Submission no. 97





Submission to the House of Representatives Standing Committee on Transport and Regional Services

Inquiry into integration of regional rail and road networks and their interface with ports

June 2005

TABLE OF CONTENTS

- **1. EXECUTIVE SUMMARY**
- 2. GRAIN INDUSTRY OVERVIEW
 - a. Grain in the Australian Economy
 - b. The Global Grain Market
 - c. AWB's Role and Activities
 - i) The Single Desk contributing to a more effective supply chain
 - d. Australian Grain Supply Chain
 - i) Grain Storage and Handling
 - ii) Grain Transport
 - iii) Ports
- 3. FUTURE INDUSTRY GROWTH & OUTLOOK

4. IMPEDIMENTS TO CURRENT AND FUTURE EXPORTS

- a. Rail Infrastructure
 - i) Rail Infrastructure Constraints
 - ii) Recommendations
- b. Rail Access
 - i) Rail Access Constraints
 - ii) Recommendations
- c. Regional Road Network
 - i) Regional Road Network Constraints
 - ii) Recommendations
- d. Connectivity to Port Infrastructure
 - i) Connectivity Constraints
 - ii) Recommendations
- 5. OTHER ISSUES
 - a. Intermodal Hubs
 - b. Intelligent Tracking Technology
- 6. CONCLUSIONS AND RECOMMENDATIONS

1. EXECUTIVE SUMMARY

AWB Limited (AWB) welcomes the opportunity to provide comment to the House of Representatives Standing Committee on Transport and Regional Services Inquiry. In managing the Single Desk for export wheat sales on behalf of Australia's 36,000 wheat growers, AWB recognises the need for clear government policy on transport matters, to help position Australia as a leading player in the highly competitive international grains market.

Australia's resource sector – not least of which includes the grains industry – is strongly positioned within our domestic and international operating environments. However, each sector is currently restricted in its ability to fully maximise these opportunities as a direct result of Australia's inadequate infrastructure.

AWB encourages the House of Representatives Standing Committee on Transport and Regional Services to adopt an holistic view in their considerations for a range of solutions across all commodities which might be implemented by various levels of Government and the private sector. AWB has made similar representations to the Prime Minister's recent Taskforce on Infrastructure and Exports.

Overview of AWB

AWB has a constitutional obligation to maximise returns to growers who deliver into the AWB National Pool. Actively managing the grain supply chain to help lower the costs of production is an important component of this objective.

AWB has long promoted the view that the Australian grains supply chain needs to be world competitive if Australia's grain growers are to prosper, especially as world markets become increasingly competitive. Australia cannot afford inefficiencies, cost structures or access regimes that inflate the distribution costs associated with exporting grain. Such imposts reduce the competitiveness of the grains industry in world markets and reduce the price which Australian farmers receive for their grain.

AWB has been particularly active in promoting competition across the entire domestic grain supply chain through the use of competing transport modes, the introduction of alternative rail operators on open access regimes and investing in new grain storage infrastructure to improve the efficiency of growers delivering grain into safe storage and in the outloading of grain to transport.

The contribution the wheat industry makes to the national economy is significant, not only in terms of the rural sector. In 2003-04 the total value of production was \$5.6 billion. Perhaps just as importantly however is the flow-on effect the grains industry has in rural and regional communities.

Key constraints to maximising export returns

A major challenge for Australian agriculture's ability to compete in the global grain market is the limitations of our domestic infrastructure – specifically storage, handling and transport. It is within this overall context that AWB has identified a number of issues which pose impediments to the Australian wheat industry realising its full export capacity.

AWB has identified four critical areas which currently limit Australia's ability to expand its export grain markets. These include; rail infrastructure, rail access arrangements, regional road networks and port infrastructure.

The present regional road and rail network infrastructure is anachronistic within the context of its current demands, not only by commodity export industries but also through transportation of domestic produce and passenger use. This infrastructure was constructed on the basis of production and usage levels of 30 or 40 years ago, or roughly half the required current capacity.

There has been a shift to road in the movement of the national freight task due in part to the abandonment of other rural sectors, such as wool, from an inefficient rail network. We believe that investment in rail would assist in shifting back to the more efficient rail mode of transport of other rural commodities.

Coupled with the declining standard of infrastructure is the emergence of increasingly difficult and ineffective access regimes, particularly on the rail network. In part this is a result of deregulation of the national rail market, whereby state governments in many cases have sold critical elements of the rail network to private operators.

Not surprisingly, the private sector has different drivers to those of government; perhaps most noticeably is the lack of community or public benefit in lieu of commercial drivers. This, together with a lack of effective structures – whether they be incentives or regulatory – to promote open competition, the nation's rail network and export grain terminals are currently constrained due to a lack of investment in this essential infrastructure and the lack of incentives for private operators to manage their businesses without discrimination.

Australian grain growers have traditionally enjoyed a substantial freight cost advantage over their North American peers, especially in Asian markets. This advantage over our competitors is eroding as a result of the state of our national supply chain infrastructure. In order to redress this trend, the importance of a coordinated investment strategy in infrastructure by all levels of government, complementing the private sector's market signals for export markets, is essential.

Key recommendations to maximising export returns

In order to increase the export potential of the Australian wheat industry, AWB asserts there are a number of factors which need to be addressed.

Rail Infrastructure and Access

Investment in rail infrastructure to ensure the most efficient and timely supply chain path is used, thereby allowing the grains industry to respond to the demands of the export market. Specifically:

• The regional rail network to be maintained to a <u>minimum</u> standard capable of handling:

- 23 tonne axle loads and 60 kilometre per hour speeds on broad and standard gauge lines, and
- 19 tonne axle loads for narrow gauge lines;
- Encourage investment in rail infrastructure through reinstatement of Community Service Obligations (CSO) in some format, to promote investment by track providers and operators in the grain rail system assets;
- Encourage greater competition between rail operators through ensuring network operators facilitate a workable open access environment;
- Establish agreement between the respective levels of government to work together in facilitating rail infrastructure investment and access;
- That all governments encourage sectors to utilise the regional rail network as the most efficient transport mode for rural and regional users. This could be achieved by ensuring a viable regional rail network that is in good condition, accessible and one that supports above-rail competition.

<u>Regional Roads</u>

- Where rationalisation of the rail network is necessary, this should only occur when there is some certainty that the alternative mode of transport will be supported through appropriate road funding;
- That road networks support the transfer of grain onto rail wherever possible.

Connectivity to Port infrastructure

- Funding to remove rail and road bottlenecks into Brisbane, Newcastle, Portland and Port Lincoln;
- Advance funding for channel and berth deepening at Newcastle, Melbourne and Albany to make each of these ports capable of loading a 14m draft Panamax vessel.

2. GRAIN INDUSTRY OVERVIEW

2a. Grain in the Australian Economy

By far the largest enterprise in the Australian grain industry is wheat production, with an annual gross value of \$5.596 billion in 2003-04. Wheat exports contribute \$4-5 billion annually to the national economy, accounting for 3% of Australia's total export revenue.

Although Australia is a relatively small producer of wheat, accounting for only 3% of world production due to its low domestic population base, Australia accounts for between 15-18% of total world exports, making it the second largest wheat exporting country behind USA and ahead of Canada and the European Union.

2b. The Global Grain Market

As one of the most export-dependent wheat industries in the world, the international trading environment has a direct impact on Australia's wheat producers. The reality of the international environment is a market where:

- a handful of countries are the major suppliers to numerous small importers;
- market signals are distorted by widespread use of government subsidies;
- state-sponsored Single Desk buyers and a few multinational corporations dominate the trade.

Combined, these factors distort returns Australian growers can receive.

The difficulties associated with selling into a complex global market are exacerbated by the fact that wheat growers in the US and EU – both major exporters and competitors for Australia's grain industry – receive more than 50% of their income in the form of government subsidies. Farming subsidies in the US, EU and Japan total AUD\$1 billion per day. These subsidies distort the world market, insulating producers from market signals which cause oversupply and depress prices. In addition, major exporters often resort to export subsidies, government funded credit programs and food aid donations to move unwanted stocks onto the global market.

In addition to this long-standing competition from North America and Europe, Australia faces a new competitive threat from non-traditional exporters in the former Soviet Union states.

2c. AWB's Role and Activities

AWB Limited (AWB) is Australia's leading agribusiness and one of the world's largest wheat management and marketing companies. AWB evolved from the Australian Wheat Board, which was created as a government-backed statutory marketing authority 60 years ago, to now being a wheat grower controlled S&P/ASX top 100 Australian company.

The Australian Government has legislated (Wheat Marketing Act) for a subsidiary of AWB, AWB International (AWBI), to act as the dominant exporter for Australian bulk wheat. The Wheat Marketing Act appointed the Wheat Export Authority (WEA)

specifically to regulate AWB. As the manager of the Single Desk, AWB operates the National Pool that must accept all wheat presented to it for sale that meets minimum quality standards (known as 'the buyer of last resort).

Under this system, revenue from AWB's international wheat sales are "pooled" together and returned, less costs, to growers. AWB Limited charges a performance-based management fee to AWBI for the services it provides in managing this system, a component of which is related directly to AWB's performance in reducing supply chain costs.

Through its role as a Single Desk exporter, AWB is able to deliver the highest return for the National Pool participants by aligning high value markets, along with high quality product with fluctuating supply and volatile international markets. A recent survey of Australian wheat growers showed 85% support for retaining the Single Desk.

AWB has an obligation in its Constitution to maximise returns to growers who deliver to the AWB National Pool, and its performance in this regard is monitored by a separate Board of Directors on AWBI and the Federal Government. This obligation encompasses maximising the prices received for wheat sales but, importantly, also includes minimising costs associated with the storage, handling, transport and shipment of export wheat. This requirement is unique in the Australian grains industry both domestically and internationally.

i) The Single Desk - Contributing to a More Efficient Supply Chain

AWB's obligation to use its status as the Single Desk manager to drive cost efficiencies through the supply chain is reflected by Wheat Export Authority (WEA) which has indicated that it

"expects AWB (International) to structure its arrangements with AWB Limited so as to provide the maximum incentives for growers' supply chain costs to be reduced."

Acting to fulfil this mandate, AWB seeks to improve efficiencies and reduce costs along the supply chain on behalf of National Pool participants.

Australia's wheat growers spend an estimated \$1.4 billion each year storing, transporting and shipping their wheat through the supply chain to market. AWB has been able to demonstrate that considerable savings on these costs can be made. Since 1999 AWB has succeeded in reducing supply chain costs by an average of around \$4.45 per tonne (or \$65.9 million) for Australia's 36,000 wheat growers. These savings have flowed directly to the bottom line of growers, with many producers of other grain types also enjoying flow-on benefits.

As shown in Figure 1, supply chain costs represent the greatest proportion of costs borne by Australia's wheat growers. As a function of the current inefficiencies within the supply chain, supply chain costs also represent the greatest potential for further savings.



Figure 1: Value of the National Pool is comprised of grower returns less transactional costs and AWB's management fee.

Australia's wheat marketing arrangements have been regularly reviewed since the corporatisation of the Australian Wheat Board in 1999. The 2000 National Competition Policy (NCP) review of wheat marketing recognised that competition within the supply chain was limited and more was necessary to increase efficiency and reduce costs. Key outcomes and recommendations included recognition that as operator of the Single Desk, AWB could contribute significantly to increased competition in the supply chain through investment in this area.

As a direct result of these recommendations, AWB invested in the supply chain by entering the grain storage and handling business to drive competition and cost efficiencies. AWB developed 22 up-country AWB GrainFlow Grain Centres, which have contributed greatly towards reducing costs and improving receival services for growers in the supply chain.

Entry costs for investment in the supply chain are very high and often not reflected in attractive rates of return. AWB with its requirement to maximise overall returns and reduce costs for wheat growers, invested approximately \$140 million in developing the GrainFlow sites. These investments were made not only on commercial grounds, but also to introduce competitive market pressure on the monopoly Bulk Handling Companies. AWB was also the largest single investor in the only new grain port terminal built in Australia in the last 20 years at Melbourne Port.

More recently, the wheat marketing arrangements were again evaluated by the Federal Government through the *2004 Wheat Marketing Review*. The 2004 Review was conducted by an independent panel appointed by the Minister for Agriculture and assessed AWB's performance in managing the Single Desk. The panel found:

- AWB's performance was commended in managing the Single Desk and supply chain, and the Panel recommended AWB should consequently continue this role;
- AWB's contribution to reducing supply chain costs were commended, in particular the information provided for estimated silo returns (ESRs) which encourage the use of more efficient silos along the supply chain; and
- There was greater transparency within the supply chain as a direct result of AWB's greater involvement in this area.

These recommendations have been endorsed by the Federal Government as recently as 5 April 2005. In addition to supporting the outcomes of the Review, the Federal Government noted their support for retaining the current 'Single Desk at Silo' model, where AWB manages the flow of grain the length of the supply chain. A proposal to remove AWBI from the domestic supply chain, which would mean moving towards what is commonly known as an 'at port Single Desk' model, was rejected as it has been by all major grower representative groups in Australia.

2d. Australia's Grain Supply Chain

Growers transport their wheat by road during harvest to any of 719 up-country receival sites around the mainland states, or direct into storage at any of the 18 port terminals. Growers determine which receival facility they will deliver their wheat into the National Pool depending upon a number of factors, the most significant being the facility which is most cost-effective for the grower. Wheat is stored at silos in various segregations, based on quality and variety, until AWB calls for it to be transported (generally by rail) to port for export. AWB's policy is to direct grain flow to export by the least total cost supply chain route, irrespective of the ownership of the storage and handling or port facilities.

AWB's National Pool provides growers with transparent estimates of its pricing for deliveries made to any location or silo at which it is receiving grain. These estimates, called Estimated Silo Returns (ESRs), represent an estimate of the net revenue payment or Estimated Pool Return (EPR) less the estimated Site to Sea direct costs for wheat delivered to that location. The Site to Sea costs are an estimate of the supply chain costs that will be incurred from storing, transporting and loading the wheat onto a ship for export. ESRs are therefore providing growers and other industry stakeholders transparent pricing signals that reflect the estimated cost differentials between different sites. Figure 2 shows the components for the average Site to Sea costs for 2003/04 National Pool deliveries by state.



Figure 2: Average Site to Sea Costs for 2003/04 Export Wheat (\$/tonne)

i) Grain Storage and Handling

Each state has a dominant or monopoly storage and handling company known as a Bulk Handling Company (BHC), which owns nearly all of the upcountry storage facilities and the export grain facilities. The BHCs were all originally state-owned or protected, but have slowly rationalised through various acquisitions into three key BHCs: GrainCorp Operations Limited, ABB Grain Ltd, and Cooperative Bulk Handling Limited. (Appendix 1)

The distribution of ownership of up-country storage and handling facilities are shown in Table 1.

The location of grain storage sites and export grain terminals is shown on the accompanying maps in Appendix 2.

The grain supply chain from receival point to port is characterised by inefficiency and a lack of competition. As noted earlier, the past two decades have seen significant consolidation of the various groups within the supply chain. As a function of the low competition along the supply chain - specifically the rail and storage and handling facilities (upcountry and at port) – investment in maintaining, let alone upgrading this infrastructure has been poor and limited. Accordingly the supply chain has reached a point where investment is required to ensure the Australian grain industry is able to realise its export potential.

State	Owner	Number of Locations
QLD	GrainCorp	52
	AWB GrainFlow	4
NSW	GrainCorp	193
	AWB GrainFlow	9
	Australian Bulk Alliance	3
	Other	3
VIC	GrainCorp	116
	AWB GrainFlow	5
	Australian Bulk Alliance	6
	Other	3
SA	ABB Grain	117
	AWB GrainFlow	4
	GrainCorp	1
	Other	3
WA	Cooperative Bulk Handling	198

Table 1: Ownership of Major Grain Storage Facilities

Wheat received into AWB's National Pool is moved to port by rail or road under the direction of AWB according to its export shipping plan. The export program is uneven across different months of the year as customers and AWB seek to work within the supply and pricing parameters influenced by the counter cyclical northern hemisphere export production programme.

Planning of the export task is very complex and AWB seeks to maximise grower returns by optimising the price received from customers against all of the sea and land-based supply chain costs, subject to any operational or physical constraints.

Such constraints include:

- lack of rail or export terminal capacity to meet demand;
- draft limitations at ports that constrain the full loading of some classes of ships; and
- competition for access to transport, export storage or loading capacity with other grains or other commodities.

In an attempt to introduce efficiencies in the management of the export supply chain on the east coast, AWB has entered into a joint venture called Export Grain Logistics with GrainCorp. The joint venture's purpose is to capture efficiencies through better coordinating the planning and management of the export grain supply chain to ultimately deliver reduced costs and higher returns for growers. AWB is also pursuing similar relationships in SA and WA.

ii) Grain Transport

Most of the present regional road and rail network infrastructure has been based on the production levels of some 30 or 40 years ago, or roughly half the current required

capacity. Over this period there has been minimal capital investment in components of the network to bring it up to modern standards.

The importance to the national economy of having a viable, sustainable rail infrastructure to support the export grain industry cannot be understated. Given that around 70% of the average total grain export volume of 21 million tonnes per annum is delivered into silos located on the rail network, and there is a peak export window (in terms of pricing opportunities) of six to nine months of the year, the only effective means of moving these volumes of grain over short periods is by rail. Nevertheless, the rail network is deteriorating rapidly and has become a key limiting factor for the grain export industry to meet demand in a timely manner, or to be able to respond to short-term marketing opportunities as they occur.

Following the recommendations contained within the Hilmer Report (1993), the national rail market has undergone significant reform over the past ten years, including privatisation of state based rail monopolies. Currently there is one major rail operator (Pacific National) on the east coast and two more players in South and Western Australia (Australia Railroad Group) and Queensland (QR), as outlined in Appendix 3.

iii) Ports

Australia has nineteen active grain terminals of which all, except Ardrossan, are used for the export of wheat by AWB. All export grain terminals except Melbourne are owned and operated by the monopoly provider of up-country storage in each respective state, as shown in Table 2.

State	Facility Owner	Location
QLD	GrainCorp	Mackay, Gladstone, Brisbane
NSW	GrainCorp	Newcastle, Port Kembla
VIC	GrainCorp	Geelong, Portland
	Australian Bulk Alliance/AWB	Melbourne
SA	ABB Grain	Port Adelaide, Wallaroo, Port Pirie, Port Giles, Port Lincoln, Thevenard, Ardrossan (AWB does not export wheat out of Ardrossan)
WA	Cooperative Bulk Handling	Esperance, Albany, Kwinana, Geraldton

Table 2: Ownership of Australian Grain Terminals

Australia's grain terminals have natural catchments, whereby up-country sites are freight-advantaged to a particular port, depending on rail and road networks and the geography. There are some exceptions, primarily in the south-east where considerable competition exists between the Melbourne Port Terminal and GrainCorp's terminals at Geelong and Port Kembla. Similar competition between grain terminals does not exist anywhere else in Australia.

3. FUTURE INDUSTRY GROWTH & OUTLOOK

Australian wheat production is continuing to increase as growers plant more land to wheat. This growth has averaged 7% annually over the past decade as Australian farmers shift production from lower returning commodities such as wool. This growth in the Australian crop is in contrast to the US where wheat production is in decline. This year's US wheat acreage will be the lowest in 30 years.

Australia's share of the global market has steadily increased more than 40% between the mid 1990s and 2004, making us the second largest exporter in the world. In addition, Australian growers have seen record returns for their wheat with the highest and second highest AWB National Pool returns ever achieved occurring in 2001/02 and 2002/03.

Wheat	Unit	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
Production	kt	21,464	24,758	22,108	24,299	10,132	25,700
Value of production	\$m	4,011	4,831	5,130	6,356	2,692	5,596
Net exports	kt	16,391	17,557	16,085	16,304	9,113	17,867

Table 3: Production trends in Australia's Wheat Industry

The impact of these production increases on road and rail infrastructure will depend on where this additional production will occur. Much of the increase will be yield related through new technology and varieties delivering growers higher yields in traditional grain producing regions. However, it is the impact that these same technologies will have on grain production systems in the non-traditional regions that will result in greater volumes being hauled by road to more distant silos.

The international trading environment is becoming increasingly competitive and it is clear that the threat to growers' returns in the evolving global wheat market will require a united action on the part of the whole industry. In addition to long-standing problems with government subsidies by competitor countries, the price and volume outlook is difficult for the Australian industry.

In 2004, AWB commissioned the Boston Consulting Group (BCG) to examine the international environment and the outlook for global wheat trade. It also examined AWBI's performance within this environment and how AWB could best continue to maximise grower returns into the future.

The report identified a number of factors which will contribute to a more challenging global trading environment for Australian grain growers, most of which are described above. The report concludes that these factors are likely to contribute to the long-term trend of downward pressure on global wheat prices. In a worse case scenario, this could result in a price decline for Australian wheat growers of between US\$15-25 over the next 5 years. The study noted that an essential principle was to build high quality and sustainable infrastructure that was able to meet the increasing quality requirements of discerning, quality conscious customers.

Accordingly, the National Pool on behalf of growers has developed a strategy of being a "differentiated competitor" to access and retain premium wheat markets. To support this strategy, AWB needs to have a highly responsive and least cost supply chain that can meet ever increasing quality demands.

Australian growers have traditionally enjoyed substantial freight cost advantage over their North American peers, especially in Asian markets. This advantage is eroding as ports are constructed in Asia to receive Panamax and larger vessels. Vietnam recently opened a deep water port that can accommodate these very large vessels, and several similar ports are under construction in Malaysia, while mills are locating nearby. The majority of US corn exports to South Korea are already via Panamax vessels, and wheat may soon follow. Customers with deep water access are bundling North American wheat and other grain into these larger shipments, accessing freight savings and putting additional pressure on Australian grower returns.

4. IMPEDIMENTS TO CURRENT AND FUTURE WHEAT EXPORTS

A major challenge for Australian agriculture's ability to compete in the global market is the limitations of our domestic infrastructure – specifically storage, handling and transport. On average about one out of every four dollars of sales revenue for Australian grain growers goes to fund the storage and transportation of the product from farm to port.

The costs of AWB's land freight task of moving wheat - delivered into up-country storages via regional road and rail networks, to seaboard ports for export - are in the order of \$275 million per annum. In addition to AWB's freight task, grain growers in particular utilise the regional road network in hauling their grain to storage or market, usually over a short time period during the summer harvest months. Wheat growers pay an estimated \$102 million per annum, based on an average 21 million tonne wheat harvest to haul their grain to local storages.

While wheat is by far the major grain crop exported from Australia, other grain crops follow similar routes to both export and domestic markets, usually at higher rates per tonne.

4a. Rail Infrastructure

Rail infrastructure for the grain regional network across Australia is comprised of three gauge types and stretches some 18,000 kilometres. Much of the network was built by State Governments some 100 years ago, not to generate financial returns, but rather to service their developing rural communities.

The regional branch line network in all states has received minimal re-investment and as such is characterised by lower speed and weight restrictions, an increase in derailments and a gradual loss of traffic. As a comparative guide North American rail networks carry up to 100 tonnes of wheat in a wagon. In contrast, the average Australian net wagon load is 55 tonnes and can be as low as 35 net tonnes.

The regional branch line network has undergone minimal rationalisation over the years and this is primarily been limited to forced rail line closures due to the high cost of maintenance. There has been no significant public investment in the eastern states to upgrade and maintain the regional network to allow it to take advantage of larger, heavier or more efficient trains. The few exceptions include investment in private sidings, such as that undertaken by AWB GrainFlow.

In addition the network has also suffered from a lack of adequate recurrent funding to ensure appropriate maintenance, to the extent that it no longer meets the standard that it was originally rated, or alternatively, the track no longer matches the capacity of those using the network.

Maximising the limited rail infrastructure also requires construction of efficient upcountry sites to load trains. Investment in fast rail loading equipment at such sites has delivered significant improvements in efficiency for rail operators. Growers delivering to these sites enjoy lower freight charges. The typical drivers for efficient grain rail transport, compared with those which exist in the traditional or current network are outlined in Table 4.

Characteristics	Efficient Operations	Traditional operations
Silo Load rate	1,000 tph	200 tph
Siding Length	42 wagons	15 wagons
Silo Operating hours	24 hours 7 days per week	Mostly 8 hours 5 days per week
Track	23t axle loads	15t – 19t axle loads
Track Speed	80 kmph	30 kmph
Wagon Capacity	67 t – 72 t	< 50 t

Table 4: Typical Efficiency Drivers for Grain Rail Transport

These drivers are likely to be recognised as the benchmarks for an efficient, viable upcountry rail site. There has been some rationalisation of out-moded receival facilities such as in Western Australia where some 150 sites have been closed. It can be expected that more sites will need to close, while others will need to be up-graded. The Chairman of CBH in WA has foreshadowed that it will progress towards 50 large sites from its current number of 198 and expects to spend at least \$1 billion prior to the year 2020 on upgrading of sites.

In general, the least efficient rail receival facilities are located in Eastern Australia. Currently there are only 47 storage sites across Australia, capable of a rail outturn rate of 1000 tonnes per hour, the most efficient loading available. Twenty of these sites are in WA and nineteen have been built by AWB GrainFlow in the eastern states.

It is difficult for a new entrant to compete against existing inefficient infrastructure that already has sunk costs. It is also difficult for a new entrant in each state to consider investment in an environment where the majority of up-country sites and all port terminals are owned and managed by one existing up-country storage and handling operator.

In addition to building high-efficiency rail out-turn sites, AWB has been supportive of rail infrastructure investment in other ways. All of AWB's long-term contracts with rail providers have required the provider to invest in specific infrastructure, through (i) providing surety of tenure for the rail operator, and, (ii) trading–off some pricing benefit.

The types of rail infrastructure or supporting infrastructure investments that have resulted from AWB's rail contracting include:

• upgrading the grain rail fleet through cascading and refitting coal wagons;



- replacement of old rolling stock by new, larger grain wagons;
- installation of ground-operating lids for grain wagons;
- new locos for the grain fleet;
- installation of rail weigh-bridges;
- investment in fast grain consolidation and transfer facilities (these facilities are still to be delivered under a current agreement);
- investment in rapid rail loading facilities

i) Rail Infrastructure Constraints

Typical constraints in the current rail network which restrict AWB from meeting current and future export grain demands, fall into three broad categories:

- Increasing pressure, particularly on the east coast being placed on grain rail paths to port by competing commodities, such as coal;
- Overall degradation of the regional network in all states through a lack of expenditure on either routine maintenance or cyclic renewal; and
- Insufficient formal recognition that closure of rail branch lines will generate additional road (capital and maintenance) costs.

Rail Pathing Conflict

On the east coast there are currently limited rail paths into a number of ports which have both grain and coal export facilities, particularly the Port of Newcastle. This creates problems due to the volumes of coal and grain being exported and the fact that coal movements routinely obtain priority over grain due to their regularity. Coal shipping is extremely regular month by month compared with grain, which suffers due to the seasonal nature of production together with the vagaries of the international market.

Grain destined for export out of the east coast of Australia is hauled by rail over three times the distance that coal is hauled and much of this movement of grain is on degraded regional branch lines with weight and speed restrictions. It is a difficult and costly process to schedule these grain movements from some 80 sites travelling on poor quality rail infrastructure to arrive in time to slot into a dedicated pathway close to port. This difficulty being further intensified by conflict with coal movements which are usually given preference by infrastructure service providers.

Apart from Newcastle, other areas where rail pathing conflicts (between coal and grain) cause problems for grain export logistics include across the Toowoomba Range into Brisbane, and to a lesser extent pathing into Gladstone and Port Kembla. The growth in coal exports in these regions, together with the potential for a large grain harvest, will likely create further conflict in the future.

The proposed inland rail route from Melbourne to Brisbane could further contribute by placing additional pressure on the limited pathing routes down the Toowoomba Range, creating congestion problems for an increased number of grain and presumably coal movements. If this proposal is to proceed, consideration will need to be given to upgrading the Toowoomba Range track with more and longer passing loops, axle load upgrades, a realignment or even duplication of the track. While AWB is yet to study the

proposed Melbourne to Brisbane line in detail, our initial understanding is that the proposed inland route offers little opportunity to enhance grain exports from Australia. Relatively minor benefits, in terms of improving the export grain supply chain, may possibly be extracted through providing lower cost options for grain located in northern NSW to be exported through Brisbane rather than Newcastle and linking southern Queensland into Gladstone. However, these benefits are probably outweighed by congestion they would contribute to on the Toowoomba Range and the Gladstone rail pathing.

Any solution for rail pathing congestion in areas such as Newcastle, Gladstone, Toowoomba Range or Kembla, must be sensitive to the needs of the Australia's 36,000 wheat farmers whose livelihoods rely on the revenue from grain exports. If grain movements lose access to rail paths it will result in further shipping delays and costs, which in turn will reduce returns to wheat growers and regional areas.

Degradation of the Regional Rail Network

The rail branch line network across Australia is old and in most instances was built cheaply to lightweight standards. The regional branch line network in most states has seen minimal re-investment or recurrent funding over recent years and is typified by lower speed and weight restrictions.

The network was originally established by State Governments in order to provide essential infrastructure to open up land for production and to support the settlement of regional communities. Not surprisingly, private companies that now operate most of these networks are not driven to re-invest in non-profitable rail infrastructure that captures uncertain transportable tonnages from season to season.

Unless there is assured funding to maintain these regional networks, further lines will be closed as they degrade and become more uneconomical. As a result, greater volumes will find their way on to the road network, either through by-passing local silos and travelling greater distances to main-line silos, or through organised large scale road movements of grain still being delivered into silos that were previously rail served.

Some specific comments about each region follow:

Queensland

The Queensland rail branch line network under the control of QR's Network Access Group is predominately a 16 tonne axle load network, allowing grain wagons to carry a maximum of 48 tonnes of wheat. Limitations on train lengths mean that the average train size is restricted to between 1500 – 1800 tonnes of wheat. Recently there have been a number of poor winter and summer grain crop harvests in Queensland, which has resulted in the present rail infrastructure being adequate for current grain export needs. However, a return to normal grain production levels would severely stretch this network. The major reason that the Queensland upcountry rail system has been maintained at this adequate level has been due to an ongoing Community Service Obligation (CSO) to maintain the network as it also services passenger, livestock and mail traffic.



New South Wales

The NSW grain branch line network is characterised by 15 branch lines, termed "restricted" lines, which are currently managed under a policy of 'fix when fail'. The restricted lines feed into a regional network which has largely been maintained to the required rated standard. Typically, wagons on these branch lines can only be loaded to around 55 net tonnes of wheat, while at mainline locations, wagons can be loaded to around 67 net tonnes.

The branch line track conditions require the use of lightweight, locomotives that are approximately 50 years old and are costly to operate in terms of both fuel and maintenance. The requirement to operate on grain branch lines effectively compels any NSW rail company to own and operate two fleets - one for the branch lines, and heavier, more efficient equipment for the mainline operation. In addition to the operational costs associated with managing two fleets, is the duplication in maintenance and capital costs for any rail operator.

The NSW Government is currently reconsidering their policy on the 15 "restricted" branch lines. Late last year, they approached the key commercial industry participants (AWB Limited, GrainCorp and Pacific National) seeking to pass across responsibility for the maintenance and operation of these lines, while not being prepared to pre-commit to any particular level of funding. Understandably, the commercial industry participants have not been prepared to commit to taking on any level of responsibility or liability for these branch lines.

In April 2005, the new NSW Minister for Transport announced that the NSW Government will provide additional funding of \$13 million this financial year on maintaining 11 of the 15 restricted lines, making a total of \$21 million for this financial year, with no commitment of funding beyond 2004-05. In making this announcement, the Minister has effectively closed the remaining four restricted branch lines. An announcement regarding road funding to support the closed lines was not provided. While the NSW Government's announcement is timely, to ensure the NSW branch line network is not jeopardised a formal, long term program of recurring maintenance, bridge replacement and re-railing is required. Without such a commitment NSW growers and grain buyers will have no option but to put more grain onto regional roads, further exacerbating the problem of increased road damage and congestion as well as the related issues that arise from these problems. In addition to the immediate and damaging impact such an outcome would have on local and regional communities, there would be flow-on effects for the Australian grains industry such as increased land transport costs, cargo accumulation delays, higher demurrage costs and increased road congestion at ports.

The long-term uncertainty of the restricted branch line network is rapidly becoming the single greatest blockage to grain exports from NSW. This is acting to limit private investment and requires ongoing funding commitments to ensure its viability into the future. AWB is confident that if suitable guarantees from the NSW State and/or Federal Governments are put in place regarding the NSW rail network, then the required private investment from rail operators will follow. The willingness of the private sector to invest in the NSW rail network is demonstrated by the fact that over 200 new high capacity,

efficient grain wagons were purchased by the private sector in NSW over the last five years.

Victoria

The Victorian regional rail network was traditionally a broad gauge network that became partially altered when the Melbourne to Adelaide standard gauge interstate network was established in 1995. Subsequently, other parts of the network have been converted to standard gauge, in particular lines leading into the Port of Portland, with more conversions being considered. These developments have increased inefficiencies in the Victorian rail sector, and combined with the 'Fast Passenger Rail Project' which prioritises passenger traffic over freight, will increasingly create congestion on the Victorian regional network and place upward pressure on grain export costs.

Parts of the Victorian branch line network are also in an advanced state of degradation with speed, heat restrictions and derailments common. An important contributing factor to the generally poor condition of the branch line network is that the previous lessee, Rail America (trading as Freight Australia), proved reluctant to invest capital in the network. This reluctance seemed to stem from a conflict between Freight Australia and the Victorian Government (the network owner) over the terms of the rail access regime and the implementation of the regional 'Fast Passenger Rail Project'. In the short time since the sale of Freight Australia to Pacific National, AWB has not seen any evidence of increased spending on the regional grain network by the new track lessee. Furthermore, public comments relating to the Victorian rail access regime by Pacific National suggest that they too are unlikely to spend capital on sections of the network important to export grain logistics.

South Australia

The South Australian grain rail network is a mixture of gauges comprising narrow gauge on the Eyre Peninsula, standard gauge for most of the remaining network, and a small section of broad gauge track. Fortunately, this inefficient mix is countered to an extent by the fact that grain production in South Australia is largely confined to the coastal region, so average haulage distances (around 170 kilometres) are the shortest of any grain network in Australia.

The South Australian network was leased in 1997 to the Australian Railroad Group (ARG). Since acquiring control of the system, ARG has seen little justification for capital expenditure on upgrading the relatively poor standard gauge network. This is despite the branch line network being plagued by service cancellations and speed restrictions imposed when the temperature exceeds 30 degrees. On the Eyre Peninsula in particular, the network is in a parlous state with wagons only permitted to carry up to 35 tonnes of wheat. These problems on the Eyre Peninsula are exacerbated by difficulties arising from the limitations on rail access through the township of Port Lincoln to the nearby deep water port.

When presented with these problems ARG have argued that the variability of grain production and the competitiveness of road transport over rail on these relatively short hauls, mean it is not feasible for the company to make any significant investments in the South Australian regional rail network.

To help resolve some of these issues, the grain industry in South Australia has been investigating ways to improve the efficiency of the rail operation, including the closure of the broad gauge lines and moving that grain by road to standard gauge railheads. A joint plan has been developed to secure sufficient funding for rationalising and upgrading the rail network on the Eyre Peninsula. The grains industry has submitted an AusLink proposal for Federal Government funding support for the Eyre Peninsula, and we understand that this is currently under consideration under one of the funding programmes.

The issues with the South Australian regional rail network demonstrate the wider problem across Australia in obtaining a co-ordinated approach from the various levels of Government for transport infrastructure investment. Until recently, the approach adopted by government (in particular the South Australian State Government) was to view the problem as a private sector issue, given that control of the track was largely in private hands. However, this position downplays the history of the rail industry, where for over 100 years ownership was in the hands of various State and Federal governments. The problems with the regional network were apparent long before ARG assumed control and the expectation that a private company alone would remedy these long-term problems needs to be addressed with government.

Western Australia

The Western Australian grain rail network is in relatively good condition compared with the rest of Australia. It is comprised of the interstate high quality standard gauge mainline (up to 76 tonnes of wheat can be loaded per wagon) together with the narrow gauge grain branch lines, where wagons can be loaded up to 56 tonnes. WestNet, a subsidiary of ARG, manages this network but like the other vertically integrated rail operators in Victoria and South Australia, has limited incentive to spend capital on the narrow gauge network. Like other regional networks, the standard of this track can be expected to deteriorate and warrants some rationalisation. The outcomes of not investing in the network will include growers and grain buyers moving more grain onto roads that are not designed to take such volumes, increased shipping delays and associated costs (for all parties, including various levels of government) will arise.

AWB and a number of other storage companies have invested in the supply chain by building rail efficient grain receival sites, where there has been a requirement for state of the art grain handling technology to improve the efficiency of the grain supply chain. As mentioned earlier, AWB has also promoted rail infrastructure investment through its negotiation and management of long-term rail freight arrangements, often at the expense of short-term freight savings for growers.

Along with these initiatives, AWB has been working with the other grains industry participants in all states looking at how we can collectively manage our activities to obtain the efficient utilisation of key transport assets. A good example of this is in Western Australia, where AWB has joined with Cooperative Bulk Handling, ARG and the Western Australian Government to undertake a study to look at the capacity of the grain infrastructure to meet expected future production increases. This report is yet to be released but the findings to date confirm the pressures being placed on infrastructure in Western Australia are expected to increase significantly in the medium

to long-term. The report also identifies the need for: some rationalisation of the rail network to occur, to secure ongoing funding to maintain the rail network in a viable state, and to secure ongoing funding for roads that are impacted by the increase in traffic through rail closures. AWB has also funded studies into the upgrading of two branchlines in NSW, to assist growers in developing business cases calling for Government support.

Another example in the eastern states where AWB has been working with other industry participants to improve rail utilisation has involved the establishment of a joint venture grain logistics management company with GrainCorp called Export Grain Logistics. This joint venture is charged with the responsibility of managing AWB and GrainCorp's export supply chains in Queensland, New South Wales and Victoria, to capture supply chain efficiencies through better co-ordination of the logistics task. Supply chain efficiencies will arise from the improved utilisation of infrastructure assets and will deliver benefits for growers through improved returns. AWB is exploring similar arrangements with the other bulk handlers in the other states.

ii) Recommendations

Pacific National, along with the Australasian Railway Association (ARA), engaged consultants to look at the state of the national export grain rail system in a report entitled "Management of Export Grain Railways Systems – The Need for a National Perspective": In that report, the consultants argue "without the reinstatement of Community Service Obligations (CSO) in some format, it will be difficult for track providers and operators to invest substantially in grain rail system assets." AWB supports this position. Without an efficient rail network, growers will be faced with increasingly higher rail freight and/or road freight costs. Growers will also bear the burden of lack of rail capacity to meet grain sales and seasonal shipping demand and the possible loss of marketing opportunities.

Rail infrastructure together with the supporting road network, needs ongoing investment to ensure grain is captured to rail, allowing it to respond to the demands of the export market. However, it is critical to emphasise that the export grain market is seasonal and must be able to respond to short-term peak supply demands on transport infrastructure. Any solution to expand the infrastructure capacity to meet the growing coal and mineral export markets cannot be at the expense of the export grain industry.

4b. Rail Access Arrangements

In recent years rail operations in Victoria, South Australia, Western Australia and NSW have been privatised. Over the same period the Federal Government has established the Australian Rail Track Corporation (ARTC) to manage the interstate mainline track. All operations, excluding NSW, were sold as vertically integrated operations, with the previously owned state rail networks sold or leased to the privatised entity. These vertically integrated operators manage access regimes that have proved extremely difficult for competing rail companies to gain effective access and offer competitive above-rail services.

By comparison, the open access regime operating in NSW under the Rail Infrastructure Corporation (RIC) (now under licence to ARTC), and the interstate network operated by

ARTC provided AWB the opportunity to introduce two additional rail operators into southern NSW resulting in lower supply chain costs of approximately \$4 per tonne for freight in this region.

i) Rail Access Constraints

Australian grain growers have benefited from the open access regime established in NSW. Unfortunately, similar progress has not occurred in Victoria and South Australia (AWB has a long-term agreement with the WA rail operator, ARG).

Victoria

In 1999, the Victorian Government sold its rail freight operation to a private company, Rail America, trading as Freight Australia. As part of the sale, Freight Australia acquired the lease to maintain and control much of the Victorian branch line network and were required to manage a rail access regime that provided for other rail companies to operate on the Victorian network.

The Victorian branch line network is now controlled by Pacific National (who bought Freight Australia) while the main Melbourne to Adelaide inter-capital line is operated by ARTC. ARTC has put in place a rail access regime that has allowed AWB to reduce grain supply chain costs from its Dimboola Grain Centre (where it owns a private siding) by almost 25%. While this reduction is partially influenced by rapid rail loading facilities installed by AWB at this location, the ARTC access regime generates a competitive environment for all rail operators. It should be noted that similar freight rate reductions have not eventuated at other grain sites located on the ARTC network in Victoria, partially due to Pacific National's control of the grain sidings.

Despite efforts by Graincorp and ATN, to AWB's knowledge no other rail freight operator has successfully gained access to the Victorian branch line network since the sales process was completed. It has been acknowledged by the Victorian Government that the rail access regime operating in this state is ineffective. They are taking steps to change the regime, but its final structure and whether it is effective in providing third party rail operators access will not be known until it is finally implemented.

South Australia

In South Australia, a rail access regime has been in place since 1997 and is controlled by the privately owned freight operator ARG. AWB has examined the ARG rail access arrangements and believes that the access charges quoted are at such a level that no other rail operator could contemplate successfully entering the South Australian rail freight market on a competitive basis.

Rail access is also limited into the ports at Geelong and Adelaide which are located near ARTC controlled track. However at these facilities, the local rail operator controls a relatively small length of track between the ARTC network and the port. These short lengths of track have been sufficient to create a barrier to entry for any third party rail company seeking long term access to these ports.



Western Australia

The WA rail network is covered by an access regime and operated by the ARG subsidiary, WestNet. AWB finds it difficult to gain access on this network, as the "floor and ceiling" pricing structure and related access requirements, creates uncertainty for any rail operator attempting to compete with ARG. The WA rail access regime is monitored by the Western Australian Economic Regulation Authority (ERA).

Despite the ERA and its predecessor being in existence for several years, to date it has been unsuccessful in creating an environment conducive to rail competition on the WA intrastate network. The access regime and its management have effectively become barriers for third party access, consequently no rail operator has successfully gained access to the WA rail network.

<u>Queensland</u>

Queensland Rail (QR), owned by the State Government, operates a vertically integrated rail network covering both the above rail and network infrastructure. AWB has not pursued access to the Queensland rail access regime as the opportunity to attract above rail competitors is limited due to network's narrow gauge and the volatility of grain production in that state.

However, as Pacific National has successfully accessed this network and operates container trains between Brisbane and Cairns, AWB's view is that there is an effective rail access regime in that state.

AWB's experience in managing the national wheat export program shows that there is reluctance for privatised railways to expose their networks to competition or to invest in those networks where this could assist their competitors to capture market share. It is therefore not surprising that there has been minimal private investment in rail infrastructure when the benefits cannot necessarily be captured by the private entity, either exclusively, or in part.

ii) Recommendations

AWB's view is that there needs to be effective open rail access regimes across all interstate and regional 'grain' rail networks. Maintenance and upgrading of each network should be supported by the respective State and Federal Governments, similar to a national road funding approach. The following principles should be adopted:

- To rationalise the rail branch line network to a level where its ongoing maintenance and re-instatement costs are lower than the cost of upgrading and maintaining an alternative road option;
- The network to be maintained to a minimum standard capable of handling:
 - 23 tonne axle loads and 60 kilometre per hour speeds on broad and standard gauge lines, and
 - 19 tonne axle loads for narrow gauge lines
- The network operators must operate in an access environment that encourages competition between rail operators;

- That road networks support the transfer of grain onto rail wherever possible; and
- That there be agreement between the respective levels of government to work together in facilitating rail infrastructure investment and access.

4c. Regional Road Network/ Infrastructure

Rail is no longer the dominant mode of transport for moving export grain from country silo to port. In South Australia and Western Australia, there are regions which are not serviced by rail and in these regions grain marketers organise appropriate road haulage arrangements to move grain to port. Further, in these two states where some grain production areas are close to the coast, a large percentage of grain is moved by growers at harvest directly to the seaboard grain receival facility ready for export.

The regional road infrastructure across Australia is in varying degrees of condition. While large grain marketers like AWB have a preference to move grain to export efficiently by rail, deregulation of the domestic grain markets, together with the growing deregulation of non-wheat grain export markets, is resulting in more grain traffic moving on roads that were not designed to accommodate these types of volume.

Small exporters generally have their grain located in small parcels scattered across numerous sites and so unlike the AWB National Pool cannot avail themselves of the economies of scale associated with using rail transport. To aggregate sufficient stock at fewer key rail sites requires them to swap positions with competitors who are naturally disinclined to assist. It also signals to their competitors that they may be carrying a short position and this alone will push up the price of grain, possibly beyond that which is profitable for the shipment being accumulated.

Despite a preference for rail wherever possible, grain marketers like AWB often have to resort to moving increasing volumes by road direct to port for the following reasons:

- Increasing uncertainty regarding the availability and state of the regional rail network, places pressure on grain accumulation programs to meet export demand;
- Increasing congestion of some rail pathing also places pressure on rail resources being able to meet export demand;
- Increasing uncertainty surrounding the availability of sufficient rail resources to meet peak periods of demand;
- Difficulties with gaining rail access results in grain marketers being locked into the one rail provider and being subject to their operational and/or pricing constraints;
- Price competitiveness of moving smaller parcels by road where there is insufficient volume at a site to warrant a rail movement;
- Private rail companies transferring fixed cost risks to grain traders who are not in a position to handle that risk; and
- Private rail operators electing to move train crews and assets to more profitable traffics, such as coal and mineral haulage.

i) Regional Road Network/ Infrastructure Constraints

The increased volume of grain travelling on regional roads is placing enormous pressure on local councils and state road authorities to maintain roads to an appropriate standard to cope with this traffic. Pressure is also being applied to local councils to upgrade local roads to a higher standard to handle a new generation of heavy road vehicles like B-doubles and road trains. The potential road trauma associated with this increased heavy traffic being moved on local roads is particularly concerning to local councils and the grains industry.

Adequate planning and funding to meet this changing transport environment is required. Road usage patterns have altered due to changes in all rural industries. In the past, rail networks supported livestock, fertilizer, wool and passenger traffic, while today little rural produce apart from grain is carried on the regional rail networks.

The possibility that private investment could cover the short-fall in rural road funding is unlikely given the evolution, current structure and economics of road development in this country to date.

ii) Recommendations

AWB believes that all governments should be encouraging growers and grain marketers to utilise the regional rail network as much as possible. This should not be achieved by penalising road users through additional taxes or levies, but by ensuring there is a viable regional rail network that is in good condition, is accessible and supports aboverail competition. AWB believes that in adopting this approach, rail will be more competitive to road and be in a position to deliver greater efficiencies. Where rationalisation of the rail network is necessary, this should occur only when there is some certainty that the alternative mode of transport will be supported through appropriate road funding.

4d. Connectivity to Port Infrastructure

Australian growers have traditionally enjoyed substantial sea freight cost advantages over their North American peers, especially in Asian markets. Unfortunately, this advantage is slowly eroding as ports are being constructed in Asia to receive Panamax and larger vessels. Vietnam recently opened a deep water port that can accommodate these very large vessels, and several similar ports are under construction in Malaysia with flour and feed mills locating nearby. Customers with deep water access are bundling North American wheat and other grain into these larger shipments, accessing freight savings and putting additional pressure on Australian grower returns.

i) Connectivity Constraints

Potential new sites that meet all the features required for an internationally competitive export grain terminal are extremely difficult to locate on the Australian coast-line. Port companies and governments are reluctant to make land available for lease for the construction of new export facilities except where it brings new tonnage across the port. A new terminal investor can only justify an investment with fewer tonnes of grain if other compatible products can be found for export. Very few port zones produce sufficient grain for a competing terminal to be considered.

The following features provide a guide of international benchmarks for export grain terminals:

- Requires at least 3 hectares of land for the terminal development;
- Requires at least twenty hectares of land to construct a rail loop that allows trains to unload without decoupling any of the wagons;
- Site must be accessible by road and rail at all hours, seven days a week;
- The facility must have the capacity to store and prepare sufficient grain in advance of each ship arrival, for larger ports this is at least 70,000 tonnes;
- The facility must have the capability to receive grain from a train without decoupling wagons and unload the train within two hours at a discharge rate of at least 1500 tonnes per hour;
- The land must be immediately accessible to a berth with the ability to fully load a large Panamax vessel at 14 metre draft including berth pocket and shipping channel;
- The facility must have the capability to load a large Panamax vessel within two days; and
- The terminal has a catchment volume of at least one million tonnes of grain that will utilise the site exclusively for the terminal to be economically sustainable.

AWB acknowledges that upgrading all current grain terminals and ports to this standard is not justified. This is because many of the current ports have relatively small catchments behind the port, which in turn only justifies the loading of smaller ships or cargos. However, there are instances with some of the very small ports where customers are displaying increasing resistance to take shipments because of high sea freight costs.

Table 5 provides an assessment of the present limiting features of each export grain terminal or port around Australia.

Port Terminal	Average Annual Wheat Task (tonnes)	Major Issues
Mackay	78,000	Small port, fit for purpose
Gladstone	161,000	Small port, fit for purpose
Brisbane	572,000	Rail path issues over Toowoomba Range
Newcastle	1,000,000	Draft constraints, urban encroachment, rail path issues
Port Kembla	1,700,000	Fit for purpose
Melbourne	472,000	Berth and channel draft needs to be deepened, increased storage required
Geelong	942,000	Occasional conflict with other shipments
Portland	423,000	Rail track to port needs to be heavy duty rail
Port	1,147,000	Major limitations that should be rectified with new
Adelaide		outer harbour grain terminal and channel deepening
Wallaroo	335,000	Recent upgrades have rectified some previous limitations
Port Pirie	98,000	Small port, customers consider it uneconomical to ship from there
Port Giles	240,000	Recent upgrades have rectified some previous limitations
Port Lincoln	1,030,000	Generally fit for purpose, but rail network to port in very poor condition, poor road access through town
Thevenard	99,000	Small port, customers consider it uneconomic to ship from there, needs good rail link to Port Lincoln
Esperance	647,000	Fit for purpose
Álbany	1,000,000	Draft limitation for large Panamax vessels
Kwinana	3,309,000	Fit for purpose
Geraldton	1,191,000	Fit for purpose

Table 5: Limiting Features of each Australian Export Grain Terminal

ii) Recommendations

AWB recommends funding be provided to:

- Remove rail and road access bottlenecks into the ports of Brisbane, Newcastle, Portland and Port Lincoln; and
- Advance channel and berth deepening at the ports of Newcastle, Melbourne and Albany to make each of these ports capable of loading a 14m Panamax vessel

5. OTHER ISSUES

5a. Intermodal Hubs

Traditional intermodal hubs (that is involving the use of containers) do not play a significant role in the export wheat supply chain. While bulk grain shipments account for a significant percentage of grain exports, the opportunity to export grain via containers is increasingly being explored, particularly for niche markets. Presently, most grain moved from upcountry storages to container packing plants is handled by road, largely due to the lack of rail receival capability at these facilities. Important exceptions to these are at seaboard terminals which have packing plants or at metropolitan facilities such as Forrestfield in Western Australia. These facilities can receive grain by both rail and road transport and can play the role of an intermodal hub. Where containers are packed at small plants in local upcountry locations, these would generally travel by road to port rather than transfer to rail through an intermodal hub due to the relative costs and flexibility.

The other difficulty working against regional intermodal hubs is the availability of empty containers. Presently it is very expensive and difficult to locate and transport empty food grade containers to upcountry locations for packing. It is much easier to locate and pack these in a metropolitan or port location.

However, the grain supply chain is heavily dependent on efficient transfer of bulk grain between road and rail at grain silos, which in their own way area form of intermodal facility. There is increasing focus within the grain industry on receiving grain quickly at country silo to keep up with improving technology that allows growers to strip grain at increasingly faster rates during the harvest period. Secondly, to minimise rollingstock investment costs, train loading rates and silo operating hours have improved at many locations in recent times. By loading trains quickly as they arrive, rail companies are able to maximise utilisation of wagons and locomotives, minimising capital investment.

5b. Intelligent Tracking Systems

Intelligent tracking systems are currently in limited use in the grain supply chain and only to the extent that they are used by road carriers to track their vehicles. While there has been interest shown by rail operators in tracking train consignments, such technology is expensive, particularly for regional locations where grain trains operate. Some rail operators are starting to use electronic ID tags to track wagon movements across certain areas of their network, mainly for weighing and billing purposes. AWB has been supportive of rail operators in embracing such technology to assist with the tracking of movements, albeit only on a limited basis at present. The use of this technology will also be a useful management tool in identifying areas where rollingstock utilisation and/or management can be improved.

6. SUMMARY OF RECOMMENDATIONS AND CONCLUSIONS

In order to increase the export potential of the Australian wheat industry, AWB asserts there a number of supply chain and transport issues that need to be addressed. Many of these are outlined within this submission and summarised below.

Rail infrastructure and Access

All levels of Government should encourage investment in rail infrastructure to ensure the most efficient and timely supply chain path is used, thereby allowing the grains industry to respond to the demands of the export market. Specifically:

- The regional rail network to be maintained to a <u>minimum</u> standard capable of handling:
 - 23 tonne axle loads and 60 kilometre per hour speeds on broad and standard gauge lines, and
 - 19 tonne axle loads for narrow gauge lines;
- Encourage investment in rail infrastructure through reinstatement of Community Service Obligations (CSO) in some format, to promote investment by track providers and operators in the grain rail system assets;
- Encourage greater competition between rail operators through ensuring network operators facilitate a workable open access environment;
- Establish agreement between the respective levels of government to work together in facilitating rail infrastructure investment and access, and;
- That all governments encourage sectors to utilise the regional rail network as the most efficient transport mode for rural and regional users. This could be achieved by ensuring a viable regional rail network that is in good condition, is accessible and supports above-rail competition.

Regional Roads

- Where rationalisation of the rail network is necessary, this should occur only when there is some certainty that the alternative mode of transport will be supported through appropriate road funding, and;
- That road networks support the transfer of grain onto rail wherever possible.

Connectivity to Port infrastructure

- Funding be provided to remove rail and road access bottlenecks into the ports of Brisbane, Newcastle, Portland and Port Lincoln, and;
- Advance funding for channel and berth deepening at the ports of Newcastle, Melbourne and Albany to make each of these ports capable of loading a 14m Panamax vessel

Other Issues

 Traditional intermodal hubs do not and are not likely to play a significant role in the export grain supply chain, and; • Intelligent tracking systems current only play a limited role in the transport of grain across the supply chain and would present opportunities for better coordination provided it was cost effective in the regional environment.

In conclusion, the environment in which the wheat industry is currently operating is very complex. On the one hand, domestic production, worldwide demand and productivity are increasing, while on the other hand, the grain industry is being crippled through inefficiencies along the length of the supply chain from silo to port.

This backdrop portrays a fertile field for continued growth in Australian wheat exports, despite volatile and aggressive nature of the world grain market – if those restrictions can be overcome through a cooperative and committed national strategy. The importance of a coordinated investment strategy in infrastructure by all levels of government, complimenting the private sector's market signals for export markets.

AWB appreciates the opportunity to participate in consultations of the House of Representatives Transport and Regional Services Committee Inquiry. For further information please contact Peta Slack-Smith on 03 9209 2698.

Appendix 1: Evolution of Grain Bulk Handling Companies





Appendix 2: Location of grain storage sites and export grain terminals













Attachment 3: Evolution of Rail Freight Companies

