NAMS
NATIONAL AGRICULTURAL MONITORING SYSTEM

Climate and Agricultural Update

National Report

Issued August 2009

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Contributors

The information contained in this report is regularly sourced from the following organisations:

ORGANISATION

Bureau of Meteorology	http://www.bom.gov.au/
Bureau of Rural Sciences	http://www.brs.gov.au/
Department of Primary Industries, New South Wales	http://www.dpi.nsw.gov.au/
Snowy Hydro Limited	http://www.snowyhydro.com.au/
Australian Bureau of Agricultural and Resource Economics (ABARE)	http://www.abare.gov.au/
Department of Agriculture and Food, Western Australia	http://www.agric.wa.gov.au/
Goulburn-Murray Water	http://www.g-mwater.com.au/
Queensland Department of Primary Industries and Fisheries	http://www.dpi.qld.gov.au/
New South Wales Department of Water and Energy	http://www.naturalresources.nsw.gov.au/
Meat and Livestock Australia	http://www.mla.com.au/

Department of Primary Industries and Resources SA Government of South Australia Primary Industries and Resources SA	http://www.pir.sa.gov.au/
Department of Primary Industries, Victoria, Australia Victoria The Place To Be	http://www.dpi.vic.gov.au/
Murray-Darling Basin Authority MURRAY–DARLING BASIN AUTHORITY	http://www.mdba.gov.au/

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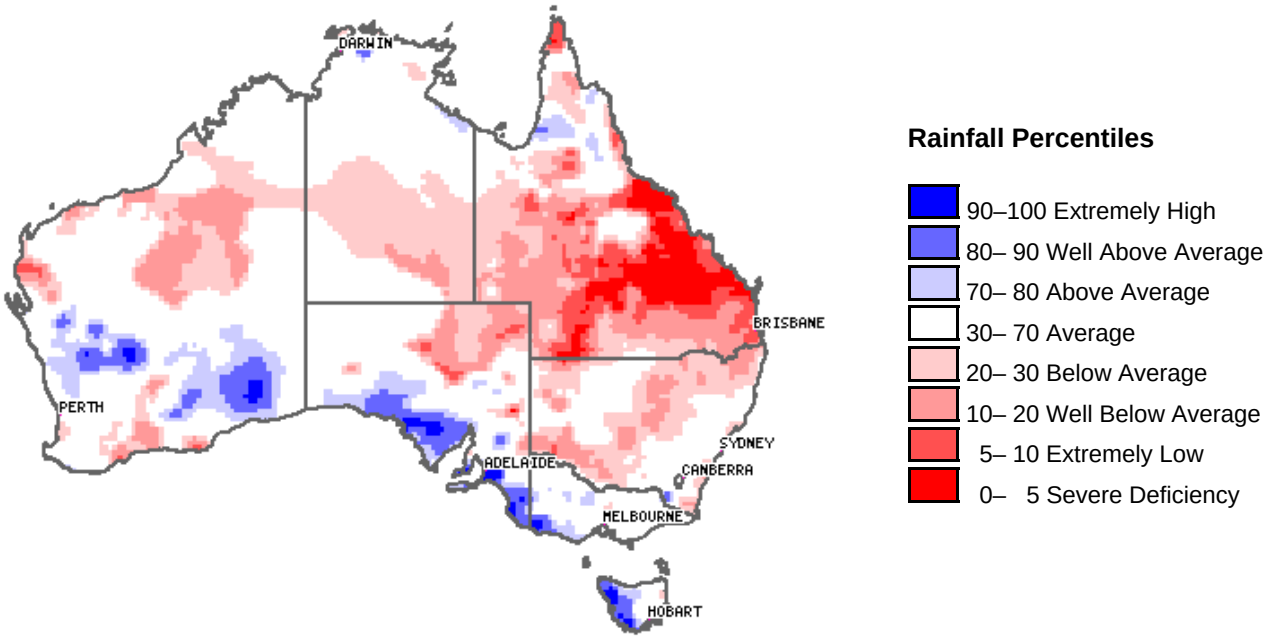
1.0 Rainfall and temperature

1.1 Rainfall

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/.

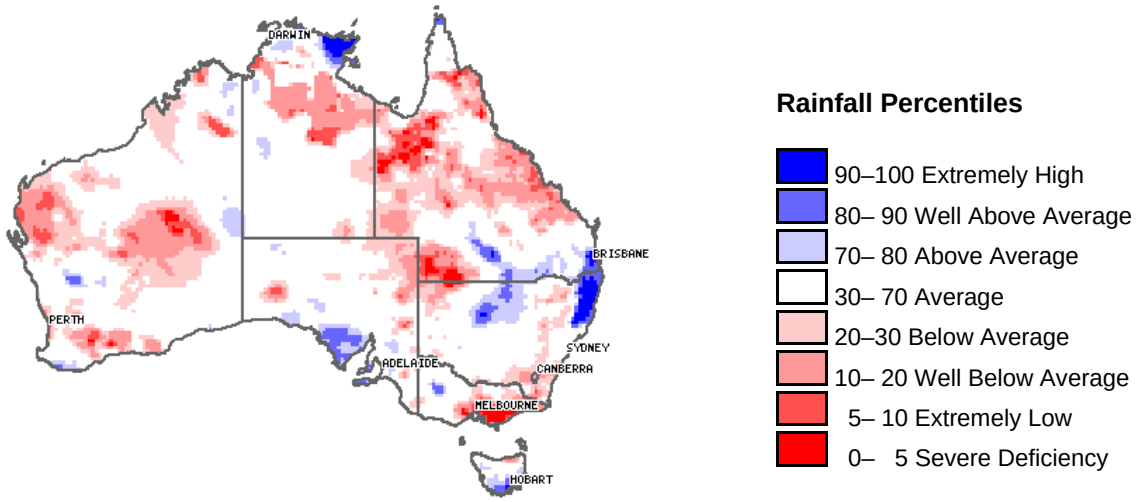
Rainfall over the last month (July 2009)



Rainfall percentiles for July 2009

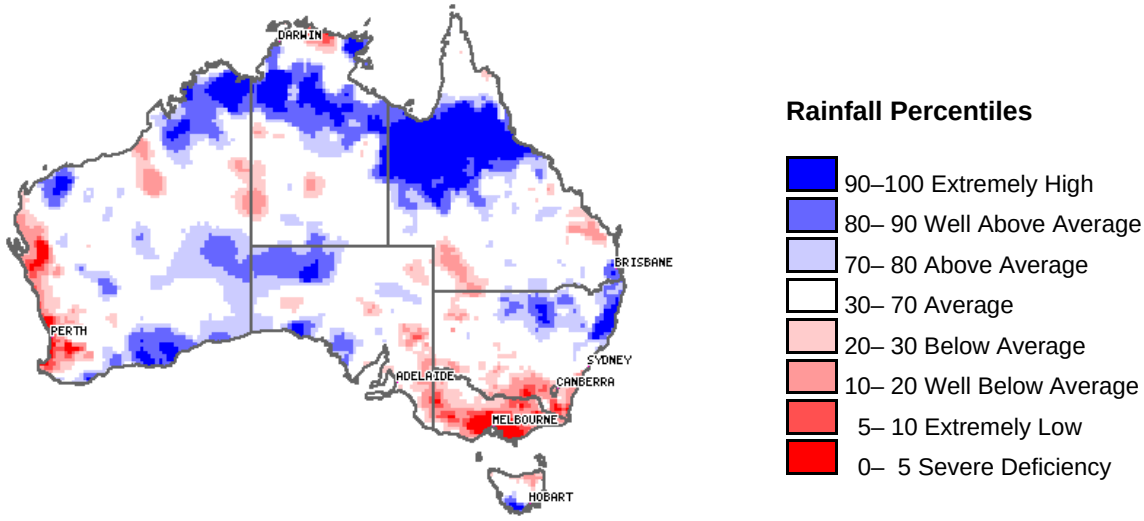
July 2009 rainfall for Australia was well below the long-term average (by 37 per cent). Rainfall was well below average in the Northern Territory (by 94 per cent), Queensland (by 93 per cent—fifth lowest July rainfall on record), New South Wales (by 45 per cent) and the Murray-Darling Basin (by 43 per cent). In contrast, rainfall was above average in Tasmania (by 16 per cent). It is important to note that rainfall is commonly low over northern Australia at this time of the year.

Ongoing or emerging rainfall situations



Rainfall percentiles for the last three months
May 2009–July 2009

During the past three months, most of Australia has experienced below average to average rainfall. Rainfall deficiencies have increased in the last month over central and western Queensland and southern New South Wales. In contrast, deficiencies have eased in south-west of Western Australia, western Victoria and South Australia.

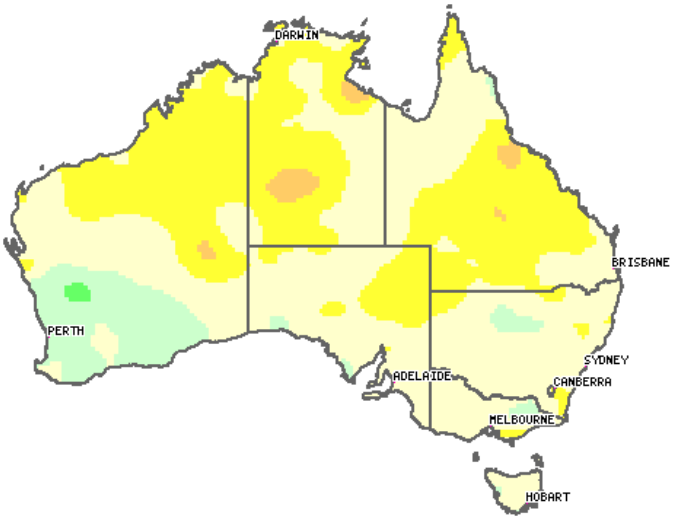


Rainfall percentiles for the last 12 months
August 2008–July 2009

For the 12 month period from August 2008 to July 2009, above average rainfall was recorded across northern Australia, in parts of Western Australia, western South Australia and in northern New South Wales. The 12-month rainfall deficiencies persisted across the south-east and west of the continent, most notably in Victoria, south-eastern New South Wales and the west of Western Australia.

1.2 Maximum and minimum temperature anomalies

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 1961–1990. For further information on temperature anomalies go to: http://www.bom.gov.au/climate/austmaps/.

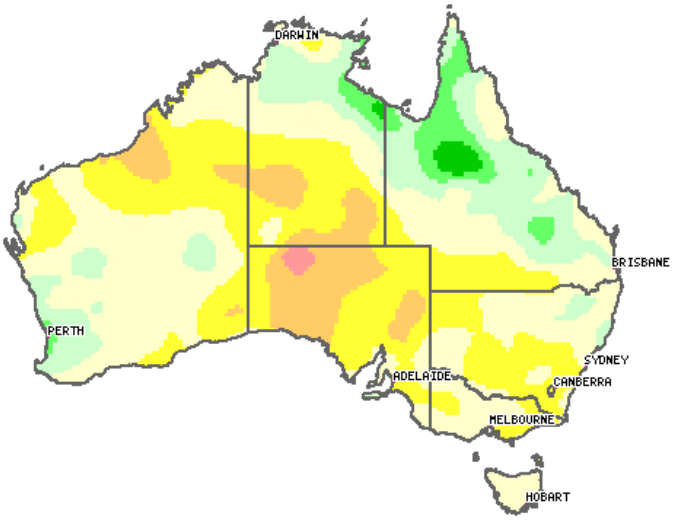


Monthly mean maximum temperature anomalies
July 2009

Temperature Anomalies (°C)

> 6
5 to 6
4 to 5
3 to 4
2 to 3
1 to 2
0 to 1
-1 to 0
-2 to -1
-3 to -2
-4 to -3
-5 to -4
-6 to -5
< -6

Day-time temperatures in Australia for July 2009 were 0.9 °C above the long term average. Queensland and Tasmania recorded their ninth warmest July day-time temperatures on record and Victoria recorded its seventh. Mean maximum temperatures ranged from were 2–3 °C above average over parts of northern and central Australia to 1–2 °C below average in the south-west of Western Australia.



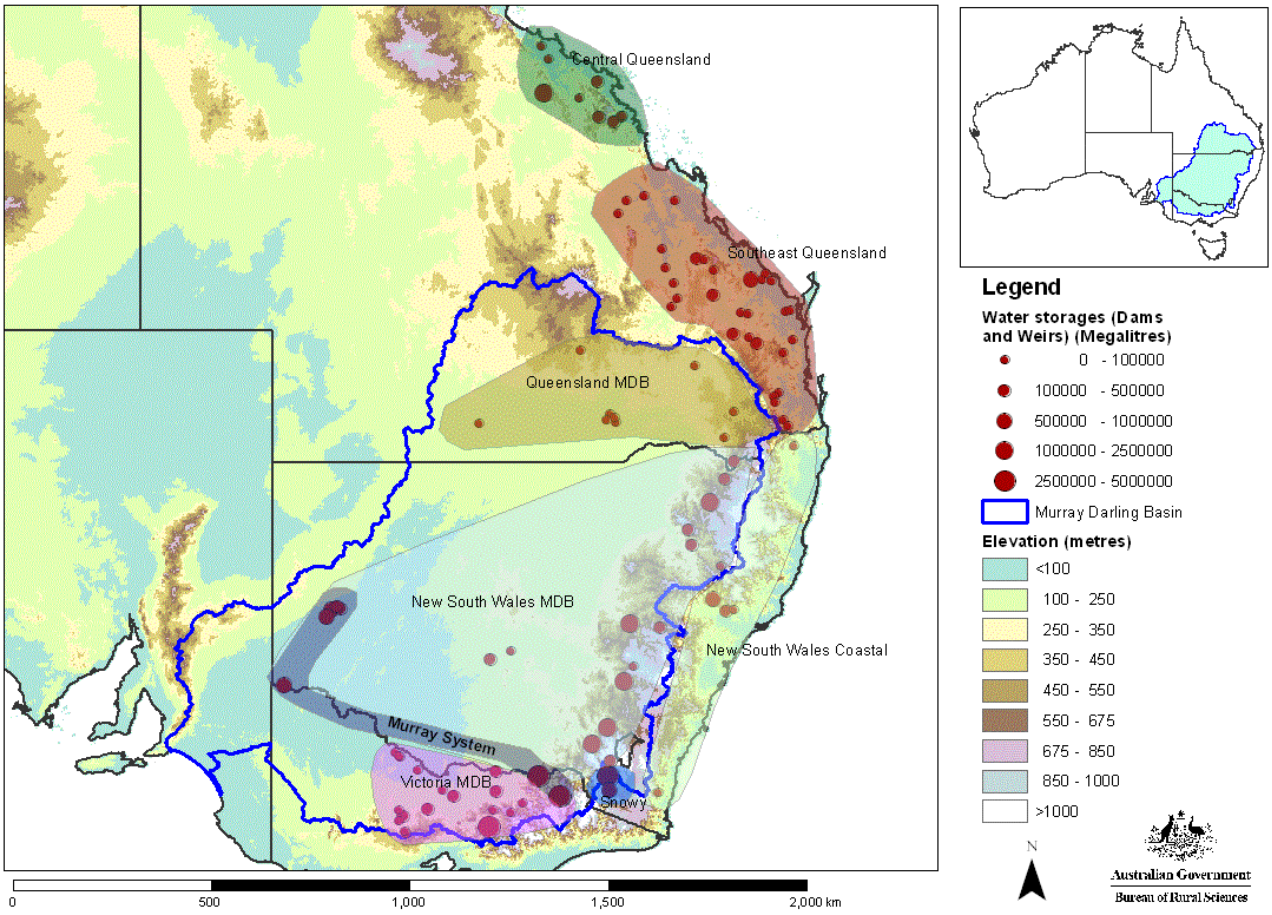
Monthly mean minimum temperature anomalies
July 2009

Temperature Anomalies (°C)

> 6
5 to 6
4 to 5
3 to 4
2 to 3
1 to 2
0 to 1
-1 to 0
-2 to -1
-3 to -2
-4 to -3
-5 to -4
-6 to -5
< -6

Night-time temperatures in Australia for June 2009 were 0.7 °C above the long-term average. Most of South Australia and parts of Western Australia saw overnight temperatures in the top ten per cent of the long-term average. Mean minimum temperatures were generally 1–3 °C above average in a broad band extending from the north-west of Western Australia to south-eastern Australia. In contrast, night time temperatures were 1–3 °C below average over northern and central Queensland and the north-east of the Northern Territory.

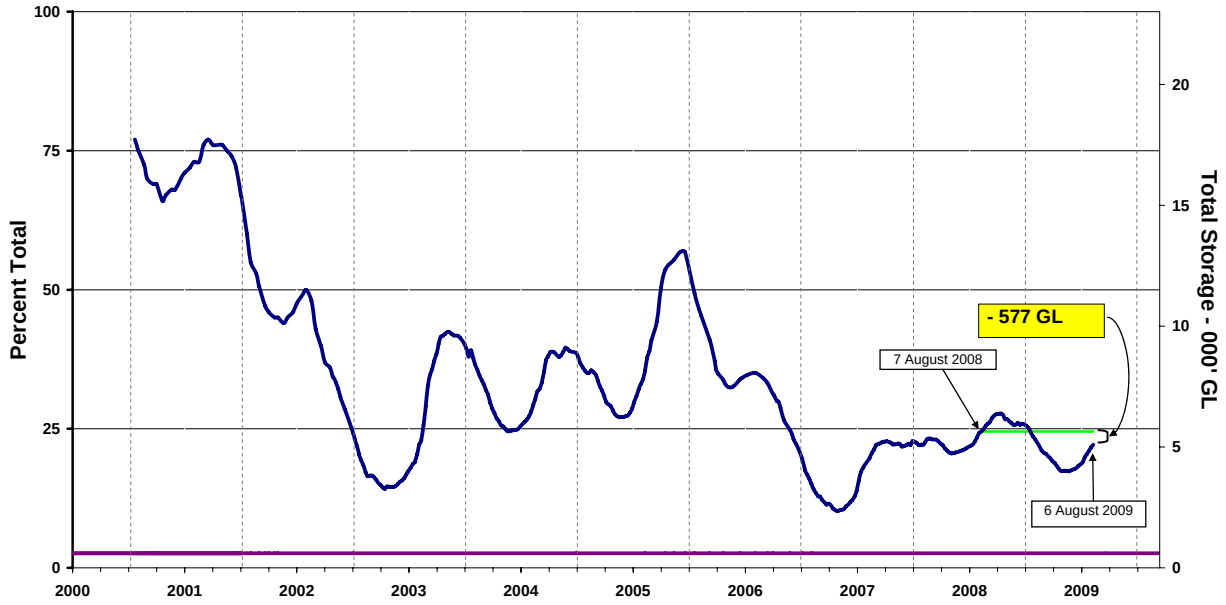
2.0 Water storages and announcements



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

2.1 Water storages (current at 6 August 2009)

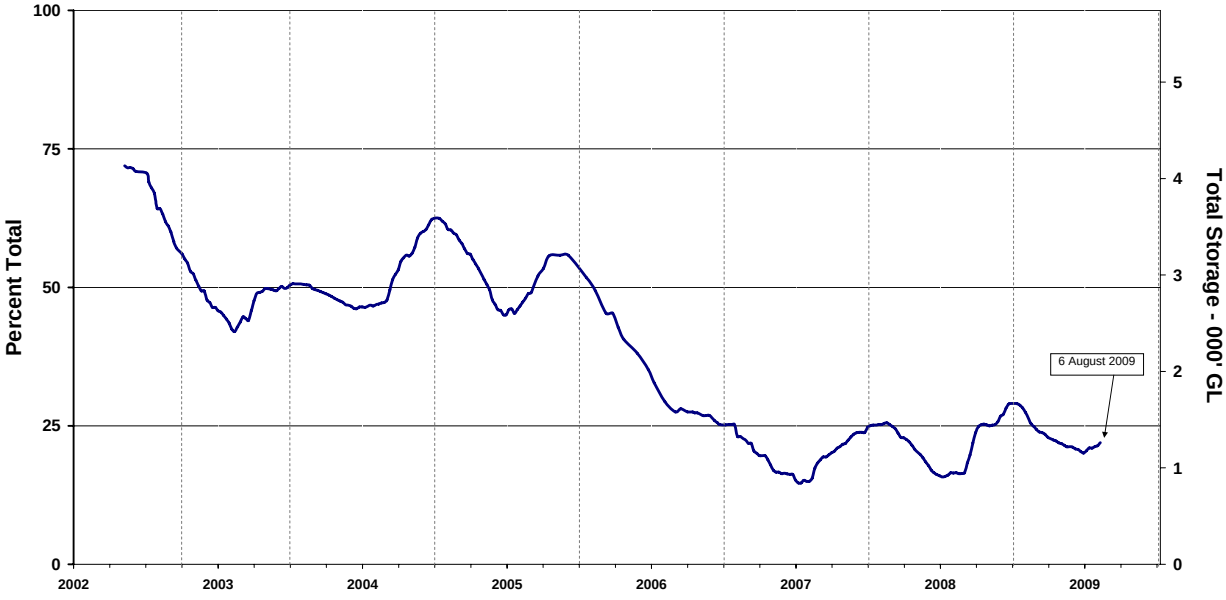
Water storage in the MDB (New South Wales, Victoria and Queensland)



Water storage levels in the Murray-Darling Basin from 1 January 2001 to 6 August 2009. The green line shows the storage level at the same time last year and the purple line shows the dead storage (not calculated).
Source: Bureau of Rural Sciences

Over the past month, storage levels within the Murray-Darling Basin (MDB) have increased. Storage levels for irrigated agriculture on 6 August 2009 were at 5090 gigalitres (GL) (22.11 per cent of a total capacity of 23 020 GL), an increase of 528 GL (2.29 per cent of total capacity) over the month. Current storage levels are approximately 557 GL (2.42 per cent) less compared to the same time last year.

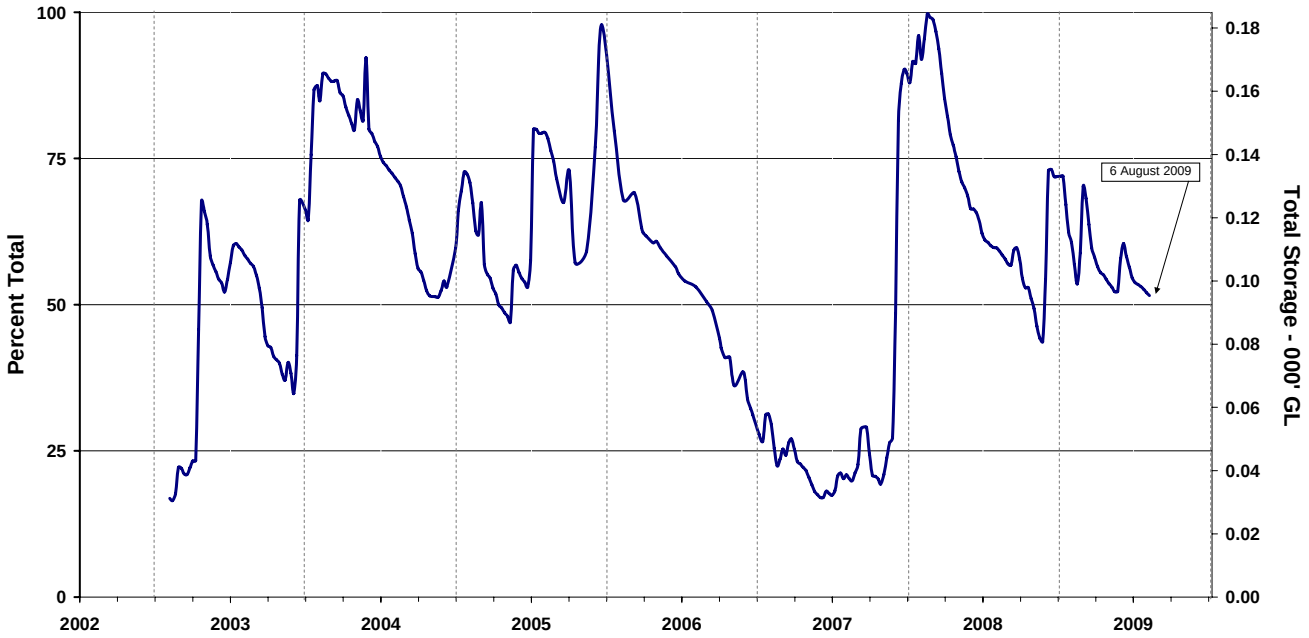
Water storage in the Snowy Scheme



Water storage levels in the Snowy Scheme from 6 November 2002 to 6 August 2009.
Source: Bureau of Rural Sciences

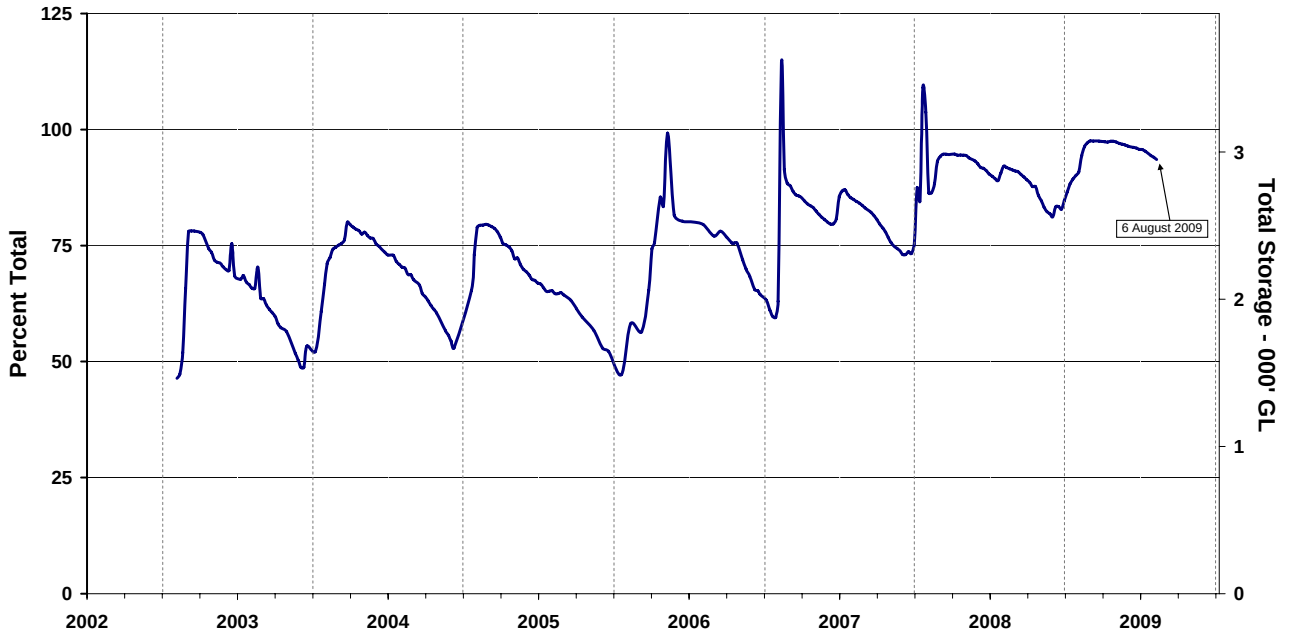
The figure 'Water storage in the MDB' (above top) does not include the capacities of Lake Eucumbene, Tantangara Reservoir and Lake Jindabyne (collectively the Snowy Scheme) which are reserved for hydro-electricity generation and irrigation purposes. The current storage level in the Snowy Scheme is 1262 GL (22.0 per cent of a total capacity of 5744 GL) (see figure above). The current storage level is 312 GL (5.4 per cent) higher compared to the same time last year.

Water storage in Queensland



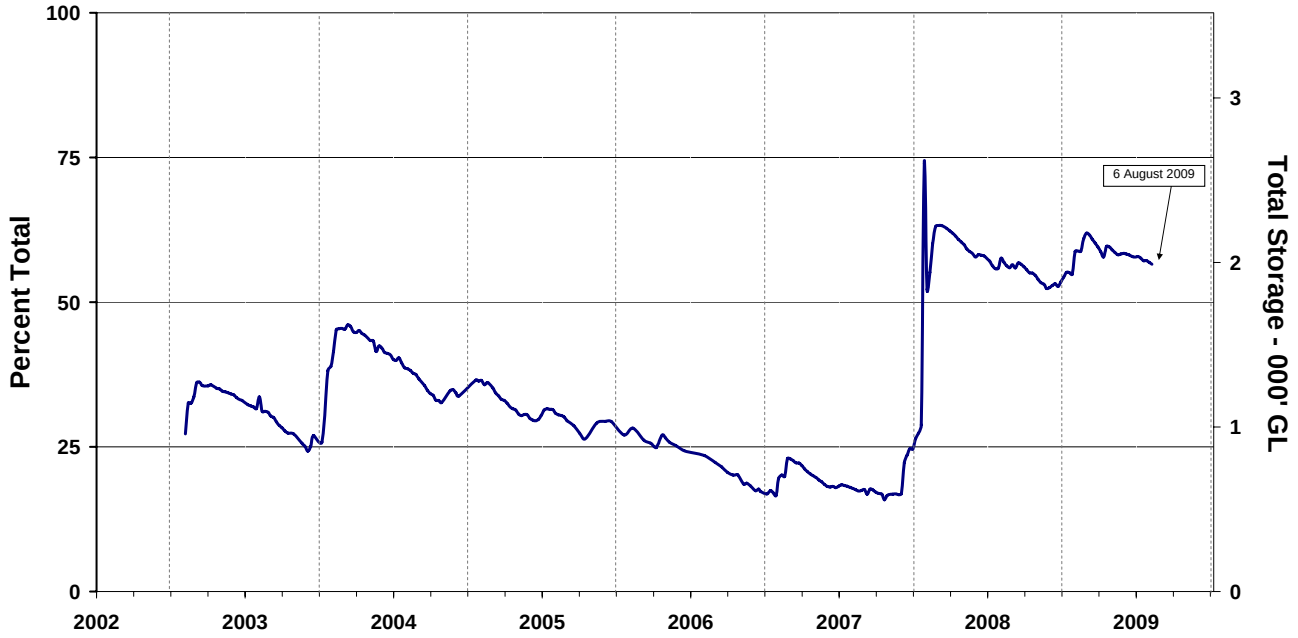
Water storage levels in Queensland MDB from 3 February 2003 to 6 August 2009.
Source: Bureau of Rural Sciences

Storage levels in Queensland MDB decreased by 5 GL to 95 GL (51.56 per cent of a total capacity of 185 GL) over the last month (see figure above). The current storage level is approximately 15 GL (7.64 per cent) lower compared to the same time last year.



Water storage levels in central Queensland from 3 February 2003 to 6 August 2009.
Source: Bureau of Rural Sciences

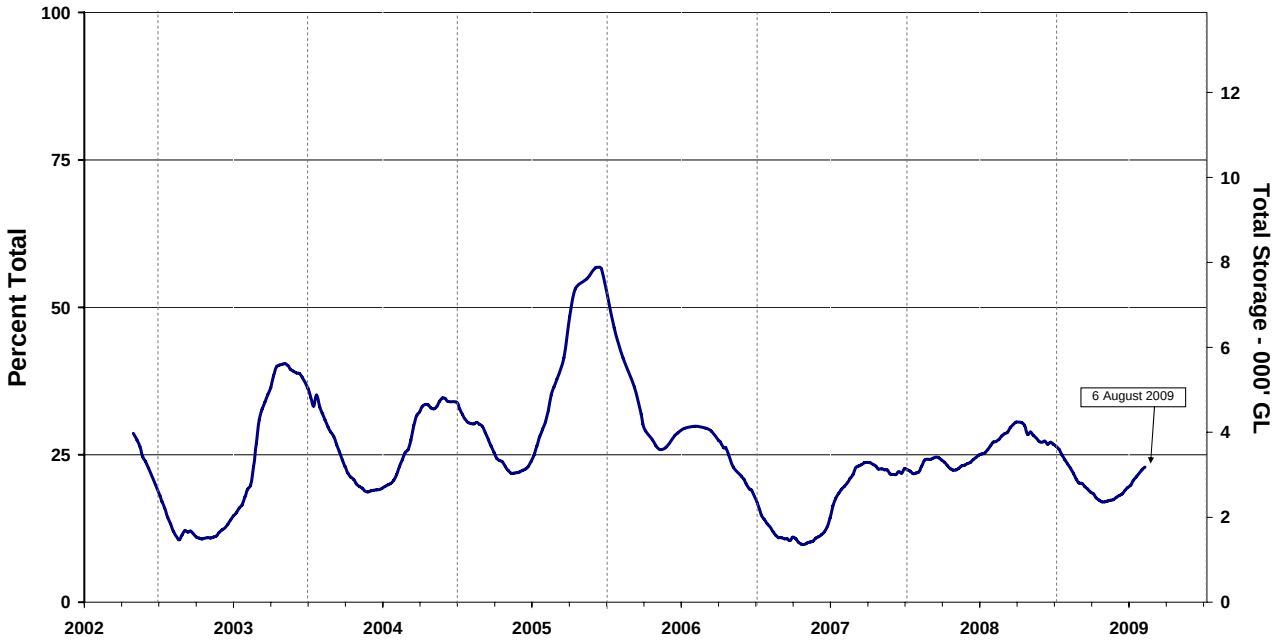
In central Queensland, storage levels decreased over the last month by 67 GL to 2951 GL, which is 93.54 per cent of a total capacity of 3155 GL (see figure above). The current storage level is approximately 54 GL (1.72 per cent) higher compared to the same time last year.



Water storage levels in south-east Queensland from 3 February 2003 to 6 August 2009.
Source: Bureau of Rural Sciences

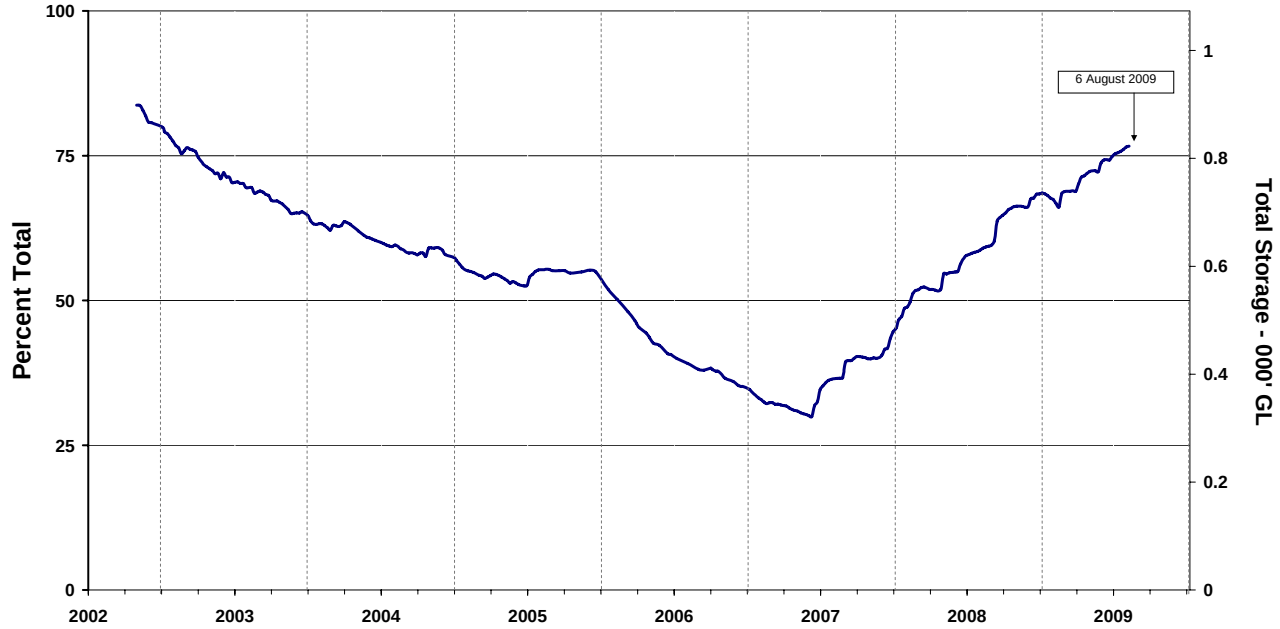
In south-east Queensland, storage levels decreased over the last month by 47 GL to 1989 GL (56.56 per cent of a total capacity of 3517 GL) (see figure above). The current storage is approximately 11 GL (0.32 per cent) lower compared to the same time last year.

Water storage in New South Wales



Water storage levels in New South Wales MDB from 28 October 2002 to 6 August 2009.
Source: Bureau of Rural Sciences

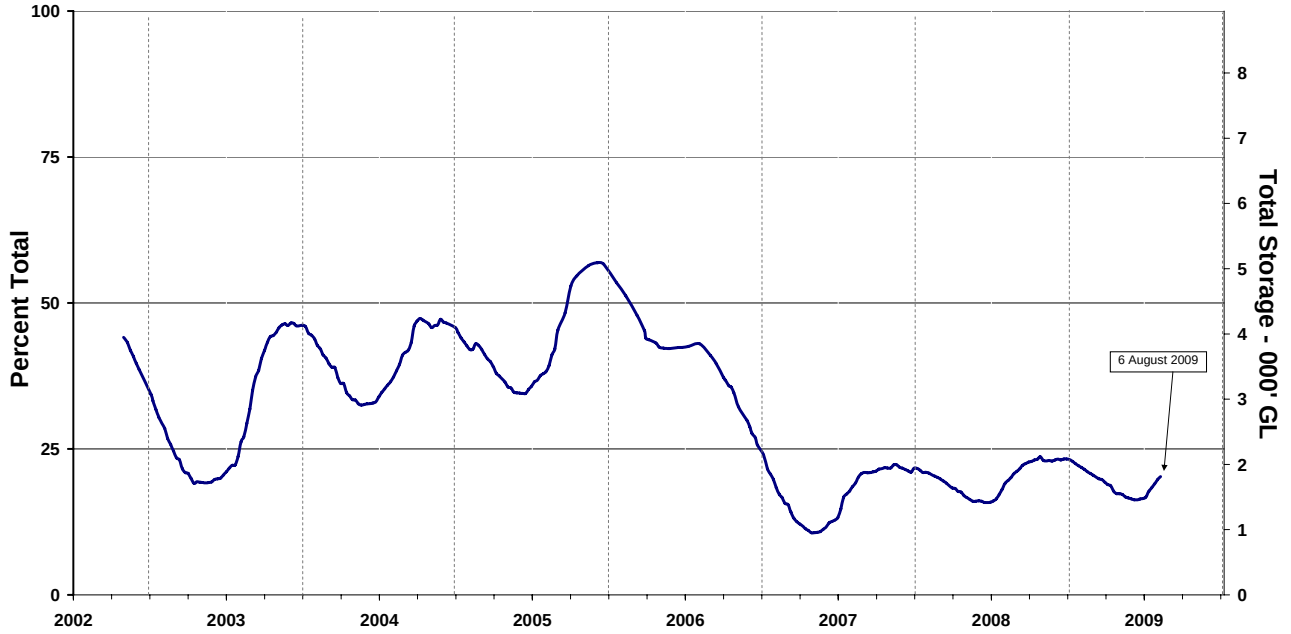
Storage levels in the New South Wales MDB increased over the last month by 425 GL to 3179 GL (22.90 per cent of a total capacity of 13 884 GL) (see figure above). The current storage level is approximately 605 GL (4.36 per cent) lower compared to the same time last year.



Water storage levels in coastal New South Wales from 28 October 2002 to 6 August 2009.
Source: Bureau of Rural Sciences

In coastal New South Wales, storage levels increased slightly over the last month by 16 GL to 823 GL (76.65 per cent of a total capacity of 1073 GL) (see figure above). The current storage level is approximately 189 GL (17.63 per cent) higher compared to the same time last year.

Water storage in Victoria



Water storage levels in Victoria MDB from 28 October 2002 to 6 August 2009.
Source: Bureau of Rural Sciences

Storage levels in Victoria MDB increased over the last month by 311 GL to 1804 GL (20.27 per cent of a total capacity of 8903 GL) (see figure above). The current storage level is approximately 61 GL (0.69 per cent) higher compared to the same time last year.

Murray-Darling Basin Authority water storages

Rainfall in early July across north-eastern Victoria increased stream flows to the highest level since September 2008. As a result, Murray System inflows for July were about 330 GL which was well above the historic minimum of 130 GL in July 2006, but is still only about 30 per cent of the long term average (1170 GL). The two month total for June - July is tracking as the eleventh driest in 118 years of records.

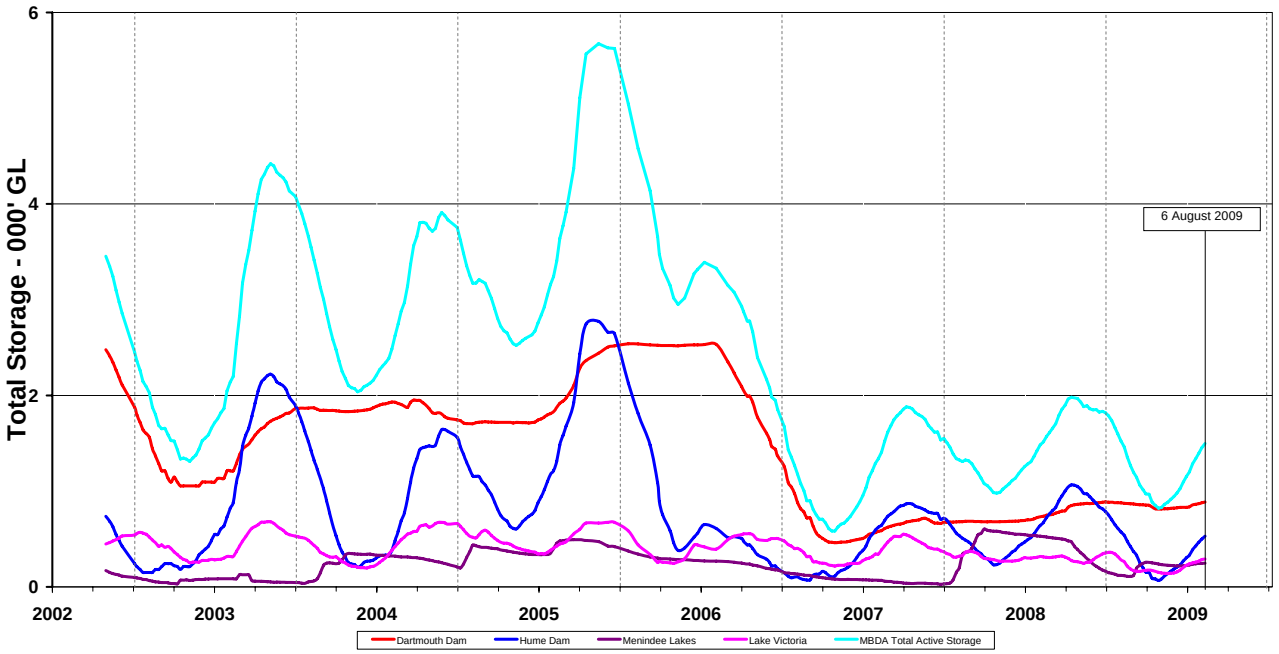
Murray-Darling Basin Authority (MDBA) active storages at the end of July had increased by 298 GL to 1498 GL (16.91 per cent capacity) over the last month. This storage level is approximately 17 GL lower than this time last year (1515 GL) and well below the long-term average of 5610 GL.

The total volume of water in all Basin storages managed by the MDBA, or by State governments, increased over the last month. At the start of August 2009, Basin storages held about 4983 GL (21.65 per cent). Storage in the Snowy Mountains reservoirs (managed by Snowy Hydro) remains low, with Lake Eucumbene at only 19.3 per cent capacity. Storage in Menindee Lakes, under New South Wales control, is at 14.74 per cent capacity (about 247 GL) compared to 31.33 per cent at this time last year.

Storage in Hume Dam increased by 199 GL to 531 GL (or 17.40 per cent capacity) during July 2009. Storage in Dartmouth Dam increased by 50 GL during July 2009 to 886 GL (22.68 per cent of capacity). Releases from Hume and Dartmouth have been reduced during winter to maximise the capture of inflows, while maintaining sufficient flow downstream for riparian and in stream environmental needs. The minimum release from Hume is 600 ML/day and from Dartmouth is 200 ML/day

The storage in Lake Victoria has increased during July by 50 GL to around 291 GL (or 42.73 per cent capacity). This is slightly lower than this time last year (314 GL) and significantly lower than the July long term average of 630 GL. During July, the target flow to South Australia was 1800 ML/day compared with a normal entitlement rate of 3500 ML/day. Flow to South Australia has now been below normal entitlement rates for more than two and a half years and can be expected to remain so until there is a significant improvement in water resource availability.

The trend of MDBA water storages at 6 August 2009 is shown in the figure below.



Water volumes in the Murray-Darling Basin Authority Storages from 28 October 2002 to 6 August 2009.
Source: Murray-Darling Basin Authority

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.naturalresources.nsw.gov.au/mediarelnr/mr_toc_currnr.html

Northern Victoria
http://www.g-mwater.com.au/water-resources/storage-levels/

Murray–Darling Basin Authority
http://www.mdba.gov.au/

South Australia
http://www.dwlbc.sa.gov.au/media.html

2.2 Water allocation announcements

Announcements for New South Wales (current at 3 August 2009)

On 3 August 2009, the New South Wales Department of Water and Energy (NSW DWE) announced updated water allocations for some southern New South Wales river systems. The water allocations for all licence holders are summarised in the table below. The units of water allocation changed at the start of the 2009–10 water year from per cent allocations to share units of the available water determination (AWD*).

Water system	High Security Licences (Megalitres per share unit or %)	Change (Megalitres per share unit or %)	General Security Licences (Megalitres per share unit or %)	Change (Megalitres per share unit or %)
NSW Murray Valley	8 %	8 %	0	0
Murrumbidgee Valley	5 %	5 %	0	0
Lower Darling	100 %	0	0	0
Macquarie Valley	1	0	0	0
Hunter Valley	1	0	1	0
Lachlan Valley	0.1	0	0	0
Border Rivers	1	0	0	0
Peel Valley	100 %	0	80 %	0

* AWD's are expressed as a percentage of the share component where share is expressed as a volume on the licence or as a volume per unit share where the licence share is expressed in unit shares.

On 3 August, NSW DWE announced increases in water availability for both the Murray and Murrumbidgee valleys. The recent rain across the southern valleys has allowed high security allocations in the Murray Valley to increase to 8 per cent of entitlement, while in the Murrumbidgee Valley water resources have improved enough to allow 100 per cent access to carryover for all licensed users and an initial high security allocation of 5 per cent of entitlement to be made.

While the rain has wet up the catchment, the limited amount of available water in the Murray and Murrumbidgee Valleys remains concerning, with inflow levels similar to this time last year. While there is sufficient water in both valleys to ensure that critical human needs and access to carryover can be met, substantial inflows both valleys are needed to secure resources for further increase in entitlements. There is no change to allocations in the Lower Darling where there is enough water to secure Broken Hill's water supply for 21 months, provide 100 per cent of entitlement for high security and domestic and stock and full delivery of carryover.

A full assessment will be carried out mid-month with details available in the Murray and Murrumbidgee Critical Water Planning communiqués, available on the 15 August from the Department's website http://www.dwe.nsw.gov.au.

Announcements for Victoria (current at 3 August 2009)

On 3 August 2009, Goulburn-Murray Water (G-MW) announced that irrigation allocations for the 2009–10 season in all northern Victorian regulated water systems will remain at zero.

All of the northern Victorian systems have enough water to meet essential needs for the water year, but strong inflows are needed in the coming months to ensure the systems can operate continuously to deliver water to customers. Inflows to storages remained well below average in July, which means that conditions are consistent with the dry inflow scenario previously advised by G-MW. Under this scenario the first allocations in the Goulburn and Murray systems are expected in mid September.

Goulburn-Murray Water advised that there is sufficient water in the Murray system to meet all river operating requirements, essential human needs and private carryover under a worst case inflow scenario with some extraordinary contingency measures to supplement these volumes. Now that these needs have been met and a small volume has been allocated to each of the states, any further inflows will be assigned to retiring the reliance on the contingency measures. After this, allocations to the states will resume in accordance with the interstate water sharing arrangements.

Announcements for South Australia (current at 3 August 2009)

On 3 August 2009, acting Minister for the River Murray, Paul Caica, announced River Murray irrigators are now able to access five per cent of their licensed water entitlement, a three per cent increase from last month. The increase has been made possible by a 25 GL advance to South Australia and other Murray-Darling Basin states.

The advance of water was negotiated under the special water sharing arrangements for 2009–10, specifically to support irrigators in all jurisdictions early in the season. Heavy rainfall in many parts of the Murray-Darling Basin in late June and early July has improved forecast River Murray system inflows for July. It is hoped that inflows for the month will be about 310 GL. However, this is still well below the long-term average July inflow of 1190 GL.

Mr Caica says licensed water users can still carry-over 100 per cent of their unused restricted water allocation at 30 June 2009 for use in the next water year.

For further information on water announcements, go to:

Murray-Darling Basin Authority
http://www.mdba.gov.au/

Goulburn-Murray Water
http://www.g-mwater.com.au/news/media-releases/

New South Wales Department of Water and Energy
http://www.naturalresources.nsw.gov.au/

South Australian Department of Water, Land and Biodiversity Conservation
http://www.dwlbc.sa.gov.au/media.html
http://www.ministers.sa.gov.au/news.php?id=5174

New South Wales Department of Water and Energy
http://www.dwe.nsw.gov.au/

3.0 Crop and livestock production

3.1 Crops

Winter Crops

Australia

The total area of winter crops in Australia is forecast to increase in 2009–10 by 1 per cent to 21.9 million hectares and yield is predicted to be 34.8 million tonnes (five per cent increase from 2008–09 season). http://www.abareconomics.com/publications_html/cr/cr_09/cr09_June.pdf

At the end of June 2009, Australia's bulk storage of wheat grain was estimated at 7 million tonnes. This is approximately half of the wheat grain which was held in bulk storage at the end of December 2008. http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/7122.0.55.001Main+Features1June%202009?OpenDocument

Wheat exports in May 2009 were around 1.3 million tonnes, down from the 1.62 million tonnes shipped in April. Bulk wheat exports were 1.2 million tonnes compared with the 1.4 million tonnes shipped in April. http://abareconomics.com/interactive/AusWheat/

Australian Wheat Board (APW) revised its price forecast for 2009–10 season wheat downward by $15 a tonne, giving an estimated pool return (EPR) for benchmark grade APW wheat of $290-300 a tonne. This is due to the international demand for wheat remaining low. Spring weather will be important for current production estimates to be fulfilled.
http://theland.farmonline.com.au/news/state/grains-and-cropping/general/wheat-prices-plummet/1586601.aspx?src=enews

New South Wales

Rainfall conditions during June were favourable, especially in the central west and south west, with many areas recording above average monthly totals of 50–100 mm. These regular rainfall events have boosted soil moisture profiles and improved the establishment of main season crops. Around 95 per cent of the crop was sown by the end of June. Warmer weather during May and June has resulted in crops sown into soils with good moisture profiles establishing quickly. Current estimates are for a total winter crop of 5.06 million hectares. However, areas missing on the June-July rainfall need further rain to consolidate winter crop prospects and boost soil moisture profiles.
http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0007/289105/nsw-grains-report-june-2009.pdf

In northern New South Wales, summer rain allowed adequate ground preparation and weed control before sowing most crops. Cereals sown for grazing have provided valuable early winter feed, especially as pasture growth has been slow following the late seasonal break in most central and southern regions.
http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0007/289105/nsw-grains-report-june-2009.pdf

South Australia

Seeding has finished in all districts apart from the lower south east where excessively wet conditions stopped seeding operations. Some growers on the Eastern Eyre Peninsula have put in late sown cereal crops due to the rain in late July. The earlier sown crops have generally established well. However, the later sown crops have been slower to establish due to colder and drier conditions in July. These crops are expected to respond well to recent rainfall leading into August. The total area of winter crops in South Australia is forecast to be around 3.74 million hectares with production currently estimated at 6.86 million tonnes. http://www.pir.sa.gov.au/__data/assets/pdf_file/0020/39800/jul04cpr.pdf

Victoria

In most Victorian cropping areas conditions have encouraged good crop and pasture growth, with the majority of seeding operations completed during July. In the Mallee, crops were growing well by early July, with some cereal paddocks appearing to yellow, possibly due to disease and low nutrients. In the Wimmera good surface moisture existed, although sub-soil moisture was still at minimal depth. Similarly, in the north-eastern, isolated storms have increased the surface moisture, but moisture was yet to establish below 40 cm depth in most areas. Mostly average rainfall in these areas in July is likely to have consolidated soil moisture and boosted yields potential.
http://www.dpi.vic.gov.au/DPI/nrenfa.nsf/LinkView/68C7BF048B937AE6CA2575E8001FBD3275D99DBA789C4628CA2573ED00090307/$file/The%20Break%20Newsletter%20July%202009.pdf

Western Australia

A late start and below average rainfall in the April- June period has contributed to lower than normal crop yield potentials through much of the central and north-eastern Western Australia wheat belt. Although most of the wheat belt received good rainfall in late June, some areas in the central wheat belt still needed more rainfall to improve subsoil moisture. Average to above average rainfall in July across most of the wheat belt has further improved soil moisture and boosted crop yields potential. The Department of Agriculture and Food estimates a total grain crop of between 10 and 12 million tonnes for 2009 if average rainfall is received for the remainder of the growing season.
http://www.agric.wa.gov.au/objtwr/imported_assets/content/lwe/cli/seasonalupdatejul09.pdf

Queensland

Most areas of the state's cropping region recorded below average rainfall in July. This resulted in subsoil moisture levels being depleted in almost all cropping areas. Soil water conditions and the seasonal rainfall outlook at the end of July indicate a reduced chance of an above average wheat yield during the 2009 season. The current state wheat outlook shows a forecast median yield at the end of July this year of 1.19 tonnes per hectare (t/ha), which has moved below the long-term median of 1.40 t/ha. Wide spread above average rainfall is needed during the next couple of months (especially around flowering) to improve the current shire wheat outlook in most of the state's cropping areas.
(*Seasonal Wheat Outlook, August 2009*, Queensland Department of Primary Industries and Fisheries)

3.2 Livestock

Beef cattle and pigs

Beef exports to South East Asia and China are expected to strengthen in the 2009–2010 period, similarly to the 2008–2009 period which saw an increase of 28 per cent.
http://www.mla.com.au/TopicHierarchy/News/MarketNews/2009/Beef+exports+to+South+Asia+highest+on+record.htm

Overall quality of cattle in saleyards has improved due to favourable seasonal conditions in northern New South Wales and Queensland, with more available feed, heavy winter crops plantings and cheaper grain prices. Lot-feeders and slaughter sections have dominated the market for young cattle making it difficult for purchase to be made by re-stockers.
http://www.mla.com.au/TopicHierarchy/News/MarketNews/2009/Cattle+market+wrap.htm

Rainfall in later July occurred across southwest Western Australia, higher regions of Victoria, southern New South Wales and Tasmania. These conditions will allow the growth pastures and crops to progress.
http://www.mla.com.au/TopicHierarchy/News/MarketNews/2009/Wet+weather+whips+west.htm

Prices for cattle across the eastern states continue to rise. Most indicators are at their highest level for 2009. A widespread improvement in seasonal conditions has lead to tightened numbers and boosted re-stocker and feeder demand, which have been the main drivers behind the higher prices.
http://www.mla.com.au/TopicHierarchy/News/MarketNews/2009/Cattle+market+wrap.htm

Lower grain prices have been assisting cattle on feed recovery, improving lot-feeders financial situation. Prices for grain in July have been lower than during the same period in previous years.
http://www.mla.com.au/TopicHierarchy/News/MarketNews/2009/Cheaper+grain+assisting+cattle+on+feed+recovery.htm

Beef prices for 2008–09 financial year increased by 3.1 per cent to an average retail price of $16.04 kg. The increase was recorded during the March and December quarters.
http://www.mla.com.au/TopicHierarchy/News/MarketNews/2009/Retail+meat+prices+edge+higher+in+2008-09.htm

Cattle export to Japan, Korea and the US remains slow with prices below last year, compounded by a rising Australian dollar. Young cattle values, however, are closely tracking last year's peak rates assisted by the lower grain costs and improved seasonal conditions.
J:\Climate\Projects\Reports\National_report\2009\August\Livestock\Lamb peak passed but cattle creeping up - National Rural News - Agribusiness and General - General - The Land.mht

Australian pork producers are expected to maintain their normal strict bio-security measures and monitor their animals and staff for the swine flu disease.
J:\Climate\Projects\Reports\National_report\2009\August\Livestock\Swine flu found in NSW piggery - National Rural News - Livestock - Pigs - The Land.mht

Sheep and lambs

The number of lambs at Meat and Livestock Australia's (MLA) reported saleyards during July increased by 8 per cent year-on-year. Young lambs showed a 1 per cent decrease from this time last year, while mutton showed a 5 per cent increase. The increase in mutton is influenced by record prices in Western Australia recently and a shift into crop production.
http://www.mla.com.au/TopicHierarchy/News/MarketNews/2009/Mondays+livestock+summary.htm

The National trade lamb indicator closed July at 463 ¢/kg carcase weight, 5¢ up on the same time in 2008. The National heavy lamb indicator closed July at 462 ¢/kg carcase weight, 3¢ higher than the same time last year. The National mutton indicator closed at 307 ¢/kg carcase weight, 107¢ higher than the same time the previous year.
http://www.mla.com.au/TopicHierarchy/News/MarketNews/2009/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/ and
http://www.agric.wa.gov.au/content/lwe/cli/seasonalupdate.htm

New South Wales Department of Primary Industries
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 Department of Primary Industries and Fisheries
http://www.dpi.qld.gov.au/fieldcrops/

The Land Farmonline
http://theland.farmonline.com.au/

Victorian Department of Primary Industries
Dry Seasonal Conditions Report
http://www.dpi.vic.gov.au

"The Break" Newsletter
http://www.dpi.vic.gov.au/DPI/nrenfa.nsf/childdocs/-80E62E2EAB672EE24A256B520005A0AF-C5C1899E958127624A256B520005C2A1-803873FA53FDADCACA25718D001AA04B?open

4.0 Climate Outlook

4.1 El Niño Southern Oscillation (ENSO)

On 5 August 2009, the Australian Bureau of Meteorology announced that atmospheric indicators are increasingly showing patterns typical of a developing El Niño event. These indicators are driven by warm conditions in the tropical Pacific Ocean. If these warm conditions persist, as forecast by leading climate models, 2009 will be considered an El Niño year.

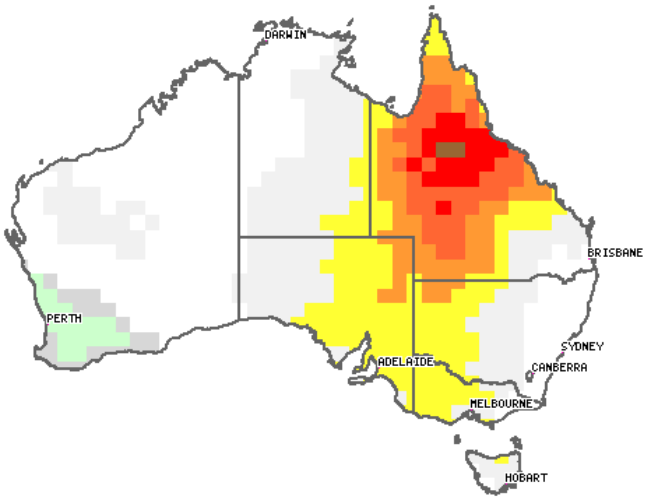
Sea surface temperatures across most of the tropical Pacific Ocean continue to exceed El Niño thresholds. As a result, cloud patterns, trade winds and rainfall along the equator have all shown signs of responding to the warmer ocean conditions. Cloudiness near the date-line has generally been greater than normal over the last month. The Southern Oscillation Index (SOI) has fallen over the past two weeks, and is now near zero. Persistent negative values are a feature of El Niño events. The most recent value of the Indian Ocean Dipole Mode Index (DMI) is near zero. The Bureau's POAMA model suggests the DMI may increase over the coming months, consistent with the developing El Niño event.

Six of the seven leading international climate models surveyed by the Bureau of Meteorology predict the tropical Pacific to continue to warm for the remainder of 2009. All models predict El Niño conditions to be established by the southern hemisphere spring at the latest. Pacific conditions and model predictions will continue to be monitored closely.

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

4.2 Rainfall Outlook

The Bureau of Meteorology provides seasonal outlooks that are statements about the probability of wetter or drier than average weather over a three-month period. The outlooks are based on the statistics of chance (the odds) taken from Australian rainfall, temperature and sea surface temperature records for the tropical Pacific and Indian Oceans. They are not categorical predictions about future rainfall and they do not indicate the expected rainfall amount for the three-month outlook period.



The chance of exceeding median rainfall
August – October 2009

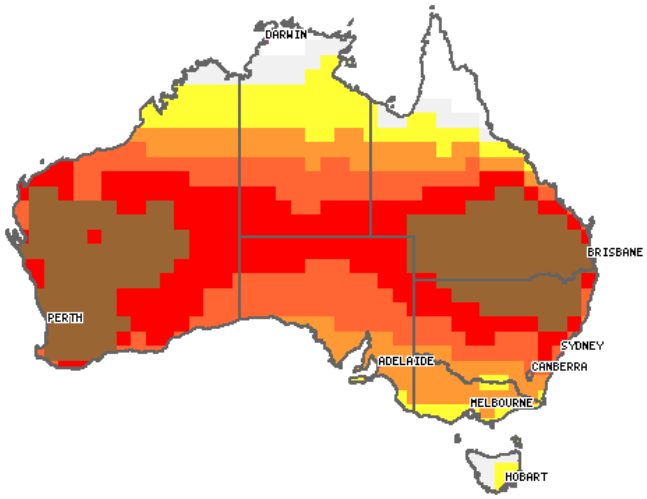
Chance of Exceeding the Median Rainfall (%)

- 80–100
- 75–80
- 70–75
- 65–70
- 60–65
- 55–60
- 50–55
- 45–50
- 40–45
- 35–40
- 30–35
- 25–30
- 20–25
- 0–20

The national rainfall outlook for late winter to mid-spring 2009 (August – October) shows a moderate to strong shifts towards a drier than normal season across much of eastern Australia (0–40 per cent chance). Conversely, there is a shift towards a wetter than normal season in the south-west of Western Australia (55–65 per cent chance). Over the remainder of the country, the likelihood of a wetter than average season is between 40 and 55 per cent, meaning that the chances of above average rainfall are about the same as the chances of below average.

The pattern of seasonal rainfall odds across Australia is a result of recent warm conditions in the Indian Ocean and warming in the Pacific. The Pacific influence dominates the outlook in eastern Australia, while the Indian Ocean has had a greater influence on the probabilities in Western Australia.

4.3 Temperature Outlook



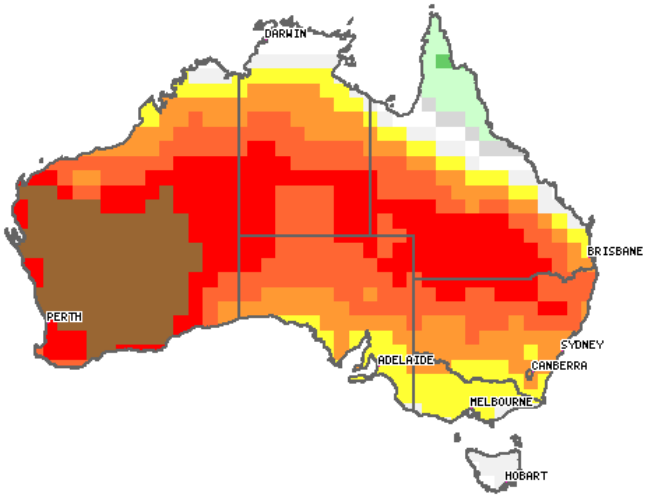
3 Month Temp. Max Outlook (%)

80–100
75–80
70–75
65–70
60–65
55–60
50–55
45–50
40–45
35–40
30–35
25–30
20–25
0–20

The chance of exceeding median maximum temperatures August – October 2009

The chance of exceeding the median maximum temperature for August to October 2009 is 60–80 per cent across most of Australia with chances exceeding 80 per cent over southern Queensland, northern New South Wales and parts of Western Australia. The likelihood for warmer than average days are lower (45–55 per cent) in the far north of the country.

The pattern of seasonal temperature odds across Australia is a result of recent warm conditions in the Indian Ocean and a warming Pacific.



3 Month Temp. Min Outlook (%)

80–100
75–80
70–75
65–70
60–65
55–60
50–55
45–50
40–45
35–40
30–35
25–30
20–25
0–20

The chance of exceeding median minimum temperatures August – October 2009

The national climate outlook from August to October 2009 suggests that warmer than average minimum temperatures are likely across most of Australia. Apart from Tasmania and parts of northern Australia, the chance of a seasonal average above the long-term median minimum temperature is between 60 and 80 per cent and exceeds 80 per cent over southern part of Western Australia.

History shows the oceans' effect on minimum temperatures in August to October to be moderately consistent over the southern half of Western Australia, much of Queensland, New South Wales and South Australia. Elsewhere the effect is generally weakly consistent, so this outlook should be used with caution in those areas.

For further information on the Bureau of Meteorology seasonal outlooks go to http//www.bom.gov.au/climate/ahead/