SOUTH AUSTRALIAN
CENTRE FOR ECONOMIC STUDIES
ADELAIDE AND FLINDERS UNIVERSITIES

BUILDING AN ECONOMIC COMMUNITY:

A TURN AROUND STRATEGY FOR THE

UPPER SPENCER GULF REGION TO 2010

Prepared for:
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Minister for Regional Development, Territories
and Local Government

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1. INTRODUCTION

The case for State and Federal Government assistance and a commitment to *'Building An Economic Community: A Turn-Around Strategy for the Upper Spencer Gulf'* region is premised on long term structural trends in the local economies of Port Pirie, Port Augusta and Whyalla. The immediate and unmistakable implications of these trends may be grouped into three core problems facing the region, that are shared by each of the three cities, namely:

- the lack of employment opportunities in the region;
- declining population in the cities and the wider region; and
- the gradual but unceasing withdrawal of government services and public sector employment from the Provincial Cities and the smaller rural towns within the region.

The prospect of further job losses at BHP over time only provides added urgency to this proposal and highlights the vulnerability of the region to on-going structural adjustment.

Unlike so many proposals before, and what is different about the case for *'Building An Economic Community: A Turn-Around Strategy for the Upper Spencer Gulf'* is that it is based on significant opportunities available within the region to diversify the local economic base of the three cities, to improve the international competitiveness of the region while also raising the international profile of this region.

Building An Economic Community is concerned to tap into the leadership potential and the resourcefulness that already exists in the region and its communities to turn what could be a culture of defeat and an acceptance of decline into a collaborative culture of initiative, enterprise and innovation. It seeks to establish a process which will involve business, government and the community, collaborating to develop strategies to turn around the region's economic development.

It is acknowledged by the three cities, and we understand by the State Government in the establishment of the South Australian Regional Task Force,

- in part to seek Commonwealth structural adjustment assistance, and
- to develop "a model to be implemented throughout country South Australia",[1]

that some form of a single, wide area regional planning and coordination structure is indispensable if those residing in the three Upper Spencer Gulf cities are to address current problems and to plan for more a comprehensive regional response. Such a structure should seek to encourage local ownership, responsibility, autonomy and accountability and thereby enable the region to exert control over its own destiny.

The three cities to this proposal recognise that an Upper Spencer Gulf regional response to the challenges facing each of the cities separately cannot be the sum of individual responses by each of the cities. It is recognised that an approach whereby strategies are

1 Press Release: "What the Premier's Regional Development Task Force Will Do" 11.8.1998

devised and implemented and actions are taken to maximise the combined effect of the three cities acting together will be beneficial for the larger region.

This submissions proposes the establishment of a regional coordination structure for the Upper Spencer Gulf region to design, implement and manage a development program where the essential purpose is to:

- develop the capacity for structured, action oriented collaboration at the regional level to drive economic, social and community development towards the year 2010.

1.1 Background to Task of Reform, Renewal and Building Economic Community

There is considerable documentation on the status of the Provincial Cities in South Australia over the last ten to fifteen years which provides the background to this proposal[2]. There is now broad acceptance that past efforts to address unemployment and slow growth in regional centres have largely failed.

There is substantial evidence to support the view, that on several measures of social and economic stress (eg., income levels, transfer payments, family status, savings and investment in the region), the Upper Spencer Gulf region is one of the poorest regions in the nation.

What is now required is a concerted long term effort aimed at building a competitive region which is able to survive and grow into the next millennium.

Some of the major problems— or more appropriately issues or challenges — confronting each of the three cities include:

- employment/unemployment problems which are shared in common, and which have persisted for more then ten years;
- slow population decline (or very slow growth) and a lowering of market thresholds in some sectors of industry and the local economy;
- one-off programs that have proven to be insufficient and inadequate in addressing the deeper structural malaise present in regional cities, which rely (heavily, but not exclusively) on single industries or a highly specialised industrial base;
- the prospect of further losses of employment (rail reform in Port Augusta, at BHP) and the combined loss of public sector positions, both Commonwealth and State;
- slow growth in private sector employment, service industry employment and slower growth in part time employment most often associated with successful diversification of the local economic base into tourism, information services and recreation; and
- the recognition that individual cities are very unlikely to achieve fundamental reform by themselves and that a regional and collaborative approach will be required.

2 Most recent is the three reports on the Provincial Cities in South Australia, SACES 1998.

It is obvious that these challenges are deep seated or structural in nature and they have proved impervious to single issue programs or funding schemes which too often deal with the symptoms of the problem rather than the causes. Illustrations of this approach include the REDO's which too often involved large and unwieldy regions with too many stakeholders, or one off, quick fix programs such as in labour market programs or one off, relatively small scale funding for projects in areas such as tourism.

What is now increasingly recognised is the need for a thoroughly new approach involving all sectors of the local economy to:

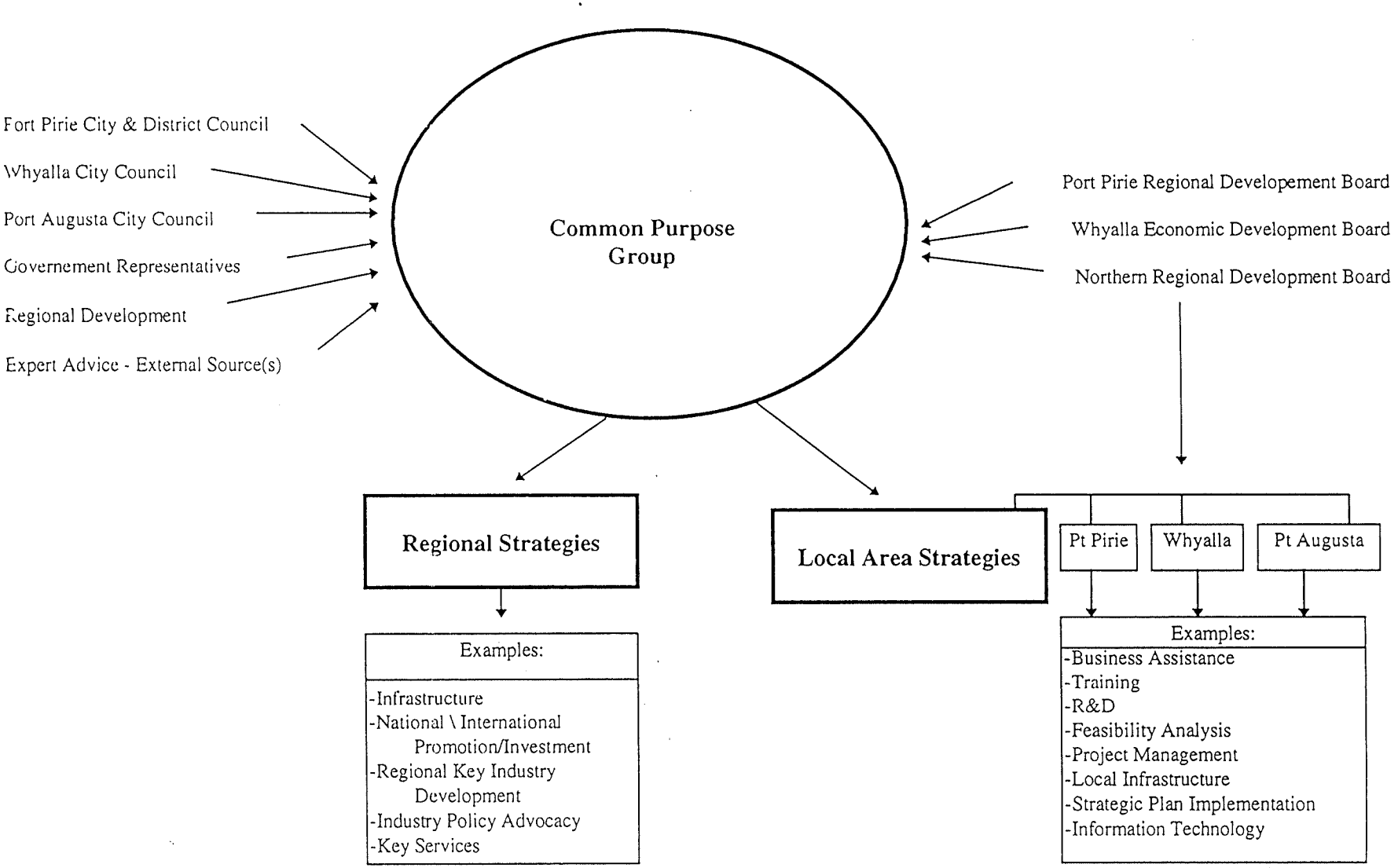
- create new regional planning and development structures responsible for "a whole of region approach" for the Upper Spencer Gulf Region;
- improve the international competitiveness of local industries;
- improve the ability of the region to take control of its own destiny and thereby challenge elements of the deep social malaise towards national economic policies designed to achieve international competitiveness;
- assist in the establishment of clusters of cooperation between industry sectors and to develop service capacity in support of local industries;
- support to the task of diversification of the local economy including into, *inter alia*, industry support services, water resource management, research into renewable energy, mining support services and a more structured response to the growing tourism industry;
- improve the identification and marketability of the region based on current realities (and not some unsubstantiated marketing hyperbole); and
- 're-badge' the region and to move away from the use of the outdated and unimaginative label of the 'Iron Triangle".

2. PROPOSAL

The new approach is to be based on regional collaboration and cooperation. The cities of Port Augusta, Port Pirie and Whyalla, the local Regional Development Boards and the communities have agreed to co-operate in creating a new and more dynamic vision for the Upper Spencer Gulf region. This proposal has the support of the three cities, the councils and state funded Regional Development Boards.

This new approach seeks to establish a framework for collaboration as in the Common Purpose Group operating in Newcastle and collaborative approaches to regional development used overseas. The structure and framework outlined here will work to integrate the regional cities, the Northern Spencer region as a whole, its linkages with the entire Flinders Ranges tourism area, the Eyre Peninsula (and beyond), Outback areas (including especially the existing and future potential mining and tourism developments in them and the potential for stronger linkages with the NT (including the potential that would be created by completion of the Alice Springs to Darwin rail link).

This proposal seeks to establish an Upper Spencer Gulf Economic Development Strategy Group (or Common Purpose Group), involving senior business leaders, representatives from the local councils and regional development bodies, and representatives from agencies of the state and Federal Government, and local community representation as required to provide the focus for collaboration at the regional level to:


Fort Pirie City & District Council
Whyalla City Council
Port Augusta City Council
Governement Representatives
Regional Development
Expert Advice - External Source(s)
Common Purpose Group
Port Pirie Regional Developement Board
Whyalla Economic Development Board
Northern Regional Development Board
Regional Strategies
Examples:
-Infrastructure
-National \ International Promotion/Investment
-Regional Key Industry Development
-Industry Policy Advocacy
-Key Services
Local Area Strategies
Pt Pirie
Whyalla
Pt Augusta
Examples:
-Business Assistance
-Training
-R&D
-Feasibility Analysis
-Project Management
-Local Infrastructure
-Strategic Plan Implementation
-Information Technology

- coordinate and drive economic, social and community development towards the year 2010.

It is anticipated that external expert advice would be contracted in by the Upper Spencer Gulf Economic Development Strategy Group for specific initiatives and resources will need to be provided for this.

The proposed model is shown here. A Regional Strategy group or Common Purpose Group is to be established with the charter to author and then manage a collaborative regional development strategy. The existing Regional Development Boards, which are funded by state and local governments would continue to focus on local area programs and current levels of assistance and service and maintain a presence in each of the cities. It is expected that a local presence will be maintained into the future although there is willingness to explore new arrangements as part of greater regional approach.

The Strategy Group or Common Purpose Group will oversee regional strategies. Establishment costs are to be sought from the Commonwealth Government. An overview of potential activities to be undertaken by the Strategy Group is set out below in dot point form.

2.1 Overview of Activities to be Undertaken by the Development Strategy Group

The specific activities of the Upper Spencer Gulf Economic Development Strategy Group are set out below in point form and include:

— **Build and implement a new vision** and strategies for the region out to the year 2010 (involving business, government and the local communities), specifying activities to the year 2001, then 2005 and then out to the year 2010.

— **Provide a framework for co-operation and trust** across the region and to facilitate investment proposals, regional infrastructure, industry development and community participation, including education/training, health and community services and groups.

— **Tap into the leadership** potential and harness the resourcefulness that already exists in the region and its communities to turn what could be a culture of defeat and an acceptance of the inevitability of decline into a collaborative culture of initiative, enterprise and innovation.

— **Develop a strategy to capitalise** on the construction of the Adelaide to Darwin rail link and to devise ways to attract inward investment in tourism, travel, accommodation, manufacturing and manufacturing services, mining and services to mining, agricultural processing and the larger service sector including retail, recreation and personal services.

— **Replace the label** "Iron Triangle" with more contemporary and sophisticated description of the region and encourage consistent regional promotion.

— **Document potential for new industries** and services to industries, including research and development activities.

— **Promote new investment** opportunities including in the Gawler Craton mining precinct and in related industries for mining services, water resource management related to mining including at Beverley Mine and Olympic Dam.

Other major projects have been listed elsewhere but include *inter alia*, magnesium processing, Kistler Woomera Project, Olympic Dam stage 3 expansion, Pig iron, Manganese and Mineral Sands.

— **Commission a Skills Audit Analysis**

Analysis would include documenting the primary workforce skills, experience and competencies within the region and education and training responses and flexibility of local institutions to meet demand for labour skills.

— **Initiate Industry and Cluster Analysis**

This analysis would be based on an Industry (and Community) Cluster framework, to provide a richer economic map of regional inter-relationships (and model(s) through which economic impacts analysis can be undertaken), and to identify competencies (and gaps in competencies) in the region which can be used as basis for driving new enterprise initiatives.

— A cluster is a critical mass of similar and related firms within relatively close geographical proximity, each specialised in particular but related activities, achieving economies of scale through informal business networks. The cities of the Northern Spencer Gulf have strengths in related clusters. Some of these included, *inter alia*, mining activities, water resource management, renewable energy, aquaculture, tourism, transport, light fabrication, minerals processing (and value adding) and meat and food processing. Going forward involves focussing on specific clusters and building informal (and formal) business networks. These need to be documented, including the supporting social infrastructure and supporting physical infrastructure.

— The cluster concept recognises that in a global economy, 'economic regions' have become the focus of economic development and can be defined by the industry cluster in the area. Clusters of firms do not appear by accident or by chance, rather they are driven by a range of factors that are specific to a particular location. The ongoing process of globalisation means that identifying and understanding industry clusters is becoming an important prerequisite for the development of successful regional economic strategies. Industry clusters are concentrations of competing, complementary and inter-dependent firms in related industries. They are characterised by:

- geographic concentration;
- proximity to competitors, suppliers and customers;
- employment concentrations;
- specialised skills, technology and/or physical infrastructure; and
- co-operative business structures, including networks, partnerships and joint ventures

— This to be used as the basis for defining and shaping a cooperative/collaborative effort within the region, involving business, government(s), education and training and wider community representatives s in defining and owning the visions and developing the strategies and initiatives.

— **Initiate Specific Industry Research Projects** and pre feasibility analysis. The Whyalla/Port Augusta aquaculture initiatives were originally developed using federal monies to support research, feasibility analysis, etc.

— **Examine the infrastructure requirements** and liaise with the South Australian Tourism Major Task Force

— **Assess the need for advisory services** and other support services required in the region to promote an export culture, such as export advice/clubs.

— **Seek additional funding** in support of the strategies from local businesses and employer groups.

In the interim the existing Regional Development Boards located at Port Pirie, Port Augusta and Whyalla would continue to provide local area services and business assistance as shown in the proposed model.

The South Australian Centre for Economic Studies would be requested to provide advice and support, including research and consultancy input into the activities of the Upper Northern Spencer Gulf Strategy Group. It is anticipated that the SACES would initiate and lead manage analysis of potential's of the Upper Spencer region as a whole, and for the Cities in it in particular, based on current clusters of business activity and potential growth arising from development of clusters. The Strategy Group and the Centre would identify regional inter-relationships and competencies (and gaps in competencies) in the region which can be used as a basis for driving new enterprise initiatives.

The Centre would also be requested to provided documentation of successful strategies used in other regions, both overseas and throughout Australia, and to conduct initial discussions with the Hunter Economic Development Corporation on strategies and actions under way in that region.

3. REQUEST FOR ASSISTANCE

The three cities of the Upper Northern Spencer Gulf request immediate assistance from the Commonwealth Government of $2 million over three years to the Upper Northern Spencer Gulf Strategy Group or Common Purpose Group in order to commence the collaborative process of 'whole of region development' as outlined in this submission. regional. The three cities are strongly committed to this proposal and have demonstrated their preparedness to work collaboratively, already through the forum of the Association of Provincial Cities.

The broad terms of reference and inaugural action plans of such a group would essentially be the thirteen points outlined above (in bold type) although the Strategy group would be asked to develop and prioritise actions plans and further specify activities to be undertaken by the Strategy Group. Additional assistance may also be requested from local business organisations to support specific activities which are undertaken under the umbrella of the Strategy Group.

In the first instance it is expected that a significant proportion of the funds would be utilised to develop an integrated Regional Development Strategy and Action Plan. It is anticipated that specific funding requests to implement economic development strategies would be prepared over time by the Strategy Group and that these would be presented to the state and Federal government.

In some cases it is likely that proposed initiatives could be funded through existing programs such as the regional telecommunications infrastructure fund. In other cases, such as proposal for Enterprise Zone Status involving R&D concessions or perhaps stamp duty and tax rebates or other 'business cost initiatives', that no up front commitment would be required. The impact on public revenue of any such initiatives would be dependent on the level of economic activity generated and the extent the region was successful in attracting new investment. It is also clear that specific proposals will require funding from the Federal and State Government as was the case in Newcastle and this commitment would need to be accepted in advance.

4 CONCLUSION

The three Provincial Cities of the Upper Spencer Gulf and the smaller townships around these centres, including the rural and mining hinterland that comprise the spatial economy of the region face an uncertain future, and certainly the prospects of slow decline unless new structures with a strong regional focus are put in place in the region.

The regional centres cannot do this alone but require assistance and support from the state and federal government. The current level of resources is inadequate for the purposes outlined in this proposal.

A far more positive and prosperous future is in prospect for the Upper Spencer Gulf region with its links to the Eyre Peninsula including down to the marine cluster of activity centred on Port Lincoln, provided appropriate and far sighted strategies are developed, implemented and managed out to the year 2010.

The Provincial Cities have worked constructively and tirelessly over the last eight months on documenting the trends, changes and challenges faced by rural and regional centres in South Australia. The Provincial Cities have continued to work cooperatively with the South Australian government and will continue to foster this productive working relationship.

The cities have also demonstrated the capacity to 'think outside the box', to consider an agenda much wider than the future of a single city or industry, and be shown capable of planning for economic development strategies that are capable of *turning around* the economic prospects of a region. This process now needs to be properly resourced and placed on a firm footing to facilitate the Upper Spencer Gulf to achieve higher rates of inward investment, faster rates of economic growth (from existing and new activities) and the ability to develop and diversify the local economic base of the region. The focus is on achieving these goals in stages to the years 2010 whereby the region will known for having achieved internationally competitive industries and be identified as one of Australia's most prosperous and dynamic regional economies.

APPENDIX 1
POTENTIAL NORTHERN SPENCER GULF PROGRAMS/INITIATIVES

Below are some examples of the type of initiatives which may also 'fit a broad regional approach.

Industry Cluster Development

Development of Industry Clusters. The region will identify existing clusters and build those into globally competitive industries. For example we have a critical mass in engineering specialising in fabricating and servicing mineral processing plant and equipment. We are looking to market their skills outside the region but with limited funds progress is slow..

Development of New Industry Clusters

Development of new Industry Clusters. This will take some time and research, however, we can look to related industries which could develop an expanded presence in the region. Services to the mining and exploration sector is an obvious one.

The Gawler Craton will be a focus for mineral exploration and mine development over the next decade. Mine development requires human resources (fly in fly out), supply of equipment, engineering services, accommodation, construction, management and administration services, consumables and transport.

The Northern Spencer Gulf is a viable location to support these functions. Once established and recognised the region will attract additional business from mine sites further afield. Also the training of mine personnel (school of mining) would be a related function. To fully develop and implement a strategy aimed at establishing the Northern Spencer as a centre for mining support could cost say $1 million.

Other examples of clusters may be warehousing and distribution based on rail and shipping services in place. Agricultural value adding based on existing forestry, dairy and livestock processing facilities. Defence industry services, manufacturing and military bases growing from our existing facilities, remote location and defence history related to Woomera.

Local Area Development Programme

Continue with existing Regional Development Strategies. Each RDB will provide list of projects and initiatives of which some will be combined to become Northern Spencer Region projects.

Regional Business Assistance Fund

Establish a Regional Business Assistance Fund to be utilised to support new enterprise establishment and enterprise expansion. Principal criteria for funding to be based on ability of projects to create sustainable net new employment in the region.

Specific Industry Research Projects

Develop specific research initiatives including in sub-surface water, water management, waste water, housing design and associated pre-feasibility analyses. The Whyalla/Port Augusta aquaculture initiatives were originally developed using federal money. A related objective would be the establishment of a CSIRO research centre in the region.

Technology Commercialisation.

Strategy to commercialise technology advancements unique to this region. Pasminco metallurgy, Environmental Health Centre Port Pirie lead management programme, arid lands botanic park know how, remote health care management, range land management etc.

Enterprise Zone Status

Investigate Enterprise Zone Status recognised at State and Federal level. New priority industry would gain accelerated R&D tax concessions, payroll tax and stamp duty rebates, council rate holidays.. This is not an up front commitment but would impact on public revenues only if we are successful in attracting new investment.

Industry Infrastructure

Funds for new and upgraded infrastructure to support industry growth. Justification would be based on cost benefit analyses. Examples include, ship loading berth for locally manufactured explosives, road train link from Port Pirie to Barrier Highway and eastern states., national rail hub infrastructure, water storage and management infrastructure, Alice to Darwin rail link, deep sea port to export mineral products and manufactured products, improved airport facilities to support mining fly-in-fly-out operations

Tourism Infrastructure

Develop regional tourism infrastructure for Flinders Ranges and Outback Tourism Region.

Regional Promotion.

Funding to implement an national and international promotion plan aimed at targeted industries. The objective is to promote regional capabilities, assets, comparative advantages and investment opportunities. Promotion will build an image of the region away from Iron Triangle to an image projecting our future growth aspirations.

Pre Commitment on Existing Programme Expenditure

This initiative would be developed with government agencies who currently control competitive grant programmes. An agreement would be reached whereby predetermined commitments would be made by programme administrators to fund priorities established by the Northern Spencer Region. Examples include State Sporting and Recreation Grants, Tourism Commission tourism road development funding, South Australian Housing Trust Capital Works Programme, Federal Federation Programme funds, Regional Telecommunications Infrastructure Fund and remaining ANRRTP funds. The benefit here is that we know how much money is allocated to the region and the decision on priorities is given over to the coordinating body.

Integration of Industry Policy

This is a bit vague but it builds on some topics we covered in Whyalla on Friday. The notion of integrating the planning and development control policies of local government, regional industrial relations agreements with involvement by unions and industry, review of state and federal industry policy and its application in regional centres. For example, State licensing statutes can inhibit new entrants to industry.

Export Advisory Service

Establishment of an export advisory service in joint venture with Austrade to develop and promote an export culture in the region for small to medium size enterprises.

APPENDIX 2
OVERVIEW OF DEMOGRAPHIC AND EMPLOYMENT TRENDS
(For Complete Discussion see three reports into the Provincial Cities)

Table 1 illustrate the historic changes in population for each of the three cities over the last thirty five years. From Table 1 it can be seen that Whyalla under went dramatic growth until 1976 to become the largest of the six provincial cities (including Mount Gambier, Murray Bridge and Port Lincoln), whereas Port Pirie has experienced relatively little population growth over this whole period. Looking across the rows it can be summarised that in more recent times:

- Port Augusta continued with slower growth throughout the period to 1986 and thereafter has been locked into gradual decline;
- Port Pirie commenced a process of gradual decline sometime after 1966 which has continued since that time; and
- Whyalla grew very strongly to 1976 and with the closure of ship-building has experienced rapid population decline.

TABLE A2 1
HISTORIC POPULATION CHANGES IN THE SOUTH AUSTRALIA

	1961	1966	1971	1976	1986	1991	1996
Port Augusta (C)	11,130	11,522	12,224	13,092	15,915	15,234	14,315
Port Pirie (C)	15,672	15,694	15,456	15,005	15,240	15,011	14,370
Whyalla (C)	14,227	22,637	32,109	33,426	28,289	26,382	24,370

Note: ABS population statistics for 1961 and 1966 exclude full-blood Aborigines. SACES has included an estimate of full-blood Aborigines in the above table.
Source: ABS, (3218.0).

Table 2 for the inter census period 1991 to 1996, illustrates that the path of regional adjustment has been felt most strongly in the three Upper Spencer Gulf Cities relative to the state as a whole. From 1961 until 1976 the three cities experienced a compound average growth (CAGR) rate of population of 2.63 per cent each year, declining from that time through to 1996 at -0.7 per cent per annum. The respective growth rates for the period 1991 to 1996 are shown in the last column of Table 2.

TABLE A2 2
DEMOGRAPHIC CHANGES: SIX PROVINCIAL CITIES 1991-1996

Area	Population 1991	Population 1996	Change 1991-1996	Growth Rate (%)
Whyalla (C)	26,382	24,370	-2,012	-1.6
Port Pirie (C)	15,011	14,370	-641	-0.9
Port Augusta (C)	15,234	14,315	-919	-1.2
Adelaide Statistical District	1,057,161	1,079,184	22,023	0.4
State	1,446,299	1,474,389	28,090	0.4

Source: ABS, *Census of Population and Housing 1996*, (2015.4).

The experience of unemployment has also been more severe in these cities (only 1996 is shown in Table 3 although this is a consistent picture for the period 1980-1998) which in turn contributes to a decline in the population of each of the cities. Appendix 2 shows for each city the structure of employment by industry for each of the cities for the period 1986 to 1996.

TABLE A2 3
LABOUR FORCE: UNEMPLOYMENT RATE BY AGE: 1996

Age Cohort	Pt Augusta (C)	Pt Pirie (C)	Whyalla (C)	Adelaide Statistical Division	South Australia
15-19	25.1	38.7	30.3	22.4	22.3
20-24	23.6	24.1	20.0	16.3	16.1
25-44	11.6	15.2	11.9	9.0	9.0
45+	14.2	16.6	10.5	7.8	7.7
Total	14.7	18.7	13.9	10.6	10.4

Source: ABS, unpublished data.

APPENDIX 3
EMPLOYMENT BY INDUSTRY 1986 TO 1996
PORT AUGUSTA, PORT PIRIE, WHYALLA

For Complete Discussion see three reports into the Provincial Cities)

TABLE A3.1

EMPLOYMENT BY INDUSTRY PORT AUGUSTA 1986-1996

Industry Sector	1986		1991		1996	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Agriculture, Forestry, Fishing	37	0.6	27	0.4	52	1.0
Mining	25	0.4	13	0.2	19	0.4
Manufacturing	238	3.7	239	3.8	144	2.8
Electricity, Gas & Water Supply	713	11.2	432	6.9	236	4.6
Construction	408	6.4	313	5.0	276	5.4
Wholesale Trade	985	15.5	980	15.6	161	3.1
Retail Trade	(a)	(a)	(a)	(a)	849	16.6
Accom. Cafes & Restaurants	282	4.4	350	5.6	300	5.9
Transport & Storage	1,558	24.5	1,034	16.5	648	12.7
Communication Services	85	1.3	60	1.0	64	1.3
Finance and Insurance	288	4.5	318	5.1	100	2.0
Property & Business Services	(b)	(b)	(b)	(b)	251	4.9
Govt Administration & Defence	283	4.5	225	3.6	205	4.0
Education	481	7.6	442	7.0	484	9.5
Health & Community Services	576	9.1	681	10.9	750	14.7
Cultural & Recreational Services	50	0.8	67	1.1	102	2.0
Personal & Other Services	165	2.6	239	3.8	255	5.0
Non-classifiable	40	0.6	19	0.3	30	0.6
Not stated	140	2.2	837	13.3	188	3.7
Total	6,354	100.0	6,276	100.0	5,114	100.0

Notes: (a) Included in Wholesale Trade.
(b) Included in Finance & Insurance.

Source: ABS unpublished data.

TABLE A3.2
EMPLOYMENT BY INDUSTRY PORT PIRIE 1986-1996

Industry Sectors	1986		1991		1996	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Agriculture, Forestry, Fishing	55	1.0	43	0.8	60	1.3
Mining	15	0.3	17	0.3	23	0.5
Manufacturing	1,535	28.2	1,233	23.0	969	20.2
Electricity, Gas & Water Supply	61	1.1	55	1.0	42	0.9
Construction	246	4.5	199	3.7	246	5.1
Wholesale Trade	1,023	18.8	1,023	19.1	140	2.9
Retail Trade	(a)	(a)	(a)	(a)	839	17.5
Accom. Cafes & Restaurants	179	3.3	178	3.3	232	4.8
Transport & Storage	448	8.2	274	5.1	202	4.2
Communication Services	117	2.2	78	1.5	115	2.4
Finance and Insurance	265	4.9	335	6.2	106	2.2
Property & Business Services	(b)	(b)	(b)	(b)	270	5.6
Govt Administration & Defence	184	3.4	153	2.9	148	3.1
Education	359	6.6	338	6.3	351	7.3
Health & Community Services	524	9.6	543	10.1	552	11.5
Cultural & Recreational Services	108	2.0	103	1.9	120	2.5
Personal & Other Services	189	3.5	190	3.5	208	4.3
Non-classifiable	22	0.4	26	0.5	42	0.9
Not stated	106	1.9	577	10.8	124	2.6
Total	5,436	100.0	5,365	100.0	4,789	100.0

Notes: (a) Included in Wholesale Trade.
(b) Included in Finance & Insurance.

Source: ABS, unpublished data.

TABLE A3.3
EMPLOYMENT BY INDUSTRY WHYALLA 1986-1996

Industry Sectors	1986		1991		1996	
	No.	Per cent	No.	Per cent	No.	Per cent
Agriculture, Forestry, Fishing	40	0.4	37	0.3	49	0.5
Mining	194	1.9	140	1.3	129	1.4
Manufacturing	3,780	37.0	3,451	32.2	2,651	29.0
Electricity, Gas & Water Supply	81	0.8	136	1.3	29	0.3
Construction	568	5.6	423	3.9	600	6.6
Wholesale Trade	1,530	15.0	1,425	13.3	293	3.2
Retail Trade	(a)	(a)	(a)	(a)	1,205	13.2
Accom. Cafes & Restaurants	289	2.8	301	2.8	339	3.7
Transport & Storage	331	3.2	307	2.9	282	3.1
Communication Services	205	2.0	104	1.0	94	1.0
Finance and Insurance	533	5.2	727	6.8	159	1.7
Property & Business Services	(b)	(b)	(b)	(b)	766	8.4
Govt Administration & Defence	269	2.6	196	1.8	198	2.2
Education	904	8.8	786	7.3	700	7.7
Health & Community Services	943	9.2	956	8.9	927	10.1
Cultural & Recreational Services	110	1.1	109	1.0	107	1.2
Personal & Other Services	216	2.1	228	2.1	269	2.9
Non-classifiable	50	0.5	54	0.5	106	1.2
Not stated	182	1.8	1,342	12.5	234	2.6
Total	10,225	100.0	10,722	100.0	9,137	100.0

Notes: (a) Included in Wholesale Trade.
(b) Included in Finance & Insurance.
(c) Source: ABS, unpublished data.

APPENDIX 4
Example of Local Initiative with Economic and Industry Development Objectives
Whyalla Eco City Proposal
(A complete proposal was recently forwarded to the office of Senator Hill)

1. Vision

The Whyalla Eco-City Development Core Site is an urban development project that will demonstrate the principles of ecologically sustainable development in a built urban form.

The Eco-City development will be an important demonstration of the elements of 21st century ecological and economic sustainable development and in particular:

- The development of technologies, both soft and hard, that make up ecological sustainable development;
- The development of tradeable skills in ecological sustainable development;
- The development in the region of tourism based on ecological sustainable development which includes eco-tourism, educational and industrial tourism;
- The development of an education system that can develop 21st century tradeable skills in ecological sustainable development.

The Whyalla Eco-City Development Core Site is an urban development project that will demonstrate the principles of ecologically sustainable development in a built urban form. The urban development is planned to include:

- Senior Citizens Homes;
- Residential Subdivision;
- Retail and Office Clusters;
- New industries;
- Buddhist Meditation Centre;
- Cafe and Plant Nursery; and
- Anglican Church.

Other development proposals considered include:

- Aboriginal Cultural Centre;
- Child and Youth Health Clinic;
- Veterinary Surgery; and a
- Renewable Energy Centre.

All of the above developments will display the following "soft" and "hard" technologies:

- Use of earth technologies in buildings;
- Passive design for best solar access and natural cooling;
- Use of renewable energy generation systems;
- Maximum use of stormwater and treated effluent;
- Mixed living and working areas to reduce reliance on transport;
- Promotion of walking and cycle use; and
- Arid climate landscaping.

TABLE A4.1 DEVELOPING INDUSTRIES

CONSTRUCTION	SECOND ORDER	LINKED
earth technologies straw bale building water recycling renewable energy installation site preparation for sustainable building painting and decorating with non-toxic products carpentry using non-toxic products sustainable architecture arid land landscaping	arid land nursery recycled building products, retail and wholesale energy conservation consultancy water use consultancy resource recovery consultancy	Recycled furniture Recycled products retailing Environmentally friendly soaps, shampoos, soaps, detergents etc. Education in building techniques - renewable energy - water recycling - urban Agriculture - arid land plants sustainable business consultancy tourism development - eco-tourism - edu-tourism - ind- tourism

APPENDIX 5
PROPOSAL FOR FUNDING
SA Centre for Renewable Energy and Energy Efficiency Centre at Whyalla

1. The Project:

This project will focus on the development of a Renewable Energy and Energy Efficiency Centre as outlined in the Messenger Report. Participants would include the University of South Australia: Whyalla Campus Node of Renewable Energy Cooperative Research Centre, Renewable Energy Target Team: Whyalla Economic Development Board. Cowell Electric Supply Company.

2. Aims of the Project:

1. A major aim of the Renewable Energy Cooperative Research Centre is to develop primarily, technologies which facilitate cost effective renewable energy and energy efficient technologies and installation procedures. This project will commence an integrated approach to the provision of renewable energy supply systems for regional and remote communities.

2. These activities will commence with a collation and evaluation of the full range of technologies currently available for regional and remote energy supply systems and will bring together the most appropriate mix in demonstration and evaluation projects.

3. The Centre will provide a test bed for the design of optimum energy efficient renewable energy systems for isolated regional communities - including mining sites.

4. The project will also commence the important task of providing comprehensive access to information on design and implementation considerations with respect to energy efficiency and renewable energy options.

5. Local governments will be actively involved in the Whyalla Centre. Collectively local government is a large consumer of energy in their own right, but many of their decisions effect the type and quantity of energy consumed by residents and businesses in their area. Local governments are therefore in a unique position to initiate programs and policies to reduce greenhouse gases and other pollutants, thereby going a substantial way towards achieving Australia's sustainability objectives

The benefits of renewable energy are many. However the optimum choice of appropriate regional and remote community energy systems will certainly involve several different renewable technologies and in the transition period will involve fossil fuel as well. It will also involve the evolution of energy policies which value the environmental and possible economic benefit of renewable energy.

Key attractions in renewable energy and energy efficiency are their possible contributions to meeting Greenhouse targets, their application in remote area power supply, and their roles in electricity load management and grid enhancement.

3. The Participants

3.1. University of South Australia

The Whyalla Campus is currently establishing a node of the Renewable Energy Cooperative Research Centre which will link with The Levels Campus Cooperative Research Centre. The Campus is the only regional university campus in South Australia and has a rapidly developing research output. Recent developments include the establishment of a Commonwealth funded Department of Rural Health ($7.5 million over 5 years) and the appointment of an Associate Dean: Research. The University of South Australia has a strong track record in collaborative research.

3.2. Whyalla Economic Development Board

WEDB is a State and local government funded Economic Development Board and has successfully managed a number of significant projects. These have come in on time and on budget. Whyalla City Council (a major stakeholder in WEDB) has made a major commitment to renewable energy and has in place a number of energy and water policies and projects which demonstrate this commitment.

WEDB has a Renewable Energy Target Team which has developed the background to this and other projects. The Messenger Report was funded by an OLMA grant with support from WEDB, Whyalla City Council and the University of South Australia: Whyalla Campus and recommended the establishment of a SA Centre for Renewable Energies at Whyalla.

3.3. Cowell Electric Supply Company

Cowell Electric is a local company which has a demonstrated capacity to design, install and maintain hybrid, fossil fuelled energy supply systems for local and remote communities and mining camps. Whyalla City Council and WEDB have undertaken discussions on renewable energy with Cowell Electric. These will be formalised on the successful outcome of this funding proposal.

4 Anticipated Outcomes

- Seed funding to establish a viable Renewable Energy and Energy Efficiency Centre.

- Assistance to mining communities (both nationally and internationally) through the provision of expertise, appropriate use of renewable and associated efficiency gains. Whyalla is ideally situated to achieve this outcome through its close proximity to these industries.

- Provision of expertise to resource based industries in the region.

- The establishment of Renewable Energy Centre at Whyalla with strong links to local communities, industries and investors (similar to Lincoln Marine Science Centre).

5. Proposed Funding and Budget:

The participants bring considerable financial and in kind commitment to the proposal. Whyalla City Council has allocated $50,000 towards the Renewable Energy Centre. WEDB will contribute a salary component and some of the administration cost to the project coordination and commercialisation activities of the Renewable Energy Centre. The University will locate a node of its cooperative Research Centre at Whyalla during 1998.

Research Fellow	65,000
Graduate Project Officer	28,000
(Industry Contribution $10,000)	
Establishment and infra structure costs	57,000
	$150,000