Eyre Peninsula

Grain Export Supply Chain Planning Study

Summary Report

Government of South Australia
Department for Infrastructure and Transport

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Planning study

We have completed a planning study to identify the most effective and sustainable export grain supply chain for the Eyre Peninsula. The study considered all options for future investment and expansion, including road freight and the potential re-opening of the Eyre Peninsula rail network, either in whole or in part.

The planning study was co-funded (75:25) by the South Australian Government and the Eyre Peninsula Local Government Association. The planning study identified possible options to deliver an optimal grain export supply chain solution that identified possible options to deliver an optimal grain export supply chain solution, looking at positive outcomes for both growers and communities, including changes and impacts on State and Local Government road.

About the study

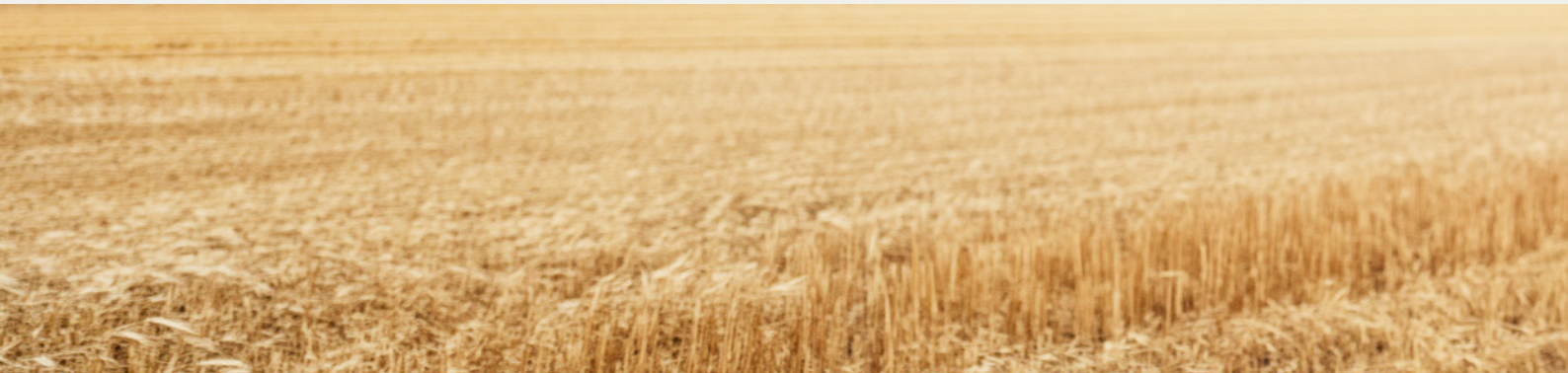
The Eyre Peninsula grain supply chain transitioned from rail to road following the cessation of rail grain haulage in 2019, after a 2016 freight study found the rail network was no longer commercially viable, despite significant upgrades in 2006.

The resulting increase in road freight has placed pressure on state and local road networks, while proposals for new ports on the lower Eyre Peninsula have raised further concerns about freight movements on largely unsealed roads.

The demand for additional grain port capacity on Eyre Peninsula was discussed in the 20 Year State Infrastructure Strategy released in 2020. Infrastructure South Australia saw no immediate shortage of port capacity and considered that in the absence of an increase in grain production there was a risk that establishment of a new port would risk assets being underutilised.

In 2023, Aurizon and Viterra (now Bunge) developed a business case to reinstate a rail-based grain supply chain, aiming to improve supply chain efficiency and increase annual rail freight volumes to Port Lincoln from around 700,000 tonnes to 1.2 million tonnes.

This supply chain study focused on grain supply chain movements from growers to local storage facilities, considering grower needs, harvest logistics, market factors, and grain quality issues associated with handling and segregation.



Background

The grain industry is a key driver of the Eyre Peninsula economy, producing an average of 2.5 million tonnes of grain each year with an estimated value of $1.5 billion. The sector supports a broad range of employment and business activity across the region, including farming, transport, grain handling, processing and port operations, while generating significant income for local communities.
In addition to its regional economic importance, Eyre Peninsula grain makes a substantial contribution to South Australia's export performance and Australia's reputation as a reliable supplier of high-quality cereals and pulses to international markets.

Study outcomes

The supply chain study found that grain production on the Eyre Peninsula is expected to increase to approximately 3.4 million tonnes per annum by 2050, highlighting the need for an efficient and resilient export supply chain to support future growth. Engagement with industry, growers and other stakeholders identified a range of constraints and opportunities across the supply chain and assessed potential infrastructure investment options to improve efficiency.

The findings indicate that a combination of targeted infrastructure upgrades could enhance supply chain performance and support export competitiveness, while also considering grower requirements, community outcomes, economic benefits and environmental impacts.

The planning study found that maintaining an efficient and safe grain transport network is critical to the ongoing profitability of growers and supply chain partners, and to sustaining the significant economic contribution of the grain industry to both the Eyre Peninsula and South Australia. The opening of the Lucky Bay grain export facility in 2020 increased the number of operating grain ports on Eyre Peninsula to three, alongside Port Lincoln and Thevenard, creating new freight movement patterns across the region. The study identified that these changing supply chains, together with forecast growth in grain production, will require careful consideration of future transport infrastructure to ensure the network can support efficient access to export markets while balancing community, economic and environmental outcomes.

Existing Export Infrastructure

A new grain port commenced operations at Lucky Bay on the eastern side of the Eyre Peninsula in 2020, resulting in three operational grain ports on the Eyre Peninsula: Port Lincoln, Thevenard, and Lucky Bay.

Port Thevenard

The Port of Thevenard remains an important component of the Eyre Peninsula export supply chain, particularly for producers in the north-west of the region. The port primarily handles dry bulk commodities and supports the only active rail freight operation on the Lower and Western Eyre Peninsula, servicing gypsum exports. In addition to its role in South Australia's mineral export logistics network, the port provides an important export pathway for grain grown in the north-west of the Eyre Peninsula, supporting regional market access and export capacity.

Port of Port Lincoln

Port Lincoln remains a critical component of the Eyre Peninsula export supply chain. As a deep-water natural harbour, the port serves as a major export hub for bulk grain and seafood, as well as an important import gateway for petroleum products. With multiple berths, modern loading infrastructure and efficient vessel access, the port provides a key connection between Eyre Peninsula producers and domestic and international markets, supporting the region's agricultural and economic productivity.

Lucky Bay

Lucky Bay has become an important component of the Eyre Peninsula grain export supply chain since commencing operations in 2020. Located on the eastern Eyre Peninsula, the purpose-built bulk export facility is operated by T-Ports and utilises a trans-shipment system to overcome shallow-water port depth constraints.

The opening of the port has provided an alternative export pathway for grain producers, particularly those in north Eyre Peninsula, and has reduced transport distances to port, lowering freight costs and travel times for many growers. The planning study also found that Lucky Bay has increased the number of grain traders operating in the region, creating greater competition for grain and delivering benefits to growers and local communities through improved market access and supply chain efficiency.

Freight Network Changes

Significant changes have occurred in grain freight movements across the Eyre Peninsula since the cessation of rail haulage in 2019. While the inactive rail corridors remain owned by the South Australian Government and are leased to Aurizon, grain has not been transported by rail on the Eyre Peninsula since Viterra (now Bunge) transitioned to a fully road-based supply chain. Although Aurizon owns the rail infrastructure, having acquired it from One Rail Australia in 2022, grain freight remains reliant on the road network.

These changes have altered freight movement patterns across the region. Since 2020, there has been a material shift in heavy vehicle movements away from the north–south Lincoln and Tod Highways, which traditionally carried grain to Port Lincoln. Instead, increased volumes of grain are being transported east–west to Lucky Bay Port. As a result, grain freight movements have increased on key corridors such as the Birdseye Highway and on several council-managed roads, including Lucky Bay Road and the Kimba-Cowell Road, placing greater demand on parts of the regional and local road network.

Stakeholders are concerned about the impact to heavy vehicle routes on the Eyre Peninsula, particularly council roads. This includes the Kimba-Cowell, Lucky Bay, Balumbah-Kinnard, and Bratten Way to Mount Hope road networks.

Key Stakeholder Feedback

Consultation was undertaken with Eyre Peninsula councils, bulk handlers, port operators, and key industry stakeholders throughout October and November 2024. Key themes identified through stakeholder feedback are summarised below.

Freight Efficiency and Network Performance

Stakeholders emphasised the importance of maintaining an efficient, safe and reliable freight network to support grower profitability, regional economic activity and export competitiveness. The opening of Lucky Bay Port was widely recognised as improving supply chain efficiency for northern Eyre Peninsula growers by reducing transport distances, lowering freight costs and increasing competition among grain buyers.

Road Network Impacts and Safety

Stakeholders expressed concerns about increased heavy vehicle movements on council-managed roads following the cessation of grain rail services in 2019 and the opening of Lucky Bay Port in 2020. Key issues raised included road condition, maintenance costs, network capacity and safety. There was strong support for targeted investment in road upgrades, including road shoulders, overtaking lanes, road safety initiatives and ongoing maintenance of key freight routes.

Rail Reactivation

Views on rail reactivation were mixed. Some stakeholders considered rail an important long-term opportunity to accommodate growing grain volumes, increase export capacity, reduce freight costs and minimise impacts on roads and the environment. Others questioned the economic viability of reinstating the rail network, highlighting the potential costs associated with upgrading rail infrastructure and concerns about impacts on growers and local transport operators.

Future Port Infrastructure

Stakeholders identified both opportunities and challenges associated with the development of additional port infrastructure. While increased competition and supply chain resilience were recognised as potential benefits, concerns were raised regarding financial viability, supporting road and freight infrastructure requirements, and whether existing ports already provide sufficient export capacity. Stakeholders also highlighted the need to consider the future role of Port Lincoln and its compatibility with broader regional development aspirations.

The study identified **two strategic problems** experienced across the grain export supply chain.

Problem 1

Larger and more frequent freight movements are increasing safety risk for road users and accelerating road degradation.

Problem 2

Limited choices for access to critical export infrastructure is reducing the effective and competitive movement of bulk grain.

Responding to the above problems will produce the following **benefits**.

Benefit 1

Improved road safety

Improving grain supply chain efficiencies can enhance road safety by reducing congestion and conflict points along key freight corridors to reduce crash risk for all road users, particularly during harvest periods.

Benefit 2

Minimise costs relating to transport supply chain infrastructure and vehicles

Optimised logistics reduce whole-of-system costs for growers, traders, handlers and exporters and potentially defers costly upgrades to roads and other freight infrastructure.

Benefit 3

Increased regional productivity

Reliable, lower-cost grain movements from farm gate to export markets reduce delays, support grower investment, strengthen regional businesses, and boost overall economic output.

Benefit 4

Improved market competitiveness

Lower supply chain costs and improved reliability enhance price competitiveness and reduce export risk. This strengthens returns for growers and reinforces Australia's position in global grain markets.

In investigating potential opportunities to improve grain supply chain efficiencies, the planning study identified four shortlisted infrastructure options, which are presented graphically (refer adjacent image).

The planning study indicates that the rail-based supply chain has the potential to provide the strongest economic benefit among the options considered.

PBS Level 3 - Road trains up to 42m in length

(e.g. AB triple or BA triple 3A:≤36.5m, 3B: ≤42.0m)

Next Steps

The study has identified a range of potential infrastructure investment opportunities to improve grain supply chain efficiency and support future growth in grain production on the Eyre Peninsula. The next phase will involve building on the planning study completed to date through the development of a Full Business Case, which will further assess the preferred options, costs, benefits, risks and implementation requirements.

Implementation of any future infrastructure investment would be subject to further engagement and agreement with key industry stakeholders, including Bunge and Aurizon. Progression beyond the business case stage would also depend on the availability of government and industry funding and the outcomes of detailed economic, technical and commercial assessments.

Disclaimer

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