

GREAT AUSTRALIAN BIGHT RESEARCH PROGRAM

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Social profile of the Eyre Peninsula and West Coast region

Final Report GABRP Project 6.1

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GREAT AUSTRALIAN BIGHT RESEARCH PROGRAM

The Great Australian Bight Research Program is a collaboration between BP, CSIRO, the South Australian Research and Development Institute (SARDI), the University of Adelaide, and Flinders University. The Program aims to provide a whole-of-system understanding of the environmental, economic and social values of the region; providing an information source for all to use.

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ACRONYMS

| | |
|---------------|---|
| ABS | Australian Bureau of Statistics |
| DC | District Council |
| GAB | Great Australian Bight |
| LGA | Local Government Area |
| RDAWEP | Regional Development Australia Whyalla and Eyre Peninsula |
| SBT | Southern Bluefin Tuna |
| SIA | Social Impact Assessment |

ACKNOWLEDGEMENTS

The Great Australian Bight Research Program is a collaboration between BP, CSIRO, the South Australian Research and Development Institute (SARDI), the University of Adelaide, and Flinders University.

The authors of this report recognise the great diversity among the people who inhabited Australia prior to European people's arrival. We also recognise the fact that the terms 'Aboriginal', 'Torres Strait Islander' and 'Indigenous' are labels that have emerged post-colonisation, and are a product of the colonisation process rather than a way in which First Nations persons of Australia identify themselves. Notwithstanding, we have used the term 'Aboriginal people' or 'Aboriginal persons' throughout this report to identify persons of First Nations descent. This is not intended to generalise attributes across a population in which it is understood great diversity exists (Hordacre et al., 2011). We also recognise the Eyre Peninsula and west coast's first people and respect and recognise their deep attachment and relationship to Country.

EXECUTIVE SUMMARY

This is the Final Report for a project establishing a socio-economic baseline for the Eyre Peninsula West Coast Region (EPWC). This report brings together and summarises the results of the Milestone Reports, the Literature Review and the quarterly reports. The project has consisted of the following discrete elements:

- Literature Review;
- One-on-one interviews;
- Focus Groups;
- Online Survey; and,
- The development of a Social Impact Analysis framework.

The report finds there are many drivers of change that affect both the economic development and social dynamics of the region: “from cyclical drivers such as el Niño, changes in labour availability, and world and local interest rates, to longer-term systemic drivers such as global climate change and resource depletion” (Gillanders et al 2013, p 156). The economic and social characteristics of the EPWC region are also shaped by the international political and policy environment.

The EPWC region’s core strengths are:

- the natural environment (under increasing development and pleasure pressure);
- a collaborative network of agents operating across the region (despite being spread out);
- a diversifying economy (strong potential of renewable energy and tourism); and
- lifestyle and amenity (strongly tied to the natural environment).

The social capital of the EPWC region is also a key strength and for Ceduna and the unincorporated west coast in particular, is a means of emotional and physical survival in a distant, dry place. Various land- and seascapes provide attractions for existing and emerging tourism operators and produce premium food, but they are also a core part of a person’s being and belonging to the region. For the people who live in the EPWC region the land- and seascapes can provide emotional and/or spiritual sustenance (Strang in Poore 2002, p 221).

The people living in small towns and on rural properties across the region are experiencing transition in their way of life, lifestyles, housing and physical amenity. The advent of mining projects may significantly transform the social structure of communities and some towns in ways that are both positive and negative. The people of the region have argued that economic growth at any cost is not an option. They will attempt a balance between seemingly conflicting objectives but the lifestyle, amenity and physical environment of the region will be retained (RDAWEP 2013, p 8).

The Eyre Peninsula Integrated Climate Agreement (EPICCA) Committee has developed models for dealing with projected climate change on land and sea-based industries, Local Government operations, infrastructure development and water resources management. The models can be applied to decision

making timeframes for project planning and implementation. Regional models such as those developed by the EPICCA Committee require consideration of the longer term impacts of major infrastructure projects when planning regional development (RDAWEP 2014, p 17).

Interviews with key informants across the region suggested a number of themes:

- Environmentally focused informants felt that it was important development proponents released their modelling and other data as quickly as possible, and that the community needed to be kept informed;
- Stakeholders focused on issues associated with the economic development of the region had a different set of concerns, in particular the need to identify future economic development opportunities, the adequacy of infrastructure, the challenge of updating regional plans and the issue of skills within the workforce. When asked to nominate the most pressing issues respondents noted that gaps in regional planning was a major limitation with no structural plans in place to guide development. They also noted significant gaps in infrastructure;
- Water supply and treatment. There is a need to establish third party access to distribution networks in order to open up new sources of water to the market;
- Export infrastructure, including wharves; education facilities and power supply;
- The adequacy of vocational training for employment opportunities, with the closure of some TAFE facilities and the downsizing of the university presence in Whyalla. There is a need for tailored education to meet regional needs;
- Economic development professionals in the region reported that the adequacy of the skills in the labour force – that is, the quality of human capital – is a limiting factor for the development of the region;
- Other interviewees noted that the Eyre Peninsula has a small population and often lacks the critical mass needed to meet the needs of growing industries, including aged care. For this reason, strategies that deliver population growth are considered important for the region. Similarly, there was a view that having 11 councils for a population of 56,000 was inefficient – with nine councils covering the 20,000 people living outside Port Lincoln and Whyalla. The youth and some families leave the area for education, further education and work. Some return years later, but there are not usable data on who returns, when and in what numbers. The region needs educational institutions for family stability;
- Being able to meet the aspirations of Aboriginal Australians on the Eyre Peninsula was an acknowledged priority also. The region has a much higher Aboriginal population than many other regions and economic growth and employment are needed to lift their health and living standards. They are trying different education models in primary schools, but students fall behind in high school, and that leads to lower attendance. Literacy and numeracy are also a problem. School funding varies with the numbers attending. DECS need to come to the region and learn about Aboriginal people needs.

Ten focus groups were undertaken over the course of this project, and their locations were selected to capture the diversity of experience in the Eyre Peninsula and west coast. Geographically,

- Three focus groups were undertaken in Port Lincoln;
 - One representing the general business community;
 - The second young people;
 - The third Aboriginal people living in Port Lincoln, most of these participants were under 25 years of age;
- Two focus groups were undertaken in Tumby Bay;
 - One focused on local government issues;
 - The second had a general community focus;
- One focus group was undertaken in Streaky Bay, examining issues relating to fishing and surfing in particular;
- One focus group was undertaken in Elliston;
- One focus group was undertaken in Cummins;
- There was one focus group in Kimba; and
- There was one focus group held in Adelaide for the Mirning people.

The major themes from these focus groups included:

- Many respondents across the focus groups noted that the EPWC offered a high quality of life and a near-pristine environment. For older residents living in Elliston this was expressed as an appreciation for the peace and quiet that the region offered. Many of the participants in this focus group reported that they had retired to this region from other parts of the EPWC, Adelaide or even further afield. A benign environment, a quiet lifestyle and the opportunity to both socialise and go fishing met their requirements for a successful retirement. For younger families who participated in the Streaky Bay focus group key attractors to the region included an affordable housing market, a strong community within which to raise their children and opportunities for fishing and surfing;
- The strong value placed on environmental quality spilled over in a number of focus groups into avowed opposition to any development that was seen to be a threat. This set of views was enunciated by both representatives of industry bodies, and members of the general community. Many focus group participants expressed significant reservations about development in the GAB, while others discussed their opposition to land-based mining;
- Aboriginal respondents in the two specialist focus groups were especially focused on environmental issues, noting that the environment was both an important material resource, spiritually significant and a central part of their heritage;
- Poor transport infrastructure and the high cost of travel were an acknowledged problem in many communities and at a variety of scales. Within larger urban centres – such as Port Lincoln – public transport was non-existent forcing individuals to either own a car, walk or be immobile. The need for a car to gain access to places of employment was an impediment to many young people finding a job;

- Access to transport was seen to be especially challenging for Aboriginal people, especially those who live outside the major urban centres;
- The decline of some communities within the EPWC was a recurrent theme in many of the focus group discussions. Focus group participants argued that historically the region had a strong set of communities, but many of the smaller townships and settlements are now under threat;
- Community decline, alongside poor transport (discussed above) are seen to place increased pressure on the cost of living for already vulnerable household budgets. Participants noted the cost of gaining access to affordable household goods and limitations on the range of goods available;
- The ageing of the population was acknowledged by the focus group participants as contributing to population decline. Many of the faster-growing coastal settlements are growing as a result of retirement migration – often farmers leaving the land – skewing the age profile and generating a new set of demands for services. Population ageing was seen to add a new dynamic to the wider process of population change, but one with well-established antecedents;
- Many participants in the focus groups noted with pride the productivity of the region and its contribution to Gross State Product (GSP). They commented on its significant contribution in the areas of grains production, fisheries, aquaculture and increasingly in tourism;
- Pride in the productivity of the economy, however, was tempered by other concerns around the structure of the economy and employment. A number of respondents noted that farming had changed considerably over the past two decades, and that the rationalisation of farm sizes and the increased use of large scale machinery had maintained profitability, but at the loss of employment. What jobs were available tended to part time, seasonal or casual;
- Many participants in the focus groups acknowledged that the workforce in the EPWC region lacked substantial formal qualifications and were therefore unlikely to secure jobs if development was to proceed in the GAB.

The analysis of an online survey provided additional insights into the social and economic dynamics of the Eyre Peninsula and west coast. Specifically, the survey allows us to conclude that:

- The Eyre Peninsula population makes considerable use of its natural environment and takes a high level of interest in the assets and resources it offers;
- Social activities on the Eyre Peninsula tend to be focused on sporting activities, as well as informal interactions with friends and neighbours;
- There is a strong tradition of voluntary activities on the Eyre Peninsula, especially with respect to sport, environmental groups, including Landcare, and local economic development associations;
- There is strong community engagement with issues of political and economic importance, especially at the local level. It is important to note that many respondents to the survey had taken action against terrestrial mining;

- There are strong stocks of social capital in the region, with many residents providing support to others within the community. This has included providing personal care to others, offering transport to a neighbour or friend and unpaid baby sitting or care;
- The overwhelming majority of respondents to the survey reported that they had others within the community they could turn to if they needed assistance. Very few (under 5 per cent) reported that they had no one they could turn to;
- Friends and family members were seen to be the most important sources of support in a crisis. Neighbours and work colleagues were also considered important;
- There was a high level of social interaction amongst the respondents, with most reporting a high level of communication with friends and relatives;
- More than 60 per cent of respondents reported that they could find assistance from someone outside their household if they needed advice on what to do, emotional support, help in maintaining family or work responsibilities, emergency money, emergency accommodation, or emergency food. This is a high level by the standard of contemporary Australia;
- Most households had a broadband connection to the internet, although 30 per cent did not and relied upon mobile-phone based services or similar technologies for connectivity;
- There was a high level of social media use;
- Overall, respondents to the survey saw both positive and negative impacts arising from offshore exploration and drilling, with the consequent potential for subsequent on-shore development:
 - They saw such development as having a number of positive impacts, including contributing to population growth, helping with the supply of new infrastructure for the region and bringing new jobs and businesses to the Eyre Peninsula;
 - The respondents also acknowledged that the development may have negative impacts on community functioning (though support for this was somewhat muted) and was likely to have a negative impact on natural features and landscapes;
 - Respondents had a clear perception that development had the potential for a negative impact on tourism and commercial fisheries.

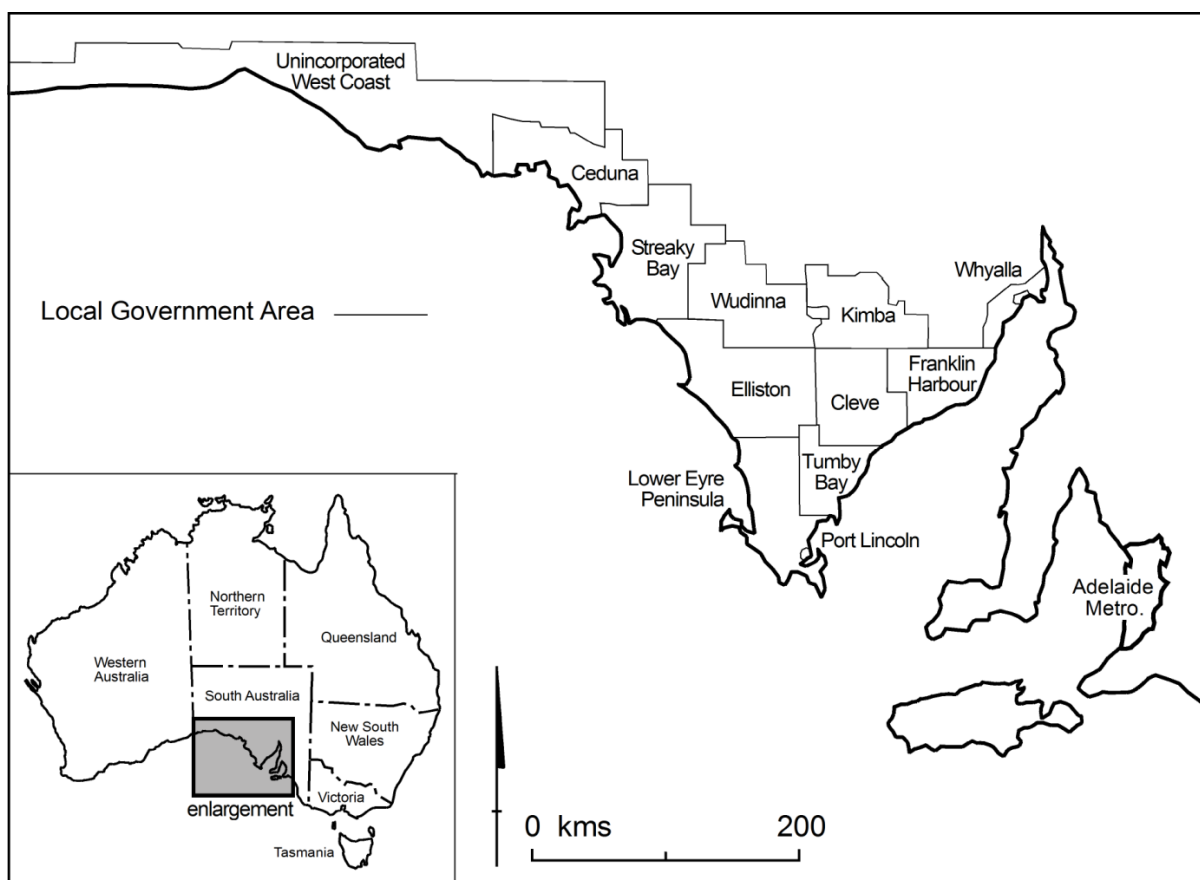
Finally, a Social Impact Analysis (SIA) framework was developed and applied to the EPWC and the proposed development in the GAB. It noted that while BP is unlikely to move to the drilling of a test well, Chevron has announced a commitment to proceed to that stage. The SIA found that while the risks associated with the sinking of a test well are very small, the perception that any event may have catastrophic impacts, and the absence of a firm foundation of knowledge in the region, creates a reputational risk for project proponents. Mitigation measures are needed that provide greater community information and awareness, as well as jobs strategy that would provide benefits for the region.

INTRODUCTION

Overview

This is the Final Report of a project examining the social and economic structure of the Eyre Peninsula and West Coast region of South Australia (Figure 1) and this report has been prepared for the Great Australian Bight Research Program.

Figure 1: Map of the Eyre Peninsula and West Coast (EPWC) region study areas



Source: The University of Adelaide.

This study was undertaken with the objective of establishing an understanding of the economic, commercial and social features of the Eyre Peninsula and far west coast of South Australia. The study was initiated in recognition of the fact that the region may be affected by offshore oil and gas activities and that understanding the nature and extent of any potential impacts would be critical for decision making.

The study presented in this Final Report included several distinct phases of data collection and analysis, including:

- The review of the relevant literature;
- Interviews with key informants within the region;
- The completion of 10 focus groups in the region, including two undertaken with Aboriginal participants;
- The collection of quantitative data on community attitudes and values using an internet-based survey; and,
- The development of a Social Impact Analysis framework.

Background and need

The development of oil and gas resources in the Great Australian Bight has the potential to change the structure of at least some regional communities on the west coast and throughout the Eyre Peninsula. The EPWC is a relatively under-developed part of South Australia, with the region having a relatively small population scattered over a large area. Despite its sparse population it is comprised of complex communities including:

- Significant Indigenous populations, some of whom continue to live on traditional 'country' and maintain many cultural practices (including language), while others have a more contemporary lifestyle;
- Populations of persons born overseas and their children living in communities that identify strongly with their place of origin;
- Dryland farming communities;
- Important fishing and aquaculture industries, with associated links into a number of communities; and
- A significant population of retirees and a younger community of Aboriginal Australians.

Change has been evident in many of these communities over the last three decades, and these transitions have included a decline in employment in conventional agriculture, the rise of aquaculture, the development of a strong export focus to the fishing sector and the emergence of mining, both in the recent past and in prospect.

This project was established with the goals of:

- Providing a description of the region's social structure and the processes currently driving change;
- Identifying community perceptions with respect to the potential impact of oil and gas activities on the region, including the potential for onshore developments; and
- Developing an understanding of the region's capabilities and capacity to take advantage of future developments.

Three key tasks were embedded into the project:

- The first task was to undertake desktop studies and a literature review to create a baseline of knowledge about the region and its social structure. This review was to include the review of relevant data sets;
 - Demographic aspects including population profiles, distribution and density; and
 - Economic factors including general characteristics, structures and changes, various economic activities and employment;
- The second task was to collect a volume of primary data through focus groups, in-depth interviews and an online survey. This task was established in order to identify views related to development and environment, understand the strength of social capital and the population's capacity, and discuss current and future infrastructure;
- The third task was to undertake a social impact assessment for key communities in the region using techniques already well developed in the region. This part of the project was informed by the work of existing regional models, as well as the outcomes of Project 6.2 and Project 6.3.

THE LITERATURE REVIEW

The full literature review produced through this project has been released as Thredgold et al (2014) and is available through the website for the Great Australian Bight Research Program. To avoid replication, only a brief review of this literature is presented here but it is worth noting that this review provides a snapshot of the social, cultural, economic and political conditions of individuals, groups, communities and organisations living in the EPWC region.

For the purposes of this study, the Eyre Peninsula and West Coast (EPWC) region consists of 11 Local Government Areas (LGAs) and the unincorporated west coast (see Figure 1). For ABS Census purposes the eastern side of Eyre Peninsula is classified as “remote”, and the western side and the unincorporated west coast is classified as “very remote”. The region has approximately one third of the State’s coastline and stretches from Whyalla, a major urban centre located in the upper Spencer Gulf, across to the South Australia/Western Australia border—or over 2,000 km (RDAWEP, 2014 p 36). Eyre Peninsula is a triangular shaped piece of land bounded by South Australian outback country to the north, the relatively calm Spencer Gulf (a sheltered, tidal, inverse estuary) to the east and the rougher waters of the Great Australian Bight on the west coast.

Waves blown by the dominant westerly winds and swell in the Southern Ocean have carved the southern and west coast of the Eyre Peninsula. Headlands and promontories display precipitous cliffs which are pounded by the high energy seas below. The base of the cliffs is “predominately calcareous cemented aeolianites and calcretes” which can be “anything from less than 1 m thick to over 100 m thick” (Martin 1988, p 11). The various bays and inlets along the coastline have been formed where the aeolianite/calcrete barriers have been breached. The mangrove-samphire communities of the lower Eyre Peninsula and the west coast are important nursery grounds for many fish species, including King George whiting, silver whiting, garfish, tommy ruff, snapper, Australian salmon, and snook. The seagrass communities are important feeding grounds for most adult fish species listed (Martin 1988, p 14). The coastal environments may be modified by the presence of near shore reefs or islands which can provide protection from the rough seas, for example the Nuyts Archipelago off the west coast. See Martin (1988, pp 11-13) for a more detailed description of the landforms, tides, water movement and intertidal zonation of the EPWC coast.

Vegetation clearance for agricultural purposes ranges from 14 per cent in the far west to 72 per cent in the south. About 15 per cent of the region’s grazing area is covered with scattered vegetation (EPLGA 2014, p 4). Some 7.5 million hectares of land remains protected in national and conservation parks and reserves (RDAWEP 2014, p 37). There are State and National marine parks within the GAB.

Some older people in the region have described the area as having an “island-like separation from ‘the mainland’” (Smailes 1993, p 2). The EPWC region is a large and remote geographical area. Some parts of the region have relatively pristine coastal and land environments while others have been fundamentally changed by “European” derived farming practices. The region supports a small number of people, including a high and growing proportion of Aboriginal people, who reside in sparsely settled small towns and rural holdings (excluding Port Lincoln and Whyalla). The region is an economically significant part of

the State with a diverse industry base. Some sectors such as mining, tourism and renewable energy are emerging alongside the more traditional agriculture and manufacturing sectors (RDAWEP 2014, p 5). While some prospects are on the horizon, the region faces challenges and constraints due to competing economic, community and environmental needs. These are affected by economies of scale, the 'tyranny of distance' from metropolitan Adelaide and the limited capacity of existing, and requirements of new, infrastructure (RDAWEP 2014, p 5). Water security is perhaps the most urgent requirement for most communities and industries in the region and in a number of instances it is perceived to be a limitation on growth.

Demographic profile

In 2011 the region's 11 LGAs and the Outback Communities Authority¹ administered to 56,286 people, or 3.5 per cent of the State's population. Approximately 64 per cent of the EPWC region's population resided in the City of Whyalla (22,088) and City of Port Lincoln (14,086) in 2011. At the other extreme of the region's population distribution is the 1.1 per cent (635) of the population living in over 23,537 km² of the unincorporated west coast. Nine of the region's LGAs, with a total population of 19,477 in 2011, covered an area of 42,948 km².

Table 1: Population of EPWC LGAs, 2011 and per cent change 2012-2013*

| LGA | 2012 | | 2012r-2013p | |
|----------------------|-------------|---------------|-------------|-----|
| | Persons (%) | Persons (No.) | % change | No. |
| Ceduna | 6.2 | 3,480 | 0.2 | 8 |
| Cleve | 3.1 | 1,733 | 0.0 | 0 |
| Elliston | 1.9 | 1,046 | 0.5 | 5 |
| Franklin Harbour | 2.3 | 1,273 | 0.0 | 0 |
| Kimba | 1.9 | 1,088 | 0.0 | 0 |
| Lower Eyre Peninsula | 8.7 | 4,916 | -1.4 | -71 |
| Port Lincoln | 25.0 | 14,086 | 1.0 | 146 |
| Streaky Bay | 3.7 | 2,102 | 2.2 | 48 |
| Tumby Bay | 4.6 | 2,586 | 3.2 | 84 |
| Whyalla | 39.2 | 22,088 | -0.4 | -80 |
| Wudinna | 2.2 | 1,253 | 0.5 | 6 |
| Unincorp. west coast | 1.1 | 635 | na | na |
| Total | 100.0 | 56,286 | | 297 |

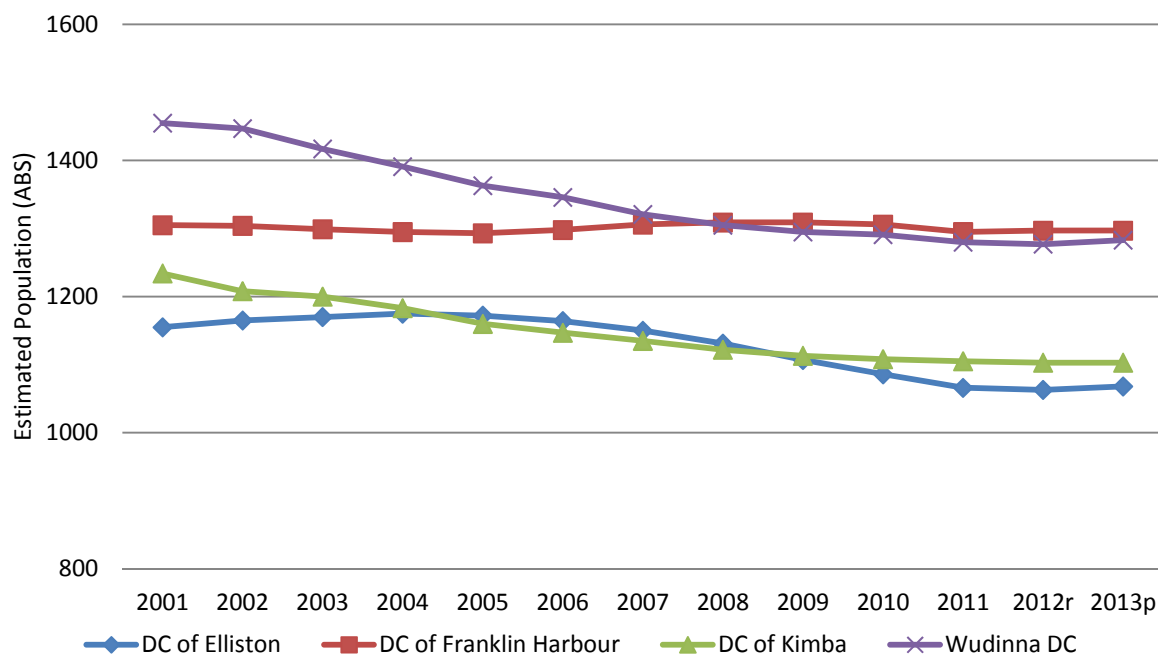
Revised population estimates (r) for 2012, and preliminary population estimates (p) for 2013. * based on place of usual residence

Source: ABS, 2012, Census of Population and Housing Basic Community Profile, Cat No 2001, various, and ABS, 2014, Census of Population and Housing Regional Population Growth, Australia, 2011, cat. no. 3218.0, table 4.

¹ Serves the remote west coast unincorporated area.

In the decade 2001 to 2011, population growth was subdued in most LGAs. Overall the EPWC communities have been growing at a slower rate than the State average of 5.8 per cent (SACES 2013, pp 17-18). Since 2001 the region's population has grown by 4.5 per cent but this is not consistent across the region as a whole. The District Councils of Elliston (-15.2 per cent), Wudinna (-13.7 per cent) and Kimba (-8.5 per cent) experienced population declines over the decade 2001 to 2011 (EPLGA 2014, pp 5-6). Figure 2 shows the reduction in the population of three of the locations, Wudinna, Kimba and Elliston. Nevertheless, in general the reductions are small, but it should be noted that these reductions are from a very low base. The loss of 50 to 100 people for a township with a base population between 1,000 and 1,500 people has an ongoing impact on local services including retail outlets, schools, medical services and so forth. The Franklin Harbour Council area population increased very slightly between 2001 and 2013 (Fig 2), but again the numbers are very small.

Figure 2: Population trends – Elliston, Franklin Harbour, Kimba, Wudinna, 2001 to 2013*



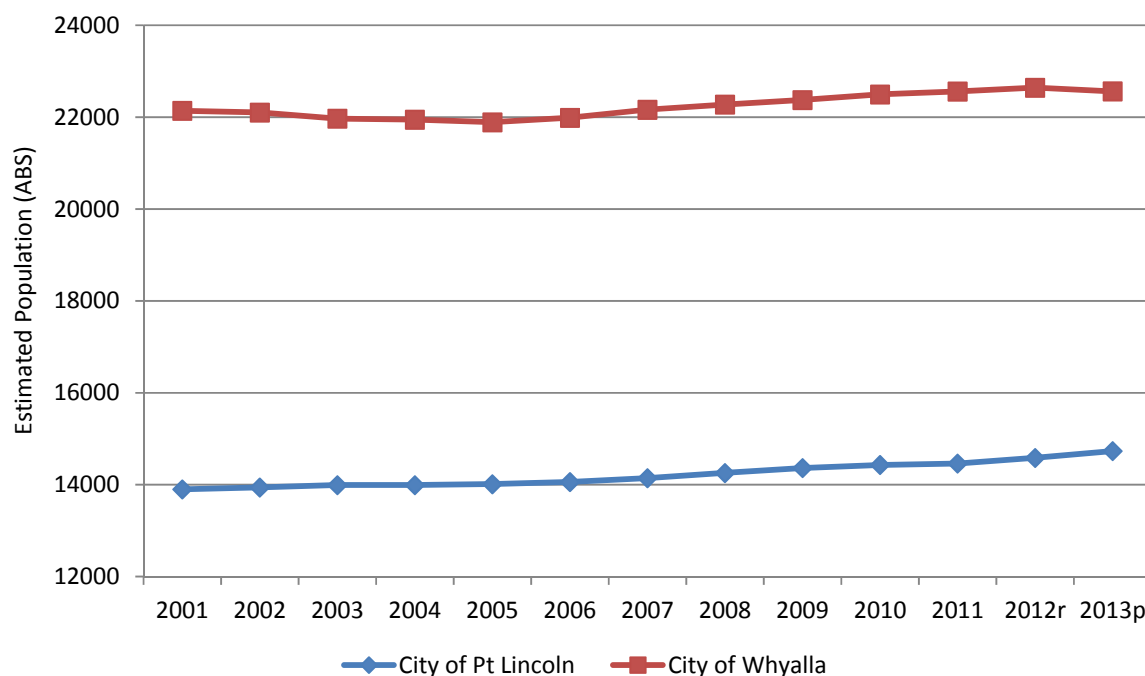
Estimates are final for 2001 to 2011, revised (r) for 2012, and preliminary (p) for 2013. * based on place of usual residence

Source: ABS, 2012 and 2014, Census of Population and Housing Regional Population Growth, Australia, 2011, Cat. No. 3218.0, table 4.

Between 1996 and 2001 Whyalla's population declined steadily from just under 25,000 to around 23,000 people. Port Lincoln on the other hand experienced steady population increase between 1996 and 2001 (Collins Anderson Management 2007, p 9). Figure 3 below shows with regard to Port Lincoln and Whyalla data, the urban centres maintained their populations with little change from 2001 to 2006. From 2007 to

2013 each then gained small numbers in population. It is unclear if Whyalla is maintaining this increased level post 2013.

Figure 3: Population trends – Port Lincoln and Whyalla, 2001 to 2013*



Estimates are final for 2001 to 2011, revised (r) for 2012, and preliminary (p) for 2013. * based on place of usual residence

Source: ABS, 2012 and 2014, Census of Population and Housing Regional Population Growth, Australia, 2011, cat. no. 3218.0, table 4.

Table 1 shows the DCs of Tumby Bay (3.2 per cent) and Streaky Bay (2.2 per cent) and the City of Port Lincoln (1 per cent) experienced population growth of over one per cent in 2012 to 2013. The DC of Lower Eyre Peninsula (-1.4 per cent) and the City of Whyalla (-0.4 per cent) were the only LGAs to experience a population decline.

Cultural heritage and linguistic diversity

Nearly 83 per cent of the region's population was born in Australia, with over 5.5 per cent (3,162) of the population identifying as an Aboriginal person at the 2011 Census. In 2011 more than 90 per cent of the region's Aboriginal people lived in the LGAs of Whyalla (920/4.2 per cent), Ceduna (866/24.9 per cent), Port Lincoln (784/5.6 per cent) and the unincorporated west coast (317/49.9 per cent). Over 90 per cent of the region's population speak English only at home. Aboriginal languages, including Kokatha, Wiringu, Mirning, and Pitjantjatjara, were the next most common languages and small numbers of people spoke Greek, Italian, or Croatian at home in 2011.

Aboriginal heritage and Demographics

The Nauo (south western Eyre), Barngarla (eastern Eyre), Wirangu (north western Eyre), and Mirning (far western Eyre) are the original Aboriginal Nations present when Europeans arrived (RDAWEP n.d.) and maintain traditional ties to Country in the study area. However, people may belong to more than one Nation through blood ties (mother and father's country) and marriage. For example, in the Whyalla area the Malkaripangala people, a group within the Barngarla Nation are also culturally linked to the Lake Eyre and Lake Torrens Nations. The Kokatha (north Eyre Peninsula) Nation shared sites (Lake Newland area) and territorial boundaries, including the Gawler Ranges with the Eyre Peninsula Nations. The Barngarla and Nauo Nations are the traditional owners of the land of Lincoln National Park with a number of sites of Aboriginal significance having been described, including fish traps in Porter and Proper Bays (RDAWEP n.d.).

All Aboriginal Nations on Eyre Peninsula are known to have used a wide variety of native plant and animal (including fish) species for food and other resources. Barngarla people hunted both land and marine animals; however traditionally oysters and shellfish were not included in their diet. An archaeological survey along the Anxious Bay coast from Elliston to Fowlers Bay yielded important information about the use of coastal areas and Lake Newland during day-to-day life, through a number of camp sites and midden finds (RDAWEP n.d.). One of the most comprehensive archaeological studies undertaken to date on the Eyre Peninsula and surrounding areas was a fish trap study by Archaeologist Sarah Martin in 1988. Martin provides a description of some aspects of Aboriginal life, mainly about the use of fish traps and other fishing methods, using historical documents of early Europeans and oral histories, including many older Aboriginal people living in the EPWC region in the 1980s.

The majority of registered and reported Aboriginal Heritage Sites in the EPWC region occur along the coast, with clusters around the coastlines near Coffin Bay and Avoid Bay, Port Lincoln and Louth Bay, Cowell, Whyalla, the coastline west of Sheringa, Anxious Bay, Sceale Bay, Corvisart Bay and Streaky Bay, Smoky Bay, Ceduna, the coastline between Denial Bay and Point Bell, and Fowlers Bay. Inland sites include Lake Malata, Wanilla, Yalata Aboriginal Reserve and near Kimba. An absence of registered or reported sites does not indicate an absence of sites or objects; it may simply indicate that an area has not been surveyed for Aboriginal cultural heritage sites (RDAWEP n.d.).

There are eight Aboriginal homelands within 30 km of Ceduna and they rely on services and facilities in the town. The Aboriginal population in Ceduna fluctuates due to a number of cultural and community issues or events. Koonibba is a larger Aboriginal community located 43 km northwest of Ceduna with a population ranging from 150 to 300 people. There are approximately 50 Aboriginal Housing Authority properties and community administration buildings which are maintained and upgraded by the community, through Koonibba Building Pty Ltd. In addition to English, languages spoken by some Koonibba residents are Kokatha, Wirangu, Mirning and Pitjantjatjara. Another Aboriginal community lives at Scotdesco, 25 km west of Penong and 34 km east of Fowlers Bay, which is home to approximately 55 people. There is currently a waiting list for the 17 houses within the community. English is the main language, but some community members speak Wirangu and Kukotha (Rural Solutions SA 2009, pp 14-15).

Table 2: Number and proportion of Aboriginal people, EPWC LGAs, 2001

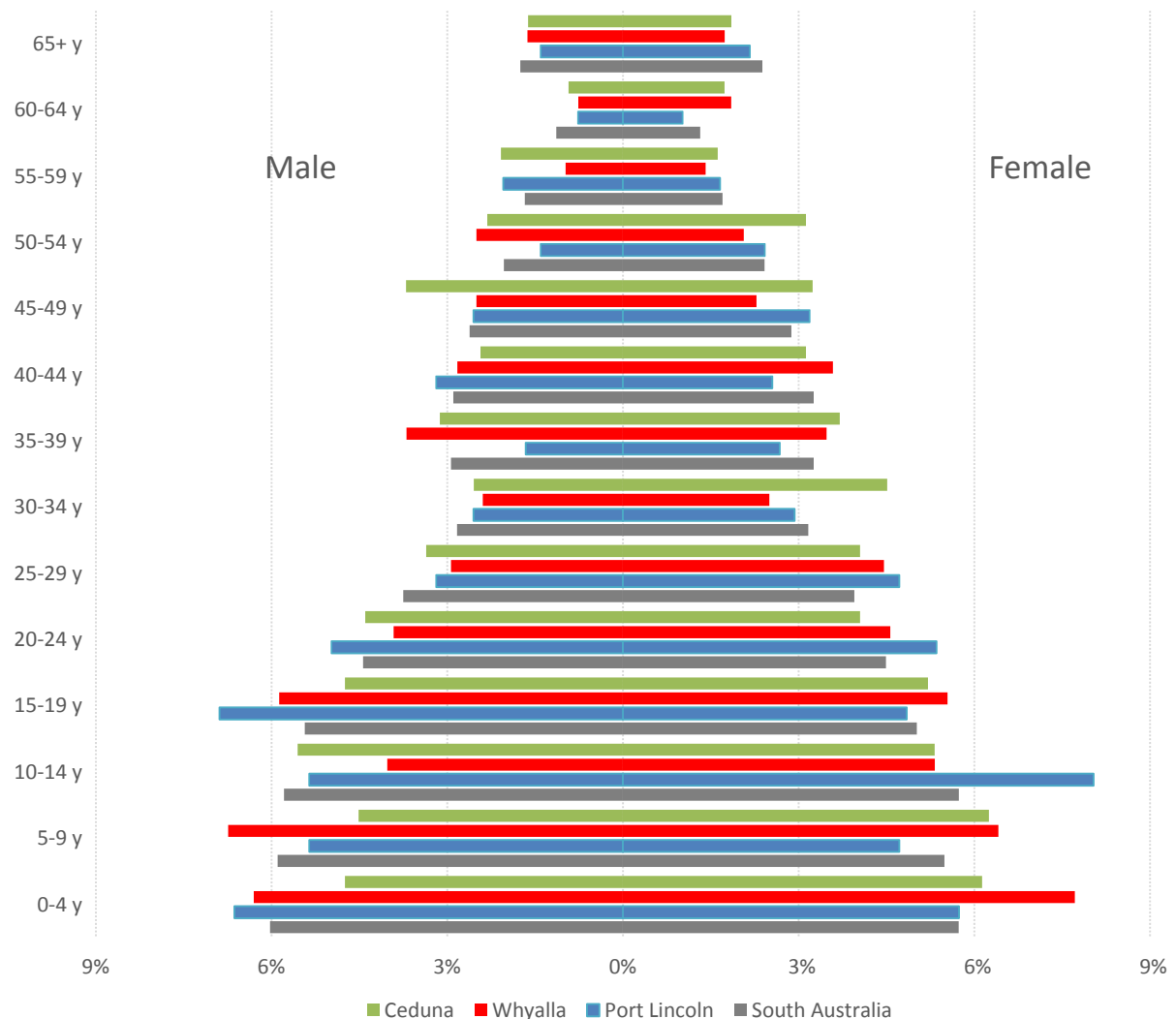
| LGA | 2011 (Census URP) | | |
|-----------------------------|-------------------|------------------|---|
| | Aboriginal people | Total population | Aboriginal population as proportion of total population (%) |
| Ceduna | 866 | 3,482 | 24.9 |
| Cleve | 12 | 1,735 | 0.7 |
| Elliston | 17 | 1,048 | 1.6 |
| Franklin Harbour | 15 | 1,269 | 1.2 |
| Kimba | 15 | 1,087 | 1.4 |
| Lower Eyre Peninsula | 144 | 4,916 | 2.9 |
| Port Lincoln | 784 | 14,088 | 5.6 |
| Streaky Bay | 30 | 2,101 | 1.4 |
| Tumby Bay | 21 | 2,586 | 0.8 |
| Whyalla | 920 | 22,088 | 4.2 |
| Wudinna | 21 | 1,251 | 1.7 |
| Unincorp. west coast | 317 | 635 | 49.9 |
| Totals | 3,162 | 56,286 | 5.6 |
| South Australia | | | 1.9 |

Source: PHIDU, 2014.

Table 2 shows the number of Aboriginal people counted in each LGA at the 2011 census. It is clear that the population is concentrated into a limited number of the LGAs with the urban centres of Whyalla (920 persons), Ceduna (866) and Port Lincoln (784) having the greatest populations. As a proportion of total population the vast unincorporated west coast region stands out with half the population for this region identifying as Aboriginal. This area takes in a number of Aboriginal settlements and is the Country of a number of groups (see earlier) and so it is not surprising that the enumeration is high in this area.

Figure 4 shows the age sex structure of the Aboriginal population of the three largest urban centres in 2011 in the study region. These are shown against the total Aboriginal population for South Australia. It is evident from the data that it is a very young population in all the areas discussed. In all regions there are high proportions of people under 20 years and much lower proportions over 50 years of age. This is very typical of the national Aboriginal population. Some areas stand out as having greater percentages in particular age groups. For example, around a quarter of the Aboriginal population of Whyalla is aged less than 10 years, with a further 20 per cent in the cohort aged 10 to 19 years. The need for education and other services for such a large proportion of young people within the region has ongoing impacts for the local service providers. The data for Port Lincoln are very similar and though there are some differences between the gender balance within the two locations, this group of young people need to be taken into account when any future plans for the region are adopted. While the pattern for Ceduna is less pronounced, there are still larger proportions of young people within the population than for the overall total population. However, in the case of Ceduna there are also proportionally greater numbers of young adults and those in the middle and older years.

Figure 4: Population structure of Aboriginal people – Ceduna, Whyalla, Port Lincoln and South Australia, 2011



Source: ABS, 2012, Census of Population and Housing Basic Community Profile, Cat. No. 2001, various.

Age and gender profile

Almost half of the overall general EPWC region's population was over the age of 40 years and one fifth of the population was over 60 years of age in 2011 (RDAWEP 2014, p 39). There are few major differences between the region and the state within most cohorts, although as with the Aboriginal populations discussed earlier the country regional towns have a larger proportion of their populations in the younger age groups. In Port Lincoln this difference is the most marked for the population aged between 10 and 19 years, which may be indicative of children living in Port Lincoln in order to complete high school studies. For Whyalla there is a slightly higher proportion of those aged under twenty, but the general patterns are very typical of the entire state.

Migration

Recent research has found 25 to 30 per cent of the region's young people intended to move to Adelaide or elsewhere for employment and/or education (RDAWEP 2014, p 40). This was backed by research into the intentions of the Class of 2013 graduating from Port Lincoln High School, where 30 per cent intended moving. Further evidence from the 2011 Census highlights that between 2006 and 2011 over 30 per cent of the region's 20 to 24 age cohort, and over 22 per cent of the 25 to 29 age cohort moved out of the region. Research by Smailes (1993, p 14) in the early 1990s shows this phenomenon is not new with significant numbers of 16 to 29 year olds leaving the districts between 1986 and 1991. State government cost cutting in the early 1990s led to withdrawal of staff from smaller centres and a concentration in larger regional centres (Smailes 1993, p 62).

Labour market factors associated with the mining industry that may affect in-migration to the EPWC region include:

- The reality of mining companies being able to hire and maintain a labour force made up of local people;
- The extent unemployed people are able to take up employment;
- The number of people already employed who leave to take a job in mining;
- The ability of the farming workforce to contribute to employment in mining; and
- The intentions of the under-employed and those not in the labour force.

Each of these factors influences the extent of in-migration to the region, and the location and life of a mine influences where the population will locate (SACES 2013, p 2). The loss of population, particularly young adults remains a problem facing the EPWC region, exacerbates the ageing process. Without a replacement population, retirements will shrink the workforce by about 40 per cent in future years. The RDAWEP (2014, p 7) has adopted a policy of proactively marketing the region to attract "workforce families". The RDAWEP recognises that for this strategy to work the region's infrastructure and services will need upgrading and expansion.

Ageing

Between 2001 and 2006, the Statistical Local Areas (SLA) of Franklin Harbour (11.6 per cent) and Cleve (11.3 per cent) experienced rapid growth in the proportion of people aged 55 to 64 years. The Whyalla SLA had the largest growth in the number of people aged 55 to 64 years in non-metropolitan South Australia (Hugo 2008, p 84). This age group incorporates early and pre-retirees and the numbers are more substantial and are growing more rapidly than the cohort 10 years older (Hugo 2008, p 82). Coastal communities on the Eyre Peninsula, such as Tumby Bay and Arno Bay, saw a growth in the population aged 65 to 74 years (Hugo 2008, p 79). Cleve, Franklin Harbour and Elliston SLAs also experienced a growth in the proportion of 65 to 74 year olds between 2001 and 2006 and Whyalla SLA had the second largest growth in the number of 65 to 74 year olds in the non-metropolitan regions after Victor Harbor (Hugo 2008, p 81). Between 2001 and 2006, Cleve and the unincorporated west coast were amongst the SLAs

with the fastest growing percentage of population over 75 years of age. During the same period both Port Lincoln and Whyalla experienced a growth in the number of people over 75 years of age (Hugo 2008, p 78). While the age structure of the region's LGAs varies, in 2011 Tumby Bay had a higher proportion of older residents, resulting in a higher median age. The median age of Tumby Bay was 48 years old, Lower Eyre Peninsula 40 years old, and Port Lincoln 38 years old which compared to South Australia with a median age of 39 years (Herriot 2014, p 6). The region is generally well serviced by health and aged care facilities with related services available in most of the smaller towns. Nevertheless, the health care sector finds it difficult to attract and retain a workforce in the region (RDAWEP 2014, p 18).

Workforce

When compared with South Australia as a whole, there is an older workforce profile in the EPWC with nearly 44 per cent of the workforce aged 45 years and older. In some industries (agriculture, health and transport) over 50 per cent of the workforce is aged 45 years and over. Regional workforce data show regional workforces are older and there is demand for replacement workers for those who retire from the workforce (RDAWEP 2014, p 40). The expansion of mining in the EPWC region and the anticipated growth in population will increase demand for services and open up employment opportunities for skilled and experienced workers, including in health and education (SACES 2013, p 11). Aboriginal people living on the Eyre Peninsula have low workforce participation compared with non-Indigenous people and those Aboriginals in the workforce are most likely to be working within government and community sectors (Rural Solutions SA 2009, pp 16-17).

Table 3 shows estimates of key economic data for LGAs in the region. Of note is the small number of local jobs in Whyalla and Lower Eyre Peninsula relative to the population living in the LGA. The City of Port Lincoln's small-to-medium enterprise (SME) sector is also highlighted, with the City having 1,654 businesses, almost double that of the City of Whyalla.

Table 3: Estimates of Gross Regional Product (GRP) and related statistics, EPWC LGAs, 2013

| <i>LGA</i> | <i>GRP \$m</i> | <i>No. of local jobs</i> | <i>Worker productivity (GRP/worker) \$</i> | <i>No. of businesses</i> | <i>GRP per business \$</i> | <i>No. of population</i> |
|----------------------|--------------------|------------------------------|--|------------------------------|--------------------------------|------------------------------|
| Ceduna | 195 | 1 919 | 101,593 | 327 | 596,330 | 3,662 |
| Cleve | 114 | 972 | 117,505 | 348 | 327,586 | 1,750 |
| Elliston | 84 | 612 | 137,346 | 233 | 360,515 | 1,055 |
| Franklin Harbour | 51 | 505 | 101,409 | 164 | 310,975 | 1,288 |
| Kimba | 85 | 642 | 133,238 | 240 | 354,166 | 1,100 |
| Lower Eyre Peninsula | 213 | 1,612 | 132,219 | 560 | 380,357 | 5,014 |
| Streaky Bay | 114 | 1,099 | 103,830 | 334 | 341,317 | 2,177 |
| Tumby Bay | 126 | 1,099 | 114,894 | 345 | 365,217 | 2,616 |
| Wudinna | 82 | 700 | 117,172 | 214 | 383,177 | 1,267 |
| Port Lincoln | 742 | 7,562 | 98,122 | 1,654 | 448,609 | 14,519 |
| Whyalla | 819 | 7,486 | 109,462 | 832 | 984,375 | 22,580 |
| Total SA | 83,212 | 815,253 | 102,000 | 140,458 | 592,433 | 1,633,625 |

Source: Id and National Economics, 2013, in SACES 2013 p 32.

Labour force

The unemployment rate for the EPWC region in 2011 was 5.8 per cent, a slight decrease from 2006. In 2011, apart from the LGAs of Whyalla and Elliston, the other LGAs in the region had lower unemployment rates than the region as a whole. Whyalla's unemployment rate of above 8 per cent in 2006 and 2011 is the highest in the region. The regional labour force participation rate was nearly 60 per cent. The generally low levels of unemployment in the smaller LGAs reflect the fact that most job seekers have already left the district. The larger centres offer more potential to gain employment and tend to attract job seekers who hope the job market will eventually improve, or the facilities and attractions of a place are enough to keep people living there, even if unemployed (Smailes 1993, p 15).

Table 4 shows a predominance of full time work for males in all LGAs. The proportion however is relatively low in Port Lincoln. This may be related to the short-term nature of some employment opportunities. For example, seasonal employment in fishing, aquaculture and cropping could influence these data. Almost 50 per cent of the employed females in Ceduna are listed as in full time work, higher than in the other areas. An important finding of the journey to work data shows most EPWC LGAs are self-contained, with the only significant population movements across LGAs between Port Lincoln and Lower Eyre Peninsula, and perhaps Tumby Bay (SACES 2013, p 37).

Table 4: Labour force status by sex – Ceduna, Port Lincoln and Whyalla, 2011*

| | Ceduna (%) | | Port Lincoln (%) | | Whyalla (%) | |
|-------------------|------------|--------|------------------|--------|-------------|--------|
| | Male | Female | Male | Female | Male | Female |
| Employed | 95.4 | 95.6 | 94.5 | 94.5 | 91.8 | 92.0 |
| Full Time | 72.2 | 49.0 | 67.5 | 38.9 | 71.8 | 39.7 |
| Part Time | 17.0 | 39.0 | 19.0 | 48.5 | 12.8 | 45.4 |
| Other | 6.2 | 7.6 | 8.0 | 6.9 | 7.3 | 6.9 |
| Unemployed | 4.6 | 4.4 | 5.5 | 5.5 | 8.2 | 8.0 |

* based on place of usual residence

Source: ABS, 2012, Census of Population and Housing Basic Community Profile, Cat. No. 2001, various.

Incomes

In South Australia in 2010-11 the mining centre of Roxby Downs recorded the third highest average personal income (\$74,933) and the highest level within the rest of South Australia (Table 5). The Eyre Peninsula rural ABS Statistical Areas of Le Hunte-Elliston (\$67,840), Kimba-Cleve-Franklin Harbour (\$59,356) and West Coast (\$53,984) all had high average total incomes. Le Hunte-Elliston also recorded the highest average annual growth rate (30.9 per cent) in South Australia (and Australia) for 2005-06 to 2010-11. Kimba-Cleve-Franklin Harbour (26.0 per cent) and West Coast (14.1 per cent) also had good income growth rates. Interestingly, four of the five highest average annual growth rates in the State were recorded in and around the Eyre Peninsula. This growth coincides with large increases in business income and the growing local aquaculture and seafood processing industries (ABS, 2013a).

Table 5: Top average total incomes, South Australia, 2005-06 to 2010-11(a)

| | | 2005-06 | 2010-11 | Average annual growth rate 2005-06 to 2010-11 |
|-------------------------|------------------------------|-----------|-----------|---|
| Broad region | Select SA2s(a) | \$ | \$ | % |
| Greater Adelaide | | | | |
| GCCSA | | 39,115 | 49,031 | 4.6 |
| Rest of SA | | | | |
| | Roxby Downs | 56,357 | 74,933 | 5.9 |
| | Le Hunte-Elliston | 17,653 | 67,840 | 30.9 |
| | Kimba-Cleve-Franklin Harbour | 18,677 | 59,356 | 26.0 |
| Rest of SA | | 31,714 | 43,743 | 6.6 |
| South Australia | | 37,437 | 47,853 | 5.0 |

(a) Excludes SA2s with <100 income earners.

Source: ABS, 2013, *Estimates of Personal Income for Small Areas, Time Series, 2005-06 to 2010-11*, Cat No 6524.0.55.002.

As well as pockets of high income earners in the region there are pockets of entrenched unemployment, particularly in Whyalla and Ceduna. Nearly one quarter of the region's population relies on some form of government income (RDAWEP 2014, p 16). There will be movement within the employed workforce as mining companies offer higher wages which may entice workers away from other industries within a town. There is potential for shortages of workers required for the function and survival of towns (SACES 2013, p 10). Some local people, such as unemployed and disadvantaged people, with limited education and training may be able to back-fill positions vacated by job movers, however some will require improvement in skills to be work ready (RDAWEP 2014, p 16).

In the EPWC region households living in some Aboriginal communities have significantly lower weekly incomes than the national average. This is due to factors such as chronic disease, remoteness of communities, and low car ownership and is exacerbated by more people residing in a dwelling, which results in more people needing to be supported on lower household incomes. The situation is made more pronounced because within Aboriginal society income is sometimes distributed or reciprocated in a different manner to some non-Indigenous cultures (Rural Solutions SA 2009, p 18).

Health and wellbeing

Residents of the EPWC region have access to 11 hospitals² and a wide range of health services. Seven Community Health Centres and four dedicated Indigenous Health Centres are located across the region (SACES 2013, p 11). It is clear that there are a number of people requiring a degree of assistance to manage their everyday lives (Table 6). Around 6 to 7 per cent of males are providing unpaid assistance to someone in need. The proportion of females supplying assistance is higher in all three LGAs, 11 per cent in Whyalla and Port Lincoln and 9.7 per cent in Ceduna. In general, almost two thirds of people in the region do not supply unpaid assistance to another individual in need.

Table 6: Per cent of people who provided unpaid assistance to a person with a disability by sex – Ceduna, Port Lincoln and Whyalla 2011

| Unpaid assistance | Ceduna | | Port Lincoln | | Whyalla | |
|---------------------|----------|------------|--------------|------------|----------|------------|
| | Male (%) | Female (%) | Male (%) | Female (%) | Male (%) | Female (%) |
| Provided | 6.5 | 9.7 | 6.4 | 11.0 | 7.1 | 11.0 |
| Not provided | 66.4 | 62.1 | 66.3 | 63.2 | 64.6 | 62.3 |
| not stated | 6.3 | 5.4 | 6.3 | 6.0 | 7.8 | 7.5 |

Source: ABS, 2012, Census of Population and Housing Basic Community Profile, Cat. No. 2001, various.

² Ceduna Hospital underwent a \$36 million redevelopment in 2009/10; Whyalla Hospital's \$69 million redevelopment was completed in 2013; and Port Lincoln Hospital redevelopment is in planning stage (SACES 2013, p 11)

The index of socio-economic advantage and disadvantage, Socio-Economic Index for Areas (SEIFA³), is a composite index where lower scores indicate more disadvantage and higher scores indicate more advantaged areas. The index is formulated using a number of different variables that indicate both advantage (for example high income, tertiary qualification) and disadvantage (for example high levels of unemployment, low income). Based on the 2011 data, Whyalla was the most disadvantaged LGA in the EPWC region with a SEIFA score of 897; significantly below the South Australian average (959) (the unincorporated west coast SEIFA score was 873). The most advantaged LGAs are Kimba (1,019) followed by Wudinna (999) (ABS, 2013b).

Employment, enterprise and the economy

An important feature of the historical development of land uses of the EPWC region is its changing economic and social geography. The early development of commercial uses tended to be dispersed across a large number of very small ports and settlements, however, there has been a gradual concentration of economic activity. Lower intensity uses such as suburban and other residential developments, and tourism and recreational industries have gradually emerged along other parts of the coast. While there is a degree of concentration associated with both, they are now affecting parts of the coastline of the region (Gardner et al 2007, p 22). Diversification continues in the region with mining the fastest growing industry and this represents part of the cycle of development in this sector. There are also opportunities in the yet to be fully exploited locations for wind, solar and wave energy (RDAWEP 2013, p 6). Renewable energy projects being pursued include wind farm developments, pumped hydro power generation proposed and the production of biofuel from algae and feed stocks (RDAWEP 2014, p 17). The region's diverse economy provides resilience to overcome some of the challenges of operating in a global economy. There is also potential for further diversification through new products, value-adding and enhancing business capability (RDAWEP 2014, p 21). Opportunities exist to grow and diversify the existing aquaculture industry sectors, as well as establish new aquaculture species, locations, systems, products and technologies (Gillanders et al 2013, p 47).

Businesses in regional towns and centres tend to be locally owned, with some businesses branches of regional, state and national organisations (Smailes 1993, p 41). Smailes' (1993, p 46) research on the DC of Cleve found owners of farms supported their local service town in household purchases, but purchases of farm business inputs caused leakage to other centres. The processes started in the early 1990s of farmers and farm workers undertaking part time off-farm and non-farm employment (Smailes 1993, p 70) has become a feature of the regional economy—people with adaptable skills are employed across industries.

The region's SME sector has found it difficult to sustain itself due to the small regional population and declining in-store sales (RDAWEP 2014, p 15). The anticipated growth in mining over the next decade in

³ For SEIFA 2011, the notion of relative socio-economic advantage and disadvantage is the same as that used for SEIFA 2006. That is, the ABS broadly defines relative socio-economic advantage and disadvantage in terms of *people's access to material and social resources, and their ability to participate in society*.

the EPWC region will first see employment created at a mine site, and then in support industries such as housing construction, transport, and shopping and personal services. First round impacts will be direct employment in mining, a shift of labour from existing industries and lower unemployment. Second round impacts will flow from investment in housing, household consumption and population growth, although these may be muted by the cyclical nature of mining development and the use of FIFO employees (SACES 2013, p 17). An employment multiplier of between two and three new jobs for every mining job has been estimated for a mine site near Lock (SACES 2013, p 21). Another trend is the emergence of new industries, usually in areas that offer specific ecological or economic advantages (Gardner et al 2007, p 22). "Industrial diversity, business capability and product development need to be encouraged to enhance the region's competitiveness" (RDAWEP 2014, p 8).

Table 7 compares occupational data for people in Ceduna, Port Lincoln and Whyalla with the total for South Australia. The region is underrepresented in many of the more professional categories, Managers, Professionals, Clerical and administrative workers, but slightly overrepresented in technical services. Some outliers are indicative of the industries already located in particular areas within the region. For example, the higher proportion of involvement in marine industries located in Port Lincoln is shown in the higher proportion employed as labourers (16.0 per cent compared with 11.1 per cent for the whole of South Australia). Similarly, Ceduna has almost double the percentage of other areas and South Australia, involved in Community and personal services (18.9 per cent compared with around 10.0 per cent) and also a greater proportion of Clerical and administrative workers (17.8 per cent to 14.4 per cent).

Table 7: Occupations of employed persons – Ceduna, Port Lincoln, Whyalla and total South Australia, 2011*

| Profession | Ceduna (%) | Port Lincoln (%) | Whyalla (%) | SA (%) |
|---|------------|------------------|-------------|--------|
| Managers | 5.3 | 11.6 | 7.9 | 12.6 |
| Professionals | 7.7 | 15.2 | 14.5 | 19.6 |
| Technicians and trades workers | 15.5 | 15.3 | 19.2 | 14.1 |
| Community and personal service workers | 18.9 | 10.8 | 10.0 | 10.5 |
| Clerical and administrative workers | 17.8 | 12.3 | 10.0 | 14.4 |
| Sales workers | 18.0 | 10.5 | 9.2 | 9.6 |
| Machinery operators and drivers | 10.5 | 6.4 | 14.7 | 6.4 |
| Labourers | 4.6 | 16.0 | 11.9 | 11.1 |
| Inadequately described/Not stated | 1.7 | 1.8 | 2.6 | 1.6 |

* based on place of usual residence

Source: ABS, 2012, Census of Population and Housing Basic Community Profile, Cat. No. 2001, various.

There are clear differences between the locations as regards the industry in which people are employed (Table 8). Whyalla has almost a quarter (22.3 per cent) of its workforce in the Manufacturing sector. In the more rural centres of Port Lincoln and Ceduna primary industries – Agriculture forestry and fishing – are greater in importance. The Retail trade employs between 10 to 14 per cent in each LGA and a slightly higher proportion 12 to 14 per cent are in the Health care and social assistance realm.

Table 8: Per cent of persons employed by industry – Ceduna, Port Lincoln and Whyalla, 2011*

| Industry | Ceduna (%) | Port Lincoln (%) | Whyalla (%) |
|---|------------|------------------|-------------|
| Agriculture, forestry and fishing | 14.5 | 8.8 | 0.4 |
| Mining | 3.4 | 1.5 | 6.7 |
| Manufacturing | 1.7 | 7.4 | 22.3 |
| Electricity, gas, water and waste services | 0.7 | 1.3 | 0.8 |
| Construction | 6.6 | 9.3 | 5.6 |
| Wholesale trade | 3.4 | 4.1 | 1.8 |
| Retail trade | 9.8 | 13.1 | 11.1 |
| Accommodation and food services | 7.4 | 6.6 | 6.2 |
| Transport, postal and warehousing | 6.8 | 5.2 | 4.5 |
| Information media and telecommunications | 0.5 | 0.8 | 0.8 |
| Financial and insurance services | 1.9 | 2.2 | 1.3 |
| Rental, hiring and real estate services | 0.7 | 1.3 | 1.1 |
| Professional, scientific and technical services | 2.1 | 3.2 | 2.6 |
| Administrative and support services | 3.6 | 3.0 | 4.2 |
| Public administration and safety | 7.1 | 5.2 | 4.1 |
| Education and training | 8.8 | 8.0 | 8.1 |
| Health care and social assistance | 14.0 | 12.3 | 12.6 |
| Arts and recreation services | 0.5 | 0.7 | 0.5 |
| Other services | 4.8 | 4.2 | 3.8 |
| Inadequately described/Not stated | 2.5 | 2.0 | 2.3 |

* based on place of usual residence (totals may not add due to rounding)

Source: ABS, 2012, Census of Population and Housing Basic Community Profile, Cat No 2001, various.

Primary production

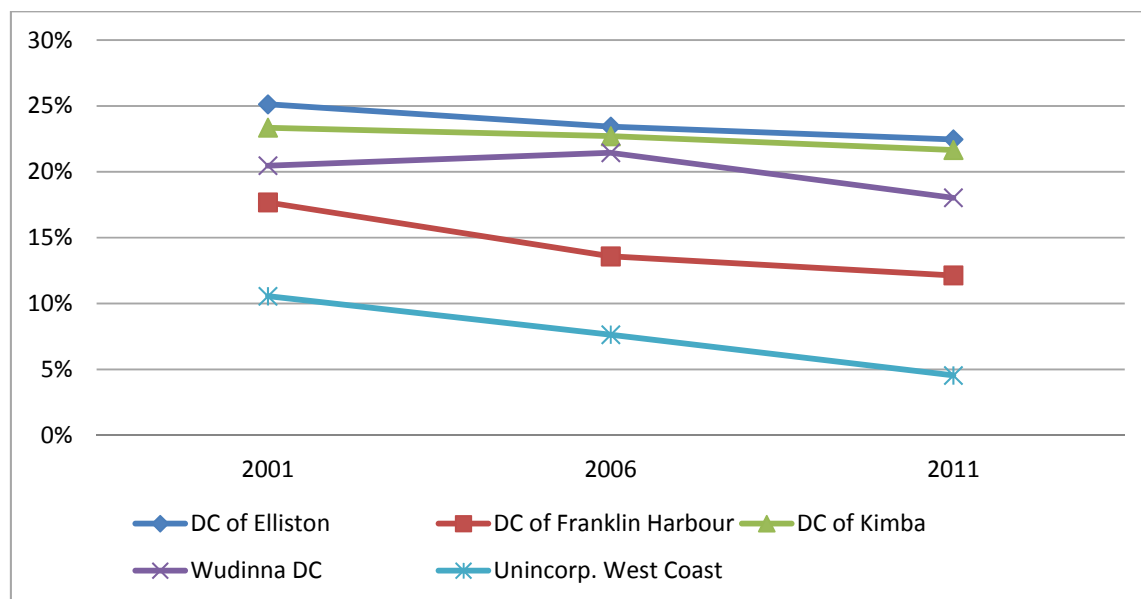
The potential for local workers to engage in the mining industry will see the transition of workers from the agricultural sector to mining, and possibly also those employed in professional services and public administration (SACES 2013, p 10). Farmers in the EPWC region have expressed some reservations about mining proposals located on fertile high value agricultural land, and have concerns that farming operations could be negatively impacted upon during seeding and harvest time (SACES 2013, p 14). The rise in employment in mining has been matched by a corresponding decrease in employment in agriculture. Although other factors such as another drought, continued amalgamation of farms and long run trends of improvement to on-farm productivity caused a decline in agricultural employment, there has been some shift towards mining from agriculture (SACES 2013, p 21).

Agriculture

In 2014, agriculture remained the second largest industry in the region's economy. The region contributes 37 per cent of South Australia's total agriculture production. The 2013/2014 harvest produced 40 per cent of South Australia's wheat, 24 per cent of the barley crop and 22 per cent of the canola crop. Around 97

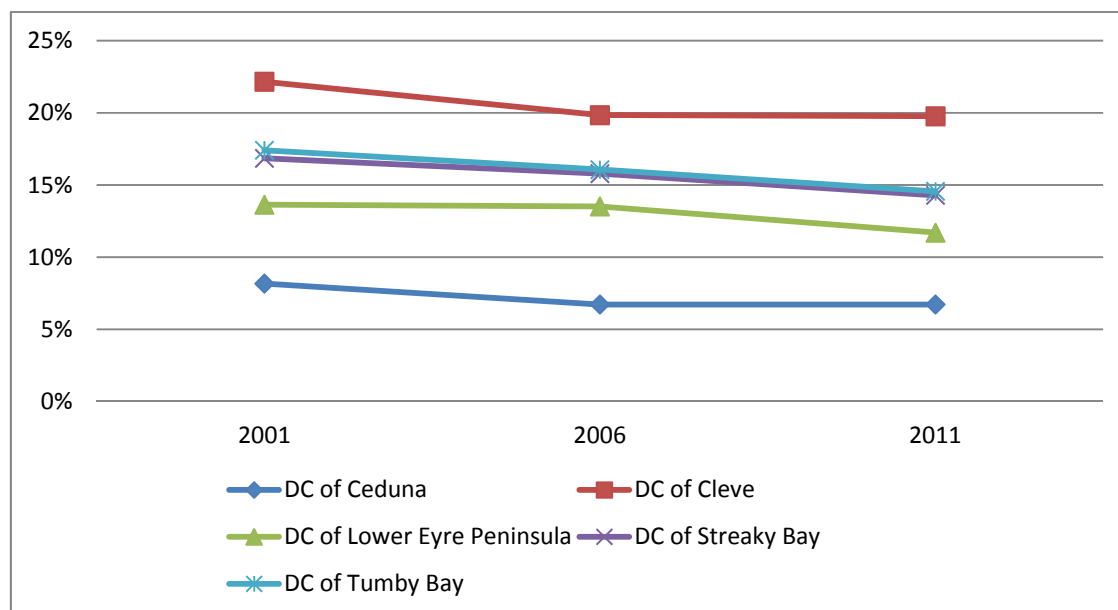
per cent of the region's annual crops are exported to other nations (RDAWEP 2014, p 56). The average annual volume of grain crops from the Eyre Peninsula is about 2.2 million tonnes and the total value of the agriculture industry exceeds \$450 million. As can be seen in Figures 5, 6 and 7 employment in agriculture, forestry and fishing has generally been slowly declining in most of the region's LGAs since 2001 and technological progress has played an important role in this change.

Figure 5: Per cent employed, agriculture, forestry and fishing – Elliston, Franklin Harbor, Kimba, Wudinna and unincorporated west coast 2001, 2006 and 2011



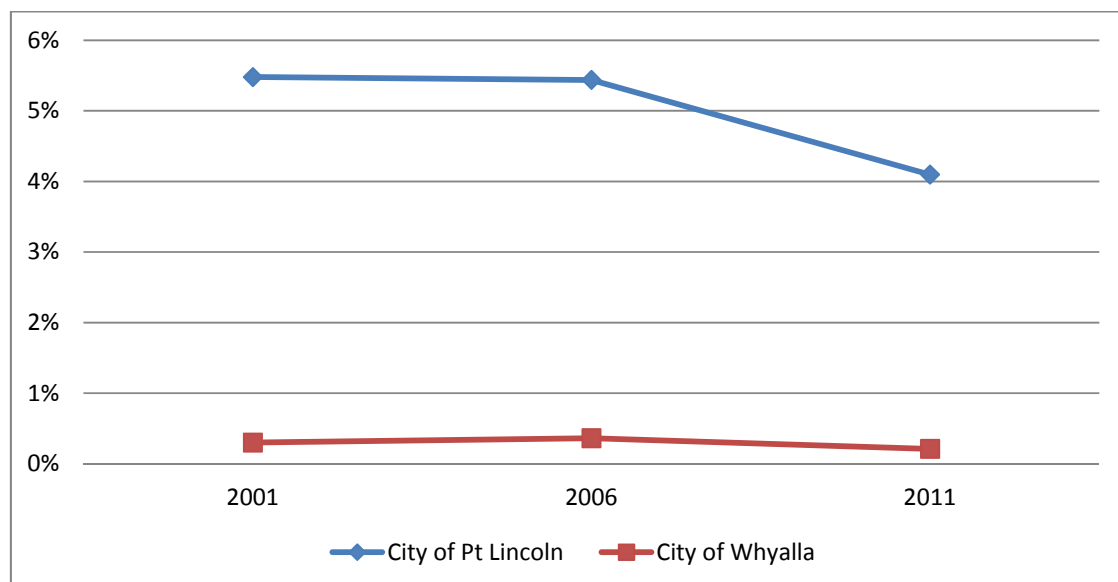
Source: ABS, 2012, Census of Population and Housing Time Series Community Profile, Cat. No. 2003, various.

Figure 6: Per cent employed, agriculture, forestry and fishing – Ceduna, Cleve, Lower Eyre Peninsula, Streaky Bay and Tumby Bay, 2001, 2006 and 2011



Source: ABS, 2012, Census of Population and Housing Time Series Community Profile, Cat. No. 2003, various.

Figure 7: Per cent employed, agriculture, forestry and fishing – Port Lincoln and Whyalla, 2001, 2006 and 2011



Source: ABS, 2012, Census of Population and Housing Time Series Community Profile, Cat. No. 2003, various.

Fisheries and aquaculture

The aquaculture industry expanded rapidly in South Australia since its inception in 1988-89 with production increasing from around 100 tonnes per year (Gardner et al. 2006, p 139) to 19,531 tonnes in 2012/13 (EconSearch 2014, p ix). Today the region's aquaculture and fishing industries have an international reputation as a producer of premium and diversified seafood product. The region is branded as *Eyre Peninsula – Australia's Seafood Frontier* which the hospitality sector has embraced. The region is gaining a reputation as a culinary tourism destination (RDAWEP 2014, pp 5 and 21).

Southern Bluefin Tuna (SBT) is a highly valued fish species. The fishery is managed by the Commonwealth government principally through licence limitation, total allowable catch (TAC) and individual transferable quota allocations. There are a small number of allocated licences in the fishery. Juvenile SBT (2–5 years old) are caught in the GAB by Australian fishers using purse-seine gear. Most of the catch is transferred to aquaculture (feed lot) farming operations off Port Lincoln, where the fish are grown to achieve higher market prices. The gross value of production (GVP) from the SBT Fishery in 2010/11 was an estimated \$30.5 million and in 2011/12 the estimated GVP was \$40.6 million. For most fish caught in the SBT Fishery, this value reflects the value of fish at the point of transfer to pens for farming. The value of wild-caught SBT in 2010/11 was significantly lower in real terms than in previous years, although higher than in 2009–10 (\$25 million). The farmed value of SBT production in 2010–11 (after grow-out) was \$115.3 million. The increased price of SBT through 2012 is understood to be the result of reduced supply of Bluefin Tuna to the global market. This has contributed to an increase in the real value of SBT exports in 2011/12 (PGS Australia 2014, p 15; TGS 2014, p 21).

State fisheries of note in the region include:

- Abalone Fishery: Western Zone;
- Blue Crab Fishery;
- Charter Boat Fishery – a large number of species are caught by charter boat fishers, with key target species including snapper, King George whiting and SBT (TGS, 2014 p 22);
- Marine Scalefish Fishery;
- Miscellaneous Fishery: The Giant Crab Fishery;
- Prawn Fisheries: Gulf St Vincent, Spencer Gulf and West Coast;
- Rock Lobster Fishery: Northern Zone; and,
- Sardine Fishery.

Just under 7 per cent of those employed in Ceduna work in fishing and agriculture (Figure 6). While only 4.1 per cent in Port Lincoln are in this category this is substantially greater than identified in Whyalla (0.2 per cent) (Figure 7). The industry continues to develop and despite some challenges it is likely this industry will continue to expand and offer further workplace opportunities in the future.

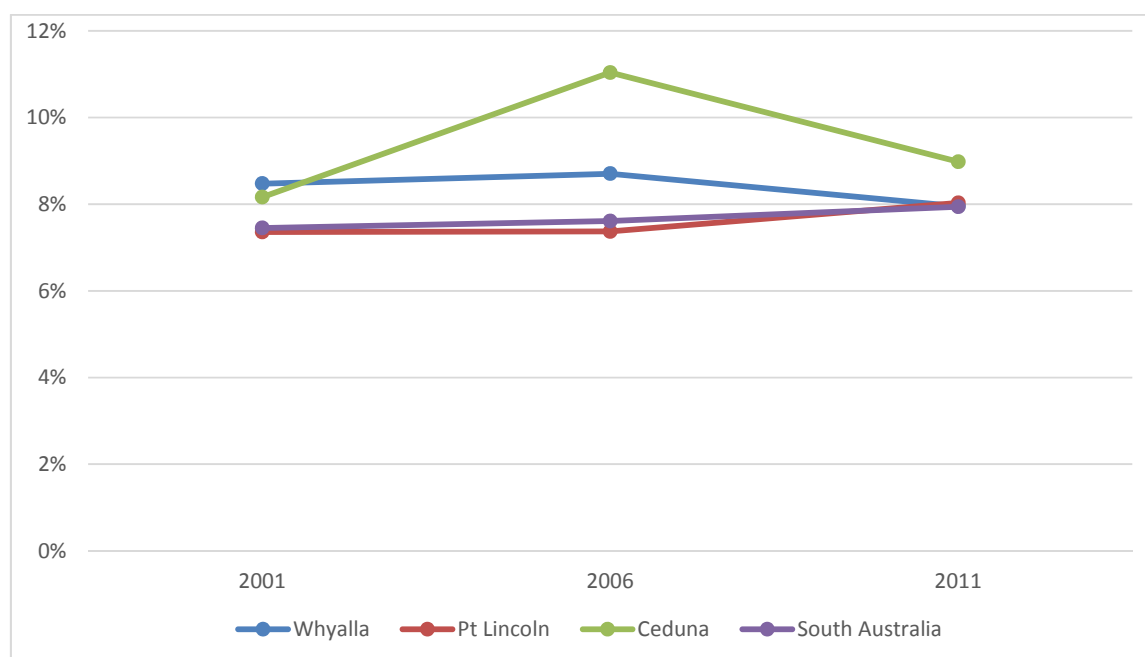
Services

Research, education and training

The EPWC region has research centres for agriculture – dry-land farming (Minnipa) and marine science (Port Lincoln) and a campus of the University of South Australia (Whyalla). A TAFE SA campus is situated in Whyalla. The South Australian Research and Development Institute (SARDI) has a low rainfall Agriculture Research Centre located at Minnipa. While not physically located in the region, The University of Adelaide and Flinders University also undertake research for, and about, the region.

The percentage of those employed in education and training is slightly higher in the three LGAs than for South Australia as a whole (Figure 8), but in all areas there has been little change over the ten years from 2001 to 2011. Ceduna showed the most variability with an increase from just over 8.0 per cent to around 11.5 per cent between 2001 and 2006, but then dropped again to 8.5 per cent by 2011. It should be noted that such variations are likely to be due to the cyclical nature of the expansion and contraction of government investment in education and training seen over the last few decades and the general decline in regional communities across Australia's rural heartland.

Figure 8: Per cent employed, education and training – Ceduna, Port Lincoln and Whyalla and total South Australia, 2011



Source: ABS, 2012, Census of Population and Housing Time Series Community Profile, Cat. No. 2003, various.

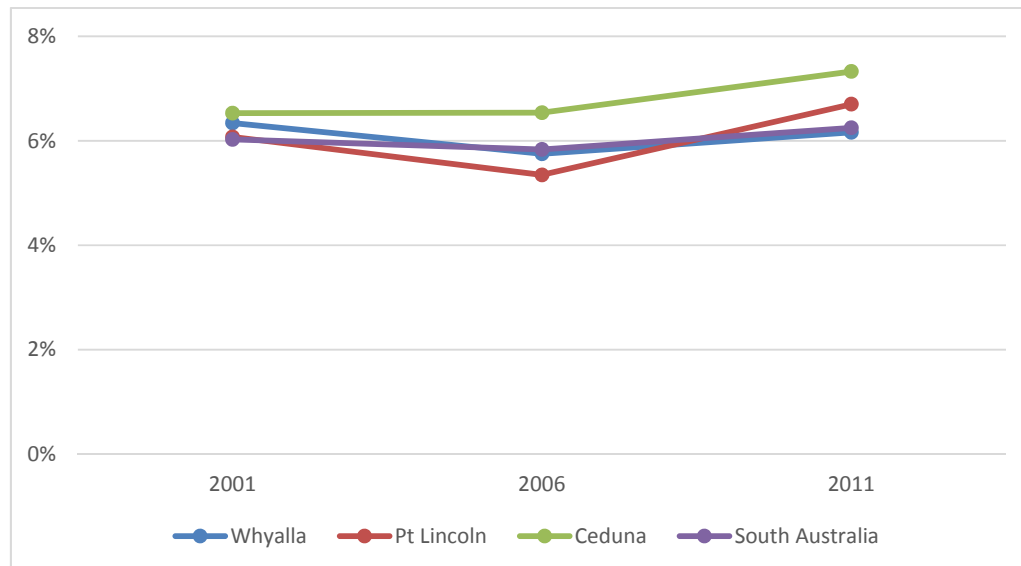
Tourism

The region's natural environment, the "clean and green" quality food and nature-based experiences have made tourism an important and growing industry with new product being developed and potential for more growth (RDAWEP 2014, p 5). The Port Lincoln and Whyalla airports were upgraded between 2012 and 2014; Ceduna Airport is currently being upgraded, and planning is underway to upgrade the Wudinna airport to potentially cater for fly-in fly-out (FIFO) mine workers which could also benefit tourism and trade (SACES 2013, p 12; RDAWEP 2014, p 20). The seafood and tourism industries are benefiting from cross promotion through the export of seafood to Asia, and attracting Asian tourists to the region (RDAWEP 2014, p 21). Kimba and Wudinna are the only Councils without a coastline and this impacts their appeal and tourism development potential (EPLGA 2014, p 6). In the longer term, state and Commonwealth marine parks have the potential to attract increased numbers of tourists to the region.

A growing segment of the tourism market in the region is marine tourism which covers a variety of activities from whale watching, SCUBA diving, shark cage diving and recreational beach use through to cruise ship visits. As a result, the industries that service this sector are equally diverse, ranging from providers of tourism experiences such as charter boat operators through to associated services such as bait suppliers and service stations (Gardner et al 2006, p 68). Perhaps the most notable marine tourism operation in the region is the whale viewing at The Head of Bight Marine Park. This is where Southern Right whales visit the region on their annual breeding migration, spending the winter months in the protection of the bay at the Head of the Great Australian Bight. The whale viewing area is located on the Yalata Indigenous Protected Area and revenues from land-based whale watching are earned for the local Indigenous community. The consistent whale sightings in season at such a close proximity to the land mean this is a significant tourist drawcard for such an isolated location. Other examples include visitor interactions with sea lions and dolphins at Baird Bay (Gardner et al 2006, pp 76-77) and shark cage diving in Port Lincoln. Cruise ships are increasingly seen as a valuable source of income as cruise passengers tend to spend higher amounts per day than other international tourists (Gardner et al 2006, p 83). Cruise ships are increasingly calling into Port Lincoln, however it requires significant planning as 1,500 to 2,000 people are suddenly in town and may overwhelm the City. There could be a reputational risk if the Port Lincoln community and businesses cannot cope and tourists leave with a bad impression or experience (group interview, pers comm, 8 October 2014).

The data for those employed in accommodation and food services between 2001 and 2011 also shows minimal change (Figure 9). Just over 6 per cent were employed in this sector in 2001, and for all locations other than Ceduna there was a small decrease over the subsequent five years. From 2006, the percentage in all areas increased slightly but even so no more than 7 per cent of the employed population were enumerated in this category.

Figure 9: Per cent employed, accommodation and food services – Ceduna, Port Lincoln, Whyalla and total South Australia, 2011



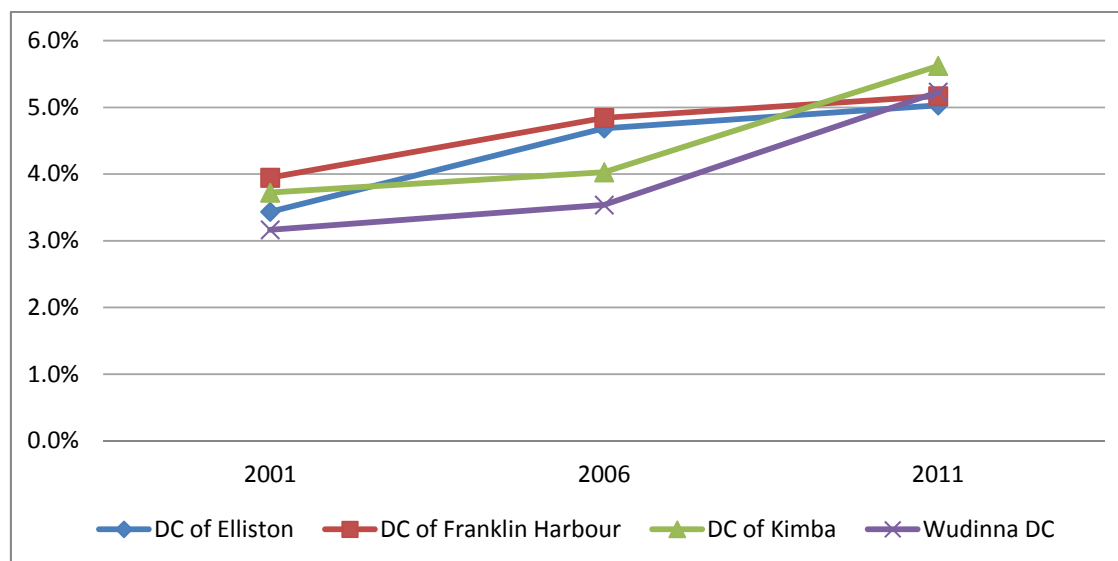
Source: ABS, 2012, Census of Population and Housing Time Series Community Profile, Cat. No. 2003, various.

Health and aged care

The need for the health and community services sector, including aged services and allied services, is growing, however workforce attraction and retention is a major issue for aged care service provision everywhere including the EPWC region. The aged care workforce is ageing with most workers over the age of 50 years, the majority working on a part-time basis on low wages. These factors combined with formal education requirements and widespread poor perceptions of working in the sector make it difficult to attract aged care workers to the industry (RDAWEP 2014, p 18).

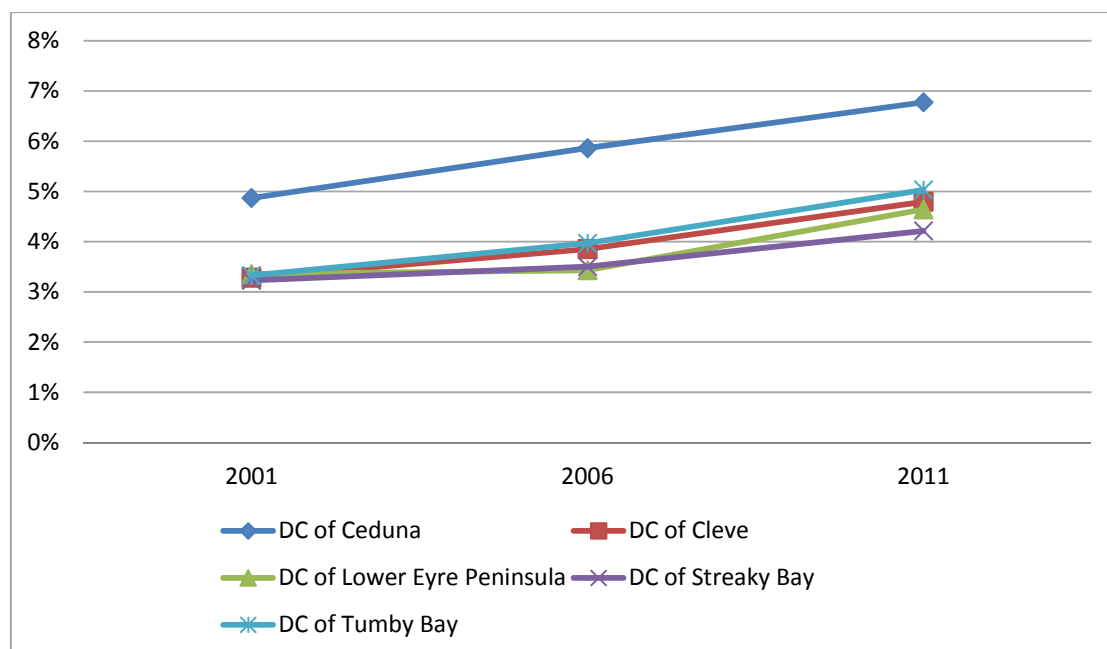
In contrast to employment in agriculture, forestry and fishing (which is in decline in most LGAs in the study area) employment in health care and social assistance is on the rise (Figures 10, 11 and 12). This is most likely linked to the ageing of most of the LGA populations.

Figure 10: Per cent employed, health care and social assistance – Elliston, Franklin Harbor, Kimba and Wudinna, 2001, 2006 and 2011



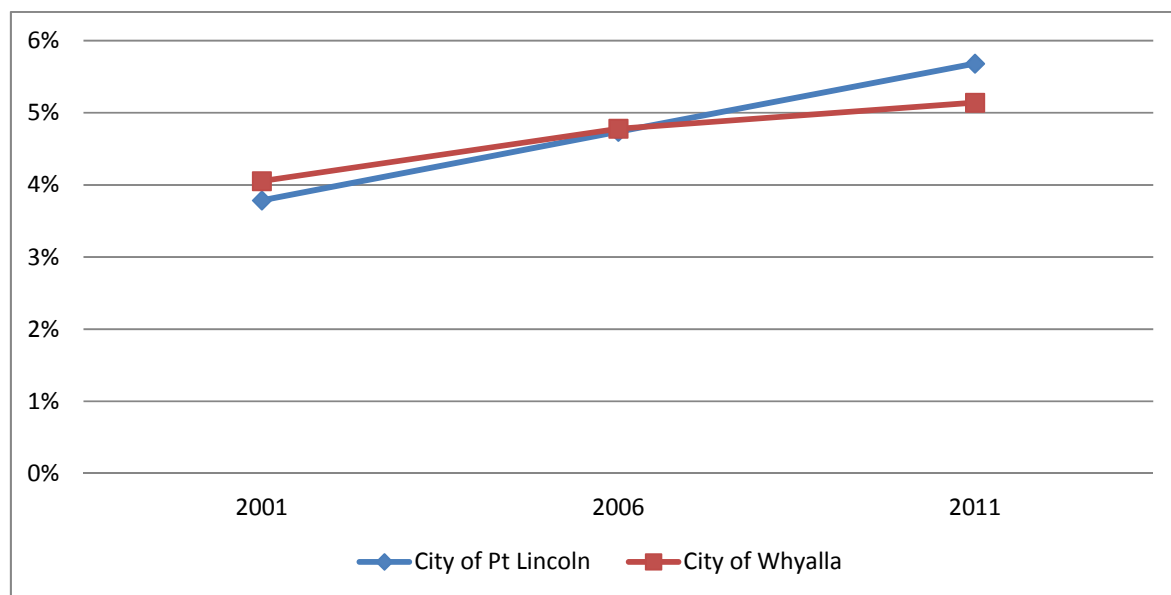
Source: ABS, 2012, Census of Population and Housing Basic Community Profile, Cat. No. 2001, various.

Figure 11: Per cent employed, health care and social assistance – Ceduna, Cleve, Lower Eyre Peninsula, Streaky Bay and Tumby Bay, 2001, 2006 and 2011



Source: ABS, 2012, Census of Population and Housing Basic Community Profile, Cat. No. 2001, various.

Figure 12: Per cent employed, health care and social assistance – Port Lincoln and Whyalla, 2001, 2006 and 2011

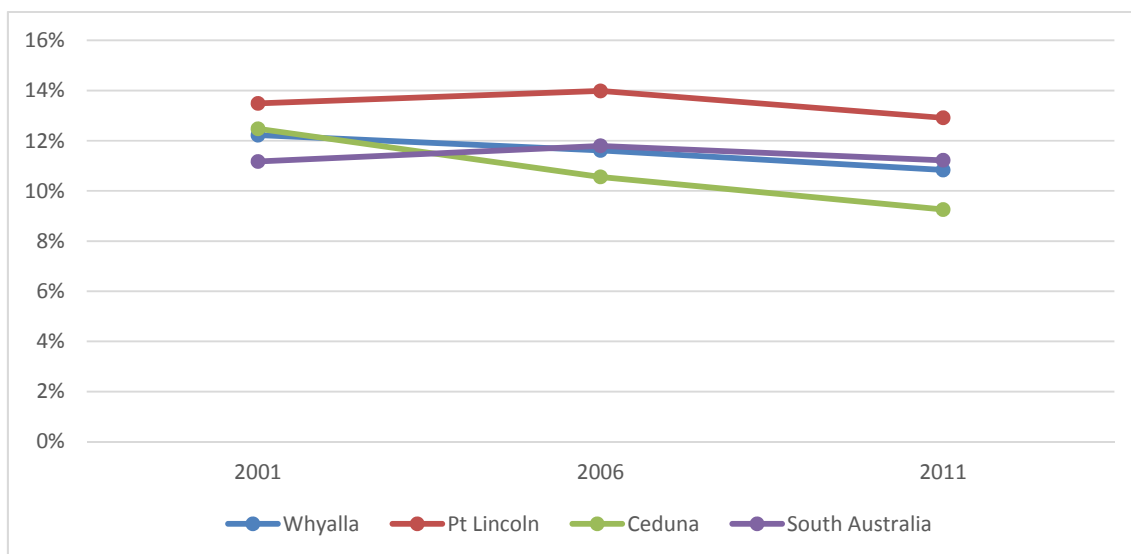


Source: ABS, 2012, Census of Population and Housing Basic Community Profile, Cat. No. 2001, various.

Retailing

The proportion of the working population employed in the retail trade showed no major variations over the period 2001 to 2011 (Figure 13). The greatest change occurred in Ceduna with a decrease from just over 12 per cent in 2001 to just below 10 per cent in 2011. Retail employment has changed in many ways with the introduction of online shopping, large sectors adopting more self-service checkouts, and the continuing closure of small traditional shops. These changes have had an impact on employment prospects in this field for people of all ages.

Figure 13: Per cent employed, retail trade – Ceduna, Port Lincoln, Whyalla and total South Australia, 2001, 2006 and 2011

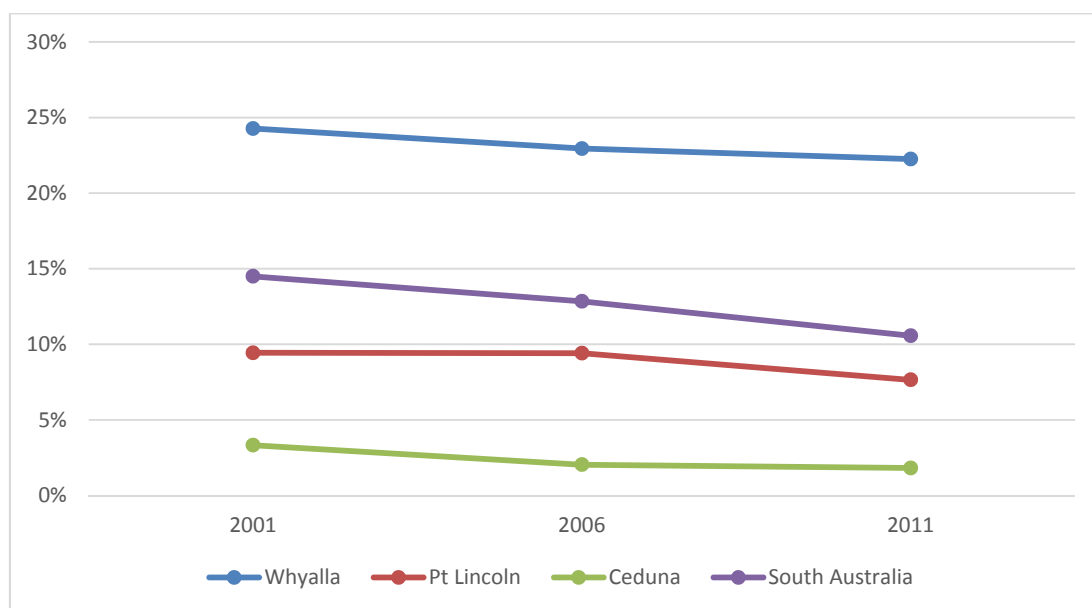


Source: ABS, 2012, Census of Population and Housing Basic Community Profile, Cat. No. 2001, various.

Manufacturing

As shown in Figure 14 manufacturing is a very important sector in Whyalla where it was 22 per cent of the workforce in 2011. The City is well placed to service the mining and minerals processing sectors and new industrial projects will bring new employment, business and housing development opportunities (RDAWEP 2014, p 6). Although manufacturing is in decline in other regions, a \$40 million graphite mine is proposed near Port Lincoln which will bring advanced manufacturing options to the region and has the potential to create 90 jobs (Govt of SA 2017).

Figure 14: Per cent employed, manufacturing – Ceduna, Port Lincoln, Whyalla and total South Australia, 2001, 2006 and 2011

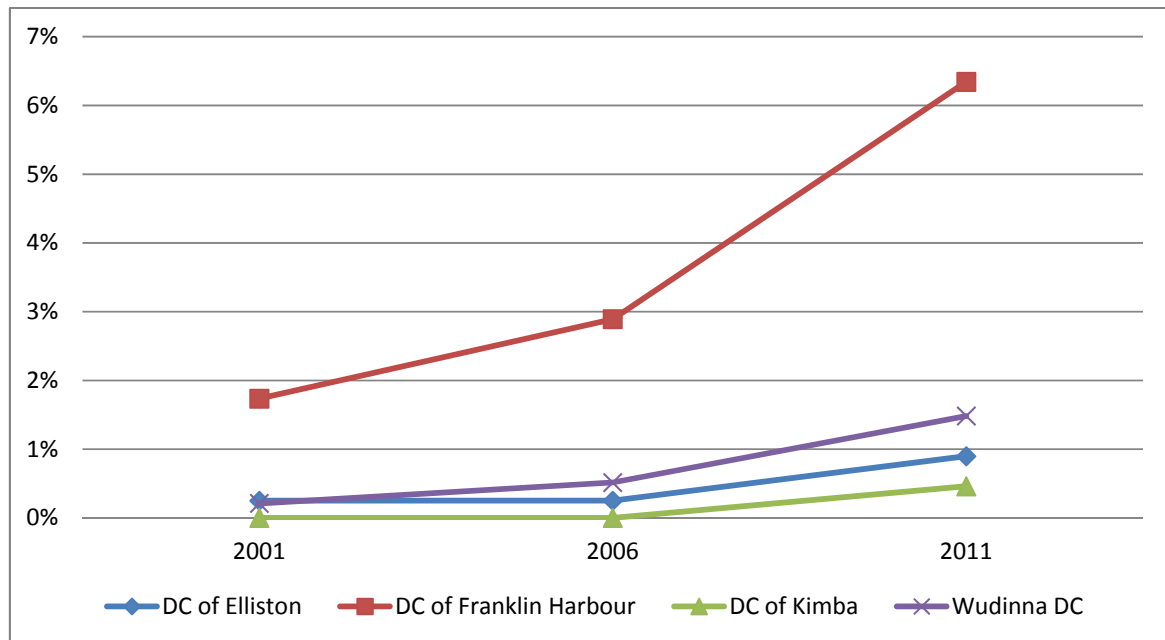


Source: ABS, 2012, Census of Population and Housing Basic Community Profile, Cat. No. 2001, various.

Mining

The Eyre Peninsula contains mineral rich regions such as the Gawler Craton and Eucla Basin. Currently the mining sector comprises a small, but growing, share of economic activity (SACES 2013, p 5). Between 2006 and 2011, most LGAs in the EPWC region experienced an increase in levels of employment in the mining industry (the DC of Cleve was the exception). The City of Whyalla, and the DCs of Ceduna and Franklin Harbour experienced the most employment growth due to proximity to mines. Based on these results, but dependent on the size of operations, both Wudinna and Kimba could potentially grow with planned and developed mines on their door step (SACES 2013, p 19).

Figure 15: Per cent employed, mining – Elliston, Franklin Harbor, Kimba and Wudinna, 2001, 2006 and 2011



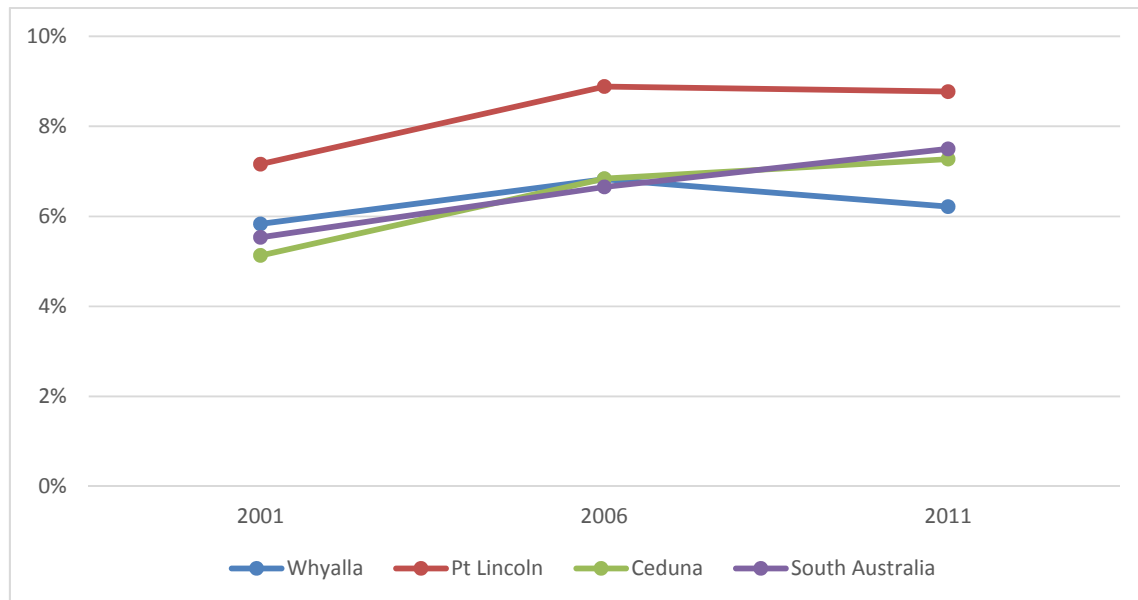
Source: ABS, 2012, Census of Population and Housing Basic Community Profile, Cat. No. 2001, various.

In 2012/13, there were nine new mining developments in the EPWC region valued at \$5.8 billion, on top of this the region supports five operating mines with further projects in the development stages (SACES 2013, pp 6-7). Over the next decade as mines are opened, population, incomes and wealth in local EPWC towns are expected to grow (SACES 2013, p 9). This strong mining interest in the region prompted the establishment of the Eyre Peninsula Mining, Oil and Gas Community Development Taskforce in 2014 to provide a single body with a regional perspective in facilitating the impacts of the mining industry and on environmental and planning issues.

Construction

The proportion of the region's population employed in the construction industry has also changed little between 2001 and 2011 (Figure 16). There was a general increase in percentage in each individual LGA from 2001 to 2006, however, after 2006 there was some divergence in the pattern. While Ceduna, and Port Lincoln levelled off somewhat, the percentage in Whyalla actually dropped and by the end of the period had returned to around 6 per cent, similar to the level in 2001. In comparison for South Australia as a whole, the percentage employed in the construction industry continues a small but steady increase.

Figure 16: Per cent employed, construction – Ceduna, Port Lincoln, Whyalla and total South Australia, 2001, 2006 and 2011



Source: ABS, 2012, Census of Population and Housing Basic Community Profile, Cat. No. 2001, various.

Housing and urban development

Unlike the experience of Western Australia, the Northern Territory and far north Queensland, the mine operations located in the EPWC region are generally within an hour's drive of a settlement. This presents the prospect of stable, residential populations of a drive-in/drive-out (DIDO) workforce and flow-on demand for household investment and consumption (SACES 2013, p 13). The implication is that existing town residents employed in mining will adopt the DIDO arrangement, which will be followed by new residents taking up employment over the next decade. Several LGAs in the EPWC region have subdivisions within their towns to attract mine workers—even LGAs without a mine site within their boundary are hoping for a 'spill-over' effect which will provide employment for local residents (SACES 2013, p 40). A \$4.7 million, 80 person low density, worker accommodation development has been constructed on Council land in Kimba and will be leased to IronClad Mining Ltd (SACES 2013, p 62).

The short-term boost in population driven by the infrastructure and construction phase of mining operations will place pressure on housing, rent and existing accommodation in nearby towns. The proportion of low-income households in Tumby Bay (16.3 per cent), Lower Eyre Peninsula (10.2 per cent) and Port Lincoln (9.6 per cent) experiencing mortgage and rent stress is higher than the state average (8.9 per cent) (Herriot 2014, p 10). SACES (2013, p 9) sees a potential need for demountable, short-term accommodation. Single person households are the fastest growing household type in Australia and there is limited affordable housing stock for them, even in lower demand areas. Demand for rental properties

and public housing within the range of low income families is increasing in Whyalla, Port Lincoln and Ceduna (RDAWEP 2014, p 18).

Whyalla, Ceduna and Cowell have the strongest demand for housing due to the impact of new mines nearby. The availability of land for housing is a critical issue for local governments and mining companies. It has been estimated that the existing housing stock in Kimba and Wudinna will be insufficient to cope with an increase in population, even though both locations have experienced population decline over the last two decades. It was reported Wudinna had only 10 vacant dwellings in 2013 (SACES 2013, p 27). The DC of Wudinna could house a workforce of up to 550 people and is preparing a structure plan to assess how much housing may be required (RDAWEP 2014, p 17). It is estimated that Cleve could support an additional 500 persons and Lock, in the DC of Elliston, also has spare capacity due to population loss (SACES 2013, p 43). Based on current trends, Cleve, Elliston, Franklin Harbour, Kimba and Wudinna could experience continued population decline if mining projects do not progress (SACES 2013, p 54). The DC of Tumby Bay owns land which it intends to rezone to residential to meet demand for housing from mining operations and will have sufficient land to meet population increases (SACES 2013, p76). The RDAWEP (2014, p 17) also predicts increased housing demand in Port Neill.

Table 9 shows potential housing and land requirements to 2026 in some EPWC LGAs. The projection is for baseline growth and includes population increase that had occurred to 2011. Impacts to the coast from urban development include a potential increase in jetties and marinas and increased input of nutrients and other pollutants into coastal waters (Gillanders et al 2013, p 53).

Table 9: Dwelling demand and land supply analysis for baseline growth, select EPWC LGAs by 2026

| Year | Port Lincoln | | Whyalla | | Streaky Bay^^ | | Lower Eyre Peninsula | | Ceduna^ | |
|-------------------------------|----------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------------|-------------------|
| | Dwelling growth ▲ | Land supply (ha)* | Dwelling growth ▲ | Land supply (ha)* | Dwelling growth ▲ | Land supply (ha)* | Dwelling growth ▲ | Land supply (ha)* | Dwelling growth ▲ | Land supply (ha)* |
| 2016 | 67 | | 46 | | 21 | | 95 | | 2 | |
| 2021 | 113 | | 78 | | 36 | | 170 | | 4 | |
| 2026 | 115 | | 79 | | 38 | | 186 | | 4 | |
| Tota l to 2026 | 295 | 23.6 | 203 | 16.2 | 95 | 7.6 | 452 | 36.1 | 10 | 0.8 |

Source: SACES, 2013, pp 63, 83 and 88-91; ^new residential subdivisions and an additional residential development is underway; ^^good supply of residential zoned land with 2013 stagnation in local real estate, oversupply of properties for sale (p 43).

▲ incremental and based on long-term trend (includes population increases which have occurred as a result of mining up to 2011), based on 2.9 people per dwelling, does not include knock down rebuild (one for one).

*Low density (net) = 12.5 houses per hectare (SA Planning Strategy, 2010). Note possibility for Port Lincoln and Whyalla to require less land requirements due to higher density potential.

Community values and lifestyles

The EPWC region is a complex and integrated system which strongly links the country with its people (Smailes 1993, p 60). Aboriginal people report they derive physical, spiritual, emotional and cultural benefits from their connection to Country. Access to traditional lands and waters gives an indication of Aboriginal Australians' connection to Country and, for some, is associated with improved health outcomes (SCRGSP 2014, p 32). Research undertaken in the EPWC region by Rural Solutions SA (2009, p 37) on behalf of the Eyre Peninsula Natural Resources Management (EPNRM) found there was a clear connection between practising cultural activities, such as hunting, camping and harvesting bush tucker, and caring for Country. Aboriginal people have cultural responsibilities and relationships between people and the land, such as gathering bush medicine and bush foods, collecting rocks, painting, site preservation and 'cultural identifying'. Regardless of age or gender, harvesting and hunting of bush foods and fishing was a form of caring for Country (Rural Solutions 2009, pp 37-38).

Recreation, leisure and community groups

Population growth, and workforce attraction and retention, will only succeed if the region's towns and communities have the social infrastructure, services and amenity to enhance the quality of life of workforce families and residents (RDAWEP 2014, p 8).

Across the EPWC region people are passionate about the region as a place and want to be actively involved in decisions about future development with potential to change the environment, recreational spaces and the livability of towns (RDAWEP 2014, p 18). Recreational fishing is a popular pastime in the coastal areas of the region and one of the key features of the region's livability. Rural Solutions SA (2009, p 38) found Aboriginal people were very active in outdoor activities such as fishing, boating, swimming, surfing, diving, gardening, land management and conservation, farming, harvesting bush foods, and other similar activities. Most Aboriginal people surveyed were involved in fishing and other water based activities (swimming, surfing and diving). One respondent considered fishing and bush foods as his main source of food.

In 2002, Poore (pp 77 and 173) noted that community organisations such as the Country Women's Association (CWA) were slowly dying out, as too few new recruits were added to their dwindling ranks. In 2014, CWA branches throughout South Australia are experiencing renewed interest from younger women. A number of new branches have, and are, opening in the Greater Adelaide region and there is also a renewed interest with branches opening in country areas, including the Eyre Peninsula. This is being driven by younger women who are often busy and time poor during the day but crave the friendship, pleasure, skill sharing and the opportunity to help in their local and the wider community (Bertram L, pers comm, 4 December 2014).

Community groups are an important part of life in this region and include sports clubs, social clubs, emergency services and charity organisations that enabled people to "serve the community" (Poore 2002, pp 158-159). The non-Indigenous population of Ceduna also belonged to formal groupings such as the Agricultural Bureau Movement; Landcare and Natural Resource Management Boards, as well as informal social groups who are collections of friends/mates and meet in private gatherings (Poore 2002, p 162).

Table 10: Per cent of people undertaking voluntary work for an organisation or group by sex – Ceduna, Port Lincoln and Whyalla, 2011

| Volunteer | Ceduna (%) | | Port Lincoln (%) | | Whyalla (%) | |
|------------------------|------------|--------|------------------|--------|-------------|--------|
| | Male | Female | Male | Female | Male | Female |
| Volunteer | 19.8 | 24.0 | 16.6 | 21.0 | 13.4 | 17.8 |
| Not a volunteer | 53.2 | 47.7 | 56.4 | 53.7 | 58.8 | 56.1 |
| not stated | 6.3 | 5.3 | 6.0 | 5.6 | 7.3 | 6.5 |

Source: ABS, 2012, Census of Population and Housing Basic Community Profile, Cat No 2001, various.

Volunteerism is an indicator of community wellbeing and involvement (Table 10). Around 50 per cent of all census respondents to this question at the 2011 Census were not volunteers with any organisation. The highest of any population who were formal volunteers were females in Ceduna at 24.0 per cent. Males in Ceduna are also well represented with almost 20 per cent involvement. The lowest volunteer population recorded across all the three locations was in Whyalla with 13.4 per cent of males involved as volunteers. Overall these data may reflect the lack of opportunities available to the people in each area to become involved in local organisations. They could also be linked with proportions of males employed in full time employment and in some cases the role of shift work or unsocial hours including FIFO.

In 2007, participation in sport was generally high for residents of the Eyre Peninsula with over 84 per cent of females doing an activity, which was higher than the State average (Collins Anderson Management 2007, p 20). The consequences of the loss of young people aged 15 to 24 years from communities across the region implies difficulties in filling sports teams, as well as higher median ages in some LGAs (Herriot 2014, p 9).

Social capital and cohesion

The 1980s was a turbulent decade for farmers on the Eyre Peninsula and west coast region with several negative events coinciding, including a decline in annual rainfall, a rise in interest rates, the decline of commodity prices and the collapse of rural land values. Social stresses at the time included family friction, divorce and some suicides of farmers (Smailes 1993, p 6). In 1990, staffing threats in local hospitals mobilised the Community Initiative Group, with representatives from the DCs of Elliston, Le Hunte⁴ and Streaky Bay, who showed where the elimination of waste and better coordination between government departments could provide rural services and minimise the impact of staff cuts (Smailes 1993, p 73). Similarly, the millennium drought in the first years of the 21st Century placed pressure on the communities of the Eyre Peninsula.

Cross-cultural interactions are often strained; Aboriginal people are generally considered unsightly (Poore 2002, p 7), 'The Problem' of Aboriginal people (property crimes, alcohol abuse) (p 9), the lifestyles of many Aboriginal people do not conform to European expectations (p 15), and drinking in public (p 104). Almost all Aboriginal people were excluded from "belonging to Ceduna". Most Aboriginal people were neither

⁴ Now Wudinna DC.

members of community groups nor asked to attend BBQs held by accepted community members (Poore 2002, p 15). Aboriginal people who were accepted into European Ceduna society were “known to be educated, employed, civilised and respectable” (Poore 2002, p 16).

The need for community survival outweighs potential distrust or dislike of outsiders and those accepted into the town through their dedicated service to the community move into ‘new local’ category after several years (Poore 2002, p 82). A person’s community spirit is a marker of their attitude towards the town of Ceduna and its people (Poore 2002, p 84). Residents of remote and small towns tend to fortify their sense of belonging to a particular community by interlocking and interdependent interests (Bowman, in Poore 2002, p 90). In this instance belonging implies one is an integral piece of the community, however “there can be belonging without acceptance, but not acceptance without belonging” (Poore 2002, p 92). In Ceduna anyone who “makes an effort”, “joins in” or “becomes involved” has a good chance of being accepted into non-Indigenous Ceduna society (Poore 2002, p 95). For the town’s survival new people must be guided in how to help. Without community members working together there would be no local volunteer emergency services and no business associations (Poore 2002, pp 22-23).

Water security

Water resources are critical for Eyre Peninsula and west coast communities, with particular urgency expressed around the lack of a sustainable and efficient supply for residential and town requirements (RCCC 2013, p 30). The use of water from aquifers is not sustainable (RDAWEP 2014, p 26). Population growth and economic development cannot be achieved without water security. Existing water supply for the region is drawn from ground water basins with a top-up reliance on water from the River Murray (piped all the way to Ceduna). There is increasing community concern about the long-term impact of using aquifer water to supply a growing region (RDAWEP 2014, pp 15-16). The 2011 supply and demand plan for the Eyre Peninsula predicts that desalinated water will be required in the future. The SA Government expects mining companies to source their own water, leading to a requirement to pay for desalination plants (SACES 2013, p 46; RDAWEP 2014, p 16). Desalination is becoming economically feasible to satisfy demand for freshwater. The extensive coastline holds possibilities, but the saline concentrate generated by desalination plants can pose a threat to the marine environment. Other developments that have impacts on water quality can have an impact on desalination plants (Gillanders et al 2013, pp 50-51). A solar operated desalination system is being progressed in Ceduna, and all LGAs have implemented water sensitive design (RDAWEP 2014, pp 16-17).

Summary

There are many drivers of change that affect both the economic development and social dynamics of the region: “from cyclical drivers such as el Niño, cyclical resource and commodity international markets, changes in labour availability, and world and local interest rates, to longer-term systemic drivers such as global climate change and resource depletion” (Gillanders et al 2013, p 156). The economic and social characteristics of the EPWC region are also shaped by the international political and policy environment. In particular, international trade policies, especially issues associated with agricultural subsidies in Europe and North America. As this report shows, the region is also impacted by Australian and State Government

policies, economic growth, population dynamics and resource constraints such as those involving natural resources and labour (Gillanders et al 2013, p 153).

Arguably, drawdowns on natural capital challenge or impair resilience because previous ecosystem services which supported the production of environmental resources are either compromised or not as accessible in future times of need, which devolves to a matter of inter-generational equity. In practice, the health and wellbeing of humans depends upon the services provided by ecosystems and their on-going capacity to produce water, air, soil, nutrients and organisms (Rural Solutions SA 2009, p 10).

Potential climate change impacts for the EPWC have been documented by the Eyre Peninsula Natural Resources Management Board (EPNRM), but there are pre-existing non-climate related stressors that reduce the resilience and adaptive capacity of natural systems. 11). Rural Solutions SA (2009, pp 41-42) considers many, if not all, of the Aboriginal communities on the west coast are vulnerable to climate change and other stressors as they have low levels of human, social, physical, economic and natural capitals.

The EPWC region's core strengths are the natural environment (under increasing development and recreational pressure); a collaborative network of agents operating across the region (despite being spread out); a diversifying economy (strong potential of renewable energy and tourism); and lifestyle and amenity (strongly tied to the natural environment). The social capital of the EPWC region is also a key strength and for Ceduna and the unincorporated west coast in particular, is a means of emotional and physical survival in a distant, dry place. Various land- and seascapes provide attractions for existing and emerging tourism operators and produce premium food, but they are also a core part of a person's being and belonging to the region. For the people who live in the EPWC region the land- and seascapes can provide emotional and/or spiritual sustenance (Strang in Poore 2002, p 221). As noted in Gillanders et al (2013, p 70) management and decision-making processes generally do not consider ecosystem services or cumulative impacts, largely because of a focus on one project or sector. Consideration of cumulative impacts also requires an understanding of tradeoffs.

Tradeoff analyses can be used to inform siting of new facilities and infrastructure in order to minimise conflicts among multiple users (Gillanders et al 2013, p 75). The growth and development of the EPWC region must seriously consider the cumulative impacts of disparate projects which could change the way ecosystems function and social systems operate. For example, the threats of mining to "native plant and animal species, vegetation clearing and loss of biodiversity, reduced surface water quality in lakes and rivers, reduced groundwater quality, reduced quality of prime farming and grazing land, reduced air quality and greenhouse gas emissions" and potential contamination of underground water aquifers (SACES 2013, p 14). Both onshore and offshore mining infrastructure (such as oil and gas platforms, ports, rail and roads) and other industry sectors such as tourism and agriculture will also impact the region's marine and land environment. Off-shore exploration and mining will add to the system-wide impact on marine flora and creatures and coastal and intertidal areas brought about by the factors listed above – mostly due to anthropogenic use of land based ecosystems. The people living in small towns and on rural

properties across the region are in the process of immense change to their way of life, lifestyles, housing and physical amenity. The advent of mining projects may significantly transform the social structure of communities and some towns in ways that are both positive and negative. The people of the region recognise that economic growth at any cost is not an option. They will attempt a balance between seemingly conflicting objectives but the lifestyle, amenity and physical environment of the region will be retained (RDAWEP 2013, p 8) with state and Commonwealth marine parks playing an important role in this area.

The Eyre Peninsula Integrated Climate Agreement (EPICCA) Committee has developed models for adapting to projected climate change scenarios on land and sea-based industries, Local Government operations, infrastructure development and water resources management. The models can be applied to decision making timeframes for project planning and implementation. Regional models such as those developed by the EPICCA Committee require consideration of the longer term impacts of major infrastructure projects when planning regional development (RDAWEP 2014, p 17).

Qualitative Data – Providing Insights into the Region

This section of the Final Report draws out the insights gathered from qualitative data collection over the life of the project, including the outcomes of focus groups and approximately 15 one-on-one interviews with key informants on the Eyre Peninsula and in Adelaide. The qualitative data collection was integrated into the research in order to both inform the later stages of the project and add to the depth of insight generated through the project. As with all qualitative research, the insights generated through this process are not necessarily representative of broader views, and may reflect a very partial view based on the interests of the informant. They do, however, document the perspectives of that group and/or that individual and provide a mechanism for capturing the full range of views on the region and its future. Many interviewees occupied roles within government and their perspectives reflected their professional outlook, while others expressed opinions of a more private nature.

Interviews with Key Stakeholders

The one-on-one and targeted interviews canvassed the views of a range of individuals in the region. Their interests covered a wide set of perspectives, including environmental, political, Aboriginal and community views and provided a window into the diversity of issues across the region.

Environmental concerns were an important part of the qualitative data collection undertaken as part of this project. Informants presented a number of views including:

- The argument that the Great Australian Bight (GAB) is one of the most undisturbed marine ecosystems on the planet and that it is important to preserve it;
- The GAB is an important habitat for Southern Right Whales and especially whale calving, and the ecosystem therefore needs to be maintained;
- Proposals to develop resources in the GAB carry with them a number of risks, including the consequences of an accident on-site during exploration and/or extraction, as well as the release of additional fossil carbon into the atmosphere, with subsequent impacts on climate change.

Environmentally focused informants felt that it was important that the proponents released their modelling and other data as quickly as possible, and that the community needed to be kept informed at all stages of the project. They also expressed their concern at the additive impact of exploration activity in the GAB, suggesting current licence conditions may result in the sinking of 15 wells by 2020.

Stakeholders focused on issues associated with the economic development of the region had a different set of concerns, in particular the need to identify future economic development opportunities, the adequacy of infrastructure, the challenge of updating regional plans and the issue of skills within the workforce. When asked to nominate the most pressing issues respondents in this group noted that gaps in regional planning was a major limitation with no structural plans in place to guide development. The adequacy of infrastructure was a second pressing concern for economic development professionals, with some of the key issues being gaps in:

- Water supply and treatment. There is a need to establish third party access to distribution networks in order to open up new sources of water to the market;
- Export infrastructure, including wharves;
- The adequacy of vocational training for employment opportunities, with the closure of some TAFE facilities and the downsizing of the university presence in Whyalla. There is a need for tailored education to meet regional needs; and,
- Power transmission – with power supply capacity fully taken up and old lines needing to be replaced. The power provider – Electronet – has plans in place to transmit twice the power, but want a contract, and would be willing to accept a consortium of users. Plans for the lines are in place and the environmental assessment has been done, but Electronet want a large new customer, but the possible customers won't invest unless the power is already in place. "We need another mine opening to be approved."

Economic development professionals in the region reported that the adequacy of the skills in the labour force – that is, the quality of human capital – is a limiting factor for the development of the region. Respondents noted that the seasonal nature of much employment meant that many individuals needed training across industries and sectors. Agriculture is still the main industry, but is employing fewer people, and this affects small communities. The central peninsula towns are shrinking; the coastal towns are growing with retirements.

The Eyre Peninsula has a small population and often lacks the critical mass needed to meet the needs of growing industries, including aged care. For this reason, strategies that deliver population growth are considered important for the region. Similarly, there was a view that having 11 councils for a population of 56,000 was somewhat inefficient – with nine councils covering the 20,000 people living outside Port Lincoln and Whyalla. The youth and some families leave the area for education and work. Some return years later, but there are no usable data on who returns, when and in what numbers. The region needs educational institutions for family stability. There is also a need to maintain the health of the workforce. One respondent noted that "by 2020, those reaching 65 years of age and retiring will decimate our workforce by 40 per cent – we will need 3,800 new workers in the region."

Being able to meet the aspirations of Aboriginal Australians on the Eyre Peninsula was an acknowledged priority. The region has a much higher Aboriginal population than many other regions and economic growth and employment are needed to lift their health and living standards. They are trying different education models in primary schools, but students fall behind in high school, and that leads to lower attendance. Literacy and numeracy are also a problem. School funding varies with the numbers attending. DECS need to come to the region and learn about Aboriginal people.

Overall, economic developers felt there was a real and pressing need for a stronger evidence base on the needs of the region. And this evidence was needed in order to generate a stronger argument for additional resources.

Government leaders – state and local government officials and elected individuals – across the Eyre Peninsula and west coast had a range of perspectives on the opportunities and threats facing the region. Some of the key issues they identified included:

- The need for on-going consultation with all development proposals, including those for development in the GAB. It was noted that the oil and gas sector performed well in this area of their activities;
- There is a diversity of views across the region on a range of issues, and it can be difficult to find consensus. While there is an acknowledged need for new economic opportunities, there is entrenched opposition also;
- Some individuals fear a change to their sense of place and are therefore opposed to development;
- There was acknowledgement that single industry towns and regions are confronted by considerable volatility;
- It was argued that the region has a diversified industry base, and that oil and gas would add to that diversity. Mining has grown fast, but off a very low base;
- There is a regional theme or concept of quality. This is a unique environment and there are opportunities to “value-add”. One respondent noted that the well-known economist Ross Garnaut said this region holds the opportunity to be the future for clean energy provision to Australia. The region was also seen to have the ability to store that power;
- Many political leaders in the smaller communities endorsed the views of the economic development practitioners on the need for population growth. In many regions the population is declining and this has placed a strain on communities, local governments, infrastructure and economic vitality;
- Respondents in a number of communities noted that alcohol and other substance abuse remains a challenge for their communities, and the reputational loss affecting these places affects their capacity to attract staff in key industries;
- In a number of communities social infrastructure is inadequate and declining – an economic and population stimulus is needed to fill social gaps;
- Governmental leaders noted on-going concerns across the community with the potential environmental impacts associated with development in the GAB;
- In one community, informants argued that ‘This is a resilient community – for example, the State government has downsized. The town is open to new ideas and industries. Mining exploration continues, and employs some locals. Mine trucking, support and shipping staff live in the area.’
- For some councils in the region development in the GAB is all about ‘employment and economic development: it is another opportunity’;
- There has been an expressed concern within the community about the potential impact of development in the GAB on Southern Right Whale migration patterns;
- It was noted that ‘People choose to live here for the lifestyle provided by the environment, not for convenience’;
- There was a degree of concern that development in the GAB would raise costs without necessarily raising local incomes;
- There is often a resistance to change locally, which was expressed by one informant as ‘the tension between expansion and too many people coming’;

- Too few employment opportunities have been created for Aboriginal people and more generally job security is poor;
- Informants noted that proposed developments in the GAB meant that infrastructure was coming in to the region, rather than by-passing the Eyre Peninsula and west coast;
- The region is in transition, with retirees and lifestyle migrants – fishers and surfers – settling in communities in order to secure the quality of life they desire;
- There is poor access to the internet in many parts of the region, with some communities having the slowest service in the state;
- Government leaders also acknowledged shortfalls in their own capacities – ‘There is a hard State regulatory burden on small Councils. It is hard to be a local planning authority. We can’t see how we would cope if there was a lot of growth, unless we were funded by others to engage professionals, which we would have to do as there is an absence of professional skills here.’
- One dimension of this capacity limitation was the short term funding for many public sector posts;
- The rationalisation of farming has had a substantial impact on many parts of the region, contributing to population loss and the absence of infrastructure;
- Professional services are often very poor, with pharmacists, dentists and doctors – to name but a few – absent across large parts of the region;
- Many people are forced to leave the region in order to find work. There are too few educational opportunities in the region and many students complete high school in Port Lincoln or Adelaide;
- There is a heavy reliance on volunteers in communities – and many volunteers are ageing and not being replaced by cohorts of younger persons;
- A number of political leaders commented that there is great uncertainty about the timing of the GAB project – when to invest, train, hire, and redeploy staff;
- One community noted that ‘The agriculture seasons are shorter due to technology/mechanisation. This affects stability and continuity for workers. People may work in 3 to 4 industries. Training is being given to employers too’ and that ‘There are no statistics on DIDO or FIFO with Port Lincoln as a base. It would be nice to know if men work away from home, where do they live. Fishing skills can transfer to off-shore work, like the Northwest Shelf. Some people fly to Perth, stay overnight and then fly to the NW Shelf. A refinery in Ceduna would have a positive effect on Pt Lincoln, as some people would commute’;
- The Port Lincoln Council noted that ‘Council is planning for 10 per cent growth over a few years. There is not much demand at the moment; 1200 blocks are approved now, which is 10 years supply, but they need to plan for 15 years’ worth of land release. Some approvals are lapsing as there is low demand. Seven minutes from town, in Lower Eyre District Council, there are lifestyle blocks (hobby farms) where 5 acres cost the same as a city block. District Council growth is at 2 per cent;
- Political leaders also acknowledged and noted the critical significance of the risks associated with development in the GAB, especially for shellfish. They noted that the community was looking for reassurance about the safety of such development and the capacity of proponents to respond quickly to any threats; and,
- Project proponents also need to understand people here cherish their environment, and they have deep-seated beliefs and “ownership” of Eyre Peninsula.

Many governmental and political leaders were able to look to the future and identify the most likely trends, many of which were not positive for the region:

- Many respondents expected current trends to continue with increasing demands on infrastructure and further falls in resources;
 - There is a need to establish good baseline data in order to plan for the future of the region;
 - Agriculture has plateaued – crop volumes have increased a little. All available land has been cleared;
 - Tourism was seen as an opportunity for the region, especially in encouraging caravans and RVs. They also saw scope for additional investment in cafés, walking trails and bike paths; plus the fact that tourism sustains 4 service stations, 2 supermarkets, 2 policemen, 2 takeaway shops, and 2 caravan parks. Lots of government jobs have left town. There is increasing aquaculture, and a higher birth rate;
- It was commonly argued that 'Regional tourism is a growth sector with potential. There are large numbers coming here. All the Councils contribute to Regional Tourism. However, SA Tourism Commission cut 3 staff but Councils picked up the support for 1 of them'.

FOCUS GROUPS

Focus groups are an established technique for qualitative data collection and offer several advantages for social research. Importantly, they offer an opportunity to collect a substantial volume of material relatively quickly, they also facilitate a discussion with respondents that allows the researchers to understand the motivations and reasoning behind viewpoints, and they can be constructed to embrace a diversity of viewpoints. Focus groups have limitations also: there is the possibility group dynamics mean some individuals dominate the discussion while others remain intentionally or unintentionally unheard. They work best when the respondents are familiar with the subject matter, and feel empowered to openly share their thoughts. Focus groups are especially well suited to an initial exploration of ideas prior to a more substantive data collection and/or the exploration of the meaning attached to responses from a large-scale survey or other analysis.

Ten focus groups were undertaken over the course of this project, and their locations were selected to capture the diversity of experience in the Eyre Peninsula and west coast. Geographically,

- Three focus groups were undertaken in Port Lincoln;
 - One representing the general business community;
 - The second young people aged 18 to 27;
 - The third focus group consisted of Aboriginal people living in Port Lincoln and most of these participants were under 25 years of age.
- Two focus groups were undertaken in Tumby Bay;
 - One focused on local government issues;
 - The second had a general community focus.
- One focus group was undertaken on Streaky Bay and examined issues relating to fishing and surfing in particular;
- One focus group took place in Elliston;
- One focus group was conducted in Cummins;
- One focus group in Kimba;
- There was one focus group held in Adelaide for the Mirning people.

These meetings have encompassed a range of groups and issues, including surfboard riders, wild catch fishers, some elements of the tuna industry, regional development authorities, individual local governments, community consultation bodies, representatives of terrestrial mining companies, farmers and other land holders, young people and service providers. A number of overseas “birthplace” groups were also present at the meetings, including those born in France, Croatia, Germany and Italy.

Two specialist Indigenous focus groups were undertaken in July and August 2015. These meetings were delayed because of the introduction of a new, more exacting, process for Human Research Ethics for High Risk Groups. One of these focus groups took place in Adelaide with the Mirning, while the second was

undertaken in Port Lincoln and included participants from a number of Aboriginal nations. The discussions included both elders and persons who are not elders. The outcomes of these focus group discussions are presented by theme below.

Quality of life and the environment

Many respondents across the focus groups noted that the EPWC offered a high quality of life and a near-pristine environment. For older residents living in Elliston this was expressed as an appreciation for the peace and quiet that the region offered. Many of the participants in this focus group reported that they had retired to this region from other parts of the EPWC or Adelaide, or even further afield. A benign environment, a quiet lifestyle and the opportunity to both socialise and go fishing met their requirements for a successful retirement. For younger families who participated in the Streaky Bay focus group key attractors to the region included an affordable housing market, a strong community within which to raise their children and opportunities for fishing and surfing.

In many of the focus groups there was a degree of skepticism amongst the participants about governments, with the South Australian Government especially singled out for criticism, but Federal and local governments were sometimes viewed unfavourably. Governments were seen as potentially impinging on the quality of life of residents, by not providing the services that communities and individuals deserved, and advocating for development projects that did not match community expectations. More than one focus group participant argued that the Eyre Peninsula was like an island, separated from the rest of South Australia, and not understood by central governments.

Virtually all participants in the focus groups listed the environment as one of the most important features of the region. Respondents in Port Lincoln, Tumby Bay and Kimba were all able to express their appreciation for the environment and the benefits it offers. In Kimba, the wide open spaces and the prospect of camping were nominated as important attributes, while Port Lincoln and Tumby Bay residents listed fishing and sightseeing as important activities.

The strong value placed on environmental quality spilled over in a number of focus groups into avowed opposition to any development that was seen to be a threat. This set of views was enunciated by both representatives of industry bodies, and members of the general community. Many focus group participants expressed significant reservations about development in the GAB, while others discussed their opposition to land-based mining. Recent proposals to develop iron ore and graphite resources were opposed by both neighbouring farmers and those on proposed transport routes. Focus group participants expressed their concern about:

- The loss of productive farm land;
- Impacts of water access and ground water quality;
- Dust plumes from mining; and,
- Noise and traffic effects.

There were some concerns focused on the social impact of bringing miners into small rural communities. Generally, the focus group participants reported strong and well organised opposition to resource development, and a conservative approach to new projects.

Aboriginal respondents in the two specialist focus groups were especially focused on this issue, noting that the environment was both an important material resource, spiritually significant and a central part of their heritage. Many expressed their concern that both the marine and terrestrial environment in the region had already experienced degradation (over-fishing, dryland salinity, vegetation loss, etc.) and that little attempt was being made to address this issue. They believed government bodies should create a corp of Aboriginal rangers to both interpret the landscape for tourists and work to ameliorate the damage to the environment.

Opportunities for young people

Many participants in the focus groups expressed their concern that young people in the region had few opportunities available to them. This included the capacity to engage in further education, find employment, undertake attractive recreational activities and build networks of their peers. Sport was seen to be one outlet for young people – but it was not attractive to all young people and only met one need.

Many of those in the Port Lincoln discussion focused on young people reported problems with:

- Few jobs, and limited pay in the careers that were available;
- High housing costs – especially relative to earnings – and a very small, and difficult to access, private rental market;
- Few long term careers in the region plus the impacts of part time and casual employment;
- Incidences of homelessness;
- Limited social connections for many young people and a difficult environment for LGBTI individuals;
- No public transport, making it difficult to meet with friends and find employment without a car;
- Few educational opportunities in the region, with options largely limited to TAFE or moving from the region;
- Limited understanding and support for young people who are LGBTI; and,
- The loss of friendship and other networks as individuals either move away from the region or see their friends move to other parts of Australia.

Young people, of course, were not the only focus group participants to talk about the challenges confronting youth. Parents worried that the region would not offer their offspring employment in the future, leading to an inevitable separation. Older participants observed that out-migration of all kinds had been an entrenched phenomenon in the EPWC for the entire post-War period, but also noted that it had contributed to the decline of many communities. Participants noted that some individuals left

the region and returned – often when children arrived in their household – but many did not, contributing to an overall process of population loss.

The loss of younger people was seen to be an important contributor in the rationalisation of farms and the move to ever-larger properties and share-farming. Participants noted that poor growing conditions – drought, low prices, storms, etc. – in the recent past, alongside the remoteness of much farm life discouraged children from taking on the family farm. The focus groups noted that those who did not take up the family farm had limited opportunities to move into alternative industries within the region.

Poor transport infrastructure

Poor transport infrastructure and the high cost of travel was an acknowledged problem in many communities and at a variety of scales. Within larger urban centres – such as Port Lincoln – public transport was non-existent forcing individuals to either own a car, walk or be immobile. The need for a car to gain access to places of employment was an impediment to many young people finding a job. This problem was especially acute in those industries where the location of employment shifted and mobility requirements were high. The school bus system was seen to be an important transport asset – enabling children on farms in the more remote parts of the EPWC region to attend school.

Many respondents on the west coast noted there were few transport services – for freight and individuals – that spanned the Peninsula. While a bus service travelled from Ceduna to Port Lincoln daily (in both directions) and would take produce such as fresh fish, etc., services were fundamentally limited. Port Lincoln is serviced by a modern airport and relatively frequent flights, but participants in the focus groups reported that the cost could be prohibitive if frequent travel was needed (e.g. on-going medical appointments, even with state government assistance). Participants felt that the Patient Assistance Travel Scheme (PATS) was inadequate and imposed an unfair burden on Eyre Peninsula residents. Residents in Kimba reported driving 11 hours a day to make a round trip to hospital appointments in Adelaide. Air services operate between Ceduna and Adelaide, but residents felt the cost remains too high for regular travel.

Access to transport was seen to be especially challenging for Aboriginal people, especially those who live outside the major urban centres. Focus group participants reported that while some Aboriginal communities provided buses, transport was not always available when needed. The young Aboriginal people who participated in the focus group in Port Lincoln observed that they remained dependent upon friends and family to drive them to the places they wanted or needed to visit.

A number of focus groups considered the partial nature of the rail service, which was developed in the early 1900s largely to bring grain to port. The system is small scale, focused on Port Lincoln and not connected to the national rail network. Rail inadequacies were considered to be a major impediment to future economic development.

Communities and places in decline

The decline of some communities within the EPWC was a recurrent theme in many of the focus group discussions. Focus group participants argued that historically the region had a strong set of communities, but many of the smaller townships and settlements are now under threat. In many of the focus groups conducted in smaller townships, population decline was an acknowledged and ever-present risk, but even in the faster growing, larger centres such as Port Lincoln individuals were aware of the decline of other communities and the movement of population. In large measure the participants saw a ‘hollowing out’ of the Eyre Peninsula, with growth and the coast and the shrinking of populations in the inland farming settlements. In some instances, participants reported that farm districts were increasingly seen to be too remote to attract young families, leading to the abandonment of some properties. In other instances, the family lived along the coast – where services, employment options and amenity were greater – while the farmer (usually male) commuted to the property four or five days per week. Some work was completed remotely by drones and other sensor devices.

In Kimba, the discussion of population decline was especially acute given that the town has recorded a falling population and in 2011 fell below 1,000 residents for the first time. Other farming settlements have disappeared, but in all cases the decline of farm populations is matched by falling retail and other services, which in turn reduces the attractiveness of the township. One of the participants in the Kimba focus group had retired from the farm to settle ‘in town’ but was now considering a move to Adelaide where medical and other services would be more accessible.

Community decline, alongside poor transport (discussed above) is seen to place increased pressure on the cost of living for already vulnerable household budgets. Participants noted the cost of gaining access to affordable household goods, and limitations in the range of goods available.

The ageing of the population was acknowledged by the focus group participants as contributing to population decline. Many of the faster-growing coastal settlements are growing as a result of retirement migration – often farmers leaving the land – skewing the age profile and generating a new set of demands for services. Population ageing was seen to add a new dynamic to the wider process of population change, but one with well-established antecedents.

A restructuring economy and a fragile labour market

Many participants in the focus groups noted with pride the productivity of the region and its contribution to Gross State Product. They commented on its significant contribution in the areas of grains production, fisheries, aquaculture and, increasingly, in tourism.

Pride in the productivity of the economy, however, was tempered by other concerns around the structure of the economy and employment. A number of respondents noted that farming had changed considerably over the past two decades, and that the rationalisation of farm sizes and the increased use of large scale machinery had maintained profitability, but at the cost of lost employment. What jobs were available tended to be part time, seasonal or casual. Similar trends were evident in the fishing

industry where there had been a substantial expansion in the casualisation of employment. Others noted that tourism and hospitality employment remained highly seasonal and therefore insecure.

Participants in the focus groups acknowledged mining as a potential source of growth for some living within the region – but focused their discussions on developments in Roxby Downs and Prominent Hill. Local proposals for mines were seen to be outside their immediate planning horizons and potentially unlikely to succeed. DIDO employment for miners working in South Australia’s north was perceived to be a small, but important, part of the local economy.

Many participants in the focus groups acknowledged that the workforce in the EPWC region lacked substantial formal qualifications and were therefore unlikely to secure jobs if development was to proceed in the GAB. These lack of qualifications were seen to be a product of existing industry structure, and the absence of a well-developed set of tertiary education institutions in the region. The UniSA campus at Whyalla was considered to offer a very limited range of courses, while the TAFE system locally was seen to be small scale and under developed. Many argued additional State Government investment was needed in the region’s educational facilities.

Economic change has been accompanied by increasing inequality within the region. Focus group participants discussed the fact that while some within the region are well off financially, others live with poverty and disadvantage. Clearly, public perceptions match the evidence documented in the review of Census data. It is also important to acknowledge that Aboriginal people are amongst the poorest in the EPWC and that while they are one of the few groups within the EPWC growing through natural increase, they are significantly disadvantaged.

Online survey data collection

An online survey of residents in the Eyre Peninsula west coast region represented a second phase of data collection in the establishment of a socio-economic baseline. Participants in the survey were recruited through a number of means, including advertisements in the local newspapers, promotion through regional radio, the distribution of flyers at focus groups and other meetings, the posting of notices at shops, through social media – including Facebook, and via snowball techniques where focus group participants and other interviewees were asked to inform their contacts. The survey ran through the latter part of 2014. It is important to note that the online survey was not designed to produce a representative sample of the Eyre Peninsula and west coast population as a different set of methods would be necessary to achieve that objective. Individuals were provided an incentive to complete the survey through a modest prize draw.

A total of 76 people completed the survey and their perspectives on life in the region are discussed below. Respondents to the survey was limited to those with:

- Internet access;
- An awareness of the survey; and,
- The inclination to complete the survey.

It was expected that persons less likely to participate in the survey were Aboriginal Australians, older people – who are often over-represented in postal and Computer Aided Telephone Interview (CATI) – surveys, persons with a limited proficiency in English, those who do not own a computer and those with limited or no access to the World Wide Web.

The broad expectations on who would complete the survey were in large measure realised. Some 49 per cent of respondents identified themselves as male, a further 49 per cent were female and 2 per cent chose to not identify a gender. Only one respondent identified themselves as being of Aboriginal origin, and when asked the overwhelming majority of respondents expressed a preference for the Liberal and National Party over Labor. Some 14 per cent of respondents supported the Greens.

Respondents to the survey were relatively well educated, with 25 per cent holding a university bachelor's degree, and 18 per cent a post graduate qualification. A further 17 per cent had VET/TAFE certificates, while 11 per cent had not completed Year 12.

A total of 40 per cent of respondents were employed on a permanent, full time basis and 22 per cent were self-employed. Retirees constituted 13 per cent of respondents and very few students and persons with a disability completed the questionnaire. The majority of persons who completed the survey had modest incomes, with almost 30 per cent on incomes of \$20,000 to \$61,000 per annum. A further 36 per cent of respondents had incomes between \$81,000 and \$141,000 dollars, while only a small percentage earned less than \$31,000.

More than 80 per cent of respondents were home owners, while private tenants represented a further 11 per cent of households, and public housing one per cent. All but 11 per cent lived with others rather than alone.

Use of, and engagement with, the environment

The survey data showed that a very high percentage of respondents made use of the natural assets of the region and took value out of the environment in some way (Figure 17). Virtually all respondents had visited beaches and 85 per cent had made use of national parks or conservation parks. Just under 50 per cent had visited a marine park or reef and just over 40 per cent had visited a botanical park or public garden.

Figure 17: In the last 12 months have you, or anyone in your household, visited any of the following natural places?

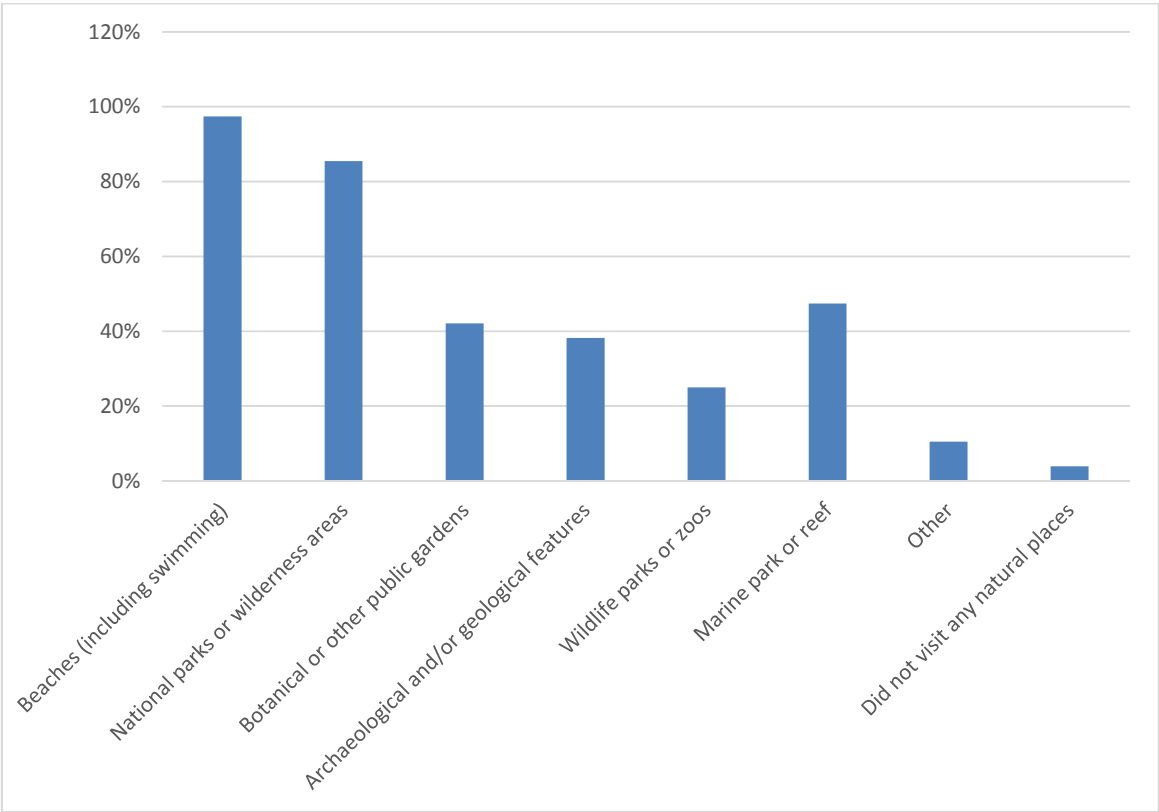


Figure 18 gives insights into the diversity of activities undertaken in the natural environment by the respondents to the survey, with walking, diving, snorkeling and whale or dolphin watching important, as well as off-road driving and camping. Importantly, very few people reported that they did not participate in nature activities in any way, and this finding is consistent with the information generated through the literature review and the focus groups.

Figure 18: In the last 12 months have you, or anyone in your household, participated in any of the following nature activities?

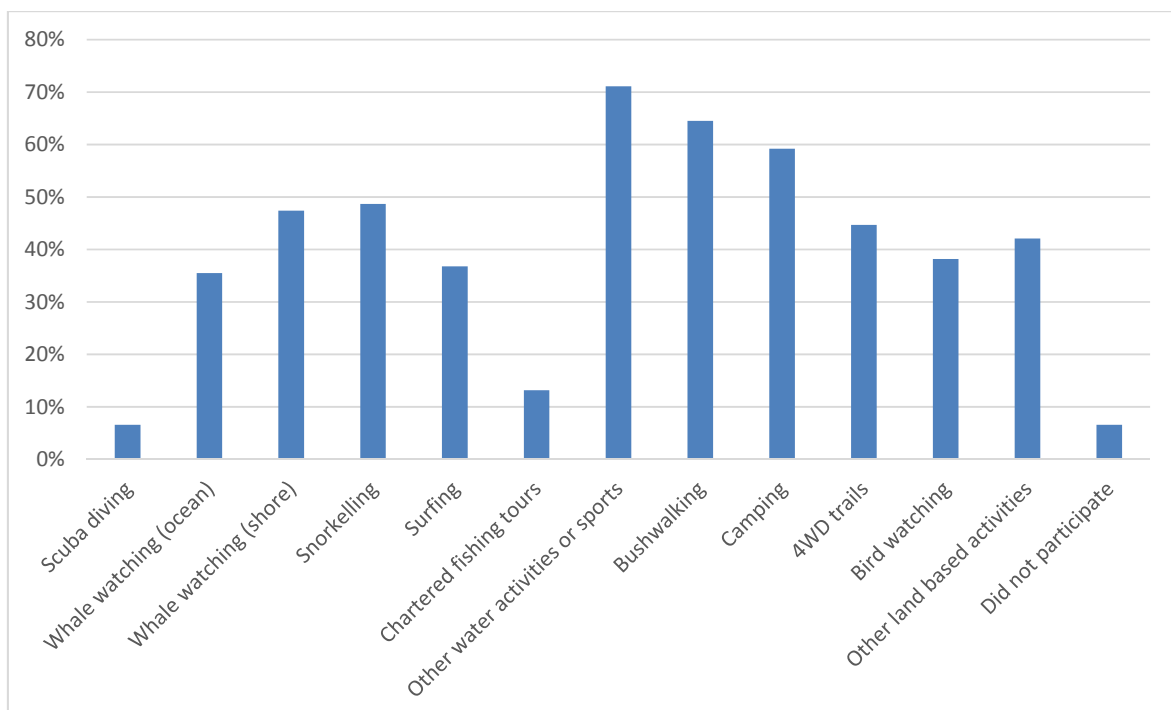
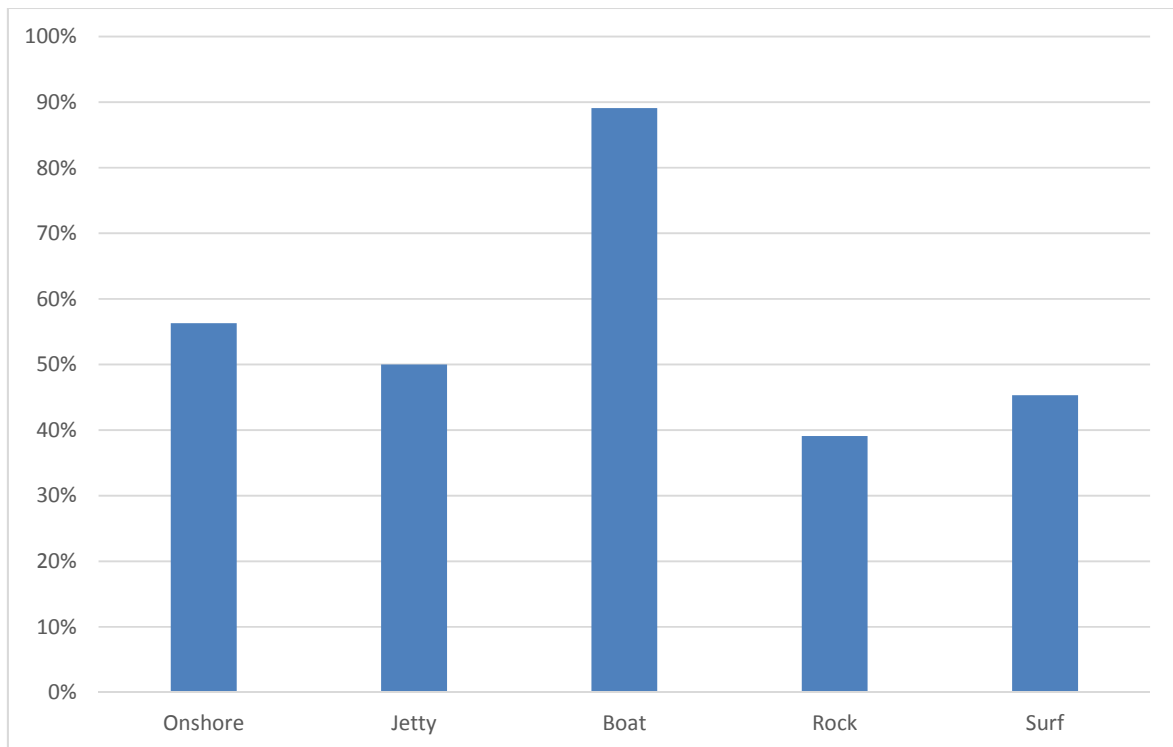


Figure 19 focusses on the types of fishing undertaken by individuals, with boat fishing dominant across the survey respondents. It is clear from the data that anglers do not limit themselves to one form of fishing, and combine fishing from a boat with surf, rock and jetty fishing as their preferences, seasons and weather conditions dictate.

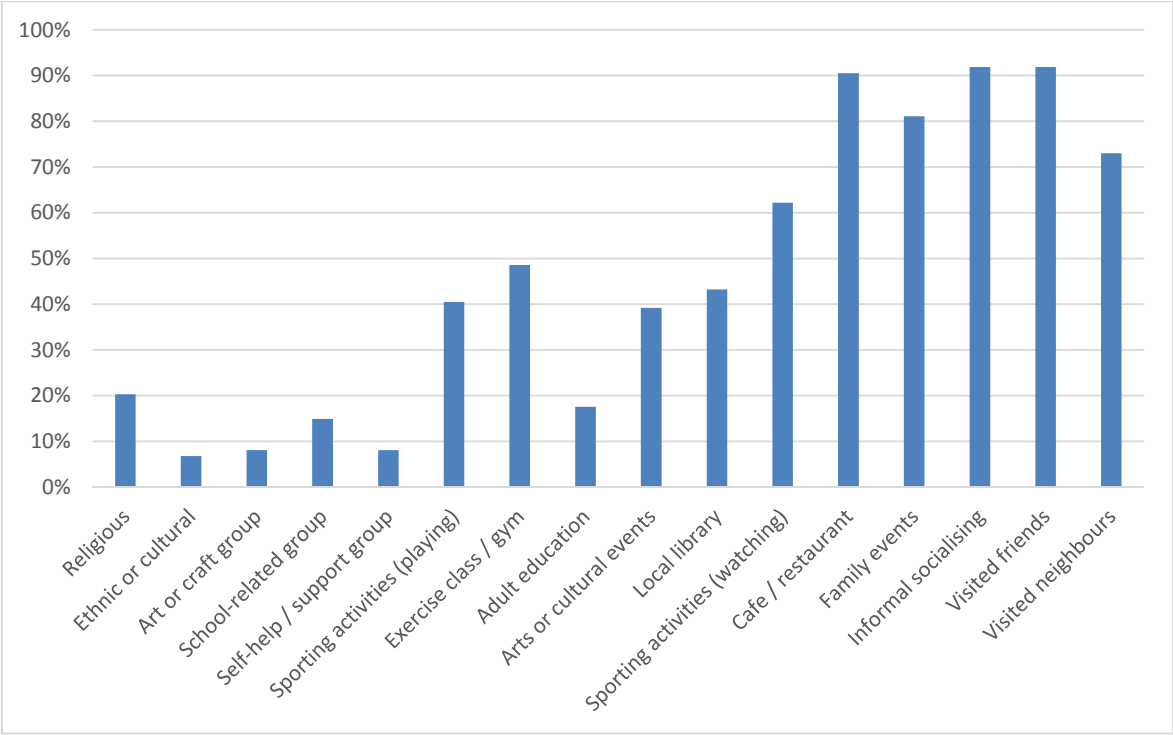
Figure 19: What type of fishing activities do you undertake?



Social activities in the region

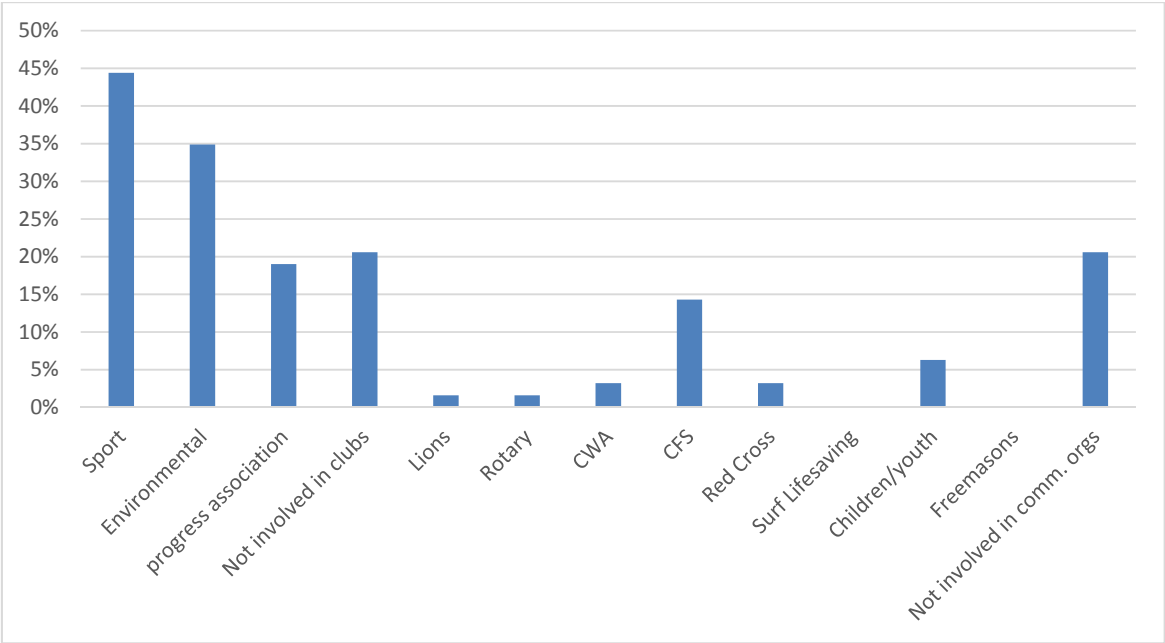
Social activities are an important part of any region and the literature review summarised in this report and the focus groups discussed above have both highlighted the strength of social connectedness in the EPWC. Figure 20 presents data on the types of social activities individuals have participated in over the past year. As might be expected, there appears to be a high level of social interaction across the respondents, with the most common activities being the least formal – casual visits with friends, family events, participating in organised sport, etc. A total of 20 per cent of respondents participated in faith-based activities, which suggests a more religious community than for Australia as a whole. Some 5 per cent of respondents engaged in ethnic or cultural activities, while school-based activities accounted for 15 per cent of respondents. Half of all participants in the survey attended the gym and interacted with others this way.

Figure 20: In the last 12 months have you participated in any of these activities or been actively involved in any of these social groups (or taken part in an activity they organised)?



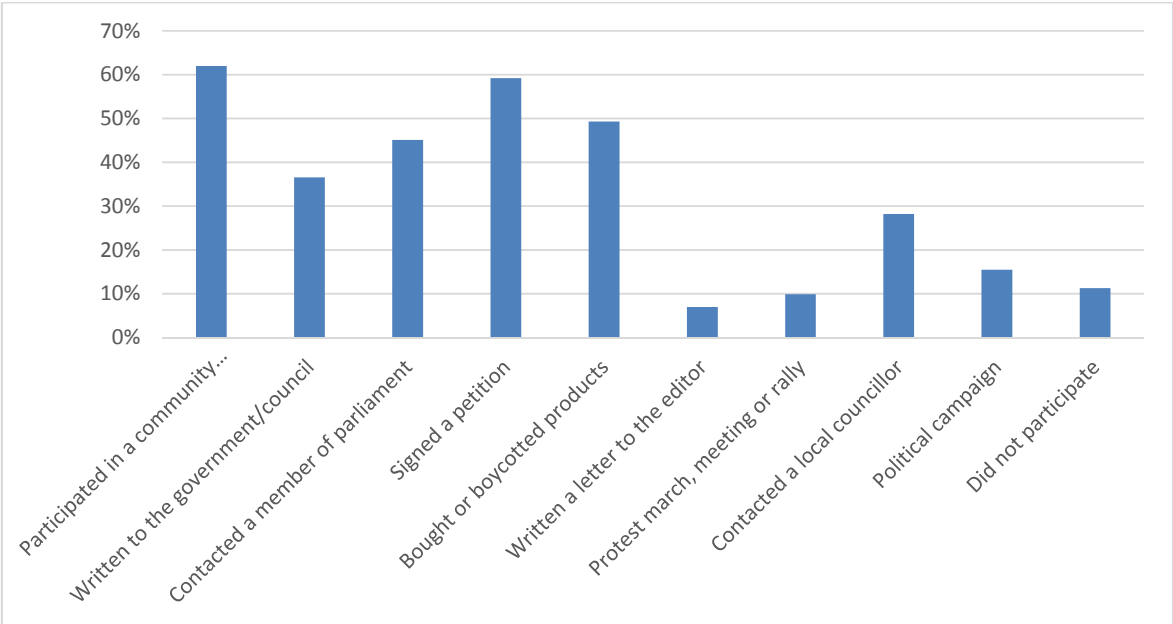
Sport and environmental activities dominated the data on volunteering (Figure 21), with 45 per cent of respondents active in the sporting community in some way and 35 per cent engaged with environmental groups. A further 17 per cent were engaged with progress associations while 20 per cent reported that they are not engaged with any clubs or organisations. In terms of the numbers engaged, the Country Fire Service (CFS) was the largest of the service organisations on the EPWC, followed by Scouts.

Figure 21: In the last 12 months have you volunteered in any of these social groups (or taken part in an activity they organised)?



Respondents to the survey reported modest levels of engagement with political and civic actions (Figure 22). Some 60 per cent of respondents had participated in a community event and a further 60 per cent had signed a petition. A total of 10 per cent had engaged in higher level political or civic actions such as attending a political meeting or protest march, while 15 per cent had participated in a political campaign. Most political and civic activity appeared to be small scale and local – and included writing a letter to an editor, contacting a local councilor and boycotting some products. In interpreting the data on political engagement it is worth reflecting on the insights from the focus groups: many parts of the Eyre Peninsula have been mobilised over recent years by a number of events, including – perhaps most importantly – proposals to develop mines, a general community concern with development – including concerns with tuna farming – as well as the political lobbying of various industry groups.

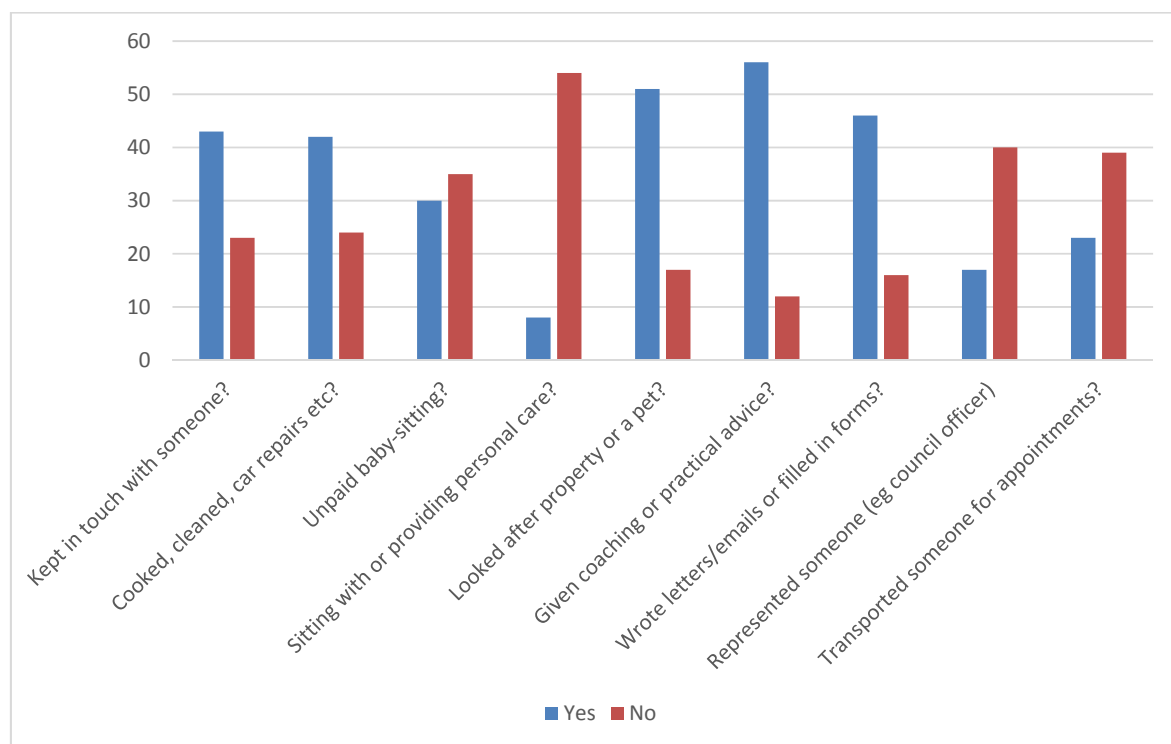
Figure 22: In the last 12 months have you participated in any of the following political or civic actions?



Social capital and the provision of assistance

Figure 23 presents data on the respondents' involvement with the provision of care and support to others within the community. Overall, high levels of support activity were reported by our informants, underpinning the perceptions of high levels of social capital across the region. Much of this care work has focused on making extra efforts to keep in touch with others, cooking and cleaning for those who need assistance, caring for a pet or a property, and coaching/teaching others. Almost 70 per cent of respondents noted that they had undertaken paperwork – written emails or letters, filled in forms, etc. – for neighbours and other community members.

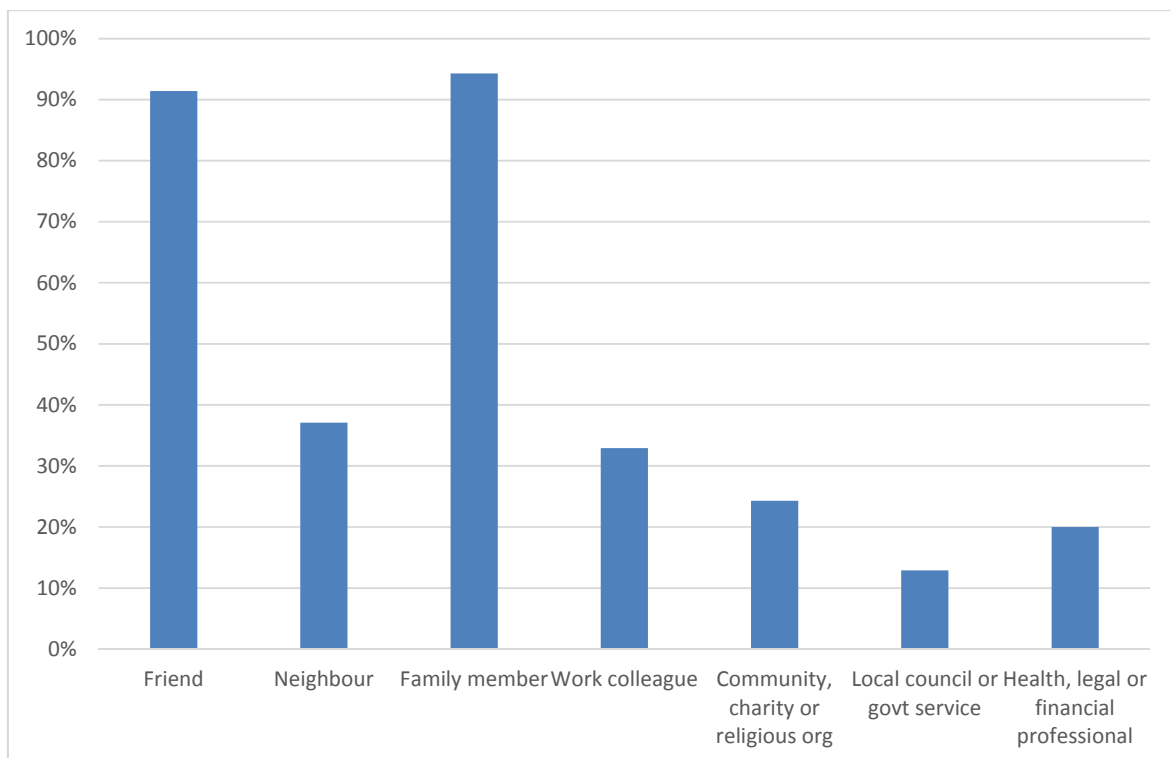
Figure 23: In the last 12 months have you done any of the following things for someone who is not living with you? This might be a friend, relative, neighbour, or someone else.



The image of high levels of social capital within the region was reinforced by responses to the question 'is there someone you could ask for assistance at times of crisis'. Only 4 per cent of respondents indicated that there was no-one outside their household they could turn to (compared with a median response of approximately 10 per cent across Australia). The majority of respondents reported that they could find assistance with advice, emotional support, help with work and family responsibilities, emergency funding, emergency accommodation and emergency food.

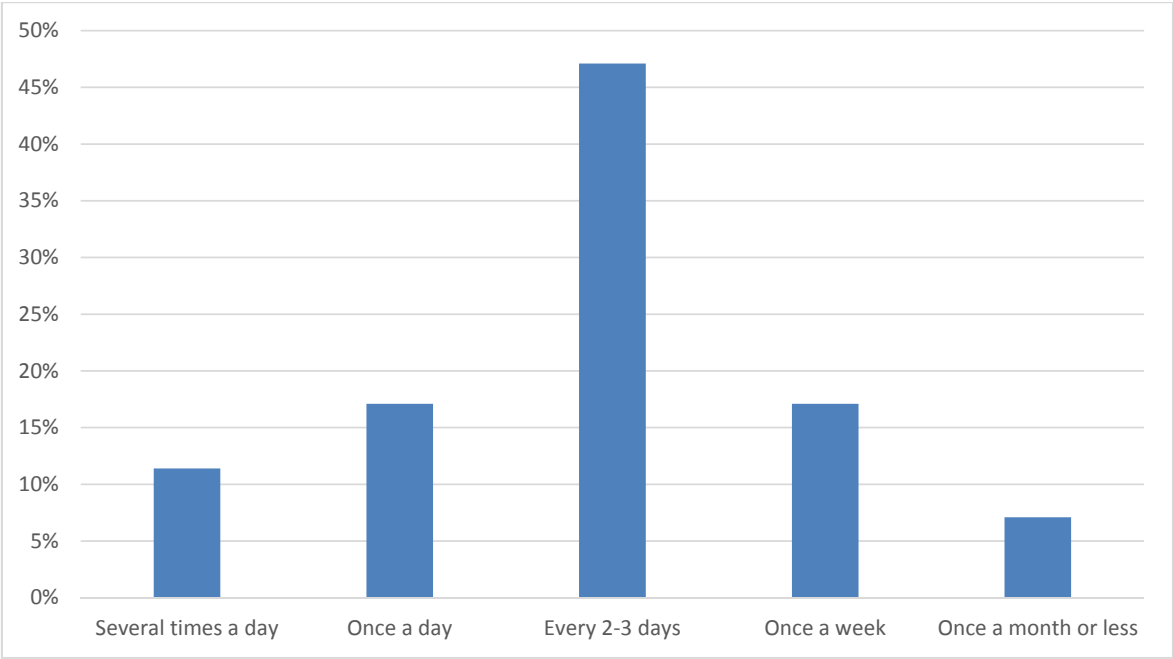
Respondents were also asked who they could turn to in times of crisis (Figure 24). Family members were seen to be the most important source of support, followed very closely by friends, and then neighbours, work colleagues, and a range of government and non-government organisations. Critically, these data reinforce the view of the region as a place that is strongly connected socially, with ‘deep’ informal support available at times of crisis.

Figure 24: Who could you ask for this support in a crisis?



Most respondents to the survey had very high levels of telephone contact with others outside their household (Figure 25). Approximately 27 per cent had a telephone conversation with someone outside their household once a week or less, but we must also acknowledge that there are many other ways individuals communicate (face to face meetings, etc.), and this increasingly includes social media (including Twitter, Snapchat, Facebook, etc.).

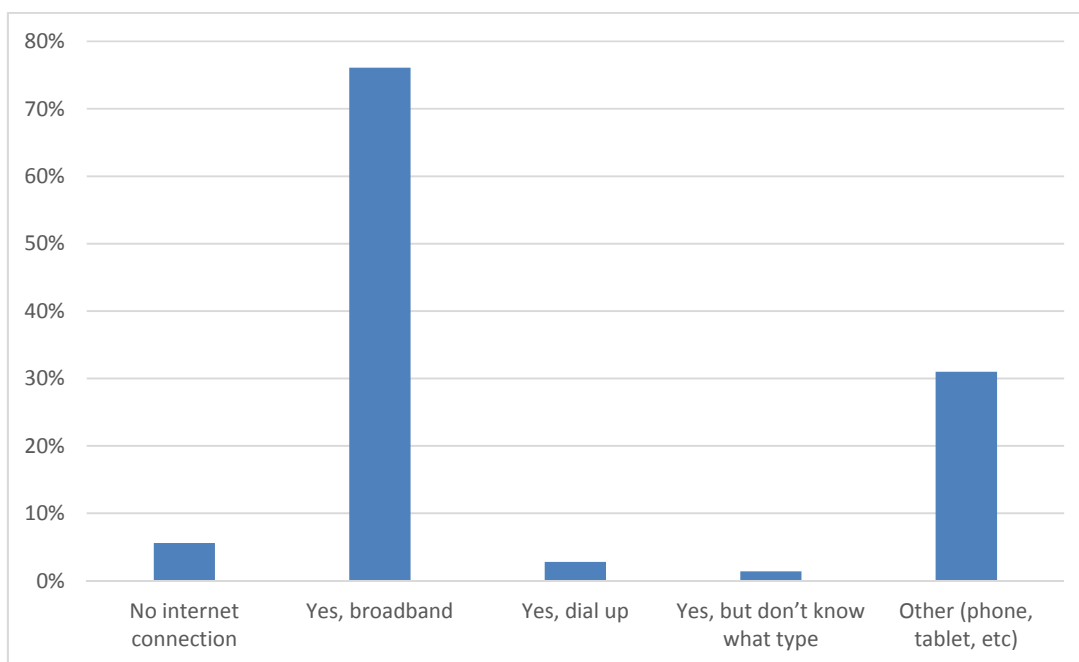
Figure 25: How often do you have telephone contact with relatives, friends or neighbours who do not live with you?



Telecommunications and technology

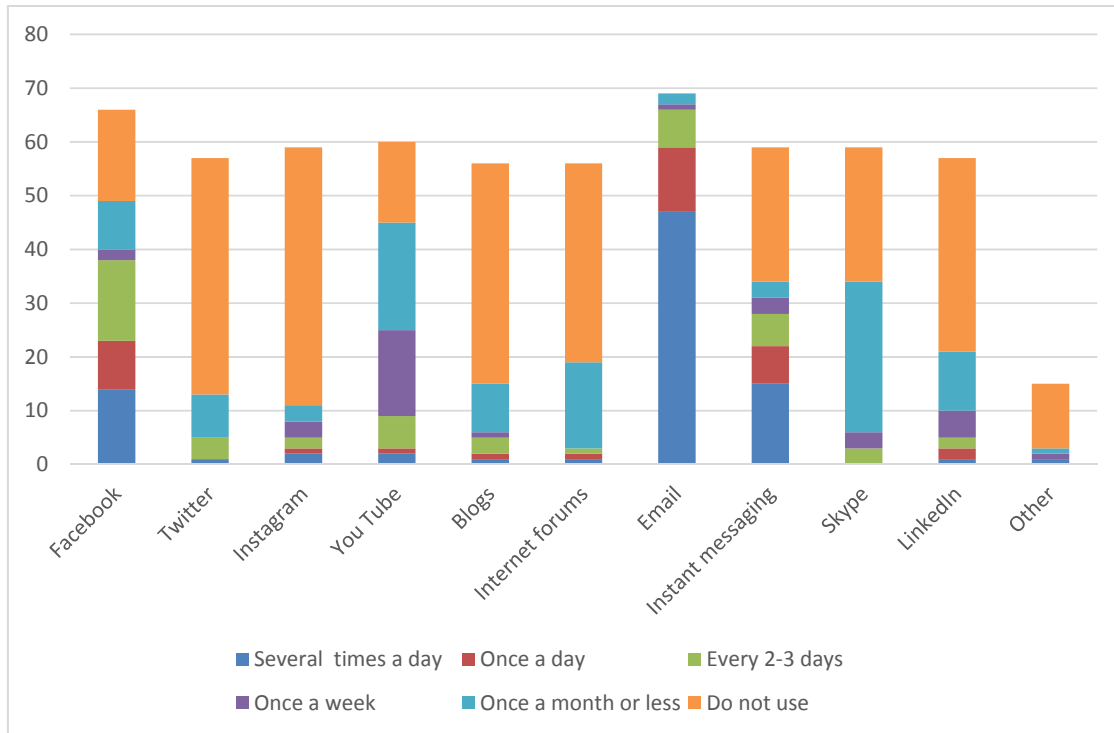
Telecommunications are an increasingly important part of social and economic life and Figure 26 presents data on access to the internet. In interpreting these data it is important to note that most people who complete an online survey will do so at home (with the library or a friend's home being another option) so there is the potential for a pronounced selection bias in these data. Only five per cent of respondents reported that they did not have an internet connection at home, while an additional three per cent relied upon an analogue dial up system, with 75 per cent reporting a broadband connection. Some 31 per cent of respondents used, and may have relied upon, a phone based internet connection.

Figure 26: Does your household have an internet connection?



Respondents to the survey used a wide array of social media, with Twitter, Facebook, blogs and internet forums amongst the most popular (Figure 27).

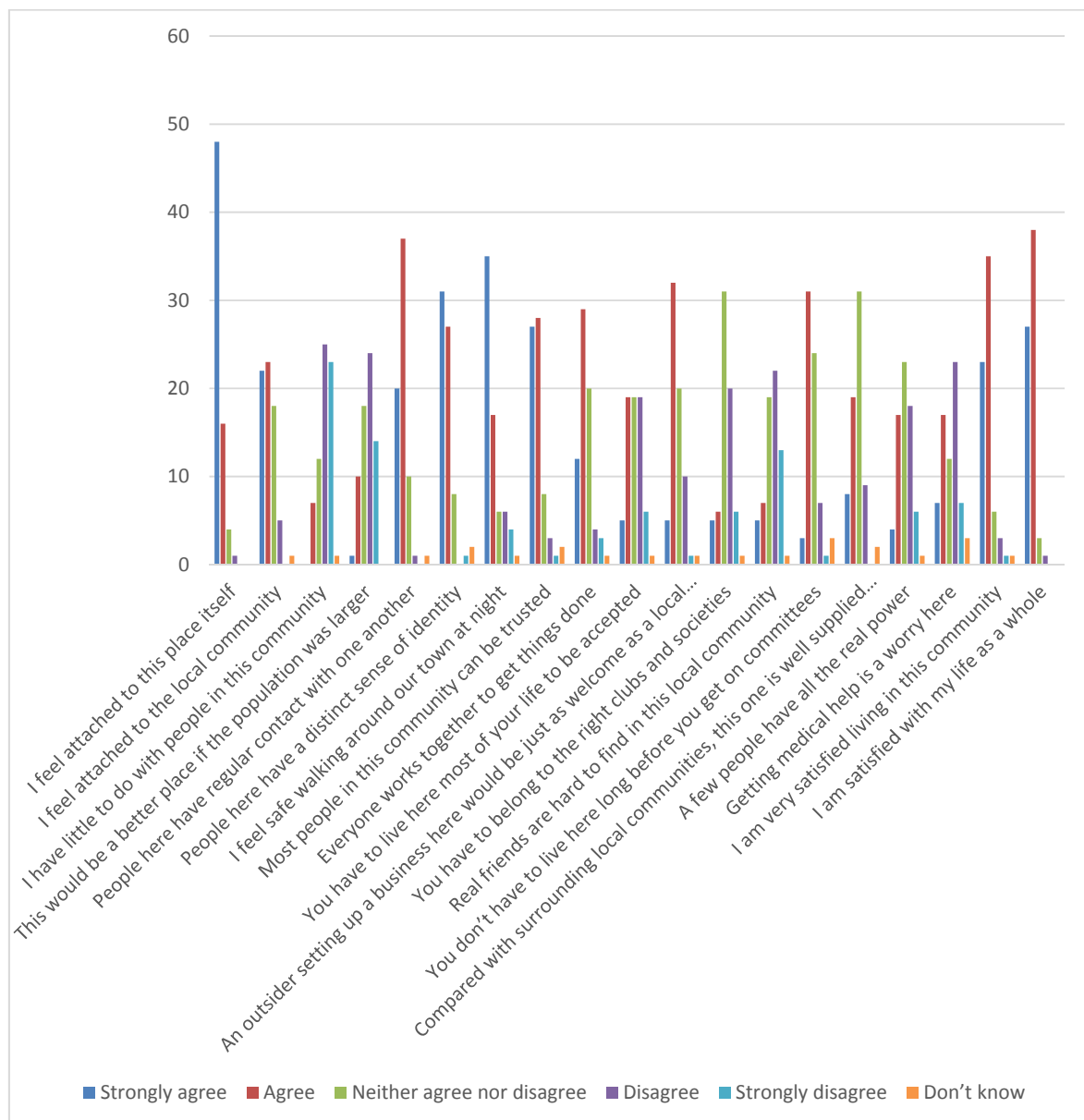
Figure 27: What types of social media do you use and how often?



Sense of belonging and the impacts of development

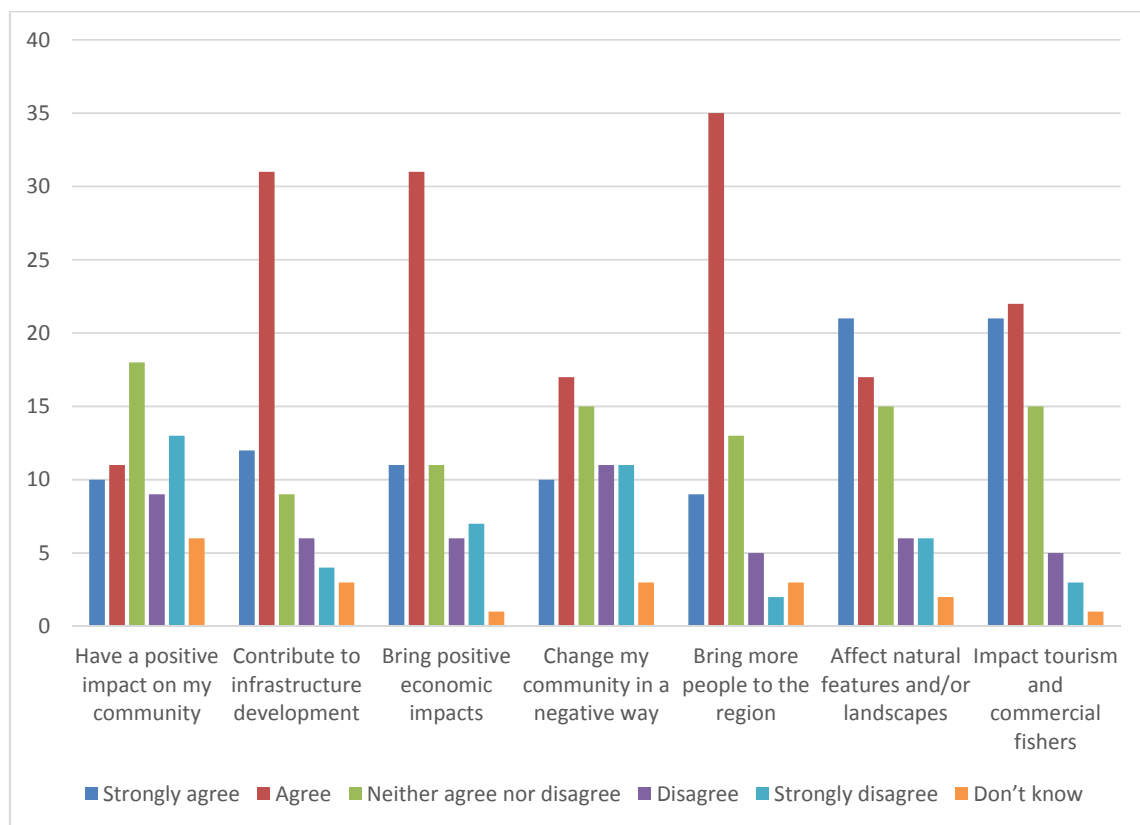
A strong sense of belonging to a community or place is often associated with life in rural settings. As Figure 28 shows, a clear majority of participants in the online survey felt a strong connection to the Eyre Peninsula west coast region, and reported a high degree of satisfaction with their life there. There was a very strong sense of place attachment, and a well-developed appreciation of the community that people live in. There was also an implicit acknowledgement that local communities may be somewhat closed, with new arrivals taking some time to achieve acceptance and inclusion. There was a high level of trust for neighbours, and an awareness of the frequent contact between individuals and households

Figure 28: Sense of belonging



Respondents were asked a series of questions on the impacts they expected to emerge from any development in the GAB (Figure 29). On the positive side, most respondents felt any development would result in gains for infrastructure provision, a modestly favourable impact on their local communities, and positive impacts on the economy of the west coast and Eyre Peninsula. Few respondents believed development would have a negative impact on their community, but did foresee population growth as a result of this development. This implies an acceptance of population growth as a desirable outcome, and also reinforces the findings of the focus groups where many respondents noted the impacts of population loss with some considerable concern. Their concerns and fears of negative consequences related to the environment, they believed that development in the GAB would affect natural features and landscapes, and that development would potentially have a negative impact on tourism and commercial fishers.

Figure 29: Offshore exploration and drilling, and possible subsequent onshore development, will:



Conclusion

The analysis of the online survey provides additional insights into the social and economic dynamics of the Eyre Peninsula and west coast. The findings reinforce many of the key themes already evident from the review of the literature, the analysis of one on one interviews, and from the focus groups: the environment is highly valued by the population of the EPWC; the region offers a high degree of amenity and an attractive lifestyle that individuals appreciate; the community is open to the prospect of further growth and is concerned about population loss; and, there is a high degree of social cohesiveness in many parts of the region, notwithstanding the differences between the Aboriginal and non-Aboriginal populations.

Specifically, the survey allows us to conclude that:

- The Eyre Peninsula population makes considerable use of its natural environment and takes a high level of interest in the assets and resources it offers;
- Social activities on the Eyre Peninsula tend to be focused on sporting activities, as well as informal interactions with friends and neighbours;
- There is a strong tradition of voluntary activities on the Eyre Peninsula, especially with respect to sport, environmental groups – including Landcare – and local economic development associations;
- There is strong community engagement with issues of political and economic importance, especially at the local level. It is important to note that many respondents to the survey had taken action against terrestrial mining;
- There are strong stocks of social capital in the region, with many residents providing support to others within the community. This has included providing personal care to others, offering transport to a neighbour or friend and unpaid baby sitting or care;
- The overwhelming majority of respondents to the survey reported that they had others within the community they could turn to if they needed assistance. Very few (under 5 per cent) reported that they had no one they could turn to;
- Friends and family members were seen to be the most important sources of support in a crisis. Neighbours and work colleagues were also considered important;
- There was a high level of social interaction amongst the respondents, with most reporting a high level of communication with friends and relatives;
- More than 60 per cent of respondents reported that they could find assistance from someone outside their household if they needed advice on what to do, emotional support, help in maintaining family or work responsibilities, emergency money, emergency accommodation, or emergency food. This is a high level by the standard of contemporary Australia;
- Most households had a broadband connection to the internet, although 30 per cent did not and relied upon mobile-phone based services or similar technologies for connectivity;
- There was a high level of social media use;

- Overall, respondents to the survey saw both positive and negative impacts arising from offshore exploration and drilling, with the consequent potential for subsequent on-shore development.
 - They saw such development as having a number of positive impacts, including contributing to population growth, helping with the supply of new infrastructure for the region and bringing new jobs and businesses to the Eyre Peninsula.
 - The respondents also acknowledged that the development may have negative impacts on community functioning (though support for this was somewhat muted) and was likely to have a negative impact on natural features and landscapes.
 - Respondents had a clear perception that development had the potential for a negative impact on tourism and commercial fishers.

SOCIAL IMPACT ASSESSMENT

Introducing Social Impact Assessment

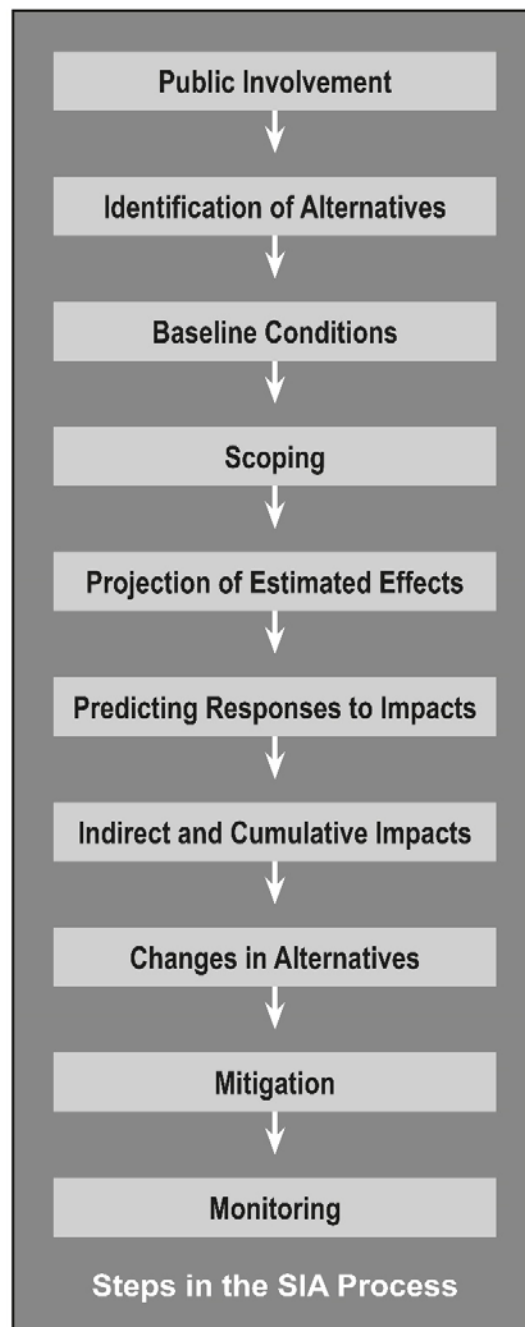
Social Impact Assessment (SIA) is a technique developed by a number of disciplines in the social sciences that is focused on anticipating change and measuring – or assessing – the likely impacts before they arise (Coakes 1999 p 4). It is a method that draws upon a range of disciplinary perspectives and is focused on answering real world questions, especially in the context of major developments in mining, agriculture, fisheries and major infrastructure projects. SIA differs from other forms of evaluation – such as environmental impact assessments, resource assessments or economic shock (supply and demand), in that it focusses on the ways in which people live their lives, it considers cultural issues and it affords a central role to the community and the institutions that support it. SIA is often considered to be an essential tool in delivering sustainable development as it encourages better social and environmental management. It also promotes better planning processes for major developments, being embedded in the early planning stage of proposals.

Impact assessments are often linked to broad social and public policy goals, including the aspiration to provide government departments and the private sector with a better understanding of the histories, culture and institutions of places affected by change. It is also considered a tool for delivering social cohesion, as a mechanism for promoting equity and as a tool for identifying the opportunities, constraints and impacts of policy design and implementation (Queensland Co-ordinator General 2013 p 3).

SIA aims to understand the consequences of a proposed change or development before they arise, helping decision makers in the public and private sectors make better-informed decisions about whether to proceed, and which options to pursue. SIA has been used in a range of settings and industries, including mining, residential development, the construction of power stations, the upgrading of transport systems and in the planning for major water infrastructure.

The Interorganizational Committee on Guidelines and Principles for SIA (1994) mapped out a 10 stage process for Social Impact Analysis, with the capacity to produce robust evidence for governments, communities, industry and other stakeholders. A schematic of these processes is set out in Figure 30.

Figure 30: SIA Principles and Processes



Source: Interorganizational Committee on Guidelines and Principles for SIA (1994)

This 10 stage model of SIA can be truncated into three phases (Burdge and Vanclay 1995):

1. Assessment and Prediction;
2. Mitigation and Monitoring; and,
3. Audit and Analysis.

The **Assessment** phase of SIA is focused on identifying the likely impacts of a proposal prior to implementation or scoping. It involves two main tasks: scoping the issues associated with the proposal and profiling the area likely to experience change in order to better understand the community likely to be affected by change. The Queensland Co-ordinator General (2013) considered the social profiling to be an essential part of the assessment phase. Coakes (1999 p 3) suggests the scoping task includes:

- Identifying all possible and likely social impacts – positive and negative;
- Identifying the geography or boundary of the impacts; and,
- Focussing the SIA on questions of relevance to critical stakeholders and communities.

While profiling provides a description of the social environment in order to provide a basis for understanding and assessing transformation. Typically, it involves:

- Compiling and assessing social indicators;
- Describing change over time;
- Identifying critical issues of the moment; and,
- Evaluating the relevant political and economic structures.

Some of the impacts that an assessment should look for include changes in the way people are able to live their lives, cultural impacts, community impacts – e.g. an impact on the sense of place, aesthetics or heritage – and, health impacts (Queensland Co-ordinator General 2013 p 5).

The assessment phase is paired with a **Prediction** stage, which uses the available data to forecast likely impacts on the community. These insights can be informed by discussions in focus groups, interviews with key stakeholders, community workshops and through formal questionnaires. Where negative effects are predicted, the assessment stage of the SIA is used to identify those steps needed to **Mitigate** these impacts (Coakes 1999). Finally, an **Audit** is undertaken at the completion of the process to test the value of the predictions made, and the robustness of the methods deployed. The Audit phase should include the analysis of change over time, and should include:

- A list of identified impacts and challenges;
- The discussion of targets and outcomes sought;
- A description of how management of any impact will be monitored;
- The identification of institutions, individuals or others responsible for undertaking on-going appraisal and data collection;
- A well-defined schedule for monitoring, with specific time frames documented;

- The establishment of informative, relevant and measurable performance indicators – such as a dashboard or a similar metric.

SIA should include public consultation and involvement and be informed by 9 guidelines (Interorganizational Committee 1994; Coakes 1999 p 4):

1. Involve the diverse public;
2. Analyse impact equity – that is, clearly identify winners and losers from the development;
3. Focus the SIA on issues and matters that are important, not trivial or those that are simply easily quantified;
4. Identify the methods used, the assumptions taken and their likely impact on the SIA;
5. Provide feedback on social impact to project planners;
6. Use trained social scientists to undertake the work;
7. Establish monitoring and mitigation programs;
8. Identify data sources; and
9. Consider gaps in the data, that is, what has been missed because data is absent?

Social Impact Assessment methods

Importantly, there is no single, set method for SIA. Rietbergen-McCracken and Narayan (1998) identified workshop based methods and participatory assessment methods as equally valid, while Taylor et al (1998) documented multiple techniques, including:

- Comparative analyses;
- Straight line trend projection;
- Population multiplier methods;
- Statistical significance means;
- Scenario development and assessment;
- Expert consultation; and,
- Calculation of futures forgone.

Each approach calls for different types of data and puts forward different challenges for those involved in the SIA. Importantly, these issues have been dealt with by different groups of researchers in different ways, which in turn highlights the fact there is no set methodology for SIA. Instead, there is a clear focus on addressing key questions, canvassing a range of concerns individuals may have across policy domains, establishing a process to monitor change over time and providing feedback to communities. SIA may also explicitly consider issues of mitigation/compensation.

Applying Social Impact Assessment to the Great Australian Bight

The remainder of this section addresses an SIA for the Eyre Peninsula and the GAB in the light of all activities – i.e. the aggregate impact of all exploration and possible development. It is organised along the lines of the 3 key phases identified by Burdge and Vanclay (1995) and the 10 guidelines (Fig 30) nominated by the Interorganizational Committee on Guidelines and Principles for SIA (1994).

It is important to acknowledge that this report cannot make a substantial contribution to the third major phase of SIA – Audit and Analysis – because such action requires a longer time frame, including the monitoring of change as a new development is implemented. In the case of the GAB proposal, this may mean a process of monitoring that commenced in 2014 and may continue for as much as 50 years. Undertaking an initial assessment, however, is a worthwhile process as it documents a baseline for assessing future transformation.

Identification of alternatives

SIA calls for the identification of alternatives, including the likely scenarios that may emerge if development takes place, and those likely to eventuate if the proposal does not proceed. Such predictions need to be undertaken and interpreted with a degree of flexibility. The Interorganisational Committee on Guidelines and Principles for SIA (1994) suggested that it was important to identify precisely the nature and potential impact of proposed development including, at a minimum:

- Locations;
- Land requirements;
- Needs for ancillary facilities (roads, transmission lines, sewer and water lines);
- Construction schedule;
- Size of the work force (construction and operation, by year or month);
- Facility size and shape;
- Need for a local work force; and,
- Institutional resources.

Taking each in turn, the proposed development for the GAB has the following requirements based on our knowledge of the proposed exploration work as of 2015:

Locations: Both exploration and any resource development will take place on the edge of the continental shelf. These sites are not visible from the shore and beyond recreational fishing areas.

Land requirements: The call for new or additional sites to be developed is negligible, especially relative to the size of the Eyre Peninsula and west coast land mass;

Need for ancillary facilities: Some ancillary facilities will be required as the project rolls out, with some limited environmental clean-up facilities proposed, and the potential demand for improvements at the airport and associated facilities. It is important to acknowledge that these

proposed changes are seen by the community as a potential positive, with the possibility of benefits for everyone in the community;

Construction schedule: The precise construction schedule is unclear and partly contingent on environmental approvals. However, there will be no substantial or large-scale construction activity in the region;

Size of the workforce: The labour market impacts on the region are likely to be very modest. Those working in the exploration and – potential – development phase are likely to be sourced and supported out of Adelaide, with the possibility of flying in via Ceduna;

Facility shape and size: Marine platforms are proposed for this development with virtually no terrestrial footprint;

Need for a local workforce: The demand for employees locally is likely to be extremely limited. Some additional staff will be required, but may call for skill sets not found within the local labour market;

Institutional resources: The proposal has the support of the South Australian Government and the goodwill of many local governments.

Baseline conditions

This research project has extensively considered the baseline conditions in the Eyre Peninsula and West Coast regions and many of these findings have been the subject of the earlier reports associated with this project (Thredgold et al 2014). The Interorganizational Committee (1994, Section 3, p 10) suggested an appropriate baseline condition component to an SIA would:

‘...examine the relationship with the biophysical environment, including ecological setting; aspects of the environment seen as resources or problems; areas having economic, recreational, aesthetic or symbolic significance to specific people; residential arrangements and living patterns, including relationships among communities and social organizations; public attitudes toward environmental features; and patterns of resource use.’

This project has undertaken a baseline investigation and some of the key conditions identified in the social and economic profile of the region include:

- There is a strongly developed sense of regional identity in the Eyre Peninsula and west coast regions, with individuals strongly associating with the places in which they live;
- Many people place a high value on the quality of their environment – including the marine environment – and attach considerable importance to both its intrinsic value and the recreational opportunities it provides;
- The region has a strong, export-focused economy, largely reliant on the production of primary products – grains, seafood, livestock etc.

- Informants noted that the region's 'clean, green' image was an advantage in the global marketplace;
- There are a number of proposals in train that offer the prospect for further economic growth and these include the development of iron ore deposits in the centre of the Eyre Peninsula, a proposed graphite facility near Port Lincoln and further development of the regions aquaculture and tourism assets.
- The Eyre Peninsula population is small relative to its size, with modest population growth in the coastal settlements and a widely distributed process of population decline in inland regions;
 - Port Lincoln has recorded sustained growth over recent years as a result of developments in fisheries and aquaculture, the strengthening of tourism and leisure employment and through the provision of services;
 - Informants reported that inland farming communities are dwindling as farm amalgamations and new technologies result in larger farm size, farm families move to coastal centres in order to find a better social environment and the possibility of employment for the partner. Farming is then undertaken remotely, with sensing equipment and week day travel;
 - The focus group at Kimba noted that the town's population was below 1,000 persons for the first time at the 2011 Census;
- The region continues to lose its youth who migrate to Adelaide and other larger centres in search of education and employment opportunities;
- The region has a substantial Aboriginal population, and in some places there is a strong sense of division between the Aboriginal and non-Aboriginal populations;
- There has been a notable, but relatively small scale, movement of older people to attractive coastal locations on the Eyre Peninsula;
 - Many of these retirees have come from other parts of the Eyre Peninsula or elsewhere in regional South Australia;
- Over the past decade there have been a number of proposals to develop mines and promote other resource developments in and around the Eyre Peninsula, this has included graphene and iron ore deposits;
 - The current price of iron ore means that development of these resources in the short term is unlikely;
- Many of these proposals have been resisted by local communities, especially farming communities;
- Services are concentrated in the major urban centres on the Eyre Peninsula, especially Port Lincoln;
 - Access to services, especially health services, can be poor to very poor, especially in the more remote parts of the Eyre Peninsula;

- The labour market presents significant challenges for the local population, with relatively little skilled or professional employment and a tendency for seasonal employment;
- The Eyre Peninsula has considerable strengths as a community:
 - The population makes considerable use of its natural environment and takes a high level of interest in the assets and resources it offers;
 - Social activities on the Eyre Peninsula tend to be focused on sporting activities, as well as informal interactions with friends and neighbours;
 - There is a strong tradition of voluntary activities on the Eyre Peninsula, especially with respect to sport, environmental groups – including Landcare – and local economic development associations;
 - There is strong community engagement with issues of political and economic importance, especially at the local level. It is important to note that many respondents to the survey had taken action against terrestrial mining;
 - There are strong stocks of social capital in the region, with many residents providing support to others within the community. This has included providing personal care to others, offering transport to a neighbour or friend and unpaid baby sitting or care;
 - The overwhelming majority of respondents to the online survey undertaken as part of this study reported they had others within the community they could turn to if they needed assistance. Very few (under 5 per cent) reported that they had no one they could turn to;
 - Friends and family members were seen to be the most important sources of support in a crisis. Neighbours and work colleagues were also considered important;
 - There was a high level of social interaction amongst the respondents, with most reporting a high level of communication with friends and relatives;
 - More than 60 per cent of respondents reported that they could find assistance from someone outside their household if they needed advice on what to do, emotional support, help in maintaining family or work responsibilities, emergency money, emergency accommodation, or emergency food. This is a high level by the standard of contemporary Australia;
 - Most households had a broadband connection to the internet, although 30 per cent did not and relied upon mobile-phone based services or similar technologies for connectivity;
 - There was a high level of social media use.

Scoping

The goal of the scoping phase of SIA is to understand the full range of probable social impacts associated with a development, with both the impacts forecast by the proponent and by the local community needing to be assessed. Within the SIA framework, scoping needs to pay attention to the views of affected

individuals and communities and within this research, this requirement has been met through the extensive involvement of local community members and stakeholders.

The Interorganizational Committee (1994) suggests that any scoping exercise needs to examine the following:

- The probability of the event occurring;
- Number of people including Indigenous populations that will be affected;
- Duration of impacts (long-term vs. short-term);
- Value of benefits and costs to impacted groups (intensity of impacts);
- Extent that the impact is reversible or can be mitigated;
- Likelihood of causing subsequent impacts;
- Relevance to present and future policy decisions;
- Uncertainty over possible effects; and
- Presence or absence of controversy over the issue.

The analytical framework recommended by the Interorganisational Committee (1994) is operationalised in Table 11 below. Each of the analytical domains identified is presented below.

Table 11: Impact Matrix

| | Exploration Proceeding to Drilling Based on the Subjective Interpretation of the Available Data |
|--|--|
| The probability of the event occurring; | Negligible for BP, possible for Chevron |
| Number of people including Aboriginal populations that will be affected; | Very small |
| Duration of impacts associated with drilling (long-term vs. short-term); | Short term |
| Value of benefits and costs to impacted groups (intensity of impacts); | Few benefits but few costs |
| Extent that the impact is reversible or can be mitigated; | Any Impact likely to be reversible |
| Likelihood of causing subsequent impacts; | Low |
| Relevance to present and future policy decisions; | Low |
| Uncertainty over possible effects; and, | Low |
| Presence or absence of controversy over the issue. | Controversial |

Probability of event occurring: There is a possibility that exploration wells will be drilled in the Great Australian Bight and, while BP announced in October 2016 that it will not proceed to drilling, Chevron indicated its intention in November 2016 to drill up to four exploration wells.

Number of people including Aboriginal populations that will be affected: In reality, very few people will be affected in the exploration phase, with drilling crews sourced from outside the region and supplied out of Adelaide. Any disruption to iconic species will have economic impacts and call into question the ‘clean, green’ image of the Eyre Peninsula and the GAB. Aboriginal people in particular are likely to be affected by adverse events, and this applies to both those still connected to their traditional country, as well as those moved as a consequence of colonisation and other processes.

Duration of impacts: Exploration is likely to have short term impacts on the population.

Value of benefits and costs to impacted groups: The development of exploration wells is likely to generate few benefits – and few costs – for local communities. There may be some short term advantages that accrue to the Eyre Peninsula region in the short term – such as infrastructure or facility upgrades – but these will not reshape the future of the region.

Extent that the impact is reversible or can be mitigated: Any impacts associated with the exploration phase are likely to be reversible or can be mitigated – short of a catastrophic incident (which is unlikely). The recovery of the populations of some iconic species in recent years and decades suggests there is a degree of resilience, and the exploration phase will be relatively short lived.

Likelihood of causing subsequent impacts: There are unlikely to be any knock on impacts associated with exploration.

Relevance to present and future policy decisions: Risk is an important part of the policy environment. Any adverse impacts are likely to erode political and community support for development, and the recognition of risk is likely to fuel further controversy.

Uncertainty over possible effects: There is a low degree of uncertainty over the likely impacts as this SIA only considers exploration phases. Exploration in the GAB is a small scale activity and in many respects a well-established technology, even if drilling – if it were to occur – would be at the frontier of proven technologies. Opponents to the exploration argue that local conditions, especially wave heights in winter and spring generate a challenge for our current technology.

Controversy: The proposed development is controversial, even in the exploration phase. In part this controversy is a product of well-developed and organised opposition from a number of community groups. There is evidence that this opposition – often externally organised – has had an impact in the Eyre Peninsula and west coast regions. Some of this opposition is opposed to fossil fuels generally, not just the development discussed here.

Projection of Estimated Effects

The Interorganisational Committee (1994) suggests that social impacts should be formed with a view to understanding what is likely to occur in the absence of the proposed development taking place, and what is likely to occur with the proposed development being implemented. The critical issue, is the difference

between the two forecasts. In making these projections, researchers are called upon to examine a range of sources that may include:

- Data provided by project proponents;
- Records of previous experience with similar actions as discussed in the research literature, or associated with comparable projects;
- Census data;
- Documents and secondary sources;
- Field research, including informant interviews, hearings, group meeting, and surveys of the general population.

For this study, the most significant resources for the formation of projections are the research literature, Census data, secondary sources and field research.

This SIA employs a scenario methodology, which the Interorganizational Committee (1994) typified as:

‘Logical-imaginings based on construction of hypothetical futures through (1) a process of mentally modelling the assumptions about the variables in question; and (2) fitted empirical-similar past cases used to analyse the present case with experts adjusting the scenario by taking into account the unique characteristics of the present case.’

This method has similarities with the ‘future foregone’ approach, which seeks to determine the options for development or future growth irrevocably removed as a consequence of the proposal proceeding. Previous experience with comparable development is critical for the estimation of future impacts, and may not be codified in the research or ‘grey’ literature. In the case of the GAB proposal, there are few directly comparable developments to draw on, as most offshore drilling is undertaken in relatively shallow water when compared with the GAB, the technologies that would need to be deployed are new, drilling in the Gulf of Mexico and in offshore basins in South America provide the only directly comparable development of similar depth, but also varies significantly from the GAB proposal because that region is much less remote than the GAB, it is more densely populated, the technology deployed at that time had not been deployed previously, and there are significant differences in ocean conditions and the characteristics of the environment. The further testing and development of these technologies should reduce risks and the perception of risk.

The overall impact of the exploration drilling phase on the region is small scale, time limited and distant from the landmass of the Eyre Peninsula and the west coast. In all likelihood:

- There will be the continuation of modest economic growth in the region, boosted to a very slight degree, by activities associated with the drilling of exploration wells and this conclusion is supported by work undertaken in project 6.2;
- Seafood and related industries may face some disruption, especially if there is a change in the movement of Southern Bluefin Tuna (SBT) or an adverse influence on the pilchard fishery (Project 6.2);
- Population change will remain on its current trajectory;

- Overall regional income will be largely unchanged;
- The overall trend for economic activity and infrastructure development in the region will be largely unchanged;
- There is a perceived risk that there may be some impact on tourism in the region, which may be significant if the migration of whales or the movement of other iconic species is affected.

Predicting responses to impacts

The Interorganizational Committee (1994) calls upon researchers engaged in SIA to assess the likely impacts of parties affected by a proposal. This includes the attitudes and actions of individuals in the light of development taking place, with opinions and views formed prior to a development serving as predictor of their future position. The Interorganizational Committee (1994) noted that

‘... fears are often overblown and that expected (often promised) benefits fail to meet expectations.’

As noted by a variety of sources (Interorganizational Committee 1994; Esteves et al 2012) predicting responses to a major development can be challenging, but recent Australian experience and primary data collection in the region suggests:

- Key leaders in the region – including local Members of Parliament, many local government leaders, the Regional Development Australia Whyalla and Eyre Peninsula (RDAWEP) etc. – are broadly supportive of the proposal. The state government and some sections of industry are supportive of the proposal (The Advertiser 2016). Other groups, including a number of industry groups are not, and may actively oppose development;
- Exploration in the GAB is likely to face on-going and strenuous opposition from environmental groups, including the Wilderness Society (The Wilderness Society 2016a, 2016b, undated), as well as locally-based groups (see InDaily 2014; 2016; Letch 2010; news.com.au 2015);
 - This opposition is likely to include legal action by a variety of groups, including Aboriginal communities, environmental groups and potentially some representatives of the fisheries industry;
 - Lobbying and other political action is almost certain to take place if a decision was taken to move to commercial production. It is important to note the sustained opposition that has taken place prior to any drilling;
 - Recent proposals to develop terrestrial mining projects in graphene, iron ore and other minerals have resulted in considerable opposition from local landholders and associated groups. It is reasonable to assume such opposition will flow over into action against development in the GAB.
- Indigenous communities are likely to protest development on cultural, as well as environmental, grounds;
 - There is no doubt that the GAB, its iconic species and the coastline generally is culturally significant for a number of Aboriginal groups;

- The proposal is likely to have few strong local advocates within the community, partly because the localised benefits for the region are difficult to identify;
 - It is likely that the local community will call for some return from economic development. There may be a call for a ‘royalty for regions’ dividend to the Eyre Peninsula and west coast Regions, as well as compensation for affected industries and Aboriginal communities;
 - The views of local political leaders are unclear, and while key government agencies support the development, their influence on wider opinion is likely to be limited.

Direct and cumulative impacts

Some of the direct and cumulative impacts that are likely as a result of the GAB include:

- Exploratory drilling – in the GAB may result in reduction of the Eyre Peninsula and west coast ‘brand’ of a pristine environment conducive to clean and green production.

The positive and negative impacts on the Eyre Peninsula and west coast regions from exploratory drilling will be very modest and may be imperceptible. None of the available literature or projections (including those produced for Project 6.2) suggest development in the GAB will generate many – if any – jobs directly in the region, especially in the exploration phase. The staff and facilities associated with emergency responses and the potential for some transiting staff appear to be the most likely positive impacts. On the other hand, the proposal appears to generate – in the absence of an adverse event – few adverse impacts. Aboriginal communities are likely to consider that exploration – and associated impacts on the environment – represents the loss of cultural heritage. Their attachment to the environment has been discussed above.

Alternative development strategies

The Interorganisational Committee (1994) indicated that SIAs need to consider innovative alternatives that have the potential to produce better outcomes for affected communities. The Committee did not prescribe a set number of alternatives or methods for evaluating the merits and de-merits of each alternative. It noted that expert judgement and scenarios can be helpful in developing project and policy alternatives, subject to the size of the available budget.

Risk analysis, impact assessment and forecast likely responses by members of the community suggest more could be done to ease community concerns, build buy-in by local stakeholders and produce better outcomes overall. This could include:

1. The development of an explicit local employment and development strategy. As understood, the proposed development in the GAB will have little impact on the economic future of the GAB, and no perceivable impact on employment. Employees and resources could be sourced locally, creating a set of local stakeholders and an elevated sense of local benefit from the proposal. It is

important to reflect on the fact that survey respondents had environmental concerns about development in the GAB but looked forward to job and infrastructure gains;

2. Community anxiety about the project appears to be an inevitable outcome of any major development of this nature. Even major projects with no measurable impacts on the environments or the population – such as windfarms – can serve as a trigger for community unease. It is clear from the focus group discussions and the online survey that members of the Eyre Peninsula and west coast communities have a very partial understanding of every aspect of the proposal – including the completed exploration phase – and in part this reflects the lack of awareness of publicly available information. It is notable that the Wilderness Society and other opponents of the project have been the most visible and active sources of information on the project. It is noted that BP already appears to have moved via community consultations to establishing a social licence to operate prior to any formal development;
3. The project proponents should explicitly reach out to local communities – including Aboriginal communities – to help establish social capital that could form the basis of a longer term relationship. While it is clear that BP has engaged in community consultation over the life of the project, such efforts need to be sustained and enhanced in order to build trust and a shared understanding with communities.

The development of mitigation measures and strategies

The Interorganizational Committee (1994) argued that:

‘A social impact assessment not only forecasts impacts, it should identify means to mitigate adverse impacts. Mitigation includes avoiding the impact by not taking or modifying an action; minimizing, rectifying, or reducing the impacts through the design or operation of the project or policy; or compensating for the impact by providing substitute facilities, resources, or opportunities.

Ideally, mitigation measures are built into the selected alternative, but it is appropriate to identify mitigation measures even if they are not immediately adopted or if they would be the responsibility of another person or government unit.’

The Interorganizational Committee’s recommendations in the area of mitigation were developed in the North American context and explicitly considered cash payments as a mechanism for compensating affected parties. This dimension of SIA is unlikely to be relevant for the GAB, given that many who would oppose development do so on the basis of principle, rather than in response to material loss. Mitigation payments may well be feasible for industries affected, or vulnerable to be affected – for example oyster farming if a spill occurred.

Monitoring as development proceeds

The final stage identified by the Interorganisational Committee (1994) was the development of a monitoring plan intended to track project and program development and compare the implementation of the development with the forecast impacts. The Committee (1995) argued that it should spell out (as much as practical) the nature and dimension of the actions needed should unanticipated impacts occur.

Importantly, the establishment of a detailed monitoring program is impractical until more is known about the nature of development, whether commercialisation will proceed beyond the exploration stage, the extent of any development, and – potentially – the nature of developments taking place in the same broad region but by other commercial interests.

It is clear that in the event of large scale development taking place there is an on-going need for monitoring of community attitudes, economic structure and social institutions in the Eyre Peninsula and west coast regions. The materials developed through this project provide a firm foundation for examining change over time and should provide a solid footing for understanding shifts as they occur. Periodic data collection on a predictable cycle – say every three years – and the public release of the outcomes will help mitigate social impact and build a greater awareness of issues. Ideally, such monitoring should be extended to include community input and participation in the design, implementation and evaluation of outcomes. Such ‘citizen science’ and participatory approaches reflect current understandings of best practice in SIA (Esteves et al 2012). Clearly, Aboriginal communities should be embedded in this process, including authorship of outcomes.

Some of the key issues to be considered in an enduring monitoring program include:

- Community attitudes on the balance between economic development and commercialisation of the environment;
- The cost of the monitoring program;
- The attitudes of leaders within key industries and the broader environment;
- Public awareness of development proposals and the degree of awareness of measures being implemented;
- The perceptions, attitudes, and outcomes for the Aboriginal communities in the region, including employment, education and health;
- Perceptions as to the quality of the environment;
- The level of concern with the quality of the natural environment; and,
- Concern with environmental issues and opposition to developments generally.

These are issues that can be assessed on an on-going basis with relative ease, and represent a worthwhile investment in understanding the Eyre Peninsula and west coast communities.

This section has considered the options for the development of mitigation and assessment measures for implementation. Importantly, the section suggests that mitigation measures, as a form of compensation have limited applicability in this instance, as opponents to the project object on principle, rather than act in response to a perceived loss of material benefit. There is more value to be found in thinking of mitigation as a mandate to implement best practice in all aspects of the proposed development and communicate those efforts to the community.

Secondly, there is a clear and enduring need to monitor the impact of the proposed development on the community. Whether the project proceeds to commercial development or not, some sections of the

community will be concerned and may feel aggrieved. Providing individuals with high quality information and the opportunity to be heard is the only way to make progress on this issue.

CONCLUSION

This study was undertaken with the objective of establishing a clear understanding of the economic, commercial and social features of the Eyre Peninsula and far west coast of South Australia. The study was initiated in recognition of the fact that the region may be affected by oil and gas industry development in the Great Australian Bight (GAB) and that understanding the nature and extent of any potential impact would be critical for decision making.

This literature review and community analysis provides the background to the continuing systematic and detailed understanding of the social structure of the Eyre Peninsula and west coast region of South Australia and has been prepared under Theme 6 of the Great Australian Bight (GAB) Research Program. This study summarised the formally published and 'grey' research into the nature and structure of communities living in the EPWC region. The collection and review of information from publicly available sources, including social media, was included as an important part of and continuous process during the life of Project 6.1.

The project was established with the goals of:

1. Providing a description of the region's social structure and the processes currently driving change;
2. Identifying community perceptions with respect to the potential impact of proposed development activities in the GAB on the region, including the potential for onshore developments; and
3. Developing an understanding of the region's capabilities and capacity, to take advantage of future developments.

In undertaking this project we have drawn upon a range of information sources, including the Australian Bureau of Statistics (ABS) Census data. Primarily 2011 Census data⁵ have been used where available to provide information about populations in the 11 Local Government Areas (LGAs) plus the unincorporated west coast that make up the study area. Existing reports were gathered from stakeholders and communities to build a picture of the communities living in the study area. This literature included government plans and policies, information from planning projects conducted in the vicinity of the study area, academic research, media reports (including social media) and community based websites.

In undertaking this study we interpreted the socioeconomic environment as referring to a wide range of interrelated and diverse aspects and variables relating to, or involving, a combination of social and economic factors. These aspects and variables include, economic, demographic, public services, fiscal and social variables and embrace:

⁵ Used at the LGA level, unless otherwise stated.

- Community life as well as social and cultural attitudes and values;
- Community and public services such as housing and infrastructure;
- Demographic aspects including population profiles, distribution and density; and
- Economic factors including general characteristics, structures and changes, various economic activities and employment.

This socioeconomic profile provides a snapshot of the social, cultural, economic and political conditions of individuals, groups, communities and organisations living in the EPWC region. The profile that has been developed here is intended to both inform decisions and provide a baseline of socioeconomic conditions in the study area.

Importantly we find that the EPWC region has a relatively small population scattered over a large area. Despite its sparse population it is comprised of complex communities including:

- Significant Aboriginal populations, some of whom continue to live on traditional Country and maintain many cultural practices (including language and for some a semi-nomadic lifestyle), while others have a more contemporary lifestyle;
- Populations of persons born overseas and their children and grandchildren living in communities that identify strongly with their place of origin;
- Dryland farming communities;
- Fishing and aquaculture communities; and
- An increasing population of retirees.

Change has been evident in the communities of the EPWC over the last three decades, including a decline in employment associated with conventional agriculture, the rise of aquaculture and value-added fishing and the cyclical emergence of mining and tourism, both in the recent past and in prospect. Today, the region has a complex socio-economic structure based on a wide range of industries and communities – but is also confronted by significant challenges including population loss in its interior, restricted water supply, emerging shortages in electricity and other infrastructure, a limited skills base, out-migration of youth and deep seated divisions between the Aboriginal and non-Aboriginal communities.

As part of the study we undertook extensive interviews with key informants and many had considerable insights into the factors affecting the EPWC, the socioeconomic baseline and the future trends.

The one-on-one and targeted interviews canvassed the views of a range of individuals active in the region. Their interests covered a wide set of perspectives, including environmental, political, Aboriginal and broader community views and provided a window into the diversity of issues across the region.

Environmental concerns were an important part of the qualitative data collection undertaken as part of this project. Informants presented a number of views including:

- The argument that the GAB is one of the most pristine marine ecosystems on the planet and that it is important to preserve it;

- The GAB is an important habitat for Southern Right Whales and especially whale calving, and the ecosystem therefore needs to be maintained;
- Proposals to develop resources in the GAB carry with them a number of risks, including the consequences of an accident on-site during exploration and/or extraction, as well as the release of additional fossil carbon into the atmosphere, with subsequent impacts on climate change.

Environmentally focused informants felt that it was important project proponents released their modelling and other data as quickly as possible, and that the community needed to be kept informed at all stages of the project. They also expressed their concern at the additive impact of exploration activity in the GAB, suggesting current licence conditions may result in the sinking of 15 wells by 2020.

Stakeholders focused on issues associated with the economic development of the region had a different set of concerns, in particular the need to identify future economic development opportunities, the adequacy of infrastructure, the challenge of updating regional plans and the issue of skills within the workforce. When asked to nominate the most pressing issues, respondents noted that gaps in regional planning was a major limitation with no structural plans in place to guide development. The absence of these plans also makes it difficult to co-ordinate development. The adequacy of infrastructure was a second pressing concern for economic development professionals, with some of the key issues being gaps in:

- Water supply and treatment. There is a need to establish third party access to distribution networks in order to open up new sources of water to the market;
- Export infrastructure, including wharves;
- The adequacy of vocational training for employment opportunities, with the closure of some TAFE facilities and the downsizing of the university presence in Whyalla. There is a need for tailored education to meet regional needs;
- Power transmission – with power supply capacity fully taken up and old lines needing to be replaced. The power provider – Electronet – have plans in place to transmit twice the power, but want a contract, and would be willing to accept a consortium of users. Plans for the lines are in place and the environmental assessment has been done, but Electronet want a large new customer, but the possible customers won't invest unless the power is already in place. "We need another mine opening to be approved."

Economic development professionals in the region reported that the adequacy of the skills in the labour force – that is, the quality of human capital – is a limiting factor for the development of the region. Respondents noted that the seasonal nature of much employment meant that many individuals needed training across industries and sectors. Agriculture is still the main industry, but is employing fewer people, and this affects small communities. The central peninsula towns are shrinking; the coastal towns are growing with retirements.

The Eyre Peninsula has a small population and often lacks the critical mass needed to meet the needs of growing industries, including aged care. For this reason, strategies that deliver population growth are

considered important for the region. Similarly, there was a view that having 11 councils for a population of 56,000 was somewhat inefficient – with nine councils covering the 20,000 people living outside Port Lincoln and Whyalla. The youth and some families leave the area for education, further education and work. Some return years later, but there is not usable data on who returns, when and in what numbers. The region needs educational institutions for family stability. There is also a need to maintain the health workforce. By 2020 those reaching 65 and retiring will decimate our workforce by 40 per cent – we will need 3,800 new workers in the region.

Being able to meet the aspirations of Aboriginal Australians on the Eyre Peninsula was an acknowledged priority. The region has a much higher Aboriginal population than many other regions and economic growth and employment is needed to lift their health and living standards. They are trying different education models in primary schools, but students fall behind in high school, and that leads to lower attendance. Literacy and numeracy are also a problem. School funding varies with the numbers attending. DECS need to come to the region and learn about Aboriginal people.

Overall, economic developers felt there was a real and pressing need for a stronger evidence base on the needs of the region. And this evidence was needed in order to generate stronger argument for additional resources. Some of the key issues they identified included:

- The need for on-going consultation with all development proposals, including those for development in the GAB;
- That there is a diversity of views across the region on a range of issues, and it can be difficult to find consensus;
- Drought and seasonal conditions affect farming, and the relative stability in many communities currently reflects a run of good seasons;
- Some individuals fear a change to their sense of place and are therefore opposed to development;
- There was acknowledgement that single industry towns and regions are confronted by considerable exposure to change;
- It was argued that the region has a diversified industry base, and that oil and gas would add to that diversity. Mining has grown fast, but off a very low base and subject to significant cyclical economics and activities;
- There is a regional theme or concept of quality. This is a unique environment and there are opportunities to “value-add”;
- Many leaders believe there is a need for population growth. In many regions population is declining and this has placed a strain on communities, local governments, infrastructure and economic vitality. Whilst never fully offsetting, the wider use of the NBN and related systems has the potential to generate new and diversified global business opportunities;
- Alcohol abuse remains a challenge for communities, and the reputational loss affecting these places affects their capacity to attract staff in key industries;

- Social infrastructure is inadequate and declining – an economic and population stimulus is needed to fill social gaps;
- Governmental leaders noted on-going concerns across the community with the potential environmental impacts associated with development in the GAB;
- In one community informants argued that ‘This is a resilient community – for example, the State government has downsized. The town is open to new ideas and industries. Mining exploration continues, and employs some locals. Mine trucking, support and shipping staff live in the area.’
- There has been an expressed concern within the community about the potential impact of development in the GAB on southern right whale migration patterns;
- It was noted that ‘People choose to live here for the lifestyle provided by the environment, not for convenience’;
- There is often a resistance to change locally, which was expressed by one informant as ‘the tension between expansion and too many people coming’;
- Too few employment opportunities have been created for Aboriginal people and more generally job security is poor;
- Informants noted that proposed developments in the GAB meant that infrastructure was coming to the region;
- The region is in transition, with retirees and lifestyle migrants – fishers and surfers – settling in communities in order to secure the quality of life they desire;
- There is poor access to the internet in many parts of the region, with some communities having the slowest service in the state;
- The rationalisation of farming has had a substantial impact on many parts of the region, contributing to population loss and the absence of infrastructure;
- Professional services are often very poor, with pharmacists, dentists and doctors – to name but a few – absent across large parts of the region;
- Many people are forced to leave the region in order to find work. There are too few educational opportunities in the region and many students complete high school in Port Lincoln or Adelaide;
- There is a heavy reliance on volunteers in communities – and many volunteers are ageing and not being replaced by cohorts of younger persons;
- Many respondents expected current trends to continue with increasing demands on infrastructure and further falls in resources;
- There is a need to establish good baseline data and MER program in order to plan for and develop the future of the region;
- Agriculture has plateaued – crop volumes have increased marginally and are affected by climate variability and changes in production technologies. All available land has been cleared; and
- Tourism was seen as an opportunity for the region.

Focus groups were also undertaken across many parts of the Eyre Peninsula and west coast, and included a number of very diverse groups. These discussions focused on a limited number of themes:

First – quality of life and the environment: many respondents across the focus groups noted that the EPWC offered a high quality of life and a near-pristine environment. A benign environment, a quiet lifestyle and the opportunity to both socialise and go fishing met their requirements for a successful retirement. For younger families key attractors to the region included an affordable housing market, a strong community within which to raise their children and opportunities for fishing and surfing.

Virtually all participants in the focus groups listed the environment as one of the most important features of the region. Respondents in Port Lincoln, Tumby Bay and Kimba were all able to express their appreciation for the environment and the benefits it offers. In Kimba, the wide open spaces and the prospect of camping were nominated as important attributes, while Port Lincoln and Tumby Bay residents listed fishing and site seeing as important activities.

The strong value placed on environmental quality spilled over in a number of focus groups into avowed opposition to any development that was seen to be a threat. This set of views was enunciated by both representatives of industry bodies, and members of the general community. Many focus group participants expressed significant reservations about development in the GAB, while others discussed their opposition to land-based mining. Recent proposals to develop iron ore and graphite resources were opposed by both neighbouring farmers and those on proposed transport routes.

Aboriginal respondents in the two specialist focus groups were especially focused on environmental issue, noting that the environment was both an important material resource, spiritually significant and a central part of their heritage. Many expressed their concern that both the marine and terrestrial environment in the region had already experienced degradation (over-fishing, dryland salinity, vegetation loss etc.) and that little attempt has been made to address this issue. They believed government bodies should create a corp of Aboriginal rangers to both interpret the landscape for tourists and work to ameliorate the damage to the environment.

Second – the challenges of being young: Many participants in the focus groups expressed their concern that young people in the region had few opportunities available to them. This included the capacity to engage in further education, find employment, undertake attractive recreational activities and build networks of their peers. Sport was seen to be one outlet for young people – but it was not attractive to all young people and only met one need.

Many of those in the Port Lincoln discussion focused on young people reported problems with:

- Few jobs, and limited pay in the careers that were available;
- High housing costs – especially relative to earnings – and a very small, and difficult to access, private rental market;

- Few long term careers in the region plus the impacts of part time and casual employment;
- Incidences of homelessness;
- Limited social connections for many young people;
- No public transport, making it difficult to meet with friends and find employment without a car;
- Few educational opportunities on the region, with options largely limited to TAFE or moving from the region;
- Limited understanding and support for young people who are LGBTI; and,
- The loss of friendship and other networks as individuals either move away from the region or see their friends move to other parts of Australia.

Young people, of course, were not the only focus group participants to talk about the challenges confronting youth. Parents worried that the region would not offer their offspring employment in the future, leading to an inevitable separation. Older adults observed that out-migration of all kinds had been an entrenched phenomenon in the EPWC for the entire post-War period, but also noted that it had contributed to the decline of many communities.

Third – Poor transport infrastructure and the high cost of travel: This was an acknowledged problem in many communities and at a variety of scales. Within larger urban centres – such as Port Lincoln – public transport was non-existent forcing individuals to either own a car, walk or be immobile. The need for a car to gain access to places of employment was an impediment to many young people finding a job. This problem was especially acute in those industries where the location of employment shifted and mobility requirements were high. The school bus system was seen to be an important transport asset – enabling children on farms in the more remote parts of the EPWC region to attend school.

Fourth – communities and places in decline: The decline of some communities within the EPWC was a recurrent theme in many of the focus group discussions. Focus group participants argued that historically the region had a strong set of communities, but many of the smaller townships and settlements are now under threat. In many of the focus groups conducted in smaller townships decline was an acknowledged and ever-present risk, but even in the faster growing, larger centres such as Port Lincoln individuals were aware of the decline of other communities and the movement of population. In large measure the participants saw a ‘hollowing out’ of the Eyre Peninsula, with growth along the coast and the shrinking of populations in the inland farming settlements. In some instances, participants reported that farm districts were increasingly seen to be too remote to attract young families, leading to the abandonment of some properties. In other instances, the family lived along the coast – where services, employment options and amenity was greater – while the farmer (usually male) commuted to the property four or five days per week. Some work was completed remotely by drones and other sensor devices.

Fifth – A restructuring economy: Many participants in the focus groups noted with pride the productivity of the region and its contribution to Gross State Product. They commented on its significant contribution in the areas of grains production, fisheries, aquaculture and, increasingly, in tourism.

Pride in the productivity of the economy, however, was tempered by other concerns around the structure of the economy and employment. A number of respondents noted that farming had changed considerably over the past two decades, and that the rationalisation of farm sizes and the increased use of large scale machinery had maintained profitability, but at the loss of employment. What jobs were available tended to part time, seasonal or casual. Similar trends were evident in the fishing industry where there had been a substantial expansion in the casualisation of employment. Others noted that tourism and hospitality employment remained highly seasonal and therefore insecure.

An online survey was also undertaken as part of this project and its findings reinforced many of the themes evident in the early parts of the project. Some of the key outcomes included an acknowledgement that:

- The Eyre Peninsula population makes considerable use of its natural environment and takes a high level of interest in the assets and resources it offers;
- Social activities on the Eyre Peninsula tend to be focused on sporting activities, as well as informal interactions with friends and neighbours;
- There is a strong tradition of voluntary activities on the Eyre Peninsula, especially with respect to sport, environmental groups – including Landcare – and local economic development associations;
- There is strong community engagement with issues of political and economic importance, especially at the local level. It is important to note that many respondents to the survey had taken action against terrestrial mining;
- There are strong stocks of social capital in the region, with many residents providing support to others within the community. This has included providing personal care to others, offering transport to a neighbour or friend and unpaid baby sitting or care;
- The overwhelming majority of respondents to the survey reported that they had others within the community they could turn to if they needed assistance. Very few (under 5 per cent) reported that they had no one they could turn to;
- Friends and family members were seen to be the most important sources of support in a crisis. Neighbours and work colleagues were also considered important;
- There was a high level of social interaction amongst the respondents, with most reporting a high level of communication with friends and relatives;
- More than 60 per cent of respondents reported that they could find assistance from someone outside their household if they needed advice on what to do, emotional support, help in maintaining family or work responsibilities, emergency money, emergency accommodation, or emergency food. This is a high level by the standard of contemporary Australia;

- Most households had a broadband connection to the internet, although 30 per cent did not and relied upon mobile-phone based services or similar technologies for connectivity;
- There was a high level of social media use;
- Overall, respondents to the survey saw both positive and negative impacts arising from offshore exploration and drilling, with the consequent potential for subsequent on-shore development.
 - They saw such development as having a number of positive impacts, including contributing to population growth, helping with the supply of new infrastructure for the region and bringing new jobs and businesses to the Eyre Peninsula.;
 - The respondents also acknowledged that the development may have negative impacts on community functioning (though support for this was somewhat muted) and was likely to have a negative impact on natural features and landscapes;
 - Respondents had a clear perception that development had the potential for a negative impact on tourism and commercial fishers;
- In aggregate, the online surveys and the focus group present the following perspectives on the communities within the Eyre Peninsula:
 - Communities further away from the west coast tend to believe that any development in the Bight will have little – if any – impact on them;
 - This applies to those on the East Coast of the Eyre Peninsula and most inland communities;
 - The further communities are located from the west coast the lower the level of anticipated impact, with the exception of Port Lincoln which sees itself as the gateway for all development at scale on the Eyre Peninsula;
 - Most distant communities do not believe development in the Bight will have either positive or negative impacts on them;
 - Communities closer to the proposed development – e.g. Ceduna and Streaky Bay – are more likely to believe drilling in the Bight will result in employment and income growth. This is a development they welcome and in a number of instances have planned for.
 - As the data from the online survey show, a significant percentage of Eyre Peninsula residents believe that development in the Bight will have positive impacts including employment growth, infrastructure provision, income growth and assist in the establishment of new businesses;
 - On the other hand, they believe it will have a negative impact on the natural environment.

Finally, the project examined a Social Impact Assessment (SIA) framework for the region. It used the findings of the Interorganisational Committee for Guidelines and Principles for SIA as a template for undertaking this analysis as it provides a highly structured and coherent approach.

The SIA framework was helpful in drawing conclusions about the state of the EPWC region, and the views of residents on possible development in the GAB. In broad terms it found that:

- Many in the general community are open to the possibility of development, but seek further information about proposals;
- Opposition to development is already well organised and will become more acute over time;
 - Much of this opposition is externally funded and organised but key industry groups – including some components of the fishing industry – are inclined to be opposed, as are a significant section of landholders. The fact that many of these proposals have not proceeded has not reduced their level of environmental concern;
 - It is not clear that there is a significant group of local leaders strongly in favour of development in the GAB, with most support based at the state government level or in key, Adelaide based, political groups;
- The level of risk – to iconic species, the environment generally and humans – associated with seismic exploration, the sinking of exploration wells and – potentially – commercial production is a major concern across the community;
 - It is clear from the research literature that events substantial enough to be reported in the media have a significant impact on the mental and physical health of many in the community as well as on the environment;
 - Such events are clearly detrimental to local economies also;
 - In all probability, any impacts associated with exploration – seismic surveys and drilling – are likely to be short term and able to be mitigated;
 - More needs to be done to both inform and engage with the affected communities, so they can understand both the level of risk and the measures being undertaken to manage that risk;
 - The Interorganisational Committee (1994) noted that there is a tendency for communities to overestimate the risks associated with a proposal, and underestimate the prospects for mitigation;
 - This is likely to be the case for the GAB, but in the absence of reliable information communities struggle to develop better informed assessments.

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APPENDIX 1: DATA MANAGEMENT

Raw dataset created

- One-on-one interview outputs
- Focus group outputs
- Online survey results

Data processing and derived datasets

- Nil

Data curation and archive

- Data sets are currently held on University of Adelaide servers. The permanent archive location is still to be determined and all data sets will be supplied to BP Australia.

Data access, use agreements and licensing

- Quantitative survey and focus group data will be made publicly available once personal identifiers have been removed.

Publication of datasets

- Quantitative survey and focus group data sets will be made publically available once personal identifiers have been removed. The publication location is still to be determined. If these data sets have not been publically released before the end of the GABRP, an electronic copy of the data sets will be supplied to BP Australia.

