Project: Port Pirie Airport Expansion and Feasibility Study

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1 Introduction

1.1 Background to this Report

The Port Pirie Airport Expansion and Feasibility Study (Study) was commissioned by Port Pirie Regional Council (PPRC) to determine the feasibility and the community benefit of upgrading the Port Pirie Airport located at the aerodrome to facilitate a Fly In Fly Out (FIFO) service operation, primarily for the emerging mining sector in South Australia.

PPRC in its capacity as the owner and operator of Port Pirie Airport is currently assessing options to upgrade the airport’s airside and landside infrastructure to support larger and heavier turbo-prop aircraft such as the Fokker 50 (carrying capacity of 50 passengers). Other smaller turbo-prop aircrafts commonly used for FIFO could also be accommodated by the upgrade include:

- Metroliner 23 (19 seater)
- Dash 8-100/200 (38 seater)
- Dash 8-300 series (50 seater).

PPRC has made no decision regarding the staging and/or the airside upgrades to be adopted and this Report is to be used to inform the need for, and timing of, possible airport upgrades.

1.2 Aurecon’s Role and Study Methodology

Aurecon was commissioned to undertake a high level economic feasibility study on the potential for FIFO demand from the mining and resources sector to contribute towards the capital cost of an airport upgrade.

The underlying methodology behind the economic feasibility study was to assess the likely revenue from FIFO passenger demand that could contribute towards the capital cost of an airport upgrade.

The Port Pirie airport currently has no Regular Passenger Transport (RPT) services (see Sections 3.2 and 3.5) this low level of existing demand clearly means a significant increase in passenger/aircraft movements would be needed to offset the capital cost of an airport upgrade.

Given this situation, in order to better focus the conclusions from the study it was agreed with PPRC representatives to approach the economic analysis by way of calculating a “break even” analysis.

Essentially, this break even analysis calculates the required number of passenger/aircraft movements that would be required to fully offset the cost of an airport upgrade. With this gap identified the study could then use the results of the survey of mining and resources companies to determine if sufficient FIFO-based demand was evident to fill this gap.

In the event that sufficient FIFO-based demand was not evident the study would undertake a high level qualitative “SWOT” analysis of possible demand that may result from non-mining industries. For example, other potential industry growth areas identified by PPRC representatives included tourism, heavy industry, fresh food industry, medical, military, and civil emergency services.

Conceivably these industries could have a positive impact on the demand for and use of upgraded airport infrastructure at Port Pirie Airport. These supplementary factors could in turn generate economic and community benefits in Port Pirie and the surrounding regions.
Our report provides an assessment of this likely wider economic demand, however, we note that a detailed body of work is outside the scope of our role and is perhaps more appropriately addressed through a more detailed SWOT/economic development strategy.

We also note that adjoining regional airports (e.g. Whyalla) are investigating upgrade options to accommodate larger aircraft operations. A key issue for the Port Pirie Council, therefore, is that while there will be strategic opportunities created by upgrading the Port Pirie airport, such opportunities will always be in the context of larger neighbouring airports also competing for regional air traffic services. As raised later in this Report consideration should be given to a coordinated regional approach to ensure local governments as a whole benefit from increased regional air services.
Given the importance that key infrastructure has on local communities and cities, as part of our study we provided information about master planning principles that may inform the future role of any upgraded airport facility for the Port Pirie region.

A recent trend in airport master planning and development, particularly in the United States and Europe, has been the promotion of the Aerotropolis approach to airport development.

Through Aerotropolis the airport and environs are viewed as part of the region/city. The term “Aerotropolis” was originally coined by John Kasarda, a Professor of Entrepreneurship at the University of North Carolina. Aerotropolis describes the phenomenon of cities and economies growing around airports that offer businesses speedy connectivity to their global suppliers, customers, and partners.

Aerotropoli open the doorways to global markets and Kasarda believes that manufacturing operations of all types will increasingly gravitate toward such cities. It is important to recognise that Aerotropolis is not only master planning in and around an airport, but is about regional economic development.

In essence, Aerotropolis means casting a wider net of the potential benefits that an airport can generate for a community or city. Such an approach is similar to measuring economic benefits insofar as counting the “direct” benefits generated from a project and then identifying the “indirect” benefits that spill over from a project into the local or regional economy.

Figure 1.2.1 Aerotropolis Concept
For this study the application of Aerotropolis could inform several aspects:

- The operations of PPRC and the airport that would be the beneficiary of passenger and freight movements, whether they be RPT and/or air charters, attributed to the airport upgrades
- The broader economic and community impacts on existing key industry groups that contribute to Port Pirie and the broader regional economy
- Other prospective business and community based activities in the region that potentially have linkages and/or synergies with Port Pirie airport.

A key issue to note, however, is that the Aerotopolis approach is a long term development strategy requiring a structured and coordinated approach to commercial and economic development. For regional communities such as Port Pirie there are more immediate socio-economic benefits accruing from an airport facility including:

- Emergency access
- Tourism
- Investment attraction
- Community education and health.
3 Current Airport Facilities

3.1 Airport Location and History

The Port Pirie airport is located within the Port Pirie aerodrome as shown on the adjacent map.

Situated approximately 5.6 kilometres south of the Port Pirie central business district, the airport is owned by the PPRC.

The airfield was a Royal Australian Air Force station and home to No. 2 Bombing and Gunnery School (No. 2 BAGS) during World War II.

No. 2 Operational Training Unit was formed at Port Pirie on 6 April 1942, and operated initially with Wirraways and Fairey Battles at the aerodrome until it moved to Mildura, Victoria in May 1942. No. 2 BAGS was then renamed No. 3 Air Observers School in December 1943.

After World War 2, the station housed No. 5 Central Recovery Depot where aircraft and parts were stored until disposal.

The station closed in early 1947, with the aerodrome reverting to civilian use thereafter.
3.2 Current Aircraft Activity and Movements

As at September 2012, Port Pirie airport has no RPT services. The current airside and landside infrastructure can only accommodate aircrafts up to 10 passengers with pavement concessions. Recreational flying and flight training are the primary aviation activities currently undertaken at the Port Pirie airport.

The closest RPT airport is Port Augusta, about 100 km north of Port Pirie and 322 km north of Adelaide. Port Pirie is located 224 km and 3 hours by car from Adelaide and this closer proximity to the State’s capital is a major contributing factor to the use of car travel or Drive In Drive Out (DIDO) versus alternative air travel between Port Pirie and Adelaide.

3.3 Existing Airport Site Facilities

As shown in the following layout map, the existing aerodrome site consists of runway facilities and associated site facilities including manager’s residence, hanger, sheds, and fuel facilities.

---

1 Based on information from the South Australian Department of Planning, Transport and Infrastructure there are over 400 regional airports and airstrips in South Australia including eight that receive regular RPT services from regional airlines.
3.4 Assets

The assets currently located at the Airport are listed below (along with an image where available).

Table 3.4.1 Port Pirie Aerodrome Assets

<table>
<thead>
<tr>
<th>Asset Description</th>
<th>Image</th>
<th>Proposed Upgrades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hangar</td>
<td><img src="image_url" alt="Hangar Image" /></td>
<td>The hangar facility is to be reviewed against current building regulations and safety standards.</td>
</tr>
<tr>
<td></td>
<td>The hangar dates back to World War 2 and approximately 60 years of age.</td>
<td></td>
</tr>
<tr>
<td>Storage Sheds</td>
<td><img src="image_url" alt="Storage Sheds Image" /></td>
<td>Maintenance Sheds are required for provision of maintenance requirements.</td>
</tr>
<tr>
<td></td>
<td>Three storage sheds are located on the site including Common User, Rotary Club and Smaller Workshop.</td>
<td></td>
</tr>
<tr>
<td>AV Gas Underground Fuel Tank</td>
<td><img src="image_url" alt="AV Gas Fuel Tank Image" /></td>
<td>The Port Pirie Flying Group(^2) is currently reviewing estimates to fund a 40,000L Jet Fuel Tank anticipated to cost $100,000 to $110,000.</td>
</tr>
<tr>
<td></td>
<td>The 20,000L AV Gas Underground Fuel Tank costing approximately $100k was installed approximately 6 years ago and funded by the Port Pirie Flying Group.</td>
<td></td>
</tr>
</tbody>
</table>

\(^2\) Port Pirie Flying Group is a voluntary not for profit organisation, self-funded with a membership base of 60 of which 10 members meet on a monthly basis.
<table>
<thead>
<tr>
<th>Asset Description</th>
<th>Image</th>
<th>Proposed Upgrades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Pirie Aerodrome Waiting Rooms and Toilets</td>
<td><img src="image1" alt="Image" /></td>
<td>Subject to security, see below.</td>
</tr>
<tr>
<td>Spencer Gulf Flight Training</td>
<td><img src="image2" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td>Airport Manager’s Residence</td>
<td><img src="image3" alt="Image" /></td>
<td>N/A to the scope of the Port Pirie Airport Feasibility Study.</td>
</tr>
<tr>
<td>Asset Description</td>
<td>Proposed Upgrades</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Water Tank for storage</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sealed Runway 08/26</td>
<td>Length 1,043 m&lt;br&gt;Lit for night use&lt;br&gt;Published procedures for non-precision instrument (GPS) approaches&lt;br&gt;Extension to 1,800 m requires upgrading of the:&lt;br&gt;- Existing runway lighting&lt;br&gt;- Re-drafting of the published instrument approach.&lt;br&gt;- Widening from 18 to 30 m (possible material gravel).</td>
<td></td>
</tr>
<tr>
<td>Gravel Runway 17/35</td>
<td>Length 1,069 m&lt;br&gt;Extension to North of runway and close proximity to small number of dwellings.</td>
<td></td>
</tr>
<tr>
<td>Grass Runway 03/21</td>
<td>Length 673 m grass Commercial to South Location&lt;br&gt;Dependent on the treatment of the sealed and gravel runways.</td>
<td></td>
</tr>
</tbody>
</table>
### Security

<table>
<thead>
<tr>
<th>Asset Description</th>
<th>Image</th>
<th>Proposed Upgrades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security</td>
<td>Via existing passenger terminal referred to as the Waiting Room and Toilet Building.</td>
<td>New security regulations from July 2012 apply to aerodromes and where aircraft are above 20,000 kg such as F50 full passenger and baggage screening are required for open charter. These new security regulations may apply to any future airport upgrade.</td>
</tr>
</tbody>
</table>

### 3.5 Aircraft Storage and Usage

The following table summarises the aircraft assets stored at the Port Pirie Airport. Information provided to Aurecon during this study noted that aircraft operators have expressed interest in housing/maintaining aircraft at the Port Pirie aerodrome.

**Table 3.5.1 Current Aircraft Usage**

<table>
<thead>
<tr>
<th>Aircraft Usage as at September 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Under 1,500 Kg</strong></td>
</tr>
<tr>
<td>General aviation aircraft</td>
</tr>
<tr>
<td>6 to 7 other sports ultra-light aircraft.</td>
</tr>
<tr>
<td><strong>Other</strong></td>
</tr>
</tbody>
</table>

**Numerous other charters under 5,700 kg**

Note that 5,700 kg is the rating/capacity of the aircraft size to land without a pavement concession i.e. any airport that does not have a pavement rating has to apply for a concession to access the runway based on the capacity of the runway.

Majority ad hoc usage by:
- SA Water
- RFDS 400 to 450 movements per annum
- Railways
- Gas Pipe
- Bank run operated daily by Toll Express
- Training purposes
- Recreational use.
4 Literature review

4.1 Background

This study has been prepared with due consideration of the key strategy and planning documents that support Port Pirie and surrounding region.

In addition, PPRC has prepared scoping studies that examine the range and costs of airport infrastructure upgrades to accommodate the introduction of larger aircraft at Port Pirie Airport.

The documents that have been subject to a literature review for this study in order of inclusion are listed below:

- Port Pirie Airport Scoping Study for 50 Seat Aircraft Operations (January 2012)
- The Potential for Air Services Connecting Port Pirie and SFR to Remote Work Sites (May 2007)
- RESIC Consultation Paper on the Resources and Energy Infrastructure Demand Study (February 2012)
- Resources and Energy Infrastructure Demand Study (2011)
- Upper Spencer Gulf Heavy Industry Hub (June 2012)
- Industrial Tourism Discussion Paper (July 2012)

The relevance of each of the above documents in the context of this study is outlined below and summarised in Section 4.8.

4.2 Port Pirie Airport Scoping Study

The Port Pirie Airport Scoping Study for 50 Seat Aircraft Operations was prepared in January 2012 for the PPRC by Aerodrome Design Pty Ltd to examine the possible introduction of a 50 seat aircraft for FIFO operations to service the mining industry.

The main findings of this scoping study are summarised in the following table.

<table>
<thead>
<tr>
<th>Aerodrome Requirements</th>
<th>Description of Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Runway length</td>
<td>A runway length between 1,500 metres and 1,800 metres is needed.</td>
</tr>
<tr>
<td>Security Provisions</td>
<td>The level of expected airport upgrade may require additional security arrangements in line with expected Australian Government requirements for airport operations.</td>
</tr>
<tr>
<td>Airport Lighting</td>
<td>Upgrade is required including published instrument approach.</td>
</tr>
<tr>
<td>Future Planning</td>
<td>The Port Pirie Development Plan March 2011 identified future planning of areas under the flight paths of the existing runways west of 8/26 and south of 17/35.</td>
</tr>
<tr>
<td>Overall Recommendations</td>
<td>Low Cost Option – Extension of Gravel Runway 17/35 (currently 1,069 metres)</td>
</tr>
<tr>
<td></td>
<td>High Cost Option – Extension of Sealed Runway 08/26 (currently 1,043 metres)</td>
</tr>
</tbody>
</table>
4.3 Potential for Air Services Connecting Port Pirie to Remote Work Sites

This discussion paper pays particular attention to air services for FIFO operations and the implications for local airport infrastructure and related services to connect Port Pirie to the Southern Flinders Ranges to remote working sites. Prepared in May 2007 by Terry Reichelt for the Southern Flinders Ranges Development Board Inc, the companies covered in this report included:

- BHPB
- Oxiana (Now Oz Minerals)
- Zinifex
- Heathgate Resources.

It was estimated in May 2007 within five years the catchment area for a FIFO mining industry based Port Pirie airport operation could be in the order of 250 to 300 people. The emphasis on training and retaining the youth in the region was considered to be a source of higher numbers. The breakdown or translation of this prediction could be split over many sites and shifts, and result in varying flight schedules. Competition from airports in Whyalla and Port Augusta were considered a threat. Jamestown and Peterborough at the time of preparation were considered to become service centres to developments in the State.

The Charter company feedback was sought from:

- Ross Air
- National Jet Systems.

These companies suggested:

- Instrument landing system to be considered
- Length up to 1800 m to be considered and not necessarily sealed
- Wind considerations to be factored into airport upgrades
- 34 to 50 seat aircraft (such as Dash 8) carrying capacity was reasonable objective.

The Aviation, Transport Planning Agency suggested that the 34 to 50 seat aircraft (such as Dash 8) carrying capacities was a reasonable objective and possibly deliver in a staged approach.

In summary it was found by this paper that:

- Expectation of new residents and number that will work on a FIFO basis are to be realistic
- New residents will provide an economic boost resulting from home construction, retail and other services
- Individual mining sites will go through two prime phases, construction where workers will commute from all over Australia and production where workers will reside more locally but perhaps not within the region
- BHP Billiton will encourage workers to reside in Roxby Downs
- Not all mining sites will be as large as Olympic Dam and Oxiana, thus smaller planes will be the means to commute to these sites. Only large sites are likely to use the 50 seater type turbo-props, however, there may be some sharing of transport services
- In Western Australia where larger distances and many more mining sites make jets more common is not a relevant comparator to Port Pirie
- Turbo-props are likely to be used in preference to jets for transporting people to sites in South Australia
• Port Augusta is likely to be perceived as the most appropriate location by mining companies and is already being used for this purpose. Accordingly, Port Pirie will need to provide good services with good facilities and put much effort into promoting the airport and lifestyle for workers if it is to compete.
• Pursing facilities for 737 aircrafts would be fruitless
• The alignment of the sealed runway at Port Pirie has caused a few comments but is probably adequate unless it is chosen to go all out and develop a new long and wide runway
• Lack of navigational aids is also an issue. A GPS system would cost around $20,000.

The considerations raised in this paper remain relevant to Port Pirie in September of 2012. These are summarised below:

• Local target for the number of remote workers who are sought at Port Pirie and Southern Flinders Rangers to be established
• The issues relating to the shortness of the main runway at 1043 m and the lack of navigational aids for landing to be reviewed and assessed
• Planning of a stepped approach to improving the airport facilities based on monitoring likely future demand (i.e. manage risk) a function of this feasibility study is to be undertaken. Although operators do not particularly like gravel strips the existing sealed runway could be incorporated into a longer and wider gravel strip suitable for 38 – 50 seater turbo-props i.e. 1500 m to 1600 m in length, 30 m wide with 20 tonne capacity. Demand warranting the runway could be subsequently sealed.
• Jet fuel is required for turbo-props and may be required as being explored by the Airport Planning Group
• Security systems have been considered and an indication of costs has been contemplated, however, on the basis of regulatory requirements these will need to be reviewed following the feasibility phase
• Appropriate Airport Consultants were called on to advise on requirements (see the report prepared by Aerodrome Design Pty Ltd)
• Developing the airport is not practical without people and interests from the mining companies thus a promotion strategy to increase interest in Port Pirie and Southern Flinders Ranges is to be developed as undertaken in the industrial tourism paper.

Four possible options for airport upgrades were described as follows the relevance of these is assessed below.

Table 4.3.1 Airport Upgrade Options presented in 2007

<table>
<thead>
<tr>
<th>Option</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low Level Upgrade</strong></td>
<td>Extend existing runway 400 m to 1,443 m – same width. Could take small jets and small to medium turbo-props (10-20 people). Requirements:</td>
</tr>
<tr>
<td></td>
<td>• Runway extension &amp; lighting</td>
</tr>
<tr>
<td></td>
<td>• Security fencing &amp; camera’s</td>
</tr>
<tr>
<td></td>
<td>• GPS/Navigation Aids</td>
</tr>
<tr>
<td></td>
<td>• Jet Fuel Supply (Port Pirie Flying Group)</td>
</tr>
<tr>
<td></td>
<td>Total about $1.0 million</td>
</tr>
<tr>
<td>Option</td>
<td>Details</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| **Lower Medium Upgrade** | Extend runway to 1,650 m with 23 m width Gravel to 30 m – 20 tonne capacity  
Planes of about 50 seat capacity (Turbo Prop)  
Requirements:  
  - Runway extension & lighting  
  - Turning circle & 15m to 20m width taxi-way  
  - Security fencing & camera’s  
  - GPS/Navigation Aids  
  - Jet Fuel Supply (Port Pirie Flying Group)  
  - Improved Arrival, Departure, Lounge & Toilet facilities, security screening machines.  
 **Total approximately $3 -$4 million**  
This is based on extending and widening the “Lower Medium Upgrade option” to cater for slightly larger and faster turbo props.                                                                                                                                 |
| **Upper Medium Upgrade** | Extend runway to 1,800 m with 30 m width – 20+ tonne capacity  
Planes of 50+ seat capacity  
Requirements:  
  - Runway extension & lighting  
  - Turning circle & 15m to 20m width taxi-way  
  - Security fencing & camera’s  
  - GPS/Navigation Aids  
  - Jet Fuel Supply (Port Pirie Flying Group)  
  - Improved Arrival, Departure, Lounge & Toilet facilities, security screening machines.  
 **Total approximately $5 -$7 million**  
This is based on extending and widening the “Lower Medium Upgrade option” to cater for slightly larger and faster turbo props.                                                                                                                                 |
| **Major Upgrade**    | Suitable for 737 Jets  
110 – 180 seating capacity  
70t – 85t weight  
Requirements:  
  - Purchase of additional land to the west  
  - Length 2000 m – 2500 m  
  - Width  45 m  
  - Runway lighting  
  - Turning circle & ?m taxi-way  
  - Security fencing & camera’s  
  - GPS/Navigation Aids  
  - Jet Fuel Supply (Port Pirie Flying Group)  
  - Improved Arrival, Departure, Lounge & Toilet facilities, security screening machines  
 **Total approximately $20 million.**  
This is based on extending and widening the “Major Upgrade option” to cater for slightly larger and faster turbo props.                                                                                                                                 |
4.4 RESIC Consultation Paper on the Resources and Energy Infrastructure Demand Study (February 2012)

The Consultation Paper released in February 2012 by the Resources & Energy Sector Infrastructure Council (RESIC) from information from the Parsons Brinckerhoff 2011 Resources and Energy Infrastructure Demand Study called for comment on five recommendations including:

- Infrastructure corridors/utility hubs
- Development of deep-sea ports/rail and road logistics
- Electricity infrastructure
- Water resources
- Government facilitation of investment in resources infrastructure.

In essence, this RESIC report called for the establishment of key infrastructure corridors to support major resources projects in South Australia.

While this RESIC report provided a basis for assessing the likely infrastructure requirements to support new resources projects, Aurecon notes that further work was required to specifically target those resources projects most likely to come to market and therefore requiring supporting infrastructure. On this basis, the information in the RESIC work was at a very high level and not specific enough to inform the basis of this report to PPRC.

Note, the RESIC work is now the focus of a current study by the Australian, South Australian Governments, and Regional Development Authorities to develop a Regional Mining and Infrastructure Plan for South Australia.

4.5 Industrial Tourism Discussion Paper

The Industrial Tourism Discussion Paper prepared in July 2012 had the purpose of ascertaining the interest of industry in the region to collaborate on a program to effectively develop, package and market industrial tourism products largely focusing on guided tours of the:

- Nyrstar processing plant
- Mining operations such as Olympic Dam and Leigh Creek Coal Mine, Blinman Mine, Burra Mine/Heritage Passport and opal mining at Coober Pedy
- Wind farms operated by AGL at Visitor Centre Burra and Tru Energy Waterloo
- Pichi Richi Railway
- Gladstone Viterra Silos
- Taylors Wines at Auburn
- Primo Australia.

The paper contemplates through a coordinated approach developing, packaging and marketing industrial tourism opportunities in the region and sought expressions of interest to resource such an initiative on the basis of the following three expenditure scenarios which have not yet been financed and continue to be in the expression of interest phase. Depending on a finance decision a catchment of demand can be profiled for predicted airport usage.
<table>
<thead>
<tr>
<th>Investment (excl. GST) Preferably over 3 years</th>
<th>Potential Outcomes</th>
<th>Marketing</th>
</tr>
</thead>
</table>
| Scenario 1 - $150,000                       | Full time Industrial Tourism Project Officer to:  
  • Contribute businesses to package and market their tourism products  
  • Work with existing businesses to refresh and improve their tourism products | Varying degrees of marketing including:  
  • Products range brochure, website and social media  
  • Presentation to Universities, institutions, enthusiast groups etc.  
  • Media Liaison to promote Industrial Tourism visitation |
| Scenario 2 - $100,000                       | Part Time (2 to 3 days p/w) Industrial Tourism Project Officer to:  
  • Contribute businesses to package and market their tourism products  
  • Work with existing businesses to refresh and improve their tourism products | Varying degrees of marketing including:  
  • Products range brochure and social media (excluded website development)  
  • Presentation to Universities, institutions, enthusiast groups etc.  
  • Media Liaison to promote Industrial Tourism visitation |
| Scenario 3 - $50,000                       | Existing Tourism Development Manager (1 day p/w) for the Southern Flinders Regional Tourism Authority | Varying degrees of marketing including:  
  • Some Products range brochure and social media (excluded website development)  
  • Presentation to Universities, institutions, enthusiast groups etc.  
  • Media Liaison to promote Industrial Tourism visitation |
| Summary                                    | No one option has been supported financially to date. |

4.6 Upper Spencer Gulf Heavy Industry Hub Feasibility Study

The Upper Spencer Gulf (USG) Heavy Industry Hub Feasibility Study was commissioned by Primary Industries Regional South Australia (PIRSA) to determine the needs and the capacity of the local industry to meet the future mining and major development projects in the Upper Spencer Gulf.

Prepared by KPMG and GHD in June of 2012 the study consisted of four stages and the key findings are summarised below:

- Stage 1 – Industry desktop analysis  
- Stage 2 – Targeted stakeholder engagement  
- Stage 3 – Industry survey of mining and mining services  
- Stage 4 – Survey analysis and report.

The Stage 3 – Industry survey invited 253 mining companies and mining services providers to participate with the objectives to:

- Provide an evidence base to support any Government policy in relation to the USG  
- Collect industry views on how Government policy can support the ‘hub concept’, and have industry identify the key attributes of a regional hub  
- Inform future investment attraction strategy, with a focus on high value industries
- Capture results which the Department can revisit in the future
- Move early to establish a hub concept as soon as practical as a ‘signal’ to industry looking to relocate
- Identify barriers that need to be overcome to unlock economic value to the region.

Overall the key findings from this study were that mining company responses represent a reasonable cross section of the potential pipeline of development projects in the region in the form of future expectations. This range of expectations of the mining industry services were collated to make policy based recommendations according to the future of the USG and the resulting supply opportunities. The findings were broad and no specific investment nor programme of works were identified.

The relevance to the Port Pirie region and specifically the demand for the airport is not easily isolated or identified in this study. It is apparent, however, that the mining industry is a primary economic driver for the region but future analysis and work is need to translate these expectations into action planning for the USG region and therefore the localised Port Pirie region.

4.7 Regional Development Australia Studies

The Regional Development Australia Yorke and Mid North Region Skills Survey set out to design a regional skills assessment survey primarily to:

1. Examine the current employment situation among respondents
2. Determine the likelihood of respondents to change industries or relocate for employment
3. Assess the educations, training and skills of respondents.

The findings reliance is qualified due to the sampling method employed not being considered to be a representative sample and this should be taken into consideration when relying on the key findings summarised in Table 4.8.

Demographically the survey represented was characterised by:
- Marital Status: 69% married/defacto and 27% single with 4% not disclosing
- Children: 63% did not have children with 37% having children in the household
- Age range: 47% were from 35 to 54, 38% 18 to 34 and 15% 55 and over
- Gender: 57% were male and 43% female
- Income: 27% $60000 to $90,000, 25% $30,000 to $60,000 and 17% $90,000 to $120,000

The key findings are included in the table below.

Table 4.7.1 RDA Yorke and Mid North Region Skills Survey June 2012 Key Findings Summarised

<table>
<thead>
<tr>
<th>Survey Category</th>
<th>Survey Finding</th>
</tr>
</thead>
</table>
| Current Employment Situation                      | • 63% of respondents are working full time  
• Most respondents indicated their current job is located in Port Pirie 25% with Kadina and Ardrossan at 15% and 10% respectively  
• The survey verified that mining and manufacturing are the two most common industries of employment with 15% of the respondents employed in mining and another 12% in the manufacturing industry  
• 63% of respondents live less than 20 km from their place of employment  
• 15% live more than 100 km from their place of employment  
• 31% have employment that requires them to stay away from home |

| Likelihood of respondents to change industries or relocate for employment | • Key drivers that influence employment relocation accordingly are:  
- 67% improved salary  
- 59% job satisfaction  
- 46% lifestyle/recreation.  
• The workforce population is active with 94% not currently planning on retiring in the next three years |
## Survey Category and Survey Finding

<table>
<thead>
<tr>
<th>Survey Category</th>
<th>Survey Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 66% would either probably (35%) and definitely (30%) consider working in an industry other than the one they are currently employed in</td>
<td></td>
</tr>
<tr>
<td>• 26% would not probably (18%) and definitely (8%) consider working in a different industry</td>
<td></td>
</tr>
<tr>
<td>Education, training and skills of respondents</td>
<td>• Diverse representation of skills and experience</td>
</tr>
<tr>
<td></td>
<td>• Sector interest compared determining somewhat and very interested for Mining, business, infrastructure construction, tourism and agriculture:</td>
</tr>
<tr>
<td></td>
<td>- Mining comparatively highest at 71%</td>
</tr>
<tr>
<td></td>
<td>- Business 58%</td>
</tr>
<tr>
<td></td>
<td>- Tourism 51%</td>
</tr>
<tr>
<td></td>
<td>- Agriculture 47%.</td>
</tr>
<tr>
<td></td>
<td>• Education and training qualifications vary with a variety of qualifications primarily Certificate based to a level 5</td>
</tr>
<tr>
<td></td>
<td>• Ticket and licence holders with forklift (36% and OH&amp;S training (35%)) with 35% not having tickets or licenses</td>
</tr>
<tr>
<td></td>
<td>• Primarily clerical, administrative and store person skills 20%, specialist manager skills 18% and trade work skills 14%</td>
</tr>
<tr>
<td></td>
<td>• Skill interest is in more industrial and mining based employment.</td>
</tr>
<tr>
<td></td>
<td>• Mining jobs would be applied for if transport from a central location to the work site with 49% rating this high in their likelihood.</td>
</tr>
</tbody>
</table>

### 4.8 Relevance of literature

There has been a substantial body of work undertaken by other parties to understand the demographics and expectations of the mining industry in South Australia, including the capability and capacity of the USG region to meet current and expected future growth of mining.

The information currently available and reviewed in previous sections supports, in broad strategic terms, this feasibility study’s exploration of a FIFO service operation on the basis of the mining industry. However, it is apparent in the body of work undertaken to date by others that there is further work required to firm up the actual level of underlying demand (versus “expectation”), and this directly impacts on the ability to make informed quantitative judgements about the level of FIFO demand from the resources and energy sector in and around the Port Pirie region.
5 Economic Analysis

5.1 Background

By way of a broad explanation, the economic feasibility assessment used in this study is based on a Net Present Value (NPV) analysis of the expected future costs and revenues associated with an airport upgrade. Ideally for a project to proceed the future benefits should exceed future costs.

5.2 Conceptual Scope

Conceptually an economic cost benefit analysis has a commercial project analysis at its core involving those costs and benefits directly related to the project under review.

In addition, there is potentially a wider set of potential benefits that, while non-project specific, may be generated as a result of a project being implemented. These non-project specific benefits are often referred to as wider economic benefits.

Figure 5.2.1 Economic Cost Benefit Analysis: Conceptual Scope

Aurecon’s approach was to start from the core with a project commercial analysis (i.e. the break even analysis) and then work outwards to a wider non-project review of possible benefits.

By taking this approach, the break even analysis provides PPRC with information indicating the number of air servicers and air passenger movements that will be required over a 15 year assessment period to break even with its runway upgrade project.

Note, the wider non-project analysis is a qualitative assessment of whether or not there may be potential demand that could offset any financial gap in the break-even analysis. For a definitive assessment of wider non-project benefits a separate Input-Output modelling task would be required to identify the flow-on economic impacts. While this type of analysis is outside the scope of this Report, we have undertaken a high level qualitative assessment of any other potential demand from other industry sectors as well as sourcing comparative economic information on several selected regional airports in South Australia.
5.3 Assumptions Table

The following table sets out the key assumptions used in the economic analysis (see Appendix 1 for the detailed economic/financial model). These assumptions were confirmed with project team representatives from the PPRC.

Table 5.3.1 Port Pirie Airport CBA Modelling Assumptions

<table>
<thead>
<tr>
<th>Survey Category Item</th>
<th>Assumption</th>
</tr>
</thead>
</table>
| Project Upgrade Option                     | • Capital expenditure cash flows for staged airside upgrade works at Port Pirie Airport based on estimates provided by Aerodrome Design Pty Ltd for Council.  
• Works to include extend runway 08/26 from 1043 metres to 1700 metres, widen runway 08/26 by 30 metres, widen taxiway B, provide new lighting and redesign both runway ends.  
• Estimated construction costs for runway associated works is $2.386 million over a one year construction period.  
• Also included in project upgrade option is $2.945 million for terminal facilities to meet requirements of expanded aircraft and passenger movements.  
• Project cost contingency of 15 percent included in project cash flows.  
• Total capital cost (in real and undiscounted terms) is $5.331 million.  
• Airside upgrades will be sufficient to accommodate up to 50 seater aircraft (i.e. DHC Dash 8-300 or equivalent). |
| Annual Maintenance Costs                   | • Assume additional recurrent maintenance costs of 1% of construction costs starting in Year 2 of operations (i.e. after 12 months defects liability period following construction).                                                                                                                                                    |
| Construction and maintenance prices and income | • All costs and incomes are in current 2011/12 prices (i.e. real terms).                                                                                                                                                                                                                                                                          |
| Assessment period                          | • Benefits and costs are projected across a 15 year assessment period commencing post construction.  
• This 15 year study period aligns with the maximum design life of the pavement seal for the runway 08/26 lengthening and widening.                                                                                                                                                                                                 |
| Discount rate                              | • A 6% discount rate has been applied that represents a reasonable rate of return for the airport asset and approximates the current long term bond rate plus an element of risk.  
• The 6% rate also equals the discount rate used by Infrastructure Australia in the economic assessment of infrastructure projects.                                                                                                                                                  |
| Air services forecast data                 | • Forecast charter activity for the study period to be based, where available, on industry survey data and other material sources.                                                                                                                                                                                                                         |
| Aircraft Landing charges                   | • Landing charges of $8.25 per tonne (based on Port Augusta aircraft landing charges) and DHC Dash 8-300 Maximum Take Off Weight of 19,500 kg.                                                                                                                                                                                                                   |
| Passenger forecast data                    | • Forecast passenger movements for the study period based on air services forecast data and predicated on the use of DHC Dash 8-300 or equivalent.                                                                                                                                                                                                                   |
| Passenger head charge                     | • Charge per passenger based on a low, medium and high range of passenger head charges of $7, $13 and $20 respectively.                                                                                                                                                                                                                                  |
| Other income streams                       | • Long term car parking charges set at $13 per week (based on Whitsunday Airport schedule of fees). Assumes 10 percent of annual passenger movements will use long term car parking.  
• Notional commercial lease revenue (net of outgoings) of $500 per week is assumed to be available from expanded terminal facilities.                                                                                                                                                           |
<table>
<thead>
<tr>
<th>Survey Category Item</th>
<th>Assumption</th>
</tr>
</thead>
</table>
| Calculation of net benefits (net revenue) | • The cost benefit modelling assumes that the forecast passenger movements are predicated on the use of larger DHC Dash 8 or equivalent aircraft and necessary pavement upgrades to support DHC Dash 8-300 charter type services.  
• The income stream accruing from the passenger head charges over the 15 year operating period provides the basis for the capacity to cover the construction and maintenance costs for the upgrade option. |
| Residual value                       | • A residual value benefit (i.e. remaining effective asset life) for some of the airside and landside upgrades is included at the end of the 15 year assessment period.  
• Residual value based on depreciated value of infrastructure upgrades using straight line depreciation set at 10% per annum. |

### 5.4 Break Even Modelling Results

A key assumption in the break even analysis is that a range of direct revenue sources will be available to offset the capital cost of an airport upgrade. The revenue sources assumed for this study are:

- Passenger head charges
- Commercial leasing from expanded terminal facilities
- Long term secure car parking
- Aircraft landing fees.

The largest direct revenue sources available from any airport upgrade are passenger head charges and aircraft landing fees. Together these charges and fees comprise approximately 80 percent of possible direct revenue sources. Note, this large reliance on passenger head charges and aircraft landing fees is similar to other regional airports in South Australia.

On this basis, the following chart summarises the required weekly passenger and aircraft movements to fully offset the capital cost of upgrading the current airport (based on the project upgrade option of 50 seat aircraft operations, i.e. 08/26 Upgrade and Terminal/Full Security). This chart assumes a range of “low, medium, high” passenger head charges.
It is important to note that for regional South Australian airports the low to medium range appears to be an appropriate starting point when reviewing the break even analysis. As passenger head fees increase above any existing regional charges this may potentially impact on the level of demand and hence commercial attractiveness to any potential air charter/passenger operator.

The key finding from the above information is that, for the low to medium range of passenger head charges, a significant volume of weekly passenger and aircraft traffic would be required to fully offset the expected capital costs for a “full” infrastructure upgrade.

For comparative purposes the following table sets out the break-even number of weekly passengers and flights assuming a less intensive capital option involving the upgrade of runway 08/26 (i.e. pavements, lighting, approaches and apportioned contingency) only with the delivery of the Terminal/Full Security at a later stage.

Table 5.4.1 Weekly Passenger and Flight Movements: 50 Seat Aircraft and Airside Infrastructure Only

<table>
<thead>
<tr>
<th></th>
<th>“Low” Passenger Head Charges (i.e. $7 per person)</th>
<th>“Medium” Passenger Head Charges (i.e. $13 per person)</th>
<th>“High” Passenger Head Charges (i.e. $20 per person)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Passengers Per Week</strong></td>
<td>606</td>
<td>398</td>
<td>285</td>
</tr>
<tr>
<td><strong>Flights Per Week</strong></td>
<td>12</td>
<td>8</td>
<td>6</td>
</tr>
</tbody>
</table>

1 Based on 2010-11 data, average Passenger Head Charges for Mount Gambier and Port Augusta were $8.60 and $8.20 respectively – Source: Hudson Howells - Final Report, Regional Airports Project, Local Government Association of South Australia, February 2012.
However, a project option involving just the full upgrade of the existing runway would see passenger and aircraft management within the existing landside infrastructure. Given this existing infrastructure is not designed for regular passenger air services there would need to be certainty around the future delivery date of upgraded landside infrastructure in order to adequately support the increased level of passenger and aircraft activity.

Further, it is understood that that from 2012 Australian Government requirements will place a minimum standard of security arrangements for regional airports operations similar to the planned Port Pirie Airport upgrade.

The key outcome, therefore, from the break even analysis is that FIFO activity from the mining and resources sector would need to be significant in order to be considered the primary revenue source to fund the expected capital upgrade costs.

It is also noted that airport operations are not without risk, and the size of local government councils inevitably means they will face difficulties in generating operating surpluses from aircraft operations let alone self-fund the necessary infrastructure upgrades. This situation is a dynamic of route economics particularly the shift by regional aircraft operators to focus on high density regional routes using larger capacity aircraft. As a result the PPRC will need to consider carefully the strategic objectives that it will be targeting through upgrading the current airport facilities.
6 Consultation and Survey: Possible FIFO Demand from the Mining and Resources Sector

6.1 Scope of Stakeholder Engagement and Survey

A key focus of this study is to determine what level of FIFO demand may be generated from mining and resources projects in the Port Pirie region.

In this context, stakeholder engagement and a targeted survey were undertaken as part of this study to inform and validate the results of the economic feasibility study. Covered in this engagements and survey were:

- A roundtable presentation and workshop and follow-up with elected officials and/or their representatives, officers from regional agencies, and PPRC officers
- Surveys of mining companies operating and/or with plans of operating in South Australia and air charter operators involved in mining, business and tourism
- Telephone conversations with potential candidates for operating RPT scheduled services to/from Port Pirie and other major stakeholders.

6.2 Round table presentation and workshop

A roundtable presentation and workshop was conducted on 15 August 2012 and was attended by the following project stakeholders.

Table 6.2.1 Round table presentation and workshop Project Stakeholder Attendance List

<table>
<thead>
<tr>
<th>Name</th>
<th>Organisation</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrew Johnson</td>
<td>Port Pirie Regional Council</td>
<td>Project Sponsor’s Representative and Chief Executive Officer of Port Pirie Regional Council</td>
</tr>
<tr>
<td>Terry Reichelt</td>
<td>RDA Yorke and Mid North</td>
<td>Sponsor Team and Economic Development Officer representative</td>
</tr>
<tr>
<td>Kelly-Anne Saffin</td>
<td>Regional Development Australia Yorke and Mid North (RDAYMN)</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>Stephen Schwer</td>
<td>Southern Flinders Regional Tourism Authority</td>
<td>Tourism Development Manager</td>
</tr>
<tr>
<td>Steve Joyce</td>
<td>Port Pirie Airport</td>
<td>Airport Manager</td>
</tr>
<tr>
<td>Brenton Vanstone</td>
<td>PPRC</td>
<td>Mayor</td>
</tr>
<tr>
<td>John Rohde</td>
<td>PPRC</td>
<td>Deputy Mayor</td>
</tr>
<tr>
<td>Leon Stephens</td>
<td>PPRC</td>
<td>Councillor</td>
</tr>
<tr>
<td>Dianah Mieglich</td>
<td>Frome Electoral Office</td>
<td>Representing Mr Geoff Brock, MP, State Member for Frome</td>
</tr>
</tbody>
</table>
This roundtable presentation and workshop generated the following key discussion points:

- Acknowledged that FIFO on the basis of the mining industry will most likely not achieve the break-even costs

- PPRC is undertaking four prime infrastructure studies to act as a catalyst for economic growth. These studies include Port Pirie Airport, Port Pirie Wharf, Natural Gas Pipeline Duplication, and Skills Training Facilities

- Keys elements of the studies will be identification of other demand opportunities such as:
  - Regional economic opportunities in relation to both industry and employment
  - Tourism initiatives under consideration to rejuvenate and reinvigorate the region.

- Several initiatives for possible sources of future airport demand were identified from a state level including:
  - Education and Training
  - Export of food produce
  - Medical (e.g. Royal Flying Doctor Service, Angel Flight and specialist medical trips).

- Airport Current Status
  - Limited due to length of runways
  - The current facilities and assets are aged and funding limited
  - Security provisions to be considered due to current regulations.

6.3 Stakeholder Surveys

As identified above the Stakeholder Survey was primarily aimed at seeking market information that could be used to validate any likely interest in FIFO operations using the Port Pirie Airport.

By way of background information, this survey involved the following steps.

Table 6.3.1 Stakeholder Survey Steps

| Stakeholder Identification | Categorising Stakeholders According to Industry | Formulating Survey Questions | Survey Distribution | Analysing the Survey Results |
6.3.1 Stakeholder Identification

Stakeholder identification involved considering which industries would directly benefit and/or be affected by the expansion of Port Pirie Airport. The feasibility study for expanding Port Pirie’s Airport considered commercial entities within the following industries: mining and exploration, steel/metal smelters, energy providers, petroleum and gas, aircraft and bus charter service providers.

In terms of the mining industry, this sector could potentially be one of the key players in the Port Pirie economy providing many jobs for local resident workers with the closest mines located only 300km north of Port Pirie (within 3 – 4 hours’ drive), being accessible to Drive in Drive Out workers or Bus in Bus Out workers – an example of which would be the prospective Rex Minerals Mine located 1.25 hours’ drive south of Port Pirie.

The mining sites located further afield beyond a distance of 3 to 4 hour drive would be made accessible by aircraft charters carrying Fly in Fly Out (FIFO) workers (some of which may reside interstate) and thus presenting the ideal target market for employment of FIFO workers flown in from the expanded Port Pirie Airport – an example of which would be the prospective mining site of Altona Energy.

With the mining industry providing many jobs for local workers it also presents the future possibility of increased labour requirements which would help fuel the need for more and more workers to be flown in to Port Pirie from interstate and then driven/flown to mining sites. Therefore, for the purposes of gauging the current and future demand for FIFO workers, both active and future mining activity was included in the scope of the survey.

Supplementing the requirements for FIFO and DIDO workers are other local heavy industries such as the Nyrstar Metal Smelter (located in Port Pirie), Alinta Energy (located in Port Augusta), Arrium Whyalla Steelworks (located in Whyalla) all of which are located within a 2 hour drive from Port Pirie. Beach Energy (located in the Cooper Basin) would be serviced by FIFO worker arrangements as it is located at distance greater than 3 to 4 hours’ drive. These companies require a large workforce due to the nature of their activities being largely heavy industry.

Another locally based commercial entity, Port Pirie’s newly developed industrial park (located in the North Eastern Corner of the Port Pirie municipality) has the potential to become a service centre to resource activities North of South Australia providing service requirements of urgent maintenance related tasks could also bolster requirements for FIFO worker arrangements. These companies local to the Port Pirie are served largely by locally-based workers; however, their expansion could also greatly contribute to an increased demand for FIFO workers. Hence these local companies were also targeted as part of the survey.

Aircraft and Bus Service Providers are vital in providing access to a wider workforce to the Port Pirie Region. Without these chartered service providers it would not be possible for Mining or Heavy Industrial companies to bring in FIFO or DIDO workers to meet their workforce requirements. It is important, therefore to establish the interest of Air Charter and Bus Charter companies to provide charters specific to the mining and local industry requirements. The Aircraft Charter companies could also provide a potential revenue stream to the PPRC which may contribute to funding the airport expansion through charging rent for aircraft hangar space, take off/landing fees.
6.3.2 Categorising Key Stakeholders

Key stakeholders were categorised based on their representative industries and activity such as mining, non-mining, bus and aircraft charter. The mining companies (both those with existing mining operations and future operations) formed their own category. All the other local heavy industries were categorized as non-mining.

The aircraft and bus service providers formed a separate category. By categorising the various stakeholders the survey questions were made specific to each category enabling a better understanding of the current and projected FIFO and DIDO worker demand for the Port Pirie region.

A summary of the key stakeholders and their industry categories is provided in table 6.3.2.1 below.

Table 6.3.2 Summary of Key Stakeholders

<table>
<thead>
<tr>
<th>Mining Companies</th>
<th>Air charter operators</th>
<th>Bus Service Operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHP Billiton</td>
<td>Air South</td>
<td>Premier Stateliner</td>
</tr>
<tr>
<td>OZ Minerals</td>
<td>Heathgate</td>
<td>Genesis</td>
</tr>
<tr>
<td>IMX</td>
<td>National Jet (Cobham)</td>
<td>Greyhound</td>
</tr>
<tr>
<td>Iluka</td>
<td>Alliance Airlines</td>
<td></td>
</tr>
<tr>
<td>Heathgate Resources</td>
<td>KJM Contractors</td>
<td></td>
</tr>
<tr>
<td>Santos</td>
<td>Corporate Airlines</td>
<td></td>
</tr>
<tr>
<td>Kingsgate Consolidated</td>
<td>Renaissance Air</td>
<td></td>
</tr>
<tr>
<td>Exco Resources</td>
<td>Opal Air</td>
<td></td>
</tr>
<tr>
<td>Arrium – Peculiar Knob</td>
<td>Adelaide Air Charter</td>
<td></td>
</tr>
<tr>
<td>Beach Petroleum</td>
<td>Kym Brougham</td>
<td></td>
</tr>
<tr>
<td>Altona</td>
<td>REX</td>
<td></td>
</tr>
<tr>
<td>Arafura (Nolans Bore)</td>
<td>Sharp</td>
<td></td>
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<tr>
<td>Havilah</td>
<td></td>
<td></td>
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<tr>
<td>Carpentaria Exploration</td>
<td></td>
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<tr>
<td>Centrex</td>
<td></td>
<td></td>
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<tr>
<td>Minotaur (Mutooroo)</td>
<td></td>
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<tr>
<td>PepinNini</td>
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<tr>
<td>Marmota Energy (Junction Dam)</td>
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<tr>
<td>Avocet</td>
<td></td>
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<tr>
<td>Investigator Resources (Paris)</td>
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<tr>
<td>Archer Exploration (Graphite)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WPG Resources (Giffen Well)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REX minerals</td>
<td></td>
<td></td>
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<tr>
<td>Royal Resources</td>
<td></td>
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<tr>
<td>Ironclad</td>
<td></td>
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<tr>
<td>Iron Road</td>
<td></td>
<td></td>
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<tr>
<td>Iron Chieftain (Arrium)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arafura</td>
<td></td>
<td></td>
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<tr>
<td>Nystar</td>
<td></td>
<td></td>
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<tr>
<td>Alinta Energy</td>
<td></td>
<td></td>
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<tr>
<td>One Steel Whyalla</td>
<td>Steelworks</td>
<td></td>
</tr>
<tr>
<td>Steelworks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perilya (lead/zinc mine)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBH (Rasp Mine)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6.3.3 Formulating Survey Questions

The survey questions were framed around seeking information on the current and future need for extra capacity to accommodate growing demand for FIFO workers. Accordingly, information sought by the survey questions included details such as current workforce numbers within mines, how many of those workers were FIFO workers, the future expansion of mining operations, and any future need for FIFO workers.

For the full list of questions please refer to the Stakeholder Information sheet provided in Appendix 2.

6.3.4 Survey Distribution

The survey questions were transmitted using an online platform called Survey Monkey. Survey Monkey provides an interface through which the Stakeholder’s surveyed could respond to the Survey online.

Note, Survey Monkey does not allow for identification of specific respondents thereby protecting the confidentiality of the person and organisation providing any response.

6.4 Analysing the Survey Results

By way of background the Survey instrument was aimed at the following three industry groups:

- Mining Operators
- Air Charter Operators
- Bus Companies.

For the Mining Operators, a set of questions were directed at those organisations with existing mining operations (i.e. Section A of the mining industry survey) and those organisations with plans for new mining development and/or expanding existing mining operations (i.e. Section B of the mining industry survey).

All Mining Operator respondents were also asked to complete a set of questions (i.e. Section C) regarding possible wider benefit to other local industries in the Port Pirie region from upgrading the airport facility.

For the Air Charter Operators a set of questions was directed specifically at mining air charters (Section A of the Air Charter industry survey). Air Charter operators were then asked questions about business and tourism charters (i.e. Section B of the Air Charter industry survey).

All Air Charter Operator respondents were also asked to complete a set of questions regarding future interest in using upgraded airport facilities and growth potential for the Port Pirie region (i.e. Section C Air Charter industry survey).

In addition, 3 major bus operators were contacted by phone.

In terms of an overall response rate, Table 6.4.1 below sets out the summary of responses (and the overall percentage response rate) received from the Stakeholder Survey for Sections A and B of the relevant industry survey.

<table>
<thead>
<tr>
<th>Industry Surveyed</th>
<th>Section A of Relevant Industry Survey</th>
<th>Section B of Relevant Industry Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining Operators</td>
<td>5 (15%)</td>
<td>6 (18%)</td>
</tr>
<tr>
<td>Air Charters</td>
<td>4 (33%)</td>
<td>4 (33%)</td>
</tr>
<tr>
<td>Bus Companies</td>
<td>3 companies surveyed by phone.</td>
<td></td>
</tr>
</tbody>
</table>
Overall the response rate appeared to be reasonable particularly given the nature of the industry being surveyed and the current market conditions. To ensure the best possible response rate we undertook a detailed follow-up of survey respondents. Reasons given by non-respondents included:

- General preference not to participate in surveys
- Did not believe that their operations were in the area of interest
- In a few cases, key staff best placed to answer the survey were away and/or unavailable.

Table 6.4.2 on the following page sets out a summary of the information provided by those companies that did respond to the survey.

---

4 Industry-based information suggests an average response rate of 10 to 15 percent for external surveys (see http://www.surveygizmo.com/survey-blog/survey-response-rates/).
### Table 6.4.2 Summary of Responses Received from Participating Mining Companies, Air Charter, and Bus Operators

<table>
<thead>
<tr>
<th>Industry Represented</th>
<th>Section A: Existing Mining Operations</th>
<th>Section B: Plans for new mining development and/or expanding existing mining operation</th>
<th>Section C: All Mining survey respondents to complete</th>
</tr>
</thead>
</table>
| **Mining**           | Fire mining companies with existing mining operations responded to the survey detailing the following information:  
  - Only two use FIFO labour arrangements  
  - The response to the survey indicates FIFO workers are flown in from several different parts of Australia, ranging from Adelaide to Melbourne  
  - The numbers of FIFO workers flown in from range from 16 per week to 800 per week - these figures are likely to be reflective of the different scale of operations between the mining companies  
  - The lifespan of operations ranged from 8 years to 20 years which may also reflect a difference in intensity of operations between each of the mining companies  
  - Only one mining company indicated it would consider using FIFO workers from Port Pirie following the airport expansion - provided numbers of FIFO’s required and roster timings could justify the need.  
|                      | Six mining companies with intentions to construct new mines responded to the survey detailing the following information:  
  - Only one of the six mining companies responded indicated they would consider FIFO worker arrangements with flights in and out of Port Pirie airport if it were upgraded to cater to 50 seater aircraft  
  - The remainder of the responses stated that it may be too early to determine the requirement for FIFO workers, others indicated some FIFO workers may be required, the numbers of which will be kept to a minimum  
  - The responses indicated the timing of construction or expansion to existing developments ranged from 1 – 10 years  
  - The anticipated life of expanded operations ranged from 10 – 50 years which when completed would require a workforce ranging from 100 to 1500 workers  
|                      | Of all those mining companies that responded to either Sections A or B, eight of these companies provided the following additional information:  
  - The mining companies suggested ports and mines on the Boremar Iron Formation as well as construction contractors, caterers, cleaners, food suppliers and hotels would benefit from the expansion of increased FIFO demand  
  - Other feedback in relation to the Port Pirie Airport claimed that the Port Pirie airport is too close to Adelaide Airport to be used as a preferential transit point for FIFO workers, and projects based in Whyalla would use Whyalla Airport to bring in FIFO workers  
  - Of the eight mining companies which responded only two indicated they use DIDO workers, the numbers of which ranged from 2 – 62 with their hometowns being Adelaide and Coober Pedy respectively.  
| **Mining Air Charters** | Three air charter companies responded to the survey detailing the following information:  
  - They provide specific air charters to mining companies around the Port Pirie region  
  - The air charter companies provided flights to the destinations which included Prominent Hill, Ankata, Oodnadatta and Coober Pedy  
  - The aircraft operators used various flight schedules with some flights operating on a daily basis and others occurring on a weekly basis  
  - The towns/regions with heaviest mining activities had chartered flights on a more frequent basis  
  - The aircraft used by the air charter companies had a passenger carrying capacity ranging from 5 to 58 with crew numbers ranging from 1 to 2 for the Cessna C210 and Fokker 50 respectively.  
|                      | For business and tourism charters again only three air charter companies responded to the questions, providing the following information:  
  - These air charter companies offered services to destinations and origins which included Olympic Dam, Prominent Hill Whyalla, Port Augusta and Port Pirie with flights originating from Coober Pedy, Adelaide, William Creek and Olympic Dam  
  - The flight frequencies ranged from daily flights to Olympic Dam, Prominent Hill, weekly flights to Port Pirie and fortnightly flights to Whyalla and Port Augusta  
  - The aircraft carrying capacity ranged from 8 – 122 passengers serviced by crew of 1 – 2 for the Cessna C441 and Fokker 100.  
|                      | Of all those air charter operators that responded to either Sections A or B, four companies provided the following responses regarding air craft charter company’s interest in using the Port Pirie airport following expansion of the airport and subsequent growth in the Port Pirie region:  
  - Of the four companies which responded to the survey, two indicated they would use the expanded Port Pirie airport, while the other two indicated their use of the Port Pirie airport would be governed by customer demand  
  - The air charter companies identified fishing and emergency services (e.g. Medevac) as potential growth markets for air charter services in the Port Pirie region  
  - The air charter respondents identified the requirement for shuttle bus services to and from Port Pirie’s town centre along with CASA certification for the runway - currently too short to service their Fokker turbo prop operations (medium sized airliner 35.5m in length)  
  - There were no further comments in relation to the future use of the Port Pirie airport from air charter companies.  
| **Bus Charter Questions** | Of the three bus charter companies surveyed:  
  - Only one offered a chartered bus service carrying Drive in Drive Out workers (DIDO) to the mining sites in Roxby downs  
  - The other bus companies offered services travelling from Adelaide to Port Pirie and back via Port Wakefield Road  
  - One of the bus charter companies undertook irregular contract work (to the bus charter company which provides mining charter services) to provide bus charter services centralized around the active mining sites  
  - One bus charter company stated it did not have a license to provide bus charter services specific to transporting DIDO workers to and from mining sites  
  - The one bus company which did provide a specific charter to Roxby Downs travelled via Port Wakefield, Tint Mal and Port Augusta.  
|                      | Of all those bus charter operators that responded to either Sections A or B, four companies provided the following responses regarding air craft charter company’s interest in using the Port Pirie airport following expansion of the airport and subsequent growth in the Port Pirie region:  
  - Of the four companies which responded to the survey, two indicated they would use the expanded Port Pirie airport, while the other two indicated their use of the Port Pirie airport would be governed by customer demand  
  - The air charter companies identified fishing and emergency services (e.g. Medevac) as potential growth markets for air charter services in the Port Pirie region  
  - The air charter respondents identified the requirement for shuttle bus services to and from Port Pirie’s town centre along with CASA certification for the runway - currently too short to service their Fokker turbo prop operations (medium sized airliner 35.5m in length)  
  - There were no further comments in relation to the future use of the Port Pirie airport from air charter companies.
Our summary of the key findings of the Mining Industry survey responses is:

- Of the five mining companies surveyed with existing operations, two of these companies use FIFO arrangements for their workforce flown in from several different parts of Australia (ranging from Adelaide to Melbourne)

- Only one of the mining companies with existing mining operations indicated it would consider using FIFO workers from Port Pirie following the airport expansion (subject to demand)

- The responses received from mining companies proposing new operations indicates that very few would consider using FIFO worker arrangements if the Port Pirie airport were upgraded to cater to 50 seater aircraft. It appears most of the mining companies would fly the majority of their FIFO workers from interstate using other established airports with established flight routes

- Further comments received from the mining companies in relation to the wider local benefit of expanding the Port Pirie Airport suggested it was too close to the Adelaide and Whyalla airport to be the preferred transit point for FIFO workers

- With these other two Airports located relatively close to the Port Pirie Airport and operating aircraft movements on a more established scale, it may be difficult for Port Pirie to become a primary base for FIFO workers to be flown in and out of due to its location

- Some of the mining companies suggested construction contractors, caterers, cleaners and food suppliers could be a potential source for increasing FIFO demand, and thus potentially increasing the utilisation of the Port Pirie Airport.

Our summary of the key findings of the Air Charter Industry survey responses is:

- Air charter operators do operate charter services in the region but these are currently focussed on other regional towns with the heaviest need/demand for mining workers

- For business and tourism charters, air operators indicated they operate chartered flights carrying business workers (which could be inferred as FIFO) to mining sites located north of Port Pirie. None of these air operators, however, offered chartered flights from Port Pirie to the mining sites. The responses did indicate a weekly charter flight being offered from Adelaide to Port Pirie

- Further comments received from the air charter companies suggested future interest to use the Port Pirie Airport in transiting FIFO workers to and from mining sites would be largely governed by the requirements of the mining companies. If there were a need to bring FIFO workers in and out of Port Pirie the air charter companies would provide a service. The air charter companies suggested other industries which could increase demand for FIFO worker arrangements which included fishing and emergency services (i.e. Medevac).

For the Bus Operators, our main finding was these companies provided chartered services to mining sites on an ad-hoc basis when contracted by the mining companies to do so.
7 Port Pirie and Region: SWOT Analysis to Identify Other Potential Demand

7.1 Approach to the SWOT Analysis

Given the findings in this report that indicate that FIFO mining demand alone will be insufficient to offset the cost of the proposed airport upgrade, we undertook a high level “SWOT” analysis to identify what opportunities and issues may be possible from other key industry sectors.

In undertaking this high level SWOT analysis, the following conceptual framework set out earlier in this Report has been used to demonstrate the range of value drivers that may generate economic benefits from upgraded airport infrastructure.

Table 7.1.1 Conceptual Framework for Identifying Wider Economic Benefits
7.2 Selected Regional Airport Comparisons – Economic and Financial Impacts

PPRC is one of several regional councils in South Australia that have regional airport operations, with all these regional councils facing similar issues about how to stimulate growth and demand for the local communities using airport operations as a key piece of infrastructure.

By way of comparison, the following tables summarise the economic, financial, and strategic issues at five other regional airports in South Australia.

Table 7.2.1 Selected Regional Airports, South Australia: Economic and Financial Snapshot

<table>
<thead>
<tr>
<th>Regional Airport</th>
<th>Employment Impact (FTEs)</th>
<th>Gross State Product Impact</th>
<th>Value of Air Transport Option</th>
<th>Operating Surplus/Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mount Gambier</td>
<td>233</td>
<td>$29.7 million</td>
<td>$5.6 million</td>
<td>$0.590 million</td>
</tr>
<tr>
<td>Port Augusta</td>
<td>179</td>
<td>$23.0 million</td>
<td>$0.93 million</td>
<td>$(0.135) million</td>
</tr>
<tr>
<td>Ceduna</td>
<td>69</td>
<td>$8.7 million</td>
<td>$4.8 million</td>
<td>Not Available</td>
</tr>
<tr>
<td>Naracoorte</td>
<td>35</td>
<td>$4.5 million</td>
<td>No RPT Service</td>
<td>$(0.037) million</td>
</tr>
<tr>
<td>Renmark</td>
<td>0.8</td>
<td>$0.102 million</td>
<td>No RPT Service</td>
<td>$(0.052) million</td>
</tr>
</tbody>
</table>

Table 7.2.2 Selected Regional Airports, South Australia: Strategic Issues

<table>
<thead>
<tr>
<th>Regional Airport</th>
<th>Strategic Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mount Gambier</td>
<td>Mount Gambier makes a significant contribution to State employment and Gross State Product primarily due to its strategic location as a regional south east centre. Potentially this State contribution and financial performance of the airport will improve through expansion of RPT services linked to infrastructure upgrades.</td>
</tr>
<tr>
<td>Port Augusta</td>
<td>Airport operations currently operating at a loss and unable to generate reserve funds for necessary infrastructure upgrades. Is at the cross roads of protecting the socio-economic benefits generated by the airport against the commercial reality of investing in infrastructure upgrades to maintain and increase services, especially to the mining industry.</td>
</tr>
<tr>
<td>Naracoorte</td>
<td>Airport operations have done well to develop private sector business from its non-RPT activities which supports community benefits of access, emergency services and recreation. Needs to demonstrate a community benefit to justify any future airside upgrades as they will put pressure on Council funds through maintenance and capital replacement provisions.</td>
</tr>
<tr>
<td>Renmark</td>
<td>Airport faced with several major strategic issues. Currently has no RPT services and supports little local industry activity. Has a challenge to develop its real estate to accommodate local industry (e.g. agribusiness). Could potentially offer lifestyle benefits as a regional centre for charter operations associated with regional mining activity, and develop other revenue generating services such as flight training. Possibilities exist to adopt the business model implemented by Naracoote and increase the current level of socio-economic benefits.</td>
</tr>
</tbody>
</table>

One important issue to note from the above strategic information is that the selected regional airports are in the process of, or need to, pursue growth opportunities. Accordingly, there is an opportunity for PPRC to model future airport operations based on the lessons learnt by other regional councils.

In doing so, however, it will be important to identify what economic activity can be sourced directly from the Port Pirie region as opposed to sourcing economic activity from industry sectors that other regional councils are also targeting.

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5 Based on information in Hudson Howell, Regional Airports Project, Local Government Association of South Australia, February 2012, Section 5.6, page 37.
7.3 SWOT Analysis for the Port Pirie Region

In consultation with representatives of the PPRC we identified the following four industry sectors that could also potentially be demand drivers for the use of upgraded airport facilities.

Figure 7.3.1 Other Key Industry Sectors in the Port Pirie Region

For each of these industry sectors we have undertaken a high level SWOT analysis to identify what, if any, emergent opportunities there may be that might translate into increased demand for air services based out of the Port Pirie Airport.
### 7.4 SWOT Analysis – Industry Sectors

#### Regional Service Centre for the Resources & Energy Sector

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Existing industrial services base ideally placed to provide similar services to mining operations</td>
<td>• Supporting infrastructure upgrades will be needed</td>
</tr>
<tr>
<td>• Location to several mining operations in the Mid and Upper North</td>
<td>• Detailed knowledge and marketing intelligence of the service requirements of the resources and energy sector</td>
</tr>
<tr>
<td>• Access to three main forms of transport infrastructure, i.e. road, rail and port</td>
<td></td>
</tr>
<tr>
<td>• Affordable housing for new residents and investors</td>
<td></td>
</tr>
<tr>
<td>• SA Government has allocated funding to investigate development strategies for Port Pirie</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Existing port, road and rail infrastructure ideally suited to a freight logistics hub</td>
<td>• Timing of any benefit impacted on resource commodity export prices and exchange rates</td>
</tr>
<tr>
<td>• Flinders Port currently investigating port facility options to maximise loading facilities and improve access</td>
<td>• Other regional councils also targeting similar opportunities</td>
</tr>
<tr>
<td>• Possibility of establishing a mining school in Port Pirie</td>
<td></td>
</tr>
<tr>
<td>• Port Augusta airport may be struggling to cope with the increased mining traffic and the existing Sharp Airlines Metro services</td>
<td></td>
</tr>
</tbody>
</table>

#### Aviation (General, Commercial & Defence)

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hangar capacity keenly sought after with up to 15 aircraft currently stored</td>
<td>• Age of airport infrastructure</td>
</tr>
<tr>
<td>• Spencer Gulf Flight Training currently operating out of the airport</td>
<td>• Limited length of the current runways</td>
</tr>
<tr>
<td>• 3,500 to 4,000 flight movements for the flying school operation</td>
<td>• Commercial operators have a preference for higher density regional routes</td>
</tr>
<tr>
<td>• 30 to 50 flight movements for aircraft training</td>
<td>• Generally, air services to regional airports within 300 kilometres (by road) from Adelaide are less viable because people in most cases choose to travel by car rather than air</td>
</tr>
<tr>
<td>• Ideal climate and location for flying operations</td>
<td>• Underlying demand would need to be established for the industrial park</td>
</tr>
<tr>
<td>• Current plans for industrial park</td>
<td></td>
</tr>
<tr>
<td>• Major regional health facility</td>
<td></td>
</tr>
</tbody>
</table>

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6 Hudson Howells, Regional Airports Project, Local Government Association of South Australia, February 2012, page 16
### Opportunities
- Base for RFDS and Angel Flight services
- Regular charter service as transport option for visiting medical specialists – potential benefits include treating doctors arriving ‘refreshed’ and ready for work, cuts down on travel time, helpful for country patients not able to drive to Adelaide for treatment
- Potential for training expansion including Australian Maritime Safety Authority and Department of Defence activities (for the latter, especially given location near Caltana and El Alamein Training Precincts)
- Airport strategically placed as possible base to perform rescues in southern ocean and in the economic fishing zone to the east and west of the continent
- Regional hub for emergency services – for example, water bombing aircraft could be strategically placed during fire danger season providing centrally based services to the State
- General aviation activities are being priced out of major city airports and are gravitating towards secondary/regional airports

### Threats
- Other regional councils also considering air training opportunities
- RFDS operations currently based out of Port Augusta airport
- The majority of flying training for international and national carriers is currently undertaken at Parafield Airport
- Department of Defence spending currently under review and, in places, is declining from historical highs
- Preference by users to use existing road and rail networks

### Agriculture, Forestry & Fishing

#### Strengths
- Close proximity of existing seaport and fishing operations to airport
- Major grain and agricultural centre for the local region

#### Weaknesses
- Very little export air freight is generated from regional airports to Adelaide because the cargo capacity of aircraft operating regional air services is very limited and few products are of high enough value to sustain the air freight cost
- Need to establish market for bespoke produce

#### Opportunities
- Potential to exporting premium food and wine to the ‘white linen tablecloths’ in eastern Australia and other countries
- Possible air export of chilled animal meat produce as alternative to live animal exports - ‘paddock to plate’ marketing

#### Threats
- Established competition in other regional centres exporting high value produce, e.g. Port Lincoln
Tourism

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location on main transport route to Mid North, and accessible to National Highway One</td>
<td>Need to further improve market awareness of Port Pirie as regional tourist location</td>
</tr>
<tr>
<td>Proximity to major tourist attractions including Flinders Ranges and Clare Valley</td>
<td>Requirement to upgrade existing/develop new short stay tourist accommodation</td>
</tr>
<tr>
<td>Access to both water (e.g. on and offshore) and land opportunities (e.g. southern Flinders Ranges)</td>
<td>Need to upgrade airport facilities</td>
</tr>
<tr>
<td>Existing Regional Tourism &amp; Arts Centre</td>
<td></td>
</tr>
<tr>
<td>Established schedule of tourism events</td>
<td></td>
</tr>
<tr>
<td>Included in The Flinders Ranges’ Destination Action Plan 2012 in conjunction with the South Australian Tourism Commission</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possibilities for aerial experiences, including light aircraft and hot air balloon charters</td>
<td>Established tourism operations in adjoining regional centres competing for tourism spend</td>
</tr>
<tr>
<td>Opportunity to develop regional tourism linkages via the Clare Valley’s Destination Action Plan 2012-2015</td>
<td>Reduced consumer spend on domestic tourism</td>
</tr>
</tbody>
</table>

7.5 Key Findings from the SWOT Analysis

Port Pirie’s geographical location to both water and the Flinders Ranges and accessibility to three major forms of transport (i.e. road, rail and port) provide major opportunities for future potential for the industry sectors identified in the SWOT analysis.

The key issue, however, is the timing of these opportunities and when they can be converted into economic benefits that can be relied upon to partially or wholly fund the required upgrade in airport infrastructure.

Accordingly, for the purposes of this study the high level nature of this SWOT information limits the ability to develop reliable data estimates that could be used in the break even analysis.

While the opportunity to develop a regional services centre for the resources and energy sector is clearly a strong point for Port Pirie, the results of the FIFO demand survey for this study suggest that the underlying level of FIFO demand is still developing.

During the course of this study BHP Billiton announced the deferral of the Olympic Dam expansion, and this announcement also coincided with a recent softening in the export prices for major mineral ore commodities. These announcements may have impacted on the willingness of survey respondents to complete the survey due to current market uncertainty.

Notwithstanding this potential impact on the survey response rate there is still an opportunity for Port Pirie to develop a business case for an airport infrastructure upgrade as a means of investing (and diversifying) for future regional growth opportunities. As most regional councils face significant challenges to fund airport infrastructure upgrades from their current financial bases, any such business case would most likely need to be built around some level of capital grant funding from the Australian and/or South Australian Governments.
8 Conclusions and recommendations

Based on results of the break even analysis and the stakeholder survey conducted as part of the Report, we have identified that currently there would be insufficient FIFO-based revenue demand generated by the resources and energy industry that would fully offset the capital cost of upgrading the current Port Pirie Airport facilities.

In terms of likely passenger and aircraft movements required to fully offset the cost of upgrading the current airport facilities to the cater for 50-seat aircraft operations (i.e. a “break even” point), Section 5.4 of our Report identifies that up to 23 aircraft movements per week would be needed (assuming a Passenger Head Charge of $7 per passenger).

These weekly flights equate to 1,113 passengers per week passing through the Port Pirie Airport. The key outcome, therefore, from the break even analysis is that FIFO activity from the mining and resources sector would need to be significant in order to be considered the primary revenue source to fund the expected capital upgrade costs.

Such findings suggest that financially some form of grant funding will be needed to finance the proposed upgrade of the airport facilities.

While the industry survey we undertook as part of this Report identified some current FIFO activity around the Port Pirie region, the responses received from mining companies proposing new operations indicates that very few would consider using FIFO worker arrangements if the Port Pirie airport were upgraded to cater to 50 seater aircraft. It appears most of the mining companies would fly the majority of their FIFO workers from interstate using other established airports with established flight routes.

Further comments received from the mining companies in relation to the wider local benefit of expanding the Port Pirie Airport suggested it was too close to the Adelaide and Whyalla airport to be the preferred transit point for FIFO workers. With these other two Airports located relatively close to the Port Pirie Airport and operating aircraft movements on a more established scale, it may be difficult for Port Pirie to become a primary base for FIFO workers to be flown in and out of due to its location.

Notwithstanding the above findings, we have identified through a high-level “SWOT” analysis that potentially the Port Pirie region could capitalise on existing strengths in the following industry areas to bolster a case for upgrading the Port Pirie Airport:

- Regional Service Centre for the Resources & Energy Sector
- Aviation hub (general, commercial and defence)
- Agriculture, Forestry & Fishing
- Tourism.

Ideally, further work on verifying the demand potential of these industry areas should be done in the context of the four prime infrastructure studies currently commissioned by PPRC.

We also note that other major regional councils (e.g. Whyalla) are currently investigating airport upgrade options to accommodate larger aircraft operations. While our research identified that some regional councils had been able to implement sustainable airport operations (e.g. Naracoorte) that
could act as a benchmark business model for Port Pirie, the underlying theme is that several regional airports are potentially chasing the similar FIFO market that Port Pirie believes has potential.

Ultimately, this means that regional councils like Port Pirie will need to have a “three pillar” approach to their airport upgrade covering:

- grant funding support from the Australian and/or South Australian Governments
- identify a broad socio-economic strategy justifying an upgrade in the current airport facilities
- work with other regional councils by way of a “regional hub” strategy to identify mutual benefits that can be pooled to form a critical mass, rather than divided through competing with each for potentially the same market.

When considering the possibilities for a regional hub strategy, possible options to explore include:

- consider a regional circuit for aircraft service opportunities covering other large regional centres including Mount Gambier and Murray Bridge who are also pursuing FIFO strategies
- as an alternative to being predominantly a FIFO hub for the resources and energy sector, consider branding Port Pirie as a major residential centre with regular bus services to mining projects adjacent Roxby Downs, Eyre Peninsula, Yorke Peninsula and the Braemar Region (i.e. these sites being within reasonable BIBO distances)
- transporting people by bus to Port Augusta (as a base for FIFO) to take advantage of existing airport facilities.

In closing, Aurecon would like to thank all the efforts and participation of project team members, PPRC representatives, and survey respondents for their participation in this Report.
### Port Pirie - Airport Expansion and Feasibility Study

#### Break-even Model - Revision 4

**Period** | **Construction** | **Operating**
--- | --- | ---
0 | | 
1 | | 
2 | | 
3 | | 
4 | | 
5 | | 
6 | | 
7 | | 
8 | | 
9 | | 
10 | | 
11 | | 
12 | | 
13 | | 
14 | | 
15 | | 

**Costs**

<table>
<thead>
<tr>
<th>CapEx Option</th>
<th>Airside &amp; Landside</th>
<th>Additional Recurrent Maintenance</th>
<th>Aerodrome Operations - Current Expenditure (1)</th>
<th>Aerodrome Operations - Current Revenue (2)</th>
<th>Commercial leasing at airport</th>
<th>Long term secure car parking at airport</th>
<th>Aircraft landing fee</th>
<th>Other Benefits</th>
<th>Grant Contribution</th>
<th>Residual Value of Upgraded Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-$5,331,170</td>
<td>0</td>
<td>-$173,135</td>
<td>$43,768</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$1,097,641</td>
</tr>
</tbody>
</table>

**Revenue**

<table>
<thead>
<tr>
<th>Passenger Head Fee</th>
<th>$7.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passengers/week</td>
<td>1,113</td>
</tr>
<tr>
<td>$405,037</td>
<td></td>
</tr>
<tr>
<td>$405,037</td>
<td></td>
</tr>
<tr>
<td>$405,037</td>
<td></td>
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<td>$405,037</td>
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<td>$405,037</td>
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<tr>
<td>$405,037</td>
<td></td>
</tr>
</tbody>
</table>

**Results**

- Net Present Value (discounted): $0

**Notes** - Changes to Previous Versions:
1. Aerodrome Operations current expenditure based on FY2012 Income figures as provided by PPRC.
2. Aerodrome Operations current revenue based on FY2012 Income figures as provided by PPRC.
### Desired outcomes of Survey
- Interest to fly FIFOs from Port Pirie to mining sites in South Australia
- Current numbers of FIFOs travelling to mining sites in South Australia, how many will go near Port Pirie on their way
- Current numbers of FIFOs driven in and out of mining sites from Port Pirie
- Would FIFOs go to mining sites via Port Pirie
- Confirm if operators and mining companies organise transport of FIFO’s via Port Pirie
- Likely ‘Aircraft to be used by operators: Jet, Turbo – prop, passenger capacity, weight
- Number of flights to be required to fly in and out of Port Pirie each week to service industry worker demands
- For each existing mining and industrial developments to be surveyed
- Frequency of flights
- Current Aircraft routes to and from existing mining and industrial services
- Other Opportunities
  - Defence
  - Tourism
  - For each existing mining and industrial developments to be surveyed
    - Frequency and weekly number of flights to/from existing mining and industrial sites
    - Current Aircraft routes to and from existing mining and industrial sites
  - For each future mining and other industrial developments to be surveyed
    - Construction phase
      - Timeline for construction phase (i.e 1-5 years, 6-10, 11 +)
      - Likely size of construction workforce
      - FIFO numbers from Port Pirie surrounding catches
    - Operational phase
      - Operational life of mine (i.e 1-10 years, 11-20, 21+)
      - Likely annual size of operational workforce
      - FIFO numbers from Port Pirie and surrounds, FIFO elsewhere and DIDO

### Supporting Industry contacts to Survey
- FIFOs
  - Wallaroo
  - Moonta
  - Kadina
  - Clare
  - Burra
  - Snowtown
  - Spalding
  - Jamestown
  - Port Pirie
  - Crystal Brook
  - Port Germein
  - Gladstone
  - Laura
  - Balaklava
  - Port Wakefield
- Charter Aircraft Operators in USG
  - Air South
  - Heathgate
  - National Jel (Cobham)
  - Alliance Airlines
- Other Aircraft Operators
  - Sharp Airlines
  - REX
- Bus service providers (to remote sites near USG)
  - Premier Staliner
  - Genesis
  - Greyhound
- Mining Companies
  - BHP
  - Santos
- Small Charter providers:
  - Kym Brougham of Whyalla

### Currently operating Mining Companies
- Active Mining Companies
  - BHP Billiton
  - OZ Minerals
  - IMX
  - Iluka
  - Heathgate Resources
  - Santos
  - Kingsgate Consolidated
  - Exco Resources
  - Arrium – Peculiar Knob
  - Beach Petroleum
- Potential FIFO Operations
  - Altona
  - Anafari (Nolans Biore)
  - Havilah
  - Carpentaria Exploration Centre
  - Minour (Mutooroo)
  - PepsiNini
  - Marmola Energy (Junction Dam)
  - Avocet
  - Investigator Resources (Paris)
  - Archer Exploration (Graphite)
  - WPG Resources
  - Giffin Welt
- Other Projects (most likely DIDO)
  - REX minerals
  - Royal Resources
  - Ironclad
  - Iron Road
  - Iron Chiefflan (Arrium)
  - Anafari
- Other Industries
  - Nyxstar
  - Alinta Energy
  - Arrium Whyalla Steelworks
  - Perlyva (lead/zinc mine)
  - CBH (Rasp Mine)

### Mining Company Questions
#### Section A: Please complete if you have an existing mining operation
1. Do you currently use Fly In Fly Out (FIFO) labour arrangements? YES / NO
   - If "YES" go to Question 2
2. How many FIFO employees do you have and how many are based in each respective hometown (i.e Whyalla 50 workers, Port Augusta 100 workers etc...)?
3. What are your current flight routes (i.e origin and destination) for your mine site employment base?
4. What are your flight frequencies per week?
5. What are your flight passenger numbers per week?
6. What aircrafts used in FIFO (aircraft name and passenger capacity)?
7. Do you have a preferred aircraft operator/s? If so please list.
8. What is the anticipated life of the existing mining operation?
9. Would you consider using FIFO labour from Port Pirie and surrounding region if the Port Pirie Airport was upgraded to cater for up to 50 seater aircraft?

#### Section B: Please complete if you plan to construct a new mining development or expand an existing mining operation
1. What is the timing for the construction or expansion phase of your development?
   - Please indicate one of the following:
     a) 1-5 years
     b) 6-10 years
     c) 11 + years
2. What is the anticipated life of the new or expanded mining operation?
3. How many employees will be required on site on a weekly basis for the new or expanded mining operations?
4. Are FIFO labour arrangements being considered for the new or expanded mining operation?
5. Would you consider using FIFO labour from Port Pirie and surrounding region if the Port Pirie Airport was upgraded to cater for up to 50 seater aircraft?

### Section C: All survey respondents to complete
1. Do you see any other local industries benefiting from increased FIFO demands? If so what industries?
2. Do you have any other feedback in relation to the Port Pirie Airport?
3. Do you have any workers that Drive In Drive Out (DIDO)?
   - If "YES" go to Question 18
4. How many DIDO employees do you have and what are their home town?

### Charter
#### Charter Aircraft Operators in USG
- Air South
- Heathgate
- National Jel (Cobham)
- Alliance Airlines
- KJM Contractors
- Corporate Air
- Renaissance Air
- Opal Air
- Adelaide Air Charter
- Kym Brougham

#### Scheduled Air Service Providers:
- Sharp Airlines
- REX

#### Section A: Mining Air Charters
1. Do you currently operate any air charter services to FIFO mining sites in South Australia?
   - "YES"/"NO"
   - If "YES" please answer the following:
     2. What are the origin and destination of your charters?
     3. What are the service frequencies (daily, weekly, fortnightly etc) for each destination?
     4. What aircrafts are being used for each destination?

#### Section B: Business and Tourism Charters
1. Do you currently fly charters to Spencer Gulf destinations (ie Port Augusta and Whyalla)?
   - "YES"/"NO"
   - If "YES", please answer the following:
     2. What are the origin and destination of your charters?
     3. What are the service frequencies (daily, weekly, fortnightly etc) for each destination?
     4. What aircrafts are being used for each destination?

### What we know – facilities, working population and projections.
- Current Airport Conditions:
  - 1043 m x 30 m (length x width), sealed to 18 m
  - Pavement capacity is 5.7 tonnes (suitable for planes with 10 or less seats).
  - Runway is aging
  - No jet fuel available
  - Not navigational aids
  - Can extend runway to 1800 m, beyond which additional land would need to be purchased from Gary Smith
  - RESIC (Parsons Brinckerhoff, 2011) under review and summation for possible inclusion in Feasibility Study Report.
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United Arab Emirates, Vietnam.