Australian Government
Bureau of Rural Sciences

Australian climate and agricultural monthly update

May 2010

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Postal address:
Bureau of Rural Sciences
GPO Box 858
Canberra, ACT 2601

Ph: +61 2 6272 2010
Fax: +61 2 6272 2001
Email: info@brs.gov.au
Internet: www.brs.gov.au

Key issues

Rainfall in early autumn across south-eastern Australia improved soil moisture and resulted in a good start to the winter cropping season. Producers are holding onto sheep and cattle to restock herds, resulting in increased competition at markets and rising prices. Inflows to the Murray-Darling Basin have declined since March and the water storage levels across the Basin decreased slightly during April. Eastern Australia is likely to be wetter than average over the coming winter with improved prospects for winter crops and pastures to support livestock.

Summary

Rainfall in April 2010 was above average for the Northern Territory, South Australia and Queensland and below average in New South Wales. Day-time and night-time temperatures were above the long-term average for the month.

Inflows to the Murray-Darling Basin have declined since March and the water storage levels across the Basin decreased slightly during April

Preparations for the winter cropping season are well under way in Queensland, New South Wales, Victoria and South Australia where significant rainfall events in early autumn resulted in improved soil moisture.

Graziers have also benefited from the widespread rainfall and are taking advantage of the available feed and holding onto livestock to restock herds. The number of cattle at market was 5 per cent higher than in April 2009.

Supplies of lamb to market for the period January to April 2010 were 9 per cent lower than in same period last year. Improved seasonal conditions have resulted in high competition for lambs and increased prices for both prime and re-stocker lambs.

Tropical Pacific Ocean cooling indicates further decline of the 2009–10 El Niño event. In addition, the Southern Oscillation Index is positive and models indicate that cooler than normal conditions across the Pacific Ocean are likely during winter. Eastern Australia is likely to be wetter than average over the coming winter with improved prospects for winter crops and pastures to support livestock.

Kim Ritman

Acting Executive Director

Bureau of Rural Sciences

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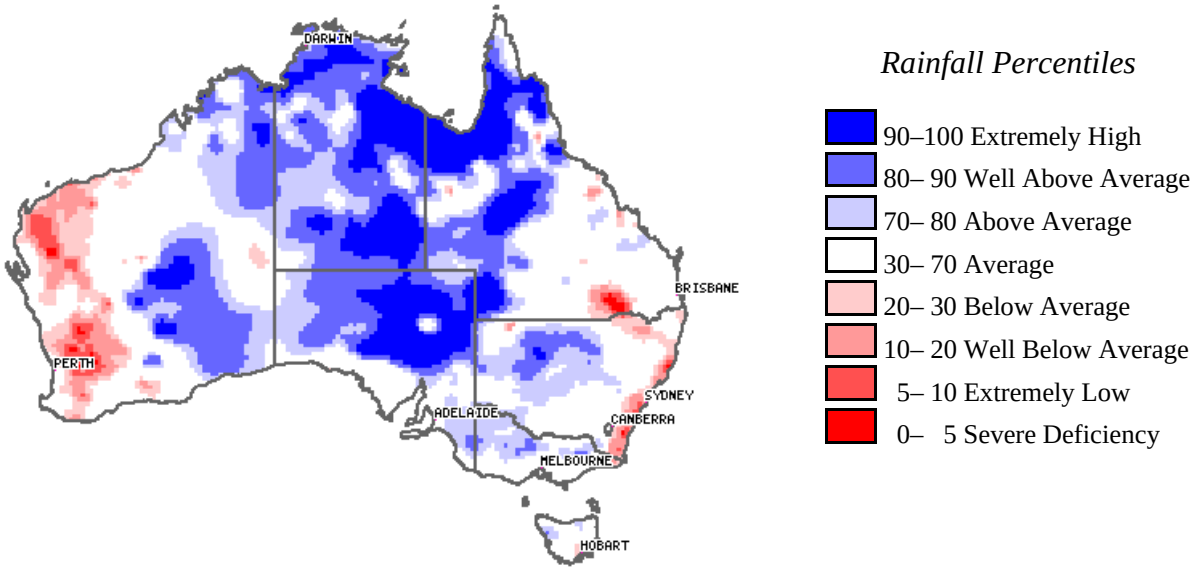
1.0 Climate

1.1 Rainfall

Rainfall over the last month (April 2010)



Rainfall percentiles for April 2010

Rainfall for Australia during April 2010 was above the long-term average across the Northern Territory, most of South Australia and western half of Queensland. Rainfall across these areas should provide further production opportunities for livestock producers.

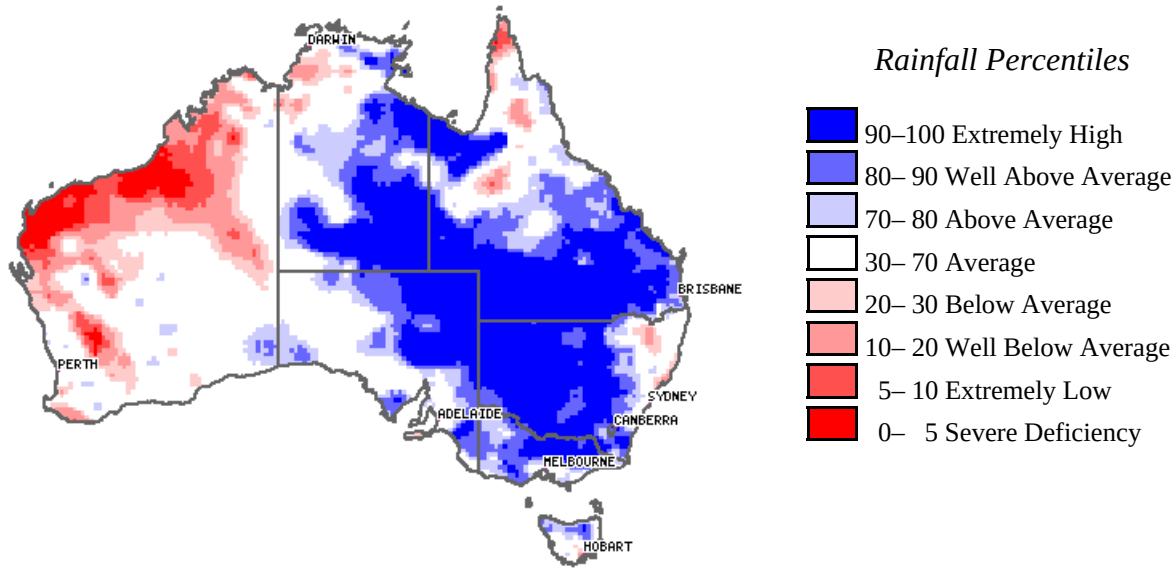
Rainfall was variable across Western Australia, with above average rainfall recorded across the eastern areas and below average rainfall in the state's west and south-west. Below average rainfall in these areas may affect the sowing programs for winter crops. Victoria received slightly above average rainfall.

Rainfall in April 2010 was average over most of New South Wales and below average along the coast. Tasmania received near-average rainfall in April 2010.

Most of the Murray-Darling Basin received average rainfall during April and the inflows to the Basin decreased since March. This has resulted in a slight decrease of the water storages across the Basin.

Spatial rainfall analyses are based on historical monthly rainfall data provided by the Bureau of Meteorology. For further information on rainfall data and the interpretation of percentile analyses go to http://www.bom.gov.au/climate/austmaps/.

Ongoing or emerging rainfall situations



Rainfall percentiles for the last three months
February 2010 to April 2010

Extremely high rainfall was recorded from February to April 2010 across the Gulf region, the south-east of the Northern Territory, southern Queensland, north-eastern South Australia and most of New South Wales and Victoria. Recent rainfall cleared three month rainfall deficiencies across eastern and central Australia. Rainfall deficiencies have emerged in areas of Western Australia, including the wheatbelt.

1.2 Temperature

Mean maximum temperature

The maximum temperature in April 2010 for Australia was 0.9°C above average (tenth highest of 61 years). Maxima were above average in all states, with Western Australia experiencing its fifth warmest April on record (1.7°C above average). Likewise, Victoria, Tasmania and South Australia recorded day temperatures exceeding 1°C above average.

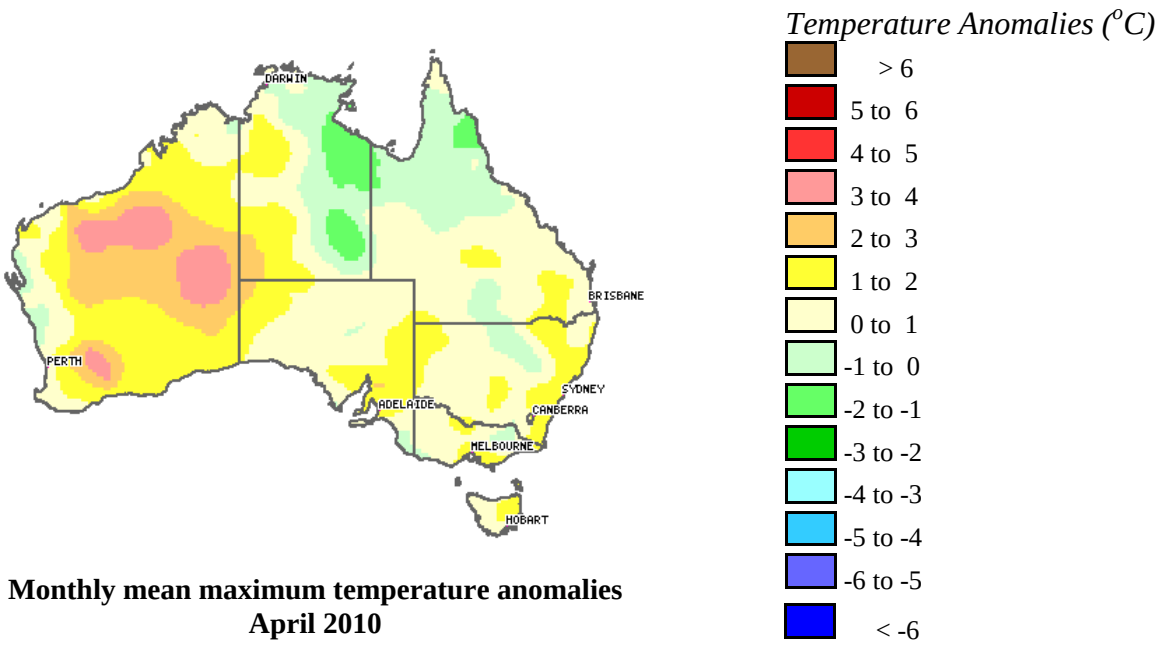
Maxima were at least 1°C above average across most of Western Australia, the west of the Northern Territory, south-eastern South Australia, south-eastern Queensland and eastern parts of Tasmania and New South Wales.

Below average maxima were recorded across northern Queensland, the eastern part of the Northern Territory and in areas of northern New South Wales.

Notable anomalies included maxima 2 to 4°C above average across central and south-western parts of Western Australia and 1 to 2°C below average in the northern Queensland and the east of the Northern Territory.

Higher daytime temperatures in Western Australia will adversely affect already low moisture content of soil profiles.

Cooler weather across the Northern Territory and northern Queensland will assist the effectiveness of rainfall received and help to maintain soil moisture profiles and enhance pasture growth and quality.



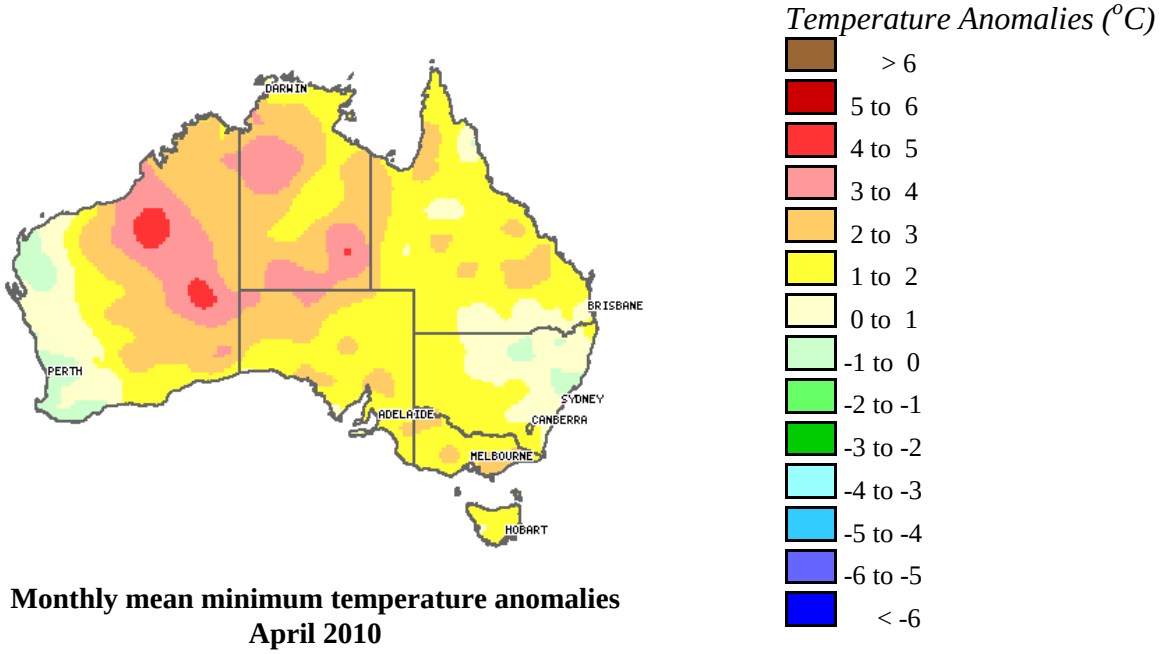
Monthly mean maximum temperature anomalies
April 2010

Mean minimum temperature

Overnight minimum temperatures in April 2010 were 1.68°C above the April long- term average for Australia (second highest of 61 years) and above average in all states. Western Australia recorded their second highest April minimum temperature on record and South Australia, Tasmania and Victoria recorded their third highest overnight minimum temperatures in 61 years.

Minima of at least 2°C above average were recorded across central and north-western Australia and in parts of Queensland, South Australia and Victoria. Below average minima were experienced in areas of coastal Western Australia and north-eastern New South Wales.

Notable anomalies included 3 to 5°C above average in central parts of Western Australia.



Monthly mean minimum temperature anomalies
April 2010

Spatial temperature analyses are based on historical monthly temperature data provided by the Bureau of Meteorology. These temperature anomaly maps show the departure of the maximum and the minimum temperature from the long-term average. Temperature anomalies are calculated with respect to the reference period 1961 to 1990. For further information on temperature anomalies go to http://www.bom.gov.au/climate/austmaps/.

1.3 Climate outlook

El Niño Southern Oscillation (ENSO)

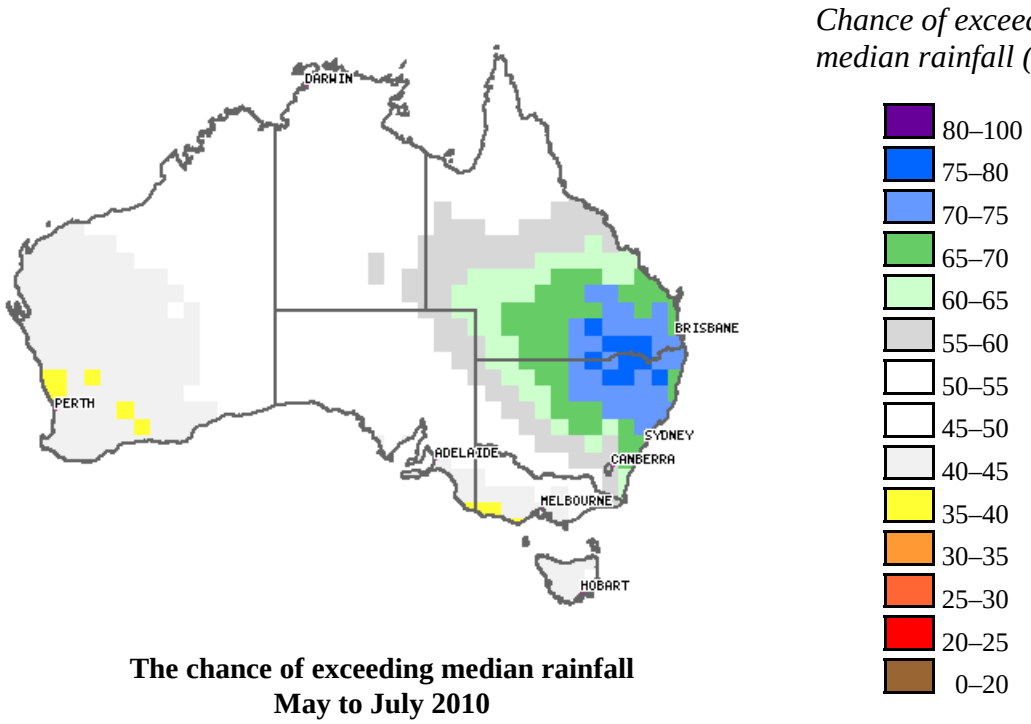
The majority of ENSO indicators have dropped below El Niño thresholds. The cooling of the tropical Pacific Ocean, that began in late December 2009, has resulted in trade winds and tropical cloudiness returning to their average values. The Southern Oscillation Index has risen steadily, remaining positive since early in the second week of April (currently at +16). Computer models predict that Pacific Ocean temperatures will continue to cool steadily over the coming months, with cooler than normal conditions occurring during winter.

For further information on the Bureau of Meteorology interpretation of the El Niño–Southern Oscillation, go to http://www.bom.gov.au/climate/enso/.

Rainfall outlook

Across south-eastern Queensland and the north-eastern part of New South Wales there is an increased chance (60 to 80 per cent) of exceeding the median rainfall during May to July 2010. Wet conditions during this period in these areas could improve winter crop prospects and support autumn livestock production.

Across the rest of the country there is an equal chance of receiving either above or below the median rainfall between May and July 2010.

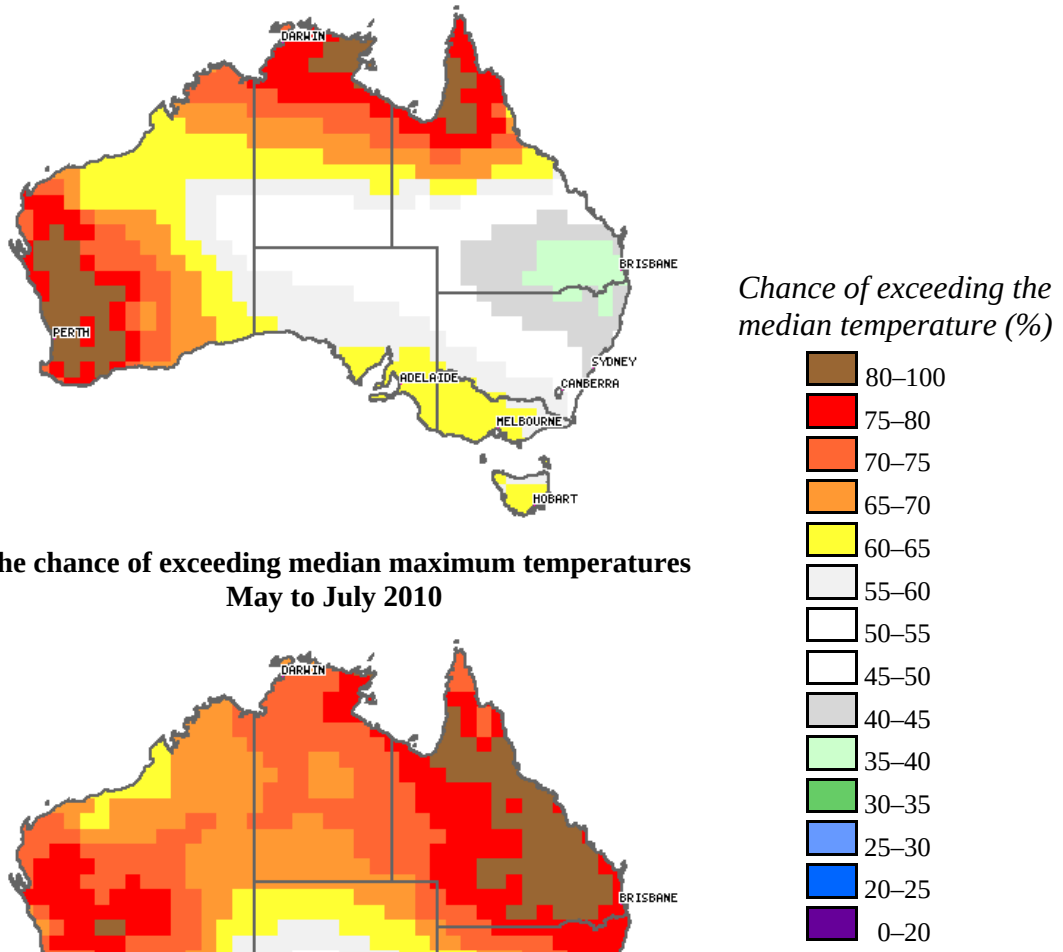


The chance of exceeding median rainfall May to July 2010

Temperature outlook

There is a 60 to 80 per cent chance of warmer day time temperatures across northern and western parts of Australia. Some areas in the Gulf region and in the south-west of Western Australia have higher than 80 per cent chance of warmer day time temperatures. In contrast, eastern Australia has a 60 to 65 per cent chance of experiencing cooler than average day time temperatures.

Forecasts indicate that most of Australia is expecting a 60 per cent chance or higher of warmer night time temperatures during May to July 2010. Some areas across inland and coastal Queensland and inland Western Australia have an 80 per cent chance or greater of exceeding the median minimum temperature. Warmer temperatures may help to extend autumn pasture growth depending on rainfall during May to July in these areas.



The chance of exceeding median maximum temperatures May to July 2010

The chance of exceeding median minimum temperatures May to July 2010

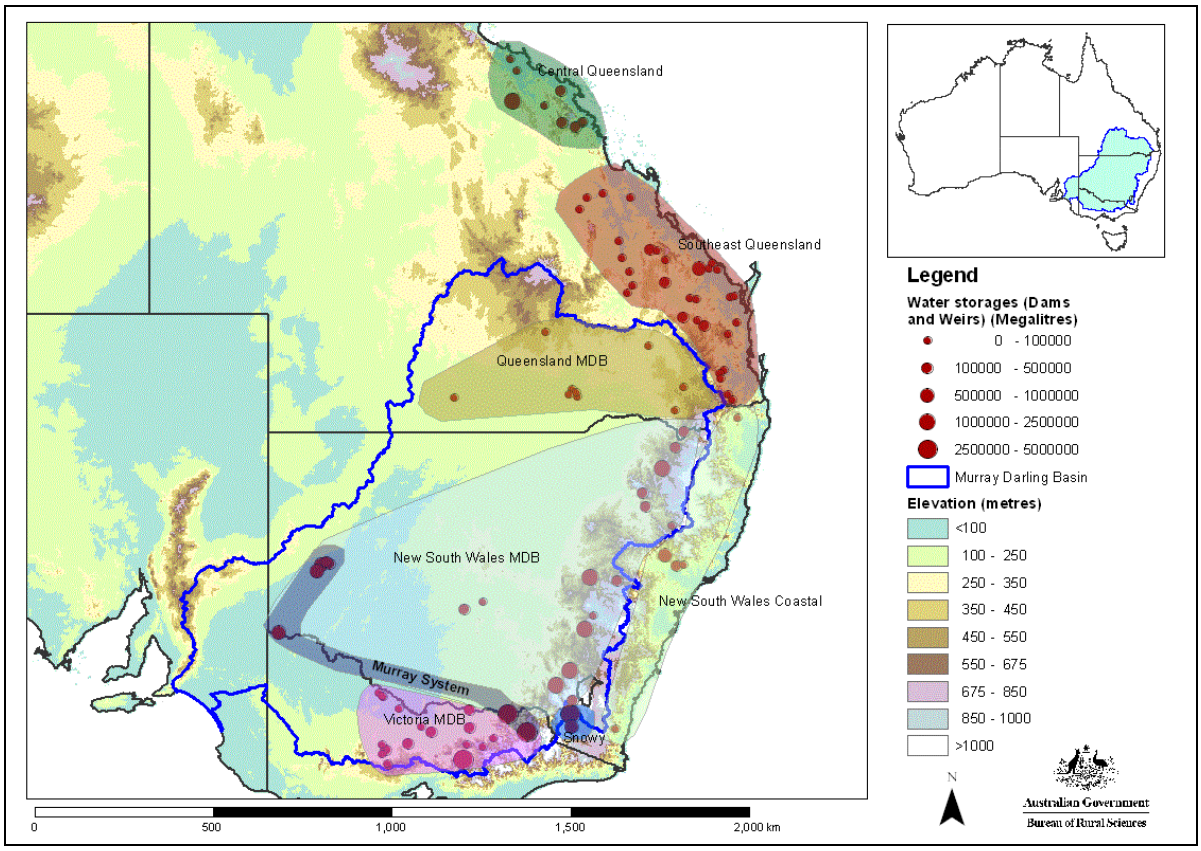
These outlooks are based on the statistics of chance (the odds) and are not categorical predictions. For further information on these seasonal outlooks and their interpretation go to http://www.bom.gov.au/climate/ahead/

2.0 Water

2.1 Water storages

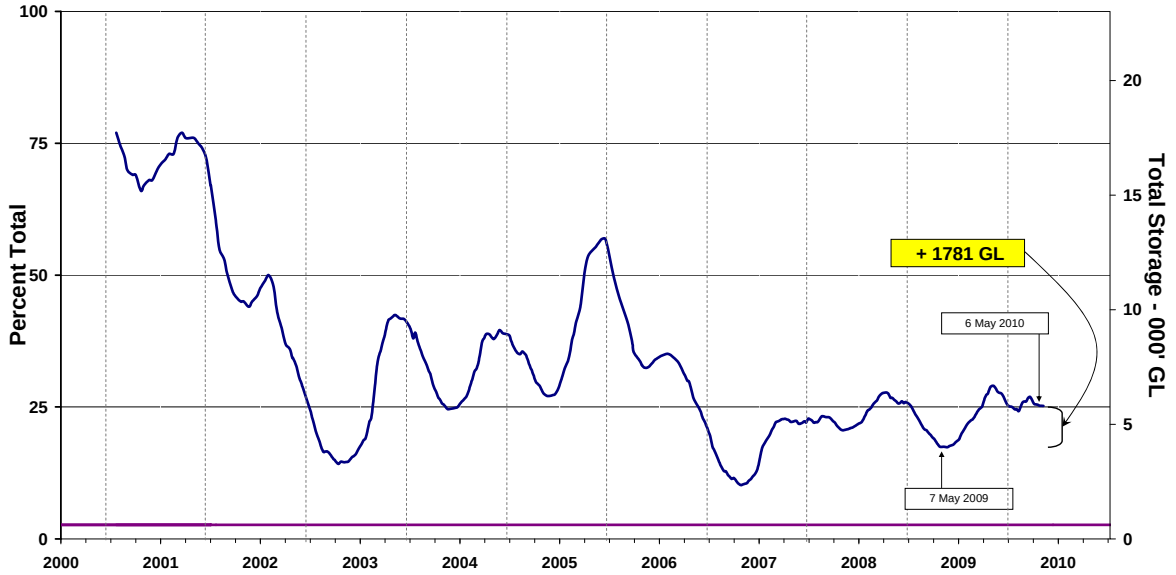
Water storage changes for April 2010 and the previous 12 months are summarised in the table and graphs below (current at 6 May 2010).

Region	Total capacity (GL)	Current volume (GL)	Current volume (%)	Monthly change (GL)	Monthly change (%)	Annual change (GL)
Murray-Darling Basin (MDB)	23020	5802	25	-68	-0.3	+1781
Snowy Scheme	5744	1542	27	-133	-2.3	+291
Murray-Darling Basin Authority (MDBA)	7621	1972	23	-63	-0.8	+1085
Queensland MDB	185	119	64	-6	-3.4	+21
Central Queensland	3155	3044	96	+9	+0.2	-16
South-east Queensland	3517	2840	81	-10	+0.3	+780
New South Wales MDB	13884	3206	23	-46	-0.3	+825
Coastal New South Wales	1073	758	71	-21	-1.9	-19
Victoria MDB	8903	2461	28	-17	-0.2	+931

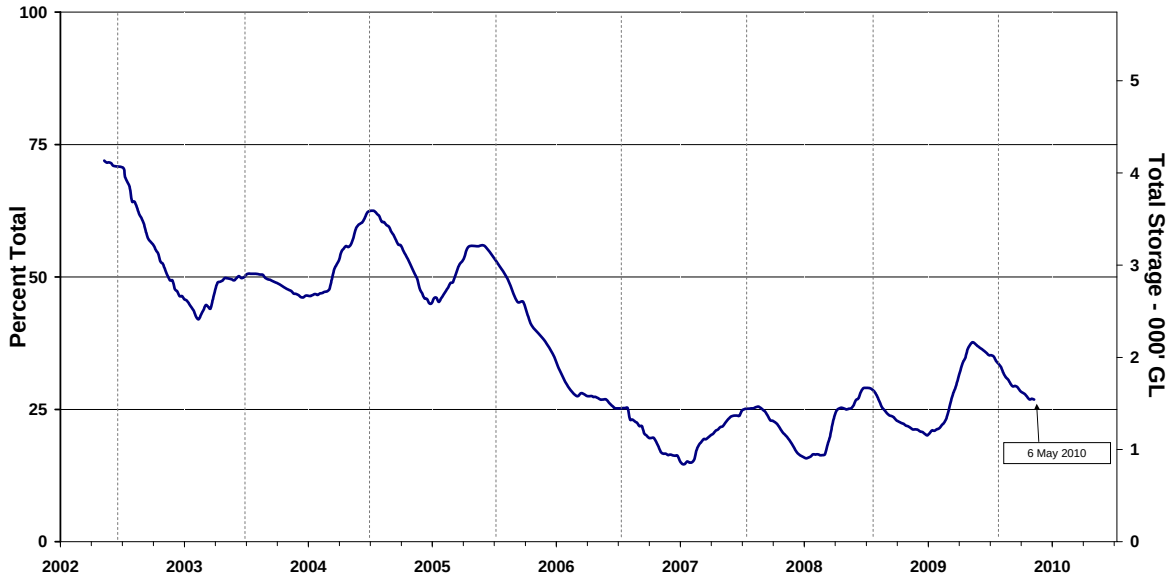


Water storages in Queensland, New South Wales and Victoria:
The blue line indicates the extent of the Murray-Darling Basin and the shaded areas denote the coverage of the individual reporting regions.

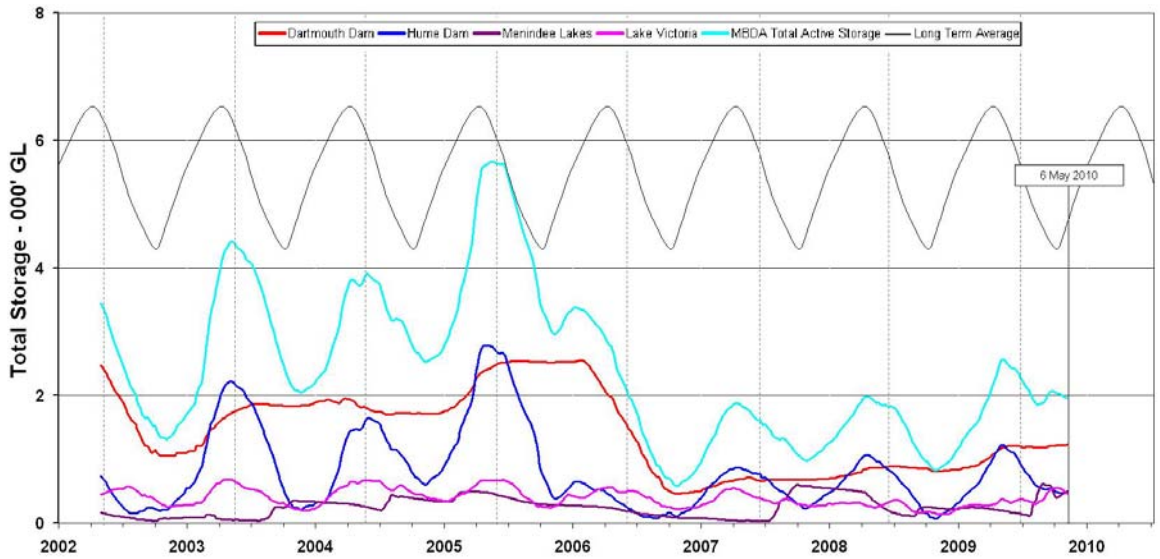
MDB (New South Wales, Victoria and Queensland)



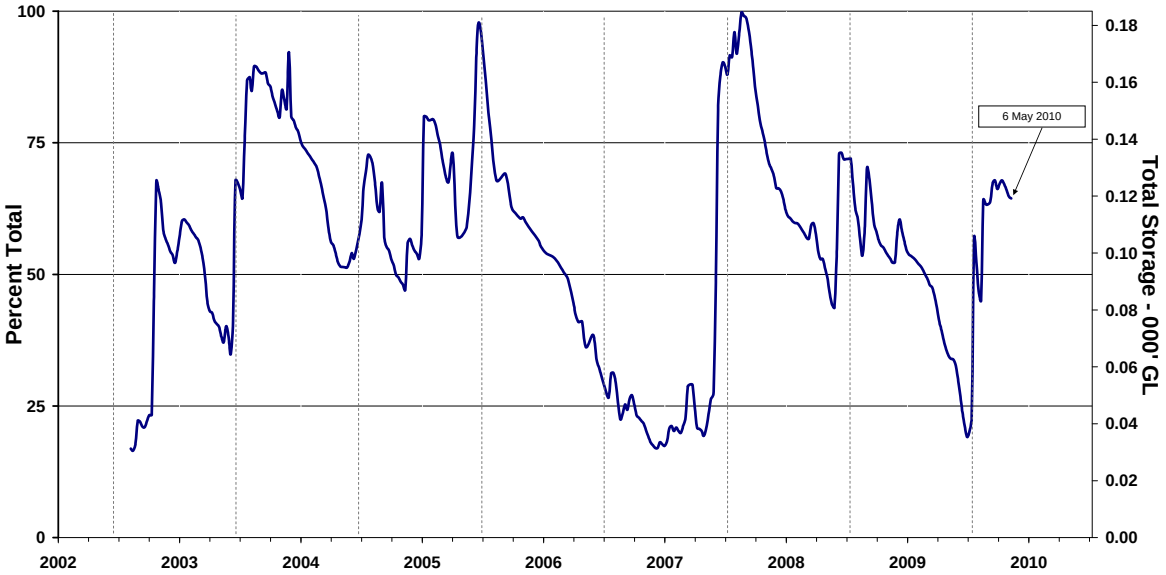
Snowy Scheme



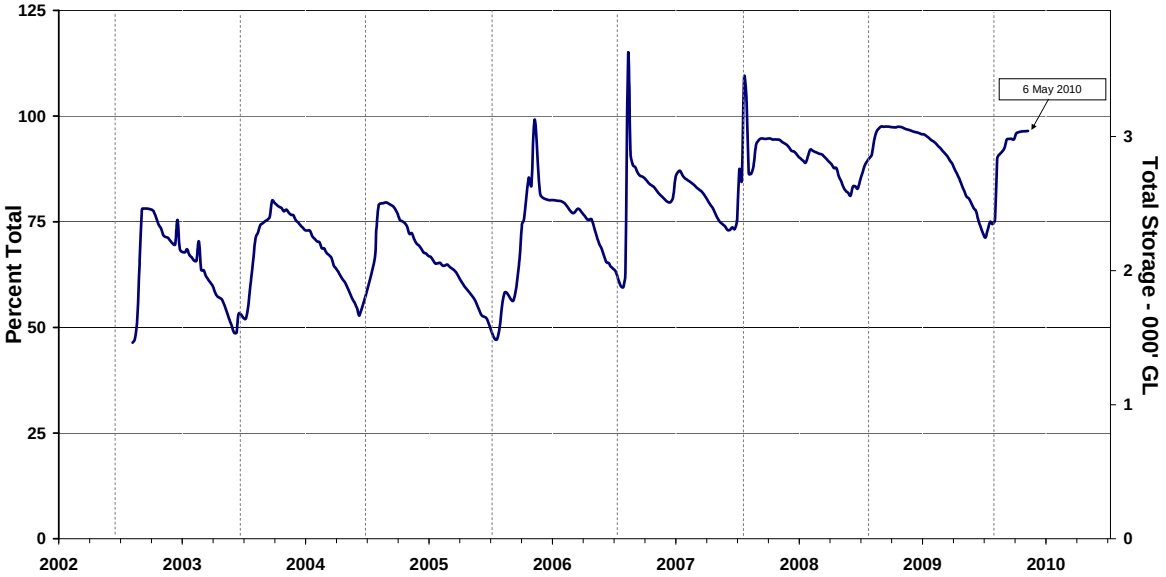
MDBA



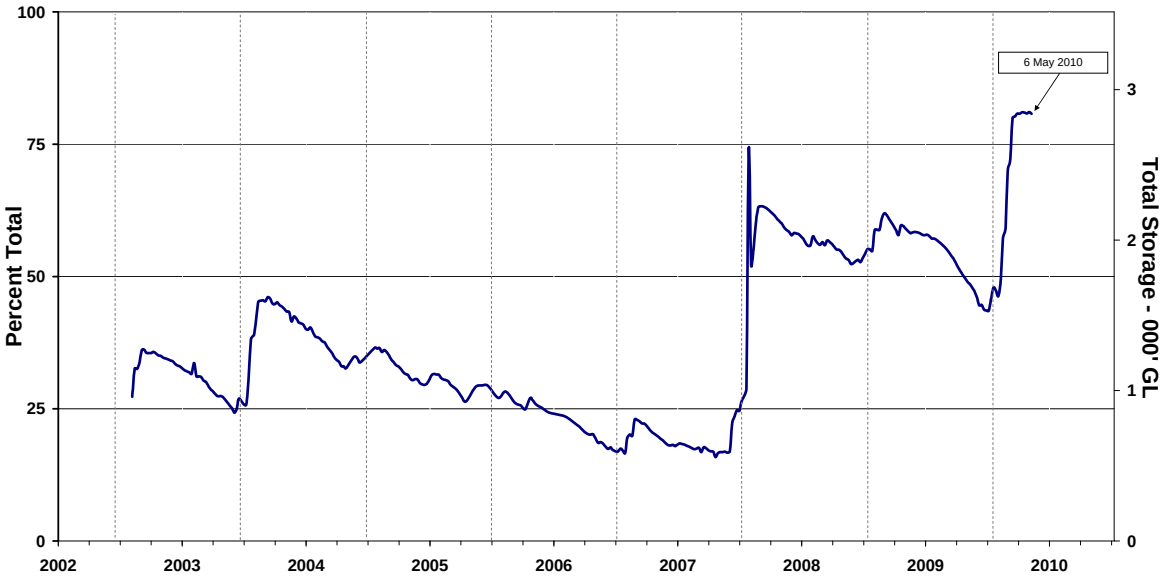
Queensland MDB



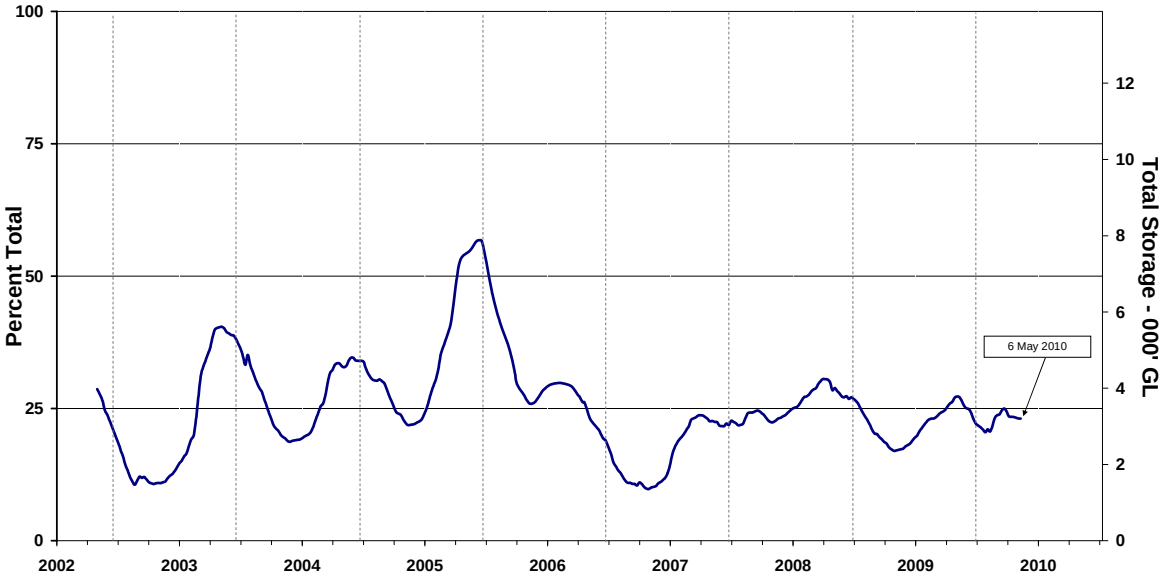
Central Queensland



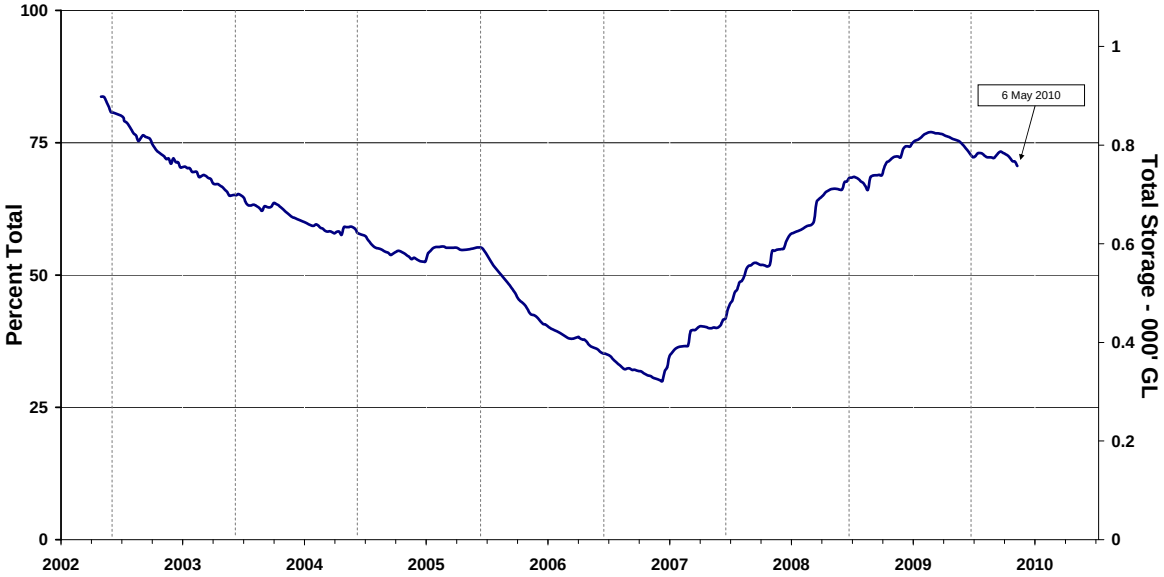
South-east Queensland



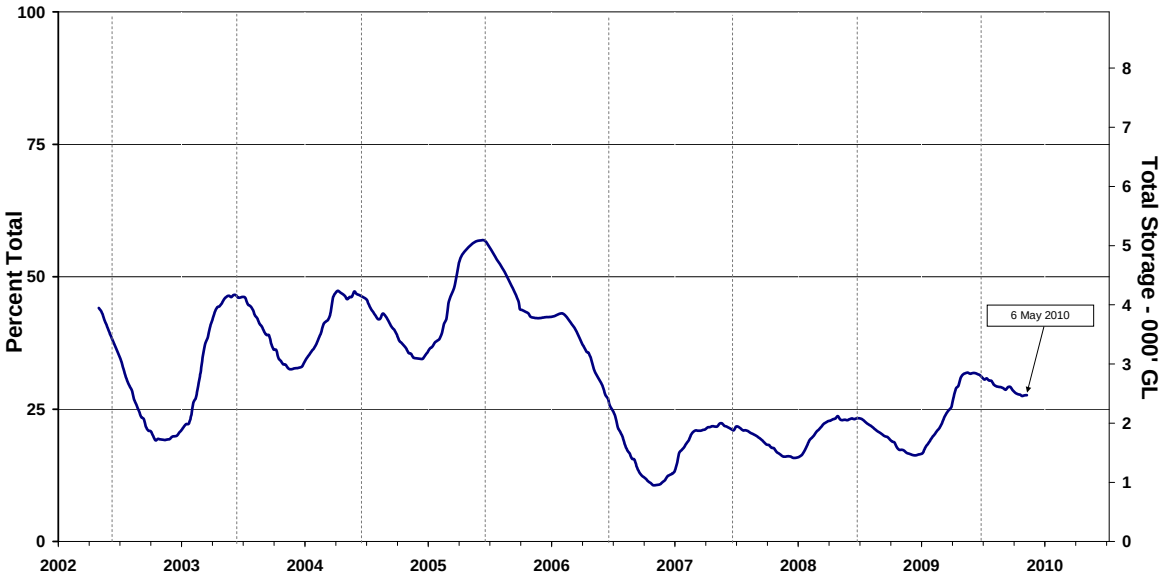
New South Wales MDB



Coastal New South Wales



Victoria MDB



For further information on water storages, go to:

- Snowy Scheme:
  http://www.snowyhydro.com.au/lakeLevels.asp?pageID=360&parentID=6
- Queensland:
  http://www.sunwater.com.au/pdf/water/CurrentStorageSummary.pdf
- New South Wales:
  http://www.waterinfo.nsw.gov.au/
- Northern Victoria:
  http://www.g-mwater.com.au/water-resources/storage-levels/
- Murray-Darling Basin Authority:
  http://www.mdba.gov.au/

2.2 Water allocations

The water allocations and changes over the past month for all licence holders in New South Wales, Victoria and South Australia water systems are summarised in the following table.

	Closing allocations 2008–09 (%)	Increase from 1 April 2010 (%)	Allocations 1 May 2010 (%)
NSW Murray Valley			
High security	95	-	97
General security	9	-	27
NSW Murrumbidgee Valley			
High security	95	-	95
General security	21	-	27
NSW Lower Darling			
High security	100	-	100
General security	50	-	100
NSW Macquarie Valley			
High security	100	-	100
General security	10	-	0
NSW Hunter Valley			
High security	100	-	100
General security	100	-	100
NSW Lachlan Valley*			
High security	30	-	10
General security	0	-	0
NSW Border Rivers			
High security	100	-	100
General security	0	-	4.4
NSW Peel Valley			
High security	100	-	100
General security	80	-	100
Victoria Murray Valley			
High reliability	35	-	100
Victoria Goulburn			
High reliability	33	-	71
Victoria Campaspe			
High reliability	0	-	0
Victoria Loddon			
High reliability	0	-	3
Victoria Bullarook			
High reliability	0	-	19
Victoria Broken			
High reliability	0	-	17
South Australia Murray Valley			
High security	18	-	62

*Water sharing plans remain suspended in NSW for the Lachlan River valley.

For further information on water announcements, go to:

- New South Wales Office of Water, Department of Environment, Climate Change and Water: http://www.water.nsw.gov.au/About-Us/Media-Releases/default.aspx, http://www.water.nsw.gov.au/Water-Management/Water-availability/Available-water-determinations/default.aspx and http://www.wix.nsw.gov.au/wma/DeterminationSearch.jsp?selectedRegister=Determination
- Goulburn-Murray Water: http://www.g-mwater.com.au/news/media-releases/
- South Australian Department of Water, Land and Biodiversity Conservation: http://www.dwlbc.sa.gov.au/media.html
- Murray-Darling Basin Authority: http://www.mdba.gov.au/

3.0 Production

3.1 Crops

Summer Crops

New South Wales

Grain sorghum production for 2009–10 is forecast at 390 265 tonnes from an estimated 89 305 hectares (ha) This is about 42 per cent lower than in the previous season with an estimated 678 661 tonnes harvested from an estimated 156 005 ha sown.
http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0010/329671/NSW-grains-report-april-2010.pdf

Winter Crops

Australia

Total winter crop production on Australian broadacre farms in 2009–10 increased by around 4 per cent compared with 2008–09, with a 3 per cent increase in wheat and canola production and a 4 per cent increase in barley production.
http://abareconomics.com/publications_html/economy/economy_10/afsr_2010.pdf

New South Wales

Summer 2009–10 rainfall across many areas of the state and the widespread use of chemicals for fallow weeds have helped to maintain soil moisture. Consequently, preparations for the 2010 winter cropping season are well advanced. Preliminary estimates are for the sowing of 4.90 million ha of winter crops in 2010, comprising 4.12 million ha of winter cereals and 0.81 million ha of pulses and oilseeds. There are early indications of a small drop in wheat area, driven by pricing outlook. Locusts may be a problem in some areas, although the cooler weather has reportedly slowed their growth and spread. Producers are being warned about possible infestations in spring.

http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0010/329671/NSW-grains-report-april-2010.pdf

http://www.daff.gov.au/animal-plant-health/locusts

Queensland

Soil moisture conditions and the seasonal rainfall outlook indicate the chances of an above median wheat yield during the 2010 growing season across most of Queensland. The likely range of yield outcomes is still wide as it is early in the season, but the forecast median yield for wheat at the end of April was 1.7 tonnes/hectare (t/ha), which is above the long-term median of 1.41 t/ha.
Seasonal Crop Outlook: Wheat – May 2010. Queensland Department of Employment, Economic Development and Innovation. Soon to be released online.

Victoria

In the Mallee region, cropping farmers are planning and preparing for the approaching sowing period. Canola will be sown over a much greater area than last year. Lentil plantings are also expected to increase, possibly at the expense of barley and to a lesser extent, wheat. The wine grape harvest is nearing completion, with average or slightly below average yields. In the Northern Irrigation district, rainfall and water allocations have led to earlier sowing and pre-irrigation of paddocks destined for winter crops. Croppers in the South West are burning off stubbles, spraying out summer weeds and preparing new soils. In most grazing areas, sowing of fodder crops is underway. Locusts are a problem in some areas,

although the cooler weather has reportedly slowed their growth and spread. Producers are being warned about possible infestations in spring.
http://www.dpi.vic.gov.au/dpi/nrenfa.nsf/LinkView/7A330EF000207C1CCA2577020080D77A987715D08D0205F9CA2573E100030E40

http://www.daff.gov.au/animal-plant-health/locusts

South Australia

Seeding of wheat, canola, beans and cereals for feed has commenced on much of Eyre Peninsula, parts of the Upper and Mid North and the Murray Mallee districts. Early-sown cereals for feed are beginning to emerge. There has been limited cultivation to control weeds, but some selective burning off has occurred during April to manage excessive stubbles and help control disease, snails and resistant ryegrass.

The area of wheat, lentils, canola and durum are expected to increase this season, while there will be significantly less barley and chickpeas sown. Total crop area may reduce slightly as some farmers reduce paddock areas in favour of increased stock numbers.
http://www.pir.sa.gov.au/__data/assets/pdf_file/0006/132738/May10cpr.pdf

Western Australia

Western Australian grain producers are preparing for seeding in anticipation of rainfall. The rainfall outlook for winter appears to be fairly neutral, with no strong trend in either drier or wetter than normal conditions across the south-west of the state. In the Northern Agricultural Region, rainfall in some areas during March improved growing conditions, but it also resulted in some weed problems. In the Central Agricultural Region subsoil moisture levels have increased following recent storm activity.

In the Southern West Agricultural Region, the wine grapes harvest is underway, with high grape quality and low incidence of pests and disease. Most other horticulture crops appear to have been slightly affected by above average temperatures. In the Southern Agricultural Region, paddock preparation has begun and good rainfall has been recorded in most areas.
http://www.agric.wa.gov.au/objtwr/imported_assets/content/lwe/cli/seasonalupdateapr10.pdf

3.2 Livestock

Beef cattle

The number of cattle at market during April 2010 was 5 per cent higher than the same time last year.
http://www.mla.com.au/TopicHierarchy/News/MarketNews/2010/Cattle+market+wrap.htm

Australian beef and veal exports during April were 7 per cent lower than in 2009. Exports for the January to April 2010 period were 12 per cent lower than 2009 levels for the same period. The reduced supply of cattle has limited beef production. However, the production of Australian beef is expected to increase in coming months.

The good start to the season has allowed ample feed supplies and producers have held onto livestock to take advantage of the available feed.

Sheep and lambs

Supplies of lamb to market for the period January to April 2010 were 9 per cent lower than in the same period last year.
http://www.mla.com.au/TopicHierarchy/News/MarketNews/2010/Demand+and+lower+supply+lifts+lamb+and+cow+prices.htm

Improved seasonal conditions have allowed improved quality and weight of lambs presented at market, resulting in high competition for lambs. The lamb finishing sector has secured approximately 23 per cent more lambs year-on-year for the January to April 2010 period. The lamb grades typically demanded by feeders have been scarce since January. Thishas forced feeder buyers to purchase heavier than normal lambs. This has increased demand and consequently the price for both prime lamb and re-stocker lamb.
http://www.mla.com.au/TopicHierarchy/News/MarketNews/2010/Lamb+and+sheep+market+wrap.htm

For further information on crops and livestock, go to:

- Australian Bureau of Statistics:
  http://www.abs.gov.au/
- Australian Bureau of Agricultural and Resource Economics:
  http://abareconomics.com/
- Meat and Livestock Australia:
  http://www.mla.com.au/
- Department of Agriculture and Food Western Australia:
  http://www.agric.wa.gov.au/
- New South Wales Department of Primary Industries:
  http://www.dpi.nsw.gov.au/aboutus/news/
  http://www.dpi.nsw.gov.au/aboutus/resources/periodicals/newsletters/grains-report-nsw
- Primary Industries and Resources South Australia:
  http://www.pir.sa.gov.au/grains/cpr/
- Queensland Drought Monitor
  http://www.longpaddock.qld.gov.au/QueenslandDroughtMonitor/
- The Land Farmonline:
  http://theland.farmonline.com.au/
- Victorian Department of Primary Industries:
  http://www.dpi.vic.gov.au