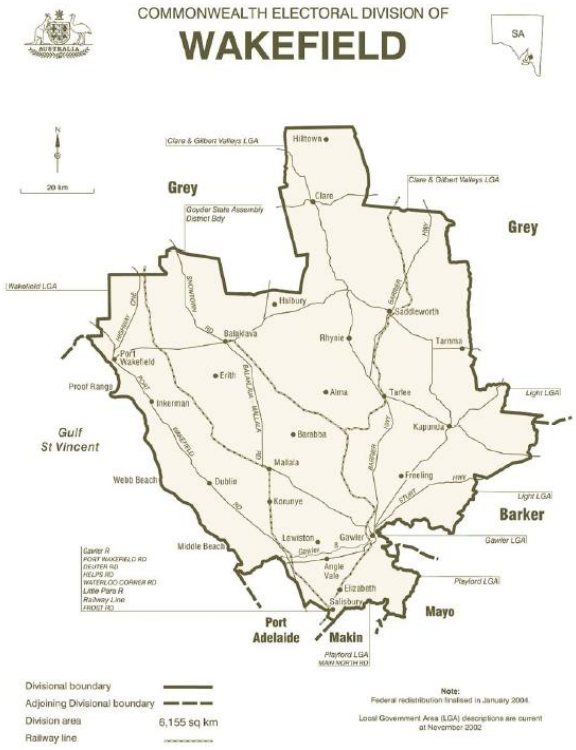
City of Playford • City of Salisbury • Wakefield Regional • District Council of Clare & Gilbert Valleys • District Council of Mallala • Town of Gawler • Light Regional

Wakefield Group

Submission concerning:

Department of Infrastructure, Transport, Regional Development and Local Government
Adelaide Freight Movements Study (Discussion Paper)
October 2009



18 November 2009

CITY OF Playford | CITY OF Salisbury | CLARE & GILBERT VALLEYS COUNCIL | TOWN OF GAWLER | LIGHT REGIONAL COUNCIL

1. Introduction

It is understood that "the key purpose of the Study is to examine the feasibility of improving the capacity and efficiency of the interstate rail line between Murray Bridge and Adelaide to meet current and future demand needs." ….In particular, the Study is required to specifically consider the feasibility of a new alignment- proposed by the Mitcham Council RFTF – that would run to the north of Adelaide."[1]

Because of the northern alignment this Study is of particular interest to the Wakefield Group as the proposed alignment will traverse the areas of two of its members (DC Mallala and Light Regional) and a closely associated adjoining Council (DC Barossa).

In addition, as this submission indicates there are significant potential benefits that should be investigated by the Study that may add weight to the offsetting of the cost implications.

2. The Wakefield Group

The Wakefield Group is made up of the Local Governments that comprise the Federal Seat of Wakefield.

- City of Playford (part);
- City of Salisbury (part);
- Town of Gawler;
- District Council of Clare and Gilbert Valleys;
- District Council of Mallala;
- Light Regional; and
- Wakefield Regional (part)

The District Council of Barossa, whilst not a part of the Wakefield Group, is invited to all meetings.

The Wakefield Group composition involves the Member for the Federal Seat of Wakefield and the Mayors and Chief Executive Officers of the Councils and it was formed in June 2004.

[1] Department of Infrastructure, Transport, Regional Development and Local Government "Adelaide Rail Freight Movement Study-Discussion Paper" October 2009. p2

The Wakefield Group prepares a "Strategic Priorities Submission" which has the following functions:

- To provide the Member for the Federal Seat of Wakefield with an overview of the potential impact of regional growth on infrastructure and the priority projects that will address these infrastructure needs.

- To indicate partnering opportunities between Federal and local government in relation to specific action projects and the targeting of infrastructure funding in the Wakefield Electorate area.

- To provide a rational and coordinated approach to announcements of funding opportunities.

The Strategic Priorities Submission 2010 features the northern by-pass option as one of its key projects that is worthy of support.

3. Submission

Emphasis is given to the following key questions posed by the Discussion Paper:

- Other features of the route that are important for the Study to take into account;

- The economic growth assumptions underlying the freight forecasts; and

- The extent to which a more efficient rail alignment would improve freight services and lead to a greater use of rail instead of road.

3.1 Other features of the route that are important for the Study to take into account

The Wakefield Group is particularly interested in Option 3 because of the junction with the existing alignment and the route of the proposed new alignment through the District Council of Mallala and the Light Regional Council.

A route that concentrates its exit point from the Adelaide urban area through the north is considered to have distinct accessibility and economic advantages given the concentration of present and future manufacturing, storage and transhipment operations in the north and west of the metropolitan area. Edinburgh and the Greater Edinburgh area is becoming a significant industry focus and this area is located on the existing rail route.

The statement in the Discussion Paper which refers to the indirect connection to Adelaide by Option 3 requires some further analysis: i.e. "Although this option allows the use of more efficient trains than can currently be accommodated, the route taken by these trains operating to and from Adelaide would be indirect."[2]

It is considered that with the importance of the Transport Storage and Logistics operations already located in the northern areas of Adelaide and the proximity of any new freight unloading point (inter-modal) close to existing facilities and the major road distribution system that has been constructed and is still being constructed in Adelaide's north and west that the "indirect" nature of the route would be mitigated.

The Discussion Paper indicates the importance of the topography and settlement patterns on the proposed northern route and the advantages of these elements are considered significant given the need to use maximum volume (double stacking) and length trains and infrastructure such as passing loops, cuttings, bridges and tunnels that can accommodate them. Land acquisition for the alignment obviously should attempt to utilise existing transport easements but will be easier to accomplish where the cadastre is more extensive. Some analysis of the comparative advantage of the northern route in this regard would be useful in the Final Report. It is noted that there are potential flood issues associated with the Gawler and Light Rivers that may need to be taken into account in regard to any improvements concerning the current alignment through Two Wells.

In addition, the alignment of the rail line should not only take advantage of topography and overall length but also take into account the possible and potential freight connections with that alignment. Principal among these is the potential for an inter-modal facility north of Adelaide on the existing alignment. Discussion of this facility was canvassed in the Northern Region Economic Development Transport Infrastructure Study (NREDTIS). [3] The connection with the new alignment, as proposed, north of Two Wells may need consideration in regard to the location of an inter-modal facility in the most appropriate location south of this point. It is a major potential advantage, under Option 3, that the national rail lines from Sydney, Perth, Darwin/Adelaide and now Melbourne come together in this region.

The NREDTIS puts forward a long term strategy (>10 years) the key aim of which is for a Greater Northern Inland Port which would contribute to "an efficient, cost effective location for the distribution of products and materials throughout South Australia extending nationally and globally".[4] There are major activities and initiatives currently happening in the region that not only spell out the important future for this part of Australia but can be incorporated in more effective transport infrastructure that can value add to their operations."[5]

Appendix A contains the relevant section of the NREDTIS.

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[2] Ibid p18.
[3] KBR "Northern Region Economic Development Transport Infrastructure Study" 5th February 2003
[4] Ibid p5-20
[5] Ibid p 5-20

The Wakefield Group also has as one of its priorities the establishment of a regional airport in its region and a 24/7 component of this allied with the inter-modal facility could be an interesting component for further analysis.

The northern by-pass option should also indicate other potential terminals that could benefit from its alignment, particularly associated with bulk goods, such as grain,. Some of these terminals may more efficiently locate from other locations to take advantage of a more direct route and its better connections.

3.2 The economic growth assumptions underlying the freight forecasts

The Wakefield Group is particularly interested in Option 3 (Northern By-pass) because of the potential economic benefits from a rail alignment through its area including, as indicated above, the opportunity for any major inter-modal development.

The northern metropolitan area of Adelaide and the northern fringe, indicated by the State Government Northern and Southern Regions (Figure 1) is currently a major contributor to the economic base of South Australia and this will be reinforced through further growth in the future. The recently released Draft State Government Plan for Greater Adelaide[6] provides a projection over the next 30 years for:

- a steady population growth of 560,000 people
- the construction of 258,000 additional homes
- economic growth of $127.7 billion
- the creation of 282,000 additional jobs

A considerable proportion of this population growth, additional housing economic development and jobs will be in the Northern and Barossa regions of Greater Adelaide.

In the Northern Region it is expected that population will grow by 140,000 persons and in the Barossa Region it is expected that population will grow by 139, 000 persons this represents almost 50% of the total Greater Adelaide growth.

Employment growth in the Northern and Barossa Regions totals 117,500 or 42% of the total jobs creation. The north will experience strong growth in a range of manufacturing and primary production sectors all of which will benefit by much greater access to export markets through more efficient rail and road transport infrastructure. A number of key industries and activities are in close proximity to the northern rail corridor, in particular Defence (with the establishment of the Battalion 7RAR at Edinburgh), Automotive (GMH) and significant food based industries (abattoirs at Dublin, horticulture and intensive animal husbandry).

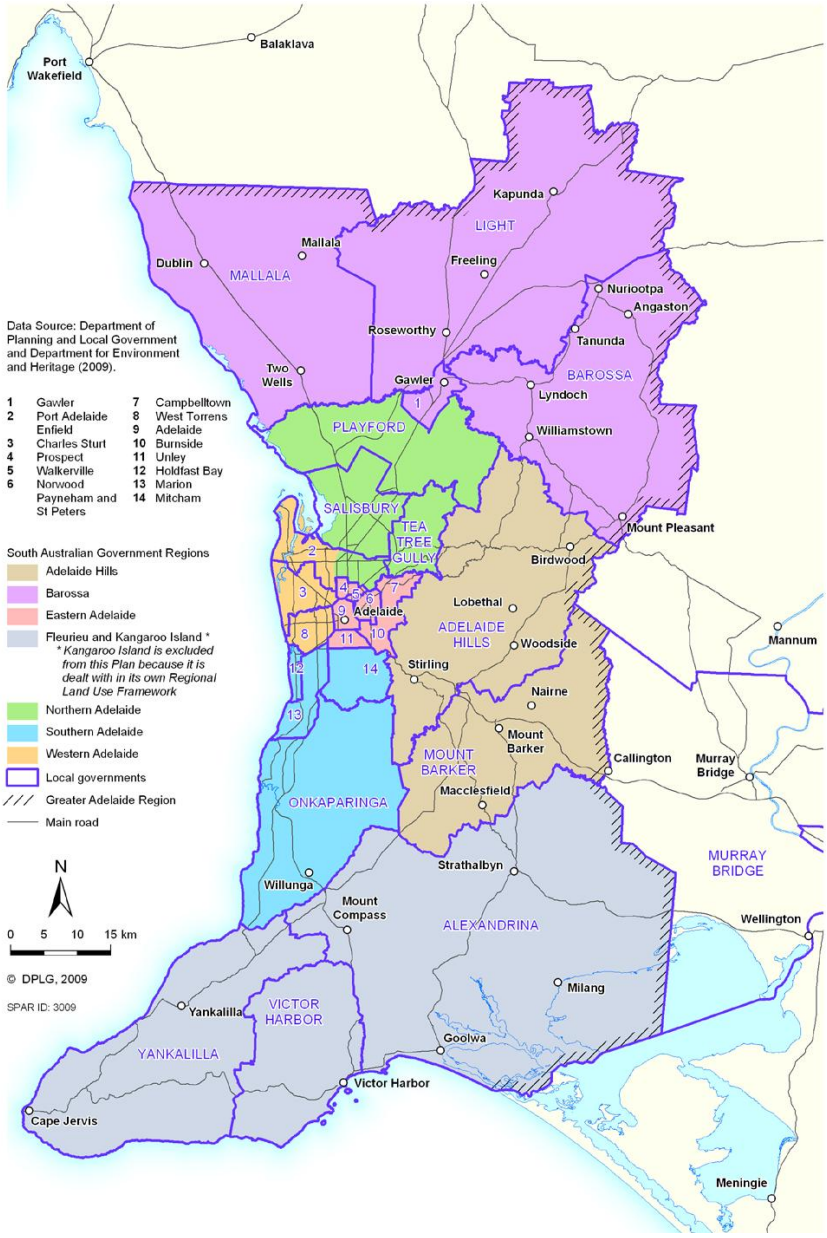
The Commonwealth Government has, through its Infrastructure Australia initiative, committed to the expenditure of significant funds to improve the efficiency of the infrastructure components of Australia's transport routes, ports and other gateways.

[6] South Australian Government "30 Year Plan for Greater Adelaide" draft for consultation July 2009.

Such expenditure will improve the opportunity for achieving the maximum return from our resources export potential as we emerge from the global recession. Therefore it is considered necessary that a more detailed benefit cost analysis be undertaken of the northern by-pass option to justify the expenditure of $1.4 billion.

The final report, which assesses the northern by-pass option, must undertake a regional analysis which incorporates the opportunities for economic growth taking into account the projections put forward by the Greater Adelaide strategy and the importance of a more efficient rail link and possible inter-modal facility capable of national significance.

Figure 1 Greater Adelaide indicating the Northern and Barossa Regions



Source: South Australian Government "30 Year Plan for Greater Adelaide" draft for consultation July 2009.

3.3 The extent to which a more efficient rail alignment would improve freight services and lead to a greater use of rail instead of road

It is considered that the existing rail and road network in metropolitan Adelaide is not ideally set up for the efficient movement of freight. The linear nature of metropolitan Adelaide (an extent in excess of 80 kilometres) creates the need for a range of vital components in regard to transport infrastructure. Over time improvements have been made to the arterial road network but significant infrastructure is not yet in place to achieve a fully efficient transhipment of goods.

The State Government, in recent times through the State Infrastructure Plan, has indicated a comprehensive program to upgrade vital intersections and routes and particularly in association with the north – south corridor. South Road has therefore a major emphasis at the present time and the links with the Port River Expressway (PREXY) the Port River Crossing and the Northern Expressway (NEXY) are initiatives that have been implemented over the past five years. Further opportunities will be possible in relation to the Northern Connector which proposes the re-alignment of the Freight rail corridor in association with a new road alignment. Mention should be made of this in the Final Report and the inter-connection and service opportunities it holds. It is noted that this further reinforces the opportunities for the Adelaide economy of a rail link coming in at the northern rather than the southern metropolitan area.

The rail network also requires a focus that will integrate it through the inter-modal network to an overall more effective transport system. The rail exit to Melbourne is a product of nineteenth century infrastructure and is a weak link in the national network. As the Discussion Paper indicates that any upgrade this link will be technically difficult involving a significant cost outlay and major and contentious impact on sensitive residential areas. For example the siting of two kilometre passing loops to increase the line's capacity is very difficult given the configuration of the existing alignment, the topography and the existing settled areas.

A lateral approach such as the construction of a northern by-pass is seen as a decisive step to break out of the constraints that currently exist. In particular provided the concept of the route is integrated with road freight and the considerable development of industry and TSL activities in the Northern and Barossa Regions of South Australia there will be some significant benefits to overall freight services. There will also be potential benefits in other areas such as the potential reduction of heavy freight truck movements through metropolitan Adelaide to the South Eastern Freeway.

Importantly road freight movements may be impacted by current considerations of a carbon credit system with rail proving to be a more climate friendly operation and consideration of this is a worthwhile area of research in the final document.

It is considered that the Final Report would benefit from a more comprehensive discussion of the manner in which the northern by pass could assist in re-shaping the metropolitan Adelaide freight movement network improving its layout and overall efficiency.

4. Summary

The Wakefield Group supports the northern by-pass option (option 3) in principle but the justification of a significant level of expenditure would benefit from a broader and more detailed analysis in the final report.

Particularly in relation to

- More comprehensive topographical and rail design comparisons to prove the northern alignment will add flexibility and volume increases;
- The introduction of a more detailed benefit-cost study based on the comparative advantages of this major infrastructure item to the region which consists of northern metropolitan and the northern hinterland of Adelaide;
- The introduction of an inter-modal scenario to the rail alignment, on or near its junction with the existing alignment to Darwin, Perth etc; and
- The analysis of the advantages of the rail and inter-modal to the integration of road/rail and possibly air freight opportunities in the north of Adelaide. (Take account of the considerable advancement in freight access (NEXY, PREXY) and location of TSL enterprises in the Northern Adelaide region.)

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Appendix A:

Excerpt from KBR "Northern Region Economic Development Transport Infrastructure Study" 5th February 2003 (Sections 5.2.3 and 5.3)

5.2.3 The long term strategy (> 10 years)
An Inland Port for the northern area

Aim
The key aim of the strategy for a Greater Northern Inland Port would be the creation of an efficient, cost effective location for the distribution of products and materials throughout South Australia extending nationally and globally.

Corporate momentum
There are major activities and initiatives currently happening in the region that not only spell out the important future for this part of Australia but can be incorporated in more effective transport infrastructure that can value add to their operations. Some of the key activities are:
- Amcor–North Gawler
- Vinpak–Barossa
- AWB–Two Wells
- AusBulk–Bowmans & Roseworthy
- ABB–Two Wells
- San Remo–Balaklava
- BALCO–Bowmans
- Primo–Pt Wakefield
- Livestock Saleyards–Dublin/Mallala
- Wine Industry–Barossa
- GMH–Elizabeth
- Adelaide to Darwin railway.

Connecting the northern region to global markets
Major elements of the concept include:
- Major intermodal e-logistics warehousing and distribution centre with customs clearance.
- SA's first inland port.
- Ready access to Port Adelaide, and SA's major road and rail networks with linkages to other major sea and air ports.
- Major economic driver and contributor to regional sustainable competitive advantage.
- Complements other initiatives such as Edinburgh Parks, Pt Augusta, Bowmans Development etc.

Rationale
The Greater Northern Inland Port would be supported by a powerful coalition of local businesses, government agencies and economic development organisations focused on helping companies move freight faster, cheaper and more efficiently.
The Port would advance the region's transportation and distribution objectives by focusing on issues such as extended rail access and highway development, and by building national and international awareness of the northern region's logistical

advantages to ensure a dynamic economic future for the region.

Critical success factors

Research into the development of inter-modal terminals (for example, Slack. 1996; US National Research Council and Transportation Research Board, 1996), has indicated the presence of the following critical success factors:

- the venture's perceived costs and benefits
- value of the market base supporting the facility
- volumes required to create a sustainable critical mass throughput
- proximity to key major roads and rail
- access to the national network
- community's acceptance on social and economic grounds.

These factors require detailed investigation in feasibility studies of freight centres/inland ports that are site specific for the northern region. Various studies could be consulted to provide guidance on the scope of such investigations, including the concept of public logistics terminals in the Netherlands *(Janssen and Oldenburger, 1991)* and in Germany *(Ruske, 1994)* and analytical methods for locating public physical distribution centres in the greater Tokyo region *(Castro, Kuse and Kubo, 1999).*

The Northern Region Inland Port—Strategy and Actions

The northern region makes an ideal location for an Inland Port because of its location, strong infrastructure and pro-business climate. Major companies are continuing to select the region and establish and/or expand operations. There is plenty of room to grow—the region has a wide expanse of relatively cheap undeveloped land.

The knowledge economy and the understanding of its ramifications for regional economic development (Section 2.1) has major benefits for the northern region and it is considered that the opportunities that exist within the transport storage and logistics sector provide a perfect expression for the knowledge economy. The development of a Northern Inland Port pulls together the benefits of transport in the region making it not just a facilitating component of infrastructure but an integral and cutting edge part of the economic landscape operating as a knowledge economy component.

The northern region is well placed and if the northern region does not establish an inland port, another region probably will.

The Northern Region Inland Port would provide a demonstration project for local, regional, state and commonwealth and private sector collaboration. It would be a catalyst for economic growth and align local/regional strategies with state and national agendas.

Objective: The creation of a major Inland Port in the Northern Region as an integrating and value adding opportunity for the continuing development of the regional economy and its component industries and as a major economic driver for competitiveness on a global scale.

Item	Strategy/Action/Project	Priority	Facilitator
1	To further develop the idea of The Greater Northern Inland Port the following approach is **recommended:** 1. Read and respond to the Commonwealth Government's Green Paper on AusLink, released in November, 2002, on the reform of the national framework for developing Australia's land transport infrastructure because "the new framework seeks to support private sector plans for seamless logistics" (Anderson, 2002, p.5). 2. Become involved with the Australian Logistics Council in its efforts to implement the Australian Logistics Industry Strategy (Commonwealth of Australia, 2002), especially in the formulation of the required national strategic framework for the planning and promoting of freight centres and inland ports. There has been relatively little work to date investigating the optimal		

configuration in Australia of freight centres and how such a configuration might be achieved.
3. Commission a feasibility study of a freight centre, including the staged implementation needed to expand its operation to an inland port, noting in the terms of reference the necessity to investigate: The venture's perceived costs and benefits; value of the market base supporting the facility; volumes required to create a sustainable critical mass throughput; proximity to firstrate major road and rail infrastructure (or the costs to create it); access to the national transport network; locational factor or combination of locations, funding and private sector involvement and the community's acceptability.

5.3 SUMMARY OF FACTORS RELEVANT TO THE DEVELOPMENT OF A GREATER NORTHERN INLAND PORT

This section provides further information and elaborates on the factors that are considered relevant to the establishment of a Greater Northern Inland Port. In particular the description of an inland port, locational decisions within the region and the complexity of operations in regard to national and international competitiveness.

5.3.1 Regional context

Northern region location

 Within 50 km of the proposed Greater Northern Inland Port there is:
– a large percentage of the state's population;
– a large percentage of SA Industrial Manufacturing Capacity;
– a large percentage of SA Food Manufacturing Capacity;
– a large percentage of SA Winemaking Capacity;
– a large percentage of Existing TS&L Operators;
– linkage to Pt Adelaide, Perth, Darwin, Melbourne, Sydney, Brisbane and Parkes Inland Port (there is the potential for a strategic alliance with Parkes).

The potential location

The inland port could potentially be located within a corridor that is both close to the Port Wakefield Road and the Adelaide Darwin Rail link and because of the analysis involving various constraints and opportunities, could be established at any number of locations between Direk and Bowmans. There is a point of balance in the locational decision as the closer to Adelaide the better it is for access for goods and employment but the higher the risk of interference from other uses, particularly residential and local road congestion. The concept of location could involve a cluster of strongly linked activities related to TS&L opportunities in the region.

Optimal location

Ideally an inland port should have the following attributes:
 access to 'critical mass' freight national and global freight for warehousing and distribution—Adelaide?;
 minimal need to duplicate existing transport infrastructure;
 access to an appropriately skilled workforce and ongoing training facilities;
 40–50 year horizon for not creating urban/freight transport conflict.

Trends

 Developed economies are putting emphasis on service and information sectors.
 Global commerce has companies looking to improve their supply chains as a way of increasing the bottom line.
 E-logistics is a major growth area with outsourcing projected to grow rapidly.
 Industry overview.
 Freight transportation issues.
 Highway congestion impacts freight productivity—clogged arteries.
 International shipping and air services projected to decline—SA.
 Major global rationalisation by logistics companies—need for engagement at a

local level.

Impact on SA's economy
 TS&L represents a large percentage of GSP.
 SA exports are projected to grow by significantly over the next 10 years.
 Freight growth projections foreshadow the need for major TS&L (hard and soft) infrastructure upgrades.

Structure
 Leadership—The Greater Northern Inland Port would require a project champion and leader.
 Funding—Needed for the various stages of the project from detailed feasibility through to implementation.
 Executive Committee—An Executive Committee would need to be formed to develop policy and provide continuation of leadership for the project.
 Information Technology—A key component of the project would be the adoption of e-logistics best practice to enhance the region's business process efficiency.
 Marketing—This would be an essential component of the overall project and focus on promoting the region's advantages to businesses.
 Transportation Infrastructure—Clearly pivotal to the project with a focus on the region's physical infrastructure needs, enhancements and associated implementation.
 Transportation and Distribution Services—This would focus on identifying and addressing service deficiencies that inhibit the efficient flow of freight through the region.
 Workforce Development—This would focus on ensuring a supply of appropriately skilled labour with an emphasis on logistics. Ongoing training and development would be a priority.
 Project Stakeholders and Partners—These would need to be identified early on in the project and would include organisations such as global logistics firms, major industry participants, workforce suppliers, training providers, IT&T suppliers and, of course, all levels of government.

The Inland Port can comprise the following:
 intermodal rail yards
 freight forwarders and customs brokers
 trucking companies
 significant warehouse/distribution space
 24/7 operations including 24 hour customs
 cluster developments such as agrifood park
 a possible air freight facility.

5.3.2 National and international context

Introduction
The region has a very high representation of rural and manufacturing industries in the area that are significant in export operations and this emphasises the imperative of a strong linkage of the northern region at the national and international level. The development of the Inland Port as a regional extension of the knowledge economy builds on the region's competitiveness.

Background
The availability of existing Australian port infrastructure is a potential impediment to the freight industry's ability to deliver logistical services. Future liner ships entering Australian international trades will be too large for the current depths of Australia's largest container port in Melbourne, and land-use conflicts surrounding other ports

may restrict the provision of future port infrastructure requirements. There are no inland ports in Australia at the present time—other than gazetted airports. The Australian Customs Service is not presently considering formal inland port options as their analyses suggested that there is little efficiency to be gained *(Commonwealth of Australia, 2002, p. 77).*

There are legislative impediments to the development of inland ports. Section 15 of the *Customs Act 1901* requires that only actual seaports and airports are appointed for the clearance of the import or export of cargo. Cargo under Australian Customs Service (ACS) control can be moved under bond from gazetted wharves and airports to ACS licensed depots to be held or consolidated prior to ACS clearance. Licensed depots may be established anywhere, subject to meeting all of the criteria specified in the *Customs Act 1901*. Currently, most licensed depots are within a 40 km radius of an ACS office because beyond that distance the depot operator bears the costs of inspections by ACS and this cost rises in proportion to distance. However, the ACS recognises the impact of the legislation on logistic chains and is considering proposals relating to the establishment of international freight operations in regional centres *(Commonwealth of Australia, 2002, p.78).* The Victorian Government is currently supporting several initiatives aimed at facilitating private-sector investment in inland ports.

Inland ports operate in European and Asian countries. Given the directions that the global freight industry is taking, and the long-term timeframe of developing a strategy for the northern region, the inland port concept is important to investigate. Equally important is the recognition that "freight centres" are providing the generic-industry attributes that would be required of an inland port with the notable exception of appropriate services of Australian Customs Service (ACS) and Australian Quarantine and Inspection Service (AQIS).

Freight centres are specialised transport infrastructure containing facilities referred to as consolidation centres, distribution centres, inland container depots, local delivery centres, freight terminals and inter-modal freight handling facilities. Examples of inter-modal facility developments at the operational or proposal stages in urban areas include: Minto and St Mary's (Sydney); Kewdale (Perth); and Port Adelaide Plat, Outer Harbour, Islington and Dry Creek (Adelaide). Examples from regional areas include Parkes, Griffith and Wagga Wagga (NSW), Shepparton, Wodonga and Ballarat (Victoria) and Port Augusta, Port Augusta West and the Barossa Valley.

The longer term strategy for the northern region is to develop a concept of transport infrastructure that would not only benefit the area as a major gateway focus for the transhipment of products to and from the region but become a major economic driver in its own right. The importance of transport storage and logistics to economic growth has been elaborated in Section 4 of this report. Significant opportunities exist in building an efficient long-term transport focus that will step over short term impediments and integrate knowledge economy and information and technology outcomes. Given below are examples of the manner in which transportation has been focussed in certain regions of the United States which illustrate the concept being envisaged.

The concept deals with the best location of a "Port" that is reliant on a range of transport modes and not necessarily on one dominant theme. Linked to this location are significant storage, transhipment facilities and value adding activities and importantly, as illustrated by the case of Greater Columbus the integration of technology and information advantages. In the United States there has also been a pragmatic attempt at affirmative regional action by the creation of "Trade Free Zones".

The concern in the case of this region is that we are "keeping up" with transport changes to allow our freight movements to function in a traditional movement between the areas of growth and the exit/entry points to the State. Adelaide has 'clogged arteries' that will only get worse as South Australia's food and other exports expand. Currently, there are major problems not only getting goods to export markets directly out of South Australia but also in getting goods to interstate exit ports (Melbourne and Sydney). There are 'bottlenecks' in the movement of goods from regional South Australia to Adelaide for export (e.g. Barossa to Adelaide via Gawler by road).

An Inland Port is a major opportunity that would operate to coordinate, store and move goods and in the case of exports provide customs clearance. This would be done prior to rail delivery to Port Adelaide, Darwin or even Adelaide Airport. This process would also work for imported goods. As other places in Australia are considering the concept of an Inland Port the proposal being made here is not meant as a national substitute for these places. Rather it is seen as an important regional focus, in a best advantage location like northern Adelaide, which contains significant opportunities to carry forward such a concept.

There are components that are considered as both essential and optional for this development. Essential aspects include unfettered 24/7 operation, significant scale of operation and close linkage with the Adelaide–Darwin rail link and major road connections. Optional opportunities can be formulated with air freight linkage, value adding activities and information technology outcomes.

This concept is long term and will require further analysis for its feasibility, location and final form. It in no way should be seen as a longer term substitute for the intermodal facility that is currently proposed at Direk. Rather the inter-modal may be the first step in the creation of an Inland Port focussed on the Adelaide Darwin Rail corridor.

Table 5.3 describes the types of freight service firms included in the Australian government's definition of the freight logistics industry.

Table 5.3 Freight logistics industry service providers

Type of Provider Service Provided

Transport Service Provider

- Uni-modal operator
- Multi-modal operator
- Terminal operator
- Transport broker
- Provider of infrastructure services—ports, airports

Distribution Service Provider

- Warehouse operator
- Storage facility operator
- Distribution services

Freight Service Provider

- Customs brokers
- Freight forwarders
- Freight consolidators
- Specialist forwarding agencies
- Hazardous commodity experts
- Freight brokers
- Packing services

Specialist Logistics Service

- Information technology providers
- Communication service providers
- Consultants
- Financial service providers
- Insurance service providers
- Equipment/materials handling suppliers

- Labour hire services
- Education and training service suppliers

(Source: Commonwealth of Australia, 2002, Table 5, p.14)

A review of Australian and international literature suggests there is no universal definition of freight logistics, although the concept can be introduced as follows. The term "logistics" is commonly used to describe the process of designing and managing the supply chain (UK, Department of the Environment, Transport and the Regions, 1999, p.13). Logistics involves the movement of goods and of information. It is the process that ensures resources needed for production are in the right place, in the right time, in the quantity and quality required and at the right price. "Reverse logistics" involves the minimisation of waste production and increasing the recycling of any waste produced. Thus, logistics involves the moving, storing and handling of freight, from a start point to an end point.

The confusion in definitions that are appropriate to recent advances in, and directions for, the freight logistics industry largely centre around supply chain management practices. In some definitions, logistics is good supply chain management; in others, supply chain management is a tool for logistics management. Understanding logistics management and supply chain management = two key streams for a firm's value chain—is essential for an analysis of future freight services such as a freight centre or inland port. Logistics management aims to minimise costs and increase efficiencies while securing reliable supply and delivery of inputs and outputs (Commonwealth of Australia. 2002, p.5).

To describe the interconnectivity, or interdependence, characteristics of logistics activities, Australian industry uses the term "logistic chain management" that comprises both supply chain management and logistics management (Commonwealth of Australia. 2002, Figure 1, p.6). "Supply chain management" is "the art of coordinating the resources of all those in the supply chain to maximise the benefit to the final customer, and in doing so, maximise the return to all chain participants." In contrast, "logistics management" is defined as "the science of balancing the storage (stocks) and movement (flows) of inputs and outputs to meet demand, and minimise total cost while delivering increased efficiencies." Both combine to provide a description of best practice as logistic chain management.

Defined in this way, the logistic chain management industry needs government policy to support the internal efficiency of the firm and to improve their capacity to participate in the logistics chain (Commonwealth of Australia, 2002, p.7). In fact, a study by the Bureau of Transport Economics (2001, p.61) identifies inadequate infrastructure as one of the broad factors that limit integration in the industry. Infrastructure used to provide freight logistics services include transport–transport modes, inter-modal facilities and freight centres—storage and warehousing (receiving goods from suppliers, storage, order picking and assembly, packaging and repackaging, and transfers between transport vehicles and transport modes) and communications—including telephone services, electronic mail and the Internet. Communication infrastructure is critical to freight logistics because of the need to manage information.

(Pettigrew 2002, p.21) has characterised the Australian freight industry in the following way:

"The freight-transport industry in Australia has not achieved a mature approach towards collaboration that leads towards channel efficiency."

Although collaborative supply chain concepts emerged in the early 1990's the culture of the industry is not predisposed towards the implementation of such ideas as it is dominated by opportunistic agendas and short-term timeframes. The sector comprises of independent and owner divers who compete in an industry that has unlimited right

of entry, and operate variously under corporate branding, their individual client's branding, or under their own profile. Several companies do operate according to world-class commercial efficiencies, but elsewhere "management skills are not consistent with world's best practice" (Pettigrew, 2002, p. 20). The Industry Steering Committee of the Freight Transport Logistics Industry Action Agenda has proposed reforms to address these problems with five priority areas—leadership, people, infrastructure, innovation through technology and knowledge, and sustainability *(Commonwealth of Australia, 2002, pp. 103–106).*

The current risk for the development of a freight centre/inland port in the northern region is that operators have short planning horizons and limited loyalties along the supply chain, and therefore have difficulties investing in, or influencing, new practices. However, a feature of the modern economy is the scale of outsourcing that firms are prepared to undertake and the trends in new service providers. Overseas studies suggest the outsourcing market is growing by 20 per cent per annum *(Brewer, Button and Hensher, 2001, p.256).* Europe is perceived as having the most mature third-party logistics markets with three-quarters of European companies using these specialised providers for at least some of their business. Emerging is the fourth party logistics service provider who is "an integrator that assembles the resources, capabilities, and technology of its own organisation and other organisations to design, build and run comprehensive supply chain solutions" *(Commonwealth of Australia, 2002, p.10)*. This reflects the global trend for complete logistics solutions by users of freight logistics services—and one that would be facilitated by the infrastructure of freight centres/inland ports. In addition, Dobinson and McKerral (2002, p.10) recommend the establishment of an industry-government enterprise to provide a value-added transport network information service foe all modes of transport to encourage efficiency.

Examples of Inland Ports in the United States of America

Huntsville Alabama USA
International Intermodal Centre
Located in Huntsville Alabama adjacent to the Huntsville International Airport (1) and the Jetplex Industrial Park.
The range of services available from this site include:
- receiving;
- transferring;
- storing and distributing air, rail and highway cargo for domestic and international purposes.

A nationwide rail service is supplied by Norfolk Southern Rail
The facility is home to Public Use Foreign Trade Zone No 83, US Customs, (2) the US Department of Agriculture, Customs Brokers and Freight Forwarders.
Ten "Drayage" companies operate between the Centre and businesses within North Alabama and Central Tennessee.
(1) The Huntsville International Airport has two parallel runways, one 10,000 feet and one 8,000 feet long and one million square feet of cargo ramp space. Weekly international non stop service is available to Europe daily. 200,000 square feet of space is available for receiving, storing, transferring and distributing domestic and international air cargo.
(2) The Foreign Trade Free Zone is a specially designated area in or adjacent to a US Port of Entry which is considered to be outside the Customs Territory of the USA. The benefits that can be attained relate to the duty that that need not be paid on different types of goods and changes that can be made to goods, whilst in the zone, that need not attract extra duty. The FTZ encourages exports and transhipment, domestic manufacturing activities and makes some domestic businesses globally competitive.
(Source: http://www/hsvairport.org/intermodal/)

The Greater Columbus Inland Port Initiative–Ohio USA

The Greater Columbus Inland Port initiative is a public-private partnership representing a coordinated regional effort. The initiative makes its point by using the slogan "A port with an ideal location, using intermodal transportation services, people and information instead of water." This initiative is more a realisation of the locational advantage of Greater Columbus than the establishment of a single integrated place for transport related activity.

The locational advantages of the Greater Columbus area is complemented by an excellent transportation infrastructure. The Inland Port has been created where railroads, interstate highways and airport gateways converge in Midwest America. Through the coordinated development, expansion and integration of these facilities and their links to the global economy and transportation network, the Inland Port offers an efficient location for the movement of goods.(1).

The Greater Columbus area benefits from the location of Rickenbacker International Airport that gives priority to freight as an all-cargo airport. Carriers such as Federal Express, Ups and Southern Air are using the facilities of the airport to move goods domestically and internationally. The Airport falls within Foreign Trade Zone No 138 which covers central and south-eastern Ohio.

Importantly mammoth shippers including The Limited Inc; AT&T, Honda, Spiegel, Whirlpool and others have either grown up in or located in the Central Ohio Region because of its location and facilities.

Columbus offers world class access to the information needs of business. Because of research facilities location in Columbus such as the Ohio State University specialising in logistics research and training there is a significant additional weighting to the locational advantage. Columbus is the only North American site selected by the UN Conference on Trade and Development to be one of 16 "Information Ports" worldwide. Tradepoint USA has created an international data centre in Columbus that makes available and showcases paperless trading alternatives for business. Columbus envisages its Information Port as a leading edge for future economic expansion.

(1) The Regions has air cargo facilities, three inter-modal rail terminals, more than 130 trucking companies (over 12,000 loads originate or terminate in Columbus daily), and over 86,000,000 square feet of warehousing space.

(Source http://www.rickenbacker.org/dev/gcip.html)

Puerto Nuevo Tucson Arizona USA

Puerto Nuevo is an innovative multi dimensional inland port with serving principally the United States and Mexico facilities.

Its major components are:

- Location close to the US Interstate 10.
- Direct access to Union Pacific mainline at the Port of Tucson's rail truck transfer station.
- Close proximity to Tucson International Airport with international connections.
- Overnight and same day truck service to and from the large markets of Tucson/Phoenix, Sonora/Sinaloa, Mexico Los Angeles/San Diego/Tijuan and El Paso/Ciudad Juarez.
- Access to more than 2,000 maquiladoras, (US companies with operations in Mexico) all within a five hour driving range of Puerto Nuevo.

The inland port concept has also linked with the advantages of a local technology cluster that features Bioindustry, Environmental Technology Industry and Aerospace, IT and Teleservices, Optics and Plastics and Advanced Composite Materials.

(Source. http://www.ci.tucson.az.us/pnt/)