

Improving public transport in Australia's cities: *Infrastructure issues and options*

Bureau of Infrastructure, Transport & Regional Economics
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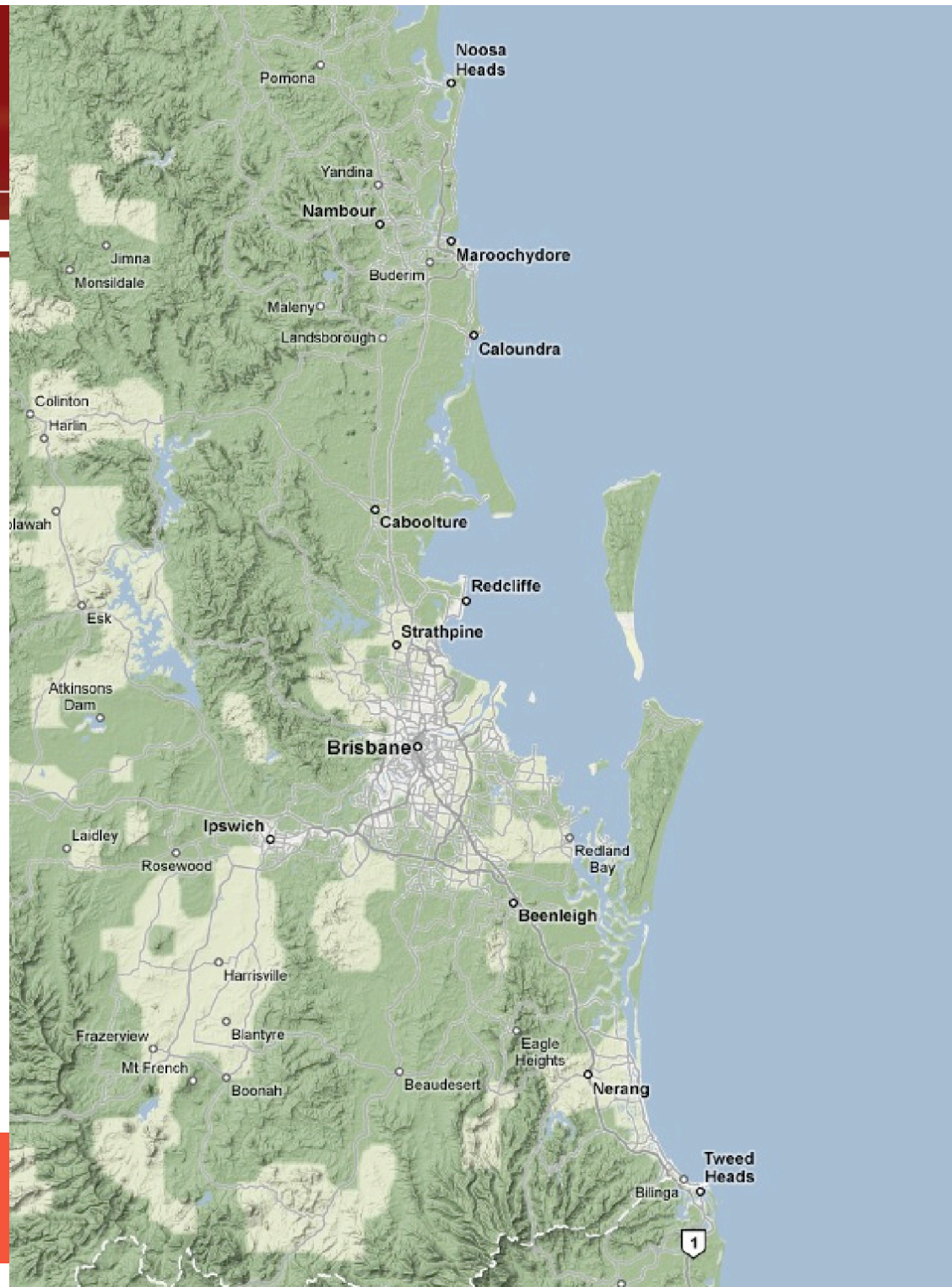
South East Queensland is growing

- There are approximately 1500 people moving into South East Queensland every week
- These new residents alone create an extra 4,500 trips every week on the regions transport networks
- On the average working weekday in South East Queensland there are an estimated 8,800,000 journeys made
- Over 80 per cent of these journeys are made by private vehicles



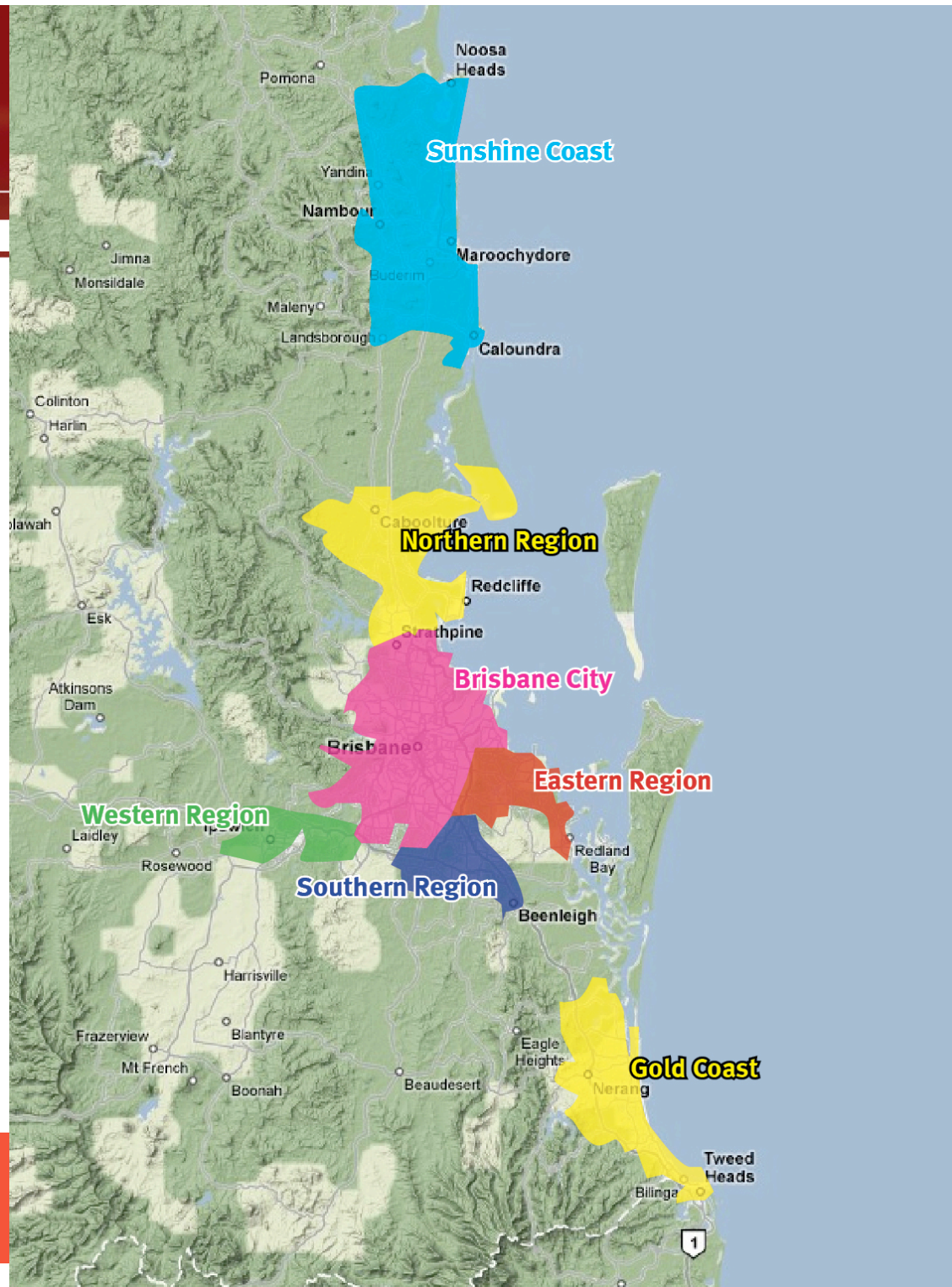
South East Queensland

Moving Queensland forward



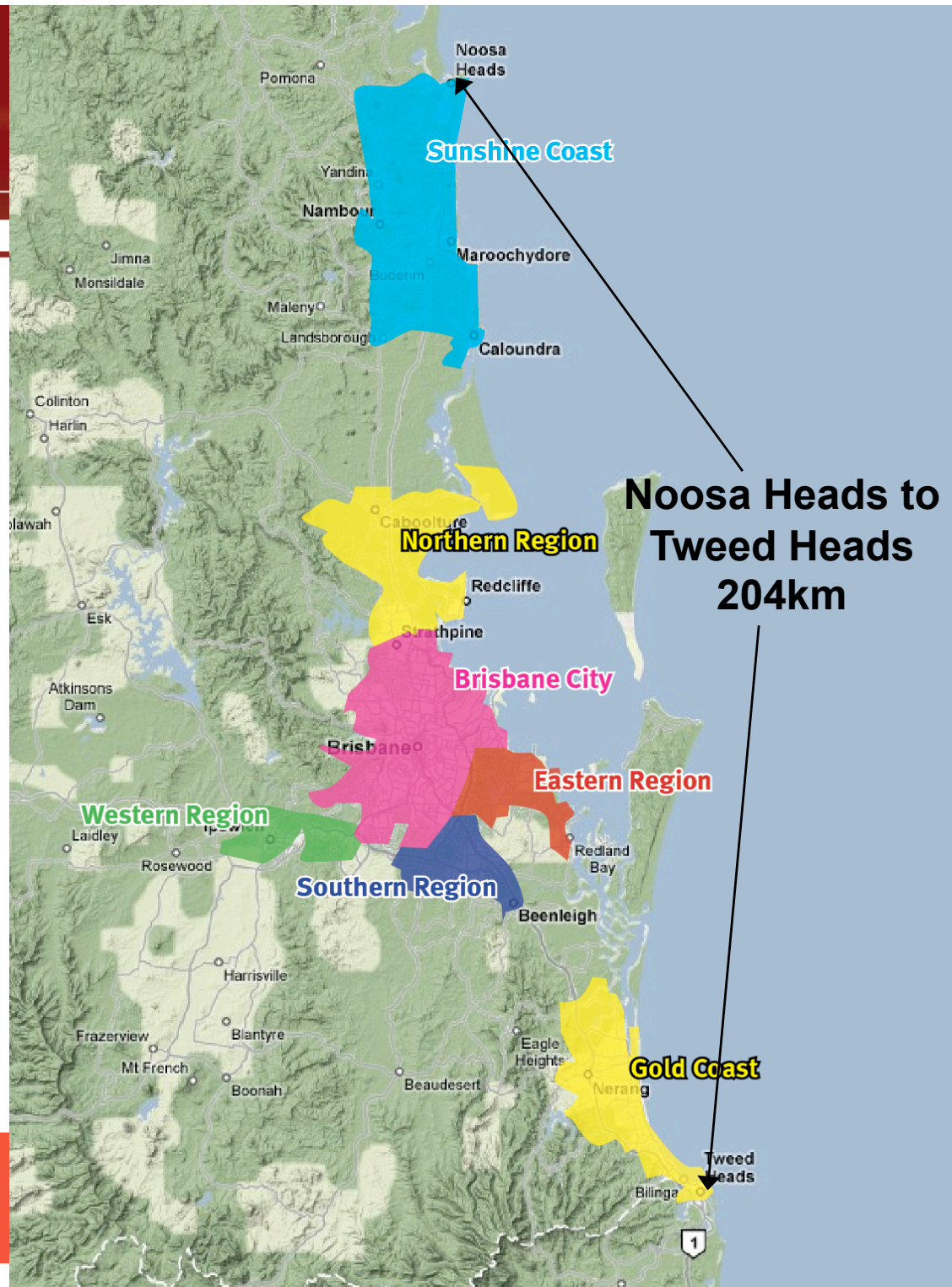
TransLink network map

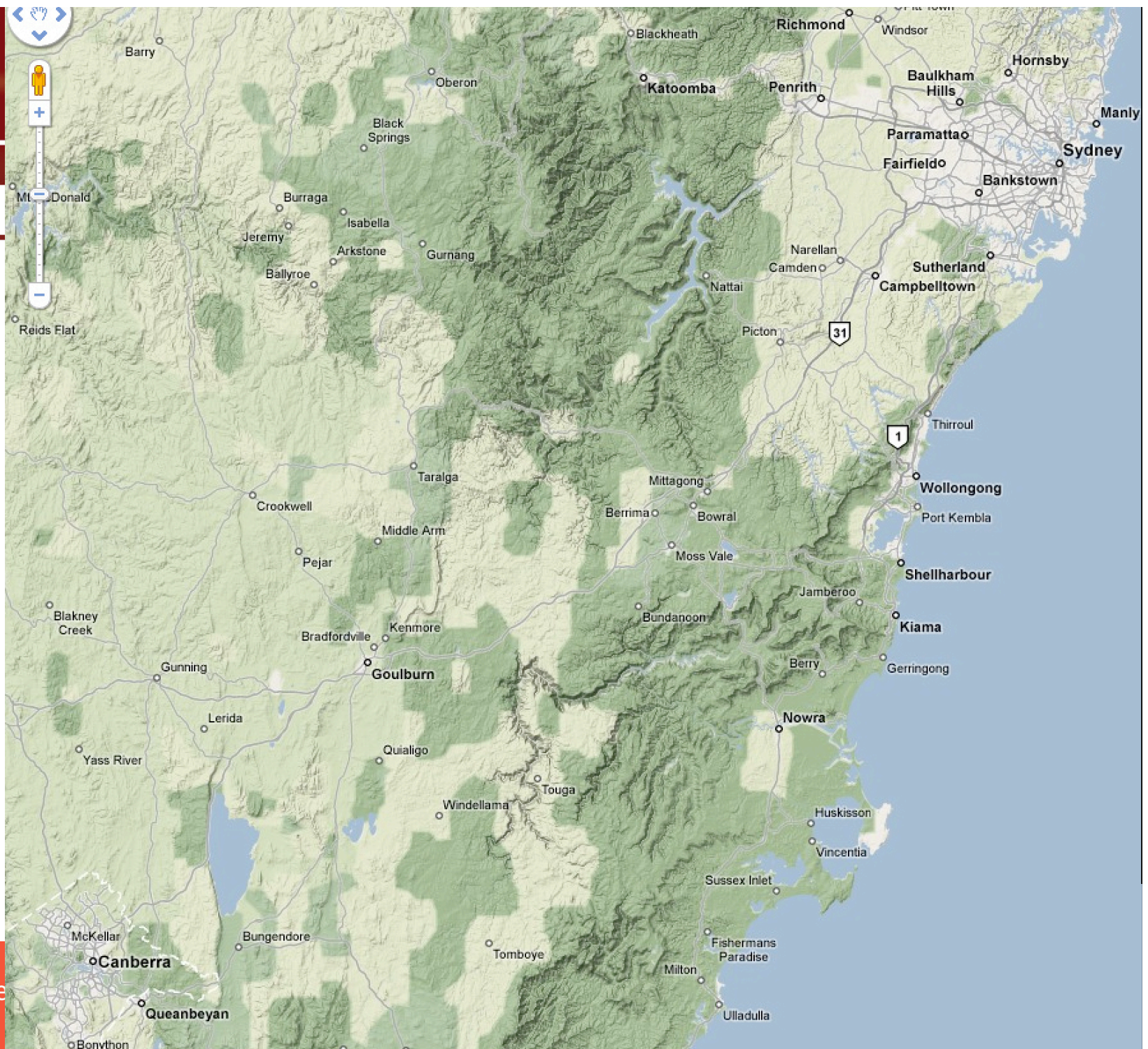
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TransLink network map

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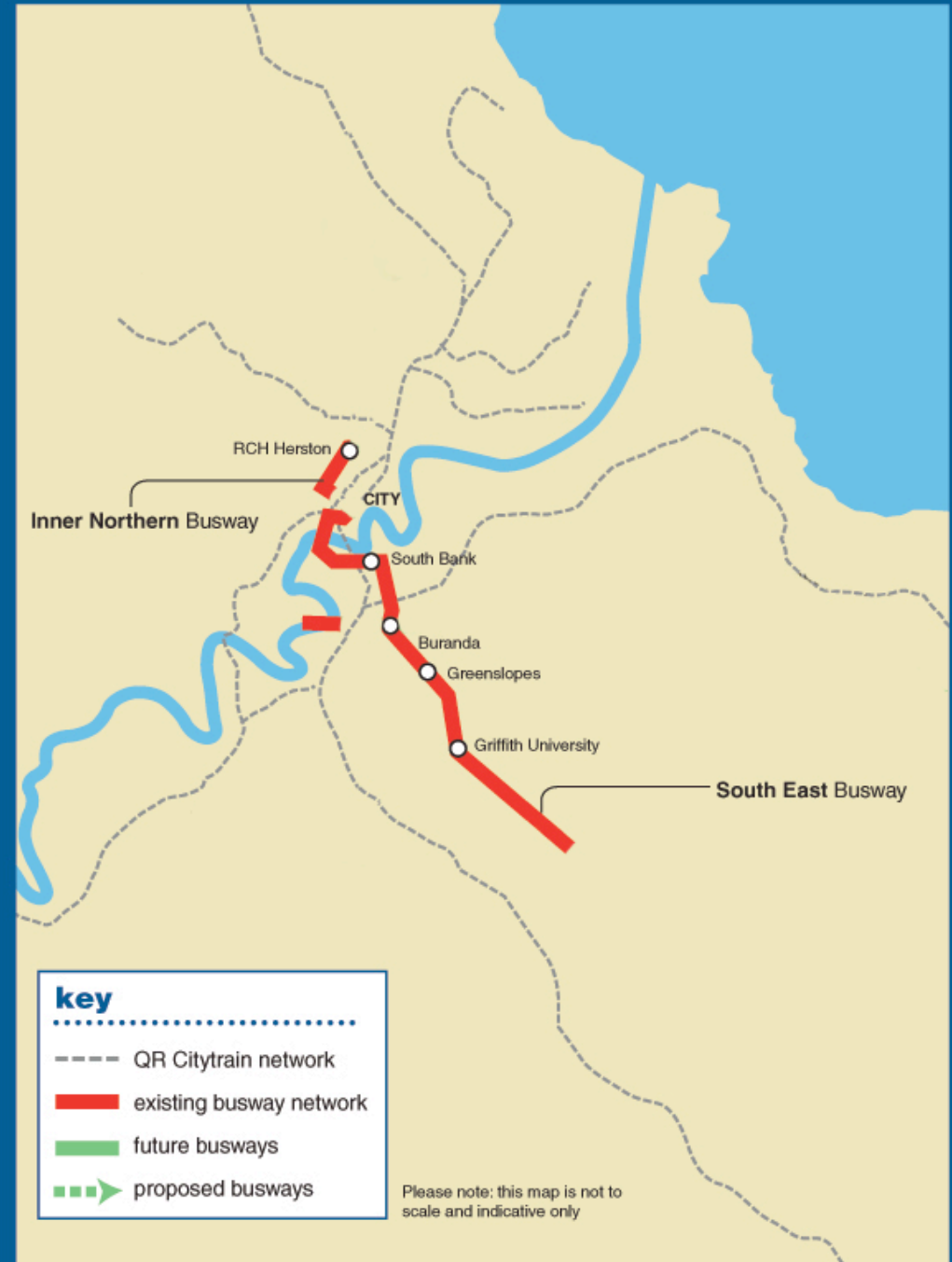


Brisbane's busways

Completed, future and proposed busways

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TransLink busway network

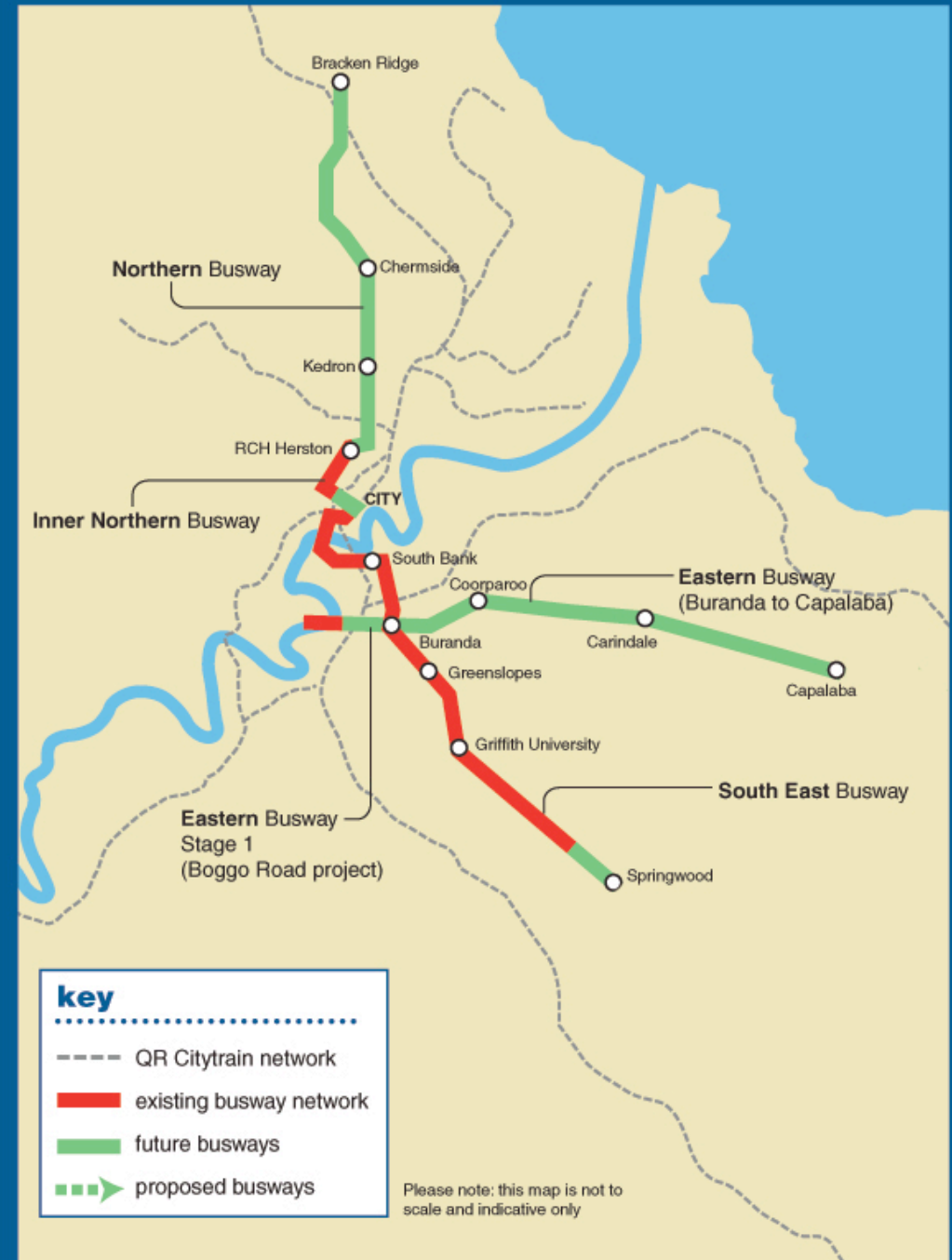


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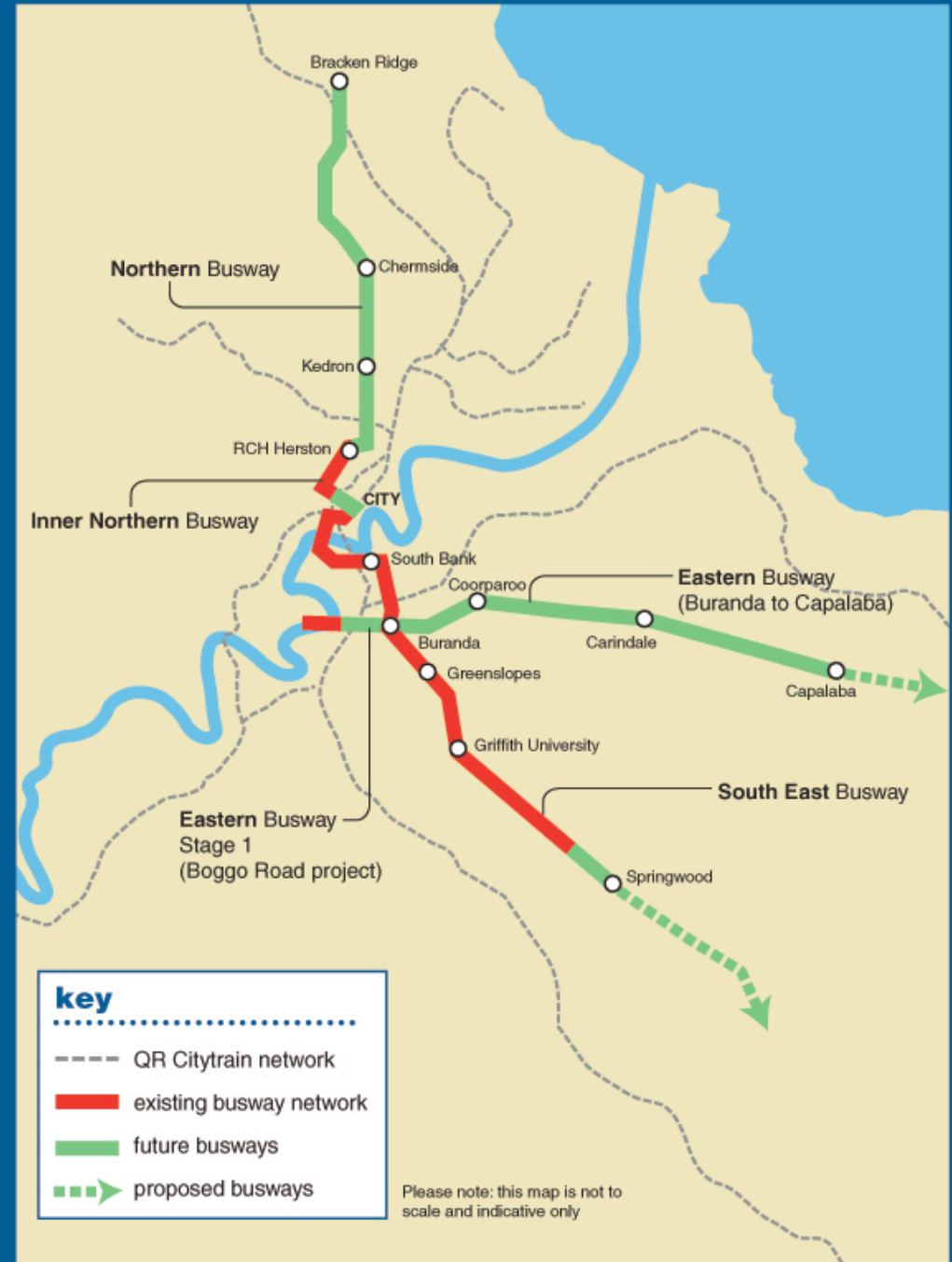


Brisbane's busways

Completed, future and proposed busways

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TransLink busway network



Buses and busways

Facts and figures

- **South East Busway** (completed in 2000, extended to Eight Mile Plains in 2001 – Eight Mile Plains to Springwood planning underway)
- **Inner Northern Busway** (Queen Street, City – Royal Children's Hospital, Herston) Opened May 2008
- **Northern Busway** – Royal Children's Hospital to Windsor (to be completed 2012)
- **Eastern Busway** – Buranda to Capalaba (to be completed 2012)
- **Boggo Road Busway** – PA hospital to Eleanor Schonell Bridge and the University of Queensland (to be completed mid 2009)



Busways can be implemented in stages

- A short section of busway can be utilised by existing bus services to great effect
- Rail requires a larger upfront investment in order to build a complete line.

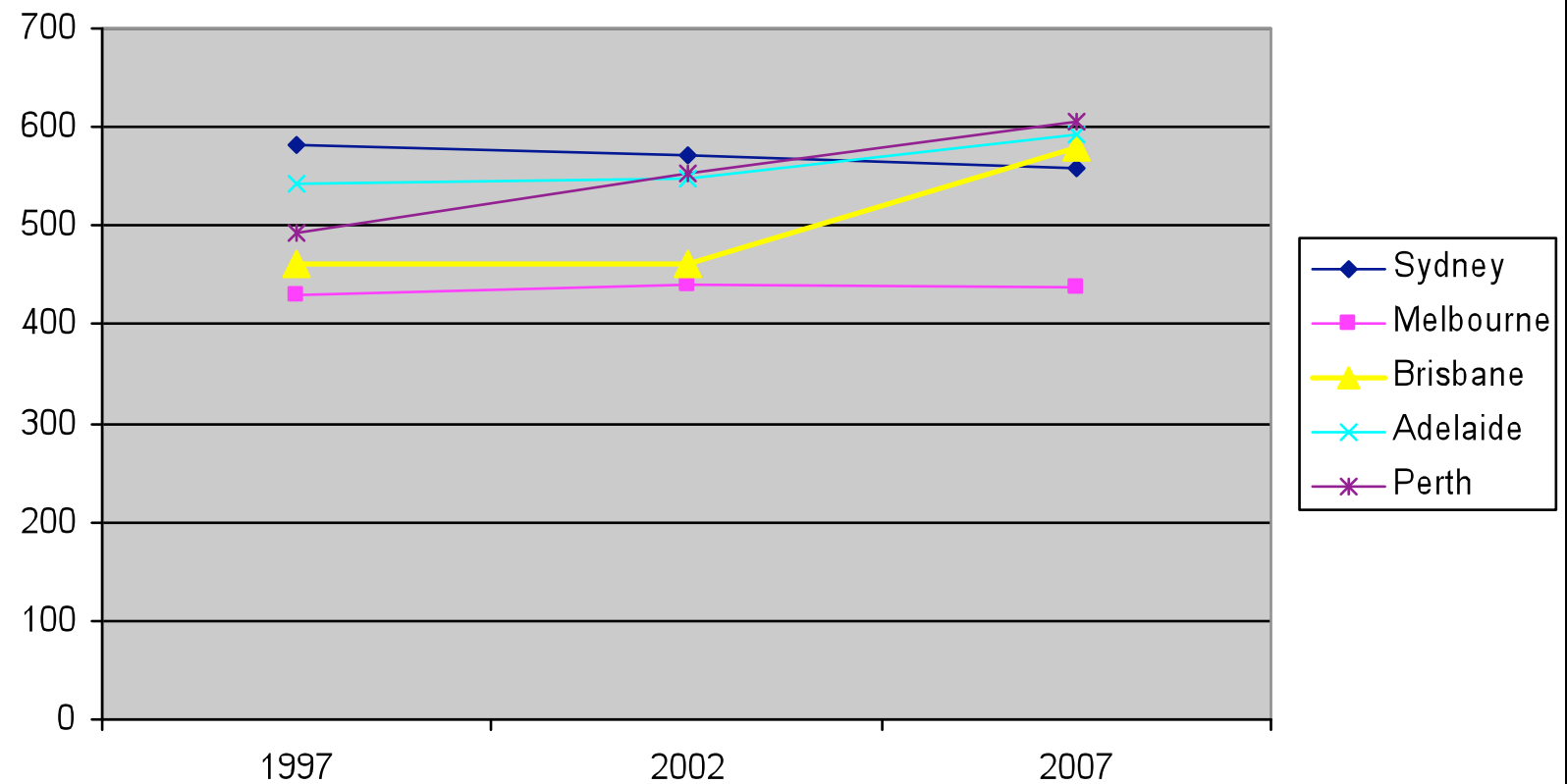


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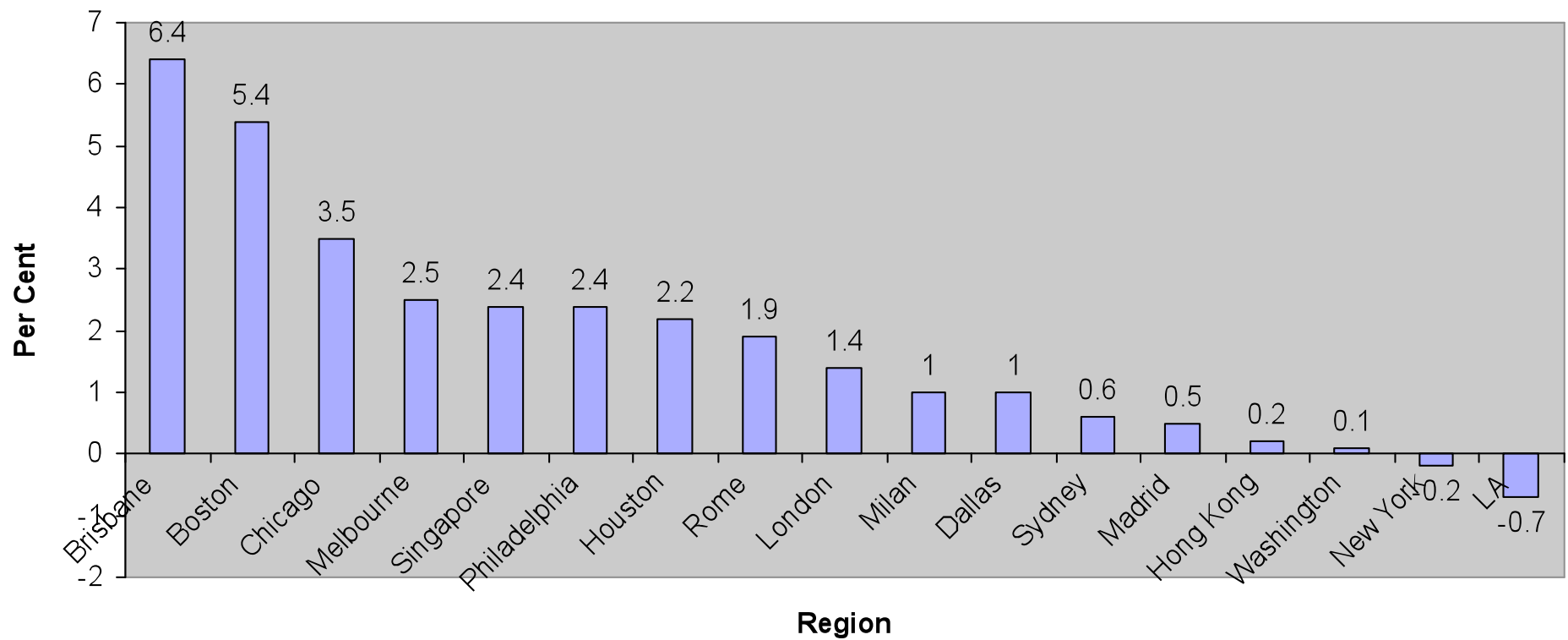


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Pass.km per resident - Bus plus light rail



Public Transport Passenger Growth Rate Premium* (CAGR FY97-05 vs. FY05-07)





Buses and busways

Facts and figures

- One busway lane = 15,000 people per hour
(One motorway lane = 2,000)
- South East Busway carries over 150,000 passengers per day
- The Inner Northern busway carries 1 million people per month and saves up to 20 minutes commute time

Buses and busways

Facts and figures

- If every person in a full CNG bus chose to drive their car instead, they would produce 1000 times more carbon monoxide, 250 times more coarse particles, and 22 times more oxides of nitrogen.



Integrated ticketing

go card facts and figures

On June 11, 2009:

- 357,754 go cards were in circulation
- 98,187 individual cards were used
- There were 170,797 trips made
- 884 cards were sold
- On June 11 – \$83.8m in stored value on go cards.



Integrated ticketing

Commenced on 1 July 2004

- In the first three years of operation patronage increased more than 30%
 - +37% Gold Coast
 - +49% Sunshine Coast
 - +119% Southern Region
 - +67% Northern Region
 - +59% Eastern Region
 - +101% Western Region.





Inner City Rail Upgrade Project



Inner City Rail Capacity Study

Phase 1 2016 | Routes A-C

- Existing rail infrastructure
- Existing station
- Possible new station location

- Route A
- Route B
- Route C



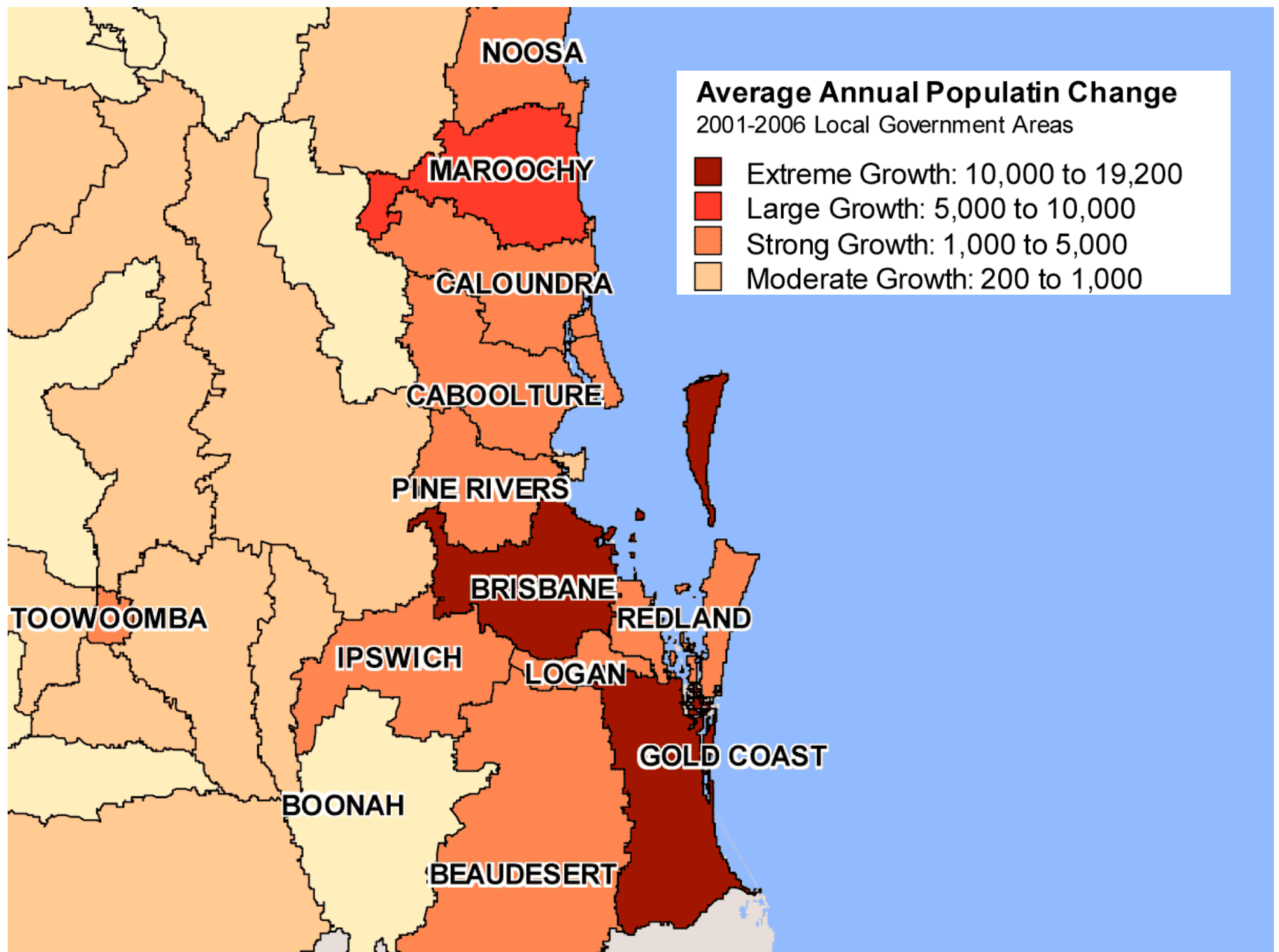
Gold Coast Rapid Transit



The Gold Coast is growing too!

- The Gold Coast is Australia's fastest-growing large city, with a population predicted to reach 800,000 by 2026
- Increased car usage will result in **gridlock by 2016** with average travel times increasing by up to 40% across the city
- A light-rail corridor for the Gold Coast was previously recommended by various planning studies.







- **Brisbane:** Existing heavy rail spine with lower density population.

Two cities, two needs:

- **Gold Coast:** Existing east west feeders and local services – higher density population
- In need of rapid transit spine to support existing services



Light-Rail Vs Bus Rapid Transit

- The establishment of a dedicated busway or light-rail is roughly the same (Infrastructure costs vary significantly)
- Light-rail vehicles are around \$6m each – buses are about \$450k each
- One tram = around 200 passengers (\$6m)
- Three buses = around 200 passengers (\$1.35m)

Rail vehicles last longer (30 years)

- Studies have shown light-rail is slightly cheaper than buses on a lifetime basis

Light-Rail Vs Bus Rapid Transit

- Light-rail can meet higher future demands –
One light-rail vehicle every 3 minutes = two bi-articulated buses running in tandem every 3 minutes
- Studies have shown that light-rail has a higher capacity to encourage economic development
- Community preference for light-rail
71% light-rail – 29% bus
- Light-rail is more environmentally friendly.

Light-rail was the winner!

- Proven technology
- Can carry 10,000 passengers per hour
- Capacity can be increased to meet demand
- Potential to meet and shape community travel and lifestyles
- Private sector delivery and operation will produce innovation and higher levels of service
- Suitable for high proportion of tourists/first-time users and short trips
- Local community preferred light-rail.



Gold Coast Rapid Transit Project Stage 1 Griffith University to Broadbeach (via Southport and Surfers Paradise)

Construction to start 2011



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Thankyou:

Questions?

For more information please contact:
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