3,670 beds. Collectively, the potential total capacity of beds in the two towns was 9,382 beds, accounting for 29 per cent of Isaac LGA total beds. Of these total beds, some of the WAVs are project-specific and thus not available.

5.3.5 Social infrastructure

This section provides an overview of key social infrastructure facilities, services, and networks in the secondary local study area, including towns of Dysart and Coppabella.

5.3.5.1 Transportation networks

Dysart is intersected by Queen Elizabeth Drive which links to Dysart Middlemount Road, Saraji Road and Dysart Clermont Road to the west and Golden Mile Road to the east. Dysart Airport is located approximately 3.5 km south of the township. The airport was privately owned and operated by BMA until 2013, when it was closed to all but the Royal Flying Doctor and Medivac Services. Nebo is interconnected by the Peak Downs Highway running north-east 90 km to Mackay. Approximately 6 km north from Nebo, the Peak Downs Highway links with Suttor Development Road, which continues running west to Mount Coolon. From south-east, the Peak Downs Highway connects Nebo with Coppabella and with Fitzroy Development Road.

5.3.5.2 Education services

There are a total of 12 early childhood education and care services in Isaac LGA. These services include five long day care services and three school aged care services, and five kindergarten as shown in Table 5-24 of Section 5.2.8.1. Of all towns in the local study area, highest levels of childcare provision are in Moranbah. Dysart town has one day care centre and one kindergarten with two playgroup listings. Based on the 2016 ABS Census, the town was home to 277 children aged under 5 (accounting for 11.3 per cent of the population). Coppabella has no early childhood facilities, services, and network. At the 2016 ABS Census, Coppabella was home to 8 children under 5 (accounting for 1 per cent of the population). The outcome of stakeholder engagement shows that families in Coppabella were likely to rely on local networks to access early childhood education and care services. Table 5-36 below provides a summary of early childhood education and care services in Dysart.

Table 5-36 Early childhood facilities, services, and networks in Dysart

location	Early childhood facilities, services, networks	Facilities	Services	Network
Dysart	Lady Gowrie Day Care Centre	2	0	2
	Dysart Kindergarten			
	Playgroup Queensland (two groups)			
Coppabella	Not available			

Source: My Community Directory 2019; Yellow Pages 2019

Table 5-37 below lists all primary and secondary education facilities in Dysart and Coppabella. In November 2019, there were a total of three primary and secondary schools in the secondary local study area, two public primary schools (one in Dysart and one in Coppabella) and one secondary school in Dysart. There were 19 schools in the Isaac region. Based on the 2016 ABS Census, children aged from 5 to 15 years old made up 18.9 per cent of the Isaac's population, including 511 in Dysart (17.1 per cent of the Dysart population) and 24 in Coppabella (5.2 per cent of the Coppabella population).

Table 5-37 Primary and secondary education facilities in Dysart and Coppabella

Location	Education facilities	Primary	Secondary
Dysart	Dysart State School (347 students in 2018)	1	1
	Dysart State High School (162 students in 2018)		
Coppabella	Coppabella State School (20 students in 2018)	1	0

Source: My community Directory 2019; Yellow Pages 2019

5.3.5.3 Hospital and health services

As previously described in Section 4.2.8, Isaac LGA is serviced by hospitals in Moranbah, Dysart, and Clermont, and a nurse-led Community Health Centre at Middlemount. As of 2018, Dysart Hospital had nine beds and one emergency room. Visiting health services include speech pathology, palliative care, alcohol, tobacco and other drugs, mental health, and women's health services. There are primary health services in the secondary study areas, such as medical centres. Additional primary and allied health services are provided by the Mackay Hospital and Health Service (HHS). Residents and many non-resident workers from Dysart and Coppabella rely on Moranbah's health services, including the GPs, hospitals, and allied health, and/or travel to Mackay for health services.

5.3.5.4 Police, emergency service, and justice

Table 5-38 below provides Queensland Police and Emergency services available in the secondary local study area. There is no justice service in Dysart and Coppabella. Residents and non-residents of the towns access to the Moranbah's Magistrates Court House for justice-related services.

Table 5-38 Police and emergency services in Dysart and Coppabella

Location	Police	Ambulance	Fire	Justice
Dysart	Dysart Police Station	Queensland Ambulance Service (2 Officers)	Queensland Fire and Rescue Service	n/a
Coppabella	n/a	Queensland Ambulance Service (1 Officer)	Rural Fire Brigade (1 Officer)	n/a

Source: Queensland Police Service 2019; Queensland Ambulance Service 2017.

5.3.5.5 Community and civic services

Table 5-39 below profiles community and civic services in the secondary local study area. Following Moranbah town, Dysart offers a wider range of community and civic services in the region. There are no aged care residential services in the local towns. Hinterland Community Care (HCC), located in Dysart, is a non-government, not-for-profit, community-based organisation. HCC provides in-home care and community linking services for the frail, aged and people living with a disability. HCC offers services in Dysart, Moranbah, Nebo, Middlemount and their surrounding districts. Access to aged care is available in Clermont, where there are two facilities, and Mackay.

Table 5-39 Community and civic services, Dysart and Coppabella

Location	Facilities & services	community and family support
Dysart	Dysart Civic & Recreation Centre Dysart Community Centre (& Community Development Group Inc) Disability Services Local Area Coordinator Rural Support Worker (Dept. Communities)	Hinterland Community Care Inc (Aged and Disability Support Services)
Coppabella	Queensland Railway Institute – Coppabella	Not available

Source: My Community Directory 2019; Yellow Pages 2019

5.3.5.6 Recreation and cultural facilities

The towns in the secondary study areas offer a wide range of recreational and cultural facilities with Dysart having the highest level of provision.

Table 5-40 lists all sport, recreation, arts, cultural and amenity facilities in Dysart and Coppabella townships. Of the sport and recreation facilities in the towns, the Dysart Indoor Multipurpose Sports and Recreation Centre provides benefits for not only people living in the town but also residents in the Isaac region. The Centre offers a new Olympic size swimming pool and provides a range weekly classes to accommodate to all ages. The Centre also provides other sports, such as volleyball, netball and basketball. In terms of arts, culture, and amenity facilities, the Dysart Library and Art Space is a modern facility offering an exhibition space for local and regional artists. The Dysart Civic Centre is one of the major venues in the Isaac Region for organising performances and functions. Coppabella has no art, culture and amenity facilities.

Table 5-40 Recreation and cultural facilities in Dysart and Coppabella

Location	Sport and Recreation	arts, culture and amenity
Dysart	Dysart Recreation Centre and Swimming Pool Dysart Golf Club Dysart Bowling Club Centenary Park, Lions Park, Fox Park Leichardt Oval and Recreation Park Lucy Daly (Soccer) Oval, Warren Oval, Hickey Oval Netball / Basketball Courts and Tennis Courts	Dysart Library and Art Space Dysart Civic Centre
Coppabella	Coppabella Pool Sports Oval Basketball Court	Not available

Source: My Community Directory 2019; Yellow Pages 2019

5.3.6 Community values

As described in Section 5.2.7, towns in the Isaac region share many cultural values and behaviours, such as a strong work ethic, a love of recreation, and appreciation and protection of environmental qualities, such as reserves, national parks, and farms. In terms of community identity and amenity, Dysart town has a strong identity as a mining town given this township was directly established by a mining company. Dysart is characterised as a friendly community offering a wide range of community assets, facilities, and services. Although Dysart is predominantly a mining town, residents enjoy a rural lifestyle. Coppabella has a strong identity as a railway town. The town is a close-knit community based around a railway connection which is important to the growth of the export coal industry in Bowen Basin.

Regarding community cohesion, Dysart and Coppabella have strong connectedness between residents. Dysart town is strongly bonded by shared employment in mining and is a close-knit and mutually supportive community. The school together with sporting infrastructure further builds strong local bonds. The cohesion of Coppabella town is built and strengthened by the bonds between railway workforce and families. The two towns currently accommodate a large number of mining workers who live either in the towns or in WAVs. Workers' unions are strong in the Isaac region, share mutual responsibility, and support for workers and families.

5.3.7 Crime and justice

Data on crime is only available at ABS SA2 level. Broadsound-Nebo SA2 includes both Dysart and Coppabella. Table 5-41 below provides a summary of offences recorded within Broadsound-Nebo SA2 in comparison with Isaac LGA during 2018 and 2019.

Table 5-41 Reported offences, Broadsound-Nebo SA2 and Isaac LGA, 2019-20

Locality	Offences against the person		Offences against property		Other offences		Total	
	No.	Rate ^(a)	No.	Rate	No.	Rate	No.	Rate
Broadsound-Nebo SA2	51	642	171	2,153	207	2,606	429	5,402
Isaac LGA	113	542	440	2,111	880	4,222	1,433	6,876

(a) Rate per 100,000 persons

Source: Queensland Government Statistician's Office (2020), Queensland Regional Profiles Broadsound-Nebo Statistical Area Level 2 (SA2) compared with Isaac LGA (derived on 01 October 2020)

Broadsound-Nebo SA2 had 429 offences, accounting for 29.9 per cent of the Isaac LGA's total offences. The rate of total reported offences for the Broadsound-Nebo SA2 was lower than that recorded for Isaac LGA, with 5,402 offences per 100,000 persons, compared with 6,876 offences per 100,000 persons in the Isaac LGA. Of all the recorded offences within the Broadsound-Nebo SA2, there 51 offences against the person, 171 offences against property, and 207 other offences.

5.4 Employment profile of nearby regional communities

5.4.1 Overview

This section provides an employment profile of relevant 'nearby regional communities' within 125 km from the Project's main access. The ten nearby regional communities identified are Moranbah, Dysart, Coppabella, Capella, Clermont, Finch Hatton, Glenden, Middlesmount, Nebo, and Tieri.

5.4.2 Employment profile

Table 5-42 provides a summary of key employment characteristics of each local town and an amalgamation of all ten nearby regional communities. Data on the employment profile of ten nearby local towns show that at the 2016 ABS Census, the total labour force was 9,235 people. The size of the labour force was largest in Moranbah (4,369 people), followed by Dysart (1,094 people). The total number of unemployed persons across all nearby regional communities was 494 people, representing 5 per cent of the total labour force. Of these, Moranbah had the highest number of unemployed people with 244 people, followed by Dysart at 73 people.

The amalgamation of all relevant nearby regional communities shows that the number of people working in the mining industry was high with 3,692 workers and accounting for 42 per cent of total employed workforce. Within the towns, Moranbah had the highest number of people working in mining sector with 1,732 people, followed by Middlesmount at 509 people. In addition, there were 800 people working in other mining-related industries, such as Construction, Transport postal and warehousing, and Professional scientific and technical service, representing 9 per cent of total employed labour force.

Table 5-42 Employment profile of 10 nearby regional communities within a 125 km radius from the Project entrance

Town	Total population	Age group of 15 to 64 years old	Labour force				Unemployment		Employment by industry			Employment by occupation		
	(No)	(%)	Labour force (No)	Labour force participation rate (%)	Employed full-time (%)	Employed part-time (%)	(No)	(%)	Selected employment by industry: (i) Mining (ii) Industries relevant to mining (Construction; Transport postal and warehousing; and Professional scientific & technical services)	(No)	(%)	Selected employment by occupations having skills relevant to mining industry include: (i) Professionals (ii) Technicians and trades workers (iii) Machinery operators & drivers (iv) Labourer	(No)	(%)
Capella	1,010	65%	494	75%	62%	26%	28	6%	Mining	99	21%	Occupations having skills relevant to mining industry	299	64%
									Industries relevant to mining	64	14%			
Clermont	2,042	60%	951	77%	63%	24%	50	5%	Mining	248	28%	Occupations having skills relevant to mining industry	583	65%
									Industries relevant to mining	102	11%			
Dysart	2,443	71%	1,094	63%	68%	20%	73	7%	Mining	496	49%	Occupations having skills relevant to mining industry	771	75%
									Industries relevant to mining	76	7%			
Finch Hatton	232	62%	95	66%	63%	22%	13	14%	Mining	8	9%	Occupations having skills relevant to mining industry	53	61%
									Industries relevant to mining	13	15%			
Glenden	578	72%	324	78%	62%	25%	18	6%	Mining	154	50%	Occupations having skills relevant to mining industry	221	72%
									Industries relevant to mining	9	3%			
Middlemount	1,824	72%	937	72%	69%	20%	30	3%	Mining	509	56%	Occupations having skills relevant to mining industry	679	75%
									Industries relevant to mining	32	4%			
Moranbah	8,333	69%	4,369	77%	67%	21%	244	6%	Mining	1,732	42%	Occupations having skills relevant to mining industry	2,832	69%
									Industries relevant to mining	358	9%			
Nebo	513	76%	239	61%	76%	14%	12	5%	Mining	72	33%	Occupations having skills relevant to mining industry	165	75%
									Industries relevant to mining	55	25%			
Tieri	1,129	67%	519	69%	67%	21%	23	4%	Mining	297	60%	Occupations having skills relevant to mining industry	338	68%
									Industries relevant to mining	28	6%			
Coppabella	466	94%	213	49%	81%	11%	3	1%	Mining	77	37%	Occupations having skills relevant to mining industry	152	74%
									Industries relevant to mining	63	31%			
TOTAL	18,570	69%	9,235	72%	67%	21%	494	5%	Mining	3,692	42%	Occupations having skills relevant to mining industry	6,093	70%
									Industries relevant to mining	800	9%			

Source: ABS 2016

The occupation profile of the nearby regional communities indicates that there was a high number of people with occupations with skills relevant to the mining industry with 6,093 people, accounting for 70 per cent of total employed workforce. These occupations include Professionals, Technicians and trades workers, Machinery operators and drivers, and Labourer. Analysis of employment profile suggests that there is potential to provide a source of labour and skills for the Project.

5.5 Regional study area

5.5.1 Regional setting

Isaac Regional LGA

The Project is located within the Isaac LGA which covers 58,862 km² stretching from the Central Queensland coast to the Bowen Basin coalfields. The area includes a diverse mix of coastal, agricultural and mining communities, and contains a substantial portion of the Bowen Basin coal reserves. The Isaac Regional LGA was created in 2008 as the result of the Local Government Reform Commission released in July 2007. Prior to 2008, the Isaac region was an entire area of three previous and distinct LGAs, including the Shire of Belyando, the Shire of Broomsound, and the Shire of Nebo. Belyando Shire (including Moranbah and Clermont) and Broomsound Shire (including Dysart) began as local government districts in 1879. In April 2015, IRC adopted its 2035 Community Strategic Plan – Isaac’s 20-year vision, aiming to strengthen the region across four key areas, with actions in place to improve essential infrastructure, diversify the economy, support communities, and protect the natural environment. Isaac 2035’s key goal is that the Isaac LGA will have strong and diverse communities that support all to live, work, and raise families in 2035 (IRC, 2015).

Mackay Regional LGA

The Project is located approximately 180 km by road from Mackay. Mackay is the principal service and activity centre for the MIW Region. Mackay is a well-developed source of employees, contract labour, supplies and services to the Bowen Basin. In addition, many residents from the Isaac region seek social facilities and services in Mackay such as higher-order health, administrative, business, commercial and cultural services. The Mackay Municipality was first declared in 1869, became a town in 1903, and was proclaimed a City in 1918. The Mackay Regional LGA is one of the fastest growing in Queensland. The region’s growth is fuelled by strong activity in the resource sector, resurgence in agribusiness, and growth in construction, logistics and tourism. The Mackay region is the gateway to the rich coal deposits in the Bowen and Galilee Basins. It is also one of the largest sugar-producing regions in Australia and hosts much of the engineering, manufacturing, and mining services industries supporting the wider MIW economy. Mackay also features a university campus, base hospital, and the region’s main air and sea ports.

The following provides an overview of key socio-economic indicators for the regional study area - the Isaac and Mackay LGAs. The baseline of the regional study area analyses the demographic characteristics, labour force, employment, business profiles, and community health and safety.

5.5.2 Demographic profile

5.5.2.1 Population

As at June 2018, the Isaac LGA had an estimated resident population of 20,934 while the population of Mackay LGA was 116,539 residents. Collectively, the regional study area (comprising the two LGAs) had a total of 137,473 persons. During 2013–2018, each LGA experienced a decrease in population with average annual growth rates of Isaac and Mackay LGAs being -2.1 per cent and -0.4 per cent, respectively. In contrast, over the same period, Queensland experienced an increase in population with an average annual growth rate of 1.5 per cent. Population decreased during 2013–2018 as a result of contraction in both direct local employment (the result of mining industry redundancies and an increase in FIFO employment) and indirect employment (as businesses supported by construction and mining had less capacity to employ). Review of population change over ten years from 2008 to 2018 shows that while Isaac LGA experienced a decrease in population with average annual growth rate of -0.3 per cent, the population of Mackay LGA increased with the average annual growth rate of 0.7 per cent which was in the same trend of Queensland’s population growth. Table 5-43 below shows resident population and change in the two LGAs and Queensland over the period of 2008 and 2018.

Table 5-43 Resident population, regional study area, 2018

Locality	2008	2013	2018	Average annual growth rate	
				2008-2018	2013-2018
	Number	Number	Number	Per cent	Per cent
Isaac LGA	21,632	23,284	20,934	-0.3	-2.1
Mackay LGA	108,644	118,878	116,539	0.7	-0.4
Total regional study area	130,276	142,162	137,473	0.5	-0.7
Queensland	4,219,505	4,652,824	5,011,216	1.7	1.5

Source: Queensland Government Statistician's Office (2019a), Queensland Regional Profiles Moranbah Statistical Area Level 2 (SA2) compared with Isaac LGA (derived on 19 November 2019)

5.5.2.2 Population growth

Both Isaac and Mackay LGAs have the capacity to continue to grow. Natural growth is expected through births and net migration. In addition, if coal prices continue at levels that inspire industry confidence, population growth in mining regions may become stronger during the next five years. According to Department of Industry, Innovation, Science's forecast, between 2019 and 2023, Australian exports of metallurgical coal for steel making is projected to increase, with an average annual growth rate of 3.5 per cent per year⁶. On this basis, it is anticipated that population may increase due to increases in local coal production.

The most recent population projections by QGSO are provided in Table 5-44 below. Data shows that by 2041, collectively, the population of Isaac and Mackay LGAs is projected to reach to 183,067 residents, equivalent to an average annual growth rate of 1.1 per cent between 2016 and 2041. By comparison, the Queensland population is expected to have higher average annual growth rate (1.6 per cent per annum) over the same period. Average annual growth rate of Mackay LGA (1.2 per cent per year) is expected to be higher than that of Isaac LGA (0.6 per cent per annum).

Table 5-44 Projected population from 2016 to 2041, Isaac LGA, Mackay LGA and Queensland

Locality	2016	2021	2026	2031	2036	2041	Average annual growth rate 2016-2041
	Number	Number	Number	Number	Number	Number	Per cent
Isaac LGA	21,563	20,762	21,556	22,709	23,852	24,786	0.6
Mackay LGA	117,703	123,570	130,714	139,205	148,527	158,280	1.2
Total regional study area	139,266	144,332	152,271	161,914	172,379	183,067	1.1
Queensland	4,848,877	5,261,567	5,722,780	6,206,566	6,686,604	7,161,661	1.6

Source: Queensland Government Statistician's Office (2019a), Queensland Regional Profiles Moranbah Statistical Area Level 2 (SA2) compared with Isaac LGA (derived on 19 November 2019)

⁶ Department of Industry, Innovation and Science. 2018. Forecast table

5.5.3 Employment and labour

5.5.3.1 Labour force

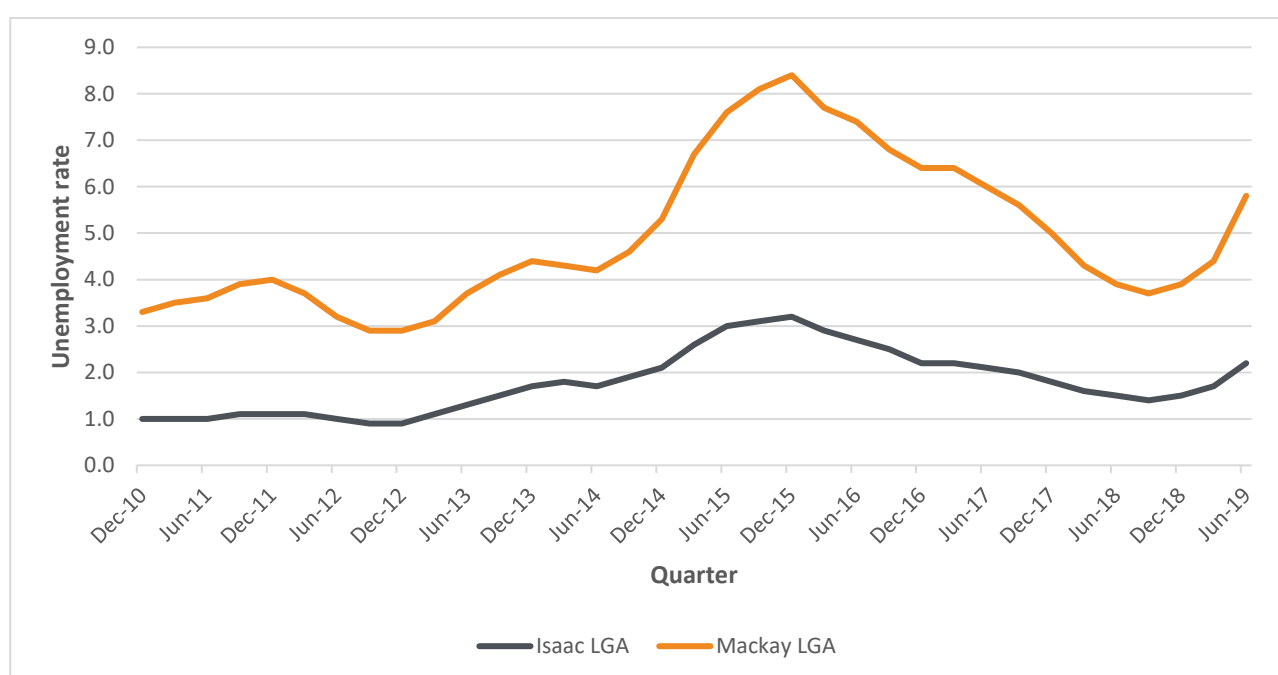
As at March 2019, the total of labour force in the both Isaac and Mackay LGAs was 75,008 with an unemployment rate of 3.9 per cent. By comparison, the unemployment rate of the regional study area was lower than that of Queensland (6.1 per cent). Within the region, Mackay LGAs had 62,527 people in the labour force with an unemployment rate of 4.4 per cent. Isaac had smaller workforce (12,481 people) and substantially lower unemployment rate of 1.6 per cent. Review of unemployment rates in the regional study area and Queensland shows that from December 2014 to March 2019, while the unemployment rate in Queensland was steady, the rate in the region fluctuated substantially. Of note, from July 2015 to July 2016, the region had a higher unemployment rate than Queensland. Table 5-45 below provides a summary of labour force and unemployment profile of the regional study area as at March 2019.

Table 5-45 Labour force and unemployment, regional study area, March quarter 2019

Locality	Unemployed	Labour force	Unemployment rate
	Number	Number	Per cent
Isaac LGA	204	12,481	1.6
Mackay LGA	2,720	62,527	4.4
Total region study area	2,924	75,008	3.9
Queensland	161,700	2,652,515	6.1

Source: Queensland Government Statistician's Office (2019a), Queensland Regional Profiles Moranbah Statistical Area Level 2 (SA2) compared with Isaac LGA (derived on 19 November 2019)

Figure 5-6 further illustrates the changes in unemployment rates between the Isaac LGA and Mackay LGA during December 2010 and June 2019.



Source: Australian Government Department of Employment, Skills, Small and Family Business, *Small Area Labour Markets Australia*, various editions

Figure 5-6 Unemployment rate, regional study area, 2010 to 2019

5.5.3.2 Labour force diversity

Table 5-46 below provides an overview of labour force participation and diversity in the regional study area based on the 2016 ABS Census. Key features in Isaac and Mackay LGAs are summarised as follows:

- Labour force participation rate in Mackay LGA (63 per cent) was lower than that in Isaac LGA (67 per cent). The labour force in Mackay and Isaac LGAs totalled 57,697 and 10,489 people respectively. Note that the data is sourced from the 2016 ABS Census; therefore, the total labour force in this section is different from that presented in Section 5.5.3.1 above (which sourced as of March 2019).
- Women represented a higher proportion of the labour force in Mackay (46.0 per cent) than in Isaac LGA (40.6 per cent). In Isaac LGA, female unemployment was higher at 2.7 per cent than for men at 2.2 per cent. In line with this trend, female unemployment was again slightly higher at 8.8 per cent compared to 8.4 per cent for males in Mackay.
- In Isaac LGA, approximately 9.7 per cent of males and 25.8 per cent of females of 15 years and over were not in the labour force. In Mackay LGA, 22.5 per cent of males and 34.3 per cent of females of 15 years and above were not in the labour force. These figures reflect the availability of jobs and the youth of the population in these two LGAs.
- In Isaac LGA, 518 people were unemployed, including 230 unemployed men (equivalent to 2.2 per cent) and 288 unemployed women (accounting for 2.7 per cent). In Mackay LGA, there were 2,630 unemployment males (equivalent to 8.4 per cent) and 2,338 unemployed females (equivalent to 8.8 per cent).
- In Isaac LGA, the workforce included 337 Indigenous people, of whom 28 (8.3 per cent) were unemployed. Mackay LGA had 2,334 Indigenous people, of whom 502 (21.5 per cent) was unemployed.

Table 5-46 Labour force participation and diversity, Isaac and Mackay LGAs, 2016

Indicator	Cultural diversity			Gender diversity				
	Indigenous	Non-Indigenous	Not stated	Males	Males	Females	Females	Total
	No.	No.	No.	No.	%	No.	%	No.
Isaac LGA								
Person 15 years+	457	12,683	2,503	8,707	55.6	6,944	44.4	15,651
In labour force (male/female % of total workforce)	337	10,053	97	6,229	59.4	4,260	40.6	10,489
Employed (male/female % of employed people)	308	9,572	96	6,000	60.1	3,977	39.9	9,977
Unemployed	28	478	3	230	2.2	288	2.7	518
Not in the labour force	107	2,498	40	848	9.7	1,793	25.8	2,635
Labour force status not stated	12	135	2,368	1,628	18.7	883	12.7	2,515
Mackay LGA								
Person 15 years+	3,654	79,996	7,555	46,089	50.5	45,114	49.5	91,204
In labour force (male/female % of total workforce)	2,334	54,958	400	31,149	54	26,546	46.0	57,697

Indicator	Cultural diversity			Gender diversity				
	Indigenous	Non-Indigenous	Not stated	Males	Males	Females	Females	Total
	No.	No.	No.	No.	%	No.	%	No.
Employed (male/female % of employed people)	1,831	50,545	357	28,518	54.1	24,213	45.9	52,732
Unemployed	502	4,414	46	2,630	8.4	2,338	8.8	4,966
Not in the labour force	1,256	24,248	353	10,378	22.5	15,480	34.3	25,859
Labour force status not stated	64	793	6,797	4,565	5	3,091	3.4	7,652

Source: ABS Census of Population and Housing 2016; General Community Profiles; ABS sampling and rounding procedures result in minor variations in totals

5.5.3.3 Employment by industry

Table 5-47 below shows employment by industry in the Isaac and Mackay LGAs based on the 2016 ABS Census. Data show that in the Isaac LGA, mining was the highest employment industry with 6,024 people (42 per cent of employed persons). Health care and social assistance was the second highest employment industry (at 6.7 per cent), followed by agriculture forestry and fishing (6.1 per cent). In Mackay, 5,609 people worked (equivalent to 12.3 per cent) in health care and social assistance, with retail trade – the second highest employment industry (at 11 per cent), followed by education and training (8.1 per cent). People employed by mining industry in Mackay accounted for 5.5 per cent (at 2,503 people). Compared to Queensland, the largest employing industry was health care and social assistance at 13 per cent, indicating that the Isaac LGA has low provision of health and care workers compared to the Mackay LGA and the State average.

Table 5-47 Industry of employment and specialisation, Isaac LGA, Mackay LGA, and Queensland, 2016

Industry	Isaac LGA			Mackay LGA			QLD
	Number	Per cent	Specialisation ratio	Number	Per cent	Specialisation ratio	Per cent
Agriculture, forestry and fishing	872	6.1	1.61	1,728	3.8	1.34	2.8
Mining	6,024	42	7.66	2,503	5.5	2.42	2.3
Manufacturing	452	3.2	0.44	3,303	7.2	1.2	6.0
Electricity, gas, water and waste services	132	0.9	0.88	479	1.1	0.94	1.1
Construction	659	4.6	0.69	3,050	6.7	0.75	8.9
Wholesale trade	162	1.1	0.27	1,921	4.2	1.6	2.6
Retail trade	746	5.2	0.47	5,036	11.0	1.11	9.9
Accommodation and food services	703	4.9	0.73	3,055	6.7	0.91	7.4
Transport, postal and warehousing	608	4.2	0.63	3,091	6.8	1.34	5.1

Industry	Isaac LGA			Mackay LGA			QLD
	Number	Per cent	Specialisation ratio	Number	Per cent	Specialisation ratio	Per cent
Information media and telecommunications	36	0.3	0.41	281	0.6	0.52	1.2
Financial and insurance services	109	0.8	0.49	714	1.6	0.62	2.5
Rental, hiring and real estate services	143	1	0.55	825	1.8	0.91	2.0
Professional, scientific and technical services	303	2.1	0.47	2,054	4.5	0.72	6.2
Administrative and support services	439	3.1	1.14	1,231	2.7	0.76	3.5
Public administration and safety	410	2.9	0.58	2,263	5.0	0.76	6.5
Education and training	770	5.4	0.66	3,693	8.1	0.90	9.0
Health care and social assistance	958	6.7	0.54	5,609	12.3	0.94	13.0
Arts and recreation services	53	0.4	0.42	401	0.9	0.55	1.6
Other services	336	2.3	0.44	2,428	5.3	1.36	3.9
TOTAL	14,328	100	1.0	45,605	100	1.0	100

Source: Queensland Government Statistician's Office (2019a), Queensland Regional Profiles Moranbah Statistical Area Level 2 (SA2) compared with Isaac LGA (derived on 19 November 2019)

Collectively, the top five industry subdivisions of employment for both Isaac and Mackay LGAs were as follows:

- Mining (14.5 per cent);
- Preschool and school education (6.0 per cent);
- Food and beverage services (4.9 per cent);
- Other store-based retailing (4.3 per cent); and
- Construction services (4.1 per cent).

Within the regional study area, 16.4 per cent of employed persons worked in Mining industry with the highest specialisation ratio of 7.0. Compared with Queensland, Health care and social assistance industry was the highest employment industry (13 per cent of employed persons), followed by Retail trade industry (9.9 per cent).

5.5.3.4 Occupations

Table 5-48 below provides occupational groups in regional study area and Queensland State in 2016. The 2016 ABS Census data indicate that the Isaac LGA's largest occupation was Machinery operators and drivers at 23.7 per cent, followed by Technicians and trades workers at 20.7 per cent and Managers at 12.9 per cent. In the Mackay LGA, Technicians and trades workers was also the largest occupational group at 20 per cent, followed by Professionals at 14.3 per cent and Machinery operators and drivers at 12.9 per cent. This reflects the regional study area's strength in mining and associated industries (such as automotive and engineering trades workers and machine operators). The percentages of Community and personal service workers in the Isaac and Mackay LGAs were very low (6.1 per cent in Isaac LGA and 8.8 per cent in Mackay LGA), compared to Queensland (11.3 per cent).

Table 5-48 Occupational groups, Isaac LGA, Mackay LGA, and Queensland 2016

Occupation	Isaac LGA		Mackay LGA		Queensland
	Number	Per cent	Number	Per cent	Per cent
Managers	1,291	12.9	5,523	10.5	12.1
Professionals	1,063	10.7	7,538	14.3	19.8
Technicians and trade workers	2,067	20.7	10,525	20	14.3
Community and personal service workers	606	6.1	4,659	8.8	11.3
Clerical and administrative workers	869	8.7	6,338	12	13.6
Sales workers	467	4.7	4,875	9.2	9.7
Machinery operators and drivers	2,364	23.7	6,802	12.9	6.9
Labourers	1,112	11.2	5,563	10.5	10.5
Total	9,972	100	52,732	100	100

Source: Queensland Government Statistician's Office (2019a), Queensland Regional Profiles Moranbah Statistical Area Level 2 (SA2) compared with Isaac LGA (derived on 19 November 2019)

The review of employment by occupation in both Isaac and Mackay LGAs shows that the top five occupation sub-major groups of employment for the regional study area were:

- Automotive and engineering trades workers (8.8 per cent);
- Machine and stationary plant operators (7.1 per cent);
- Sales assistants and salespersons (6.1 per cent);
- Road and rail drivers (4.7 per cent); and
- Carers and aides (3.9 per cent).

Within the regional study area, Technicians and trades workers had the highest percentage of employed persons (20.1 per cent), followed by Machinery operators and drivers at 14.6 per cent. Of note, Machinery operators and drivers had the highest specialisation ratio. By comparison, in Queensland, the highest percentage of employed people was Professionals at 19.8 per cent, followed by Technicians and trade workers (14.3 per cent).

5.5.4 Businesses profile

5.5.4.1 Business counts by employment size

Table 5-49 below provides a summary of registered businesses in the regional study area and Queensland as of 30 June 2018. Approximately 1,665 registered businesses were operating in the Isaac LGA while there were 9,696 businesses registered in the Mackay LGA. Of registered businesses in the Isaac LGA, 1,041 (62.5 per cent) were non-employing businesses (such as sole traders and small family farms). A further 441 businesses (26.5 per cent) were small businesses with 1-4 employees and 154 businesses (9.2 per cent) employed 5-19 people. Just 24 businesses (1.4 per cent) in the Isaac LGA employed 20-199 people and there was no business with more than 200 employees. In Mackay LGA, there were 5,755 non-employing businesses (59.4 per cent), 2,747 businesses (28.3 per cent) with 1-4 employees, 951 businesses (9.8 per cent) with 5-19 employees, 233 businesses with 20-199 employees (2.4 per cent) and 7 businesses (0.1 per cent) employing more than 200 people. Overall, small business employing less than five people represented approximately 89 per cent of Isaac's business, slightly higher than the Mackay LGA's at 87.7 per cent.

Table 5-49 further shows that collectively, the number of registered businesses in the two LGAs as at 30 June 2018 was 11,361 businesses, accounting for 2.5 per cent of total registered businesses in the State. Of these, businesses with non-employing accounted for 59.8 per cent of the total registered businesses in the regional study area. The proportion of non-employing businesses in the regional study area was slightly lower than that of Queensland. In the regional study area, 3,188 businesses employed 1 to 4 employees, representing 28.1 per cent which was higher than Queensland at 26.4 per cent. Businesses employed from 5-19 staff were 1,105 collectively in the Isaac and Mackay LGAs, representing 9.7 per cent.

Table 5-49 Registered businesses by employment sizes, Isaac and Mackay LGA and Queensland, 30 June 2018

Locality	Non-employing		1-4 employees		5-19 employees		20-199 employees		200+ employees		Total
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.
Isaac LGA	1,041	62.5	441	26.5	154	9.2	24	1.4	0	0.0	1,665
Mackay LGA	5,755	59.4	2,747	28.3	951	9.8	233	2.4	7	0.1	9,696
Regional study area	6,795	59.8	3,188	28.1	1,105	9.7	257	2.3	7	0.1	11,361

Source: Queensland Government Statistician's Office (2019a), Queensland Regional Profiles Moranbah Statistical Area Level 2 (SA2) compared with Isaac LGA (derived on 19 November 2019)

5.5.4.2 Business counts by industry

Registered businesses by industry in the regional study area and Queensland are provided in Table 5-50 below. Based on the ABS business register, in 2018, the industry with the largest number of registered businesses in the regional study area was Agriculture, forestry and fishing (23.3 per cent), followed by businesses in Construction sector (15.0 per cent) and in Rental, hiring and real estate services (10.4 per cent). Although the mining industry in the regional study accounted for only 1.1 per cent, this sector had the highest specialisation ratio of 2.75. Given the largest number of registered businesses in Construction in the regional study area, these businesses may be a major source of labour, services and equipment for the Project's construction activities. In Queensland, the largest number of businesses was Construction industry (17 per cent), followed by Rental, hiring and real estate services industry (11.4 per cent).

Table 5-50 Registered businesses by industry, regional study area and Queensland, 30 June 2018

Industry	Regional study area		Queensland		Specialisation ratio
	Number	Per cent	Number	Per cent	
Agriculture, forestry and fishing	2,649	23.3	41,138	9.2	2.54
Mining	128	1.1	1,841	0.4	2.75
Manufacturing	344	3.0	16,405	3.7	0.83
Electricity, gas, water and waste services	18	0.2	1,303	0.3	0.55
Construction	1,699	15.0	76,125	17.0	0.88
Wholesale trade	212	1.9	13,481	3.0	0.62
Retail trade	522	4.6	25,016	5.6	0.82
Accommodation and food services	363	3.2	17,817	4.0	0.80
Transport, postal and warehousing	613	5.4	31,786	7.1	0.76
Information media and telecommunications	29	0.3	3,349	0.7	0.34

Industry	Regional study area		Queensland		Specialisation ratio
	Number	Per cent	Number	Per cent	
Financial and insurance services	691	6.1	37,664	8.4	0.72
Rental, hiring and real estate services	1,182	10.4	51,209	11.4	0.91
Professional, scientific and technical services	758	6.7	49,805	11.1	0.60
Administrative and support services	351	3.1	18,003	4.0	0.77
Public administration and safety	31	0.3	1,363	0.3	0.90
Education and training	131	1.2	6,174	1.4	0.84
Health care and social assistance	515	4.5	26,166	5.8	0.78
Arts and recreation services	69	0.6	5,170	1.2	0.53
Other services	920	8.1	20,981	4.7	1.73
Not classified	106	0.9	3,939	0.9	1.06
Total	11,361	100.0	448,725	100.0	1.00

Source: Queensland Government Statistician's Office (2019a), Queensland Regional Profiles Moranbah Statistical Area Level 2 (SA2) compared with Isaac LGA (derived on 19 November 2019)

5.5.5 Community health and safety

5.5.5.1 Community health

Health indicators

Table 5-51 below provides health-related indicators in the regional study area in comparison with Queensland. These indicators are sourced from the Social Health Atlas of Australia as of 2014-2015 (Torrens University Public Health Information Development Unit, 2017). The review of health indicators in Isaac and Mackay LGAs as well as Queensland shows that in general, residents in Isaac LGA are not as healthy as people in Mackay LGA and Queensland. For example, health indicators shown in Table 5-50 indicate that:

- More residents in the Isaac LGA rated their health being in the range of fair to poor. Health indicators show that people in the Isaac LGA have higher chronic disease and health risks relating to personal lifestyle and behaviour compared with Mackay LGA and Queensland.
- Isaac LGA had slightly more people 15 years or above self-rated their health as fair and poor compared with residents living in Mackay and Queensland (Age Standardised Rate [ASR] 17.4 in Isaac LGA compared with 16.4 in Mackay LGA and 15.4 in Queensland).
- There were more Isaac region's residents (ASR 86.5) aged 18 years or above with at least one of four risk factors (including smoking, high alcohol use, obesity, or no/low exercise levels in the previous week) than people living in Mackay (ASR 82.6) and Queensland as a whole (ASR 79).
- People aged 18 and above with high blood pressure in Isaac region were more than those in Mackay and the State (ASR 28.2 in Isaac region compared with 24.2 for Mackay LGA and 23.4 for Queensland).
- Isaac LGA had more people aged 18 years or above who consumed alcohol per day than residents in Mackay and Queensland (ASR 22.7 in Isaac LGA compared with 19.4 in Mackay LGA and 17.2 in Queensland).
- There were more people aged 18 or above having the problem of obesity in Isaac LGA (ASR 37.4 for Isaac LGA compared with 34 for Mackay LGA and 29.3 for Queensland).
- Isaac LGA had higher hospital admission rates for injury, poisoning, and other external causes, and for parasitic and infectious diseases compared with Mackay LGA and Queensland.
- Isaac LGA had lower than average rates of admissions for other diagnoses including cancers, mental health-related conditions, circulatory system disease and respiratory disease.

Table 5-51 Health indicators, Isaac and Mackay LGAs

Indicators	Year	Isaac LGA	Mackay LGA	Queensland
Modelled estimated ASR per 100				
People 15+ with fair or poor self-assessment health	2014-15	17.4	16.4	15.4
People 18+ with mental or behavioural problems	2011-12	12.5	13.4	14.4
People 18+ with respiratory system diseases	2011-12	25.6	26.7	5.1
Composite indicator of persons aged 18+ years with at least one of four risk factors (current smokers, high risk alcohol, obese, no or low exercise in the previous week)	2014-15	86.5	82.6	79.0
People 18+ with high blood pressure	2014-15	28.2	24.2	23.4
People 18+ who were obese	2014-15	37.4	34.0	29.3
People 18+ with risky alcohol consumption (2+ standard drinks per day)	2014-15	22.7	19.4	17.2
People 18+ with no or low-level exercise in previous week	2014-15	73.5	71.7	67.0
Hospital admissions by principle diagnosis, modelled estimate ASR per 100,000				
People admitted to public hospital for mental health related conditions	2012-13	545.1	856.9	796.1
People admitted to public hospital for all cancers	2012-13	587.5	1,224.3	3,027.8
People admitted to all hospitals for respiratory disease	2012-13	1,789.7	1,927.5	1,919
People admitted to all hospitals for circulatory system disease	2012-13	1,732.5	2,796.6	2,445.2
People admitted to all hospitals for injury, poisoning, and other external causes	2012-13	3,528.2	3,199.9	2,953.9
People admitted to public hospitals for infectious, parasitic diseases	2012-13	579.7	401.0	553.2

Source: Torrens University 2017, Public Health Information Development

Access to health services

Residents in the Isaac LGA have access to district level hospitals (three hospitals in total in the LGA) in Moranbah and Dysart and a community health centre in Middlemount. GPs are located in Moranbah and Dysart, with visiting or on-call services in Middlemount and Nebo. There are a number of allied health practitioners in the region. Most of specialist services are not available in the Isaac region; hence, Isaac LGA's residents seek higher-order health services in Mackay or other regional health services.

Based on Mackay HHS's Annual Report 2016-2017, Mackay health services were positioned as one of the top performing hospitals and health services in Queensland⁷. The Mackay HHS is responsible for providing medical, surgical, emergency, obstetrics, paediatrics, specialist outpatient clinics, mental health, critical care and clinical support services. The geographical catchment of the Mackay HHS spans 90,364 km², extending from Bowen in the north, to St Lawrence in the south, west to Clermont, and northwest to Collinsville and includes Proserpine and the Whitsundays. The health service has 354 approved beds and beds alternatives plus 29 aged care beds. Facilities include:

- Mackay Base Hospital and Mackay Community Health.
- Whitsunday Health Service comprising Proserpine Hospital and Primary Health Centre and Cannonvale Primary Health Centre.
- Bowen Hospital and Primary Health Centre.
- Sarina Health Service comprising Sarina Hospital and Primary Health Centre.
- Dysart Health Service comprising Dysart Hospital, Primary Health Centre and Middlemount Primary Health Centre.
- Moranbah Health Service comprising Moranbah Hospital, Primary Health Centre and Glenden Primary Health Centre.
- Clermont Multi-Purpose Health Service (MPHS) comprising Montcler Nursing Home, Monash Lodge and the Clermont Hospital.
- Collinsville MPHS.

Mackay HHS is able to treat most people locally. Those who require more specialist care or treatment are transferred to the Townsville Hospital or Brisbane hospitals.

5.5.5.2 Community safety

Regarding road safety in the regional study area, there exists a concern over road safety issues in Isaac LGA mainly due to the cumulative traffic volumes of coal mining projects. A study on assessing mining impacts on road travel conditions in the Bowen Basin region was conducted in 2016 (Akbar et al., 2018). The study conducted a household travel survey to residents of the Moranbah and Emerald townships in order to understand mining communities' level of satisfaction with their road travel experience. Findings of the study show that the poor pavement condition, road safety, and traffic congestion was associated with over-dimensional vehicles. Poor driver behaviour, particularly in regard to speed, inattention and fatigue was raised during the study survey.

During the SIA stakeholder engagement, some participants raised their particular concern about the road safety issues on the Peak Downs Highway. Based on the Traffic Impact Assessment (refer to relevant chapter of the EIS), the major transport route in the vicinity of the Project is the Peak Downs Highway. According the consultation with DTMR, several road upgrade projects are planned for the Peak Downs Highway at locations between Clermont and Mackay. These works are planned to be undertaken prior to Year 2. Upgrades identified are generally projects to improve road capacity, safety, and intersection operation along the Peak Downs Highway proximate to the Project site, and therefore, are expected to be a net benefit to the Project. Details regarding the extent of these upgrade works are not currently known. On this basis, the additional road capacity is likely to be available from the upgrades. The upgrades would positively contribute to the road safety issue on the Peak Downs Highway.

⁷ Mackay Hospital and Health Service 2017. Mackay Hospital and Health Service Annual Report 2016–2017

6 Impact assessment

6.1 Overview

This section analyses potential impacts which may occur as a result of the Project and identifies associated impact mitigation and benefit enhancement measures (consistent with the SIA Guideline, these will be referred to collectively as ‘management measures’). These have been considered in the context of the matters identified in the SSRC Act and SIA Guideline for both the construction and operations phases⁸ of the project.

Table 6-2 provides a summary significance assessment for both un-managed (i.e. without mitigation or enhancement measures) and managed (i.e. with mitigation or enhancement measures) impacts.

6.2 Community and stakeholder engagement

This section assesses the potential impacts that stakeholder relationships may have on the project and the community. Further detail on stakeholder engagement for the SIA, including analysis of stakeholder expectations and concerns, is provided in Section 4.2.

6.2.1 Stakeholder perceptions, expectations and relationships

The way a project interacts with the community in which it operates is generally considered to have a large bearing on it gaining social acceptance and support. The engagement process seeks to contribute to and gauge whether a project would be likely to receive a ‘social licence to operate’ from the community (Australian Government, 2006). Social licence is the state that exists when the project has the acceptance and ongoing approval of the local community and other stakeholders. Social licence operates across a continuum: ‘approval’ may range from favourable regard through to the community being pleased with the project; ‘acceptance’ may vary from tolerated to positive consent.

Social licence is dynamic, and an ongoing relationship is required to build and maintain it. Social licence is created by:

- Establishing legitimacy—the project/proponent must be seen as legitimate. Achieving legitimacy requires an understanding of the community’s values, norms and social capital, and ensuring the project/proponent operates in a manner that aligns with those values, norms and social capital.
- Establishing credibility—the project/proponent is credible. Credibility can be achieved through the careful management of expectations. Formal arrangements with clearly defined roles and responsibilities can help to establish credibility.
- Developing trust—the community trusts the project team. Trust is pivotal to gaining and maintaining social licence. Activities that build trust are often those that involve shared experiences generated through participatory processes rather than the simple transfer of information.

Stakeholder engagement can facilitate establishment of a social licence to operate by providing stakeholders and the broader community an opportunity to provide input. The consultation process should confirm the impacts of the investment on stakeholders and improve understanding of any new concerns raised by stakeholders. It should also seek to determine whether the project is likely to receive a social licence to operate from the community. If not, the project owner should consider whether it is worthwhile to progress.

As detailed in Section 4, there is a broad range of stakeholders with an interest in, or influence on the project. These range from government regulators and industry groups, to landholders and residents of local and regional communities. The Proponent recognises the importance of developing and maintaining positive relationships with these stakeholders, and the EIS/SIA engagement has sought to establish and strengthen these relationships where possible.

Negative stakeholder relationships present a significant challenge to project delivery during both construction and operations, and may result in a range of adverse impacts including:

- Reputational impacts for Whitehaven and Whitehaven WS.
- Active opposition to the Project within local and regional communities.

⁸ For the purposes of this assessment, the construction phase also incorporates pre-construction and commissioning, and the operations phase also incorporates maintenance and decommissioning.

- Stress and uncertainty for residents of local and regional communities.
- Delays in receipt of regulatory project approvals.
- Potential loss of social license to operate.

Conversely, positive stakeholder relationships will benefit both the Project and potentially impacted communities by:

- Enhancing the Proponent's and Whitehaven WS's reputation.
- Building support for the Project in local and regional communities.
- Reducing stress and uncertainty for residents of local and regional communities.
- Reducing potential for delays in receipt of regulatory approvals.
- Strengthening the Proponent's and Whitehaven WS's social license to operate.

Whitehaven are operating several mines in NSW and have an established relationship with communities where their mines operate. Whitehaven is proud that around 75 per cent of their workforce lives and works in the towns and regional centres immediately surrounding their operation. Whitehaven plays a significant role in sustaining and helping build capacity in these communities. Whitehaven and the Project are committed that the Project will build upon a solid relationship with the community. The Proponent is committed to build a good relationship with the local community and to local employment and businesses – factors which are highly valued by local communities.

The Community and Stakeholder Engagement Plan (CSEP) presented in Section 7.6 details the Proponent's proposed approach to engage with potentially impacted communities and other Project stakeholders, and to establish constructive relationships which will continue throughout the life of the Project.

A factor contributing to poor relationships with stakeholders in the resource sector is dissatisfaction with the distribution of project-related benefits and opportunities, particularly to local communities (Franks et al., 2014). Numerous stakeholders interviewed during the SIA consultation – including IRC, OCG, DESBT, and local business owners – highlighted the importance of ensuring that local communities benefitted from the Project, primarily through employment, training and business opportunities. The Proponent has proposed a range of measures to enhance these opportunities in the SIMP presented in Section 7. The Proponent will implement these measures throughout the construction and operation of the Project.

6.3 Workforce management

This section assesses potential impacts associated with workforce management including employment and training as well as workers' well-being. The key social effects likely to be impacted by the Project that relate to workforce management include the following:

- Increased employment opportunities for residents of local and regional communities.
- Enhanced skills and capacity in local communities due to the movement of a skilled workforce into the local area, further supported by targeted training and skills development initiatives.
- Shortage of labour and skills for other local employers due to levels of demand further contributed by the Project.
- Health and well-being effects of the workforce and their families.
- Loss of employment opportunities, and associated redundancies following the conclusion of operations.

These social effects are detailed below.

6.3.1 Increased employment opportunities for residents of local and regional communities

Construction

The Project would require a construction workforce which peaks at 500 personnel over a period of two years. The construction workforce for the Project would generally be provided by contractors and subcontractors working on the Project construction, and any opportunities for local employment is likely to be through these contractors and subcontractors.

Potential jobs required during the construction phase could include both construction and related supporting services. Particular occupations required include the following:

- Earthmoving plant operators;
- Structural steel and welding trades workers;
- Professionals including geologists, managers, safety officers, engineers and environmental scientists;
- Painting, plumbing and electrical trades workers;
- Concreters; and
- Construction labourers.

The Proponent is committed to a recruitment strategy which prioritises people who reside local to the Project. Equity, transparency and safety are core values framing workforce recruitment. Employing the best qualified person for the position is a paramount consideration whilst also ensuring that those potentially marginalised such as women and ATSI people are provided equitable access to employment opportunities. A safe commute distance is within one-hour drive time from the Project site, which includes the towns of Moranbah, Dysart, and Coppabella.

The recruitment strategy for the Project will target potential employees in order of priority:

- i. Local area (communities of Moranbah, Dysart, and Coppabella).
- ii. 'Nearby regional communities' (UCLs within 125 km of site).
- iii. Regional area (Isaac and Mackay LGA).
- iv. The State of Queensland.

The analysis of 'nearby regional communities' (refer to Section 5.4) suggests that the total labour force with skills applicable for construction (industries including Construction, Transport and warehousing, and Professional scientific and technical services) comprises some 800 workers. There are an estimated 340 businesses listed in 'nearby regional communities' which offer services potentially relevant to the construction phase of the Project. Considering the current and projected availability of construction workers in the local and regional area, the predicted incremental proportion of the construction workforce sourced from respective geographic areas is as follows:

- Local area (communities of Moranbah, Dysart and Coppabella): Maximum of 35 workers (7 per cent of peak construction workforce).
- 'Nearby regional communities' (UCLs within 125 km): Maximum of 100 workers (20 per cent of construction workforce).
- Region (Mackay and Isaac LGA): Maximum of 475 workers (95 per cent of construction workforce).
- State of Queensland: Maximum of 500 workers (above 95 per cent of construction workforce).

Generation of such employment opportunities has a substantial positive effect on the stability and prosperity of local communities. Contributions to local economies through wages and procurement further generate indirect employment opportunities.

It is noted that the Proponent is also committed to ensuring that potentially marginalised groups, such as ATSI people, are provided equitable access to employment opportunities. The Proponent will maximise employment opportunities for Aboriginal People through supporting Aboriginal Groups such as the Barada Barna Aboriginal Cooperation. Further, the Proponent is committed to providing a financial contribution as part of the RAP specifically for training and skills development initiatives for Aboriginal People.

Operation

Project operations will occur over 28 years and require a workforce of 500 workers to be based at site and a number of workers to be based at an automation control centre. As the location of the automation control centre is yet to be determined, the focus of this assessment is specifically those operations employees which are based at site.

Occupations required (at site) by the Project operation would include:

- Machinery operators;
- Truck drivers;
- Tradespeople including diesel fitters, boiler makers, electricians, plumbers, gasfitters and painters;
- Engineers, surveyors and geologists;
- Health, safety, human resources and mine management professionals; and
- Administrative staff.

The total labour pool of 'nearby regional communities' comprises 9,235 people, of which 6,039 work in occupations that involve skills sets which are compatible with those required by the mining industry and 3,692 work directly in the mining industry. In 2019, the estimated total number of unemployed persons was 494. Whilst it is considered important to provide residents of 'nearby regional communities' with priority in terms of accessing employment opportunities, it should be recognised that such targeted recruitment in a region of low unemployment is likely to result in attraction of persons that are already in an existing job. Therefore, the existing employer is faced with the prospect of needing to fill the vacated role. Whilst there is a prevalence of sought-after skills in 'nearby regional communities', unemployment is low. This indicates that those who have skills required for the operations workforce are already in employment. However, Whitehaven is highly regarded as an employer and the Project is conveniently located to Moranbah. These factors will likely enhance the proportion of the workforce able to be sourced from 'nearby regional communities'.

Considering the current and projected availability of workers in the local and regional area, the predicted incremental proportion of the operations workforce sourced from respective geographic areas is as follows:

- Local area (communities of Moranbah, Dysart and Coppabella): Assumed maximum of 50 workers (10 per cent of operations workforce) able to be recruited.
- 'Nearby regional communities' (UCLs within 125 km): Assumed maximum of 100 workers (20 per cent of operations workforce) able to be recruited.
- Region (Mackay and Isaac LGA): Assumed maximum of 400 workers (80 per cent of operations workforce) able to be recruited.
- State of Queensland/ other Australian States: 500 workers (100 per cent of operations workforce).

As previously mentioned, the Proponent's first priority for recruitment will include personnel from 'nearby regional communities', particularly those located within a one-hour commute to the work site (including Moranbah, Dysart, and Coppabella). This will not preclude people in other regional towns applying for jobs; however, fatigue management requirements will constrain the ability of people from further afield to commute on a daily basis and would therefore be required to reside in a WAV when on shift. It is recognised that Whitehaven is investigating automation of the fleet for the Project. Direct employee numbers include consideration of automation. Employment numbers during the operation may increase depending on the extent of automation. During the SIA consultation, stakeholders raised a concern on the impact of automation on the Project's employment.

In summary, the Project has committed to prioritising and maximising local employment during the construction and operation phases. The Project is likely to attract a mix of currently employed workers such as those seeking a long-term opportunity with an experienced Australian operator, along with some currently unemployed workers, particularly people who were previously employed in mining. The Project will generate increased employment opportunities for residents of local and regional communities. This will benefit communities through population retention and stability, injecting wealth into local economies, generating indirect employment, sustaining social infrastructure and services and thereby encouraging more people to relocate to local and regional areas. Furthermore, employment opportunities will include opportunities for traditionally underrepresented groups such as women, ATSI persons and persons with a disability. Meaningful employment has been demonstrated to be the most effective way in which to empower more economically vulnerable sectors of the community.

To optimise the Project's benefits to local communities through employment, the Proponent intends to implement the following enhancement measures:

- Develop and implement a recruitment hierarchy, which prioritises employment of local residents by applying the following order of priority:
 - i. The 'local' towns of Moranbah, Dysart, and Coppabella.
 - ii. Nearby regional communities within 125 km radius from Project entrance.
 - iii. The Isaac region as per the Isaac LGA.
 - iv. The Mackay Whitsunday region.
 - v. The State of Queensland.
- Scheduling of recruitment will be staggered in accordance with the recruitment hierarchy.
- Employment opportunities to be advertised in ways tailored to local communities, for example, through 'recruitment days' in local towns or advertising through local traditional media along with online media such as community 'Facebook' pages.
- Establish a Project office in either Moranbah or Mackay to oversee Project recruitment processes and provide a point of contact for prospective employees.
- Provide a financial contribution as part of the RAP specifically for training and skills development initiatives for ATSI People. The Proponent will collaborate with the Barada Barna Aboriginal Corporation, DATSIP and DESBT and any other appropriate stakeholders to identify and implement appropriate training and skills development initiatives.
- Ensure that Indigenous cultural heritage surveys are fully funded and supported, and undertaken by the rightful parties.
- Identifying specific positions which qualify for job share/flexible shift arrangements. Such jobs may be made available as both full time or job share/flexible positions and will be advertised in local towns as a priority.
- Fully implement Whitehaven's Equal Employment Opportunity Policy which contains specific commitment regarding access to equal employment opportunities for members of local and regional communities.
- Collaborate with the IRC to determine the most effective contribution which may be made to a childcare solution (maximum of \$200,000 with Years 1 – 5 of the Project).

6.3.2 Training and development opportunities

The Project's construction and operational phases provide a potentially important source of training and career pathway development in local and regional communities. The Project would likely stimulate an expansion in training and upskilling opportunities available to residents of local and regional communities. For instance, providing traineeships during the Project's operation contributes to increased availability of training and development opportunities for local entry-level job seekers, such as young people.

The Proponent has committed to providing training and development opportunities for the workforce through the provision of upskilling and employment development programs as well as training and skills development initiatives during the construction and operation phases of the Project. Thereby, the Project is likely to enhance skills and capacity in local communities due to the movement of a skilled workforce into the local area, further supported by targeted training and skills development initiatives. Multiple stakeholders engaged in the course of the SIA identified this as being of paramount importance to the future prosperity of local and regional communities.

To optimise the Project's benefits to the workforce through training and development opportunities, the Proponent has also committed to implementation of a number of specific initiatives including:

- Provide incentives for staff to make a long-term commitment to the Project through career pathways supported by training and skills development.
- Directly contribute to the advancement of STEM skills in the local community through funding positions dedicated to the integration of STEM into the curriculum of Years 3-6 in Moranbah Primary and Moranbah East Primary Schools (commitment of \$35,000 per annum for each school, for the life of the Project).

- Provide a financial contribution as part of the RAP specifically for training and skills development initiatives for Aboriginal People. The Proponent will collaborate with the Barada Barna Aboriginal Corporation, DATSIP, DESBT and any other appropriate stakeholders to identify and implement appropriate training and skills development initiatives.
- Collaborate with the Barada Barna Aboriginal Corporation, DATSIP, DESBT and other government agencies to design and implement programs (such as 'Skilling Queenslanders for Work') which support target groups such as youth to access employment opportunities supported positions rather than on casual contracts.
- Provide ongoing training and skills development for the workforce through continuous implementation of the existing Whitehaven training programs.

6.3.3 Shortage of employment and skills in other industries

Persons with the skills and experience sought by mining projects are often drawn to such projects by an opportunity to earn comparatively higher wages. As local and regional communities have a relatively small labour pool, the loss of such employees can result in a localised shortage of skills.

Considering the size of the workforce with skills and experience in the mining sector (3,692 workers in nearby regional communities), the additional demand for workers created by the Project (500 construction and 500 operations workers) is unlikely to have any substantial effect on the availability of labour in the region. As discussed in Section 6.8, in the context of all projects being advanced in the region, the contribution of the Project to estimated construction and operation employment demand equate to just 8.5 per cent for both the construction and operation phases. Stakeholders engaged as part of the SIA reported that skills shortages were an ongoing issue which is accepted as being the norm in local communities.

There are fundamentally counter-intuitive objectives in encouraging proponents to assertively maximise local employment whilst also seeking to maintain availability of suitably qualified labour for local businesses. There is balance which needs to be reached in this regard and it is in this context that the Proponent has committed to implementing the following measures to minimise the drawdown of local skills for other industries:

- Provide additional training opportunities for young people from local communities through funding an education-based traineeship for each year of operation.
- Provide career progression pathways for the workforce through provision of an upskilling and employment development program.

6.3.4 Health and well-being effects of the workforce and their families

During the construction phase, it is anticipated that the Proponent would engage contractors to deliver construction works. Specific construction work packages are still to be determined, however key elements include:

- the mine site (clearing, grubbing, topsoil removal, earthworks etc.);
- development of access roads, haul roads and infrastructure corridors for electricity, water;
- development of coal handling, processing and transportation infrastructure; and
- ancillary infrastructure (offices and personnel facilities).

It is anticipated that some construction activities would occur 24 hours per day, seven days per week. Shifts of 12 hours are expected, with rosters likely to be 21 days on and seven days off or as agreed by the construction contractors in consultation with the Proponent and the relevant workers' unions. Non-local construction employees would stay at WAVs in Coppabella, Moranbah or Dysart.

Once operational, shift time and rosters for non-local and local employees would include:

- operational hours would be 24 hour per day, seven days per week;
- mining operations would be on a 12.5 hour shift cycle roster, working seven days on, seven days off; and
- senior management and staff would work a five days on (Monday to Friday), two days off roster.

All local workers within a one-hour drive would be able to travel between their home and the Project on a daily basis. Many non-local employees (those with a drive time of more than one hour) would likely stay at WAVs in Coppabella, Moranbah or Dysart. These workers would return home at the end of their seven-day roster. This is likely to include mostly DIDO and a small number of FIFO personnel based in other towns.

A social consideration relating to the deployment of non-resident workforces is the effect which this form of employment can potentially have upon the well-being of the worker and their family. The absence of one parent while on roster places additional pressure on the other parent who effectively becomes a sole parent whilst the partner is away. In addition to missing family events and milestones, parents working away from home may find it difficult to adjust to the very contrasting environment of life when on shift and life when living in the family home. Regular and prolonged absence of a partner can also cause stress in adult relationships. Equally, it is difficult for singles to reintegrate with friends when off roster, particularly, where social activities at the home base are organised around traditional weekends rather than rosters. Such factors add to the potential for negative influences upon the well-being of members of the workforce who are typically also faced with challenging employment conditions, demanding shift schedules and accommodation stresses.

Throughout SIA engagement, multiple stakeholders identified the negative impacts on health and well-being resulting from prolonged shift work, particularly when it involves absence from the family unit. Stakeholders asserted that there is a clear indication that there are mental health challenges associated with people operating on shifts and residing in workers camps including incidence substance abuse, depression and suicide. Family breakdowns and loneliness are considered to be primary contributors to such issues.

A further family welfare issue which was raised in SIA engagement was a growing tendency for both parents/custodians taking up lucrative employment opportunities which results in diminished parental care and oversight. It was reported that recent initiatives to increase the female proportion of the workforce had resulted in diminished academic performance as children were experiencing reduced parental teaching and guidance. More concerning were reports of children roaming the streets late at night as both parents were absent from the family home due to work commitments. There is a prevalent attitude in the local study area to maximise employment earnings whilst living in mining-orientated communities; however, there are sometimes associated unintended social consequences.

In summary, the Project has the capacity to influence the well-being of workers and their families through roster and shift-scheduling arrangements, the quality and services provided at WAVs, and access to support services. The Project has committed to providing a safe and healthy environment for workers during the construction and operation phases. The Proponent intends to implement the following mitigation measures:

- Manage the workforce health and safety through implementation of the Whitehaven Coal Health and Safety Management Systems. This comprises a broad range of measures which directly avoid the need for non-resident workers to access hospital services.
- Manage fatigue through implementation of the Whitehaven Fatigue Management Standard and associated Fatigue Assessment Form and Fatigue Risk Assessment Chart.
- Manage risks associated with drugs and alcohol through implementation of the Whitehaven Alcohol and Drug Standard and associated Alcohol and Other Drugs Procedure which prescribes limits, testing procedures and employee assistance and awareness programs.
- Manage workforce health and hygiene through implementation of the Whitehaven Coal Health Management Standard which provides minimum standards for health and hygiene risks associated with mining operations.
- Ensure all members of the workforce are fully inducted and trained through implementation of the Whitehaven Coal Induction and Training Standard- establishes minimum training standards for employees, contractors and visitors who perform work for Whitehaven WS.
- Provide on-site first aid facilities for workers with appropriately trained personnel available that can assist with attending to minor workforce health issues, as well as providing first response services for emergency situations and site accidents.
- Regularly engage with WAV operators to encourage and support workforce health programs targeting mental health, obesity, drug and alcohol use.
- Establishment of an Employee Assistance Program (EAP) tailored to suit the needs of the Project workforce.
- Provide an annual financial contribution to support employees and families through mental health, domestic violence and suicide prevention programs.
- Consult and collaborate with Queensland Police Service, camp accommodation providers, and other stakeholders to identify and address any antisocial or disruptive workforce behaviour in local communities.

6.3.5 Loss of employment opportunities and associated redundancies following the conclusion of operations

The Project would be in operation for approximately 28 years, which would see the conclusion of operations in 2052. Closer to this time, there would be some loss of employment opportunities and associated redundancies for the workforce. This may result in economic hardship for affected employees and their households. In addition, there may be some outflow of population from the areas if other comparable jobs are not available. Given the large numbers of existing and proposed projects in the Bowen Basin, the Project is likely to be one of several operating in the areas at the time of decommissioning. Therefore, it is also possible that the Project's cessation will have minimal effect on local communities.

It is considered likely that the coal industry will undergo substantial change over the next thirty years, and it is not possible to predict with any confidence the state of future conditions. Regardless, the Proponent will implement the following measures to minimise economic hardships for affected employees and their families due to loss of employment and associated redundancies following the conclusion of operations:

- Provide workers with advanced notice of the impending conclusion of operations.
- Preparation and implementation of a Progressive Rehabilitation and Closure Plan.
- Consult with employees regarding potential impacts and identify strategies to avoid economic hardship for those affected.
- Where possible, redeploy workers to other proponent-operated projects.

6.4 Housing and accommodation

This section assesses the potential effects the Project might generate with regard to housing and accommodation. An increased demand for workforce housing and accommodation contributed to by the Project has the potential to lead to the following benefits and impacts:

- Stimulation of housing investment which provides stability to the local housing market.
- Increased business opportunities for housing and accommodation providers such as WAVs and rental houses.
- Reduced housing and accommodation availability.
- Reduced affordability and accessibility of housing and accommodation.

The following describes the demand for the Project's workforce housing and accommodation, and associated benefits and impacts.

6.4.1 Demand for workforce housing and accommodation

During the construction and operation phases, the Project will result in both a permanent and temporary increase in population of local and regional areas, and resultant demand for workforce housing and accommodation.

Construction

Project construction would occur over 3 years and require a peak workforce of 500 workers. Members of the construction workforce that reside within a one-hour drive from the project site (limited to the communities of Moranbah, Dysart and Coppabella) will be self-accommodated and commute to work on a daily basis. Analysis of demographic and employment data indicates that the availability of construction skills is highly constrained. Subsequently, it is predicted that only up to 35 workers would be able to be sourced from local towns, which represents 7 per cent of the peak construction workforce.

Members of the construction workforce that reside further than a one-hour commute from the site may be accommodated in an established WAV. This equates to a peak temporary accommodation requirement for 465 workers. Due to the relatively short duration of the construction phase along with the nature of Project construction which will involve different contractors over the course of construction period, it is not predicted that any members of the non-local construction workforce would choose to seek permanent accommodation in the local area and there would be no subsequent effect on the local housing market. Therefore, impacts on permanent housing demand due the Project during the construction phase are assessed as being negligible.

Operation

Project operations would occur over 28 years and require an estimated workforce of 500 workers based at the mine site. Members of the operations workforce that reside within a one-hour drive from the project site entry (communities of Moranbah, Dysart and Coppabella) would be self-accommodated and commute to work on a daily basis. It is predicted that up to 50 operations workers may be sourced from the existing labour force of the local area (communities of Moranbah, Dysart and Coppabella). Of the remaining 450 operations workers, it is predicted that 15 per cent would seek to move to the local area. This equates to 68 additional households.

Of the predicted influx to the local area, not all would occur upon the commencement of Project operations. A proportion will be operations employees who, over time, take up the opportunity to seek permanent local residence. It is predicted that 60 per cent of total workforce movement to the local area seeking permanent housing would occur at the commencement of operations, with a further 20 per cent in the first five years of operations and the final 20 per cent between Project year 8 and Project year 13. The temporal distribution of housing demand in the local area stimulated by the Project is therefore:

- Year 3 – Year 4: Additional permanent accommodation demand generated by 41 operations workers.
- Year 4 – Year 8: Additional permanent accommodation demand generated by 14 operations employees.
- Year 8 – Year 13: Additional permanent accommodation demand generated by 14 operations employees.

Members of the operations workforce that reside further than a one-hour drive from the site will be accommodated in an established WAV. This equates to a workforce accommodation requirement of:

- Year 3 – Year 4: WAV accommodation required for an estimated maximum of 426 operations workers.
- Year 4 – Year 8: WAV accommodation required for an estimated maximum of 414 operations workers.
- Year 8 – Year 13: WAV accommodation required for an estimated maximum of 405 operations workers.

There is a large amount of WAV accommodation provided in the area surrounding the Project. This includes:

- the Civeo accommodation villages in Moranbah, Coppabella and Dysart;
- the Morris accommodation centre in Moranbah;
- the Buffel Park accommodation village;
- the Leichardt accommodation village; and
- the Ausco Dysart accommodation village.

Due to multiple proponents advancing projects in the region at time of SIA preparation along with the unavailability of public data on respective workforce accommodation arrangements, it is not possible to determine which WAV accommodation provider will be utilised for the Project's construction and operational workforces. In addition to the availability of required beds, a range of factors will be considered in determining the preferred WAV including a preference for WAV accommodation in Moranbah which facilitates positive interaction between the workforce and the local community. As there are multiple projects currently advancing near Moranbah, there may be limited supply of WAV beds, therefore necessitating consideration of WAVs located in Dysart and Coppabella.

The Civeo accommodation village in Moranbah provides over 1,200 rooms, the Coppabella Civeo village provides over 3,000 rooms and the Dysart Civeo village provides over 1,700 rooms. Considering the extent of supply, it is expected that the existing WAV accommodation options available in the surrounding area would meet the Project's construction and operational workforce requirements.

As outlined in section 5.2.5, in 2016, there was a large number of unoccupied housing stock in Moranbah (1,069 unoccupied houses out of total housing stock of 3,659 private dwellings), Dysart (574 unoccupied dwellings out of total housing stock of 1,385), and Coppabella (37 unoccupied dwellings out of total housing stock of 89). Whilst this would seemingly indicate that there is latent capacity in the local housing market, this is not the case. Firstly, a high proportion of unoccupied housing is of sub-standard quality- a product of being hastily constructed to meet an anticipated relatively short-term demand associated with a previous project or upcycle in the mining industry. Much of the housing contains asbestos which render it not economically feasible to renovate. Secondly, a considerable proportion is privately-owned by mining companies and therefore not released on to the mainstream housing market.

Lastly, housing in these communities has gone through periods of considerable fluctuation. Investors who bought at an elevated price are inclined to wait until the next 'boom' to sell and will not invest any further capital in the upkeep and renovation required to rent out the premises. As a result of these factors, the rental housing market is very tight—particularly in Moranbah. The recent increase in development activity around Moranbah has already resulted in substantial increases to rental prices as reported by numerous stakeholders engaged as part of the SIA.

Whilst the rental market has quickly constricted, there remains considerable elasticity in the purchase market. The median price for a three-bedroom house in Moranbah remains under \$380,000 and there has not been any notable upsurge in demand for the purchase of houses. Real estate agents and other stakeholders engaged as part of the SIA attributed this to a lack of investor and financier confidence in the market due to the extent of the downturn which occurred between 2011 and 2015, where houses lost over 60 per cent of their value. It was advised that this situation is subject to rapid change. Whilst there are multiple projects currently being advanced in the vicinity of Moranbah, these have not yet been fully committed by proponents. If a number of these move to development, it is likely there would be a resultant increase in property prices in Moranbah.

During the life of the Project, there will be an increase in population in the local study area due to the influx of the Project's workforce. As outlined above, this is predicted to equate to 68 additional households. Such Project-related demand for housing will generate both positive and negative impacts on the local housing market, including:

- **Increased business opportunities for housing and accommodation providers:** During the Project's construction and operation phases, there is likely to be a demand for short and long-term housing to accommodate non-resident workers. Housing and accommodation service providers in the local study area such as WAVs, rental houses, and short-term accommodation providers (including hotels and motels) will have the opportunity to economically benefit from the influx of the Project's construction and operation workers. Increased demand for housing and accommodation is likely to benefit landlords, homeowners, and accommodation providers through increased occupancy rates and rising rents. Increased economic prosperity for housing and accommodation businesses would potentially catalyse additional employment opportunities in the local study area.
- **Stimulation of housing investment:** The housing market in the local study area is still in the process of recovering following the collapse of property prices which occurred between 2011 and 2015. Investor confidence was severely diminished and many households in Moranbah and other local towns are faced with the predicament of having bought a house which subsequently lost a considerable proportion of its value. Such home owners are hoping that the value of the housing market will rise as a result of additional demand associated with projects such as Winchester South. Additional demand would further stabilise the local housing market and stimulate much needed investor confidence.
- **Reduced housing and accommodation availability:** As outlined above, the Project is expected to result in 68 additional households seeking to move to the local area, distributed over a ten-year period. Whilst such an increase in itself would not have any substantial effect on the availability of housing, it would add to the cumulative demand for housing which is emerging in the region. As further discussed under section 6.8, there are multiple projects currently being advanced in the Bowen Basin. Even if only some of these projects advance to development, there will likely be an upsurge in demand for housing which may quickly lead to a deficiency of supply.
- **Reduced affordability and accessibility of housing and accommodation:** Reduced affordability and accessibility of housing and accommodation in remote mining towns is a key impact often invoked by an upturn in commodity prices and increased mining activity. Baseline data indicates that lower-income households in Moranbah and Dysart are a key vulnerable group. For instance, as detailed in Section 5.2.3, the number of low-income households in Moranbah has increased by approximately 60 per cent over the five years to 2016 ABS Census. These low-income families reported earnings of below \$650 per week. Such households are likely to experience greater housing affordability stress due to changes in the property market. There is a potential for increased housing demand to adversely affect housing affordability and accessibility for disadvantaged individuals and families. During SIA consultation with stakeholders, reduced housing affordability and accessibility due to the new and expanding mining projects in the local area was raised as a key concern. An increase in housing and rental costs due to increases in the population and housing demand has the potential to lead to the economic hardship for lower-income rental market tenants who have less capacity to cope with increased housing costs. Accordingly, reduced housing affordability and accessibility could potentially result in increasing demand on social welfare and out-migration to lower cost communities.

To minimise impacts associated with workforce housing and accommodation, the Proponent intends to implement the following mitigation measures during the Project's construction and operation phases:

- Ensure the Project does not adversely affect the affordability and availability of housing in local communities through: (i) facilitating the construction of new housing in Moranbah dedicated for Project employees with a maximum of 20 – 34 houses; and (ii) provision of a financial contribution of \$500,000 over the Project life to the IAHT and/or ELAM for the construction of additional affordable housing in Moranbah.
- Reduce inflationary effects on the housing market in Moranbah through investing in permanent housing stock.
- Minimise effects on local housing market through maximising local employment as per the measures outlined in the Workforce Management Plan (WMP) within the SIMP.
- Actively engage and collaborate with the IRC and other stakeholders (such as through a Cumulative Impacts Reference Group) with respect to future accommodation requirements.
- Provide support to members of the workforce seeking to move to local communities including a housing register, connections advice and support networks. The 'Live Local Initiative' housing subsidy will be used as a mechanism to both encourage employees to live in local towns whilst also managing potential effects on the local housing market.
- Provide subsidised housing costs for members of the workforce who choose to live locally.
- Provide high quality workforce accommodation to non-resident personnel.
- Monitor workforce satisfaction with accommodation and take corrective actions as required.

6.5 Local business and industry procurement

This section assesses the potential impacts that Project-related business and supply chain opportunities may have for communities within the SIA study areas. Key findings are informed by the Economic Assessment which was completed by Deloitte Access Economics (Deloitte) (2021). The assessment provides a detailed analysis of the overall economic impact of the project on local and regional markets including a cost-benefit analysis and a regional impact assessment (Computer Generated Equilibrium) modelling.

The key social effects likely to be impacted by the Project that relate to local business and industry procurement include the following:

- Economic benefits for local and regional businesses due to opportunities to provide goods and services to the project. This will include targeted opportunities for ATSI-owned businesses.
- The potential to monopolise goods and services if the Project's demand exceeds the capacity of the local supply chain. This may impact residents of local communities by increasing costs and reducing availability of necessary goods and services.

The following describes these impacts.

6.5.1 Increased business / supply chain opportunities

The Project will generate opportunities for local and regional businesses to supply goods and services for the Project's construction and operation.

Construction

Capital costs over the life of the Project are estimated to be \$1,3 billion in net present value terms. This includes costs associated with construction activities, such as development costs and repayments made on leased mobile equipment, and land compensation costs and sustaining capital repayments.

During the construction phase, the Project will provide opportunities for the supply of a broad range of goods and services during this period, including:

- planning and design;
- site investigations;
- civil engineering;
- technical and trades;

- accommodation and hospitality;
- transport and logistics;
- training and development; and
- scientific analysis.

As noted in Section 5, Isaac and Mackay LGAs are key service centres for the mining industry, with some 16.4 per cent of the working population within the regional study area employed in the mining sector, compared with only 2.3 per cent in Queensland. The importance of the mining industry within the local study area is even more pronounced with 42.7 per cent of total jobs in Moranbah provided by the mining industry. This is consistent with feedback received from stakeholders such as IRC, DESBT and the Moranbah Traders' Association who also emphasised the importance of the industry to local businesses.

There is robust capacity within the local and regional study areas to provide many of the required goods and services for the Project. In the regional study area, there were 128 businesses registered in the mining industry and 1,699 construction businesses in 2018. Around 182 construction businesses and 24 mining businesses were registered in Isaac LGA. The Economic Assessment predicts potential revenue of up to \$4.9 billion in net present value terms (or 90 per cent of total capital and operating expenditure) to be available to the local and regional supply chain as a result of the Project (Deloitte, 2021). This is a significant benefit to local and regional businesses which the Proponent will seek to enhance by implementing procurement policies that encourage local content and are consistent with the *Queensland Resources and Energy Sector Code of Practice for Local Content*.

In addition to beneficial business opportunities, large resource projects have the potential to monopolise goods and services if project demand exceeds the capacity of the local supply chain. This may negatively impact residents of local communities by increasing costs and reducing availability of necessary goods and services (for example, trade services such as electrical and mechanical). In addition to directly sourcing specific skills, the objective to maximise local employment and the provision of training opportunities may also result in local residents taking advantage of such opportunity and choosing to leave non-mining related employment in favour of mine employment. This can result in acute local labour shortages and situations such as that which occurred in Moranbah whereby at the height of the previous boom period McDonalds were forced to hire staff on a FIFO basis.

Operations

During the operational phase, the Project will continue to provide opportunities for the supply of goods and services including:

- mechanical engineering;
- business support;
- technical and trades;
- accommodation and hospitality;
- cleaning and property maintenance;
- recruitment and human resource management;
- transport and logistics;
- training and development; and
- site rehabilitation and restoration.

As described above, the Economic Assessment predicts that approximately \$4.9 billion in net present value terms would accrue to suppliers in Queensland. Additionally, it is estimated that an increase in disposable income of up to \$202 million in net present value terms would accrue to workers in the region, as a result of comparisons between the average wage for the mining industry relative to the average wage in the region (Deloitte, 2021). These economic effects are expected to be a significant benefit to businesses within both the local and regional study areas.

The potential for the Project to create economic opportunities for individuals, businesses and associations was identified in engagement undertaken as part of the SIA as a positive Project effect. Key recommendations received from stakeholders which have also been incorporated into Local Business and Industry Procurement Plan (LBIPP) within the SIMP include:

- give specific consideration to opportunities for small-to-medium enterprises (SMEs), as they are the sub-sector most impacted by changes in the mining industry;
- ensure that contractors have the same commitment to local content as proponents; and
- engage with local industry forums and business development programs such as the Major Project Supply Chain Development Program, the ICN, the RIN, the Local Content Leader's Network, and the Bowen Basin Mining Club.

The Proponent is committed to maximising opportunities for local businesses to provide goods and services to the Project. The Proponent is also committed to providing opportunities for Indigenous businesses to access supply chain opportunities. During SIA consultation, the DATSIP highlighted the importance of structuring procurement contracts in a way that enables Indigenous businesses to access them. The Proponent has committed to developing a register of capable Indigenous businesses and will continue to engage with DATSIP and the DESBT to develop a detailed Project specific Indigenous Content Strategy.

The following enhancement measures have been designed by the Proponent to ensure that local business and industry has the opportunity to benefit from the Project:

- Maximise opportunities for local business, especially SMEs to provide goods and services to the Project by:
 - Preparing and adopting a procurement policy and plan consistent with relevant regulations (e.g. *Queensland Resources and Energy Sector Code of Practice for Local Content* and *Australian Industry Participation Framework*). The costs associated with the development and implementation of such plans will be met by the Proponent.
 - Collaborating with Moranbah Traders Association, Local Content Leaders Network and the RIN and any other appropriate stakeholders in establishing a local supplier listing tailored to the Project.
 - Maximising opportunities for local business to provide goods and services to the Project.
 - Preparing and maintaining a Local and Regional business register for internal use and distribution to all major contractors.
 - Publishing details of procurement opportunities and procurement approach on website.
- Reduce barriers to entry for local businesses by:
 - Developing and implementing a local supplier prequalification process and enable low value transactions with local businesses rather than through complex tendering processes.
 - Categorising procurement streams according to risk and tailor insurance requirements so that local businesses are not precluded from tendering for opportunities.
- Facilitate Indigenous businesses access to supply chain opportunities through the following actions:
 - Identifying Indigenous businesses in the local and regional area (Indigenous business register) and establish and maintaining contact.
 - Facilitating and supporting delivery of a tender readiness program for Indigenous businesses in collaboration with the Barada Barna Aboriginal Corporation, DESBT, DATSIP and any other appropriate stakeholders.

6.6 Health and community well-being

The Project has the potential to generate a range of health issues and affect the capacity of health and social services to meet the requirements of the community. Project induced population change can indirectly affect accessibility and capacity of social infrastructure and community facilities. Conversely, mining activity can also provide the population stimulus required to maintain or expand social infrastructure and services. This section assesses the potential impacts, both positive and negative, of the Project on the physical and mental health of local community as well as potential effects on socio-cultural wellbeing. The effects likely to be impacted by the Project that relate to community health and socio-cultural well-being include the following:

- Changes in resident and non-resident population due to the Project's workforce requirements and priority for local and regional workers.
- Enhanced community resilience through financial and in-kind contributions to community development initiatives.
- Disruption to community cohesion, sense of place and cultural identity due to workforce integration.
- Increased demand for social infrastructure (including early childhood education and care services, hospital and health services, and emergency services) by the Project workforce, resulting in increased burden for service providers and reduced level-of-service for existing residents.
- Amenity and health impacts experienced by surrounding landholders and nearby communities due to fugitive dust emissions.
- Amenity and health impacts experienced by surrounding landholders due to increased noise and vibration from activities such as earthmoving and blasting.
- Impacts on mental health for community members.
- Amenity impacts for community members due to increased project-related traffic, resulting in increased congestion and road surface impacts.
- Public safety affected by increased exposure to anti-social or illegal behaviours by members of the Project workforce.
- Community safety affected by increased likelihood of vehicle collisions and associated injuries due to increased volume of heavy vehicles and driver fatigue.

The following describes these impacts.

6.6.1 Population changes

As outlined in Section 6.4, it is predicted that the construction phase of the Project would not result in any members of the non-local construction workforce moving on a permanent basis to the local area. Subsequently, effects on the health and well-being of local communities is limited to that associated with a non-resident workforce of up to 465 workers. As these are expected to be accommodated at existing camp facilities, the overall level interaction of the construction workforce with local communities is unlikely to be extensive.

Project operations will occur over 28 years and require a workforce of 500 workers to be based at site. It is predicted that up to 50 operations workers may be sourced from the existing labour force of the local area (communities of Moranbah, Dysart and Coppabella). Of the remaining 450 operations workers, it is predicted that 15 per cent of the operations workforce would seek to move to the local area. This equates to 68 additional households. Applying the existing average household size in Moranbah of 2.8 persons per household, the total predicted population increase associated with the Project equates to 190 persons. Due to the services and amenity offered in Moranbah relative to other local communities (Dysart and Coppabella), it is assumed that 100 per cent of population growth directly stimulated by the Project would occur in Moranbah.

As outlined under Section 6.4, not all population growth would occur upon the commencement Project operations. It is predicted that 60 per cent of total workforce movement to the local area would occur at the commencement of operations, with a further 20 per cent in the first five years of operations and the final 20 per cent between Project year 8 and Project year 13. The temporal distribution of population growth predicted to occur in Moranbah is therefore:

- Year 3 – Year 4: Additional 114 persons which represents growth of 1.3 per cent.
- Year 4 – Year 8: Additional 38 persons which represents growth of 0.4 per cent.
- Year 8 – Year 13: Additional 38 persons which represents growth of 0.4 per cent.

6.6.2 Contribution to social capital building and community resilience

Key attributes supporting social and economic resilience in the local study area (including Moranbah, Dysart and Coppabella) and the broader Isaac LGA include high workforce participation, a strong skills base, strong social networks and inter-connectedness between residents. Local stakeholders engaged as part of the SIA described the benefits which result from people moving into the community permanently as opposed to that which results from non-resident workforces. The preference is for people to live in the community. This allows community connections to grow and fosters commitment to the sustainability of the towns. Wages are spent within the local economy which supports local businesses, diversifies the local economy, and generates local employment opportunities.

The Project is likely to positively contribute to population retention and growth in the local study area though the generation of employment opportunities for local residents. The Project will prioritise recruitment of existing Moranbah, Dysart and Coppabella residents where available and encourage workers to relocate to the towns. As a result, these local towns will experience positive population change. This population growth will indirectly result in improved community vitality and resilience, and functioning of social infrastructure and community services.

The Proponent is also committed to implementing the 'Live Local' initiative to encourage workers to relocate to the local community, which would contribute to positive population growth. The Live Local initiative offers subsidised housing costs for members of the workforce who choose to live locally. Those who participate in the Live Local initiative will be provided with a Welcome Pack, which will detail what services are available in town, including community clubs, businesses and recreation areas to foster integration into the community. The Live Local initiative may also include provision of a mentoring program, pairing an existing resident worker with a new local resident worker in order to introduce the new local resident worker to the town and its services.

To further enhance the contribution of the Project to building social capital and community resilience, the Proponent is committed to directly contributing to community development initiatives through supporting population growth, increasing demand for local businesses' supplies, and increasing the number of people participating in community and recreational activities. The suitable contributions will be identified through ongoing engagement with community stakeholders and may include contributions to health facilities, mental health programs, recreational opportunities and various other social services required by the community.

The Whitehaven Community Fund, which is already established, will directly contribute to community development initiatives. Funds will be made available on an annual basis, with funding to be decided on merit, based on the detail provided by the applicant in response to stipulated criteria. Details about the Whitehaven Community Fund and how to apply will be made available on the Project's website.

In summary, the Project proposes to implement the following measures to protect and enhance social capital and resilience:

- Directly contribute to supporting community culture and well-being through the Whitehaven Community Fund which invites community organisations to apply for annual funding.
- Implement a recruitment hierarchy which prioritises employment of local residents.
- Collaborate with Queensland Police Service, camp accommodation providers and other stakeholders to identify and address any anti-social or disruptive workforce behaviour in local communities.

6.6.3 Disruption to community cohesion, sense of place and cultural identity due to workforce integration

During construction, around 475 construction workers and 400 operation workforce will be sourced from the regional study area. These workers would be accommodated at WAVs located in Moranbah, Dysart or Coppabella. An increase in non-resident workers in the local study area is likely to bring both negative and positive impacts to the community. An increase in non-resident workers may catalyse greater participation in community events and groups, such as sporting groups, indirectly enhancing community connectedness. On the other hand, as a result of sourcing non-resident workers, the Project has the potential to result in increased rates of anti-social behaviour which can lead to a deterioration of community cohesion, sense of place and cultural identity.

The safety and security of local residents, particularly in Moranbah, may be impacted if there are instances of anti-social or illegal behaviour from workers such as dangerous driving, assault, disorderly behaviour or facilitating prostitution. Feedback provided in the course of SIA engagement suggested that such behaviour is more commonly associated with non-resident (rather than resident) workers, however as noted by Carrington et al. (2012), the actual extent of these behaviours remains difficult to quantify objectively. In addition, there is also the potential for inequalities to be felt within Moranbah, Dysart and Coppabella communities due to the payment of higher wages in the mining sector. This exacerbate intra- and inter-community tensions due to perceived distribution of employment benefits. Regardless of the veracity of the concerns, the presence of non-resident workers in local communities may cause increased community tension and negative sentiment towards the Project.

The Proponent is committed to work with IRC to provide a community integration process for new employees and their families to assist with community integration. The Proponent will also seek to mitigate such potential impacts through development and implementation of an employee code of conduct which describes positive behavioural outcomes and prohibits negative behaviours, establishing expected standards of behaviour with clear ramifications for non-conformance. The Proponent will investigate and respond to any complaints received via the complaint management procedure (Section 7.6.4). The Proponent is also committed to hosting specific events for FIFO/DIDO workers within Moranbah to facilitate positive interactions with the community.

Based on the above analysis, it is assessed that the significance of the impact experienced by the local communities by the influx of Project workers during the construction and operation phases would be minor. Overall, it is expected that members of the project workforce will benefit the community, as those workers and their families who choose to reside in local communities contribute to the vibrancy of towns.

6.6.4 Increased pressures on social infrastructure and services

Social infrastructure, facilities and services play an important role in supporting the health and well-being of communities. In the course of SIA engagement, concerns were raised about the potential impacts the Project might have on social infrastructure and services. These concerns were mainly focused on a desire from the local communities to better understand the rate of likely population increase so that social infrastructure and services could be adequately planned for such change. Given the increase in the population in the local study area due to the influx of the Project workforce, it is anticipated that there will be impacts experienced, including increased pressure on the following community infrastructure and services:

- early childhood education and care services;
- hospital and health services; and
- emergency services.

The following subsections describe these impacts.

6.6.4.1 Increased pressure on early childhood education and care services

A recurrent issue raised throughout the SIA engagement was the current shortage of childcare services. Childcare is in a critical state of under-supply, with the lack of availability affecting the ability of families to access employment opportunities, providing a barrier to genuine choice of settlement in the Isaac Region and reducing skilled labour availability and female workplace participation rates.

As at March 2020, there were five early childhood education and care services in Moranbah including family day care, a kindergarten, long day care, school aged care and limited hours care. In terms of enabling a parent to participate in employment, the availability of long day care services is the most important. To receive the Federal government childcare rebate, the child must attend a registered childcare centre. There are two long day care centres in Moranbah - Simply Sunshine and Moranbah Early Learning Centre. The waiting list for both centres is approximately 90 children.

As at September 2019, in Dysart, there were three childcare services including Lay Gowrie Day Care Centre, Dysart Kindergarten C&K and Playgroup Queensland (see Section 5.3.5.2). Whilst Lady Gowrie Day Care Centre had capacity for 39 children per day, Dysart Kindergarten C&K had capacity for 50 children. There were no children on waiting lists for the facilities in Dysart.

There are multiple reasons why there is shortage of childcare in Moranbah and Dysart and the market has not readily responded to meet demand. These include:

- There was previously another childcare centre (Altitude Kids Childcare) in Moranbah which had capacity for up to 200 children. The centre closed in 2011 due to unprofitability and investors are now subsequently cautious.
- It is difficult to attract and maintain staff- particularly for long day care. This issue is exacerbated by recently introduced qualification requirements for child care staff. All premises must have one or two Bachelor degree qualified staff and there is an under-supply of such staff and therefore, competition is very high. The ability to attract staff is made more difficult by comparatively high living costs.
- Childcare centres are very expensive to build and expand as they need to meet stringent government specifications. Construction skills are also in demand and subsequently building costs are relatively high in the local study area.
- Demand has only recently substantially outstripped supply. Until mid-2018, centres were running at around 70-80 per cent capacity. Demand for childcare services has increased rapidly in 2019.
- Alternative options to 'non-institutional' childcare alternatives such as stay at home day care do not attract the government childcare subsidy. Therefore, demand for subsidised places at accredited centres is strong.

With regard to the impact of the Project on childcare, during the construction phase, it is not likely that any of the 465 non-resident construction workforce would bring their family members to the area considering the construction period is relatively short (two years only). Accommodated at WAVs, the construction workforce would not result in any discernible increase in demand for childcare. Accordingly, the impact on the childcare during the construction phase is considered to be negligible.

During the Project's operation, it is predicted that the Project would directly induce up to 68 additional households (15 per cent of the total non-resident operation workforce) to seek permanent residence in Moranbah. Conservatively assuming that 25 per cent of these households would seek childcare services for one child, total additional demand potentially attributed to the Project would be up to 17 childcare places. It should be noted that this additional demand would not occur immediately. Relative to the current rate of long day care service supply in the local study area (265 places in total, with 176 and 89 places in Moranbah and Dysart, respectively), the Project would add additional demand equating to 6.4 per cent. Accordingly, the impact on childcare services during the operation phase is considered to be of moderate significance.

In recognition of the challenges associated with the provision of early childhood education and care services and appreciating the additional demand which the Project may stimulate for such services, the following mitigation measures have been proposed by the Proponent:

- Collaborating with the IRC to determine the most effective contribution which may be made to a childcare solution (maximum of \$200,000 within Years 1 – 5 of the Project).
- Monitoring workforce demands on childcare and education services and working with IRC to support solutions to cumulative demands on social services.
- Communicate with relevant stakeholders (including IRC and childcare providers) in managing the potential impacts associated with increased population resulting in additional pressures on the existing early childhood education and care services.

6.6.4.2 Increased pressure on hospital and health services

The Isaac region is serviced by hospitals at Moranbah, Dysart, and Clermont and a nurse-led Community Health Centre at Middlemount. Both residents and non-resident workers rely on Moranbah's health infrastructure, including the GPs and allied health. In Moranbah hospital, the demand for beds fluctuates. Patients who require treatment beyond basic services (such as births, higher order health issues, and serious injuries) are sent to regional hospitals, the nearest being Mackay Base Hospital. There are two GP services in Moranbah, both of which are private and do not bulk bill; however, the GPs from Sonic HealthPlus also service the Moranbah Hospital.

In the course of SIA engagement, it was reported that Moranbah hospital does experience demand for services from non-resident workers. This hospital receives people from mining projects coming in for relatively minor ailments and sometimes seeking a sick leave certificate. This unnecessarily burdens already stretched resources. Also, it was further reported that there are issues around substance abuse/alcohol abuse and domestic violence which leads to additional presentations at the Moranbah hospital.

During the SIA consultation, some stakeholders further raised a concern over the potential to increase pressure on existing healthcare services due to the influx of mining workers from all the projects in the area. It was highlighted that Moranbah continued to be under-resourced with regard to health services. It was advised that the Moranbah Hospital was severely under-resourced and under-staffed. The representative from Queensland Police added that the need to escort transferrals to Mackay or Rockhampton placed an additional demand on finite resources. The Council advised that attracting staff was a constant struggle for service providers in the region. There was a need to incentivise staff attraction through the provision of housing and higher wages, which put additional strain on budgets. However, engagement with GPs located in Moranbah in June 2020 identified there were no issues associated with residents being unable to readily access GP services. During the Project's construction and operation phases, the influx of the workforce may impose additional demand on hospital and health services in the Project region. Of the 500 person construction workforce, 465 workers would be sourced from outside the local area. These workers will be housed in WAVs where there will be an on-site medical and nursing staff attending to medical condition. In addition, although the number of non-resident construction workforce is relatively high, the construction period is short. As such, it is expected that the local community's health care services due to the influx of construction workforce will only be marginally affected.

The increased pressures on the existing healthcare services are more likely to arise during the operational phase of the Project. It is anticipated that during operation, the Project will have an on-site medic and the WAVs will have basic health amenities. As previously anticipated, the Project would create up to 450 long-term operations positions for non-local workers. Of this, it is anticipated that 15 per cent (equivalent to 68 workers) of the operation workforce would relocate and become new local residents in the local study area. Given the average number of people per household in the local study area was 2.8, it is estimated that the Project has the potential to increase the population in the local study area by 190 people; all of whom would reside in Moranbah. Given the current population in the local study area, it is considered that the estimated number of operation workforce within the local study area has the potential to place pressure on the existing hospital and health services. The impact associated with increased pressure on hospital and health services is considered to be moderate during the Project's operation phase.

Recognising that the Project may occasionally contribute to demand for hospital services, non-resident employees demand on health services will be mitigated through the implementation of measures including:

- Reduce additional demands on local health services through provision of on-site first aid facilities for workers with appropriately trained personnel available that can assist with attending to minor workforce health issues, as well as providing first response services for emergency situations and site accidents.
- Providing contribution as required to address identified equipment deficiencies (maximum of \$50,000 between Year 1 and Year 5) through partnering with the Moranbah Hospital, Moranbah and District Mental Health Service and other key health service providers.
- Support the establishment of and participate in a Moranbah Cumulative Reference Group⁹, which is appropriately represented across government and industry providing a forum for a partnered approach to cumulative effects.

6.6.4.3 Increased pressure on emergency services

Police are the front-line emergency service provider and there is a relatively well-resourced police station in Moranbah which also services a large proportion of the broader region. There are small, semi-serviced police stations in Dysart and Nebo. There is an ambulance and fire service based out of Moranbah, however, these are administratively run out of Mackay.

⁹ At time of completion of the SIA, there was no Moranbah Cumulative Reference Group in existence.

The increased number of residents during the construction and operation phases may lead to increased pressure on the existing emergency services in the local study area. During the Project's construction phase, there is potential for accessibility for emergency services to be impeded. An increase in traffic may increase demands on emergency services such as fire, police, and ambulance services. Accessibility and response times for emergency services may be impacted due to increased traffic. Large and oversized loads delivering construction materials and machinery to the construction site may cause occasional delays to response time. Increased demand on police services might also result from the Project requirement for oversized vehicle escorts. Since the Project requires a construction of a new open cut coal mine and coal processing infrastructure, the nature of the Project construction activities are comprehensive. Although the construction period time is short, it is considered that the Project's impact on emergency services during the construction phase is moderate. During operations, demand on emergency services is anticipated to be moderate.

To reduce any potential impacts on emergency services, the following mitigation measures will be implemented:

- Provision of on-site first aid facilities for workers with appropriately trained personnel available that can assist with attending to minor workforce health issues, as well as providing first response services for emergency situations and site accidents.
- Monitor staff access to emergency services.

6.6.5 Impacts on community health and safety

The following discusses potential impacts relating to community health and safety. Impacts considered in this section include:

- Amenity and health impacts for surrounding landholders and nearby communities due to fugitive dust emissions.
- Amenity and health impacts for surrounding landholders due to increased noise and vibration from activities such as earthmoving and blasting.
- Impacts on mental health for community members.
- Amenity impacts for community members due to increased project-related traffic, resulting in increased congestion and road surface impacts.
- Impacts associated with community safety including public safety and traffic-related safety.

6.6.5.1 Dust

Dust will likely be generated by the Project's construction and operation activities. Activities include general construction activities (such as loading and unloading goods and materials and construction of structures at the Project site); cleaning and earthworks (including land clearing, excavation and trenching); and mining (such as soil stripping, backfilling, stockpiling, mining related excavating, and ore processing activities). Increased dust is possible to occur within or in proximity to the Project site and can be a nuisance to the local communities living close by. In addition, dust has been linked to health impacts such as the effects of asthma.

In engagement to inform the SIA, it was reported that dust has long been, and continues to be, a key issue of concern to residents. Some stakeholders expressed concern that mines had recently moved closer to residential areas which may be directly contributing to dust problems in Moranbah. It was reported that there had previously been the Moranbah Cumulative Impacts Group (MCIG) which focussed on measuring and managing dust and that this had resulted in the installation of dust monitoring stations around town. There were concerns that the MCIG ceased to operate in recent years and that there had not been regular and reliable reporting of dust monitoring data to the community.

An Air Quality and Greenhouse Gas Assessment was completed as part of the Winchester South EIS. The assessment investigated the potential for the Project to affect air quality in the region and considered the potential impacts of the Project in isolation and with the inclusion of representative background levels of dust at nearby sensitive receptors.

The findings were as follows:

- Predicted concentrations of Total Suspended Particulates comply with the relevant air quality objective at all sensitive receptors, in all modelled Project scenarios, in isolation and cumulatively.
- Predicted 24-hour average and annual concentrations of particulate matter with a diameter of 10 micrometres or less (PM₁₀) due to the Project in isolation comply with the relevant air quality objectives at all sensitive receptors, in all modelled Project scenarios, with the application of the proposed proactive dust management system.

- Predicted cumulative concentrations of PM₁₀ were found to be elevated at the closest sensitive receptor¹⁰ and comply with the relevant air quality objectives at all other sensitive receptors.
- Predicted 24-hour average and annual concentrations of particulate matter with a diameter of 2.5 micrometres or less (PM_{2.5}) due to the Project comply with the relevant air quality objective at all sensitive receptors, in all modelled Project scenarios, in isolation and cumulatively.
- Predicted dust deposition rates due to the Project comply with the guideline at all sensitive receptors, for all modelled Project scenarios, in isolation and cumulatively.

Based on the outcomes of the Air Quality and Greenhouse Gas Assessment, predicted increases for all pollutants would be small and would be below respective air quality assessment criteria with the exception of cumulative concentrations of PM₁₀ at the closest sensitive receptor. Therefore, it is unlikely that air quality impacts specifically associated with the Project would affect the lifestyle and health of the local communities as air emissions from the Project's construction and operation would not exceed the relevant criteria. However, it is recognised that the community holds concerns as to the cumulative generation of dust to which the Project may contribute. The Proponent intends to implement the following mitigation measures to reduce any potential dust-related impacts:

- Develop and implement an Air Quality Management Plan which would include detailed mitigation measures to reduce dust generating activities in accordance with a trigger, action, response framework, dust suppression and monitoring.
- Monitor dust effects in accordance with environmental authority requirements and regularly communicate results with the local community.
- Participate in any Cumulative Reference Group assessing and monitoring cumulative dust emission, including potential contributions to additional dust monitoring stations.
- Implement a complaints mechanism to identify, track and remediate (in accordance with any conditions of the environmental authority) community complaints associated with dust generating activities from the Project's construction and operation phases (refer to Section 7.6).

6.6.5.2 Noise and vibration

Noise and vibration will likely be generated as a result of construction and mining activities. Sources of noise and vibration for this Project include vehicle noise, general construction activities, drilling and blasting of overburden/waste rock materials, and other mining activities. Increased noise and vibration can reduce the amenity value of an area and can disrupt the community activities such as sleeping or recreational pursuits. Several studies show that disruptions associated with noise and vibration levels (such as sleep disruptions) have been linked to increases in depression and anxiety (Hong et al., 1994; Department of Health, 2018). It is noted during the SIA consultation that increased noise and vibration were not identified as a concern.

A Noise and Vibration Impact Assessment was completed as part of the EIS. This assessment considered potential noise and vibration impacts of the Project during the construction and operational phases. The Project site is located within a sparsely populated area where the main land uses are large acreage grazing properties and mining activities. The nearest residential sensitive receptor is located approximately 2.8 km from the proposed CHPP.

The Noise and Vibration Assessment concludes that the noise levels are predicted to exceed the relevant noise objectives at the Olive Downs homestead (i.e. the closest sensitive receptor) by up to 5 A-weighted decibels (dBA) (neutral weather conditions) and by up to 12 dBA (adverse weather conditions). Operational noise levels are also predicted to marginally exceed the low frequency noise limit at the Olive Downs homestead by up to 2 Z-weighted decibels (dBZ) (neutral weather conditions) and by up to 4 dBZ (adverse weather conditions). Accordingly, Whitehaven WS would negotiate with the land owner regarding an agreement to implement acoustic treatment of the building or other suitable measures.

¹⁰ Whitehaven WS would negotiate with this landholder regarding a compensation agreement.

Given the sparsely-populated locality of the Project site, it is anticipated that noise impacts would only affect direct and adjoining landholders during the construction and operation phases. Impacts associated with vehicle noise will have a moderate significance due to the anticipated frequency of the impact during the construction and operation. Noise derived from construction activities is considered to be a moderate impact due to the lack of noise buffers and the proximity of sensitive receptors (such as the Olive Downs homestead) to the potential impact during the construction and operation. During operation, it is anticipated that mining activities will run on a 24-hour basis. Noise associated with mining activities is considered to be an overall low impact during the Project operation phase.

To minimise potential noise impacts on social amenity, lifestyle and health during the construction and operations, the following mitigation and management measures are designed to be undertaken:

- Monitor and manage noise and vibration in accordance with environmental authority requirements and regularly communicate results with the local community.
- Implement a complaints mechanism to identify, track and remediate (in accordance with any conditions of the environmental authority) community complaints associated with noise and vibration generating activities from the Project's construction and operation phases (refer to Section 7.6).

6.6.5.3 Mental health

Mental health is affected by various factors such as individual, social and environmental aspects. According to Mental Health Australia (2018), mental health is a pervasive issue with one in five Australians experiencing a mental health issue in their lifetime. The most common mental health-related illnesses are depression, anxiety and substance abuse disorders. Environmental factors can increase risk of mental illness, such as trauma and stress. Anxiety is the most common mental health condition in Australia and can have a temporary or prolonged effect on an individual's quality of life and day-to-day functioning.

As discussed under Section 6.3.5, worker well-being is an ongoing responsibility for employers. In towns such as Moranbah, Dysart and Coppabella where a very high proportion of households have a member who works in the mining sector, workforce mental health issues translate directly into the community. During the consultation with Isaac LGA elected representatives, it was highlighted that mental health is one of the key issues being faced by the community and was an ongoing challenge. It was reported by social service providers engaged as part of the SIA that mental health, domestic violence, and suicide prevention were key areas of concern in local communities. It was further noted that patterns of workforce behaviour had an influence upon mental health outcomes. The pervasive shift work mentality of 'work hard/ play hard' resulted in heightened alcohol and substance abuse with resultant effects on mental health for both the workers and their families. Shift scheduling and rotations also have an influence with 12 hour shifts leading to mental and physical fatigue.

Local and regional social service providers reported a need for further investment mental health and suicide prevention initiatives. Mental health support services within the SIA study areas are limited and demand for these services is growing. Living locally was seen as having a major positive effect on mental health support as it enables people to participate in the community and build connections and support networks. Given the potential of the Project to source workers from the region, including Mackay, it is recognised that mental health issues and incidences of domestic violence may increase in these areas.

Whilst the Project would not result in substantial population increases, as a local employer, the Project would contribute to mental health outcomes. In recognition of this, the Proponent proposes to implement the following measures:

- Support positive mental health outcomes through providing a contribution of \$30,000 per year for the life of the Project between local and regional mental health, domestic violence and suicide prevention programs including MDSS, ELAM Headspace and the Isaac Suicide Prevention Network.
- Actively manage all aspects of workforce health and safety through implementation of the Whitehaven Coal Health and Safety Management System.
- Actively manage worker fatigue through implementation of the Whitehaven Fatigue Management Standard and associated Fatigue Assessment Form and Fatigue Risk Assessment Chart.
- Develop and implement a CSEP which includes a complaints management process and provision of timely information to communities (refer to Section 7.6).

6.6.5.4 *Amenity impacts for community members due to increased Project-related traffic, resulting in increased congestion and road surface impacts.*

The potential transport and traffic impacts of the Project have been considered during the construction, operation and closure phases as part of the EIS.

The Road Transport Assessment describes the following roads would be used for accessing the Project:

- Peak Downs Highway;
- Peak Downs Mine Road;
- Saraji Road;
- Moranbah Access Road (and Goonyella Road north of the Mill Avenue intersection);
- Mills Avenue (and some other roads within Moranbah including, Curtin Street, Belyando Avenue and Acacia Street);
- Eagle Downs Mine Access Road; and
- Winchester Access Road (including the adjoining former Dysart Road) (for the first six months of the Project).

Under base conditions without the Project, the intersections that would be used by Project traffic are anticipated to operate at acceptable levels of service, with the exceptions of Moranbah Access Road with Mills Avenue, and Goonyella Road with Curtin Street that would require upgrades without the Project.

With the Project traffic and upgrades to accommodate base conditions, the resulting operation of all intersections would be acceptable. No infrastructure works would be required to accommodate the Project related traffic beyond construction of the intersection of the Mine Access Road with Eagle Downs Mine Access Road. It is noted that perceived traffic delays may lead to frustration and anxiety for commuters, especially when congestion occurs for long periods of time, however, this was not identified as a concern during the SIA consultation.

The Road Transport Assessment considered the pavement impacts on SCRs of the Project and identified the Project would only exceed base standard axle repetitions (SARs) by more than 5 per cent, during the short-term construction phase. Notwithstanding, pavement impacts on road surfaces were not identified as a concern during the SIA engagement.

The following mitigation and measures will be implemented in order to manage perceived amenity impacts for community members due to increased project-related traffic:

- Use of shuttle buses to transport workers from the proposed WAVs to the Project.
- Coordinate vehicle movements for delivery of materials and equipment on access roads.
- Install temporary traffic control measures and signage for safe movement of vehicles.
- Notify stakeholders of any material Project traffic-related activities (such as road closures due to road works) and implement a complaints mechanism to identify, track and remediate (in accordance with any conditions of the environmental authority) community complaints associated with traffic generating activities from the Project's construction and operation phases. This forms part of the CSEP (refer to Section 7.6).
- Implement a complaints mechanism to identify, track and remediate (in accordance with any conditions of the environmental authority) community complaints associated with traffic generating activities from the Project's construction and operation phases (refer to Section 7.6).

6.6.5.5 *Community safety*

Potential Project impacts associated with community safety relate to both public safety and traffic-related safety as outlined below.

- **Public safety affected due to increased exposure to anti-social or illegal behaviour of the workforce members:**

Available secondary data (refer to Section 5.5.5) along with feedback generated through SIA engagement suggest that local towns are relatively safe communities. Recorded rates of crime in the Isaac region are not high compared to rates for Queensland. Within the Isaac LGA, Moranbah recorded the highest number of reported offences compared to other local towns with a majority of infringements relating to traffic, domestic violence and drug-related offences.

During the SIA consultation, stakeholders engaged to inform the SIA reported that whilst there were occasional issues, generally it was a safe community. It was specifically mentioned that the 'assault-free zones' initiative has worked well to improve safety in public spaces.

The influx of non-resident workforces into a community can have an effect on perceived safety. Public safety could be affected by increased exposure to anti-social or illegal behaviours of members of the Project workforce. Given the size of the construction and operational workforce of the Project, the impact on public safety is expected to be moderate.

To avoid impacts on community safety, the Proponent proposes to implement the following mitigation measures:

- Require all members of the workforce to abide by a stringent code-of-conduct which describes positive behavioural outcomes and prohibits negative behaviours, with clear ramifications for non-conformance.
 - Investigate and respond to any relevant complaints that are received via the complaint management procedure.
 - Establish ongoing consultation and collaboration with police, camp accommodation providers and other local stakeholders to identify and address any antisocial or disruptive workforce behaviour in local communities.
 - Develop and implement a CSEP which includes a complaints management process and provision of timely information to communities.
- **Road safety: Increased likelihood of vehicle collisions and associated injuries due to increased volume of heavy vehicles and driver fatigue.**

The Road Transport Assessment describes a range of road safety risks associated with the Project, as well as a comprehensive set of mitigation measures.

Stakeholders engaged as part of the SIA reported concerns about traffic accidents and offences due to increased volume of heavy vehicles and driver fatigue. It is noted during the SIA consultation with Moranbah Police Station that traffic was a major issue and there were frequent incidents in the area. There was a recent increase in the frequency of heavy vehicle movements which required police escort as mining activity was ramping up. Highways and SCRs received a lot of traffic associated with DIDO workforce from Mackay along with heavy vehicle movements.

Participants in the SIA consultations with Moranbah Police Station, Dysart Police Station and Queensland Ambulance Services also highlighted that driver fatigue seemed to be a major cause of accidents. For example, representatives of Queensland Ambulance Services articulated that mining workers were working very long shifts and alternating between day and night shifts, causing several resultant accidents in the area. As outlined in Section 5.5.5.2, cumulative traffic volumes of mining projects have led to ongoing road safety issues in the Isaac LGA, with particular concern about the Peak Downs Highway's poor safety record.

Based on the above analysis, the Project has the potential to increase likelihood of vehicle collision and associated injuries due to increased volume of heavy vehicles and driver fatigue. The most significant effect associated with the Project is the perception by members of the community that there would be increased risk of traffic accidents. Feeling unsafe can influence levels of anxiety and can be a barrier to community participation and assessing services. To minimise these traffic-related risks, the Proponent proposes to implement the following mitigation measures:

- Use of shuttle buses to transport non-local workers from WAVs to the Project, to minimise the Project-related traffic on the road network.
- Coordinate vehicle movements for delivery of materials and equipment on access roads.
- Install temporary traffic control measures and signage for safe movement of vehicles.
- Signposting speed limits on the private access roads for the Project (i.e. Mine Access Road and Winchester Access Road), as well as Eagle Downs Mine Access Road approaching the access intersections.
- Education of the workforce through inductions on road safety.

- Transport hazardous and dangerous goods in compliance with requirements of the Whitehaven Hazardous Chemicals and Dangerous Goods Standard.
- Implement a Fatigue Management Standard for workers including a swipe card system to monitor hours worked, use of buses to transport workers and coordinated car-pooling arrangements.

The Road Transport Assessment describes that changes to the risk profile within the assessment area were generally identified to result from increases in traffic volumes. However, with the implementation of mitigation measures the Project is expected to meet the desired outcome of no significant worsening of road safety at any location on the SCR network, nor on the local roads that would be used by Project-related traffic.

6.7 Manned operations workforce scenario impact assessment

This section presents the analysis of potential impacts which may occur as a result of the manned operations workforce scenario. Under the manned operations workforce scenario, the Project does not proceed with automation. The operations workforce is estimated to be up to 750 employees rather than the 500 site-based employees under the base case of assumed automation of some Project elements. Figure 6-1 depicts the estimated number of employees required for each scenario.

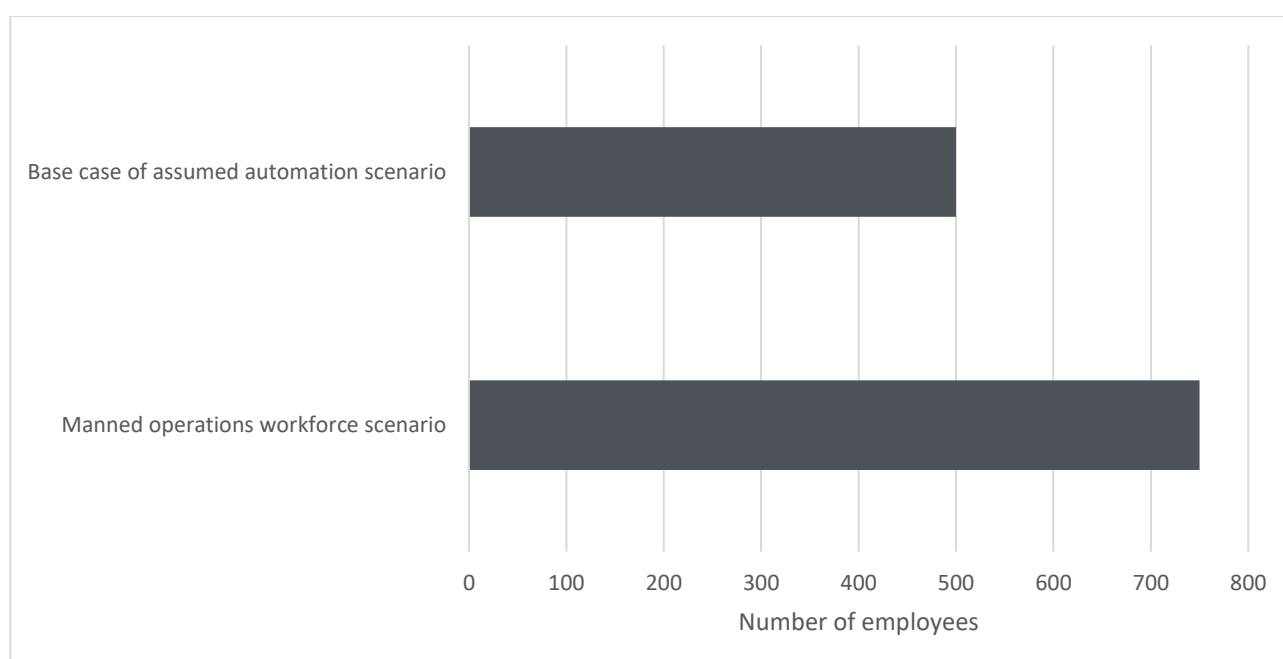


Figure 6-1 Estimated employment numbers across scenarios

All impacts identified for the base case also apply to the manned operations workforce scenario; however, the assessed significance of some identified impacts is altered under the manned scenario. This is discussed further below. There are no additional impacts associated specifically with the manned operations scenario.

6.7.1 Community and stakeholder engagement

The manned operations workforce scenario has the potential to alter the assessed significance of impacts relating to community and stakeholder engagement. An additional 250 operational employees may intensify community concerns and anxiety regarding potential social effects associated with the Project. This may raise the expectation regarding the extent of ongoing engagement which the Project has with the community, and failure to meet this expectation may result in the deterioration of relationships and potential loss of a social licence to operate. However, research indicates that most mining regions appear to be resilient and have relatively high adaptive capacity (Productivity Commission, 2017). Further, community resilience and adaptability were features of the local community as described by stakeholders in the consultation undertaken to inform the SIA. Additionally, there are many existing mining operations in the surrounding region which have large operational workforces. Consequently, an additional 250 employees associated with the manned operations workforce scenario is not likely to have any discernible effect on the significance of impacts relating to community and stakeholder engagement.

An issue which may result in an adverse effect on community and stakeholder engagement is uncertainty and a perceived lack of transparency regarding the operations workforce model which will be adopted by the Project. In mining orientated communities such as Moranbah and Dysart, there are sensitivities associated with the potential effects which automation might have upon community vitality and sustainability. The approach taken for this assessment therefore has been conservative by using the lower workforce number when assessing potential positive impacts.

6.7.2 Workforce management

Under the manned operations workforce scenario, the Project would require an estimated workforce of 750 workers over 28 years. The 250 additional operations jobs have the potential to alter significance of identified impacts relating to workforce management. Those identified impacts relating to workforce management with potential for altered significance under the manned operations workforce scenario include:

- Increased employment opportunities for residents of local and regional communities.
- Enhanced skills and capacity in local communities due to the movement of a skilled workforce into the local area, further supported by targeted training and skills development initiatives.
- Exacerbated shortage of labour and skills for other local employers due to levels of demand further contributed by the Project.
- Increased loss of employment opportunities, and associated redundancies following the conclusion of operations.

The proportion of the operations workforce able to be sourced from the labour pool in different geographic areas will differ from that of the base case scenario which assumes automation of the fleet. The population of the local study area and that of 'nearby regional communities' is relatively small and there is constrained availability of appropriately skilled labour. There may be a minor increase in the number of personnel able to be sourced from these areas due to more workers switching from their existing employer over to Winchester South as the Project provides a longer term commitment to the operations workforce. The number of operations employees able to be sourced from respective geographic areas is estimated as follows:

- Local area (communities of Moranbah, Dysart and Coppabella): Assumed maximum of 52 workers (7 per cent of manned operations workforce) able to be recruited.
- 'Nearby regional communities' (UCLs within 125 km): Assumed maximum of 112 workers (15 per cent of manned operations workforce) able to be recruited.
- Region (Mackay and Isaac LGAs): Assumed maximum of 600 workers (80 per cent of manned operations workforce).
- State of Queensland/other Australian States: Assumed maximum of 750 workers (100 per cent of manned operations workforce).

Therefore, under the manned operations workforce scenario, the significance of the impact of employment opportunities for residents of local and regional communities would be slightly increased through the generation of an additional 250 operations jobs. This would have a greater beneficial effect on communities through supporting population retention and stability, injection of wealth into local economies, generation of indirect employment and sustainment of social infrastructure and services. These factors further encourage additional employees to relocate to local and regional areas. The manned operations workforce scenario would also provide additional employment opportunities for traditionally underrepresented groups such as women, ATSI persons and persons with a disability, in addition to increasing the number of training and upskilling opportunities available to residents of local and regional communities, such as traineeships and apprenticeships.

As discussed in Section 6.3.3, the additional demand for workers created by the Project's base case (500 operations workers based at site) is unlikely to have a substantial effect on the availability of labour in the region. However, the manned operations workforce scenario has the potential to increase the impact significance associated with the loss of labour for other industries. As discussed in Section 6.8, in the context of all projects being advanced in the region, the contribution of the Project to estimated operations employment demand equate to an increase from 7.7 per cent under the base case scenario to 12.3 per cent under the manned operations workforce scenario.

The manned operations workforce scenario also has the potential to alter the impact significance associated with the loss of employment opportunities and redundancies following the conclusion of operations. The loss of an additional 250 jobs warrants a higher level of assessed impact significance.

6.7.3 Housing and accommodation

The larger operations workforce under the manned operations workforce scenario will affect the significance of some impacts relating to housing and accommodation. An additional 250 employees will alter the significance of the following impacts:

- Increased business opportunities for housing and accommodation providers (WAVs and rental houses).
- Increased housing and accommodation demand due to the influx of the Project's workforce.
- Reduced housing and accommodation availability due to increased cumulative demand.
- Economic hardship for lower-income rental market tenants who have less capacity to meet higher housing costs; potentially resulting in increased demand on social welfare, and out-migration to lower-cost communities.

Members of the operations workforce that reside within a one-hour drive from the Project site entry (communities of Moranbah, Dysart and Coppabella) would be self-accommodated and commute to work on a daily basis. Under the manned operations workforce scenario, it is predicted that up to 52 operations workers may be sourced from the existing labour force of the local area (communities of Moranbah, Dysart and Coppabella). Of the remaining 698 manned operations workers, it is predicted that 15 per cent would seek to move to the local area. This equates to 105 additional households.

The remainder of the manned operations workforce (approximately 610 workers) would reside further than a one-hour drive from the site and would therefore be accommodated in an established WAV. As detailed in Section 6.4.1, there is a large amount of WAV accommodation provided in the area surrounding the Project and it is expected that the existing WAV accommodation options available in the surrounding area would meet the Project's manned operations workforce scenario requirements.

Therefore, under the manned operations workforce scenario, the potential permanent housing demand in the local area stimulated by the Project would be 105 households. This would result in an increase of population influx into the local study area which would alter both the identified positive and negative impacts on the local housing market, including:

- Additional demand for housing and accommodation is likely to further benefit landlords, homeowners, and accommodation providers through increased dwelling occupancy rates and rising rents.
- Larger operations workforce would further enhance investor confidence in the local housing market, which in turn would further contribute to the stabilisation of the local housing market.
- Further reduce availability, affordability and accessibility of housing and accommodation, exacerbating economic hardship for lower-income rental market tenants who have less capacity to cope with increased housing costs.

However, it should be noted that the significance of impacts to housing and accommodation is compounded by cumulative demand, which is highly variable and prone to rapid fluctuations.

6.7.4 Local business and industry procurement

It is not anticipated that the manned operations workforce scenario would alter the significance of identified impacts relating to local business and industry procurement. As with the base case, the manned operations workforce scenario would generate economic benefits for local and regional businesses due to opportunities to provide goods and services for the Project, including providing targeted opportunities for ATSI-owned businesses.

However, the manned operations workforce scenario has the potential to enhance the indirect benefits for local businesses through increase in local spending, such as incidental spending, due to the greater influx of resident and non-resident population.

6.7.5 Health and community well-being

The manned operations workforce scenario would alter the significance of the identified impacts relating to health and community well-being through generating a larger influx of residential and non-residential population. Those identified impacts relating to health and community well-being with potential for altered significance under the manned operations workforce scenario include:

- Greater level of change to resident and non-resident population due to the Project's manned operations workforce scenario requiring an additional 250 workers.

- Greater positive contribution to social capital building and community resilience.
- Further exacerbate disruption to community cohesion, sense of place and cultural identity due to integration of a larger workforce.
- Additional increased demand for social infrastructure (including early childhood education and care services, hospital and health services, and emergency services) by the manned operations workforce, resulting in further burden upon service providers and reduced level-of-service for existing residents.
- Additional amenity and public safety impacts for community members due to a greater increase in project-related traffic, resulting in further exacerbating congestion and road surface impacts.

Under the manned operations workforce scenario, it is predicted that up to 52 operations workers may be sourced from the existing labour force of the local area (communities of Moranbah, Dysart and Coppabella). As outlined above, it is predicted that 105 additional households may seek to move to the local area. Applying the existing average household size in Moranbah of 2.8 persons per household, the total predicted population increase associated with the Project's manned operations workforce scenario equates to 294 persons. Like the base case, it is assumed that 100 per cent of population growth directly stimulated by the Project's manned operations would occur in Moranbah.

The larger population influx associated with the manned operations scenario would enhance the positive impact of contribution to social capital building and community resilience, through further contributing to population retention and growth in the local study area and generation of flow-on employment opportunities for local residents. For example, a large presence of non-resident workers in local communities may catalyse greater participation in community events and groups.

On the other hand, the manned operations workforce scenario requires a larger workforce to be accommodated at WAVs located in Moranbah, Dysart or Coppabella. This has the potential to increase the significance of the negative impact associated with non-resident workers in the local study area, such as in relation to anti-social behaviour and community tension which can lead to a deterioration of community cohesion, sense of place and cultural identity.

The manned operations workforce scenario also has the potential to alter the significance of impacts associated with increased demand on social infrastructure and services, including early childhood education and care services, hospital and health services, and emergency services. During the Project's manned operation, it is predicted that the Project would induce up to 105 additional households to seek permanent residence in Moranbah, potentially resulting in the following effects:

- Further increased demand for childhood education and care services in Moranbah, in the order of 26 childcare places equating to an additional demand of approximately 10 per cent. Accordingly, the manned operations workforce scenario is considered to generate an impact of medium significance on childcare services.
- Additional increase in residential population in the order of up to 283 new local residents in the local study area would exacerbate the pressure on existing hospital and health services.
- Additional increase in residential and non-residential population would further exacerbate pressure on existing emergency services in the local study area.

The manned operations workforce scenario would also increase the volume of traffic on the surrounding roads in the local study area, thereby increasing traffic congestion and road surface impacts. This has the potential to increase the significance of impacts relating to traffic delays, wear and tear of roads, and risk of traffic accidents.

The assessed significance of impacts under the manned operations workforce scenario is provided in Table 6-3.

6.8 Cumulative impacts

6.8.1 Overview

A community may experience cumulative impacts when multiple projects occur in a similar timeframe. This has a tendency to particularly occur in localities where the resources sector is dominant, as when demand reaches a particular threshold, multiple projects become commercially viable and subsequently are advanced to development. Simultaneous advancement of multiple projects exacerbates social and economic impacts and benefits. This section considers the potential cumulative impacts of proposed mining projects which have completed, or are undergoing, an EIS process.

6.8.2 Projects contributing to cumulative impacts

Communities throughout the Bowen Basin which are economically and socially tied to the coal industry have gone through boom and bust cycles throughout their history. These result in substantial population fluctuation and subsequent effects on housing, social infrastructure and community values.

Projects identified as being relevant to cumulative impacts are those which would likely contribute to changed social conditions in the primary and secondary local study areas. This is specifically limited to Moranbah, Dysart and Coppabella. These are communities which have historically been affected by boom and bust mining cycles and are therefore the focus of the assessment of cumulative impacts. Projects which are located further afield (such as in the Mackay LGA) are not considered as they would have a negligible effect upon social conditions.

All major developments occurring in the local study area are mining projects, with the exception of the Bowen Gas Project (Arrow Energy). The Bowen Gas Project has not been included as it has a prolonged construction phase over a very large geographic area. It is not expected that the Bowen Gas Project would result in any significant direct impacts on Moranbah, Dysart or Coppabella. Projects considered in the identification of cumulative impacts were identified on the basis that there would be a likely scheduled overlap with the construction or first three years operations phase of the Project. All projects are located within the Isaac LGA.

It must be noted that the timings of projects are based on the best information available but are subject to change. Some projects have not yet gained regulatory approval whilst others require internal stakeholder approval and access to finance. Such factors strongly influence whether the project proceeds to development.

Regardless, considering the number of projects presently being advanced along with the relatively favourable market conditions, it is likely that there will be multiple projects moving into development in the same timeframe as the Project.

A breakdown of identified projects and their respective size and developmental status is provided in Table 6-1.

Table 6-1 Projects potentially contributing to cumulative impacts

Project	Proponent	Location	Status ¹	Peak workforce
Saraji East	BMA	60 km south east of Moranbah	Draft EIS currently under consideration Construction: 2022 Operations: 2024	Construction: 1,000 Operations: 500
Red Hill	BMA	20 km north of Moranbah	EIS approved with conditions, 2015 Construction: 2020 Operations: 2022	Construction: 2,000 Operations: 1,500
Olive Downs	Pembroke	40 km south east of Moranbah	EIS approved with conditions, 2019 Construction: 2020 Operations: 2021	Construction: 700 Operations: 1,000
Isaac Downs	Stanmore	10 km south of Moranbah	Currently preparing an EIS Construction: 2021 Operations: 2022	Construction: 250 Operations: 300 (80 additional)
Eagle Downs	South 32/ Aquila Resources	25 km south east of Moranbah	EIS approved with conditions, 2018 Construction: 2021 Operations: 2023	Construction: 360 Operations: 570

Project	Proponent	Location	Status ¹	Peak workforce
Moranbah South	Anglo Coal/ Exxaro	5 km south of Moranbah	EIS approved with conditions Construction: 2021 Operations: 2024	Construction: 878 Operations: 1,314
Lake Vermont-Meadowbrook Project	Bowen Basin Coal	55 km south east of Moranbah	Currently preparing an EIS Construction: 2022 Operations: 2024	Construction: 200 Operations: 400

¹ Current as at August 2020.

6.8.3 Construction

Access to productive employment defines the prosperity and sustainability of communities throughout the Bowen Basin. Assuming a 'worst case' scenario, and all identified projects occurring in the nominated timeframes, the cumulative demand for construction labour in the construction timeframe proposed for the Project (Year 1- Year 3) comprises:

- Saraji East: Construction- 1,000 workers.
- Red Hill: Construction- 2,000 workers.
- Olive Downs: Construction- 700 workers.
- Isaac Downs: Construction- 250 workers.
- Eagle Downs: Construction- 360 workers.
- Moranbah South: Construction- 878 workers.
- Lake Vermont: Construction- 200 workers.

These projects equate to a peak of 5,888 construction workers when including the construction workforce for the Project (500 workers). The contribution of the Project to estimated cumulative construction employment demand is 8.5 per cent.

With an unemployment rate of 2.2 per cent (260 unemployed people) in the Isaac LGA at June 2019, there is limited elasticity in the local employment market. Analysis of 'nearby regional communities' suggests that the total labour force with skills applicable for construction (includes industries of Construction, Transport postal and warehousing, and Professional scientific and technical services) is 800 workers. If 50 per cent of all persons with these skills were able to be sourced for construction, this accounts for 400 workers or 6.8 per cent of cumulative demand (5,888 workers). Therefore, competition for construction labour within the Isaac LGA and the broader region is considered a key cumulative impact during the Project's construction phase should the projects outlined in Table 6-1 also eventuate.

Other potential cumulative impacts during the Project's construction may include:

- Significant increase in non-residential worker population in the Isaac LGA, potentially exacerbating existing community concern about presence of non-local workers.
- Increase in traffic on local and state roads within the Isaac LGA, due to increased volume of private vehicles associated with construction workers travelling to and from their site of accommodation at the start and end of their shifts.
- Increase in demand on local health services, Queensland Police, Ambulance, and Fire and Emergency Service resources to cater for increase in non-resident and resident population, subsequently resulting in a demand for increased Government funding to ensure adequate capacity and service provision.
- Increase in demands on Council infrastructure such as water and waste water systems and municipal services, due to expansion of existing WAVs or the establishment of new WAVs.

- Labour draw from other businesses and industries who are dependent on construction labour and skills, potentially State-wide.
- Overall increase in patronage for retail, hospitality, fuel and food venues in Moranbah, which would be experienced as a positive impact for local businesses.

6.8.4 Operations

Assuming all identified projects occurred in currently scheduled timeframes, the cumulative demand for operations labour in the first three years of the Project operations comprises:

- Saraji East: Operation- 500 workers.
- Red Hill: Operation- 1,500 workers.
- Olive Downs: Operation- 1,000 workers.
- Isaac Downs: Operation- 300 workers (only 80 new workers required, with the remaining 220 workers to be sourced from the existing Isaac Plains Mine).
- Eagle Downs: Operation- 570 workers.
- Moranbah South: Operation- 1,314 workers.
- Lake Vermont: Operation- 400 workers.

Including the operations workforce for the Project (500 workers at site), these projects equate to demand for an additional 5,864 operations workers. The BMA projects of Saraji East and Red Hill contribute 34 per cent of cumulative demand. The contribution of the Project to estimated cumulative operations employment demand is 8.2 per cent.

The generation of 5,864 cumulative operational jobs coming online between Year 2 and Year 4 will have a significant effect on the competition for labour. If 15 per cent of people across all mining and mining-related occupations across the nearby regional communities chose to take up opportunities with new projects, and all unemployed persons were employed, this would equate to 1,496 workers. This is considered the maximum plausible number of workers able to be sourced from nearby regional communities. This only accounts for 25 per cent of the cumulative operations workforce demand.

In summary, potential cumulative impacts of operation include:

- Residential population growth in Isaac LGA, particularly in Moranbah, subsequently supporting the future growth and prosperity of the region.
- Increase in demand for housing across the Isaac LGA, particularly in Moranbah, leading to reduced housing affordability and availability, subsequently exacerbating potential for displacement of low-income households.
- Overall increase in the demand on social infrastructure, community services, emergency services and council facilities, subsequently resulting in a demand for increased funding to ensure adequate capacity and service provision.
- Increase in employment rates, labour force participation and socio-economic well-being for communities in the Isaac LGA, positively contributing to community vitality and prosperity.
- Exacerbation of shortages in mining labour and skills.

During the SIA consultation, participants from IRC recognised that many of the social impacts associated with mining projects are cumulatively driven. IRC representatives also articulated that it was sometimes difficult to obtain an accurate understanding of which projects were likely to start and which were coming to end of life, although the Council often maintained communications with proponents to assist in terms of providing up-to-date information on the ongoing and proposed projects. During this consultation, IRC further highlighted the absolute need for a coordinated and collective response. In engagement with the OCG, it was also advised that there was a need for an entity to provide a coordination role regarding the emerging cumulative social impacts associated with multiple projects moving to development simultaneously. In response to this proposal, the Proponent is committed to actively participating in any Cumulative Reference Group assessing and monitoring cumulative impacts associated with the mining projects in the region- note that a Cumulative Reference Group did not exist at the time of completion of the SIA.

Under the manned operations workforce scenario, the cumulative demand for operational jobs between Year 2 and Year 4 would be 6,114 jobs. As such, the manned operations workforce scenario has the potential to increase the significance of cumulative impacts due to generating a demand for additional workers. The contribution of the manned operations workforce scenario to estimated cumulative operations employment demand would be 12.3 per cent.

The assessment of cumulative impacts during Project operations is based on an assessment of the worst-case scenario, which involves all identified projects commencing operation in the same time period. However, historical evidence clearly indicates that it is unlikely that all of the projects will commence operations as per their stated scheduled timeframes.

6.9 Summary of impact assessment

Table 6-2 summarises the social impacts attributable to the Project under the base case of assumed automation. Table 6-3 summarises the social impacts attributable to the manned operations workforce scenario.

Table 6-2 Summary of social impacts and their significance rating for the Project

#	POTENTIAL IMPACT	PROJECT PHASE	NATURE OF EFFECT	AOI	AFFECTED RECEPTORS	UNMANAGED SIGNIFICANCE	KEY MANAGEMENT MEASURES	MANAGED SIGNIFICANCE
1	Community and stakeholder engagement							
1.i	<ul style="list-style-type: none"> Deterioration of community and stakeholder relationships, resulting in reputational impacts, becoming negatively regarded by local communities which affects employee satisfaction and project progress. 	C, O	Negative	L, R	<ul style="list-style-type: none"> Local and regional communities Proponent 	Low (B3)	<ul style="list-style-type: none"> Implement commitments in the SIMP to enhance project-related opportunities and benefits for local and regional communities (for example employment, training and business opportunities) and regularly communicating these to the community. Implement community engagement and stakeholder management actions outlined in CSEP. <p>(Refer to Section 6.2 and Section 7.6)</p>	Negligible (B4)
2	Workforce management							
2.i	<ul style="list-style-type: none"> Increased employment opportunities for residents of local and regional communities. This includes opportunities for traditionally underrepresented groups such as women, and ATSI persons. 	C, O	Positive	L, R	<ul style="list-style-type: none"> Job seekers in local and regional communities Job seekers from traditionally under-represented groups 	Medium (B2)	<ul style="list-style-type: none"> Implement a recruitment hierarchy, which prioritises employment of local residents. Scheduling of recruitment will be staggered in accordance with the recruitment hierarchy. Employment opportunities to be advertised in ways tailored to local communities. Establish a Project office in either Moranbah or Mackay to oversee Project recruitment processes and provide a point of contact for prospective employees. Engage with Barada Barna Aboriginal Corporation to develop targeted ATSI employment initiatives. Ensure Indigenous cultural heritage surveys are fully funded and supported and undertaken by the rightful parties. Identify specific positions which qualify for job share/ flexible shift arrangements. Provision of ongoing training and skills development for the workforce. <p>(Refer to Section 6.3 and Section 7.2)</p>	Medium (A2)

#	POTENTIAL IMPACT	PROJECT PHASE	NATURE OF EFFECT	AOI	AFFECTED RECEPTORS	UNMANAGED SIGNIFICANCE	KEY MANAGEMENT MEASURES	MANAGED SIGNIFICANCE
2.ii	<ul style="list-style-type: none"> Enhanced skills and capacity in local communities due to targeted training and skills development initiatives. 	C, O	Positive	L, R	<ul style="list-style-type: none"> Job seekers in local and regional communities 	Low (B3)	<ul style="list-style-type: none"> Provide incentives for staff to make a long-term commitment to the Project through career pathways supported by training and skills development. Directly contribute to the advancement of STEM skills in the local community through funding positions dedicated to the integration of STEM into the primary school curriculum (commitment of \$35,000 per annum for each school, for the life of the Project). Collaborate with the Barada Barna Aboriginal Corporation, DATSIP, DESBT and other government agencies to design and implement programs (such as 'Skilling Queenslanders for Work') which support target groups such as youth to access employment opportunities supported positions rather than on casual contracts. Provide ongoing training and skills development for the workforce through continuous implementation of the existing Whitehaven training programs. <p>(Refer to Section 6.3 and Section 7.2)</p>	Medium (B2)
2.iii	<ul style="list-style-type: none"> Economic benefits to local businesses due to incidental expenditure by members of the Project workforce (e.g. clothing, food, and entertainment). 	C, O	Positive	L	<ul style="list-style-type: none"> Business owners in local communities, particularly Moranbah 	Low (B3)	<ul style="list-style-type: none"> Provide opportunities for camp-accommodated workers to occasionally access local businesses. <p>(Refer to Section 6.3 and Section 7.2)</p>	Medium (B2)
2.iv	<ul style="list-style-type: none"> Shortage of employment and skills in other industries due to additional demand for workers created by the Project. 	C, O	Negative	L, R	<ul style="list-style-type: none"> Employers in local and regional communities 	Low (B3)	<ul style="list-style-type: none"> Provide additional training opportunities for young people from local communities through funding an education-based traineeship for each year of operation. Provide career progression pathways for the workforce through provision of an upskilling and employment development program. <p>(Refer to Section 6.3 and Section 7.2)</p>	Negligible (B4)

#	POTENTIAL IMPACT	PROJECT PHASE	NATURE OF EFFECT	AOI	AFFECTED RECEPTORS	UNMANAGED SIGNIFICANCE	KEY MANAGEMENT MEASURES	MANAGED SIGNIFICANCE
2.v	<ul style="list-style-type: none"> Loss of employment opportunities and associated redundancies following the conclusion of operations. 	O	Negative	L, R	<ul style="list-style-type: none"> Project employees 	Medium (A3)	<ul style="list-style-type: none"> Prepare and implement a Progressive Rehabilitation and Closure Plan. Provide workers with advanced notice of the impending conclusion of operations. Consult with employees regarding potential impacts and identify strategies to avoid economic hardship for those affected. Where possible, redeploy worker to other Proponent-operated projects. <p>(Refer to Section 6.3 and Section 7.2)</p>	Low (A4)
2.vi	<ul style="list-style-type: none"> Health and well-being of the workforce and their families affected through employment conditions, shift scheduling, accommodation and work stress. 	C, O	Negative	L, R	<ul style="list-style-type: none"> Resident and non-resident workers and their families 	Medium (B2)	<ul style="list-style-type: none"> Manage the workforce health and safety through implementation of the Whitehaven Coal Health and Safety Management Systems, including in relation to fatigue management, management of risks associated with drugs and alcohol, and workforce hygiene. Ensure all members of the workforce are fully inducted and trained through implementation of the Whitehaven Coal Induction and Training Standard- establishes minimum training standards for employees, contractors and visitors who perform work for Whitehaven WS. Provision of on-site first aid facilities for workers with appropriately trained personnel available that can assist with attending to minor workforce health issues, as well as providing first response services for emergency situations and site accidents. Annual financial contribution to support employees and families through mental health and suicide prevention programs. Establishment of an EAP tailored to suit the needs of the Project workforce. Regular engagement with WAV operators to encourage and support workforce health programs targeting mental health, obesity, drug and alcohol use. <p>(Refer to Section 6.3 and Section 7.2)</p>	Low (B3)

#	POTENTIAL IMPACT	PROJECT PHASE	NATURE OF EFFECT	AOI	AFFECTED RECEPTORS	UNMANAGED SIGNIFICANCE	KEY MANAGEMENT MEASURES	MANAGED SIGNIFICANCE
3	Housing and accommodation							
3.i	<ul style="list-style-type: none"> Increased housing and accommodation demand due to the influx of the Project's workforce. 	C, O	Negative	L	<ul style="list-style-type: none"> Local communities, particularly Moranbah 	Low (B3)	<ul style="list-style-type: none"> Implement measures detailed in Housing and Accommodation Plan (HAP) to enhance local employment opportunities and reduce reliance on FIFO. Accommodate non-resident workforce in established WAVs. Monitor workforce satisfaction with accommodation and take corrective actions as required. Collaborate with the IRC and other stakeholders in the annual review of housing conditions and contribution to corrected measures as required. (Refer to Section 6.4 and Section 7.3)	Negligible (B4)
3.ii	<ul style="list-style-type: none"> Stimulate housing investment due to an increase in the workforce housing and accommodation demand. 	C, O	Positive	L, R	<ul style="list-style-type: none"> Landholders 	Low (C2)	<ul style="list-style-type: none"> Minimise effects on local housing market through maximising local employment as per the measures outlined in the WMP. Provide support to members of the workforce seeking to reside locally including a housing register, connections advice and support networks. (Refer to Section 6.4 and Section 7.3)	Low (C2)
3.iii	<ul style="list-style-type: none"> Increased business opportunities for housing and accommodation providers such as WAVs and rental houses. 	C, O	Positive	L	<ul style="list-style-type: none"> Business owners and landlords in local communities, particularly Moranbah and Coppabella 	Low (B3)	<ul style="list-style-type: none"> Utilise established WAVs in the local area rather than building a new WAV. Offer all members of the workforce the choice of camp-style accommodation or permanent housing which is subsidised through the Live Local Initiative. (Refer to Section 6.4 and Section 7.3)	Low (B3)

#	POTENTIAL IMPACT	PROJECT PHASE	NATURE OF EFFECT	AOI	AFFECTED RECEPTORS	UNMANAGED SIGNIFICANCE	KEY MANAGEMENT MEASURES	MANAGED SIGNIFICANCE
3.iv	<ul style="list-style-type: none"> Reduced housing and accommodation availability due to increased demand generated by an influx of mining workers from the Project and other mining projects in the area. 	C, O	Negative	L	<ul style="list-style-type: none"> Local communities, particularly Moranbah 	Medium (B2)	<ul style="list-style-type: none"> Reduce inflationary effects on the housing market in Moranbah through investing in permanent housing stock. Provide genuine housing and accommodation choice to the workforce through the provision of subsidised housing costs for members of the workforce who choose to live locally and of high-quality workforce accommodation to non-resident personnel. Actively engage and collaborate with the IRC and other stakeholders with respect to housing and accommodation impacts and remediation actions. <p>(Refer to Section 6.4 and Section 7.3)</p>	Low (B3)
3.v	<ul style="list-style-type: none"> Economic hardship for lower-income rental market tenants who have less capacity to cope with increased housing expenses. This may result in increased demand on social welfare, and out-migration to lower-cost communities. 	C, O	Negative	L	<ul style="list-style-type: none"> Local communities, particularly Moranbah 	Medium (B2)	<ul style="list-style-type: none"> Ensure the Project does not adversely affect the affordability and availability of housing in local communities through: <ul style="list-style-type: none"> (i) facilitating the construction of new housing in Moranbah dedicated to Project employees with a maximum of 20-34 houses built between Year 1 and Year 11; and (ii) provide a financial contribution of \$500,000 over the Project life to the IAHT and/or ELAM for the construction of additional affordable housing in Moranbah. <p>(Refer to Section 6.4 and Section 7.3)</p>	Low (B3)

#	POTENTIAL IMPACT	PROJECT PHASE	NATURE OF EFFECT	AOI	AFFECTED RECEPTORS	UNMANAGED SIGNIFICANCE	KEY MANAGEMENT MEASURES	MANAGED SIGNIFICANCE
4	Local business and industry procurement							
4.i	<ul style="list-style-type: none"> Economic benefits for local businesses due to opportunities to provide goods and services for the Project. This will include targeted opportunities for ATSI-owned businesses. 	C, O	Positive	L, R	<ul style="list-style-type: none"> Businesses in local and regional communities ATSI-owned businesses 	Medium (B2)	<ul style="list-style-type: none"> Prepare and adopt a procurement policy and plan consistent with the values of the <i>Queensland Resources and Energy Sector Code of Practice for Local Content</i> and <i>Australian Industry Participation Framework</i>. Maximise opportunities for local businesses to provide goods and services to the Project. Prepare and maintain a Local and Regional Business Register for internal use and distribution to all major contractors. Establish a register of ATSI-owned businesses in the region, and collaborate with DATSIP to develop an effective engagement strategy. Collaborate with the Barada Barna Aboriginal Corporation, DESBT, DATSIP and any other appropriate stakeholders to facilitate and support delivery of tender readiness program for Indigenous businesses. <p>(Refer to Section 6.5 and Section 7.4)</p>	Medium (A2)
4.ii	<ul style="list-style-type: none"> The potential to monopolise goods and services if the Project's demand exceeds the capacity of the local supply chain. This may impact residents of local communities by increasing costs and reducing availability of necessary goods and services. 	C, O	Negative	L	<ul style="list-style-type: none"> Residents of local communities 	Low (B3)	<ul style="list-style-type: none"> Prepare and adopt a procurement policy and plan consistent with the values of the <i>Queensland Resources and Energy Sector Code of Practice for Local Content</i> and <i>Australian Industry Participation Framework</i>. Collaborate with Moranbah Traders Association, Local Content Leaders Network, the RIN and any other appropriate stakeholders in establishing a local supplier listing tailored to the Project. <p>(Refer to Section 6.5 and Section 7.4)</p>	Negligible (B4)

#	POTENTIAL IMPACT	PROJECT PHASE	NATURE OF EFFECT	AOI	AFFECTED RECEPTORS	UNMANAGED SIGNIFICANCE	KEY MANAGEMENT MEASURES	MANAGED SIGNIFICANCE
5	Health and community well-being							
5.i	<ul style="list-style-type: none"> Contribution to social capital building and community resilience. 	C, O	Positive	L, R	<ul style="list-style-type: none"> Local and regional communities 	Low (B3)	<ul style="list-style-type: none"> Develop and implement code of conduct which describes positive behavioural outcomes and prohibits negative behaviours – establishes expected standards of behaviour with clear ramifications for non-conformance. Support community culture and well-being through the Whitehaven Community Fund which invites community organisations to apply for annual funding. Maximise local employment through application of the recruitment hierarchy. <p>(Refer to Section 6.6 and Section 7.5)</p>	Medium (B2)
5.ii	<ul style="list-style-type: none"> Disruption to community cohesion, sense of place and cultural identity due to workforce integration. 	C, O	Negative	L	<ul style="list-style-type: none"> Residents of local communities, particularly Moranbah 	Low (B3)	<ul style="list-style-type: none"> Develop and implement code of conduct which describes positive behavioural outcomes and prohibits negative behaviours – establishes expected standards of behaviour with clear ramifications for non-conformance. Implement complaints management procedure as outlined in the CSEP. <p>(Refer to Section 6.6 and Section 7.5)</p>	Negligible (B4)
5.iii	<ul style="list-style-type: none"> Increased demand for early childhood education and care services by the Project workforce, resulting in increased burden for service providers and reduced level-of-service for existing residents. 	C, O	Negative	L	<ul style="list-style-type: none"> Residents in local communities Childcare service providers in local communities 	Medium (A3)	<ul style="list-style-type: none"> Collaborating with the IRC to determine the most effective contribution which may be made to a childcare solution (maximum of \$200,000 within Years 1 – 5 of the Project). Monitoring workforce demands on childcare and education services and working with IRC to support solutions to cumulative demands on social services. Communicate with relevant stakeholders (including IRC and childcare providers) in managing the potential impacts associated with increased population resulting in additional pressure on the existing early childhood education and care services. <p>(Refer to Section 6.6 and Section 7.5)</p>	Low (A4)

#	POTENTIAL IMPACT	PROJECT PHASE	NATURE OF EFFECT	AOI	AFFECTED RECEPTORS	UNMANAGED SIGNIFICANCE	KEY MANAGEMENT MEASURES	MANAGED SIGNIFICANCE
5.iv	<ul style="list-style-type: none"> Increased demand for hospital and health services by the Project workforce, resulting in increased burden for service providers and reduced level-of-service for existing residents. 	C, O	Negative	L	<ul style="list-style-type: none"> Residents in local communities Health service providers in local communities 	Low (B3)	<ul style="list-style-type: none"> Reduce additional demands on local health services through the provision of on-site first aid facilities for workers with appropriately trained personnel available that can assist with attending to minor workforce health issues, as well as providing first response services for emergency situations and site accidents. Providing contribution as required to address identified equipment deficiencies at Moranbah Hospital and Moranbah District Mental Health Service. Support community health outcomes through partnering with the Moranbah Hospital, Moranbah District Mental Health Service and other key health service providers. <p>(Refer to Section 6.6 and Section 7.5)</p>	Negligible (B4)
5.v	<ul style="list-style-type: none"> Increased demand for emergency services by the Project workforce, resulting in increased burden for service providers and reduced level-of-service for existing residents. 	C, O	Negative	L	<ul style="list-style-type: none"> Residents in local communities Emergency service providers in local communities 	Medium (B2)	<ul style="list-style-type: none"> Provision of on-site first aid facilities for workers with appropriately trained personnel available that can assist with attending to minor workforce health issues, as well as providing first response services for emergency situations and site accidents. Monitor staff access to emergency services. Maintain regular communication with IRC and the Queensland Government with respect to predicted police and emergency services requirements and capacity in local towns. <p>(Refer to Section 6.6 and Section 7.5)</p>	Low (B3)

#	POTENTIAL IMPACT	PROJECT PHASE	NATURE OF EFFECT	AOI	AFFECTED RECEPTORS	UNMANAGED SIGNIFICANCE	KEY MANAGEMENT MEASURES	MANAGED SIGNIFICANCE
5.vi	<ul style="list-style-type: none"> Amenity and health impacts for surrounding landholders and nearby communities due to fugitive dust emissions. 	C, O	Negative	L	<ul style="list-style-type: none"> Neighbouring landholders Residents of local communities, particularly Moranbah 	Medium (B2)	<ul style="list-style-type: none"> Development of an Air Quality Management Plan to monitor and manage dust issues associated with the Project. Implement a complaints mechanism as outlined in CSEP to identify, track, and remediate (in accordance with any conditions of the environmental authority) community complaints associated with dust generating activities. <p>(Refer to Section 6.6 and Section 7.5)</p>	Medium (B2)
5.vii	<ul style="list-style-type: none"> Amenity and health impacts for surrounding landholders due to increased noise and vibration from activities such as earthmoving and blasting. 	C, O	Negative	L	<ul style="list-style-type: none"> Neighbouring landholders 	Low (B3)	<ul style="list-style-type: none"> Implement noise and vibration mitigation and monitoring measures as detailed in the relevant chapter of the EIS. Implement complaints management procedure as outlined in CSEP. <p>(Refer to Section 6.6 and Section 7.5)</p>	Low (B3)
5.viii	<ul style="list-style-type: none"> Impacts on mental health for community members. 	C, O	Negative	L	<ul style="list-style-type: none"> Residents of local communities, particularly Moranbah 	Medium (B2)	<ul style="list-style-type: none"> Support positive mental health outcomes through providing a contribution of \$30,000 per year for the life of the Project local and regional mental health, domestic violence and suicide prevention programs. Provide members of the workforce with access to mental health support and monitor workforce demand on health and mental health services. Actively manage all aspects of workforce health and safety through implementation of the Whitehaven Health and Safety Management System. <p>(Refer to Section 6.6 and Section 7.5)</p>	Low (B3)

#	POTENTIAL IMPACT	PROJECT PHASE	NATURE OF EFFECT	AOI	AFFECTED RECEPTORS	UNMANAGED SIGNIFICANCE	KEY MANAGEMENT MEASURES	MANAGED SIGNIFICANCE
5.ix	<ul style="list-style-type: none"> Amenity impacts for community members due to increased Project-related traffic, resulting in increased congestion and road surface impacts. 	C, O	Negative	L, R	<ul style="list-style-type: none"> Road users including residents, businesses and tourists 	Low (B3)	<ul style="list-style-type: none"> Provide shuttle buses to transport workers from the proposed WAVs to the Project. Coordinate vehicle movements for delivery of materials and equipment on access roads. Install temporary traffic control measures and signage for safe movement of vehicles. Notify stakeholders of any material Project traffic-related activities (such as road closures due to road works), as per CSEP (refer to Section 7.6). Implement a complaints mechanism to identify, track and remediate (in accordance with any conditions of the environmental authority) community complaints associated with traffic generating activities from the Project's construction and operation phases. <p>(Refer to Section 6.6 and Section 7.5)</p>	Negligible (B4)
5.x	<ul style="list-style-type: none"> Public safety affected by increased exposure to anti-social or illegal behaviours by members of the Project workforce. 	C, O	Negative	L	<ul style="list-style-type: none"> Residents of local communities, particularly Moranbah 	Medium (B2)	<ul style="list-style-type: none"> Require all members of the workforce to abide by a stringent code-of-conduct which will include disciplinary measures (ranging from informal warnings to dismissal) for any demonstrated breaches. Investigate and respond to any relevant complaints that are received via the complaint management procedure. Establish contacts between local stakeholders and the Proponent with regard to workforce behaviour. <p>(Refer to Section 6.6 and Section 7.5)</p>	Low (B3)

#	POTENTIAL IMPACT	PROJECT PHASE	NATURE OF EFFECT	AOI	AFFECTED RECEPTORS	UNMANAGED SIGNIFICANCE	KEY MANAGEMENT MEASURES	MANAGED SIGNIFICANCE
5.xi	<ul style="list-style-type: none"> Increased likelihood of vehicle collisions (and associated injuries) due to increased volume of heavy vehicles and driver fatigue. 	C, O	Negative	L, R	<ul style="list-style-type: none"> Road users including residents, businesses and tourists 	Medium (B2)	<ul style="list-style-type: none"> Use of shuttle buses to transport non-local workers from WAVs to the Project, to minimise the Project-related traffic on the road network. Coordinate vehicle movements for delivery of materials and equipment on access roads. Install temporary traffic control measures and signage for safe movement of vehicles. Signposting speed limits on the private access roads for the Project, as well as Eagle Downs Mine Access Road approaching the access intersection. Education of the workforce through inductions on road safety. Transport hazardous and dangerous goods in compliance with requirements of the Whitehaven Hazardous Chemicals and Dangerous Goods Standard. Implement a Fatigue Management Standard for workers including a swipe card system to monitor hours worked, use of buses to transport workers, and coordinated car-pooling arrangements. <p>(Refer to Section 6.6 and Section 7.5)</p>	Low (B3)

#	POTENTIAL IMPACT	PROJECT PHASE	NATURE OF EFFECT	AOI	AFFECTED RECEPTORS	UNMANAGED SIGNIFICANCE	KEY MANAGEMENT MEASURES	MANAGED SIGNIFICANCE
5.xii	<ul style="list-style-type: none"> Increased economic well-being in local communities through contributing to community development. 	C, O	Positive	L	<ul style="list-style-type: none"> Residents of local communities Businesses in local communities 	Low (B3)	<ul style="list-style-type: none"> Maximise local employment through application of the recruitment hierarchy. The scheduling of recruitment will be staggered in accordance with the recruitment hierarchy. Prepare and adopt a procurement policy and plan consistent with the values of the <i>Queensland Resources and Energy Sector Code of Practice for Local Content</i> and <i>Australian Industry Participation Framework</i>. Support community culture and well-being through the Whitehaven Community Fund which invites community organisations to apply for annual funding. <p>(Refer to Section 6.6 and Section 7.5)</p>	Medium (B2)
<p>Project phase: C = construction (including pre-construction), O = operations (including commissioning, maintenance and decommissioning)</p> <p>Area of interest: L = local study area, R = regional study area</p>								

Table 6-3 Summary of social impacts and their significance rating for the Project's manned operations workforce scenario

#	POTENTIAL IMPACT	PROJECT PHASE	NATURE OF EFFECT	AOI	AFFECTED RECEPTORS	UNMANAGED SIGNIFICANCE	KEY MANAGEMENT MEASURES	MANAGED SIGNIFICANCE
1	Community and stakeholder engagement							
1.i	<ul style="list-style-type: none"> Deterioration of community and stakeholder relationships, resulting in reputational impacts, negatively regarded by local communities which affects employee satisfaction and project progress. 	C, O	Negative	L, R	<ul style="list-style-type: none"> Local and regional communities Proponent 	Low (B3)	Refer to Table 6.2	Negligible (B4)
1.ii	<ul style="list-style-type: none"> Decline in community sentiment towards Project due to uncertainty and perceived lack of transparency regarding the operations workforce model. 	O	Negative	L, R	<ul style="list-style-type: none"> Local and regional communities Proponent 	Medium (B2)	Refer to Table 6.2	Low (B3)
2	Workforce management							
2.i	<ul style="list-style-type: none"> Increased employment opportunities for residents of local and regional communities. This includes opportunities for traditionally underrepresented groups such as women, and ATSI persons. 	C, O	Positive	L, R	<ul style="list-style-type: none"> Job seekers in local and regional communities Job seekers from traditionally under-represented groups 	Medium (B2)	Refer to Table 6.2	High (A1)
2.ii	<ul style="list-style-type: none"> Enhanced skills and capacity in local communities due to targeted training and skills development initiatives. 	C, O	Positive	L, R	<ul style="list-style-type: none"> Job seekers in local and regional communities 	Low (B3)	Refer to Table 6.2	Medium (B2)
2.iii	<ul style="list-style-type: none"> Economic benefits to local businesses due to incidental expenditure by members of the Project workforce (e.g. clothing, food, and entertainment). 	C, O	Positive	L	<ul style="list-style-type: none"> Business owners in local communities, particularly Moranbah 	Medium (B2)	Refer to Table 6.2	Medium (A2)
2.iv	<ul style="list-style-type: none"> Shortage of employment and skills in other industries due to additional demand for workers created by the Project. 	C, O	Negative	L, R	<ul style="list-style-type: none"> Employers in local and regional communities 	Medium (B2)	Refer to Table 6.2	Low (B3)
2.v	<ul style="list-style-type: none"> Loss of employment opportunities and associated redundancies following the conclusion of operations. 	O	Negative	L, R	<ul style="list-style-type: none"> Project employees 	Medium (A3)	Refer to Table 6.2	Low (A4)
2.vi	<ul style="list-style-type: none"> Health and well-being of the workforce and their families affected through employment conditions, shift scheduling, accommodation and work stress. 	C, O	Negative	L, R	<ul style="list-style-type: none"> Resident and non-resident workers and their families 	Medium (B2)	Refer to Table 6.2	Low (B3)

#	POTENTIAL IMPACT	PROJECT PHASE	NATURE OF EFFECT	AOI	AFFECTED RECEPTORS	UNMANAGED SIGNIFICANCE	KEY MANAGEMENT MEASURES	MANAGED SIGNIFICANCE
3	Housing and accommodation							
3.i	<ul style="list-style-type: none"> Increased housing and accommodation demand due to the influx of the Project's workforce. 	C, O	Negative	L	<ul style="list-style-type: none"> Local communities, particularly Moranbah 	Medium (B2)	Refer to Table 6.2	Low (B3)
3.ii	<ul style="list-style-type: none"> Stimulate housing investment due to an increase in the workforce housing and accommodation demand. 	C, O	Positive	L, R	<ul style="list-style-type: none"> Landholders 	Low (B3)	Refer to Table 6.2	Medium (B2)
3.iii	<ul style="list-style-type: none"> Increased business opportunities for housing and accommodation providers such as WAVs and rental houses. 	C, O	Positive	L	<ul style="list-style-type: none"> Business owners and landlords in local communities, particularly Moranbah and Coppabella 	Low (B3)	Refer to Table 6.2	Medium (B2)
3.iv	<ul style="list-style-type: none"> Reduced housing and accommodation availability due to increased demand generated by an influx of mining workers from the Project and other mining projects in the area. 	C, O	Negative	L	<ul style="list-style-type: none"> Local communities, particularly Moranbah 	High (A2)	Refer to Table 6.2	Medium (A3)
3.v	<ul style="list-style-type: none"> Economic hardship for lower-income rental market tenants who have less capacity to cope with increased housing expenses. This may result in increased demand on social welfare, and out-migration to lower-cost communities. 	C, O	Negative	L	<ul style="list-style-type: none"> Local communities, particularly Moranbah 	High (A2)	Refer to Table 6.2	Medium (A3)
4	Local business and industry procurement							
4.i	<ul style="list-style-type: none"> Economic benefits for local businesses due to opportunities to provide goods and services to the project. This will include targeted opportunities for ATSI-owned businesses. 	C, O	Positive	L, R	<ul style="list-style-type: none"> Businesses in local and regional communities ATSI-owned businesses 	Medium (B2)	Refer to Table 6.2	Medium (A2)
4.ii	<ul style="list-style-type: none"> The potential to monopolise goods and services if the Project's demand exceeds the capacity of the local supply chain. This may impact residents of local communities by increasing costs and reducing availability of necessary goods and services. 	C, O	Negative	L	<ul style="list-style-type: none"> Residents of local communities 	Low (B3)	Refer to Table 6.2	Negligible (B4)
5	Health and community well-being							
5.i	<ul style="list-style-type: none"> Contribution to social capital building and community resilience. 	C, O	Positive	L, R	<ul style="list-style-type: none"> Local and regional communities 	Low (B3)	Refer to Table 6.2	Medium (B2)

#	POTENTIAL IMPACT	PROJECT PHASE	NATURE OF EFFECT	AOI	AFFECTED RECEPTORS	UNMANAGED SIGNIFICANCE	KEY MANAGEMENT MEASURES	MANAGED SIGNIFICANCE
5.ii	<ul style="list-style-type: none"> Disruption to community cohesion, sense of place and cultural identity due to workforce integration. 	C, O	Negative	L	<ul style="list-style-type: none"> Residents of local communities, particularly Moranbah 	Low (B3)	Refer to Table 6.2	Negligible (B4)
5.iii	<ul style="list-style-type: none"> Increased demand for early childhood education and care services by the Project workforce, resulting in increased burden for service providers and reduced level-of-service for existing residents. 	C, O	Negative	L	<ul style="list-style-type: none"> Residents in local communities Childcare service providers in local communities 	Medium (B2)	Refer to Table 6.2	Low (B3)
5.iv	<ul style="list-style-type: none"> Increased demand for hospital and health services by the Project workforce, resulting in increased burden for service providers and reduced level-of-service for existing residents. 	C, O	Negative	L	<ul style="list-style-type: none"> Residents in local communities Health service providers in local communities 	Medium (B2)	Refer to Table 6.2	Low (B3)
5.v	<ul style="list-style-type: none"> Increased demand for emergency services by the Project workforce, resulting in increased burden for service providers and reduced level-of-service for existing residents. 	C, O	Negative	L	<ul style="list-style-type: none"> Residents in local communities Emergency service providers in local communities 	Medium (B2)	Refer to Table 6.2	Low (B3)
5.vi	<ul style="list-style-type: none"> Amenity and health impacts for surrounding landholders and nearby communities due to fugitive dust emissions. 	C, O	Negative	L	<ul style="list-style-type: none"> Neighbouring landholders Residents of local communities, particularly Moranbah 	Medium (B2)	Refer to Table 6.2	Medium (B2)
5.vii	<ul style="list-style-type: none"> Amenity and health impacts for surrounding landholders due to increased noise and vibration from activities such as earthmoving and blasting. 	C, O	Negative	L	<ul style="list-style-type: none"> Neighbouring landholders 	Low (B3)	Refer to Table 6.2	Low (B3)
5.viii	<ul style="list-style-type: none"> Impacts on mental health for community members. 	C, O	Negative	L	<ul style="list-style-type: none"> Residents of local communities, particularly Moranbah 	Medium (B2)	Refer to Table 6.2	Low (B3)
5.ix	<ul style="list-style-type: none"> Amenity impacts for community members due to increased Project-related traffic, resulting in increased congestion and road surface impacts. 	C, O	Negative	L, R	<ul style="list-style-type: none"> Road users including residents, businesses and tourists 	Medium (B2)	Refer to Table 6.2	Low (B3)

#	POTENTIAL IMPACT	PROJECT PHASE	NATURE OF EFFECT	AOI	AFFECTED RECEPTORS	UNMANAGED SIGNIFICANCE	KEY MANAGEMENT MEASURES	MANAGED SIGNIFICANCE
5.x	<ul style="list-style-type: none"> Public safety affected by increased exposure to anti-social or illegal behaviours by members of the Project workforce. 	C, O	Negative	L	<ul style="list-style-type: none"> Residents of local communities, particularly Moranbah 	Medium (B2)	Refer to Table 6.2	Low (B3)
5.xi	<ul style="list-style-type: none"> Increased likelihood of vehicle collisions (and associated injuries) due to increased volume of heavy vehicles and driver fatigue. 	C, O	Negative	L, R	<ul style="list-style-type: none"> Road users including residents, businesses and tourists 	Medium (B2)	Refer to Table 6.2	Low (B3)
5.xii	<ul style="list-style-type: none"> Increased economic well-being in local communities through contributing to community development. 	C, O	Positive	L	<ul style="list-style-type: none"> Residents of local communities Businesses in local communities 	Low (B3)	Refer to Table 6.2	Medium (B2)
Project phase: C = construction (including pre-construction), O = operations (including commissioning, maintenance and decommissioning) Area of interest: L = local study area, R = regional study area								

7 Social impact management plan

7.1 Overview

The SIMP details the actions the Proponent has committed to in response to the impacts and opportunities identified in SIA. As outlined in the SIA Guideline (2018), it is a requirement that a SIMP is prepared and submitted to the OCG, which comprises the following sub-plans:

- WMP.
- HAP.
- LBIPP.
- Health and Community Well-being Plan (HCWP).
- CSEP.

This section presents each of the sub-plans including the specific commitments made by Whitehaven WS for the Project and a process for ongoing monitoring and review.

7.2 Workforce Management Plan

7.2.1 Objectives

The objectives of the WMP are to:

- Prioritise and maximise local employment.
- Maintain a stable and skilled long-term workforce.
- Ensure access to equal employment opportunities members of local and regional communities.
- Improve skills and capacity of local regional communities and existing workforce through training and skills development initiatives.
- Support the health and well-being of the workforce and their families.
- Minimise economic hardships for affected employees and their households due to loss of employment opportunities and associated redundancies following the conclusion of operations.

7.2.2 Summary of potential impacts and benefits

Potential impacts and benefits associated with workforce management are summarised as follows:

Potential benefits

- Increased employment opportunities for residents of local and regional communities. This includes opportunities for traditionally underrepresented groups such as women, and ATSI persons.
- Enhanced skills and capacity in local communities due to the movement of a skilled workforce into the local area, further supported by targeted training and skills development initiatives.
- Economic benefits to local businesses due to incidental expenditure by members of the project workforce (e.g. clothing, food, entertainment).

Potential impacts

- Labour/skills shortages for other local employers due to high levels of demand as further contributed to by the Project.
- Health and well-being effects associated with maintaining a large Project workforce.
- Loss of employment opportunities, and associated redundancies following the conclusion of operations.

7.2.3 Management measures

Table 7-1 below outlines the proposed WMP including applicable stakeholders, monitoring and reporting requirements.

Table 7-1 Workforce management measures

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Prioritise and maximise local employment								
Maximise local employment through application of a recruitment hierarchy.	<ul style="list-style-type: none"> Implement a recruitment hierarchy, which prioritises employment of local residents by applying the following order of priority: <ol style="list-style-type: none"> The 'local' towns of Moranbah, Dysart, and Coppabella Nearby regional communities within 125 km radius from the Project entrance The Isaac region as per the Isaac LGA The Mackay Whitsunday region The State of Queensland The scheduling of recruitment will be staggered in accordance with the recruitment hierarchy. Administrative costs associated with this targeted approach will be met by the Proponent. Employment opportunities are advertised in ways tailored to local communities; for example, through 'recruitment days' in local towns or advertising through local traditional media along with online media such as community 'Facebook' pages. Establish a Project office in either Moranbah or Mackay to oversee Project recruitment processes and provide a point of contact for prospective employees. 	The Proponent	Recruitment organisations	Pre-construction and pre-operation	The Proponent	During construction, every six months During operation, every year	25 per cent of employees reside locally	Bi-annual report regarding workforce number and composition during construction Annual report regarding workforce number and composition during operation
Maximise employment opportunities for	<ul style="list-style-type: none"> Provide a financial contribution as part of the RAP specifically for training and skills development 	The Proponent	Barada Barna Aboriginal Corporation	Ongoing during construction and operation	The Proponent	During construction,	5 per cent of employees	Bi-annual report regarding workforce number

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Aboriginal People through supporting Aboriginal Groups such as the Barada Barna Aboriginal Corporation.	initiatives for Aboriginal People. Whitehaven WS will collaborate with the Barada Barna, DATSIP, DESBT and any other appropriate stakeholders to identify and implement appropriate training and skills development initiatives. <ul style="list-style-type: none"> Ensure that Indigenous cultural heritage surveys are fully funded and supported, and undertaken by the rightful parties. 		DATSIP DESBT Any other appropriate stakeholders, as required.			every six months During operation, every six months	identify as Aboriginal	and composition during construction Annual report regarding workforce number and composition during operation
Remove barriers for local families to access employment opportunities through making available job-share/ part-time employment opportunities.	<ul style="list-style-type: none"> Upon confirmation of feasibility, identify specific positions which qualify for job-share/ flexible shift arrangements. Such jobs may be made available as both full-time or job-share/ flexible positions and are advertised in local towns as a priority. 	The Proponent	Local families Recruitment agencies	Pre-operations Ongoing throughout operations	The Proponent	Every six months	Provision of job share or flexible employment arrangements for those positions where possible	Proportion of operations workforce positions offered as job share or flexible
Maintain a stable and skilled long-term workforce								
Provide incentives for staff to make a long-term commitment to the Project through career pathways supported by training and skills development.	<ul style="list-style-type: none"> The Proponent is committed to provide ongoing training and skills development for the workforce through continuous implementation of the existing Whitehaven training programs. 	The Proponent	Project workforce Local training institutions	Ongoing during construction and operation	The Proponent	During operation, every year	100 per cent employee retention	Annual Report regarding workforce number and composition during operation
Provide incentives for members of the workforce to reside locally.	<ul style="list-style-type: none"> Encourage members of the workforce to live locally through subsidised housing equating to \$13,000 per annum per employee. 	The Proponent	Project workforce	Ongoing during operation	The Proponent	During operation, every year	15 per cent of workforce relocate to local area and reside locally	Annual report regarding workforce number and composition during operation

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Contribute to the availability of construction and mining skills and labour	<ul style="list-style-type: none"> Provide additional training opportunities for young people from local communities through funding an education-based traineeship for each year of operation. Provide career progression pathways for the workforce through provision of an upskilling and employment development program 	The Proponent	Project workforce	Ongoing during operation	The Proponent	During operation, every year	Number of traineeships and apprenticeships and training programs delivered	Annual Report regarding workforce number and composition during operation
Access to equal employment opportunities for members of local and regional communities								
Full application of the Whitehaven Human Resources Policy which contains specific commitments regarding Equal Employment Opportunity (EEO) Policy which will apply to the Project.	<ul style="list-style-type: none"> The Proponent is committed to full application of their EEO Policy to all employment aspects of the Project. 	The Proponent	Principal construction and operations contractors	Pre-construction Pre-operations and ongoing throughout operations	The Proponent	During operation, every year	Less than 5 complaints received annually regarding job opportunities	Annual audit of employment practices against provisions of the EEO Policy
Fully comply with the provisions in the Anti-Discrimination Act 1991.	<ul style="list-style-type: none"> The Proponent is committed to applying the EEO Policy in accordance with applicable regulations. No proponent job opportunities will be advertised as a FIFO only position. 	The Proponent	Principal contractors	Ongoing during construction and operation	The Proponent	During operation, every year	Less than 5 complaints received annually regarding job opportunities	Annual audit of employment practices against provisions of the EEO Policy
Improve skills and capacity of local and regional communities and existing workforce through training and skills development initiatives								
Directly contribute to the advancement of STEM skills in the local community.	<ul style="list-style-type: none"> Fund positions dedicated to the integration of STEM into the curriculum of Years 3-6 in Moranbah Primary and Moranbah East Primary Schools (commitment of \$35,000 per annum for each school, for the life of the Project). 	The Proponent	Primary schools in Moranbah	Ongoing during operation	Primary schools in Moranbah	During operation, every year	STEM integrated into the curriculum in Moranbah Primary and Moranbah East Primary Schools	Annual feedback provided by the schools as to effectiveness of STEM advancement and funding arrangements

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Provide incentives for members of local and regional communities to gain employment on the Project.	<ul style="list-style-type: none"> Collaborate with the Barada Barna Aboriginal Corporation, DATSIP, DESBT and other government agencies to design and implement programs (such as 'Skiing Queenslanders for Work') which support target groups such as youth to access employment opportunities supported positions rather than on casual contracts. The Proponent is committed to providing ongoing training and skills development for the workforce through continuous implementation of the existing Whitehaven training programs. 	The Proponent	Barada Barna Aboriginal Corporation DATSIP DESBT Local training institutions	Ongoing during construction and operation	The Proponent	During operation, every year	10 per cent of workforce are existing residents of local and regional communities	Annual report regarding workforce number and composition during operation
Support the health and well-being of the workforce and their families								
Actively manage all aspects of workforce health and safety.	<ul style="list-style-type: none"> The Proponent will manage workforce health and safety through implementation of the Whitehaven Coal Health and Safety Management System which comprises: <ul style="list-style-type: none"> Health Standards, Procedures and Forms Safety Standards, Procedures and Forms HSEC Standards, Procedures and Forms Operational Standards Management Plans Operational Procedures Safe Work Method Statement (SWMS)/ Work Instructions 	The Proponent	Project workforce	Ongoing during operations	The Proponent	Monthly	Number, rate and type of workplace health and safety incidents	In accordance with the Whitehaven Health and Safety Management System
Actively manage worker fatigue.	<ul style="list-style-type: none"> The Proponent will manage fatigue through implementation of the Whitehaven Fatigue Management Standard and associated Fatigue Assessment Form and Fatigue Risk Assessment Chart. 	The Proponent	Project workforce	Ongoing during operations	The Proponent	Monthly	Number, rate and type of workplace health and safety incidents	In accordance with the Whitehaven Fatigue Management Standard

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Assist employees manage physical and mental health	<ul style="list-style-type: none"> Establishment of an EAP tailored to suit the needs of the Winchester South workforce and implementation of Whitehaven programs for physical health. 	The Proponent	Project workforce	Ongoing during operations	The Proponent	Monthly	Number, rate and type of workplace health and safety incidents	In accordance with the Whitehaven Fatigue Management Standard
Actively manage risks associated with drugs and alcohol.	<ul style="list-style-type: none"> The Proponent will manage risks associated with drugs and alcohol through implementation of the Whitehaven Alcohol and Drug Standard and associated Alcohol and Other Drugs Procedure which prescribes limits, testing procedures and employee assistance and awareness programs. 	The Proponent	Project workforce	Ongoing during construction and operation	The Proponent	Monthly	Number, rate and type of workplace health and safety incidents	In accordance with the Whitehaven Alcohol and Drug Standard

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Maintain high levels of workforce health and hygiene.	<ul style="list-style-type: none"> The Proponent will manage workforce health and hygiene through implementation of the Whitehaven Coal Health Management Standard which provides minimum standards for health and hygiene risks associated with mining operations. Specific areas addressed include: <ul style="list-style-type: none"> Occupational Hygiene Monitoring and Control Diesel Pollutants Management Welding Airborne Contaminants Management Airborne Dust Management Dust Reporting and Management of Exceedances Hazardous Chemicals and Dangerous Goods Ultraviolet Radiation and Extremes of Temperature Health and Wellbeing Activities (and fitness program) Management of Injured Workers Information and Training Medical Assessments 	The Proponent	Project workforce	Ongoing during construction and operation	The Proponent	Monthly	Number, rate and type of workplace health and safety incidents	In accordance with the Whitehaven Health Management Standard

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Ensure all members of the workforce are fully inducted and trained as to all aspects of site and workforce safety.	<ul style="list-style-type: none"> The Proponent will ensure all members of the workforce are fully inducted and trained through implementation of the Whitehaven Coal Induction and Training Standard- establishes minimum training standards for employees, contractors and visitors who perform work for Whitehaven WS. Specific topics addressed include: <ul style="list-style-type: none"> Seven Safehaven Rule Training and Competency Management Plans Management of personnel in non-mining operations Induction training Safety Leadership Training Behavioural Based Safety Training and Competency Management post Induction 	The Proponent	Project workforce	Ongoing during construction and operation	The Proponent	Monthly	Number, rate and type of workplace health and safety incidents	In accordance with the Whitehaven Induction and Training Standard
Provide on-site medical and first aid facilities in line with the requirements of the Health regulations.	<ul style="list-style-type: none"> The Proponent is committed to providing on-site first aid facilities for workers with appropriately trained personnel available that can assist with attending to minor workforce health issues, as well as providing first response services for emergency situations and site accidents. 	The Proponent	Project workforce	Ongoing during construction and operation	The Proponent	Monthly	100 per cent of reported minor on-site first aid incidents are attended to by Proponent	Incident reporting and use of medical facility records provided to management for monthly review
Regularly engage with WAV operators to encourage and support workforce health programs targeting mental health, obesity, drug and alcohol use.	<ul style="list-style-type: none"> The Proponent is committed to engaging with camp accommodation providers to provide high quality of workforce accommodation. The Proponent is committed to providing annual financial contribution to support employees and families through mental health and suicide prevention programs. 	The Proponent	Workforce accommodation providers	Ongoing during construction and operation	The Proponent	Annual	Establishment of workforce health programs	Meeting with workforce accommodation providers to review performance

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Collaborate with Queensland Police Service, camp accommodation providers and other stakeholders to identify and address any antisocial or disruptive workforce behaviour in local communities.	<ul style="list-style-type: none"> The Proponent is committed to ongoing consultation and collaboration with police, camp accommodation providers and other stakeholders to identify and address any antisocial or disruptive workforce behaviour in local communities. 	The Proponent	Police Camp accommodation providers	Ongoing during construction and operation	The Proponent	Bi-annually	Number, rate and type of workplace health and safety incidents	Meeting with police and workforce accommodation providers to review workforce behaviour
Minimise economic hardships for affected employees and their households due to loss of employment opportunities and associated redundancies following the conclusion of operations								
Provide workers with advanced notice of the impending conclusion of operations.	<ul style="list-style-type: none"> Preparation and implementation of a Progressive Rehabilitation and Closure Plan. The Proponent is committed to providing workers with advanced notice as to the conclusion of operations. 	The Proponent	Project workforce IRC	At least three years prior to conclusion of operations	The Proponent	Bi-annually from three years prior to mine closure	Number, rate and type of workplace health and safety incidents	Mine closure reporting as per the Progressive Rehabilitation and Closure Plan
Consulting with employees regarding potential impacts and identify strategies which will reduce or avoid economic hardship for those affected.	<ul style="list-style-type: none"> Preparation and implementation of a Progressive Rehabilitation and Closure Plan. The Proponent is committed to engaging with employees regarding potential impacts and identify strategies to avoid economic hardship for those affected. 	The Proponent	Project workforce IRC	At least three years prior to conclusion of operations	The Proponent	Bi-annually from three years prior to mine closure	Number, rate and type of workplace health and safety incidents	Mine closure reporting as per the Progressive Rehabilitation and Closure Plan
Where possible, redeploy worker to other Proponent-operated projects.	<ul style="list-style-type: none"> Preparation and implementation of a Progressive Rehabilitation and Closure Plan. Where possible, the Proponent will seek to redeploy workers to other proponent-operated projects. 	The Proponent	Project workforce IRC	At least three years prior to conclusion of operations	The Proponent	Bi-annually from three years prior to mine closure	100 per cent of workers are redeployed to other projects or find alternative employment	Mine closure reporting as per the Progressive Rehabilitation and Closure Plan

7.3 Housing and Accommodation Plan

7.3.1 Objectives

The objectives of the HAP are to:

- Minimise impacts on housing affordability and availability in communities affected by the Project.
- Minimise Project effects on the local housing market.
- Provide genuine housing and accommodation choice to the workforce.

7.3.2 Summary of potential impacts and benefits

Potential impacts and benefits associated with housing and accommodation are summarised as follows:

Potential benefits

- Stimulation of housing investment which provides stability to the local housing market.
- Increased business opportunities for housing and accommodation providers such as WAVs and rental houses.

Potential impacts

- Reduced housing and accommodation availability.
- Reduced affordability and accessibility of housing and accommodation.

7.3.3 Management measures

Table 7-2 below outlines the proposed HAP including applicable stakeholders, monitoring and reporting requirements.

Table 7-2 Housing and accommodation management measures

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Minimise impacts on housing affordability and availability in communities affected by the Project								
Ensure the Project does not adversely affect the affordability and availability of housing in local communities.	Options include: <ul style="list-style-type: none"> Facilitate the construction of new housing in Moranbah dedicated for Project employees with a maximum of 20 – 34 houses commissioned between Project Years 1 – 11. Provide a financial contribution of \$500,000 over the Project life to the IAHT and/or ELAM for the construction of additional affordable housing in Moranbah. 	The Proponent	IAHT Service sector employees and their families	As advised	The Proponent	Milestone payment	Full implementation of all housing commitments	Completion of purchase arrangements with DoH Transfer of funding upon completion of relevant development authority and per agreement with IAHT
Reduce inflationary effects on the housing market in Moranbah through investing in permanent housing stock.	Options include: <ul style="list-style-type: none"> Facilitate the construction of new housing in Moranbah dedicated for Project employees with a maximum of 20 –34 houses commissioned between Project Years 1 – 11. 	The Proponent	IRC Housing developers Project employees	Ongoing during construction and operations	The Proponent	Milestone payments	Full implementation of all housing commitments	Purchase or construction of target number of houses in Project Year 2 (12-18 houses); Year 6 (4-6 houses) and Year 11 (4-6 houses)
Minimise Project effects on the local housing market								
Minimise effects on local housing market through maximising local employment.	<ul style="list-style-type: none"> The Proponent is committed to maximising local employment as per the measures outlined in the WMP. 	The Proponent	Local communities Employment and training providers	Ongoing during construction and operation	The Proponent	During operation, every year	Full implementation of all housing commitments	Annual report regarding workforce number and composition during operation

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Collaborate with the IRC and other stakeholders in the annual review of housing conditions and contribution to corrective measures as required.	<ul style="list-style-type: none"> The Proponent is committed to actively engaging and collaborating with the IRC and other stakeholders (such as through a Cumulative Impacts Reference Group) with respect to future accommodation requirements. 	The Proponent	IRC Cumulative Impacts Reference Group Housing and accommodation providers	Ongoing during operations	The Proponent	Bi-annually during construction and annually during operation	Meeting with IRC and other stakeholders held annually	Annual meeting with IRC and other stakeholders as identified
Provide support to members of the workforce seeking to reside locally including a housing register, connections advice and support networks	<ul style="list-style-type: none"> The Proponent is committed to providing support to members of workforce seeking to move to local communities through providing connections to the highest quality local advice and support networks. The 'Live Local Initiative' housing subsidy will be used as a mechanism to both encourage employees to live in local towns whilst also managing potential effects on the local housing market. 	The Proponent	Project workforce IRC	Ongoing during construction and operations	The Proponent	Bi-annually during construction and annually during operation	15 per cent of workforce relocate to local community and reside locally	Annual implementation report during construction and operation
Provide genuine housing and accommodation choice to the workforce								
Offer all members of the Project workforce the choice of camp-style accommodation or subsidised permanent housing.	<ul style="list-style-type: none"> The Proponent is committed to providing subsidised housing costs for members of the workforce who choose to live locally through the Live Local Initiative. 	The Proponent	Project workforce Housing and accommodation providers	Ongoing during construction and operations	The Proponent	Bi-annually	Full implementation of all housing commitments	Bi-annual reporting of uptake of the Live Local Initiative

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Provide all employees with genuine housing choice through provision of high-quality workforce accommodation utilising existing worker accommodation facilities rather than building new facilities.	<ul style="list-style-type: none"> The Proponent is committed to providing high quality workforce accommodation to non-resident personnel and monitor workforce satisfaction with accommodation and take actions as required. 	The Proponent	Project workforce Housing and accommodation providers	Ongoing during construction and operations	The Proponent	Bi-annually during construction and annually during operation	Full implementation of all housing commitments	Annual implementation report during construction and operation
Monitor workforce satisfaction with accommodation and take corrective actions as required.	<ul style="list-style-type: none"> The Proponent is committed to providing high quality workforce accommodation to non-resident personnel and monitor workforce satisfaction with accommodation and take actions as required. 	The Proponent	Project workforce Housing and accommodation providers	Ongoing during construction and operations	The Proponent	Bi-annually during construction and annually during operation	Number of complaints received from workforce relating to accommodation	Annual implementation report during construction and operation

7.4 Local Business and Industry Procurement Plan

7.4.1 Objectives

The objectives of the LBIPP are to:

- Maximise opportunities for competitive and capable local and regional businesses to provide goods and services to the Project.
- Reduce barriers for entry to the supply chain for local, small, Indigenous and/or new businesses where feasible.
- Build relationships with local businesses to maximise local awareness of supply opportunities.
- Ensure that the objectives and strategies of this Local Business and Industry Procurement Plan are reflected in associated contracts and of contractors.
- Maximise opportunities for local businesses to provide goods and services for the Project.
- Minimise Project effects on the local housing market.
- Provide genuine housing and accommodation choice to the workforce.

7.4.2 Summary of potential impacts and benefits

Potential impacts and benefits associated with local business and industry procurement are summarised as follows:

Potential benefits

- Economic benefits for local and regional businesses due to opportunities to provide goods and services to the project. This will include targeted opportunities for ATSI-owned businesses.

Potential impacts

- The potential to monopolise goods and services if the Project's demand exceeds the capacity of the local supply chain. This may impact residents of local communities by increasing costs and reducing availability of necessary goods and services.

7.4.3 Management measures

Table 7-3 below outlines the proposed LBIPP including applicable stakeholders, monitoring and reporting requirements.

Table 7-3 Local business and industry procurement management measures

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Maximise opportunities for local businesses (especially small to medium enterprises) to provide goods and services to the Project								
Prepare and adopt a procurement policy and plan consistent with the values of the <i>Queensland Resources and Energy Sector Code of Practice for Local Content</i> and <i>Australian Industry Participation Framework</i> .	<ul style="list-style-type: none"> The Proponent is committed to preparing and adopting a procurement policy and plan consistent with relevant regulations Costs associated with the development and implementation of such plans will be met by the Proponent 	The Proponent	Queensland Resources Council Local and regional businesses	Six months prior to construction commencement Six months prior to operation commencement	The Proponent	Annual review of the Procurement plan in accordance with the <i>Queensland Resources and Energy Sector Code of Practice for Local Content</i>	Adoption of procurement policy and plan	Completion of the Procurement Policy and Plan
The Proponent is committed to providing a fair and reasonable opportunity for local and regional businesses to participate in the Project supply chain.	<ul style="list-style-type: none"> Collaborate with Moranbah Traders Association, Local Content Leaders Network, the RIN and any other appropriate stakeholders in establishing a local supplier listing tailored to the Project 	The Proponent	Moranbah Traders Association Local Content Leaders Network The RIN Any other appropriate stakeholders, as required	Ongoing during construction and operation	The Proponent	Bi-annual	Number of local and regional businesses engaged in Project supply chain	Recorded expenditure which was supplied by local and regional businesses
Give preference (through an appropriate criteria weighting) to contractors and sub-contractors who optimise local content where comparative bids are assessed as commercially and technically equivalent.	<ul style="list-style-type: none"> The Proponent is committed to maximising opportunities for local business to provide goods and services to the Project 	The Proponent	Contractors Subcontractors	Ongoing during construction and operation	The Proponent	Bi-annual	Number of local and regional businesses engaged in Project supply chain	Recorded expenditure which was supplied by local and regional businesses

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Prepare and maintain a Local and Regional business register for internal use and distribution to all major contractors.	<ul style="list-style-type: none"> Collaborate with Moranbah Traders Association, Local Content Leaders Network, the RIN and any other appropriate stakeholders in establishing a local supplier listing tailored to the Project 	The Proponent	Local and regional businesses Contractors/ Subcontractors	Ongoing during construction and operation	The Proponent	Bi-annual	Establishment and distribution of local and regional business register	Recorded expenditure which was supplied by local and regional businesses
Publish details of procurement opportunities and procurement approach on website (publicise links to website on Facebook etc.).	<ul style="list-style-type: none"> The Proponent is committed to maximising opportunities for local businesses to provide goods and services to the Project 	The Proponent	Moranbah Traders Association ICN Gateway RIN Any other appropriate stakeholders, as required	Ongoing during construction and operation	The Proponent	Bi-annual	100 per cent of tenders are from local and regional businesses	Recorded expenditure which was supplied by local and regional businesses
Facilitate Indigenous business to access supply chain opportunities								
Identify Indigenous businesses in the local and regional area (Indigenous business register) and establish and maintain contact.	<ul style="list-style-type: none"> The Proponent is committed to enabling Indigenous businesses to access supply chain opportunities 	The Proponent	Barada Barna Aboriginal Corporation DATSIP DESBT Any other appropriate stakeholders, as required	Ongoing during construction and operation	The Proponent	Bi-annual	Establishment of Indigenous business register	Recorded expenditure which was supplied by Indigenous businesses
In collaboration with the Barada Barna Aboriginal Corporation, DESBT, DATSIP and any other appropriate stakeholders, facilitate and support delivery of a tender readiness program for Indigenous businesses.	<ul style="list-style-type: none"> The Proponent is committed to facilitating and supporting delivery of a tender readiness program for Indigenous businesses 	The Proponent	Barada Barna Aboriginal Corporation DATSIP DESBT Any other appropriate stakeholders, as required	Ongoing during construction and operation	The Proponent	Bi-annual	Number of Indigenous businesses engaged in the supply chain	Recorded expenditure which was supplied by Indigenous businesses

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Reduce barriers to entry for local businesses								
Develop and implement a local supplier prequalification process and enable low value transactions with local businesses rather than through complex tendering processes.	<ul style="list-style-type: none"> The Proponent is committed to providing an open and transparent procurement process. 	The Proponent	Local and regional businesses	Ongoing during construction and operation	The Proponent	Bi-annual	Establishment of local supplier prequalification process	Recorded expenditure which was supplied by local and regional businesses
Categorise procurement streams according to risk and tailor insurance requirements accordingly so that local businesses are not precluded from tendering for opportunities.	<ul style="list-style-type: none"> The Proponent is committed to providing an open and transparent procurement process. 	The Proponent	Local and regional businesses	Ongoing during construction and operation	The Proponent	Bi-annual	Number of local and regional businesses engaged in the supply chain	Recorded expenditure which was supplied by local and regional businesses

7.5 Health and Community Well-being Plan

7.5.1 Objectives

The objectives of the HCWP are to:

- Avoid and then mitigate adverse impacts on the level of service provided to local and regional communities by existing social services, facilities and infrastructure.
- Mitigate potential health and well-being impacts on local communities.
- Enhance community cohesion and contribute to the community through supporting local communities' activities.

7.5.2 Summary of potential impacts and benefits

Potential impacts and benefits associated with health and community well-being are summarised as follows:

Potential benefits

- Enhanced community cohesion and resilience due to influx of long-term residents.
- Enhanced community resilience through financial and in-kind contributions to community development initiatives.

Potential impacts

- Increased demand for social infrastructure (including early childhood education and care services, hospital and health services, and emergency services) by the Project workforce, resulting in increased burden for service providers and reduced level-of-service for existing residents.
- Disruption to community cohesion, sense of place and cultural identity due to workforce integration.
- Amenity and health impacts for surrounding landholders and nearby communities due to fugitive dust emissions.
- Amenity and health impacts for surrounding landholders due to increased noise and vibration from activities such as earthmoving and blasting.
- Impacts on mental health for community members.
- Amenity impacts for community members due to increased Project-related traffic, resulting in increased congestion and road surface impacts.
- Increased likelihood of vehicle collisions and associated injuries due to increased volume of heavy vehicles and drive fatigue.
- The public safety affected by increased exposure to anti-social or illegal behaviours by members of the Project workforce.

7.5.3 Management measures

Table 7-4 below outlines the proposed HCWP including applicable stakeholders, monitoring and reporting requirements.

Table 7-4 Health and community well-being management measures

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Minimise adverse impacts on the level of service to local and regional communities from existing social services, facilities, and infrastructure								
Contribute to a solution to the shortage of childcare services in Moranbah.	Options include: <ul style="list-style-type: none"> Collaborate with the IRC to determine the most effective contribution which may be made to a childcare solution (maximum of \$200,000 within Years 1 – 5 of the Project). OR: <ul style="list-style-type: none"> Communication with relevant stakeholders (including IRC and childcare providers) in managing the potential impacts associated with increased population resulting in additional pressures on the existing early childhood education and care services. 	The Proponent	IRC Local childcare service providers Not-for-profit childcare providers Other resource sector proponents	Project Years 1 – 5	The Proponent	Every six months	Full implementation of child care commitments	Quarterly meeting with IRC and the not-for-profit childcare provider to determine the most effective way in which support can be provided for the expansion and monitor the progress of relevant expansion activities
Reduce additional demands on local health services through the provision of on-site first aid facilities for workers with appropriately trained personnel available that can assist with attending to minor workforce health issues, as well as providing first response services for emergency situations and site accidents.	<ul style="list-style-type: none"> The Proponent is committed to the provision of on-site first aid facilities. 	The Proponent	Health service providers	Ongoing during construction and operation	The Proponent	Monthly	100 per cent of reported minor on-site first aid incidents are attended to by Proponent	Incident reporting and use of medical facility records provided to management for monthly review
Support community health outcomes through partnering with the Moranbah Hospital, Moranbah District Mental Health Service and other key health service providers.	<ul style="list-style-type: none"> Provide contributions as required to address identified equipment deficiencies (maximum of \$50,000 Project Years 1 – 5). 	The Proponent	Moranbah Hospital, Moranbah District Mental Health Service and other key health service providers	Ongoing during construction and operation	The Proponent	Annual	Full implementation of health-related commitments	Annual reconciliation of initiatives identified and implemented

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Monitor staff access to childcare, educational, emergency, and health services.	<ul style="list-style-type: none"> The Proponent is committed to monitoring the workforce demands on childcare and education services and working with Council to support solutions to cumulative demands on social services. Support the establishment of, and participate in, a Moranbah Cumulative Reference Group which is appropriately represented across government and industry providing a forum for a partnered approach to managing cumulative effects. 	The Proponent	IRC Social service providers	Ongoing during construction and operation	The Proponent	During operation, every year	Full implementation of health-related commitments	Annual report regarding workforce numbers and composition and assessment of cumulative demand for services
Mitigate potential health and well-being impacts on local communities								
Support positive mental health outcomes through funding local mental health, domestic violence and suicide prevention initiatives.	<ul style="list-style-type: none"> The Proponent is committed to providing a contribution of \$30,000 per year for the life of the Project between local mental health, domestic violence and suicide prevention programs including the MDSS, ELAM Headspace and the Isaac Suicide Prevention Network. 	The Proponent	The local community Local mental health, domestic violence and suicide prevention service providers	Ongoing during construction and operation	The Proponent	Bi-annual	Full implementation of health-related commitments	Bi-annual meeting with IRC and key social service providers to determine the most effective way in which support can be provided to mental health, domestic violence and suicide prevention programs

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Actively manage all aspects of workforce health and safety.	<ul style="list-style-type: none"> The Proponent will manage workforce health and safety through implementation of the Whitehaven Coal Health and Safety Management System which comprises: <ul style="list-style-type: none"> Health Standards, Procedures and Forms Safety Standards, Procedures and Forms HSEC Standards, Procedures and Forms Operational Standards Management Plans Operational Procedures SWMS/ Work Instructions 	The Proponent	Project workforce	Ongoing during operations	The Proponent	Monthly	Number, rate and type of workplace health and safety incidents	In accordance with the Whitehaven Health and Safety Management System
Actively manage worker fatigue.	<ul style="list-style-type: none"> The Proponent will manage fatigue through implementation of the Whitehaven Fatigue Management Standard and associated Fatigue Assessment Form and Fatigue Risk Assessment Chart. Implement a Fatigue Management Standard for workers including a swipe card system to monitor hours worked, use of buses to transport workers, and coordinated car-pooling arrangements. 	The Proponent	Project workforce	Ongoing during operations	The Proponent	Monthly	Number, rate and type of workplace health and safety incidents	In accordance with the Whitehaven Fatigue Management Standard

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Monitor dust, noise and vibration effects in accordance with environmental authority requirements and regularly communicate results with the local community.	<ul style="list-style-type: none"> The Proponent is committed to monitoring and managing dust, noise, and vibration issues associated with the Project, including preparation of an Air Quality Management Plan. The Proponent will participate in any Cumulative Reference Group assessing and monitoring cumulative dust emissions, including potential contributions to additional dust monitoring stations. 	The Proponent	Relevant government agencies	Ongoing during construction and operation	The Proponent	In accordance with environmental authority requirements	Number, rate and type of complaints received in relation to dust, noise or vibration	Annual implementation report during construction and operation

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Actively reduce amenity impacts due to increased Project-related traffic on local community and reduce likelihood of vehicle collisions (and associated injuries) due to increased volume of heavy vehicles and driver fatigue.	<ul style="list-style-type: none"> The Proponent will provide shuttle buses to transport workers from the proposed WAVs to the Project. The Proponent will coordinate vehicle movements for delivery of materials and equipment on access roads. The Proponent is committed to installing temporary traffic control measures and signage for safe movement of vehicles. The Proponent will notify stakeholders of any material Project traffic-related activities (such as road closures due to road works) and implement a complaints mechanism to identify, track and remediate (in accordance with any conditions of the environmental authority) community complaints associated with traffic generating activities from the Project's construction and operation phases. The Proponent is committed to signposting speed limits on the private access roads for the Project, as well as Eagle Downs Mine Access Road approaching the access intersection. The Proponent is committed to providing education to the workforce through inductions on road safety. The Proponent will transport hazardous and dangerous goods in compliance with requirements of the Whitehaven Hazardous Chemicals and Dangerous Goods Standard. 	The Proponent	Project workforce Relevant government agencies The local community IRC	Ongoing during construction and operation	The Proponent	Quarterly during construction and bi-annually during operations	Number, rate and type of complaints received in relation to traffic management	Annual implementation report during construction and operation

Actions	The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Key Performance Indicator (KPI)	Reporting requirements
Enhance community cohesion and contribute to the community through supporting local communities' activities								
Collaborate with Queensland Police Service, camp accommodation providers and other stakeholders to identify and address any antisocial or disruptive workforce behaviour in local communities.	<ul style="list-style-type: none"> The Proponent is committed to ongoing consultation and collaboration with police, camp accommodation providers and other stakeholders to identify and address any antisocial or disruptive workforce behaviour in local communities. The Proponent will develop and implement a workforce code of conduct which describes positive behavioural outcomes and prohibits negative behaviours, with clear ramifications for non-conformance. 	The Proponent	Police Camp accommodation providers	Ongoing during construction and operation	The Proponent	Bi-annually	Number, rate and type of complaints received relating to workforce behaviour	Meeting with police and workforce accommodation providers to review workforce behaviour
Support community culture and well-being through the Whitehaven Community Fund which invites community organisations to apply for annual funding.	<ul style="list-style-type: none"> The Proponent is committed to providing a contribution to support community culture and well-being. 	The Proponent	Community organisations	Ongoing during construction and operation	The Proponent	Bi-annually during the construction annually during operation	Number and dollar value of community and well-being initiatives	Annual implementation report during construction and operation

7.6 Community and Stakeholder Engagement Plan

7.6.1 Engagement principles and objectives

The Proponent will seek to involve the community during the planning, construction, operation and decommissioning of the Project in accordance with Queensland SIA Guideline (2018), ToR, and the Australia Government's Handbook on Community Engagement and Development for the mining industry. In particular, the Proponent will seek to understand and address community concerns about the environmental and social impacts of the Project's activities. The Proponent will also seek to actively and effectively deal with community expectations around employment, economic, and community development opportunities while engaging nearby regional communities to manage amenity and access issues.

The approach to stakeholder and community involvement as outlined in this CSEP is based on the principles of respect, inclusion, proactiveness, responsiveness, sensitivity to those impacted, openness and honesty.

The CSEP's objectives are:

- to identify stakeholder groups that could be affected or may have an interest in the Project;
- to identify the interests, concerns and needs of the stakeholder groups;
- to ensure opportunities are provided for engagement between stakeholders and the Project;
- to establish a framework for strong and cooperative relationships with local communities and stakeholders;
- to provide a complaint mechanism to allow affected communities and other stakeholders to register complaints, queries or comments and have them addressed in a timely manner by the Project;
- to ensure Project planning and delivery are informed by stakeholder views; and
- to ensure engagement supports adaptive management of social impacts.

A detailed plan and program for community and stakeholder engagement will be established prior to construction. This plan will be reviewed and updated for operations.

7.6.2 Stakeholder categorisation and stakeholder engagement mechanisms

7.6.2.1 Stakeholders

The key stakeholder groups addressed by this CSEP include:

- Federal government agencies include:
 - Federal Department of the Environment and Energy
- State agencies include:
 - OCG CPDD.
 - Queensland DTMR.
 - Queensland DATSIP.
 - Queensland Department of Housing and Public Works.
 - Queensland DESBT.
 - Queensland Department of Environment and Science.
 - Queensland DNRME.
 - Queensland Ambulance Service.
- Local governments include:
 - IRC.
 - Mackay Regional Council.

- Social and public services providers include:
 - Moranbah State School.
 - Moranbah Primary School.
 - Moranbah East Primary School.
 - Moranbah Police Station.
 - Moranbah Hospital.
 - Ambulance services.
 - MDSS.
 - Moranbah Men’s Shed.
 - Mackay, Whitsunday Isaac Suicide Prevention Network.
 - Simply Sunshine Childcare Centre.
 - Moranbah Early Learning Centre.
- Local and regional employment and training providers include:
 - CTEC.
 - Local training providers (MRAEL etc.).
 - Local employment providers (Work Pac etc.).
- Housing and accommodation providers include:
 - Isaac Affordable Housing Trust.
 - ELAM.
 - Real estate agencies in Moranbah.
 - WAV Providers (Civeo etc.).
 - Other accommodation providers who are providing housing services and programs of relevance to the SIMP.
- Industry groups and businesses include:
 - Moranbah Traders Association.
 - CFMEU Mining and Energy.
 - RIN.
 - Various local business owners.
 - Major infrastructure providers (e.g. Rail, Port, Energy).
 - Overlapping and adjacent resource tenement holders.
- Local and regional commerce and community development organisations include:
 - MDSS.
 - Dysart Community Support Group Association Inc.
 - Moranbah Community and Youth Hub management committee.
 - Nebo Community Development Group.
 - Mackay, Whitsunday, Isaac Suicide Prevention Network.
 - Other organisations who are providing services and programs of relevance to the SIMP.
 - Natural resource management organisations.

- Aboriginal and Torres Strait Islander peoples including:
 - Barada Barna Aboriginal Corporation.
 - Barada Barna people.
 - Indigenous businesses.
 - Indigenous training providers.
- Local communities include:
 - Landholders in and surrounding the Project area.
 - Residents including Moranbah, Dysart and Coppabella and other residents in Isaac LGA with an interest in the Project.
- Workforce includes:
 - The Project's employees.
 - Unions.

A full Stakeholder Identification and Analysis for this SIA is found at Appendix B.

7.6.2.2 Stakeholder engagement mechanism

The Proponent will use a range of engagement mechanisms throughout the Project as detailed in Table 7-5. The stakeholder engagement strategy will be reviewed and revised internally on an annual basis.

Table 7-5 Key stakeholder engagement mechanisms

Stakeholder group	Primary interest	Proposed engagement mechanisms
Federal agencies	<ul style="list-style-type: none"> • Environmental protection and monitoring 	<ul style="list-style-type: none"> • Direct correspondence (letters, emails, phone calls) • Briefing/individual meetings
State agencies	<ul style="list-style-type: none"> • Sustainable resource development • Approval processes • Pressure on regional infrastructure • Employment and business opportunities • Education and training opportunities • Housing availability and affordability • Safety and emergency response • Capacity of health and education services • Impact on road networks 	<ul style="list-style-type: none"> • Website • Direct correspondence (letters, emails, phone calls) • Briefing/individual meetings • Fact sheets to announce major project changes and updates • Project officer dedicated as community contact point

Stakeholder group	Primary interest	Proposed engagement mechanisms
Local governments	<ul style="list-style-type: none"> • Employment and business opportunities • Education and training opportunities • Housing availability and affordability • Safety and emergency response • Community funds and benefits • Approvals process • Capacity of social services and infrastructure • Water supply • Local road network • Traffic impacts • Constituent complaints • Timely and accurate revised Project information 	<ul style="list-style-type: none"> • Website • Direct correspondence (letters, emails, phone calls) • Project officer dedicated as community contact point • Fact sheets to announce major project changes and updates • Participation in local business forums • Presentations to local service providers where requested • Briefing/individual meeting
Social and public services providers	<ul style="list-style-type: none"> • Capacity of social services and infrastructure • Employment and business opportunities • Education and training opportunities • Safety and emergency response • Community funds and benefits • Traffic impacts and roads • Timely and accurate revised Project information 	<ul style="list-style-type: none"> • Website • Direct correspondence (letters, emails, phone calls) • Project officer dedicated as community contact point • Fact sheets to announce major project changes and updates • Briefing/individual meeting
Local and regional employment and training providers	<ul style="list-style-type: none"> • Employment and business opportunities • Education and training opportunities • Project timeframes and updates • Traffic impacts and roads • Constituent complaints • Timely and accurate revised Project information 	<ul style="list-style-type: none"> • Presentations to employment and training bodies • Project officer dedicated as community contact point • Dedicated project phone number or email address • Website • Fact sheets to announce major project changes and updates • Briefing/individual meeting
Housing and accommodation providers	<ul style="list-style-type: none"> • Housing availability and affordability • Capacity of social services and infrastructure • Project timeframes and updates 	<ul style="list-style-type: none"> • Presentations to housing providers • Project officer dedicated as community contact point • Dedicated project phone number or email address • Website • Fact sheets to announce major project changes and updates • Briefing/individual meeting

Stakeholder group	Primary interest	Proposed engagement mechanisms
Industry groups and businesses	<ul style="list-style-type: none"> • Supply chain opportunities • Tender requirements • Project timeframes and updates • Labour requirements for the Project • Impacts on their operations 	<ul style="list-style-type: none"> • Presentations to business representative bodies • Project officer dedicated as community contact point • Dedicated project phone number or email address • Website • Newspaper advertisements • Fact sheets to announce major project changes and updates
Local and regional commerce and community development organisations	<ul style="list-style-type: none"> • Employment and business opportunities • Education and training opportunities • Access to community Investment Fund and Community Sponsorship and Donation Program • Housing affordability • Community safety • Timely and accurate revised Project information • Environmental issues and management 	<ul style="list-style-type: none"> • Project officer dedicated as community contact point • Dedicated project phone number or email address • Website • Community information sessions • Participation in local events • Complaint mechanism • Community Investment Fund supporting materials
ATSI peoples	<ul style="list-style-type: none"> • Employment and business opportunities • Education and training opportunities • Labour requirements for the Project • Supply chain opportunities • Community funds and benefits • Timely and accurate revised Project information • Cultural heritage management • Any native title agreement requirements 	<ul style="list-style-type: none"> • Presentation to Aboriginal representative bodies • Project officer dedicated as community contact point • Dedicated project phone number or email address • Website • Newspaper advertisements • Regular community information sessions • Participation in local events • Complaint mechanism • Community Investment Fund supporting materials • Fact sheets to announce major project changes and updates

Stakeholder group	Primary interest	Proposed engagement mechanisms
Local communities including local and adjoining landholders	<ul style="list-style-type: none"> • Job and business opportunities • Education and training opportunities • Community funds and benefits • Community cohesion and social values • Dust, noise and light emissions • House affordability and availability • Access to social services • Traffic and congestion • Mine site environmental management • Rehabilitation • Groundwater and surface water management • Changes to farming practice • Accessibility 	<ul style="list-style-type: none"> • Community information sessions • Project officer dedicated as community contact point • Dedicated project phone number and email address • Participation in local events • Complaint mechanism • Community Investment Fund supporting materials • Website • Media releases and social networks (such as Facebook)
Workforce	<ul style="list-style-type: none"> • Work shifts and schedules • Impact on families • Transport and commuting arrangements • Codes of conduct for behaviour • Housing and accommodation options • Service provision in nearby towns • Road safety • Health and mental health support 	<ul style="list-style-type: none"> • Company newsletter • Website – intranet • Human resource management • Team • On-site notice boards • Induction processes and training • Toolbox talks and safety messages • Senior Management Team meetings (senior staff) • General Management meetings (general managers) • Regular informal social events • Employee grievance mechanism

7.6.3 Summary of stakeholder feedback from SIA engagement

Through SIA stakeholder engagement activities, stakeholders have raised some concerns and feedback relating the Project. Table 7-6 summarises the key concerns raised by different stakeholder groups. Details of stakeholder feedback can be found in Section 4.

Table 7-6 Key issues raised by stakeholder groups

Category of stakeholder	Key issues raised
State agencies	Focus of the SSRC Act is to maximise opportunities for local employment. Requires the proponent to provide for a recruitment hierarchy which prioritises recruitment of workers from local and regional communities.
	OCG recommends ongoing engagement with Isaac Council in undertaking the SIA and SIMP.
	Department of Housing recommends that proponents try to invest in housing in Moranbah to reduce market volatility.

Category of stakeholder	Key issues raised
	Moranbah is the local community that will experience majority of impacts and therefore Moranbah should be the focus of the SIA.
	Government programs can be accessed to maximise local employment.
Local government elected representatives and key senior officers	Council recommended that the Proponent looks at investing in housing as this has proven the only way to ensure members of workforce are able to live locally.
	Housing affordability will rapidly become an issue for those on lower wages- Council advocate for contributions to the Isaac Affordable Housing Trust.
	Council advocate wherever possible for opportunities to be provided to local businesses. There are local provider networks to draw upon.
	Council would like proponents to support existing infrastructure and services rather than coming up with new initiatives.
	Childcare is currently a service in critical state of under-supply. Council is seeking solutions; however, it is a complex issue.
	Mental health issues associated with workforces- Councils advocate local living greatly reduces mental health issues as workers get to enjoy the social connections and facilities.
	Collaborative approach needed to address cumulative effects. Council's role is to advocate for community outcomes - looking for the State government to play a coordination role.
Social and public service providers	Moranbah a resilient community- longer term residents are relatively well connected and there is a sense of community spirit and pride.
	Workforces living in camps place pressure on service provision. State provided services do not fully recognise non-residential workforce which means that demand for services derived from workers camps is not been planned/ resourced.
	Moranbah hospital does experience demand for services from non-resident workers. Mental health related illnesses provide a challenge and are becoming more prevalent (possible linkage to drug and alcohol use and other lifestyle factors).
	Lack of availability of childcare is currently a major issue affecting the ability of families to access employment. Long day care places are limited to around 200 spaces and there are more than 180 children on waiting lists (potentially with one child on more than one waiting list).
	Far more elderly persons than there ever used to be- moved back to be close to children/ grandchildren. An issue is that there are no services for elderly people in Moranbah.
	Mental health, domestic violence and suicide prevention are key areas of concern for social service providers. These are complex issues which require multi-dimensional responses.
	Rates of crime not high- majority of infringements relate to traffic, domestic violence and drug related offences. 'Assault-free zones' initiative has worked well. Police resources stretched by increased traffic.
Local and regional employment and training providers	Preference that proponents maximise local employment; however always a major struggle finding staff as very low rates of skilled persons seeking employment in Moranbah and the region.

Category of stakeholder	Key issues raised
	Youth unemployment is an issue- opportunities are limited for young people who do not get into a school-based apprenticeship.
	There are a number of local employment and training providers- can assist with workforce upskilling and accreditation, and linking into local networks.
	Prevalence of casual labour arrangements- preference is proponents have permanent salaried workforces as this allows people to commit to living locally.
	Casual labour arrangements- with changing workforce demands of many projects, there is a need for flexibility in workforce arrangements, which casual labour can provide.
	The Barada Barna seeking sustainable employment opportunities through partnering to develop a training facility at Nebo.
Housing and accommodation providers	Clear signs that the local housing market is recovering. Rental vacancy rates less than 2 per cent and prices rising. Purchase market still slow.
	Local housing market always been volatile. Purchase of housing stock is the only way in which service providers can attract and keep staff. Expectation that mining proponents should also invest in housing to keep local staff.
	Upcycle in the housing market has effects on housing affordability and demand for crisis accommodation. ELAM provides emergency accommodation- domestic violence is a primary cause for crisis accommodation demand.
	The Isaac Affordable Housing Trust is a not-for-profit which seeks to provide housing to low/middle income earners. Seeking assistance to develop up to 20 additional units of accommodation in Moranbah.
	Local preference is for mine employees to live in local towns; but respect that people need to make their own decisions- provision of genuine housing choice is requested.
Local and regional commerce and community development organisations	Moranbah Traders Association is a community-owned entity which provides local business network with about 120 members.
	Major challenge is that contractors have the same commitment to local procurement as proponents.
	Barada Barna is seeking to establish long-term relationships with proponents and foster opportunities for Indigenous businesses.

7.6.4 Complaints Management

7.6.4.1 Complaints process

To facilitate open communication and active complaint resolution, it is important that local stakeholders are able to raise issues and complaints in a formal way. The Proponent will work proactively towards preventing complaints through the implementation of impact mitigation and through community liaison. The Project will be supported by an officer who will provide a dedicated contact point for the community and stakeholders, and be available to receive and respond to complaints. This officer will ensure that all issues are conveyed to the appropriate management in the event an issue relates to operational issues. Anyone will be able to submit a complaint to the Project if they believe a practice is having a detrimental impact on the community, the environment, or their quality of life. They may also submit comments and suggestions.

Concerns and issues raised are recorded and responded to in a timely and consistent manner, and in accordance with regulatory standards and Whitehaven policies. The following are key guiding principles employed by the Proponent in responding to issues or concerns raised by local stakeholders:

- Timeliness – complaints will be responded to in a timely and efficient manner.
- Sensitivity – Ensure that feelings and perspectives of parties involved are respected.
- Fairness and impartiality – parties involved will be afforded substantive and procedural fairness in the resolution process.
- Confidentiality – only parties directly involved in the complaint or those involved in decision-making about outcomes will have access to information about the complaint.

7.6.4.2 Complaints channels

Complaints channels are through telephone contacts and project website.

Telephone contacts

A Project Community Contact number for the purpose of receiving complaints and enquiries from stakeholders in relation to Project activities will be provided. This Community Contact number will be provided to:

- IRC and Mackay Regional Council.
- Police officers in Moranbah and Dysart.
- Landholders in the vicinity of the Project and its infrastructure.
- Contractors and subcontractors.
- The public through the company's website.

All incoming calls will be logged into the stakeholder database.

Project website

A company and Project specific website has been established and provides the community with up-to-date information on the Project and its activities. The website will also provide contact details (including phone, email address and physical address) for the lodgement of complaints which will be addressed in accordance with the complaints handling procedure as described below.

7.6.4.3 Complaints handling procedure

A summary of the procedure for processing complaints is depicted in Figure 7-1 below.

Engagement program outlined in Table 7-7 summarises key engagement activities during the construction and operation phases of the Project following the Project's approval. The program is by no means definitive and the Proponent will adapt these stakeholder engagement activities to reflect local concerns as they arise.

7.6.4.4 Public consultation in accordance with statutory notification

Statutory notification and public consultation for the Project have occurred and will occur under the SDPWO Act and Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Since the Project will be assessed under the bilateral agreement between the Commonwealth and the State of Queensland using the EIS prepared under the EP Act, the 'assessment by EIS' process channel will be adopted for the assessment process in relation to the EPBC Act matters. Public notification requirements under the EPBC Act will occur as part of the EIS notification / consultation requirements.

The grant of the environmental authority amendment application is a pre-requisite for mining to occur on the Project's mining leases.

Terms of Reference Notification and Consultation

Whitehaven WS submitted a draft ToR for the Project EIS in June 2019. The draft ToR was publicly notified from 24 June 2019 to 19 July 2019. Comments on the draft ToR were received in July 2019. All submissions were considered in developing the final ToR for the Project's EIS. The final ToR was issued by Queensland Government in September 2019.



Figure 7-1 Flowchart for processing complaints

7.6.5 Engagement program

EIS Process

Public notification will be undertaken as part of the EIS process in accordance with section 33 of the SDPWO Act. After the proponent has prepared a draft EIS to the satisfaction of the Coordinator-General, the proponent will publicly notify the following:

- where a copy of the draft EIS is available for inspection;
- where a copy of the draft EIS may be obtained at a reasonable cost (which is not more than the actual cost of providing the copy);
- that submissions may be made to the Coordinator-General about the draft EIS; and
- the period, set by the Coordinator-General, during which a submission may be made (minimum of 28 days).

A person may, within the submission period, make a submission to the chief executive about the submitted EIS.

Under section 34A of the SDPWO Act, the Coordinator-General must accept a properly made submission, which under the SDPWO Act is defined as a submission that:

- (a) is made to the Coordinator-General in writing; and*
- (b) is received on or before the last day of the relevant submission period; and*
- (c) is signed by each person; and*
- (d) states the name and address of each person who made the submission; and*
- (e) states the grounds of the submission and the facts and circumstances relied on in support of the grounds.*

Table 7-7 Community and stakeholder engagement key action summary

The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Reporting requirements
Maintain a Project officer dedicated as a community contact point	The Proponent	N/A	Ongoing during construction and operation	N/A	N/A	N/A
Continue to engage with local and surrounding landholders to monitor overall Project impacts	The Proponent	Landholders	Ongoing during construction and operation	The Proponent	Bi-annually during construction and operation	Annual implementation report during construction and operation
Continue in identifying issues, disseminating information throughout the life of the Project and providing a forum for discussion	The Proponent	Local community Relevant government agencies	Ongoing during construction and operation	The Proponent	Bi-annually during construction and operation	Annual implementation report during construction and operation
Provide various communication channels (e.g. signage, advertisements in local papers, construction materials) about changes to local access, potential road hazards and expected traffic volumes during construction	The Proponent	N/A	Ongoing during construction	The Proponent	Bi-annually during construction and operation	Annual implementation report during construction
Continue to engage with local service providers including schools, health and other social services regarding when blasting and other Project related activities which have any potential to impact on the community have been scheduled	The Proponent	Service providers	Ongoing during construction and operation	The Proponent	Bi-annually during construction and operation	Annual implementation report during construction and operation
Facilitate open and transparent engagement with local communities	The Proponent	N/A	Ongoing during construction and operation	The Proponent	Bi-annually during construction and operation	Annual implementation report during construction and operation
Establish, publicise, and maintain a readily accessible community complaints and resolution process	The Proponent	Local community	Ongoing during construction and operation	The Proponent	Bi-annually during construction and operation	Annual implementation report during construction and operation
Establish and maintain long-term respectful relations with the Barada Barna including managing cultural heritage in accordance with the CHMP and meeting the requirements of any native title agreement	The Proponent	Barada Barna people	Ongoing during construction and operation	The Proponent	Bi-annually during construction and operation	Annual implementation report during construction and operation

The Proponent's Commitments	Responsibility	Associated stakeholders/ partners	Timeframes	Monitoring responsibility	Monitoring frequency	Reporting requirements
Regular engagement with the IRC in the monitoring of SIMP implementation	The Proponent	IRC	Ongoing during construction and operation	The Proponent	Bi-annually during construction and operation	Annual implementation report during construction and operation

7.7 Monitoring, review and update of social impact management plan

Consistent with the SIA principle of adaptive management, the SIMP includes a monitoring framework which details the KPIs to be used to measure the Project's success in meeting the objectives sought for each key impact and/or benefit area over the life of the Project.

The SIA and SIMP recognise that the social context of the Bowen Basin is fluid and can radically change due to the cyclical nature of the mining industry. Subsequently, each action as detailed in the SIMP is assigned a monitoring and reporting framework to ensure ongoing effectiveness and relevancy of actions, and if required, ineffective actions are amended.

Monitoring of each action is assigned the following:

- Responsibility: identification of the party responsible for monitoring of action.
- Frequency: identification of how often monitoring of the action will take place.
- KPI: identification of indicator/s used to measure the extent to which the action is achieving the established objective.
- Reporting requirement: identification of how monitoring of the action is reported to relevant stakeholders.

The SIMP would also be reviewed regularly to assess its effectiveness and relevancy. Whitehaven WS will review, and if necessary revise, the SIMP every two years for the first four years of the Project, and then every three years up to Project year 10. The SIMP may be reviewed and revised within a shorter period of time should Whitehaven WS consider the amendment of the SIMP necessary. Whitehaven WS will monitor the implementation of the SIMP throughout the project lifecycle.

Should the manned operations workforce scenario be implemented, Whitehaven WS will review and amend the SIMP, including the monitoring and reporting framework. Whitehaven WS will consult with relevant stakeholders to revise the SIMP to ensure actions accurately reflect the existing socio-economic context and new operational elements, such as up to an additional 250 operations workers.

8 Conclusions

The SIA has been conducted to evaluate the social impacts and benefits associated with the Project. The SIA was completed in compliance with applicable legislation and guidelines herein, including the SSRC Act, SIA Guideline, and ToR specific to the Project.

The SIA study areas were identified and included primary local study area (Moranbah town), secondary local study area (Dysart and Coppabella towns), and regional study area (Isaac LGA and Mackay LGA). This SIA has sought to identify negative and positive impacts associated with the construction and operation of the Project. The Project will have various social impacts and benefits, primarily accruing in the Isaac LGA, but with employment opportunities and benefits for businesses extending to other regions including the Mackay LGA. Whitehaven has a proven record of maximising local employment and actively supports members of the workforce to live locally. The Project would not have a significant impact on temporary or permanent housing availability or affordability. The Project would only result in a predicted 61 additional persons residing in local communities; therefore, the effect on service provision is negligible.

Most of identified impacts have been able to be reduced to a significance of low or negligible subject to the application of the recommended mitigation measures. The achievement of the residual impact levels is contingent upon the effective implementation of these management measures. Table 8-1 below summarises the identified and assessed impacts.

Table 8-1 Summary of impacts

Impact description	Project Phase	Impact nature	Managed impact significance	
			Base case automation scenario	Manned workforce scenario
Community and stakeholder engagement				
Deterioration of community and stakeholder relationships, resulting in reputational impacts and being negatively regarded by local communities which potentially affects employee satisfaction and operational efficiency	C, O	Negative	Negligible	Negligible
Decline in community sentiment towards Project due to uncertainty and perceived lack of transparency regarding the operations workforce model	O	Negative	n/a	Low
Workforce management				
Increased employment opportunities for residents of local and regional communities. This includes opportunities for traditionally underrepresented groups such as women, and ATSI persons	C, O	Positive	Medium	High
Enhanced skills and capacity in local communities due to targeted training and skills development initiatives	C, O	Positive	Medium	Medium
Economic opportunity for local businesses due to incidental expenditure by members of the Project (e.g. clothing, food, entertainment)	C, O	Positive	Medium	Medium
Shortage of employment and skills in other industries due to additional demand for workers created by the Project	C, O	Negative	Negligible	Low

Impact description	Project Phase	Impact nature	Managed impact significance	
			Base case automation scenario	Manned workforce scenario
Health and well-being of the workforce and their families affected through employment conditions, shift scheduling, accommodation and work stress	C, O	Negative	Low	Medium
Loss of employment opportunities, and associated redundancies following the conclusion of operations	O	Negative	Low	Low
Housing and accommodation				
Increased business opportunities for housing and accommodation providers (WAVs and rental houses)	C, O	Positive	Low	Medium
Stimulation of housing investment	C, O	Positive	Low	Medium
Increased housing and accommodation demand due to the influx of the Project's workforce	C, O	Negative	Negligible	Low
Reduced housing and accommodation availability due to increased cumulative demand	C, O	Negative	Low	Medium
Economic hardship for lower-income rental market tenants who have less capacity to meet higher housing costs, potentially resulting in increased demand on social welfare, and out-migration to lower-cost communities	C, O	Negative	Low	Medium
Local business and industry procurement				
Economic benefits for local businesses due to opportunities to provide goods and services for the Project. This will include targeted opportunities for ATSI-owned businesses	C, O	Positive	Medium	Medium
The potential to monopolise goods and services if the Project's demand exceeds the capacity of the local supply chain. This may impact residents of local communities by increasing costs and reducing availability of necessary goods and services	C, O	Negative	Negligible	Negligible
Health and community well-being				
Population influx contributing to social capital and community spirit	C, O	Positive	Medium	Medium
Enhanced community resilience through financial and in-kind contributions to community development initiatives	C, O	Positive	Medium	Medium
Increased demand for hospital and health services resulting in increased burden for service providers and reduced level-of-service for existing residents	C, O	Negative	Negligible	Low
Disruption to community cohesion, sense of place and cultural identity due to workforce integration	C, O	Negative	Negligible	Negligible

Impact description	Project Phase	Impact nature	Managed impact significance	
			Base case automation scenario	Manned workforce scenario
Amenity and health impacts for surrounding landholders due to increased noise and vibration from activities such as earthmoving and blasting	C, O	Negative	Low	Low
Amenity impacts for community members due to increased Project-related traffic, resulting in increased congestion and road surface impacts	C, O	Negative	Negligible	Low
Increased demand for early childhood education and care services by the Project workforce, resulting in increased burden for service providers and reduced level-of-service for existing residents	C, O	Negative	Low	Low
Increased demand for emergency services by the Project workforce, resulting in increased burden for service providers and reduced level-of-service for existing residents	C, O	Negative	Low	Low
Amenity and health impacts for surrounding landholders and nearby communities due to fugitive dust emissions	C, O	Negative	Medium	Medium
Impacts on mental health concerns in the community	C, O	Negative	Low	Low
Perceived level of public safety affected by increased exposure to anti-social or illegal behaviours by members of the Project workforce	C, O	Negative	Low	Low
Increased likelihood of vehicle collisions (and associated injuries) due to increased volume of heavy vehicles and driver fatigue	C, O	Negative	Low	Low

As a form of analysis informing an EIS, SIA is more orientated towards the definition and avoidance or mitigation of potential impacts as opposed to potential social benefits. Accordingly, a total of 18 negative impacts were identified by this SIA compared to eight positive impacts. However, of the negative impacts, there were no impacts which retained a residual risk rating of 'medium' or above. Eight negative impacts were ranked as 'negligible' whilst ten negative impacts retained a 'low' rating assuming the effective implementation of mitigation and enhancement measures. The negative impacts which had the highest assigned level of significance generally related to the health and well-being of the workforce and their families which would be managed through the Whitehaven Coal Health and Safety Management System.

Reduced availability, affordability and accessibility of housing and accommodation was raised as a key concern held by local stakeholders. Increased demand generated by an influx of mining workers from the Project together with other mining projects may cumulatively cause a shortfall in the availability of housing and accommodation, subsequently leading to impacts to the housing market. An increase in housing and rental costs due to increases in the population and housing demand has the potential to lead to economic hardship for lower-income rental market tenants who have less capacity to cope with increased housing costs. To ensure the Project does not adversely affect the affordability and availability of housing in local communities, the Proponent is committed to making an appropriate contribution to both permanent housing and affordable housing stock in Moranbah. As outlined in the SIMP, the proponent has also committed to a broad range of measures which serve to improve accessibility to social infrastructure and support community sustainability, culture and well-being.

Of the eight identified positive impacts, six were rated as 'medium' and the remaining retained a rating of 'low' upon the implementation of enhancement measures. The Project would significantly contribute to increasing employment opportunities for local and regional residents through application of the recruitment hierarchy. The Project would also further enhance skills and capacity in local communities due to targeted training and skills development initiatives and increase business and supply chain opportunities through adopting a procurement policy and plan consistent with the values of the *Queensland Resources and Energy Sector Code of Practice for Local Content* and *Australian Industry Participation Framework*. The Proponent is committed to establishing itself as a long-term community partner which will make a positive contribution to community sustainability and development at a local and regional scale.

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Appendix A IAP2 Public Participation Spectrum

IAP2'S PUBLIC PARTICIPATION SPECTRUM



The IAP2 Federation has developed the Spectrum to help groups define the public's role in any public participation process. The IAP2 Spectrum is quickly becoming an international standard.

INCREASING IMPACT ON THE DECISION 					
	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GOAL	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands of the public.
PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

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Appendix B Stakeholder identification and analysis

CATEGORY	ENTITY	INTEREST	INFLUENCE	ENGAGEMENT LEVEL	KEY ISSUES	CHANNEL OF ENGAGEMENT	WHERE ADDRESSED IN EIS
State Agency	OCG (SIA Unit)	High	High	Collaborate	<ul style="list-style-type: none"> Scope of SIA and stakeholder engagement process Regulatory process Queensland Government agency engagement SIA guidelines Impact assessment findings and significance evaluation Management plans 	<ul style="list-style-type: none"> Via the SIA team through meetings, phone calls, emails 	<ul style="list-style-type: none"> This SIA Stakeholder Consultation chapter
Federal Agency	Department of the Environment and Energy	Medium	High	Inform	<ul style="list-style-type: none"> Regulatory process Management plans 	<ul style="list-style-type: none"> To be engaged via EIS process 	<ul style="list-style-type: none"> Stakeholder Consultation chapter
State Agency	Department of Natural Resources, Mines and Energy	High	Medium	Inform	<ul style="list-style-type: none"> Compliance Safety and health Authorities and permits 	<ul style="list-style-type: none"> To be engaged via EIS process 	<ul style="list-style-type: none"> Stakeholder Consultation chapter
State Agency	Department of Environment and Science	High	High	Inform	<ul style="list-style-type: none"> Environmental impacts Environmental compliance 	<ul style="list-style-type: none"> To be engaged via EIS process 	<ul style="list-style-type: none"> Stakeholder Consultation chapter
State Agency	Department of Transport and Main Roads	High	High	Collaborate	<ul style="list-style-type: none"> Any changes to road infrastructure Traffic management planning Land holder (Quarry) 	<ul style="list-style-type: none"> Meetings, phone calls and emails Site visit with local officer 	<ul style="list-style-type: none"> Stakeholder Consultation chapter Engagement not required as part of SIA- will draw upon findings of Road Transport Assessment which would involve engagement with DTMR
State Agency	Department of Agriculture and Fisheries	High	High	Involve	<ul style="list-style-type: none"> Owner of quarry material 	<ul style="list-style-type: none"> To be engaged via EIS process 	<ul style="list-style-type: none"> Stakeholder Consultation chapter
State Agency	Department of Aboriginal and Torres Strait Islander Partnerships	Medium	Low	Inform	<ul style="list-style-type: none"> Employment of First People Use of Indigenous businesses in supply chain Health of First People 	<ul style="list-style-type: none"> To be engaged via EIS process 	<ul style="list-style-type: none"> This SIA

CATEGORY	ENTITY	INTEREST	INFLUENCE	ENGAGEMENT LEVEL	KEY ISSUES	CHANNEL OF ENGAGEMENT	WHERE ADDRESSED IN EIS
State Agency	Department of Housing and Public Works	Medium	Medium	Inform	<ul style="list-style-type: none"> Housing affordability Any demand locally for social housing Potential for cumulative impacts to cause rapid change to housing availability and affordability 	<ul style="list-style-type: none"> To be engaged via EIS process 	<ul style="list-style-type: none"> This SIA
State Agency	The Department of Communities, Disability Services and Seniors	Medium	Medium	Inform	<ul style="list-style-type: none"> Social and health infrastructure capacity to provide services Recruiting and retention 	<ul style="list-style-type: none"> To be engaged via EIS process Face-to-face (or phone) semi-structured interview with local officer if available 	<ul style="list-style-type: none"> This SIA
State Agency	Department of Employment, Small Business and Training	Low	Low	Inform	<ul style="list-style-type: none"> No longer a TAFE campus or CQ University campus in Moranbah Retention and training of young people 	<ul style="list-style-type: none"> To be engaged via EIS process 	<ul style="list-style-type: none"> This SIA
State Agency	Queensland Treasury	Medium	Low	Inform	<ul style="list-style-type: none"> Job creation Royalties 	<ul style="list-style-type: none"> To be engaged via EIS process 	<ul style="list-style-type: none"> This SIA
State Agency	Department of State Development Manufacturing Infrastructure and Planning	Medium	Low	Inform	<ul style="list-style-type: none"> Regional Economic Development team – can facilitate relationships with local businesses Economic Development Queensland may have an interest 	<ul style="list-style-type: none"> To be engaged via EIS process 	<ul style="list-style-type: none"> This SIA

CATEGORY	ENTITY	INTEREST	INFLUENCE	ENGAGEMENT LEVEL	KEY ISSUES	CHANNEL OF ENGAGEMENT	WHERE ADDRESSED IN EIS
Social Service Providers- State Agencies	<ul style="list-style-type: none"> Education Queensland Moranbah State High School Queensland Ambulance Service Queensland Fire and Emergency Service Queensland Police Service Queensland Health 	Medium	Low	Involve	<ul style="list-style-type: none"> Workforce profile and labour availability Skill gaps and training opportunities Business opportunities Indigenous training, employment and business opportunities Social and health infrastructure capacity Emergency service capacity and demand Vulnerable population groups Social housing Cumulative impacts 	<ul style="list-style-type: none"> Meetings, phone calls and emails Face-to-face (or phone) semi-structured interview with local officers 	<ul style="list-style-type: none"> This SIA
Local Government	Isaac Regional Council	High	Medium	Involve	<ul style="list-style-type: none"> Scope of assessment Workforce recruitment, management and accommodation Community values, trends and issues Changes to the housing market Impacts on community facilities and service access Local employment and training needs Local supply issues Road safety and community safety issues Management strategies 	<ul style="list-style-type: none"> Face-to-face semi-structured interview with relevant officers 	<ul style="list-style-type: none"> Stakeholder Consultation chapter This SIA

CATEGORY	ENTITY	INTEREST	INFLUENCE	ENGAGEMENT LEVEL	KEY ISSUES	CHANNEL OF ENGAGEMENT	WHERE ADDRESSED IN EIS
Local Government	Mackay Regional Council	Medium	Low	Inform	<ul style="list-style-type: none"> Workforce recruitment, management and accommodation Community values, trends and issues Changes to the housing market Impacts on community facilities and service access Local employment and training needs Local supply issues Road safety and community safety issues 	<ul style="list-style-type: none"> Face-to-face or over the phone semi-structured interview with relevant officers – mining liaison, economic development, environment etc. 	<ul style="list-style-type: none"> Engagement not required as part of the SIA May be engaged as part of EIS disclosure process
Landowners	Landowners	High	Medium	Involve	<ul style="list-style-type: none"> Land ownership and use Access, connectivity and amenity Property impacts and mitigations 	<ul style="list-style-type: none"> The relationship and engagement with landowners rests with SC and interactions will be included in the report 	<ul style="list-style-type: none"> Stakeholder Consultation chapter
Non-government Organisation	Social infrastructure providers and non-government organisations Moranbah and District Support Services Association Inc. Moranbah District Mental Health Service Lennon Training Consultants	High	Medium	Involve	<ul style="list-style-type: none"> Community health and safety Mental health Service capacity Changed access/demand for health and medical services Effects on community services and facilities Workforce composition Local employment and training opportunities Impacts / benefits to community values Housing impacts Access to community and health services Local supply issues Road safety 	<ul style="list-style-type: none"> Face-to-face semi-structured interview 	<ul style="list-style-type: none"> This SIA
Industry Groups and Businesses	Queensland Resources Council	Medium	Medium	Inform	<ul style="list-style-type: none"> Advocate 	<ul style="list-style-type: none"> Email 	<ul style="list-style-type: none"> Stakeholder Consultation chapter

CATEGORY	ENTITY	INTEREST	INFLUENCE	ENGAGEMENT LEVEL	KEY ISSUES	CHANNEL OF ENGAGEMENT	WHERE ADDRESSED IN EIS
Industry Groups and Businesses	Local businesses via the Moranbah Traders Association	High	Medium	Involve	<ul style="list-style-type: none"> Local and regional supply opportunities Effects on local business and economic vitality Labour draw and workforce impacts Economic development 	<ul style="list-style-type: none"> Face-to-face semi-structured interview with members/leaders 	<ul style="list-style-type: none"> This SIA
Industry Groups and Businesses	Operators of the Civeo Camp	High	Medium	Involve	<ul style="list-style-type: none"> Forward planning – provision of accommodation to larger work force Cumulative impact on accommodation resources with other projects in the area 	<ul style="list-style-type: none"> Ongoing meetings, phone calls and emails 	<ul style="list-style-type: none"> Stakeholder Consultation chapter
Industry Groups and Businesses	SunWater	Low	Low	Inform	<ul style="list-style-type: none"> Supply of raw water 	<ul style="list-style-type: none"> Ongoing contact with officer 	<ul style="list-style-type: none"> Stakeholder Consultation chapter
Industry Groups and Businesses	Ergon Energy	Low	Low	Inform	<ul style="list-style-type: none"> Supply of energy 	<ul style="list-style-type: none"> Ongoing contact with officer 	<ul style="list-style-type: none"> Stakeholder Consultation chapter
Industry Groups and Businesses	Aurizon	Low	Low	Inform	<ul style="list-style-type: none"> Supply of rail infrastructure 	<ul style="list-style-type: none"> Ongoing contact with officer 	<ul style="list-style-type: none"> Stakeholder Consultation chapter
Non-government Organisation	Community groups and members Fitzroy Partnership for River Health Fitzroy Basin Association Moranbah Men's Shed	High	Medium	Involve	<ul style="list-style-type: none"> Workforce composition Local employment and training opportunities Impacts / benefits to community values Housing impacts Access to community and health services Local supply issues Road safety 	<ul style="list-style-type: none"> Face-to-face semi-structured interview 	<ul style="list-style-type: none"> This SIA
Union	CFMEU Mining and Energy	High	Medium	Involve	<ul style="list-style-type: none"> Job creation/stability Health and safety Advocate for workers 	<ul style="list-style-type: none"> Meeting, phone call and emails 	<ul style="list-style-type: none"> Stakeholder Consultation chapter

CATEGORY	ENTITY	INTEREST	INFLUENCE	ENGAGEMENT LEVEL	KEY ISSUES	CHANNEL OF ENGAGEMENT	WHERE ADDRESSED IN EIS
Indigenous Group	Barada Barna people	High	Medium	Involve	<ul style="list-style-type: none"> • Identification of Native Title interests • Possible development of Indigenous Land Use Agreement • Cultural Heritage management • Indigenous community goals • Employment and business capacity and opportunity 	<ul style="list-style-type: none"> • Face-to-face consultation 	<ul style="list-style-type: none"> • Stakeholder Consultation chapter • This SIA

Appendix C Semi-structured interview guideline

Contextual overview

The Winchester South Project would be a greenfield development located approximately 30 km south of Moranbah.

It is estimated the Project would produce up to 15 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal for approximately 30 years. Whitehaven WS plans to commence construction of the Project in approximately 2021 (or upon grant of all required approvals). The capital cost over the life of the Project is estimated to be in the order of \$1 billion. Initial capital to enable commencement of coal processing is estimated at approximately \$600 million.

The Project would require a construction workforce of approximately 500 personnel over a three-year construction period. A full-time operational workforce of approximately 500 personnel would be required for the Project.

As per all Whitehaven operations, employment opportunities for local residents would be maximised and employees from outside of the local area will be encouraged to re-locate to the region.

Members of the workforce would be provided a genuine choice in terms of accommodation. Workforce accommodation options for the Project include self-accommodation (i.e. home ownership), rental accommodation and utilising existing accommodation villages in Moranbah, Dysart or Coppabella.

An EIS for the Winchester South Project is currently being prepared. The purpose of this survey is specifically to inform the SIA. The objectives of the survey are to:

- Gain an understanding of the community including any relevant social trends or social change processes being experienced by potentially affected communities.
- Foster an understanding of potential socio-economic benefits and impacts, who might be affected, their relevant interests, values and aspirations and how they may be best engaged to inform the SIA.

To inform scoping of potential socio-economic effects associated with the Project, we are keen to gather your insights.

The discussion should take approximately 30 minutes. A summarised record of your responses will be taken and used to inform the SIA. Your insights and involvement in this process are greatly appreciated.

Participant Details

Name:

Organisation/ Position:

Interview Guide

1. Understanding your community

1.1. What areas in the local area/ local government area do you think may be affected (positively or negatively) by the Winchester South Project?

1.2. What kind of place would you say this area is to live?

- How would you describe population density, forms of housing, types of people, how long they have lived there, what do people value and desire?
- Tell us what it's like to live here? What do people like and don't like?
- Do you think there is a sense of community? Do people identify as part of the local community and get together to work towards a common goal?
- How do people usually find out what's happening in the area? Who usually knows what's going on?

v. What are the main community and business groups and what is the best way to engage with such groups?

vi. Who are the community leaders that people look up to or seek guidance from?

1.3. Are there any built or natural features which have social value or importance (including key social infrastructure) which you think could be potentially affected by the Project?

1.4. Are you aware of any social trends or social change processes being experienced in the local area/ local government area, particularly in those areas potentially affected by the Project?

1.5. A particular focus of the SIA is understanding vulnerable groups and how they may be affected by the proposal either positively or negatively. Who do you feel are the more vulnerable groups in your local area/ local government area?

2. Scoping of socio-economic effects

2.1. How do you think the proposal could potentially impact on **environmental conditions** (including amenity, aesthetics, access and the enjoyment of ecosystem services)?

Positive effects? (construction/ operation)

Negative effects? (construction/ operation)

People or groups most acutely affected and their capacity to influence decisions?

2.2. How do you think the Winchester South Project could potentially impact on **community health and wellbeing**?

Positive effects? (construction/ operation)

Negative effects? (construction/ operation)

People or groups most acutely affected and their capacity to influence decisions?

2.3. How do you think the Project could potentially affect **local business and industry and economic livelihoods**?

Positive effects? (construction/ operation)

Negative effects? (construction/ operation)

People or groups most acutely affected and their capacity to influence decisions?

2.4. How do you think the Project could potentially impact on people's **way of life** (such as how people live, work, play, and interact)?

Positive effects? (construction/ operation)

Negative effects? (construction/ operation)

People or groups most acutely affected and their capacity to influence decisions?

2.5. How do you think the Project could potentially impact on ***housing and accommodation***?

Positive effects? (construction/ operation)

Negative effects? (construction/ operation)

People or groups most acutely affected and their capacity to influence decisions?

2.6. How do you think the Project could potentially impact on ***community cohesion, character or sense of place***?

Positive effects? (construction/ operation)

Negative effects? (construction/ operation)

People or groups most acutely affected and their capacity to influence decisions?

2.7. How do you think the Project could potentially impact on ***access to social infrastructure*** such as health and education facilities?

Positive effects? (construction/ operation)

Negative effects? (construction/ operation)

People or groups most acutely affected and their capacity to influence decisions?

2.8. Are there any other ways in which you think the Project can affect ***socio-economic conditions including any fears or aspirations*** held by people who live in the local area/ local government area?

Positive effects? (construction/ operation)

Negative effects? (construction/ operation)

People or groups most acutely affected and their capacity to influence decisions?

2.9. What effect do you think the Project will have on ***employment***?

Positive effects? (construction/ operation)

Negative effects? (construction/ operation)

People or groups most acutely affected and their capacity to influence decisions?

2.10. Do projects similar to this one create ***training*** opportunities?

Positive effects? (construction/ operation)

Negative effects? (construction/ operation)

People or groups most acutely affected and their capacity to influence decisions?

2.11. In finishing, what do you see as the top two or three priorities to be considered in the SIA for the Winchester South Project?

local people
global experience

SMEC is recognised for providing technical excellence and consultancy expertise in urban, infrastructure and management advisory. From concept to completion, our core service offering covers the life-cycle of a project and maximises value to our clients and communities. We align global expertise with local knowledge and state-of-the-art processes and systems to deliver innovative solutions to a range of industry sectors.