



NSW Seasonal Conditions Report - 15 January 2013

Summary

- During December, rainfall was limited over much of the Darling and Central West LHPA districts, and sections of Lachlan, Western, Cumberland and the South East LHPA districts.
- With the exception of the South East, Mid Coast and parts of the New England and Cumberland LHPA districts, maximum temperatures were generally one to three degrees above average during the month.
- Relative to historical records, rainfall across NSW has remained below average to well below average for the last 9 months.
- Modelled topsoil moisture remains very low across the State, with some improvement from recent rainfall in the north east. Declines have occurred in the South East, Central West, Lachlan, Western, Darling and Riverina LHPA districts since November.
- Rainfall during the month had little effect on modelled subsoil moisture levels. Subsoil moisture continues to decline, with the greatest reductions along the coast, slopes and tablelands.
- Pasture growth models indicate that below average relative growth occurred during December over much of the State. The lowest potential growth occurred over areas of the Central West and the South East LHPA districts. Average to above average growth occurred in the New England, parts of the North Coast, Mid Coast and Tablelands LHPA districts. Pasture growth data was not available for large areas of the far west.
- Over the last three months, relative pasture growth has been below average to extremely low across most of the State.
- Modelled relative standing dry matter levels across central and eastern NSW were generally below average to extremely low. Dry matter levels were average to well above average across the far west areas of the Western and Darling LHPA districts, and in areas of the New England LHPA district.
- Levels in water storages remained moderately high, with the average effective capacity being 77% (although information was not available for some storages). General security allocations are unchanged from November. Across most river valleys allocations are at 100%, except for the Lachlan, Belubula, Macquarie, Namoi and Brogo river valleys.
- The chances of receiving above median rainfall over the three month period to the end of March are near even to slightly lower than even across most of NSW.
- The probability of exceeding median rainfall decreases slightly from 45-50% in the east to 40-45% in the central areas of the State, and decreases to 35-40% in the far north west.
- There is an increased probability of higher than normal daytime temperatures over the three month period to the end of March in the northern and central areas of the State.
- The probability of exceeding the median maximum temperature during the period ranges from 55-60% in the south to 60-70% in the centre of the State, the far north west and much of the coast. For the north-central, north east and northern tablelands areas, the probability is between 65-70%.
- Minimum temperatures over the next three months are likely to be near normal in the northern and central areas of the State. Cooler than average nights are likely in the south.
- The chance of exceeding the median minimum temperature varies from 50-55% for the northern third of the State, to 40-45% in the central third and to 30-40% in the southern third.

Rainfall

Relative rainfall

December

- Relative to historical records, rainfall distribution across NSW was patchy.
- Relative rainfall was extremely low to below average across most of the Darling, Central West and South East Livestock Health and Pest Authority (LHPA) districts. Low relative rainfall was also received across the north east section of the Western LHPA district, the western section of Lachlan, the southern section of Cumberland and a strip through the centre of the Tablelands LHPA district.
- Average falls occurred in the south west of the Western LHPA district, and across the Riverina, Hume, and Central North districts. Average falls also occurred across most of Tablelands LHPA district and the eastern side of the Lachlan LHPA district.
- However, relative rainfall across about half of Riverina and Hume LHPA districts was close to below average. Average to above average falls occurred across the eastern side of the North West LHPA district, and across New England and most of the Mid Coast and North Coast LHPA districts.

October to December

- Over the October to December period, relative rainfall was extremely low to below average across much of the State. Areas of extremely low relative rainfall occurred across the south of the North West LHPA district, much of the Central West, the northern half of the Tablelands and the far north west of the Western and Darling LHPA districts.
- Average relative rainfall occurred over much of the New England, parts of the South East and small areas of the Western and Riverina LHPA districts.

April to December

- Over the April to December period, relative rainfall across the State was below average. Very much below average rainfall occurred in the far west of NSW, covering much of the Western and the western half of Darling LHPA districts.

Total rainfall

December

- Rainfall across the State during December was generally light, and in many cases fell in

short moderate intensity storms. Falls varied from 1-200 mm, with most of the State receiving 1-50 mm.

- Areas of low rainfall (1-10 mm) occurred across the Western LHPA district, the Central West and the western edge of the Lachlan LHPA districts. Most of the Riverina LHPA district received 10-25 mm.
- The south east of the State generally received 25-50 mm, and the North West, Central North and Cumberland LHPA districts received 25-100 mm.
- The highest rainfall of 50-200 mm occurred over the New England, Mid Coast and North Coast LHPA districts.

October to December

- Rainfall across the State during the October to December period ranged from 2-300 mm.
- The lowest rainfall (2-25 mm) over the period occurred in the north west of the Western and Darling LHPA districts.
- The west of the State generally received 10-50 mm, the central areas 50-100 mm and the upper slopes, tablelands and coast 100-200 mm. Parts of the New England, Mid Coast and North Coast LHPA districts received 200-300 mm.

Soil moisture

Relative soil moisture

Topsoil

- Modelled relative topsoil moisture was very low across the State in December.
- Some improvements occurred (from November) due to rainfall in the north east, across the Mid Coast, New England, upper North Coast and the eastern edge of the North West and Central North LHPA districts.
- Major declines in modelled relative topsoil moisture occurred in the far west of the State over December, in the alpine areas and in the South East LHPA district.

Subsoil

- The modelled relative subsoil moisture content declined (from that in November) along the coast and tablelands. Levels remained average across most of the State, except for low levels for central NSW.
- A very low level of relative subsoil moisture was present in the north of the Central West LHPA district, the west of the North West

district, and the south western section of Riverina LHPA district.

Pasture growth and biomass

Relative pasture growth

December

- Pasture growth models indicate well below average relative growth occurred during December over the far west, central and south east of the State, although modelled growth information was not available for much of the far west.
- The lowest relative growth occurred in the east of the Central West LHPA district, and in the south of the South East LHPA district.
- Average relative growth occurred over the Tablelands and much of the Cumberland LHPA districts.
- Above average to extremely high relative pasture growth occurred across Mid Coast LHPA district, and across the New England and most of the North Coast LHPA districts.

October to December

- Over the last three months, modelled relative pasture growth was below average to extremely low across much of the State.
- Between October to December, pasture growth was extremely low relative to historical records across the North West and Central North LHPA districts, and for much of the Central West, Darling, Western and Riverina LHPA districts.
- Limited areas of the Western, the far east of the Lachlan, and the eastern edge of the New England LHPA districts showed average growth relative to historical records, as a direct response to rainfall during the period.

Relative biomass

- Modelled December relative biomass across central and eastern NSW was generally below average to well below average.
- Declines in relative biomass occurred in the South East LHPA district, and improvements occurred in the New England and North Coast districts.
- Average to well above average relative biomass levels occurred across most of the Western LHPA district, the west of Darling, and the east of the New England LHPA district.

Water storage and irrigation allocations

Storage levels

Storage levels are given as at 8th January 2013.

Storage	Current Volume (GL)	Effective Capacity (%)	Monthly Change (%)
Toonumbar	10	92	2
Glenbawn	719	96	-1
Glennies	250	88	-2
Lostock	18	89	-
Brogo	8	88	-7
Cochrane	0	-	-
Dartmouth	3813	99	-
Hume	2263	75	-11
Blowering	1349	82	-8
Burrinjuck	573	56	-11
Brewster	-	-	-
Carcoar	32	88	-5
Cargelligo	33	88	-7
Wyangala	1062	87	-4
Glenlyon	215	-	-
Pindari	169	54	-11
Copeton	1132	83	-6
Chaffey	55	89	-3
Keepit	241	56	-
Split Rock	338	85	0
Burrundong	668	55	-9
Oberon	41	91	-2
Windamere	213	58	-
Lake Cawndilla	534	82	-11
Lake Menindee	485	75	-14
Lake Pamamaroo	221	78	-
Menindee	-	-	-
Total Menindee	-	-	-
Wetherell	71	35	-3
Total	14514		
Average		78	

- Levels in water storages remain generally moderate, with the average effective capacity being 78%.
- Storages have declined by an average of 20 GL during the last week, with the major reductions/outflows being from the Hume, Burrundong, Blowering and Burrinjuck dams and Lake Menindee.
- The greatest monthly change in effective storage capacity was from the Hume, Burrundong, Burrinjuck, and Pindari dams and Lakes Cawndilla and Menindee.

Irrigation allocations

- General security allocations across most of the river valleys are at 100%. The exceptions are the Lachlan, Belubula, Macquarie, Namoi and Brogo river valleys where allocations are low to moderate.

River valley	Allocation	Licence category
NSW Border Rivers	100%	General security A Class
	100%	General security B Class
	100%	High security
Richmond	100%	General security
	100%	High security
Gwydir	150%	General security
	100%	High security
Hunter	100%	General security
	100%	High security
Paterson	100%	General security
	100%	High security
Lachlan*	0%	General security
	100%	High security
Belubula*	39%	General security
	100%	High security
Lower Darling	100%	General security
	100%	High security
Macquarie and Cudgegong*	58%	General security
	100%	High security
Murray	100%	General security
	100%	High security
Murrumbidgee*	100%	General security
	100%	High security
Lower Namoi*	32%	General security
	100%	High security
Upper Namoi	100%	General security
	100%	High security
Peel	78%	General security
	100%	High security
Bega Brogo	45%	General security
	100%	High security

* Carry over water may be available

Seasonal outlook

Seasonal outlook information is sourced from the Bureau of Meteorology forecasts.

Rainfall

- The chances of receiving above median rainfall over the three month period to the

end of March are near even to slightly lower than even for most of NSW.

- The probability of exceeding median rainfall decreases slightly from 45-50% in the east to 40-45% in the central areas and 35-40% in the far north west of the State.
- These percentages mean that in the far north west for every ten years with similar ocean patterns to those currently observed, about three to four years would be expected to be wetter than average, and about six or seven would be drier.
- For most of the State, the chances of receiving above normal rainfall are about 40-50% and, therefore, the chances of receiving below normal rainfall are about 50-60%
- The confidence for this forecast is moderate, being generally between 55-65% for most of the State, grading to lower than 50% in the south and far north west.

Temperature

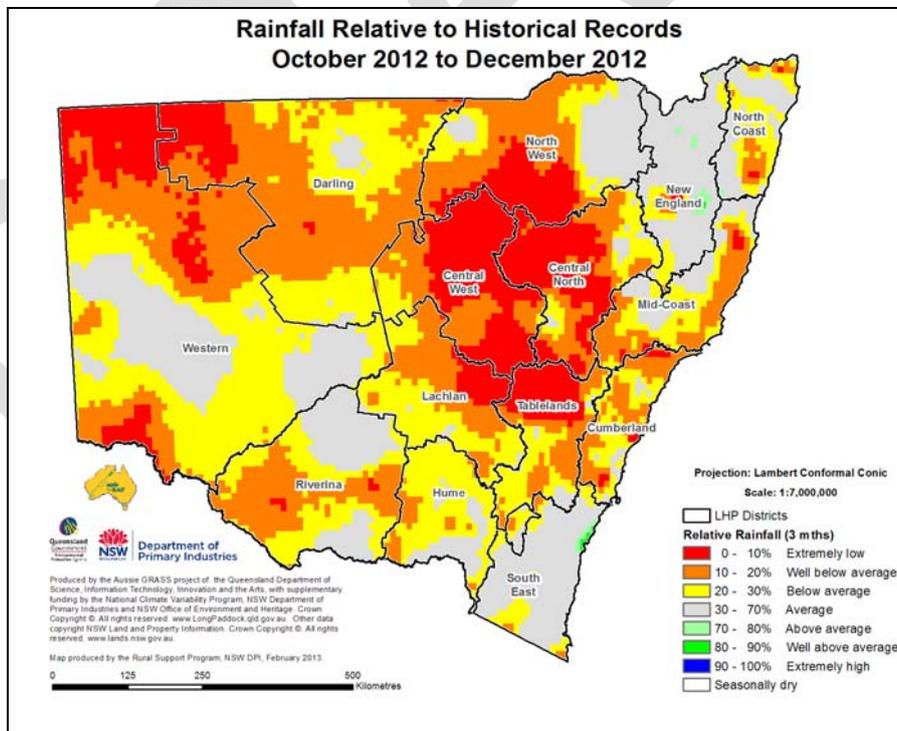
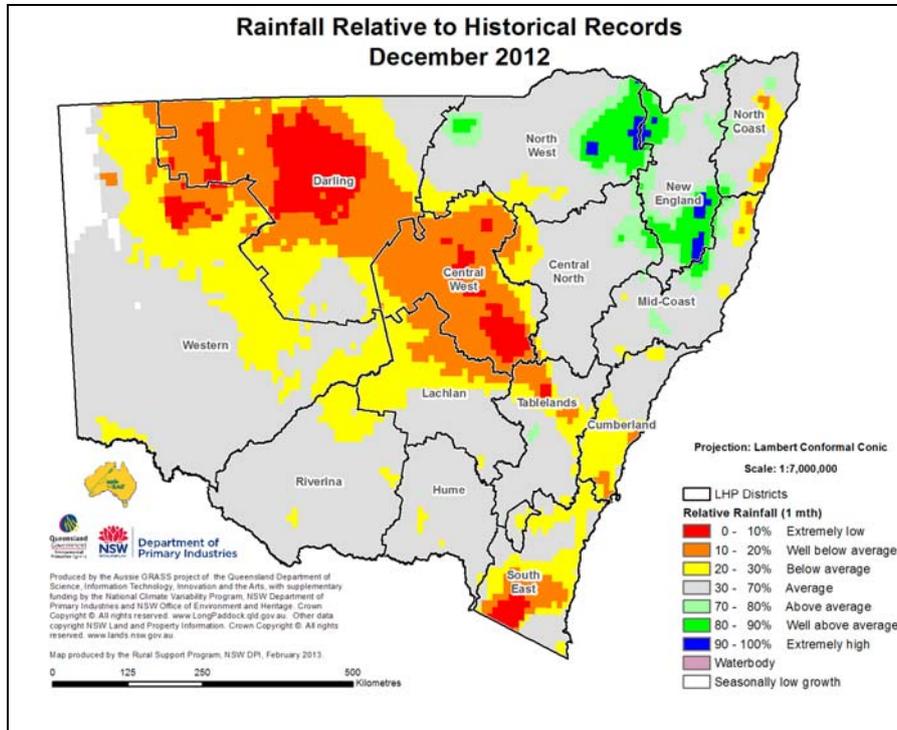
- There is an increased probability of higher than normal daytime temperatures over the three month period to the end of March in the northern and central areas of the State.
- The probability of exceeding the median maximum temperature during the period ranges from 55-60% in the south of NSW, to 60-70% in the centre of the State and the far north west and between 65-70% for the north central, north east and northern tablelands.
- The confidence for this forecast ranges from 50-70% (moderate-high) for the central areas, coast and north east and below 45-50% in the south and south west.
- Minimum temperatures are likely to be normal in the northern and central areas of the State. Cooler than average nights are likely in the south.
- The chance of exceeding the median minimum temperature varies from 50-55% for the northern third of the State, 40-45% in the central third and 30-40% in the southern third.
- The confidence for this forecast ranges from 55-70% for most of the State, and 45-55% for the north coast and north-central areas of the State.

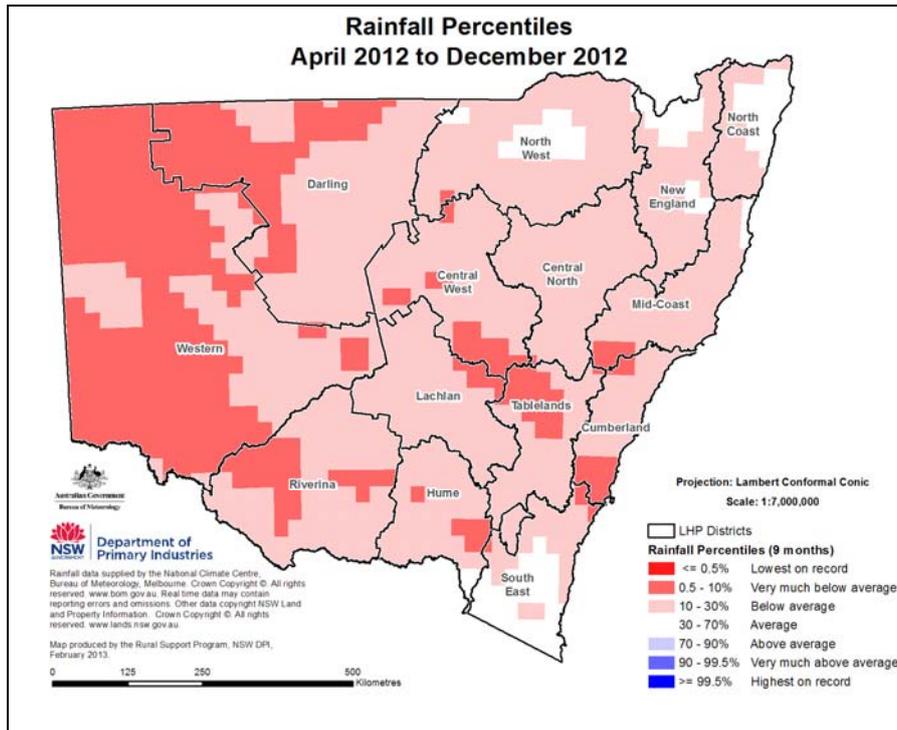
Appendix

Maps and data used in the production of this report.

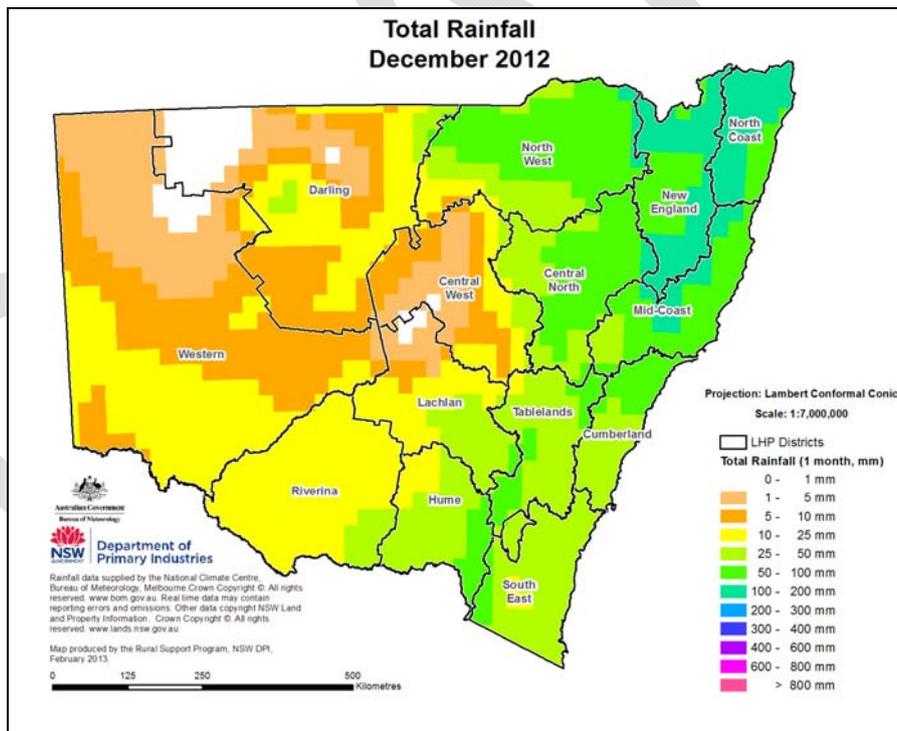
Rainfall

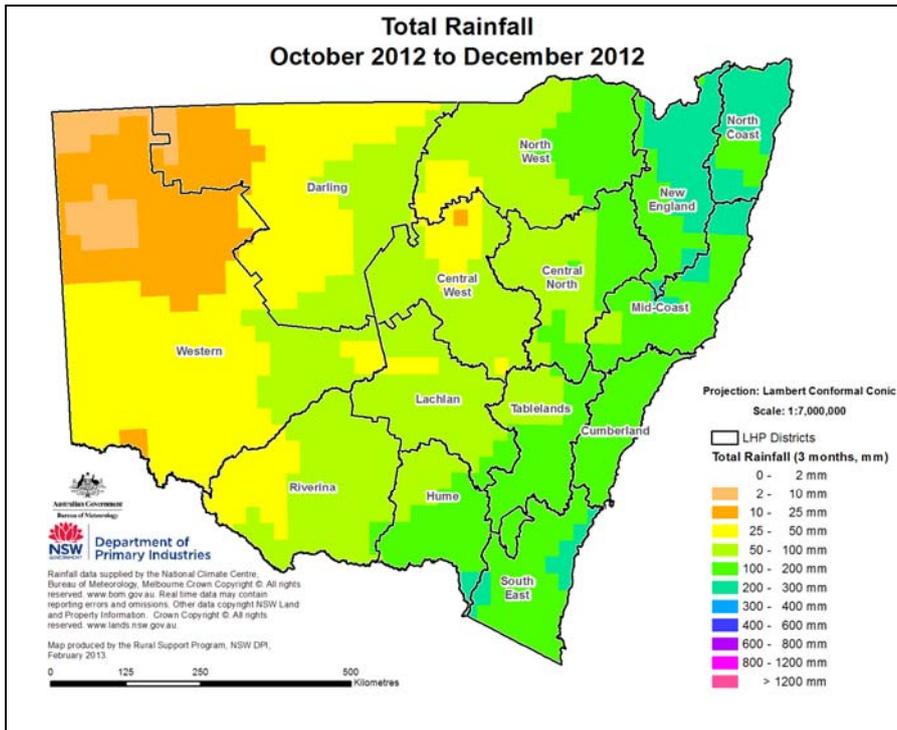
Relative rainfall





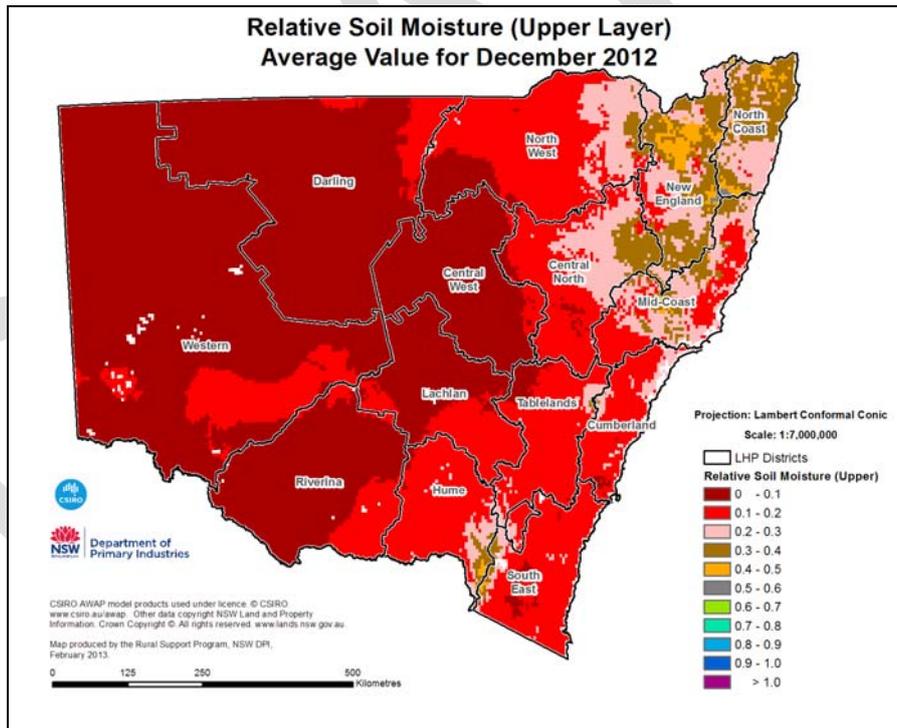
Total rainfall



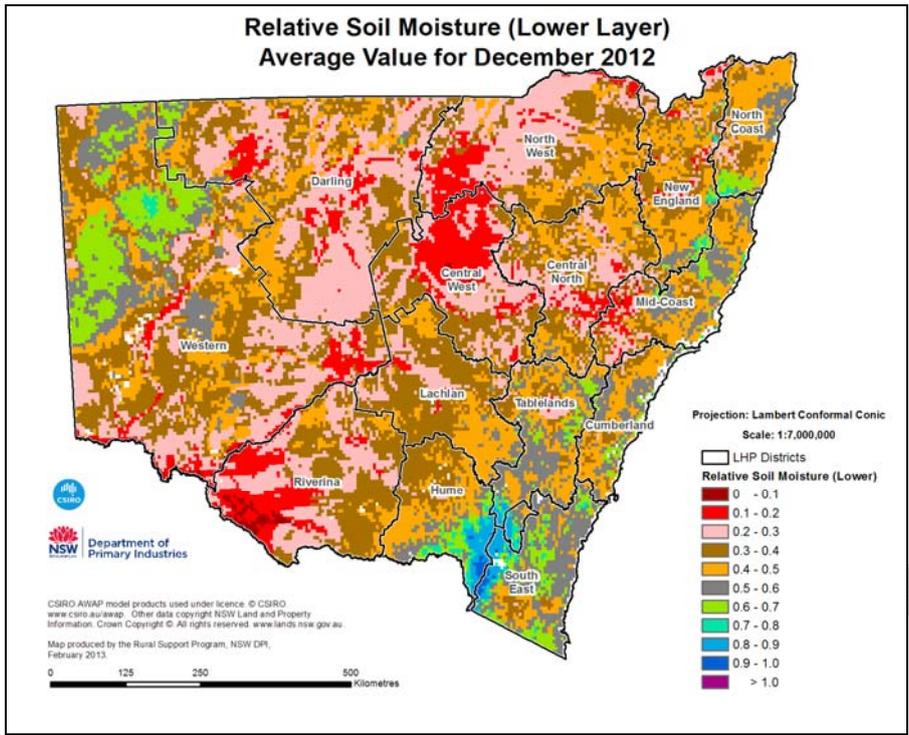


Soil moisture

Relative topsoil moisture

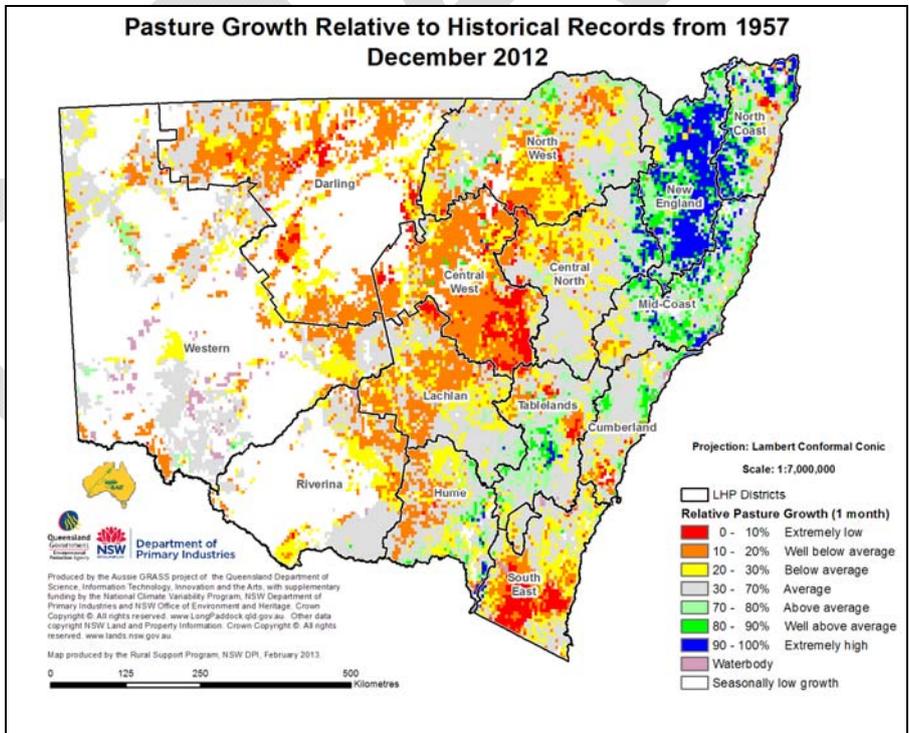


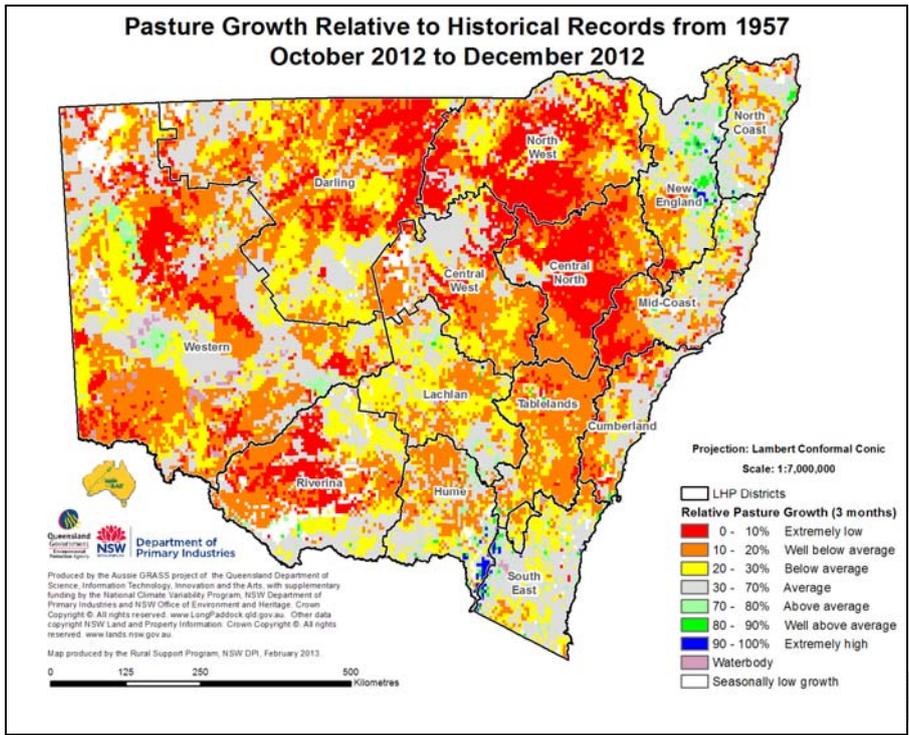
Relative subsoil moisture



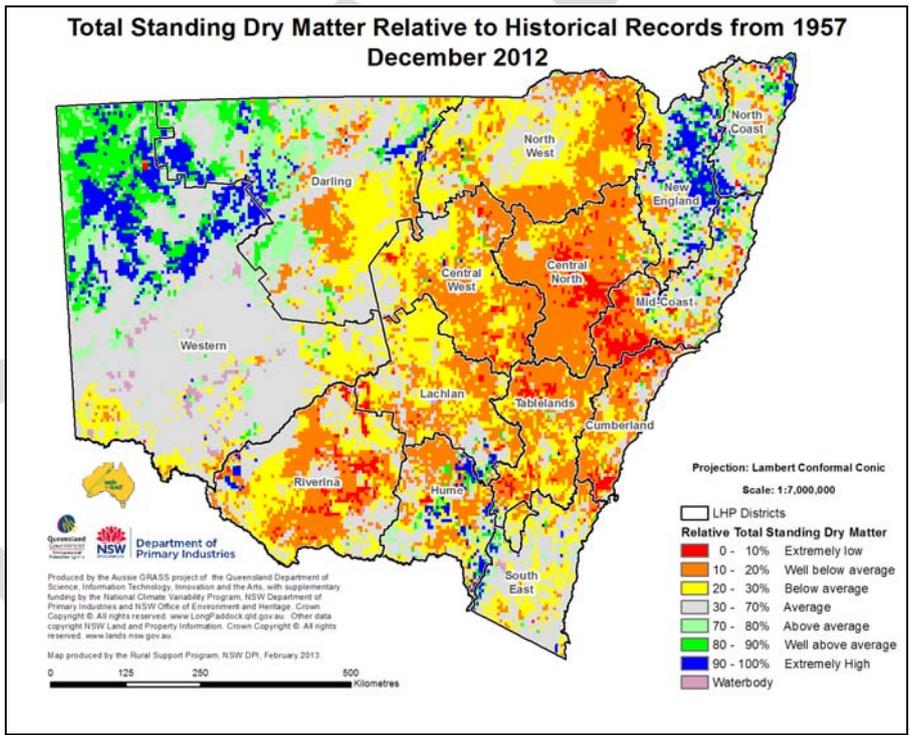
Relative pasture growth and biomass

Pasture growth

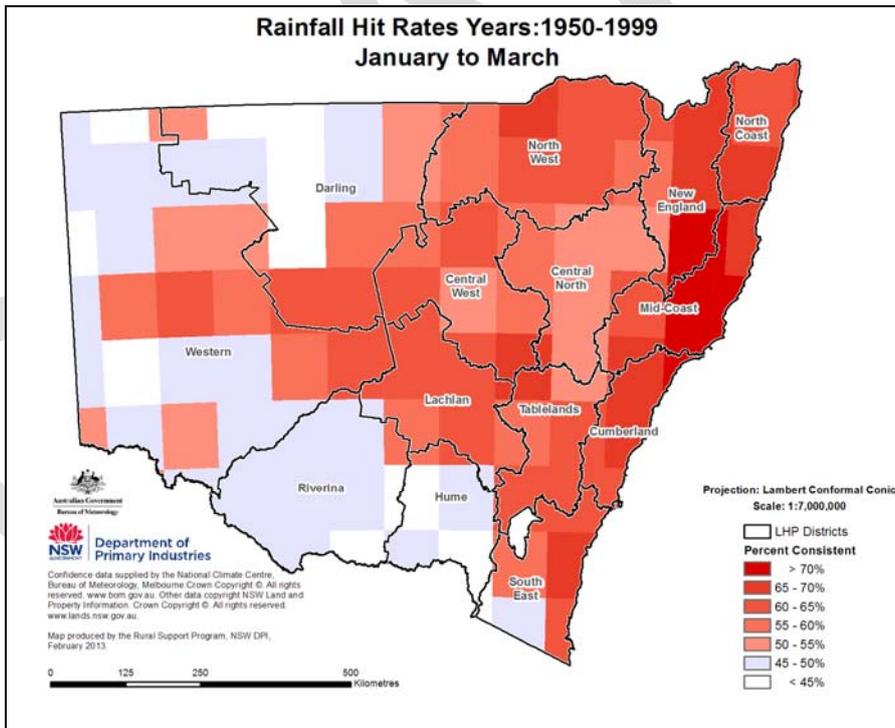
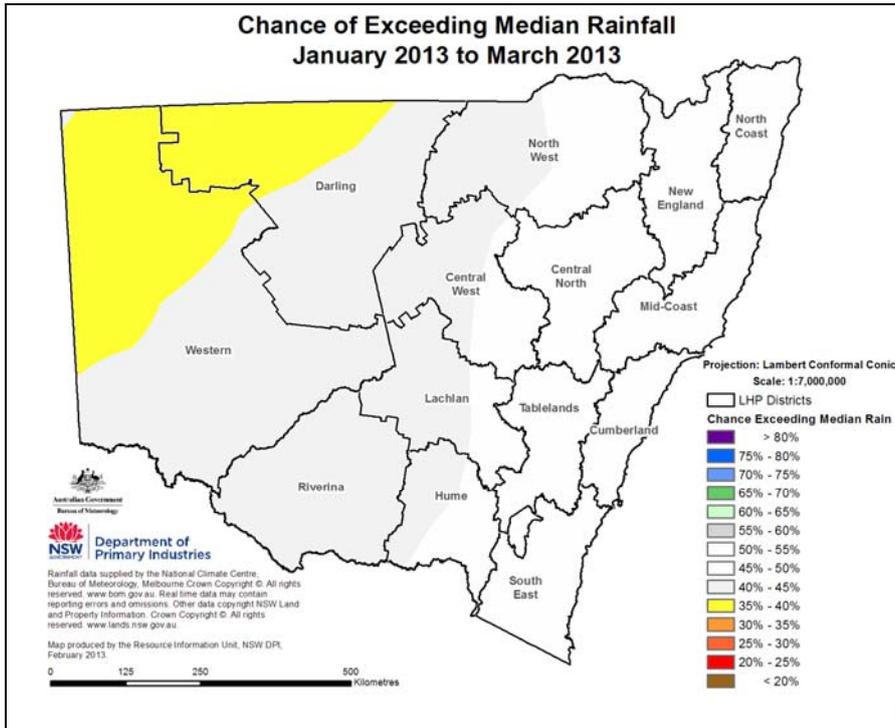




Biomass



Seasonal outlook
Quarterly rainfall



More information

For more information, contact the NSW Department of Primary Industries.

Acknowledgments

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