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Burnett Water Feasibility Study

South Burnett Council Update

Agenda

- Welcome and introductions – Mayor Otto
- Progress of the study
- Summary of the Strategic Business Case
- Overview of current work – Options Analysis
- Short listing
- Next steps
- How to contribute
- Questions

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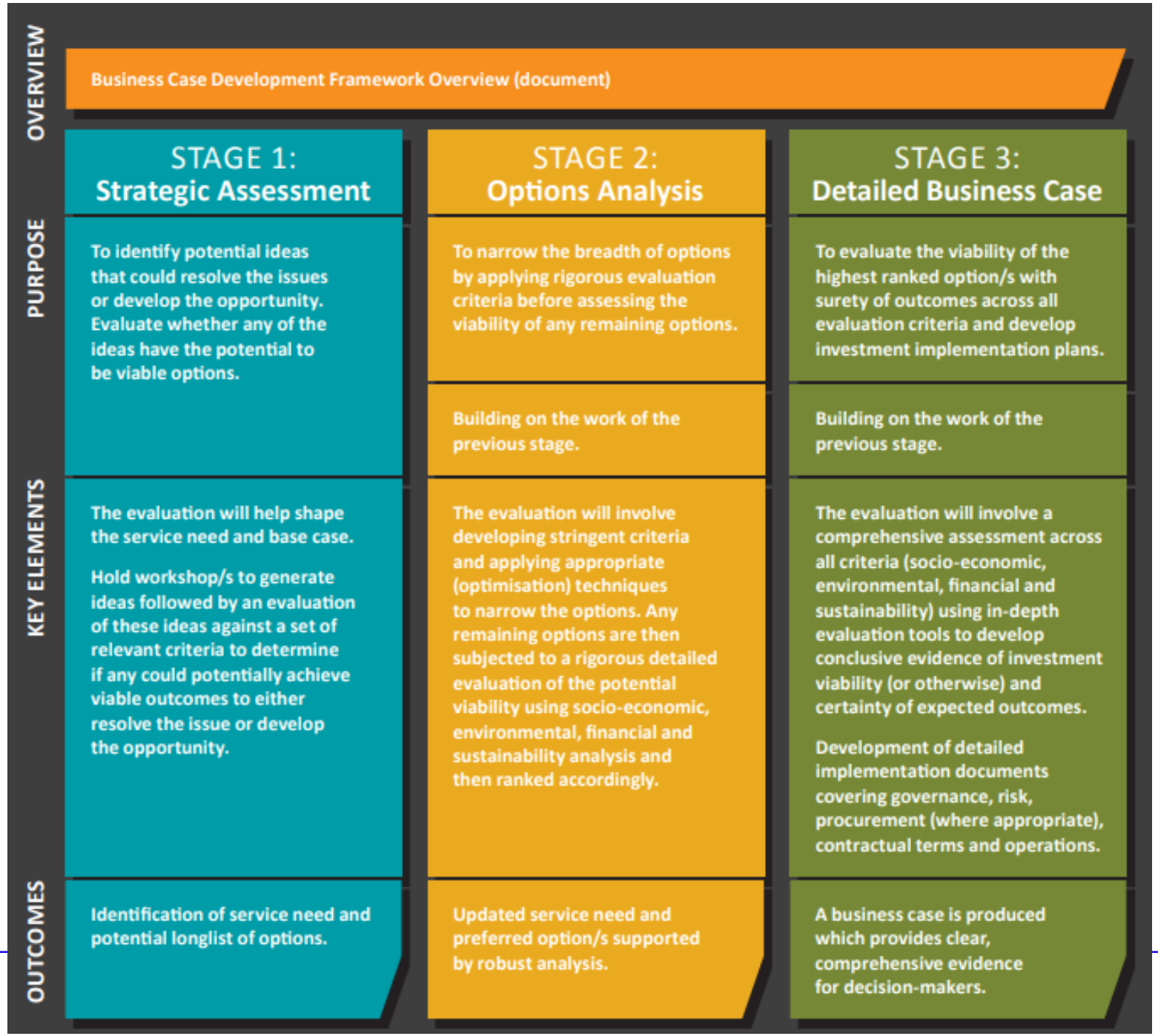
1. Welcome and introductions

Mayor Otto

2. Progress of the study


OVERVIEW
Business Case Development Framework Overview (document)
PURPOSE
KEY ELEMENTS
OUTCOMES
STAGE 1:
Strategic Assessment
To identify potential ideas that could resolve the issues or develop the opportunity. Evaluate whether any of the ideas have the potential to be viable options.
The evaluation will help shape the service need and base case.
Hold workshop/s to generate ideas followed by an evaluation of these ideas against a set of relevant criteria to determine if any could potentially achieve viable outcomes to either resolve the issue or develop the opportunity.
Identification of service need and potential longlist of options.
STAGE 2:
Options Analysis
To narrow the breadth of options by applying rigorous evaluation criteria before assessing the viability of any remaining options.
Building on the work of the previous stage.
The evaluation will involve developing stringent criteria and applying appropriate (optimisation) techniques to narrow the options. Any remaining options are then subjected to a rigorous detailed evaluation of the potential viability using socio-economic, environmental, financial and sustainability analysis and then ranked accordingly.
Updated service need and preferred option/s supported by robust analysis.
STAGE 3:
Detailed Business Case
To evaluate the viability of the highest ranked option/s with surety of outcomes across all evaluation criteria and develop investment implementation plans.
Building on the work of the previous stage.
The evaluation will involve a comprehensive assessment across all criteria (socio-economic, environmental, financial and sustainability) using in-depth evaluation tools to develop conclusive evidence of investment viability (or otherwise) and certainty of expected outcomes.
Development of detailed implementation documents covering governance, risk, procurement (where appropriate), contractual terms and operations.
A business case is produced which provides clear, comprehensive evidence for decision-makers.

3. Summary of the Strategic Business Case

Key Economic Indicators

Key economic indicators – South Burnett

	2011	2015	2019	Percentage Change
Gross Regional Product (million)	1,684	1,819	1,903	+ 13
Population	31,803	32,589	32,555	+2.4
Unemployment (number)	928	1,379	1,028	+11
Businesses (number)	-	3,111	3,086	-0.9
Agricultural Output	$362 million	$435 million	$346 million	-4.4

Source: economy.id Queensland – South Burnett

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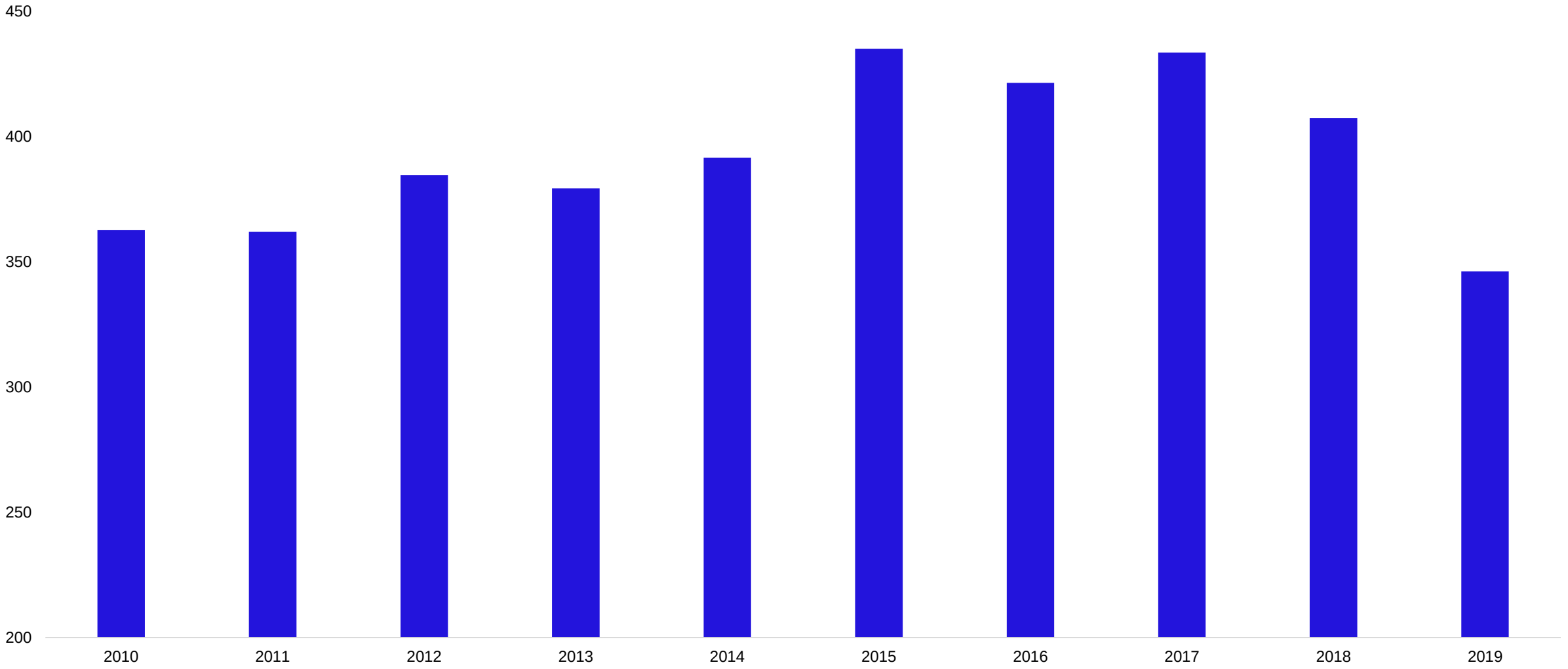
Agricultural output in the South Burnett has fluctuated



Source: economy.id Queensland – South Burnett

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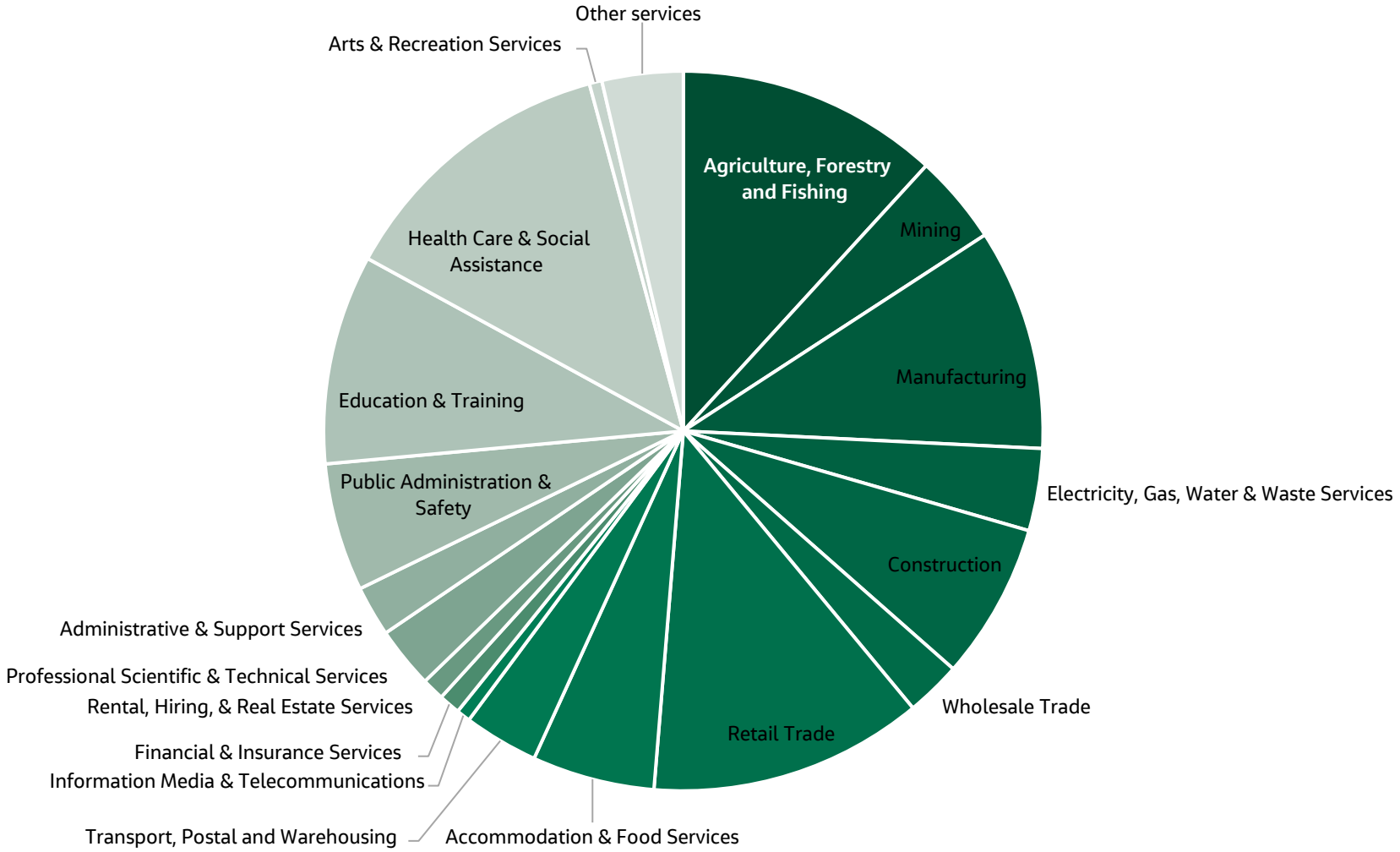
Agriculture is the second largest employer in the South Burnett, employing 12 percent of workers.



Source: ABS, Employment by industry– South Burnett

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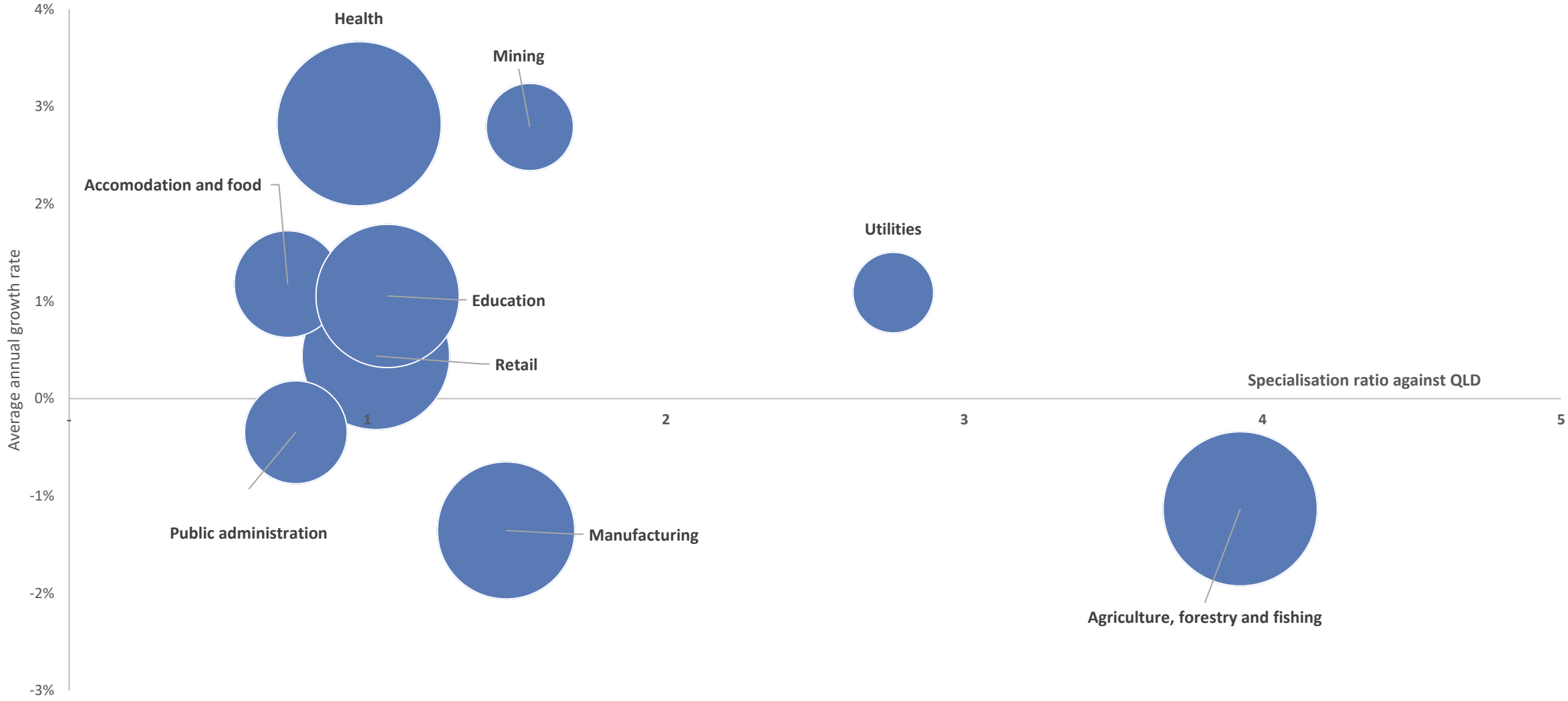
South Burnett region industry analysis



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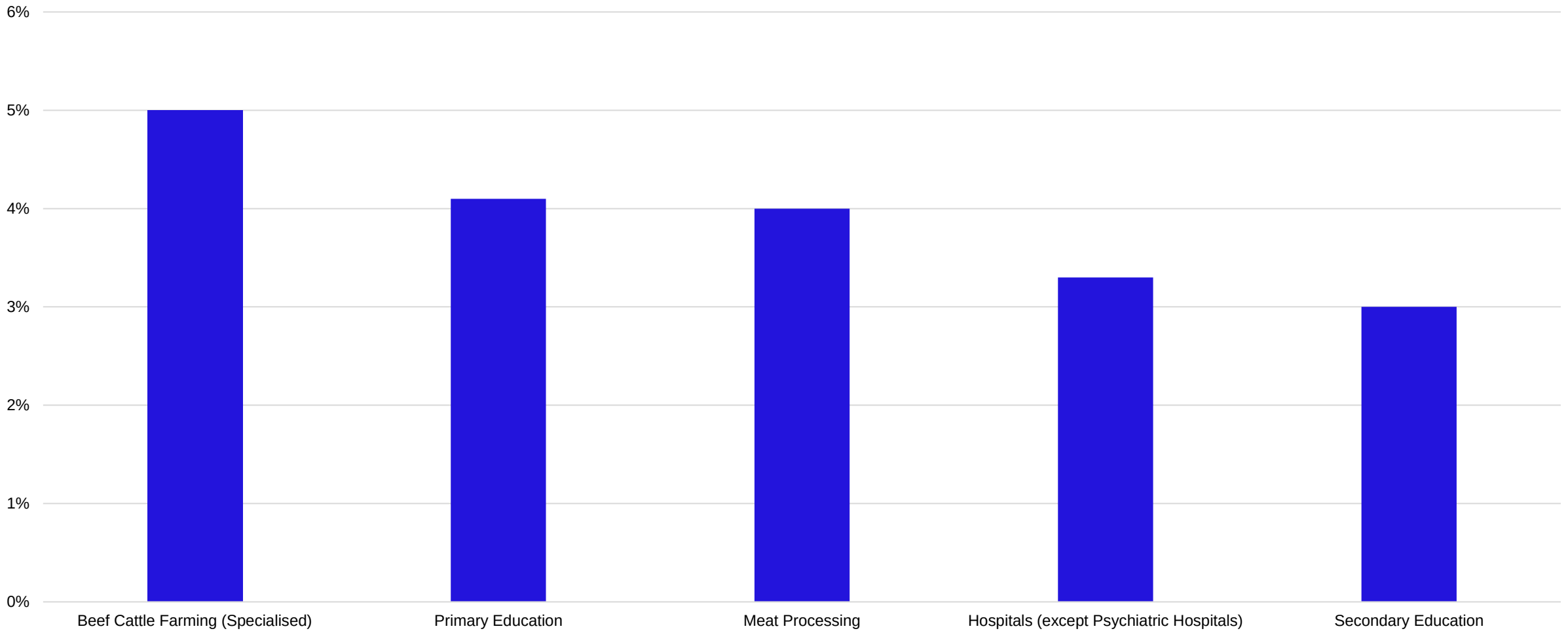
Cattle Farming and Primary Education are the largest employers in the region



Source: ABS, Census Summary – South Burnett

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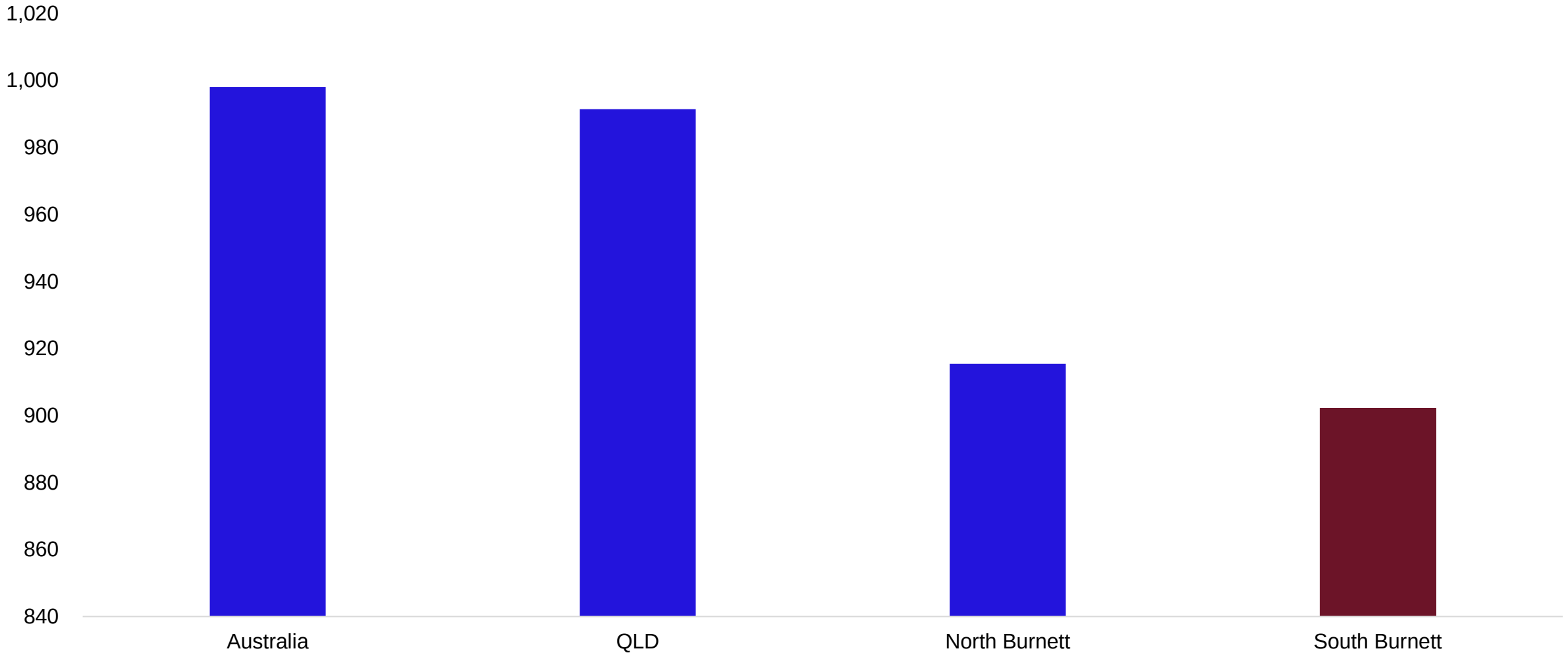
The socio-economic disadvantage level in the South Burnett is higher than Queensland, Australia and North Burnett



Source: ABS, Socio-economic disadvantage Level – South Burnett

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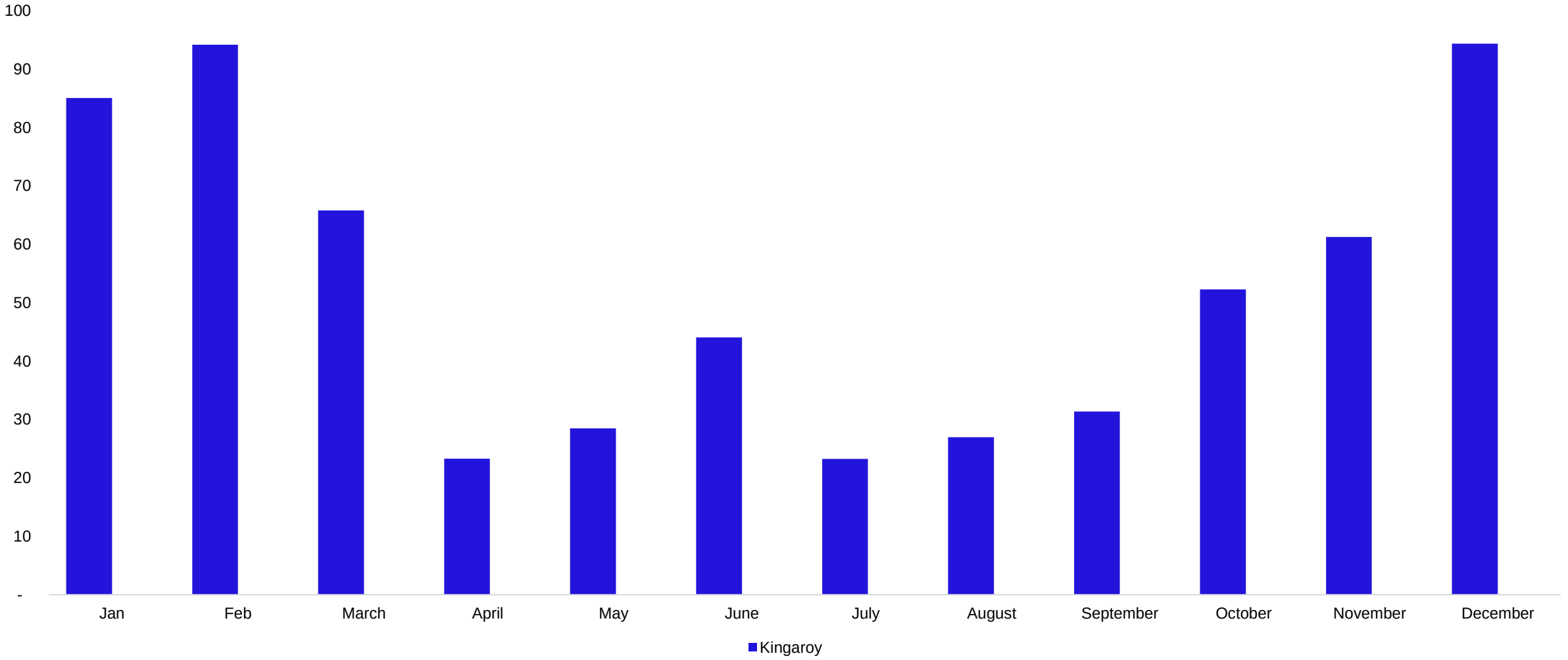
Average monthly rainfall over the last 20 years



Source: Bureau of Meteorology – Climate Data

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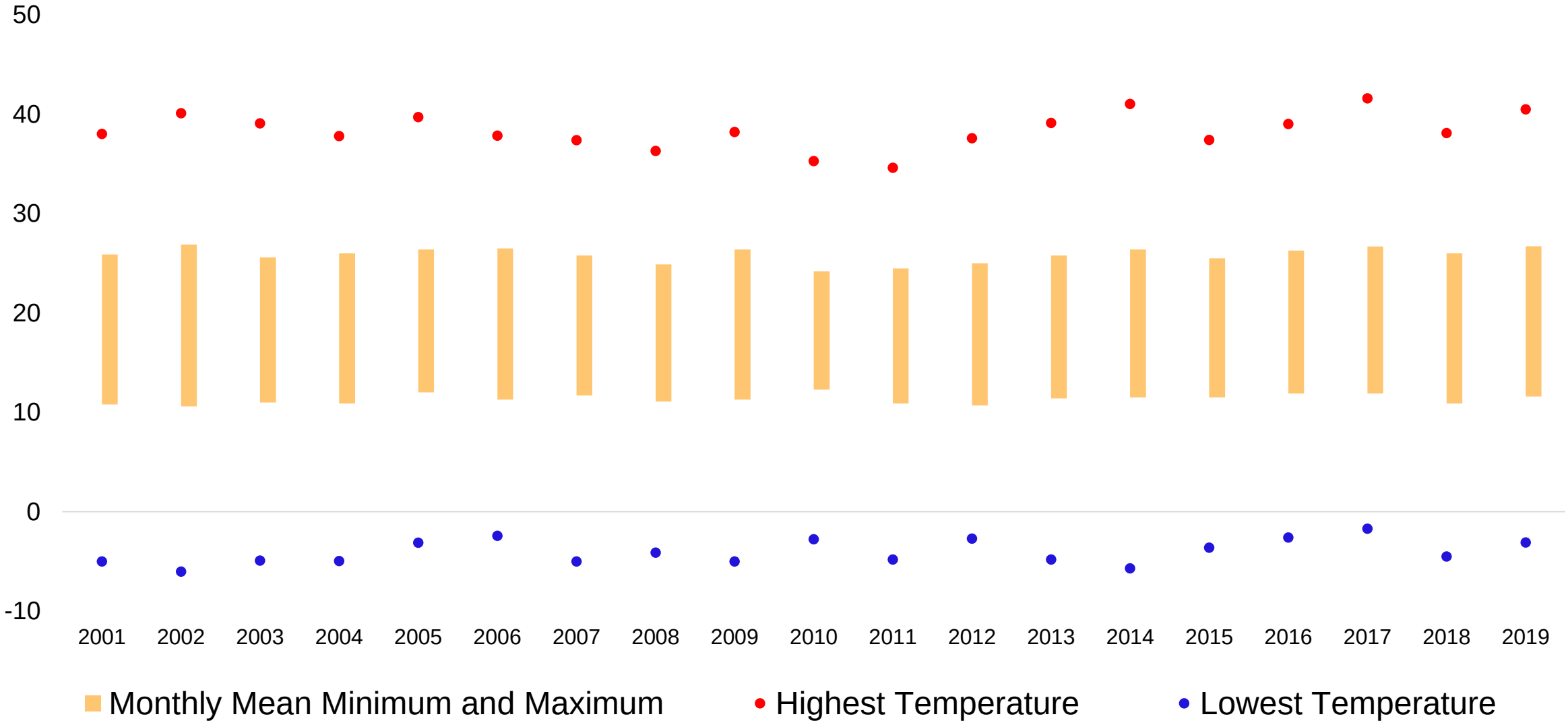
Kingaroy Historical Temperature



Source: Bureau of Meteorology – Climate Data

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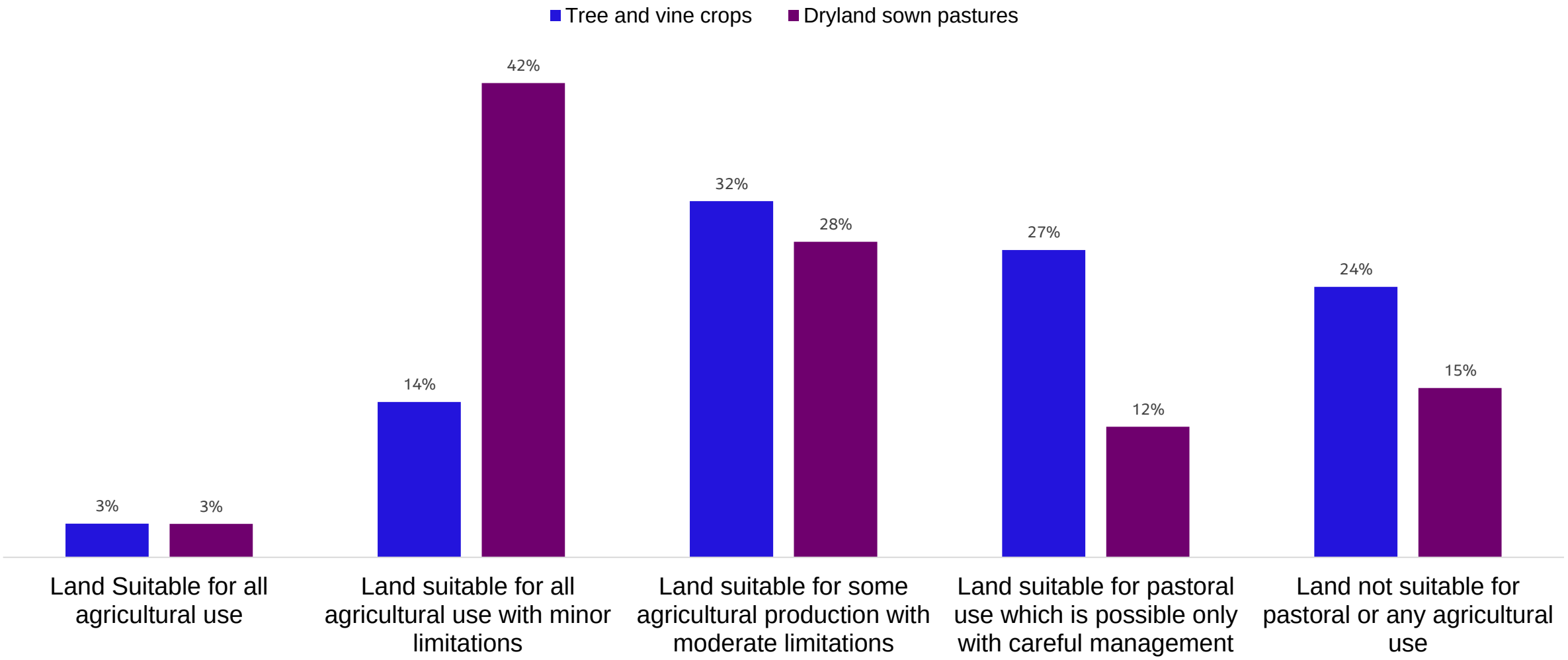
73% of the area is suitable for dryland sown pastures; 48% for tree and vine crops



Source: Land Resource of the South Burnett, DNRME 2001

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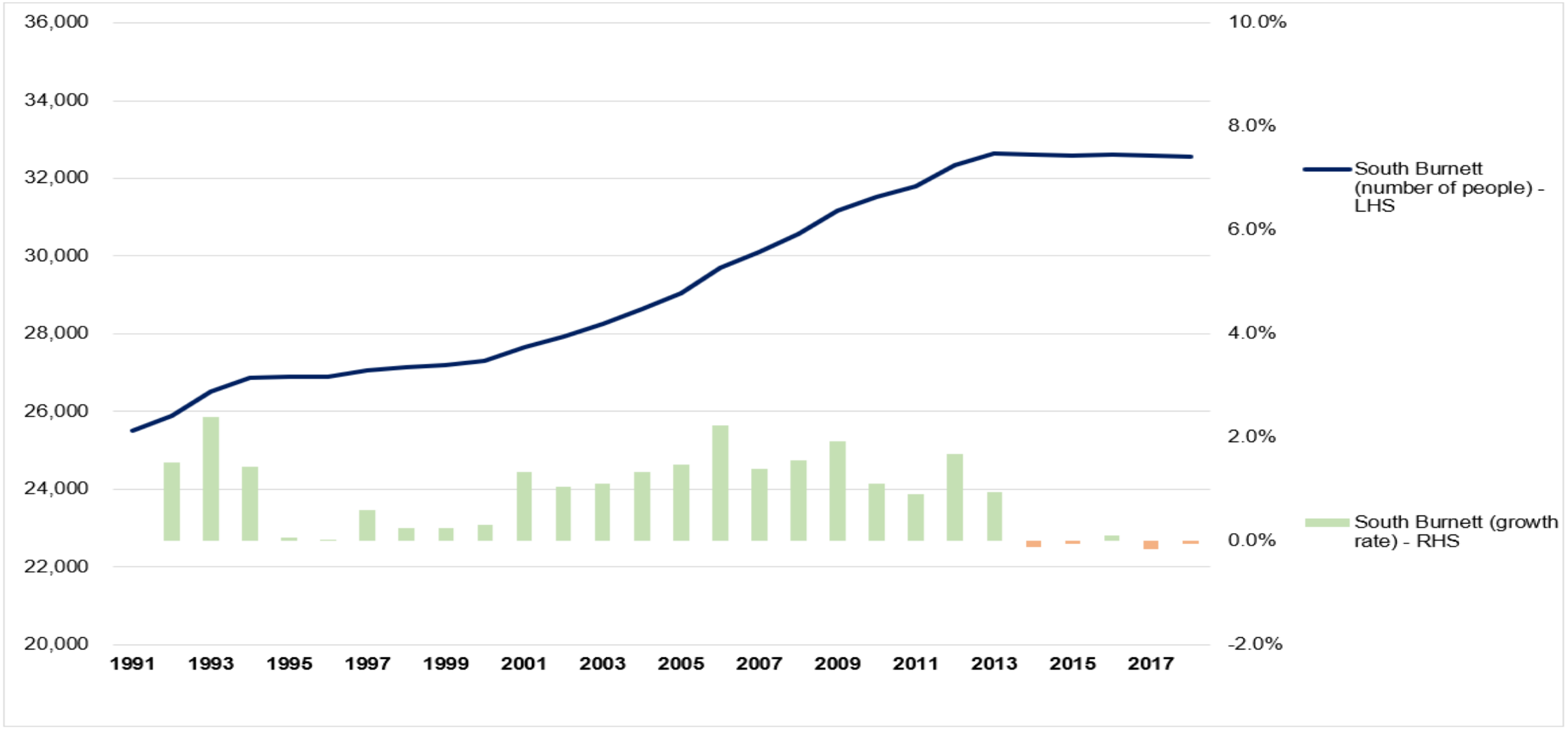
The South Burnett population has increased 27% in the last 30 years



Source: QGSO, Queensland – South Burnett

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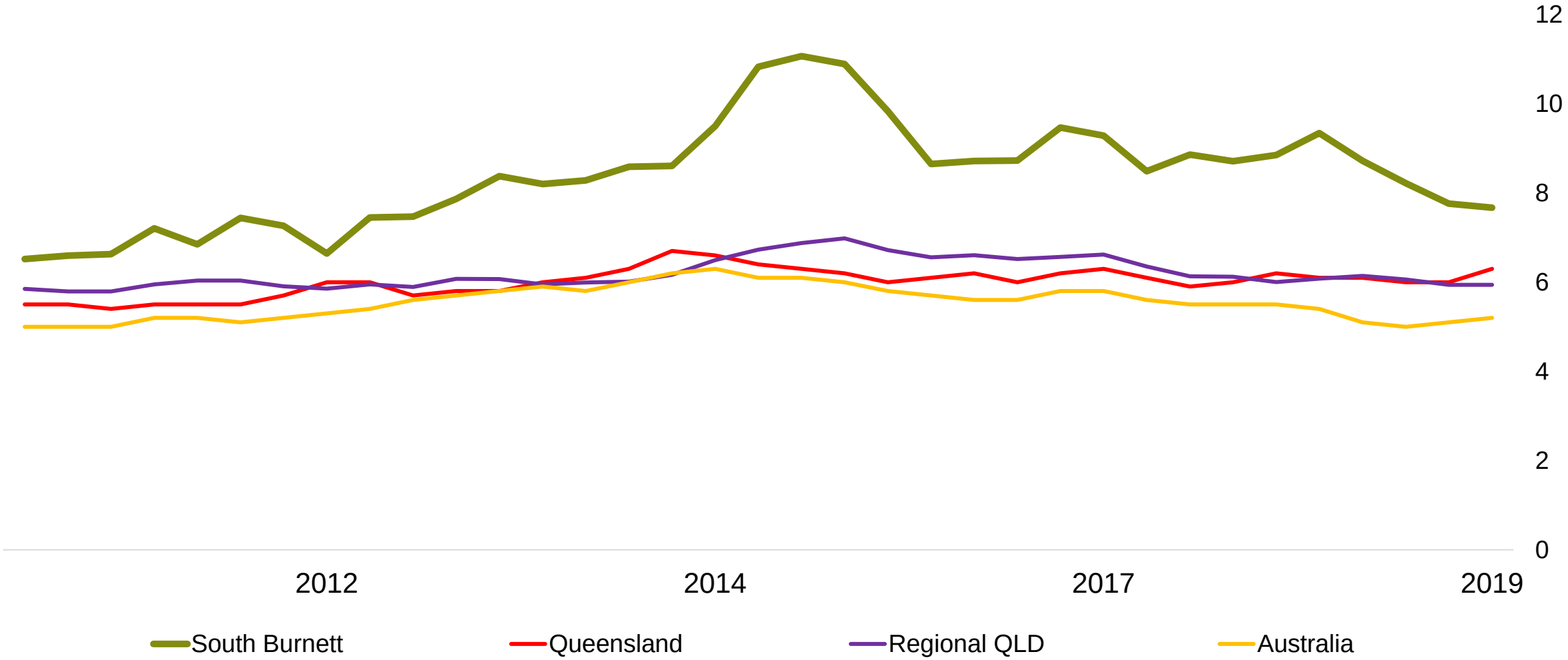
Historical Unemployment is higher than the National and State average



Source: QGSO, Queensland – South Burnett

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Urban water security

Restrictions need to be imposed too frequently

Restrictions are forecast to increase over time

Gordonbrook has water quality issues

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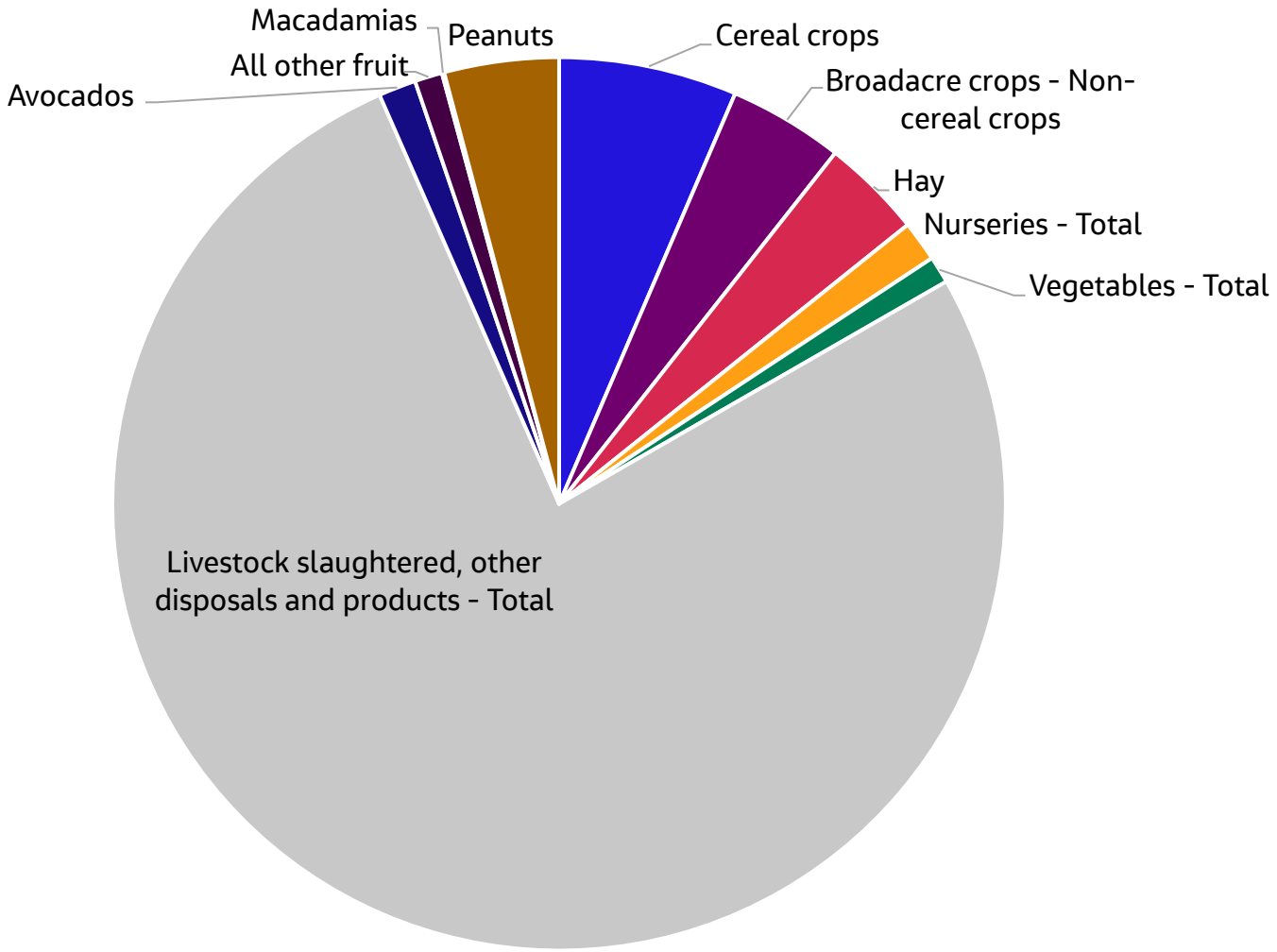
Breakdown of the Agricultural commodities produced in the South Burnett



Source: ABS, 2015-16 value of agricultural commodities produced– South Burnett

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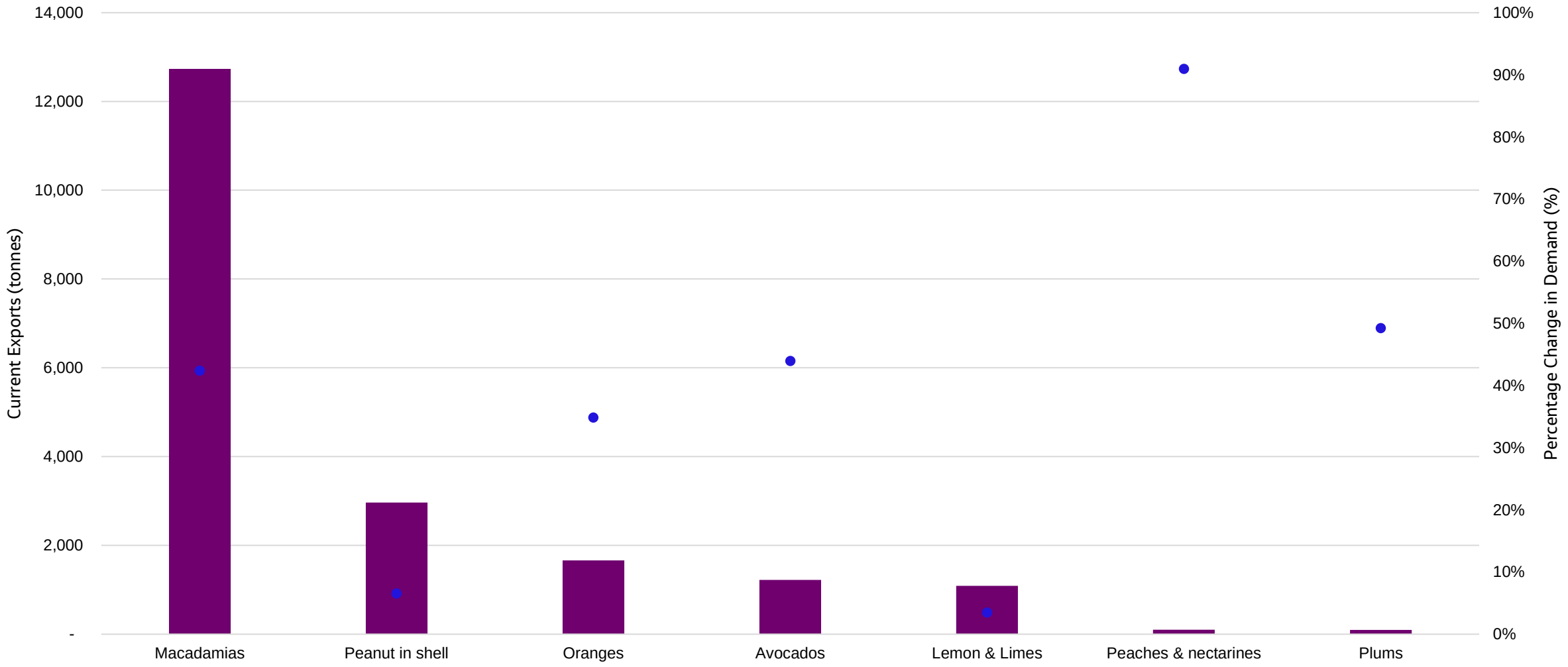
Queensland current exports and forecast change in demand



Source: ABS, Queensland Production and Exports by Commodity

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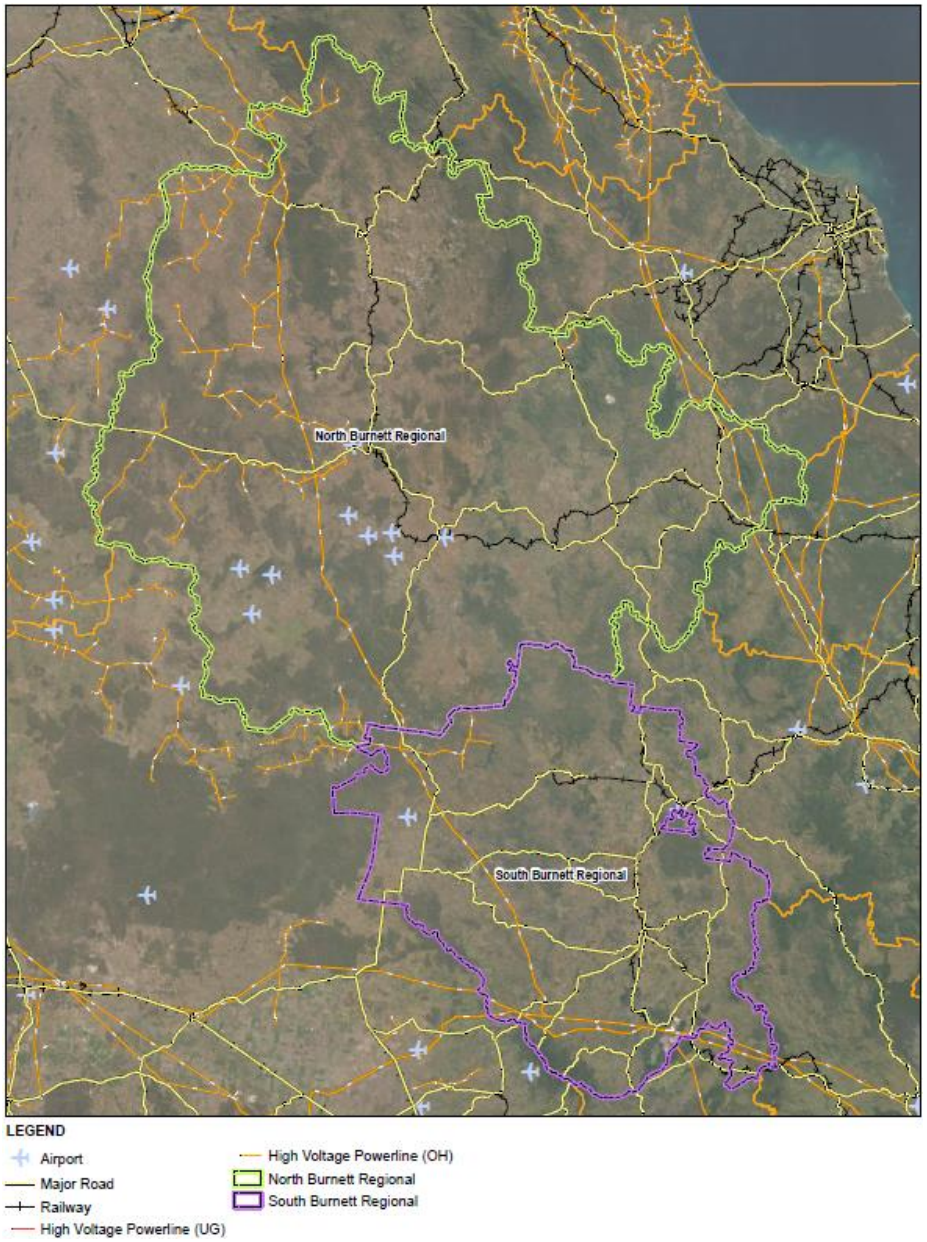
Access to Markets

- The South Burnett region has good access to major markets.
- It takes 3 hours to travel to the Brisbane Markets from Kingaroy.
- The Port of Bundaberg is only 3 hours away. The port of Brisbane is only 2 hours
- Major Airports (Brisbane and Bundaberg) are nearby allowing for export opportunities.
- Toowoomba's new Wellcamp airport is under 2 hours away and has an overnight cold storage service straight to China.



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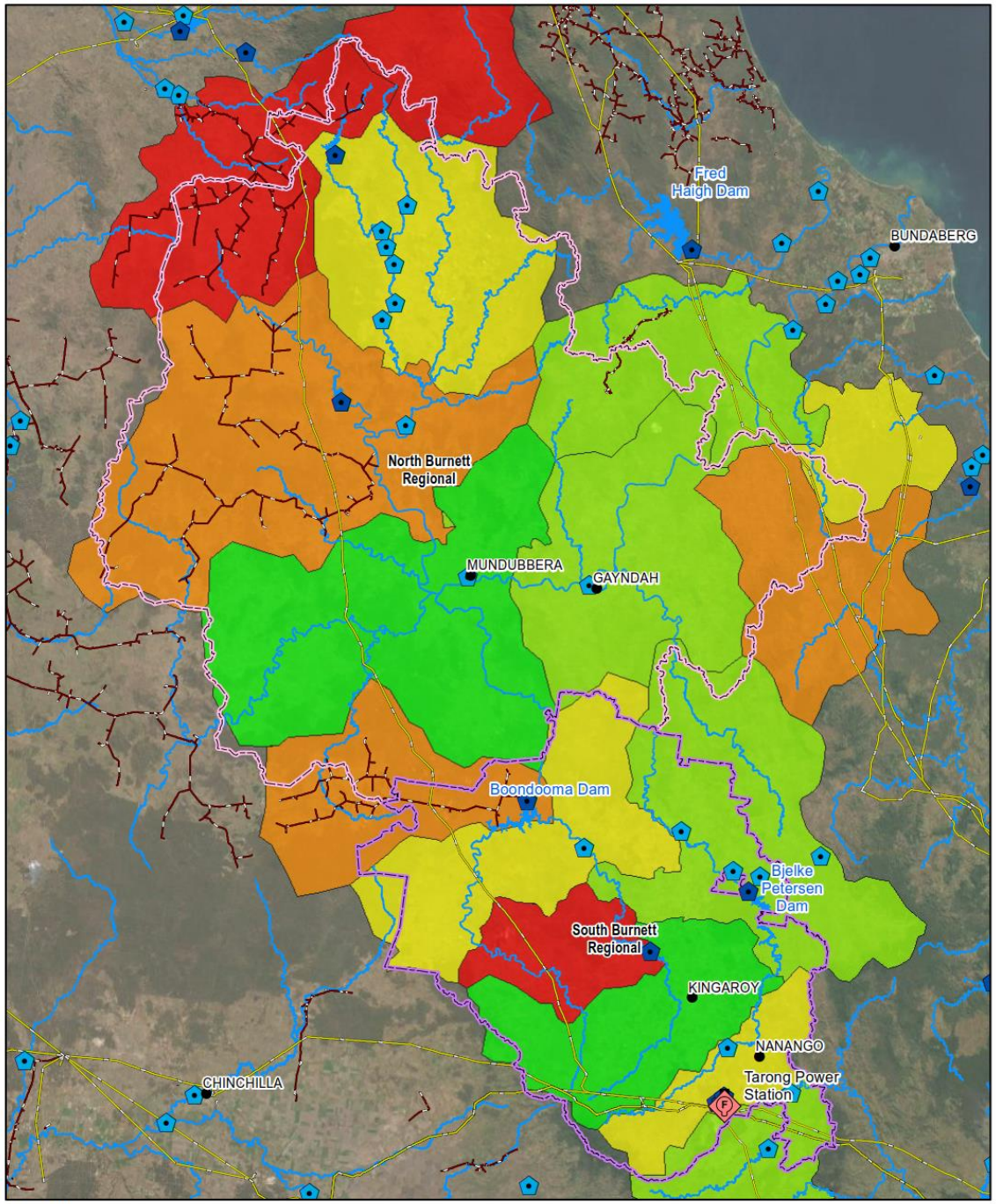
Electricity network capacity for a Cotton Gin and Fruit and Nut Processing



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Service need

1. Security of urban water supply is poor and deteriorating, harming community welfare and limiting industrial expansion

2. Existing agricultural supplemented water allocations are highly unreliable resulting in reduced agricultural output, jobs and investment

3. Large areas of fertile land have no access to a reliable water source of water hindering crop yields, value and diversity

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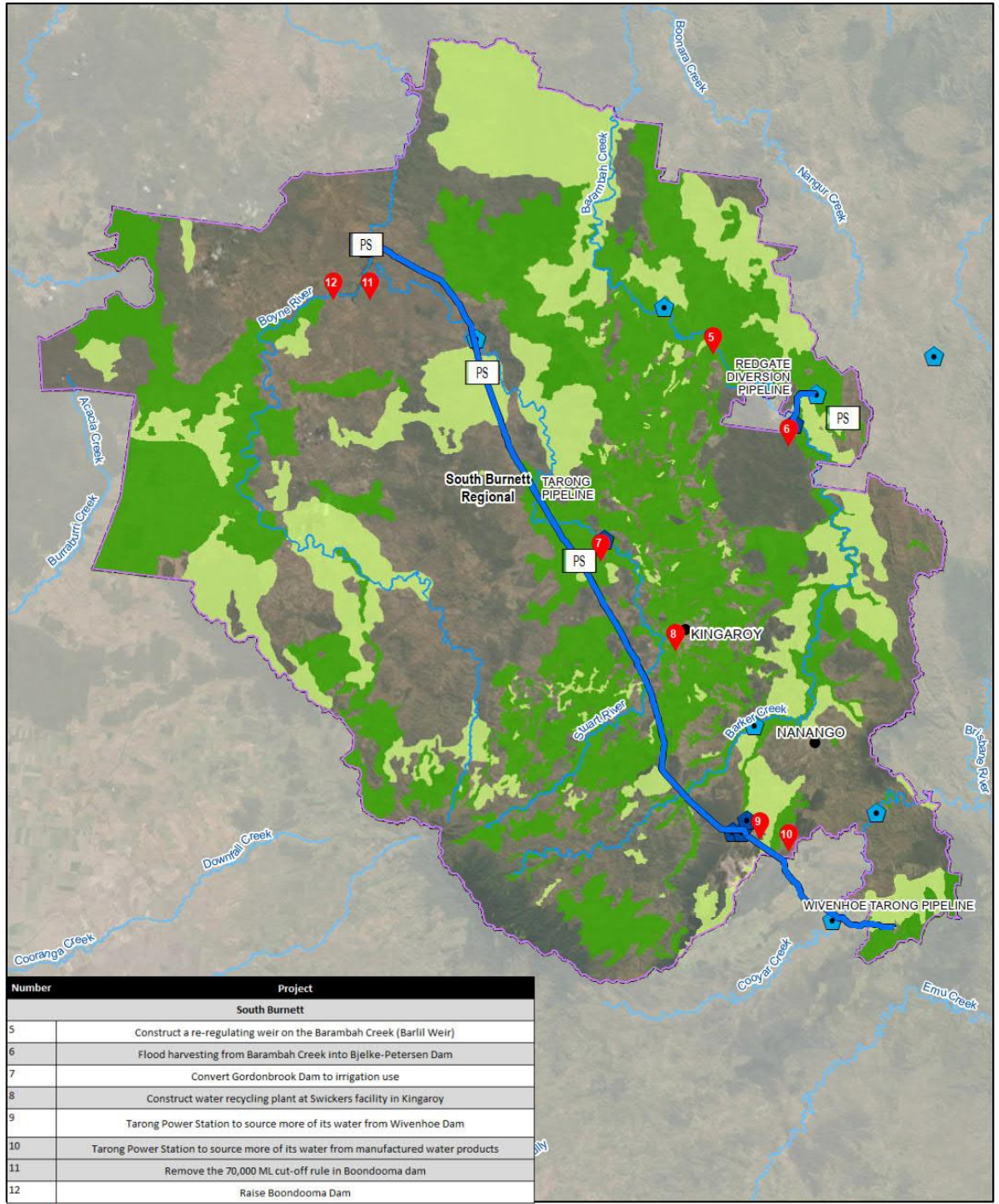
4. Overview of current work – Options Analysis

Project options

South Burnett - Project Locations



Number	Project
	South Burnett
5	Construct a re-regulating weir on the Barambah Creek (Barlil Weir)
6	Flood harvesting from Barambah Creek into Bjelke-Petersen Dam
7	Convert Gordonbrook Dam to irrigation use
8	Construct water recycling plant at Swickers facility in Kingaroy
9	Tarong Power Station to source more of its water from Wivenhoe Dam
10	Tarong Power Station to source more of its water from manufactured water products
11	Remove the 70,000 ML cut-off rule in Boondooma dam
12	Raise Boondooma Dam

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South Burnett Long List

Option #	Name
5	Construct a re-regulating weir on the Barambah Creek (Barlil Weir)
6	Flood harvesting from Barambah Creek into Bjelke-Petersen Dam
7	Convert Gordonbrook Dam to irrigation use
8	Construct water recycling plant at Swickers facility in Kingaroy
9A	Tarong Power Station to source more of its water from Wivenhoe Dam (Keep Gordonbrook Dam)
9B	Tarong Power Station to source more of its water from Wivenhoe Dam (Convert Gordonbrook to irrigation)
10A	Tarong Power Station to source more of its water from manufactured water products (keep Gordonbrook Dam)
10B	Tarong Power Station to source more of its water from manufactured water products (Convert Gordonbrook to irrigation use)
11	Remove the 70,000 ML cut-off rule in Boondooma dam
12	Raise Boondooma Dam
15	Greater utilisation of the Wivenhoe to Tarong pipeline (for Blackbutt irrigation)

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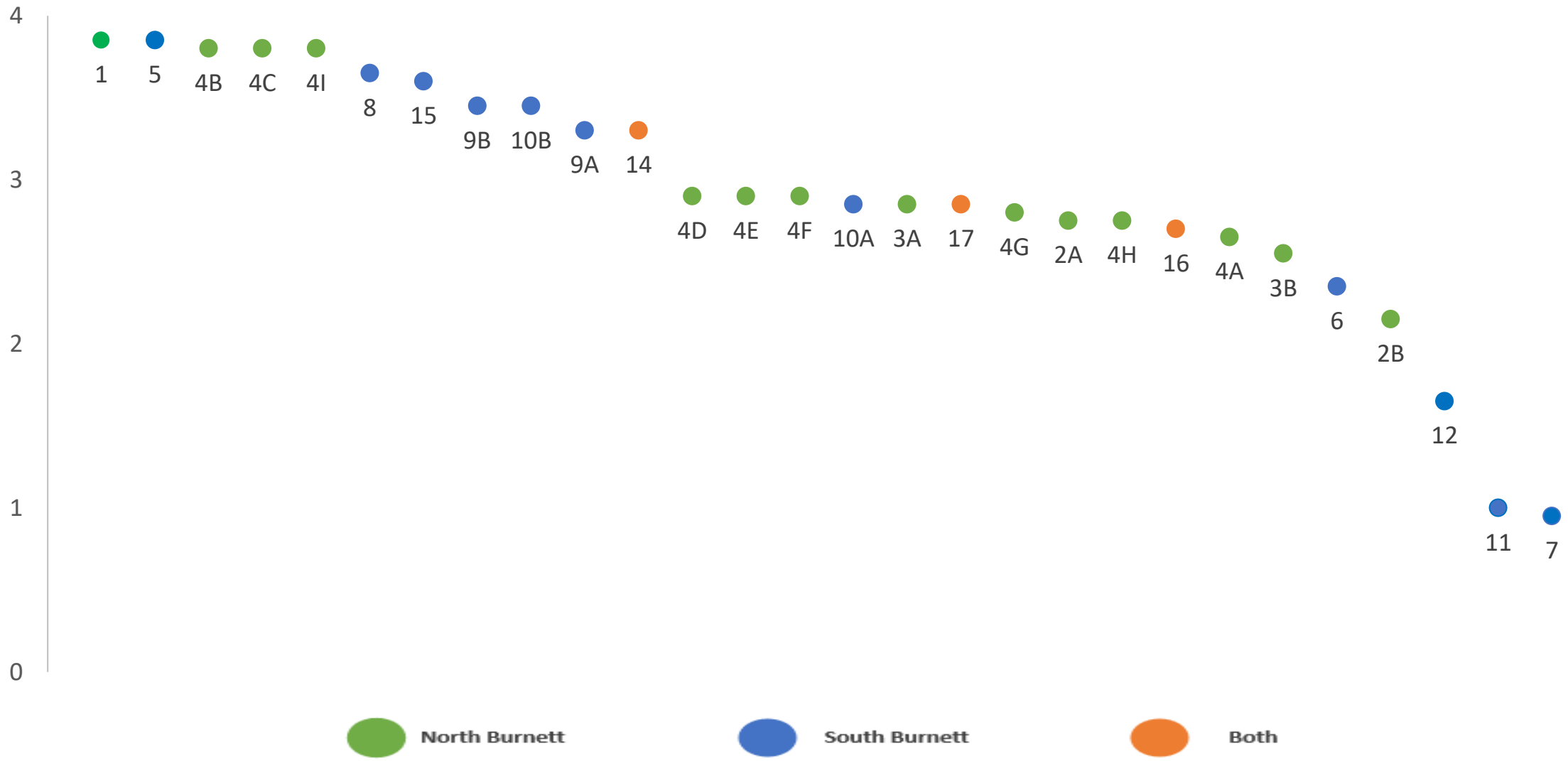
MCA scores



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5. Shortlisting

South Burnett proposed short List

Option	Name
5	Barlil Weir
6	Flood harvesting from Barambah Creek into BP Dam
7	Convert Gordonbrook Dam to irrigation use
8	Construct water recycling plant at Swickers
9A	Tarong Power Station to source more of its water from Wivenhoe Dam (Keep Gordonbrook)
9B	Tarong Power Station to source more of its water from Wivenhoe Dam (Convert Gordonbrook)
10A	Tarong Power Station to source more of its water from manufactured water products (keep Gordonbrook)
10B	Tarong Power Station to source more of its water from manufactured water products (Convert Gordonbrook)
11	Remove the 70,000 ML cut-off rule in Boondooma dam
12	Raise Boondooma Dam
15	Greater utilisation of the Wivenhoe to Tarong pipeline (for Blackbutt irrigation)

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Option Analysis

Social impact

Environmental

Sustainability

Economic

Financial

Affordability

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6. Next steps

Next steps

- Economic Road Map
- Urban water strategy
- Blackbutt irrigators
- Gordonbrook Dam assessment
- Practical assessment of Barlil wier

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7. How to contribute

8. Questions