



South Australian Freight Council Inc.
COMMITTED TO LEADERSHIP IN FREIGHT AND LOGISTICS

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Committee Secretary
House of Representatives
Standing Committee on Transport and Regional Services
PO Box 6021
Parliament House
CANBERRA ACT 2600
AUSTRALIA

Dear Sir/Madam

**Standing Committee on Transport and Regional Services Inquiry Into
Integration of Regional Rail and Road Networks & Their Interface With Ports**

Thank you for the opportunity to provide input to the Standing Committee on Transport and Regional Services' Inquiry Into Integration of Regional Rail and Road Networks and their Interface With Ports.

As you may be aware, the South Australian Freight Council Inc (SAFC) is the State's peak, multi-modal industry group that advises both the Federal and State governments on industry related issues, and is funded by both governments. SAFC represents road, rail, sea and air freight modes and operations, and assists the industry on issues relating to freight logistics across all modes.

In March 2006, SAFC released the second iteration of its Infrastructure Statement for South Australia – *Moving Freight* (copy attached). This document outlines:

- The Core Principals and Policy Issues affecting transport infrastructure provision;
- Priority Infrastructure Projects and Maintenance priorities which will support the existing and emerging business and community demand for freight transport movements over the next 20 years;
- A discussion of funding options;
- Core Infrastructure criteria which infrastructure projects should aim to meet; and
- Economic, Social and Environmental factors which must be considered when assessing infrastructure proposals.

You will see that there are many infrastructure priorities required to bring this State's transport network up to a level that will ensure efficient and effective access to local, national and international markets.

SAFC also contends that, whilst the Auslink concept is an otherwise logical and strategic approach to national transport infrastructure funding, South Australia has not received an equitable allocation to date (6.7% of the national funding pool), whether measured in terms of population share (7.6%), length of national roads (11%) or the length of regional roads (15%) in this State. A fairer share of funding is required from the Auslink 2 program, which also redresses the imbalance from the Auslink 1 program.

Additionally, SAFC believes that the Auslink network fails to recognise key population and production centres in both metropolitan and regional areas in SA, and suggests that proposed additions should include:

- Extension of the network to incorporate the full North-South Freeway concept from the Southern Expressway to the Northern Expressway (to be constructed), based on the South Road route. This will involve extension of the Auslink network from Sir Donald Bradman Drive (leading to Adelaide International Airport) to the Southern Expressway;
- An East-West link from South Rd to the SE Freeway, based upon Cross Rd (or potentially Greenhill Red and Glen Osmond Rd);
- The Barrier Highway and associated rail link which performs a vital role for national through freight on the Sydney-Perth corridor (as well as facilitating access for businesses (primarily mining and pastoralists) located in the North-East areas of the State; and
- The Riddoch Highway and the presently closed rail network in the States' South-East which provides a vital link from the Dukes Highway through to Mt Gambier and on into Victoria's Western Border area (for freight seeking access to the Port of Portland and/or markets and key facilities in Adelaide and Melbourne).

Furthermore, additional routes, both existing and new, and covering both road and rail options will need to be incorporated into the Auslink network as the State's status as a highly prospective mining region in global terms, begins to bear fruit. Many of the required new and upgraded corridors are located in regional areas and will be required to facilitate access to strategically positioned regional ports and intermodal terminals. Mining developments located on the Eyre peninsula and in the Gawler Craton area for instance could seek access to markets through a variety of ports including Thevenard, Pt Lincoln, Whyalla, Port Bonython and even Pt Pirie (which might also increase its role in handling the freight task associated with developments in the mid-North of the State, as well as the eastern areas adjacent to the NSW and Victorian borders (including developments within those States) in reasonably close proximity to the border (eg: Broken Hill and Mildura). Port Adelaide will also likely play a key role in handling the freight task associated with these large scale developments.

I have attached a description of the State's major ports and road and rail transport infrastructure, which includes a brief discussion of emerging opportunities and deficiencies. You will see that there are many exciting developments in the formative stages, some more advanced than others. All will benefit from infrastructure investment that facilitates access to key deep water ports, and road and rail corridors. The attachment also contains a discussion of the Importance of the Regions to South Australia.

I commend the Senate Committee for undertaking this study and highlight that SAFC would be happy to discuss our comments in more detail should you require. Feel free to contact me by telephone on (08) 8447 0688 or via Email at murphy.neil@flindersports.com.au in this regard.

Yours Sincerely



For. **Neil Murphy**
General Manager

**SAFC Input to the Standing Committee on Transport and Regional Services
Inquiry Into Integration of Regional Rail and Road Networks & Their Interface
With Ports**

The Importance of the Regions in SA

There is only limited recognition of the important contribution that regional areas make to the economic, social and environmental well being of South Australia. Transport infrastructure provides vital links for regional communities to regional centres, State capitals, ports, airports and key production centres and logistics facilitates

The State's regional areas account for only 27 per cent of South Australia's population but 50 per cent of its export income¹. They are crucial to our economic success and, as the table below shows, provide a foundation for a large slice of manufacturing and value-adding that occurs in this State (often in the metropolitan area).

South Australian Overseas Exports by Commodity².

<i>South Australian Overseas Exports by Commodity</i>	<i>12 months to August 2005 (\$000)</i>	<i>Change from previous year (%)</i>	<i>Share of total exports (%)</i>
Meat & meat preparations	447.6	51.9%	5.8%
Wheat	395.5	-43.7%	5.1%
Wine	1566.1	10.8%	20.2%
Wool & Sheepskins	170.9	-13.3%	2.2%
Machinery	338.0	-3.2%	4.4%
Metals & metal manufactures	1263.2	41.6%	16.3%
Fish and crustaceans	285.4	-24.7%	3.7%
Road vehicles, parts & accessories	1028.2	-18.5%	13.3%
Petroleum & petroleum products	253.2	120.6%	3.3%
Other/Confidential (inc bulk barley)	1990.6	-8.0%	25.7%
Total	7738.6	-0.4%	100.0%

With South Australia being so heavily reliant on the regions for its foreign earnings, transport networks leading from the regions to export ports and airports are critical to our future prosperity and economic growth.

The South Australian Strategic Plan outlines targets to treble the value of South Australia's export earnings to \$25 billion by 2013 – from the table above it is obvious that the regions will play a critical role in achieving this objective. Three important export contributors to achievement of this strategy will be the food industry, mining and the wine sector – all regionally based. The expanding timber industry in the State's South East, Adelaide Hills and on Kangaroo Island, are other cases in point.

¹ http://www.southaustralia.biz/sa_regions/sa_regions.htm accessed 7 Dec 2005

² South Australia's Economic Performance Update October 2005 (DTED), <http://www.southaustralia.biz> accessed 7 Dec 2005

It is for this reason that SAFC has included so many major transport initiatives either in, or connecting the regions to manufacturing and export facilities in its *Moving Freight* infrastructure statement.

In particular, current mineral exploration initiatives are likely to significantly boost the regions export potential over the next decade.

Mining – A Case In Point

Since the 1980's the South Australian Government has undertaken several projects searching for anomalies that may indicate mineral deposits. From initiatives such as the series of aero-magnetic surveys undertaken in this State, several large mineral finds have been claimed, with the associated companies continuing their searches or working on feasibility studies.

These mining opportunities, if proved economically feasible, will require significant road and rail transport infrastructure in order to move the possibly millions of tons of ore and processed outputs to ports and processing facilities, and supplies (fuel, food etc) back to the mine. Airport and seaport upgrades may also be required to support a viable workforce and facilitate exports.

Many of these finds are within the Gawler Craton – a geological area with very little movement for many millions of years which increases the likelihood of finding large ore deposits.

Additionally, expansion projects such as the proposed doubling of output from the Olympic Dam mine at Roxby Downs and the opening up of the Coopers Basin for further exploration, will place added pressure on our transport networks, and will require careful planning to accommodate industry needs.

Transport Infrastructure of Significance to the Regions in SA

Ports

There are 12 ports of significance from a freight and logistics perspective in SA. These ports facilitate access to national and international markets for producers from across the State, including the regional areas.

Thevenard (Flinders Ports)

On the Far West Coast of the State, Thevenard (near Ceduna) services the grain, gypsum and salt industries. A narrow gauge railway carries approximately 1.5million tonnes of gypsum to the port from Kevin (approximately 70km west of Ceduna) for transfer to national and international markets. Salt is delivered to port by road, whilst grain is delivered by a combination of road and rail (isolated narrow gauge **Eyre Peninsula Rail network**).

Deficiencies:

- Channel Depth
- Rail Quality and Gauge
- Some strategic grain silo sites are road based – only!
- Not connected to national interstate mainline rail network

Emerging Opportunities:

- Mining developments on Eyre Peninsula and the Far West Coast of SA

Pt Lincoln (Flinders Ports)

At the southern tip of Eyre Peninsula, Port Lincoln is home to the nation's largest commercial fishing fleet and a nationally significant aquaculture industry. The port has a naturally deep harbour and rapid ship loader capabilities which facilitates access for some Cape Size grain vessels. Fertiliser and some fuel supplies are also imported direct through the port.

The **Flinders Hwy, Tod Hwy and Lincoln Hwy** funnel freight by road from across Eyre Peninsula to the port for later export. The isolated narrow gauge **Eyre Peninsula Rail Network** runs from Port Lincoln northwards to Cummins where the line splits into 2 – 1 line heading in a north easterly direction towards Rudall, Kimba and Buckleboo, whilst a second line heads north through Lock and Wudinna, and then westwards towards Wirrulla and on to Ceduna.

Following agreement to a joint State, Commonwealth and industry investment program, a \$40m investment program is planned to upgrade the rail network so as to ensure ongoing services for the benefit of the grain industry. It is expected that the network will be truncated at Wudinna and Kimba (with the remaining sections remaining in place so as to enable rail movement of grain during a bumper harvest).

Deficiencies:
facilities)

- Rail Quality (track speed, derailments, and discharge facilities)
- Available rail is not connected to the national Interstate Mainline Network operated by ARTC
- Some strategic grain silo sites are road based – only!
- The port is located in the heart of the city leading to some

conflict between road and rail based deliveries and the general populace (commuters and tourists).

- Emerging Opportunities:*
- Mining developments on Eyre Peninsula and the Far West Coast of SA (15m depth will facilitate access for large vessels)
 - Aquaculture expansion

Whyalla (OneSteel)

Located on the eastern side of Eyre Peninsula, Whyalla is a dedicated port servicing OneSteel's requirements. The port handles ores, steel and the recently introduced magnetite export trade.

The **Lincoln Hwy** runs along the eastern coastline of Eyre Peninsula past the steelworks and port complex and through the township of Whyalla. A narrow **gauge rail network** (also owned by Onesteel and operated by G&W Australia Limited) carries around 3 million tonnes of iron ore from the Iron Knob/Iron Duke etc area to the Whyalla steelworks for processing. A spur from the **Interstate Mainline** rail network heads southwards from a point just west of Pt Augusta and into the steelworks complex. Finished steel products are then railed around the nation to markets, ports and other processing facilities (eg Pt Kembla facilities).

- Deficiencies:*
- . Port depth limited (Panamax and Cape Size vessels are unable to enter the port (to service the magnetite trade))
 - Exclusive access for OneSteel
 - Long term future of the steel plant is often called into question
- Emerging Opportunities:*
- Magnetite trade
 - Expanding aquaculture (eg: Yellow Tail Kingfish)
 - Mining developments on Eyre Peninsula and the Far West Coast of SA (15m depth will facilitate access for large vessels)

Port Bonython (Santos)

Located on the eastern side of Eyre Peninsula, north of Whyalla, Port Bonython is a very capable deepwater port, currently servicing the petrochemicals trade (Santos/Coopers Basin JV Partners).

Access to Port Bonython is via a 23km road heading eastwards from the Flinders Hwy towards Stony Point. Finished fuel products are also distributed by road to northern and western areas. There is no rail access to Port Bonython, with raw product travelling from Moomba in the Far North East corner of the State, to Port Bonython via pipeline.

- Deficiencies:*
- Exclusive access for Santos
 - Specialised facility designed for Santos' requirements
 - Quality of infrastructure (wharf etc)
 - lack of a rail link connecting to the IML
- Emerging Opportunities:*
- Mining developments on Eyre Peninsula and the Far West Coast of SA (depth will facilitate access for large vessels and a rail spur (joining the Interstate Mainline will be necessary))

Port Pirie (Flinders Ports)

Located on the western side of Yorke Peninsula, south of Pt Augusta, Port Pirie handles the import and export of lead, zinc and concentrates (for Zinifex – the largest lead smelter in the world - the facility has waterside access), and grain and fertilisers (although this trade has diminished of late).

Port Pirie is adjacent to **National Highway 1** (Port Wakefield to Pt Augusta Rd) and the **Interstate Mainline** rail track heading towards Port Augusta passes nearby. A rail spur heads into Port Pirie and onto the wharves. Ores are railed from Broken Hill to the Zinifex facility at Port Pirie via the Interstate Mainline (Spencer Junction to Parkes). Ores are also exchanged between company facilities in Bell Bay (Tas) using sea freight. Lead output is transported to Port Adelaide for export (generally by rail as containerised product)

Deficiencies:

- Port depth limited and channels are long
- Users have dwindled such that port costs are spread across few users
- Limited life for Broken Hill mines providing feedstock

Emerging Opportunities:

- Mineral sands developments in Western NSW and Victoria
- Discovery of new feedstock resources for Zinifex.

Wallaroo (Flinders Ports)

Also located on the western side of Yorke Peninsula (eastern side of Spencer Gulf), south of Pt Augusta, Wallaroo is part panamax capable, and handles grain exports and fertiliser imports – servicing Mid-North areas of the State.

Road access to Wallaroo is via Port Wakefield Rd (National Hwy) to Port Wakefield, and then westwards towards Wallaroo (via Kulpara). Wallaroo (and Yorke Peninsula in general) is also a popular tourism area leading to conflict between traffics.

Deficiencies:

- Port depth (Panamax vessels can only be partially loaded and must top up at other deeper ports – Pt Adelaide, Pt Giles or Pt Lincoln).

Emerging Opportunities: -

Klein Point (Flinders Ports)

Located on the eastern side of Yorke Peninsula, Klein Point is dedicated to the handling and shipment of limestone to Adelaide to be used as feedstock for the Adelaide Brighton Cement facility on the Inner Harbor at Port Adelaide. The gas fired Accolade II is a purpose built vessel used exclusively for this trade.

Access to the port by road is not possible (for large trucks) and there is no rail network on Yorke Peninsula.

Deficiencies:

- Closed access
- port costs are spread across a single user

Emerging Opportunities: -

Port Giles (Flinders Ports)

Also located on the eastern side of Yorke Peninsula, Port Giles is a deepwater port dedicated to the grain trade. Port Giles has recently been deepened to allow access for Panamax Grain vessels.

Access to the port by road is via the link travelling along the eastern side of the Peninsula. The road network also fans out across the peninsula to allow grain deliveries (although access for heavy vehicle combinations is constrained). There is no rail network on Yorke Peninsula.

- Deficiencies:*
- Restricted access for larger heavy vehicle combinations (it is not possible to bring a double road train onto the Peninsula for delivery to Port Giles)
 - Lack of rail option
- Emerging Opportunities:*
- Greater volumes of grain will funnel through Pt Giles due to the larger vessels which will visit the port following the recent completion of channel deepening and berth investments. The port is now able to accommodate panamax grain vessels.

Ardrossan (ABB Grain)

Also located on the eastern side of Yorke Peninsula, Ardrossan is owned and operated by ABB Grain Limited and handles dolomite destined for Onesteel's Whyalla facility as well as grain.

Access to the port by road is via the link travelling along the eastern side of the Peninsula. The road network also fans out across the peninsula to allow grain deliveries (although access for heavy vehicle combinations is constrained). There is no rail network on Yorke Peninsula.

- Deficiencies:*
- Restricted access for larger heavy vehicle combinations (it is not possible to bring a double road train onto the Peninsula for delivery to Ardrossan)
 - Lack of rail option
- Emerging Opportunities:* -

Port of Portland

The Port of Portland plays a vital role in the export of bulk products from the South East area of South Australia, including grain, woodchips and fertiliser (imports).

Whilst the port currently plays a vital role for the export of woodchips from the vast area under forest in the region, recent establishment of blue-gum plantations will place added pressure on the port and associated infrastructure. The ongoing movement of grain and the development of mineral sands exports through the port will place added pressure on facilities.

- Deficiencies:*
- **SE Rail line** (Heywood to Mt Gambier to Millicent and Wolseley) closed following conversion of Adelaide Melbourne rail line to standard gauge in 1995
 - Resultant pressure on road network in the area (esp **Riddoch Hwy**), including those leading to the port (**Princes Hwy** and

Nelson Rd)

- limited room for expansion in handling facilities on the port
- Restricted access for larger heavy vehicle combinations

Emerging Opportunities:- Potential to reopen the rail link (Wolseley to Mt Gambier and on to Heywood) to cater for the expanding woodchip exports from the region.

KI Ports (SA Government)

The Kangaroo Island ports of Kingscote, Penneshaw, and Cape Jervis are owned and operated by the State Government and are the Island's principal means of access to the mainland.

The ports handle a variety of general freight servicing the Island (including fuel), as well as products destined for mainland and export markets (grain, livestock, seafood). There is an emerging timber processing and woodchip industry on the Island which will likely require the development of an additional port operation to handle the projected output.

Kangaroo Island is also considered to be the jewel in South Australia's tourism crown and attracts a large number of tourists from across the globe each year.

Deficiencies:

- Shallow draft ports will not facilitate large scale bulk product movements (eg: woodchips)
- Restricted access for larger heavy vehicle combinations (B-Double only)
- relatively high freight costs
- conflict between tourists and freight (particularly during the peak periods, which often coincide)

Emerging Opportunities:

- Woodchip exports (new port likely)
- expanding industry sectors (although volumes will remain relatively low)
- mining

Port Adelaide Facilities (Flinders Ports)

The Inner and Outer Harbors at Port Adelaide cater for the State's import and export needs, with an origin in both the metropolitan and regional areas.

The Outer Harbor Container Terminal is operated by DP World (a subsidiary of Dubai Ports International) and handles a variety of containerised products. Livestock and motor vehicles also use Outer harbour facilities.

Grains, malt and fertiliser presently move through the Inner Harbor, as does cement, lime-sand, soda ash, metals and scrap, petrochemicals and a variety of break bulk cargoes.

Following completion of the deepening of the Outer Harbor shipping channel (to 14.2m) and construction of a new grain terminal and extension of the Outer Harbor Container Terminal grain exports will shift to Outer Harbor, as will a variety of other products. The Outer Harbor terminals will be capable of handling the larger container

vessels increasingly being introduced to the Australian trades (4,200 teu vessels), as well as panamax grain vessels and some Cape Size Vessels.

There is also significant investment going into the access corridors leading to the port including development of the **Port River Expressway** project, the **Northern Expressway** project (replacing Main North Rd as Adelaide's principal route to the Barossa Valley, Riverland and on to Victoria and New South Wales), and the **LeFevre Peninsula** rail upgrade. Following completion of these projects, access to Port Adelaide, particularly from the northern and eastern areas of the State) will be unparalleled in the nation.

Road and Rail Facilities

The regional road and rail network in South Australia plays a critical role in linking the regions to key ports, airports and road and rail facilities.

Relatively poor access to ports, airports, railheads and road terminals in this State can have a detrimental impact upon freight transport operations (cost and time), particularly in light of the predicted growth in the freight transport task. The cost of moving goods to and from intermediate manufacturing locations, markets, intermodal road and rail terminals, ports and airports represents a significant element in the total final market price for goods. The efficiency of this element of the total transport chain is thus critical to the viability of many industries.

Decisions relating to which particular transport mode to utilise, which specific freight corridor(s) and consequently which terminals and intermodal facilities to use can be influenced by a variety of factors including (but not limited to):

- Weight and length issues (ie: truck/train/ship/plane sizes and capacities, container sizes, the ability of infrastructure to cope with the specific task in a cost efficient manner);
- Corridor and terminal capability / capacity (as above – for example, the use of Port Lincoln's port facilities may be constrained by the length of rail loop available, or the load in/load out rates of handling facilities, which in turn limits the length of train able to access the terminal site to unload, and extends the dwell time within the terminal yard resulting in costly rail and sea assets being under-utilised);
- Congestion in the immediate vicinity which can present barriers to access;
- Ease of access to facilities, including issues such as working hours (including mismatches between terminal operating hours and desirable delivery times);
- Social factors (eg: conflict with communities adjacent to the terminals/depots and along access corridors);
- The size of the specific freight task at hand (ie: increasing volume may induce a modal shift); and
- The trend towards more transport service providers offering multi-modal transport solutions.
- The impact of the requirement to comply with Chain of Responsibility legislation, including by minimising the fatigue impacts of excessive waiting time for heavy

vehicle drivers waiting for loading/unloading and by ensuring containers' mass is accurately documented at all steps in the process.

In addition, terminal and corridor efficiency may be threatened by longer-term developments, which may choke their capability, both now and in the future. These could include the encroachment of urban development and the rise of general public antipathy to freight use of terminals and corridors, as well as the possible introduction of new equipment (eg: containers) beyond the current capabilities of infrastructure/regulations. These factors could severely compromise the long-term efficiency of terminal and depot operations and therefore it is necessary to identify threats to their future efficient operations from such developments so that appropriate planning can be implemented to manage the potential impacts.

Intermodal terminals must be considered as elements within land-based supply chains which connect customers to key locations. The terminal is a place and a business entity which must be commercially sustainable for the investor/operator, perform its operations in a socially and environmentally acceptable manner, and yield a perceived or real value for customers, who make modal choices about moving their products.

Like most businesses, a sustainable terminal operation is one where revenue exceeds cost, and the profit margin provides an acceptable return on investment commensurate with the level of risk for the investor/operator. Terminals **must** be:

- well located
- efficient in their operations for the current and expected task at hand
- cost competitive
- insulated against adjacent uses which are uncomplimentary (eg: housing)
- part of an integrated logistics chain

Terminals should:

- have high capacity road and rail access
- operate around the clock – 24/7
- be open (facilitate 3rd party access)

Deficiencies:

- Rail Gauge compatibility (the Mid-North rail network, as well as the metropolitan rail network are broad gauge, whereas the interstate mainline network is standard gauge. There are some areas where dual gauge track is available)
- Rail Terminal capacity (especially in terms of train length)
- Inability to double stack containers on the interstate mainline track to Melbourne (caused by height clearance issues in both SA and Vic)
- Restricted access for larger heavy vehicle combinations (especially Double Road Trains and B-Triples) on a variety of routes leading to a variety of facilities
- conflict between tourists and freight (particularly during the peak periods)
- Ability to handle the growing freight task
- Inappropriate adjacent developments (eg: schools on key freight routes)
- Inefficient permit processes for heavy vehicle access

- Emerging Opportunities:*
- Load out rates at key country silo complexes
 - Performance based standards (will result in innovative vehicle combinations on the network)
 - SA Government's heavy Vehicle Access Framework which promises to remove the need for many existing permits issued to heavy vehicles
 - expanding industry sectors