

## 18 Economy

### 18.1 Description of Environmental Values

#### 18.1.1 Existing Economic Environment

The Project is located within the Isaac Regional Council, which was established as part of recent local government amalgamations and includes the former Belyando, Broadsound and Nebo shires. The Project Site is situated on the eastern side of the existing Poitrel Mine, in the northern part of the Bowen Basin approximately 170 km south-west of Mackay and 1,050 km north-west of Brisbane. The closest townships to the Project Site are Moranbah, Coppabella and Nebo. A demographic profile of the local and regional area is provided in **Section 17.1**. The main characteristics of this profile are:

- significant population growth which is expected to continue;
- a large, transient, non resident population with the majority of employees residing in the local area temporarily to service the mining industry;
- a relatively tight labour market with an unemployment rate below the state average;
- the mining sector comprising the largest employing industry followed by retail trade, accommodation and food services, and construction;
- machinery operators and drivers followed by technicians and tradespersons comprising the largest occupational categories;
- local businesses in the region are predominately in the agriculture, forestry and fishing industry followed by retail trade, construction and health and community services; and
- relatively high weekly income compared to the Queensland average.

##### 18.1.1.1 Economic Base and Economic Activity

Traditionally the economic base of the Isaac region has centred on sugar, beef, agriculture and coal mining. More recently there has been a move towards the development of aquaculture, fruit and vegetable growing, and goat farming activities (*Regional Economic Development Corporation 2008a*).

Employment opportunities in the coastal areas of the region are largely centred on service industries while employment opportunities in the west are largely associated with the coal industry.

#### **Coal Mining**

The Isaac Regional Council electorate is located within the Bowen Basin, the largest coal reserve in Australia. Providing approximately 83 percent of Queensland's coal production, the region extends over 60,000 km<sup>2</sup> from Theodore in the south to Collinsville in the north. The Mackay Whitsunday Region is responsible for 48 percent of Queensland's and 27 percent of Australian's total coal production.

The mining industry contributed \$5.5 billion (51.9 per cent) to the gross regional product for the Mackay Whitsunday Region in the 2007 financial year (*Regional Economic Development Corporation 2008c*). The production of coal increased by 7.9 per cent over the 2007 financial year to a total of 108.3 million tonnes per annum. In the 2007 calendar year there were 77.2 million tonnes of saleable coal exported from the Mackay



Whitsunday region, a decrease of 1 per cent from the previous year. Despite this slight decline, saleable coal production is expected to continue an upward trend (*Regional Economic Development Corporation 2008c*).

### ***Mining and Support Services***

Engineering support services for the mining industry in the northern Bowen Basin are predominately located in Mackay. There is a potential for the Isaac Regional Council to enter this mining services market by developing an industrial precinct located in close proximity to the Bowen Basin. The regional economic report on the Mackay Whitsunday region (June 2008) confirms that there are potential development opportunities for the mining services industry in the Isaac Regional Council. Industrial zoned land is available in both Moranbah and Clermont that is suitable for a number of industrial uses including development opportunities associated with expansion of the mining industry. Stage 2 of the Moranbah Heavy Industrial Estate provides for an additional 18 ha of industrial land. A steady uptake of industrial land in Middlemount has resulted in a supply shortage of industrial land in this area. Opportunities to provide more industrial land are currently being explored in both Middlemount and Dysart. Additionally, industrial zoned land more suitable for general industrial, light industry and warehousing is available in the townships of Nebo and Glenden (*Regional Economic Development Corporation 2008c*).

### ***Agriculture***

Agriculture contributed \$422.6 million (4 per cent) to the gross regional product for the Mackay Whitsunday Region for the 2007 financial year, a decrease of 18.2% from the previous financial year (*Regional Economic Development Corporation 2008c*). The activities in the region include sugarcane, cattle grazing, grain and horticulture. Agriculture production in recent times has been negatively impacted by drought conditions and fluctuations in global demand, thereby contributing to the recent decline in the gross regional product figure.

In the 2007 financial year the Mackay Whitsunday Region crushed 9.8 million tonnes of sugar cane, traded 1.2 million head of cattle and harvested 91,111 ha of grain crops (*Regional Economic Development Corporation 2008c*).

### ***Gas***

The Moranbah Gas Project located in the Bowen Basin is the sole provider of gas into the Townsville market. The gas field has an annual production capacity of over 16 petajoules and is one of the largest operating coal seam gas projects in Australia. There is potential for the Moranbah Gas Project to supply gas to the Gladstone market in the future.

#### **18.1.1.2 Potential Economic Opportunities**

It is expected that the coal mining industry will continue to show strong growth in the foreseeable future due to the availability and accessibility of coal deposits in and around the region and strong international demand. There are currently 32 coal mines operating in the Bowen Basin, with an expectation that 31 advanced projects in the region (20 for new mines and 11 for expansions of existing mines) will come on line before 2020 (*Daily Mercury August 2008*).



In June 2008, the Regional Economic Development Corporation reported the value of major developments under construction in the Mackay Whitsunday Region as \$21.3 billion, with a further \$12.4 billion in potential projects currently under investigation. Major projects under construction and committed as of June 2008 for the Mackay and Isaac Regional Council areas include:

**Energy:**

- Nebo to Strathmore transmission line – Powerlink Queensland (\$105 million)
- Nebo to QR Bolingbroke transmission line – Powerlink Queensland (\$20 million)
- Central Queensland Gas Pipeline from Moranbah to Gladstone – ALG Energy/Arrow Energy (\$220 million)
- Energy Supply Mackay Northern Suburbs – Ergon Energy (\$40.6 million)
- Mindi Electrical Feeder Substation (Goonyella System) – Queensland Rail (\$17.1 million)
- Moranbah North Gas Power Unit – Anglo Coal/Energy Developments (\$60 million)

**Marine:**

- Port of Airlie Marina – Meridien (\$500 million)
- Mackay Marina expansion – Mackay Marina Pty Ltd (\$14 million)

**Mining:**

- Isaac Plains Coal Expansion Project – Vale (\$103 million)
- Clermont Coal Mine – Rio Tinto Coal Australia (\$950 million total project capital expenditure)
- Lake Lindsay Coal Mine – Anglo Coal Australia/Mitsui Coal Holdings Australia (\$516 million)
- Carborough Downs Coal Project – Vale Australia (\$180 million)
- Vermont Coal Project – Bowen Basin Coal (\$176 million)

**Ports:**

- Dalrymple Bay Coal Terminal Expansion Stage 7 – Babcock and Brown Infrastructure (\$1.1 billion)
- Abbot Point Coal Terminal Stockyard System Upgrade – Ports Corporation Queensland (\$68 million)
- Abbot Point Coal Terminal X25 Expansion – Ports Corporation Queensland (\$95 million)
- Abbot Point Coal Terminal X50 Expansion – Ports Corporation Queensland (\$770 million)

**Tourism:**

- Clarion Hotel Extension – Clarion Hotel Mackay Marina (n.a)
- Peppers Coral Coast Resort – Latitude Development Group (\$140 million)
- Jagabara Championship Golf Course – Laguna Whitsundays Resort (\$25 million)



**Water:**

- Mackay Water Recycling Project – Mackay Water (\$154 million)
- Mirani Water Treatment Plant – Mackay Water (\$4.7 million)
- Nebo Road Water Treatment Plan Upgrade – Mackay Water (\$10 million)
- Pump stations upgrade – Mackay Water (\$8 million)
- Sarina Pipeline Project – Mackay Water (\$6.3 million)

**Roads:**

- Eton Range Upgrade – Main Roads (\$5 million)
- Forgan Bridge Duplication – Main Roads (\$128 million)
- Hospital Bridge Replacement – Main Roads (\$33.6 million)
- Joint Levee Road Mackay – Main Roads (\$14.2 million)
- Mackay-Bucasia Road Upgrade – Main Roads (\$21.9 million)
- Peak Downs Highway Widening – Main Roads (n.a)

**Rail:**

- Bolingbroke Substation – QR Network (\$30 million)
- Broadlea – Malloway – Wotonga Duplication – QR Network (\$88 million)
- Jilalan Rail Yard Upgrade – QR Network (\$500 million)
- Rollingstock Increased Capacity – QR National (\$2.92 billion)

**Industry:**

- Moranbah Ammonium Nitrate Manufacturing Complex (\$935 million).
- Evolution Paget Industrial Park – Mirvac & Industrial Commercial Property Solutions (\$200 million)
- Hastings Deering Complex – FKP (\$40 million)
- Harbour City Central – Giant Developments (\$20 million)
- Industroplex – FKP Property Group (\$40 million)
- Industry East Q – Massland (\$57.2 million)
- Mackay Gateway Business Park – Evolve Property Group/Investec Group (\$30 million)
- Mackay Connect Business Park – Pilcher Developments (n.a)
- Site Business Park – GAP Developments (\$17 million)
- South Mackay Industrial Estate – Office of the Coordinator General (\$7.4 million)
- Terminus Business Park – Winston Group (n.a)
- Universal Self Storage – Giant Developments (\$4.2 million)



### **Agribusiness:**

- HiFert Plan – HiFert (n.a)
- Racecourse Mill Ethanol Pilot Plant – QUT/Mackay Sugar (\$7 million)

### **Professional Services:**

- SkillsTech Australia College – TAFE (\$7 million)
- Bridge Road Medical Suites – Bridge Property Group (\$17 million)
- Simulation Research Development and Training Centre – Mining Industry Skills Centre (\$9 million) (Regional Economic Development Council 2008d)

An opportunity exists to commence gold mining at Mt Britton (within the former Nebo Shire), with developers currently expressing interest in the site.

#### **18.1.1.3 Value of Rateable Properties**

The median house price in Mackay City was \$386,500 for the year ending March 2008, an increase of 0.7 per cent from the previous year. By comparison, median house prices in the former Mirani and Sarina Shires increased by 16.8 per cent (to \$350,000) and 6.2 per cent (to \$345,000) respectively over the same period (*Regional Economic Development Corporation 2008b*).

The median house price in the former Broomsound Shire grew by 8.7 per cent for the year ending March 2008 to \$331,000. For the same period, the median house price in the former Belyando Shire declined slightly by 1.4 per cent to \$345,000 (*Regional Economic Development Corporation 2008a*).

The Mackay region recorded 45 industrial property sales valued at \$42,316,849 for the year ended December 2007, with an average price of \$940,374. Of these industrial property sales, 43 were in the Mackay City and two in the former Sarina Shire (*Regional Economic Development Corporation 2008b*).

The Isaac region recorded nine industrial property sales valued at \$5,083,250 for the year ended December 2007 with an average price of \$564,805. All nine industrial property sales were in the former Belyando Shire (*Regional Economic Development Corporation 2008a*).

## **18.2 Potential Impacts and Mitigation Measures**

### **18.2.1 Methodology**

The value of impacts on the regional economic environment has been assessed using input-output analysis. This approach is based on input-output tables that model the structure of an economy by describing inter-industry relationships. The tables are useful in economic impact analysis as they describe the total impact on an economy from an initial increase in demand in a particular industry. Input-output multipliers obtained from input-output tables capture the direct and indirect effects of an economic stimulus on a region. Input-output multipliers used for the Mackay region were obtained from the 1996/97 Queensland regional input-output tables (August 2004 revision). The 2001-02 System of National Accounts Input-Output Multipliers released by the Australian Bureau of Statistics (ABS, 2002) has been used to determine the

input-output multipliers at the national level. Input-output tables are not readily available for the State economy and hence it is difficult to reliably quantify the economic impacts at this level.

The objective of this economic assessment is to identify the potential economic impacts of the Project, including the direct and indirect impacts. The input-output methodology is one method of estimating such impacts as it focuses on 'economic activity impacts' and enables direct and indirect contributions to output and employment to be estimated from inputs in the form of spending during both the construction and operational periods. This method, therefore, is consistent with the outputs sought from the ToR.

In contrast, cost-benefit analysis estimates cost and benefits (monetised and non-monetised) of a project using discounted cash flow analysis. Unlike the input-output method, the outputs from a cost-benefit analysis would be the net present value (NPV), internal rate of return (IRR) and benefit-cost ratio (BCR). These indicators are decision making indicators to determine whether a project should go ahead or not go ahead (e.g. if NPV is greater than zero, then it is prudent to invest) and to prioritise investment options. The cost-benefit analysis method essentially measures the net worth of a project, not its economic impacts. Cost benefit analysis is data intensive, requires forecast of revenues and benefits, and is generally done internally before the proponents of a project decide to proceed or not proceed.

In summary, the input-output method is an economic impact assessment method, whereas cost-benefit analysis is an economic evaluation method. There is therefore a mismatch between the method referred to in the BMA BBCGP ToR (i.e. cost-benefit analysis) and the outputs sought by the ToR for the economic component of the EIS (i.e. direct and indirect economic impacts).

### **18.2.1.1 Types of economic impacts**

The economic impact of the Project can be traced through the economic system in several different ways. For the purpose of this assessment, the following types of impacts are considered:

- the **direct multiplier effect** represents the increase in economic activity (value added) and employment which is directly generated in the industry receiving the initial impact;
- the **indirect multiplier effect** represents the flow-on impacts that occur from all secondary industries in the economy to support the direct impact;
- the **induced multiplier effect** represents the change in consumption by the household sector or "pay packet" effect in response to income changes resulting from the direct and indirect impacts; and
- the **total multiplier effect** is the sum of the direct, indirect and induced multiplier effects outlined above.

### **18.2.1.2 Measurement of economic impacts**

In this assessment, the economic impacts of the Project are measured in terms of:

- output;
- value-added; and
- employment.



For the purposes of this assessment, output is used to measure the gross value of production at the national level. The measure includes the value of raw materials that have been generated from previous stages of the production process and thus there is a tendency for double counting.

For this reason, value added is considered to be a better indicator of economic impact and is used to measure the net output impact at the regional level. This measure is equivalent to gross state product as used by the Australian Bureau of Statistics. Unlike the gross output measure used at the national level, only the value of incremental raw materials at each stage of production is included.

Employment measures the number of jobs required to meet the additional production in an economy. Employment may occur through increased use of existing labour or the creation of additional jobs. The measure of employment is equal to the equivalent full-time employment (FTEs).

### **18.2.1.3 Data and assumptions**

The activities associated with the Project were broadly categorised as either construction or operation. These individual expenditure profiles were then allocated to the appropriate sectors in the input-output framework to estimate the economic impacts of the development.

For the construction phase, activities were based on a 16 month construction period and annualised for the purposes of the assessment. Similarly, operating expenditure was provided on an annualised basis. Using information provided by BMA on the likely contribution to key stakeholders (current at 30 June 2008), estimates were made on the proportion of expenditure likely to occur at the regional, state and national levels. The proportions of expenditure were estimated at 39 per cent at the regional level, 32 per cent at the state level and 29 per cent at the national level. These proportions were used to estimate the economic impacts on valued added, output and employment. The amounts are based on 2008/09 Australian dollars.

### **18.2.1.4 Limitations of the methodology**

As noted previously, the multipliers used in this study rely on multiplier tables obtained from the Queensland Office of Government Statistician (August 2004) and the Australian Bureau of Statistics (ABS, 2002).

As the table sources are dated, care should be taken in terms of the reliability and accuracy of the estimates provided. In particular, the assessment assumes that industrial structure of the Australian economy has remained relatively unchanged since the compilation of the tables. However, it has been recognised that due to the considerable time, complexity and hence cost involved in updating these tables, there is generally a time lag between the time in which these tables are compiled and the current period (ABS, 2002). In part, this is acceptable if one considers that *“technological change does not occur very rapidly, so that it is possible to obtain reasonable results for the latest year even though the latest input-output tables may be a few years old. The various multipliers generally remain fairly stable over time”* (ABS 1995, page 6).

It should also be noted that there is a general bias observed with this method to overstate the benefits of a project. The ABS has noted that the *“theoretical basis (of multiplier effects) produces estimates which somewhat overstate the actual impacts in terms of output and employment”* (ABS 2002, page 550). Other associated limitations with the use of input-output multipliers is that they describe average effects, not

marginal effects, and thus do not take into account economies of scale, unused capacity, labour supply constraints or technological change (ABS 1995 page 6). For these reasons, range estimates rather than point estimates are provided in order to take into account possible structural changes in the economy since the compilation of the input-output multipliers.

Despite these limitations, the input-output framework provides a means of estimating the economic impact of the Project and is intended to be indicative only.

### 18.2.2 Construction Phase

The construction phase is set to commence in March 2009, with a duration of 16 months and an estimated total cost of US\$500 million. The number of workers employed will vary throughout the construction and will peak at approximately 450 workers. A monthly breakdown on the construction workforce is depicted in **Figure 17-6** in **Section 17** of the EIS.

The construction phase will have a short-term economic impact to the regional and national economy from increased spending and employment. The annualised economic impact of construction has been estimated using input-output analysis and is summarised in **Table 18-1**. For the purposes of this economic assessment an exchange rate of 0.80 US\$/A\$ has been assumed.

**Table 18-1 Annual economic impact of Project construction on the Mackay Region and Australia**

	Regional	National	Total
<b>Value Added or Output</b>			
Direct	59 – 73	50 – 62	108 – 135
Flow-on	29 – 37	46 – 58	75 – 94
Induced	29 – 37	100 – 124	129 – 161
<b>Total</b>	<b>117 – 146</b>	<b>195 – 244</b>	<b>312 – 390</b>
<b>Employment</b>			
Direct	1163 – 1550	245 – 326	1407 – 1877
Flow-on	293 – 380	163 – 218	456 – 598
Induced	256 – 336	489 – 653	745 – 989
<b>Total</b>	<b>1711 – 2267</b>	<b>897 – 1196</b>	<b>2608 – 3463</b>

Notes: Regional impacts are derived on a valued-added basis. National impacts are derived on an output basis. Figures may not sum precisely due to rounding.

Based on **Table 18-1** the total economic impact on the Mackay Region and the national economy for the 16 month construction period is estimated as follows:

- Construction is expected to increase value added of all other industries in the Mackay Region by \$117 to \$146 million and raise output by \$195 to \$244 million in Australia on an annual basis.
- Expenditure during construction is expected to support the equivalent of approximately 1,711 to 2,267 full-time jobs in the Mackay Region and 897 to 1,196 full-time equivalent jobs in Australia on an annual basis.

The direct economic impact from the construction phase will decline towards the end of the construction period as construction tapers off; however, the economic impact on the local region will be sustained by the operational phase of the Project.

### 18.2.3 Operational Phase

Once the operational phase commences, the local region will experience ongoing economic impacts throughout the life of the Project, due to the direct link between employment in the local area and the level of spending in the region.

The Project will be operational for 21 years with expected yearly operational costs in the order of A\$200 to A\$250 million. Once operational the Project is predicted to employ a workforce of approximately 300 people. The composition of the workforce is expected to be 250 operators and fitter contractors, 25 personnel for the CHPP and 12 BMA personnel for management, health and safety, and environmental roles.

Based on an operational expenditure of \$200 million per annum the annualised operational impact on the Mackay Region and national economies has been estimated and is summarised in **Table 18-2**.

**Table 18-2 Annual economic impact of Project operation on the Mackay Region and Australia**

	Regional	National	Total
<b>Value Added or Output</b>			
Direct	31 – 39	18 – 23	49 – 62
Flow-on	12 – 16	14 – 18	27 – 34
Induced	12 – 16	31 – 39	44 – 55
Total	56 – 70	64 – 80	120 – 150
<b>Employment</b>			
Direct	89 – 119	70 – 93	159 – 211
Flow-on	133 – 181	70 – 93	202 – 274
Induced	117 – 156	174 – 232	291 – 388
Total	339 – 456	313 – 418	652 – 873

Notes: Regional impacts are derived on a valued-added basis. National impacts are derived on an output basis. Figures may not sum precisely due to rounding.

Based on **Table 18-2** the annual economic impact on the Mackay Region and the national economy during the operational phase is estimated as follows:

- The value added to all industries in Mackay is increased by \$56 to \$70 million annually due to the Project operation. Nationally, output is increased by approximately \$64 to \$80 million on an annual basis.
- The operation of the Project will generate an additional 339 to 456 jobs in the Mackay Region and 313 to 418 jobs in Australia annually.



The Project will provide significant economic benefits to the Mackay Region and Australian economies during its operational lifetime.

#### **18.2.4 Costs to Government**

It is expected that no Government infrastructure will need to be established or upgraded for the Project, as outlined below:

- **Rail.** The Goonyella Rail System will not require upgrading for the Project. The upgrade of the Red Mountain rail loop will be at the Proponent's cost. All rail haulage costs will be recovered through fees levied to the Project.
- **Port.** The product coal will be loaded at the Hay Point and Dalrymple Bay coal terminals. The Hay Point Coal Terminal (HPCT) is owned and operated by BMA while the Dalrymple Bay Coal Terminal (DBCT) is operated by Babcock and Brown Infrastructure. Capacity exists at the HPCT and DBCT to export the product coal from the Project. No costs will be incurred by Government for port capacity.
- **Road.** The Project will use existing roads, primarily the Poitrel/Millennium access road and Peak Downs Highway, with no impact to the Level of Service and thus no upgrading works required.
- **Power.** No external power system upgrades are required for the Project. The new internal 66 kV transmission line will be at the Proponent's cost.
- **Water.** The Project will source water from the existing Braeside Pipeline, requiring no additional external water infrastructure.
- **Accommodation.** The Project workforce will mostly reside at the Coppabella accommodation centre, which is privately operated, with some workers and their families residing in private accommodation in nearby townsites. No Government accommodation will be required.

The Project workforce and their families will use services provided by State and Local Government (e.g. educational, medical and municipal services) however such services would be provided if the workers and families lived elsewhere in the State or within Australia. Increased costs to the Isaac Regional Council will be offset by the rates charged to the new residents. No significant increase in overall costs to government is anticipated.

#### **18.2.5 Short and long-term economic impacts**

##### **18.2.5.1 Impacts on the local economy**

At the local level, economic impacts are related to industry actions due to the link between the level of employment in an area and the level of spending in that area. The Project requires a substantial construction and operational workforce, the majority of which is likely to be sourced from outside the region. The size of the economic impact on the local region would depend on how many of the externally sourced project employees relocate to the area permanently. A person who resides in an area on a permanent basis would spend more money in local businesses. Spending would be on a variety of items such as food, beverages, personal consumables, personal services and education. This is in comparison to employees that commute to the area and reside in temporary accommodation for the duration of their shifts. These



employees would have less interaction with the community and their spending in local businesses will be smaller.

It is anticipated that approximately 10 per cent of the construction workforce and approximately 30 per cent of the operational workforce will relocate to the region on a permanent basis. As discussed in **Section 17**, some project employees who relocate to the area permanently will also bring their families. If employees who relocate to the area also bring their families the economic impact on the local region will be greater. If the employees' families relocate, the household expenditure in the local businesses will be greater and will be in a wider range of goods and services (due to greater number of individuals of varying ages and sex). Additionally, a family would have more involvement and interaction with the local community, which is associated with increased spending in local businesses.

Surveys on the spending patterns of residents in the township of Nebo have found that approximately 15 per cent of total household expenditure is spent in the township (*Central Queensland University 2003*). Nebo township, however has a relatively small number of local businesses offering a limited scope of goods and services. Moranbah, by comparison, is a more substantial town with a greater variety of local businesses offering an increased range of goods and services. Hence it is expected that the residents in the township of Moranbah would spend more than 15 per cent of their total household expenditure in the township.

The survey performed by Central Queensland University (CQU) also found that Nebo residents spend a larger proportion of their expenditure in Mackay. Mackay is a larger regional centre and would offer a wider variety of goods and services and provide greater choice for consumers than the surrounding townships. Expenditure that occurred in Nebo was in the categories of food, groceries and alcohol; hair, beauty and personal; motor vehicles repairs; motor vehicle purchases and education. No expenditure was made in the clothing and footwear; house and garden; and medical care and health categories in Nebo. In contrast, high levels of expenditures were reported in Mackay across all categories apart from recreation and holidays, and education.

The Australian Bureau of Statistics reports an Australian average weekly household expense of \$893 (*Household Expenditure Survey and survey of Income and Housing Catalogue No. 6540.0.00.001*). Based on the survey on spending patterns of residents in the township of Nebo it is estimated that an employee and their household that permanently relocate to the area would spend at least \$134 per week locally, with the remainder being spent on a more regional basis.

This weekly spend of \$134 has been used to calculate the impact on local businesses from spending by project employees and their families. As highlighted above the weekly spend would be higher in Moranbah township as there is a greater range of goods and services offered. Therefore the impacts on the local economy as presented below are likely to be underestimated.

The weekly expenditure by the construction workers who relocate to the area for the construction phase is estimated at \$6,030. Assuming 52 working weeks, the total expenditure in local businesses by these construction workers during the construction phase is approximately \$313,560.

The Project will employ an operational workforce of approximately 300 employees. It is expected that 30 per cent or 90 employees would relocate to the region on a permanent basis. Based on the information above,



the combined weekly spending in local businesses by operational employees would be approximately \$12,100 and assuming 48 working weeks, the total annual expenditure would be approximately \$580,000. As mentioned above the spending by Project employees and their families on a variety of items will benefit numerous local businesses in the region.

Additional economic impacts will flow on to the regional economy due to spending in regional businesses by Project employees who relocate to the Isaac Regional Council area on a permanent basis with their families. Input-output tables have been used in **Section 18.2.2** and **Section 18.2.3** to quantify the economic benefits at the regional level.

### **18.2.5.2 Impacts on local business and employment**

#### **Local businesses**

An economic impact on the local economy resulting from this Project would be spending by Project contractors in local businesses. These benefits would be maximised by Project contractors using local businesses to supply goods and services, where possible. **Section 17** discusses the actions undertaken by BMA to encourage contractors to purchase goods and services from local businesses where possible to maximise the economic impact on the local economy. It is recognised, however, that local businesses would not be able to meet all the requirements of the contractors and hence some goods and services would have to be purchased from outside the region regardless of encouragement by BMA.

Results from surveys of businesses in the Nebo and Coppabella townships have found that several local businesses depend on business from coal mines to remain operational. Only one of the respondents of a survey indicated that coal mines did not have an effect on their business (*Central Queensland University 2003*). Hence local businesses will be benefited if some proportion of the Project's budget is spent in the region.

Spending in local businesses by the Project employees and contractors will have flow on effects to the local economy. In the short-term, local businesses will experience increased profitability and may even be required to hire additional employees. In the long-term the Project will provide new business opportunities, such as expansion in existing businesses and attracting new businesses to open in the area. Benefits from expansion and new businesses include greater choice of products for consumers, an increase in the range of services offered locally, and the potential for lower prices due to increased competition. This would also help to broaden the economic base of the Isaac Regional Council and encourage local business diversity. This will be discussed in more detail in **Section 18.2.5.5**.

#### **Employment**

The increased economic activity from spending in local businesses by Project employees and their families and contractors is expected to create additional jobs as the effect filters through the local economy. However, it is difficult to estimate the flow on effects on employment at the local level. The effects will depend on the spending patterns of employees and contractors of the Project.

The ability of local businesses to attract new employees to the area is likely to be hindered by the lack of available housing in the Isaac Regional Council (refer to following section).

### **18.2.5.3 Impacts on local housing and accommodation**

The construction and operational workforces for the Project are likely to be sourced from external locations due to the low unemployment rate and skills shortage within the Isaac Regional Council. An influx of workers into the region who require both temporary and permanent accommodation will place additional pressure on housing demand and supply. The townships already experience high occupancy of short-term accommodation, shortage of housing supply and high rental prices. Detrimental effects on the local region include lack of short-term accommodation for persons outside of the mining industry (i.e. tourists), lack of affordable accommodation driving non-mining workers out of the area, and Project employees and their families not having the option to relocate to the local area on a permanent basis. The impact on housing demand and supply has been discussed in detail in **Section 17**.

In summary, it is not anticipated that the Project would have a significant impact on the value of properties surrounding the Project Site, due to its proximity to the existing Poitrel and Millennium Mines. Increased demand for housing in the local area, as a result of Project employees moving to the area on a more permanent basis, could however result in additional pressure on the local housing market and further increases in the price of housing.

### **18.2.5.4 Workforce Impacts**

The Project will have a substantial impact on the local workforce. The Isaac Regional Council is characterised by a relatively tight labour market, a low unemployment rate and a shortage in skilled labour. As such, the majority of both the construction and operational workforces will need to come from outside of the region. As is characteristic of most construction projects throughout Queensland, some imported labour will be required particularly during the construction phase of the Project. As outlined in **Section 17.1.2.5**, almost 43 per cent of the working population of Moranbah/Oxford/Nebo and 38.9 per cent of the working population of the Isaac Regional Council are employed in the mining sector. By comparison only 8.3 per cent of the working population of the Mackay Regional Council and 1.7 per cent of the working population of Queensland were employed in the mining sector. This highlights the dependence of the Isaac Regional Council on the mining industry. As the Project moves into the operational phase, this dependence is likely to increase.

The Project can have a positive impact on the local workforce by indirectly attracting workers who are seeking employment to the Isaac Regional Council. It is anticipated that a proportion of Project employees and their families would relocate to the region on a permanent basis. There is potential that the family member who is not a Project employee would be in search of a job in the local area. There would be a positive impact on the local economy if the non-Project employee family member is employed in a part-time or full-time position. These family members are likely to be workers from various professions with differing skill levels. An influx of families relocating to the region on a permanent basis may help to ease the pressure on the local labour market.

A survey undertaken on mining companies and contracting firms in the Central Highlands found that 100 per cent of the respondents indicated that they had experienced a shortage of skilled labour across a range of occupations within the professional, trades and operator categories. In particular the greatest shortage was for mining engineers in the professional category, diesel fitters and electrical from the trades category, and



open-cut examiners and various plant operators from the operator category (*Central Highlands Development Corporation 2005*). Hence a skill shortage exists in the local area and this shortage is not limited to a particular job category. The Minerals Industry National Skills Shortage Strategy indicates that the category with the largest labour shortage is tradespersons and semi-skilled workers. The shortage in lower skilled professions suggests that the focus should also be on attracting workers to the mining industry rather than just the provision of training. There is currently a shortage in labour in the mining industry in Australia and overseas. The shortage is considered to be greatest in inland areas such as the Isaac Regional Council. This highlights the difficulty of the local region to attract and retain labour in inland areas. The region needs to develop a strategy to attract workers from regional coastal centres and overseas locations.

Some recommendations developed by a study into the National Skills Shortage in the Mineral Industry (Lowry *et al.* 2006) to address the skills shortage in the mineral industry throughout Australian included:

- heightening the focus on the development of appropriate training systems, with a particular emphasis on designing systems for the provision of quality on-the-job training; and
- identifying and targeting alternative labour reservoirs. Alternative sources identified by the study included:
  - the manufacturing sector, which is projected to experience further decline in non-professional occupational categories over the next decade. While this sector offers a pool of labour with broadly compatible skills there are locational issues that will need to be addressed.
  - women, however, there are a number of crucial challenges associated with targeting women including the provision of childcare in remote areas, design of family friendly policies such as flexible rosters and changing the traditionally masculine culture associated with mining.

In order to address the skill shortage in the local region BMA is committed to work with the government, education facilities and industry to promote various programs. These programs are aimed to raise awareness of mining-related careers, ensure the accessibility of training and education and improve skills retention within the company. Programs initiated by BMA include the Skills for Growth program, which is part of BMA's community investment commitment. Through programs such as this BMA support scholarships, the Engineering Extension Program, cadetships, universities and whole of industry measures such as the Queensland Mining and Energy Academy. A detailed list of the programs promoted by BMA has been included in **Section 17**.

#### **18.2.5.5 Impact on Economic Base of Isaac Regional Council**

It is important to address the long-term impacts of the Project on the Isaac Regional Council. The economic base of the Isaac Regional Council is becoming less diversified with a move away from agriculture and primary production and towards mining. The importance of mining to the local economy will intensify in the near future with a number of new coal mines and mine expansions proposed for the region. The increased reliance on coal mining will make the local region more susceptible to fluctuations in world commodity prices, industry rationalisation, cost reduction measures, and changes to employment policy and work practices. Workers employed by the mining industry may have limited connection and involvement with the local community, raising concern that if there is a downturn in the local mining industry these workers are unlikely to remain in the region and help contribute to future economic development. Research by Nebo Shire



Council has indicated that not all locals wish to depend on the mining industries but rather see the success of the mining industry as an opportunity to support other potential economic opportunities (Nebo Shire Council, 2006). As discussed in **Section 18.2.5.2**, the increased profitability of local businesses due to spending by Project employees and contractors may promote business expansion and attract new businesses to the region. The region has also been experiencing growth in the tourism area and the services industry. Along with agriculture, there is potential to expand these industries which will help to diversify the economic base of the region. However, the Isaac Regional Council is still faced by the issue of the sustainability of non-mining business expansion and the ability for it to be sustained beyond the life of the mining industry.

It is the responsibility of the local community, Isaac Regional Council, Mackay Whitsunday Regional Economic Development Corporation, Queensland Government, and the mining industry to work together to ensure the economic sustainability of the local economy in the future.

Key issues identified by the former Nebo Shire Council to ensure sustainable economic growth in the future include:

- access to adequate/available water resources;
- youth retention and development;
- infrastructure – hard, soft, social;
- the need to diversify to reduce dependency levels on coal mining; and
- availability of land and housing developments.

These key issues are also applicable to the former Belyando and Broadsound Shires. In order to support the Isaac Regional Council in addressing the above key issues BMA has implemented the following programs:

- Provided financial support to the former Belyando, Broadsound and Nebo Shire Councils to employ a Hinterland Economic Development Manager. The purpose of this Economic Development Manager is to promote the region to potential residents and tourists as well as establishing an environment that will attract and retain small business and industry.
- Constructed the Burdekin Pipeline which provides water to the township of Moranbah. The former Belyando Shire Council has been offered 7 ML per day, annually adjusted on population base. This will provide 800 litres for consumption per person per day in Moranbah (in comparison Brisbane City Council expects to provide 140 litres per person per day). Mining and industry have contributed 87 per cent of the costs of the pipeline with 8 per cent contributed to by the former Belyando Shire Council and 5 per cent by the Queensland Government.
- Established the BMA Community Partnership Program, which provides \$1 million per annum to the Bowen Basin region. The initiatives of this program include:
  - youth development;
  - economic development/business and skills training;
  - community development and welfare;
  - community, safety sport, wellbeing and recreation;
  - arts, entertainment and cultural development; and



- environment and sustainable development.
- Provided approximately \$16 million to Council in the form of rates, subsidies, special levies and allocations.
- BMA will continue to implement and evolve its Community Partnerships Program throughout the Bowen Basin. An avenue for the implementation and monitoring of any economic initiatives will be through the established “Growing BMA” Community Reference Group. This group includes representatives from government agencies, social service providers and business development groups.