



### About The Stable.

The Stable is a regionally based consulting company, firmly fixed in its pursuit to leave a lasting legacy of change. The company maintains a significant panel of expert consultants and is readily able to tailor a range of specific services required by the client. Individually or in combination, the Stable is able to demonstrate an impressive record of success in: Defence Industry, Policy and Organisation; Government relations; Engineering and Project Management; Communications and Information Technology; Transport, Freight and Logistics; Aviation and Maritime operations; Health Policy, Protection and Response; and Infrastructure Projects including Water, Energy, Railways and Fuel. Many of these experiences have been gained through military and commercial operations at the highest levels.

Right Image: The Stable Group Founders (L-R) Ken Gillespie, Jillian Kilby, Donald Murray

### **STABLE**

~ adjective

not likely to give way or overturn; firmly fixed.

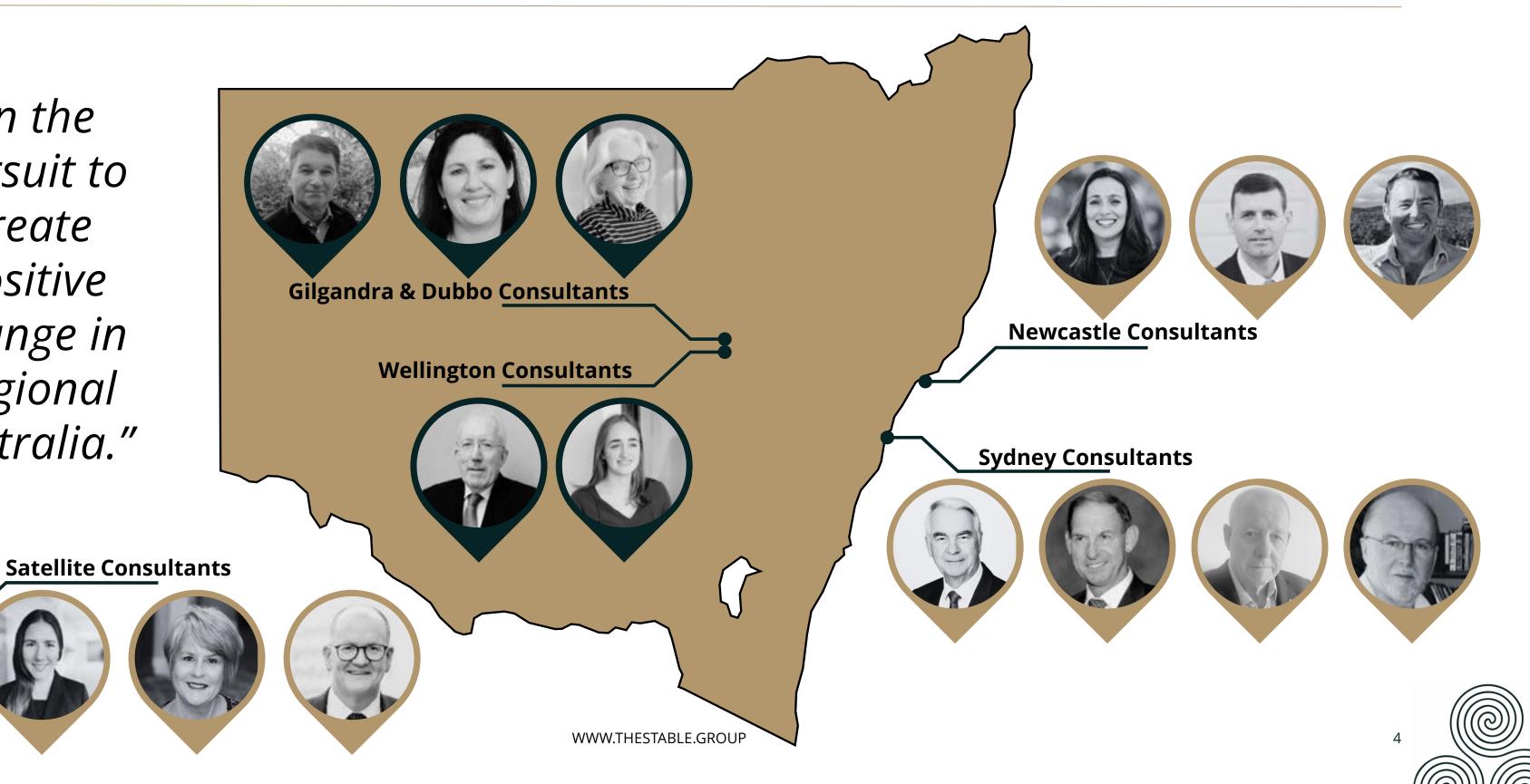
~ noun

a group of people who perform a similar activity or are employed by the same organisation.



# The Stable Group - Project Team

"In the pursuit to create positive change in Regional Australia."



## Roadmap

**Overcoming Data Gaps** for The Real upgrading the **Freight Future** Golden What is going Highway. where and why **Next steps** for the study and this matters. opportunities for you to be Identifying and involved. addressing Network Infrastructure **Assumptions** Challenges Pinpointing from Dubbo to population Newcastle. centres and their supply chain requirements.

# New Data Insights

- New Data Insights: Past studies have missed freight data from the Orana Region's hubs such as Cobar, Narromine, Coonamble and Dubbo, which has led to a planning shortfall for the rising transportation demands.
- **First-Time Data Publication**: RDA Orana's study will be the first-time this specific freight data has been gathered, quantified, and publicly shared informing future infrastructure improvements.
- Redefining Freight Dynamics: Differing from previous studies, our findings emphasise the role of the freight route to and from the Port of Newcastle for the Orana Region, reflecting the advancements in transport capabilities and supply chain evolution.

### **Desktop Study vs Stakeholder Consultation**



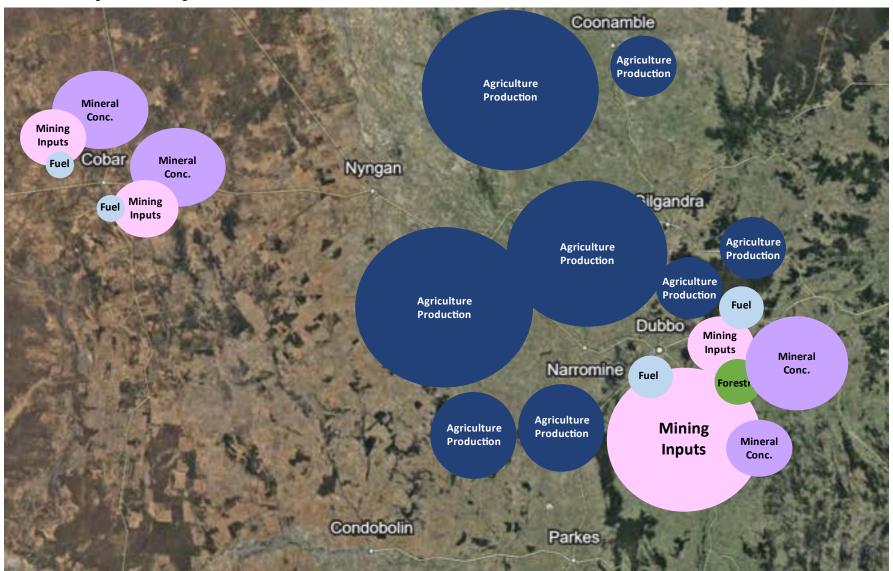
Annual Commodity Forecast (2033) from Data Collection during Desktop Study



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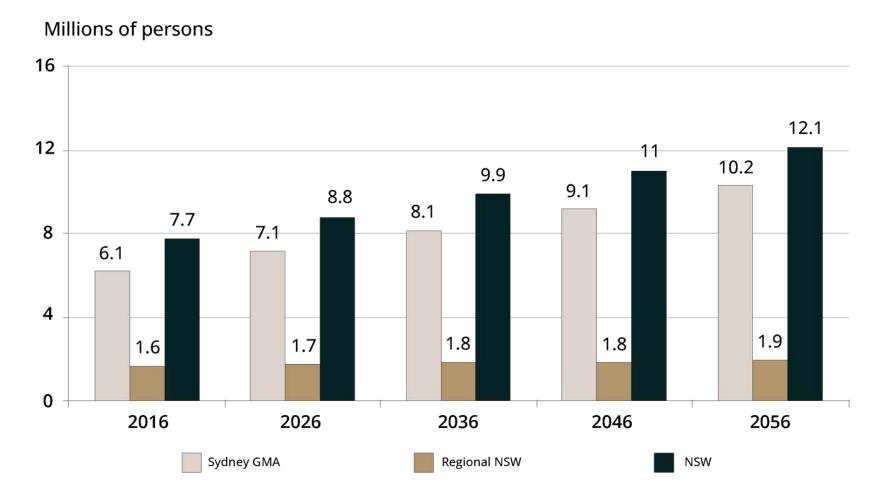


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## Networks - Population

- TfNSW Population Growth Projections = 12 million by 2056\*
- Where are they going to be located?

Figure 3: NSW population growth projections



Source: TZP 2016 population forecast

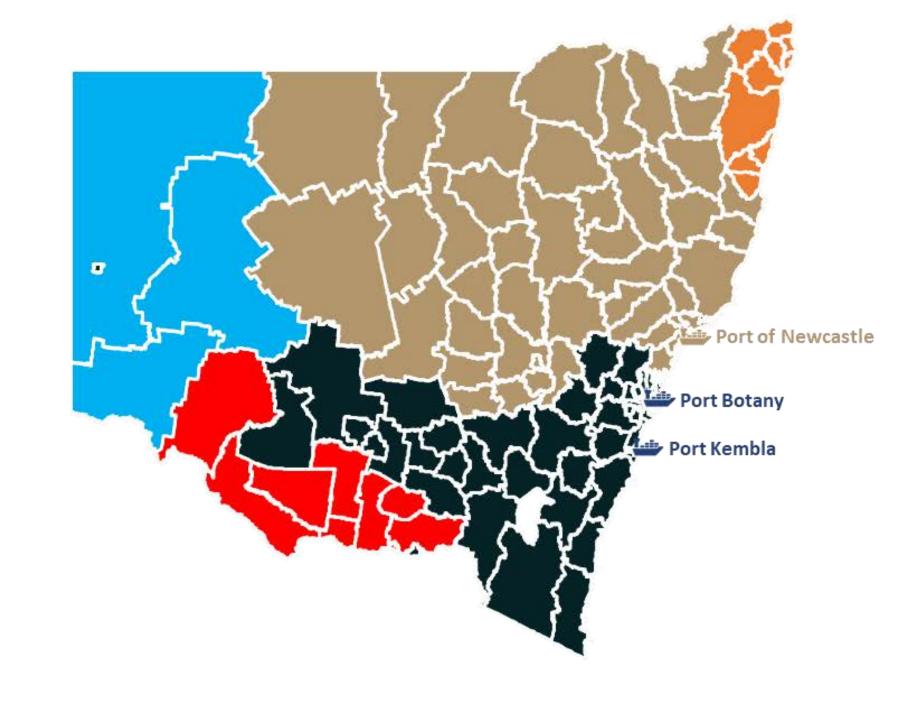


Sydney GMA now includes of six cities: Lower Hunter and Greater Newcastle City; Central Coast City; Illawarra-Shoalhaven City; Western Parkland City; Central River City; Eastern Harbour City and the Sutherland Shire.

<sup>\*</sup>Source: NSW Freight Commodity Demand Forecasts 2016-2056, Final Report," Transport for NSW Performance and Analytics, August 2018

## Networks - Port Demand Footprints

- Current population of Port of Newcastle footprint is 2,236,630\*.
- Population of Port of Newcastle footprint will be 3,208,092\* in 2056.
- The current population of Port Botany/Port Kembla footprint is approximately 6,000,000\*.
- Population of Port Botany/Port Kembla footprint will be 8,000,000\* in 2056.



Port of Brisbane

Port Adelaide

\* Source: CAGR 1.1% for 33 years

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# Networks – Ports and Railways - PON

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 By the mid to late 2020s rail freight on the Main West Rail Line will be constrained as passenger needs continue to take priority.

 "Without new rail freight capacity, more goods will be transported by road to and from Regional NSW."\*

 This highlights the need for more highly productive roads.

\*Source: Strategic Environmental Assessment (SEA) for the Western Sydney Freight Line Corridor released on 26 March 2018

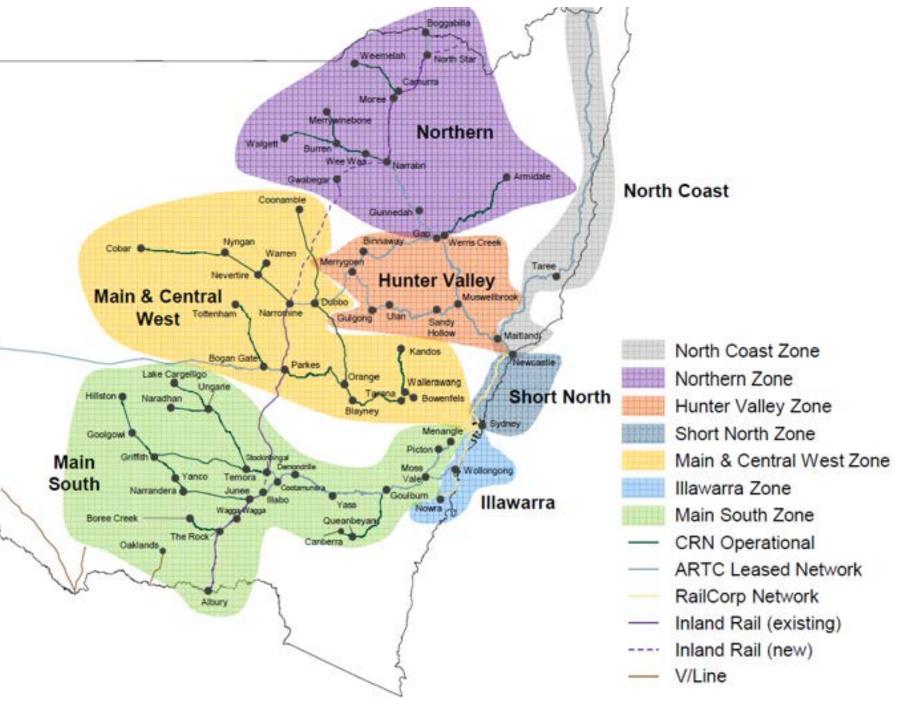


Image Source: 2015 LEK Freight Flows Geographic Footprint (2015)

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# Network – Passenger Train Congestion

- Regional and interstate freight using the Main West Rail Line would shift from rail to road from 2025 onwards without an increase of available rail capacity for freight movements, and the quantity of freight transported by rail would diminish. \*Strategic Environmental Assessment (SEA) for the Western Sydney Freight Line Corridor released on 26 March 2018
- This highlights the need for improved rail networks.



# Network – Passenger Train Congestion

- Freight services are constrained to off-peak and overnight periods as legislative requirements provide priority for passenger services on the shared network.
- The passenger network is preparing for 28 million trips a day" Future Transport Strategy 2061, March 2018
- This highlights the pressing for the management of congestion or the development of viable alternatives

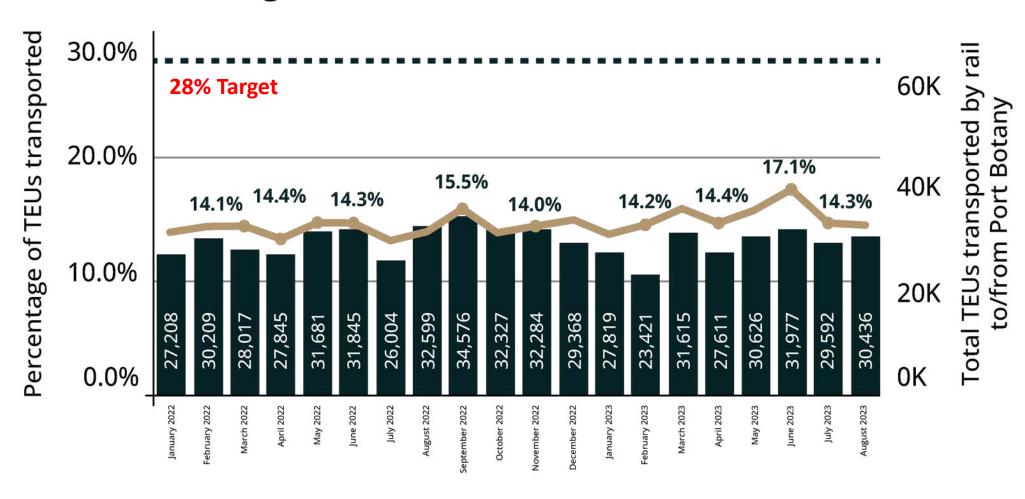
COMMODITY GROUP	2016	2036 (F)	2056 (F)	CAGR % (2016-2056)	TOTAL INCREASE % (2016-2056)
Imports (full + empty)	1,125	2,290	3,520	2.9%	213%
Exports (full + empty)	1,096	2,226	3,419	2.9%	212%
Trans-shipments	140	268	403	2.7%	188%
Total	2,360	4,783	7,341	2.9%	211%

Source: TPA analysis

# Network Capacity

- PBROG seeks to achieve 28% rail mode share for the 7.3 million containers by 2056. This will mean 2 million containers on SSFL and WSFL – a six fold increase on current performance.
- The number of containers on rail in the last financial year appears to have been 360,227, representing about 14.9% of the total number of containers.
- 7.4 million containers through 8 million people – 5 million on road
- This highlights congestion on road and rail

### **Use of Rail Freight**

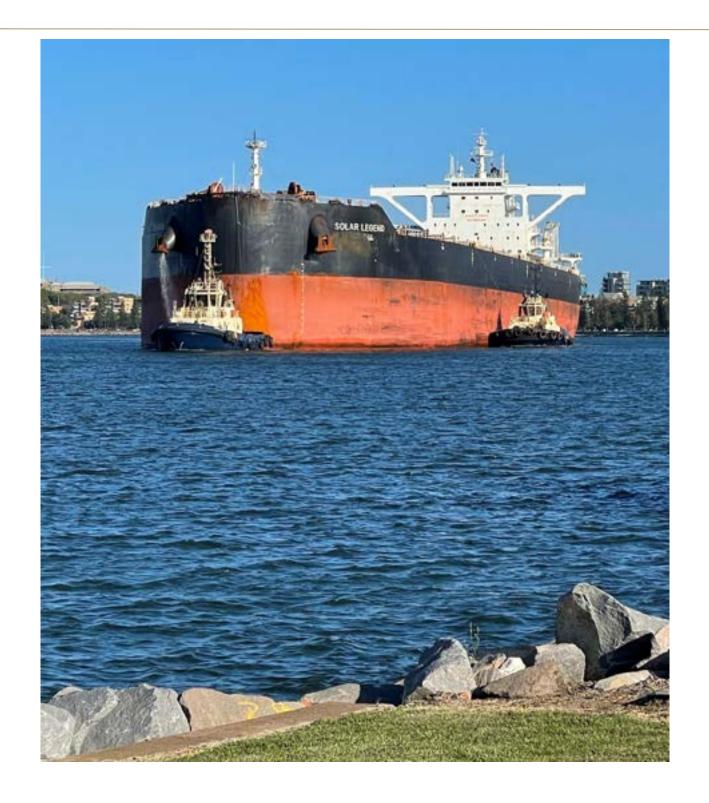


Rail mode share to & from Port Botany

Total TEUs by rail to & from Port Botany

### Findings

- 1. Population for our focus area will be 3,208,092\* (2056).
- 2. By the mid to late 2020s rail freight on the Main West Rail Line will be further constrained as Metropolitan passenger needs continue to take priority.
- 3. Increased road and rail networks through the Port of Newcastle are essential in providing more productivity and efficient service of imports for up to 2.8 million people (2056), rather than trying to accommodate other ports and networks which are under considerable population pressure.
- 4. Without change, 5 million containers will be required on road through Port Botany/Port Kembla to service over 10 million people by 2056. When compared today's congestion of 2 million containers, on road, servicing approximately 6 million people the need for change is apparent.



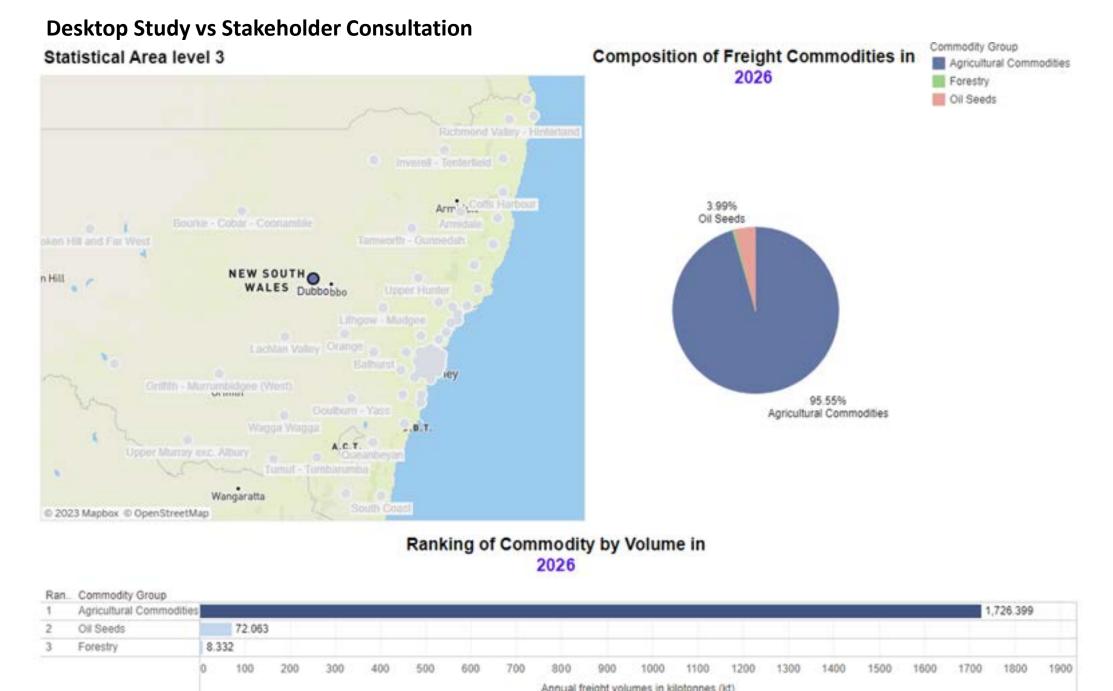
### Findings



- 5. Alternative networks and alternative ports will be required because of:
  - a) congestion on Sydney roads,
  - b) passenger trains taking priority,
  - c) constrained train paths on the main West, and
  - d) corridor closures due to natural disaster will all combine to constrain Port Botany and its rail and road networks.
- 6. Orana, Central West, Hunter, Northern NSW and the Port of Newcastle will require better road and rail networks including distribution centres and empty container parks.
- 7. Whichever business case is agreed upon, these network finding and implications must be included in the CBA. We must not rely merely on volumes.

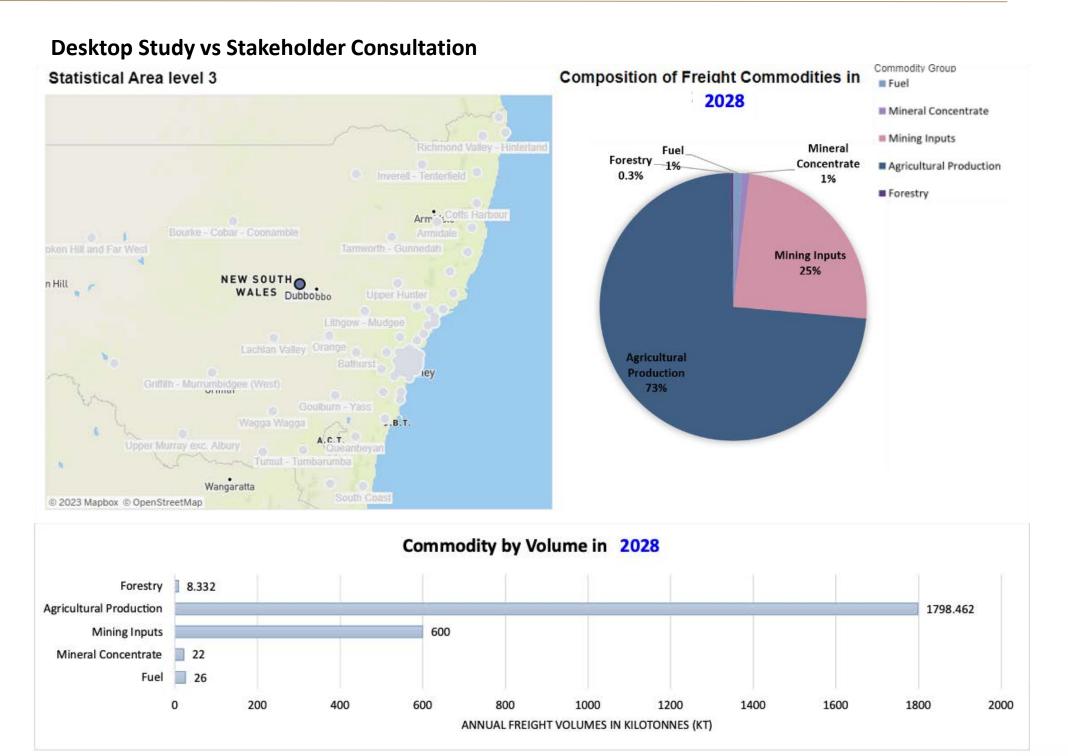
# Future Freight Flows

- Our consultations strongly indicate a 17% increase in commodity volumes in next 5 years (vs TfNSW estimate of 5%)
- This data directly influences the regions level of readiness and the 17% increase highlights the necessity for our infrastructure funding arrangements to accommodate this expected surge in demand.
- Final consultation with freight aggregators being undertaken to confirm volumes and understand the cost impact of network closures.



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### **Key Initiatives**



### **Freight to Destination**

Streamline freight transportation through strategic developments.

- Inland Rail to Port of Newcastle connection
- Port of Newcastle Container Terminal Development
- Empty Container Parks Development
- Container Distribution Facilities Development
- Maryvale to Gulgong Rail Line Upgrade



### **Precincts**

Foster dynamic precincts to drive regional growth and innovation.

- Renewable Energy Zone
- Intermodal Terminals
  - o Curban, Narromine, Merriwa, Fletchers, Graincorp
- Health Precincts
  - o John Hunter and medical specialists in Hunter
- Tourism Precincts
  - o Dubbo Zoo, Narromine Gliders, Wineries, Coastal
- Education Precincts
  - TAFE (Orana & Hunter), Charles Sturt University, University of Newcastle



### **Airport & Defence**

Expand and improve airport and defence capabilities.

- Regular Flights Dubbo/Newcastle
- Newcastle Airport expansion to international destinations
- Potential investment in submarine capability
- Increased presence in Airforce Defence Space



### **Enhanced Network**

Boost regional connectivity and safety through strategic enhancements and upgrades

- Upgrade Golden Highway:
  - Overtaking lanes provision
  - Narrow bridge replacement & widening narrow rail crossings
  - o Corner realignment & Intersection safety upgrades
  - PBS 2B approval on the Golden Highway
  - Denman Precinct Upgrade
  - Merrygoen Upgrade

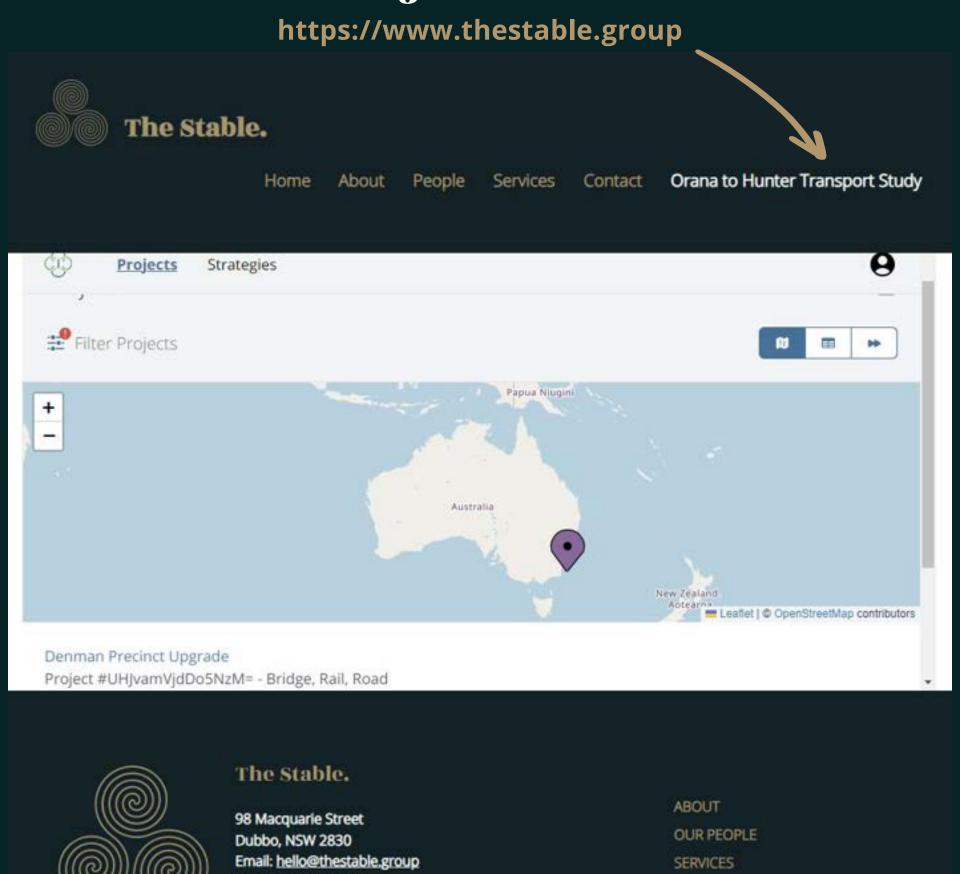


### Framework

Vision	<ul> <li>By 2033, the Orana and Hunter corridor will support the growth of the region by being:         <ul> <li>A dynamic pathway promoting prosperity and quality of life for residents and visitors.</li> <li>A vital link for national and international trade, enhancing the economic gateway to the Orana and Hunter regions.</li> <li>A hub of sustainable transport and logistics innovation, driving regional advancement and preparedness.</li> </ul> </li> </ul>						
Objectives	Enhance and streamline freight tr developments.     Foster dynamic precincts to drive		Expand and enhance airport and defence capabilities.     Boost regional connectivity and safety through strategic enhancements and upgrades				
Initiatives	Freight to Destination	Precincts	Airport & Defence	Enhanced Network			
Commitments	Inland Rail to Port of Newcastle connection.	Renewable Energy Zone	Regular Flights Dubbo/Newcastle	Upgrade Golden Highway			
	Port of Newcastle Container Terminal Development.	Intermodal Terminals	Newcastle Airport expansion to international destinations	PBS 2B approval on the Golden Highway			
	Empty Container Parks Development	Health Precincts	Nuclear safety infrastructure development to support port visits.	Denman Precinct Upgrade			
	Maryvale to Gulgong Rail Line Upgrade	Tourism Precincts	Increased presence in Airforce Defence Space	Merriwa Heavy Vehicle Bypass			
		Education Precincts		Overtaking Lanes on the Golden Highway			
				Merrygoen Upgrade			
Future Opportunities	Container Distribution Facilities Development	Development of Merriwa Transport Precinct	Investment in submarine capability	Rare Earth Mining Innovations			
		Circular Economy Precincts					
Governance	Local, State and Federal Partnerships for better Governance.						



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