NAMS
NATIONAL AGRICULTURAL MONITORING SYSTEM

# Climate and Agricultural Update

# National Report

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# Contacts

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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<br>Government of South Australia<br>Primary Industries and Resources SA | http://www.pir.sa.gov.au/ |
| Department of Primary Industries, Victoria, Australia<br>Victoria<br>The Place To Be | http://www.dpi.vic.gov.au/ |
| Murray-Darling Basin Commission<br>MURRAY-DARLING BASIN COMMISSION | http://www.mdbc.gov.au/ |

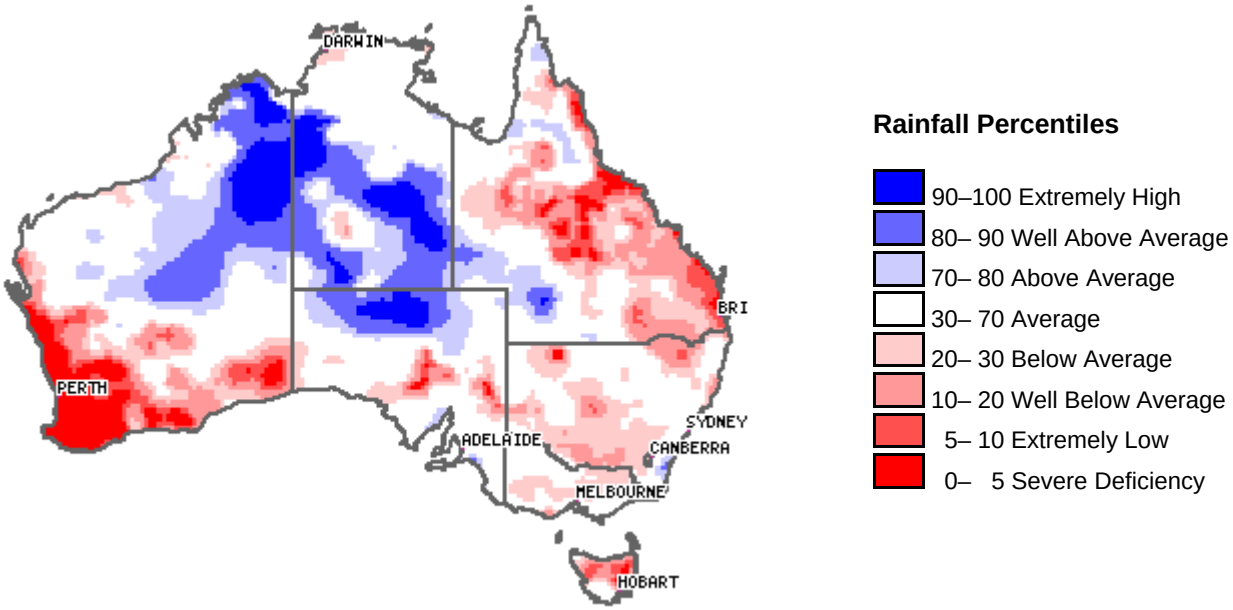
# TABLE OF CONTENTS

# 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 (August 2008)*



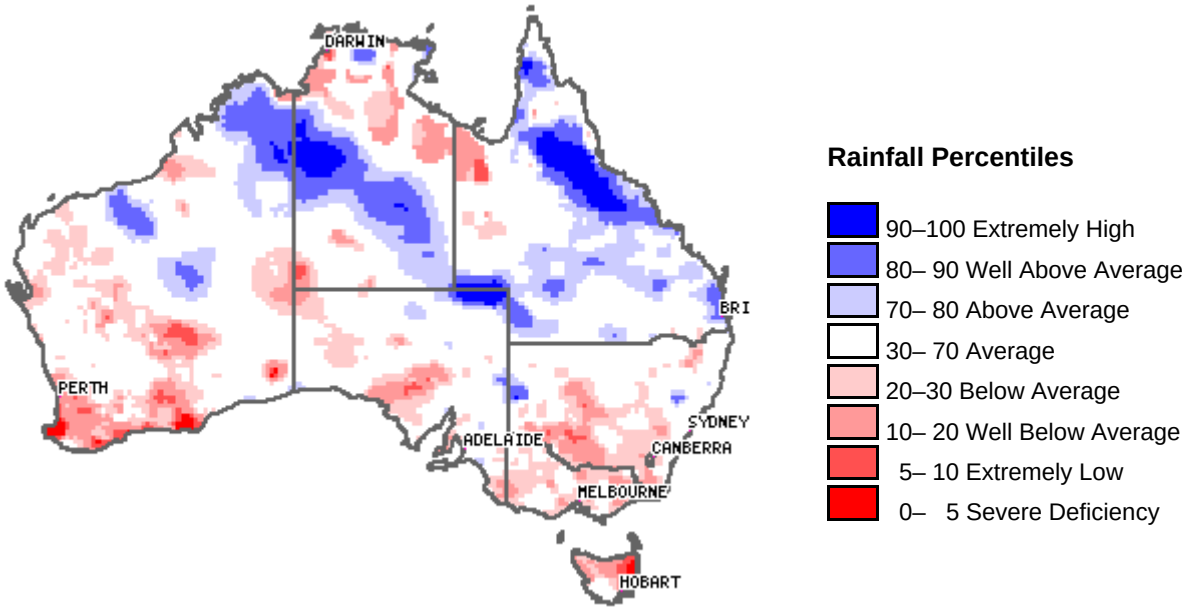

**Rainfall percentiles for August 2008.**

The total rainfall for Australia in August 2008 was 43 per cent below the long-term mean (1961–1990), making it the 14th driest August on record between 1900 and 2008.

August rainfall for the south-west of Western Australia (WA) was 77 per cent below average and the lowest on record for the region. Rainfall in Queensland, New South Wales (NSW) and Tasmania was generally below average to average. Rainfall in South Australia (SA) was generally average.

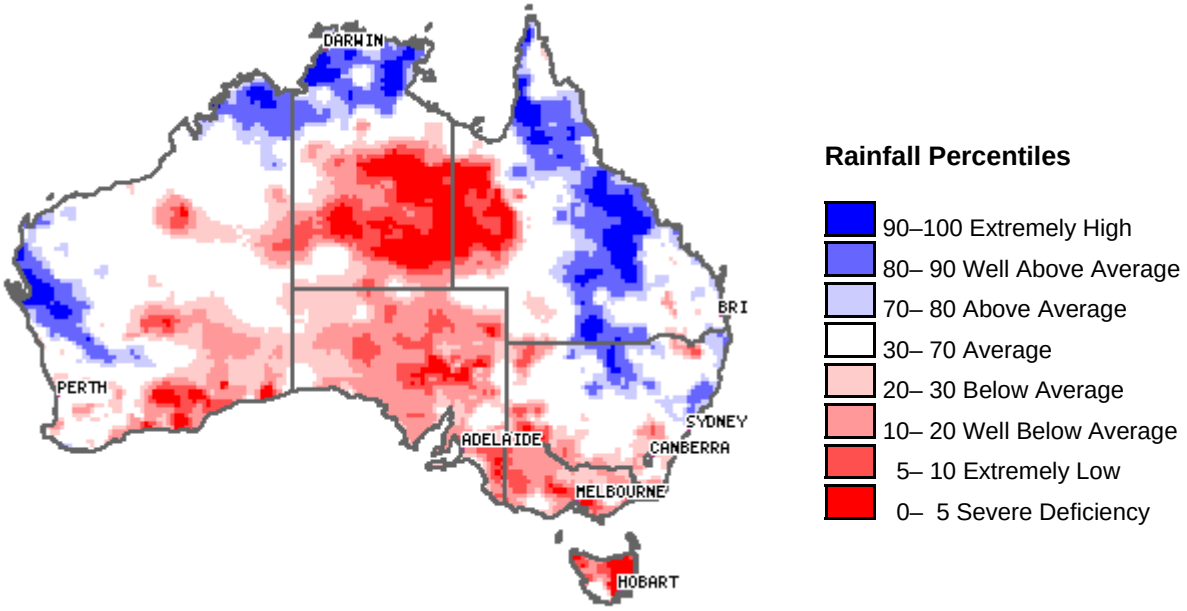
A rain event at the end of the month brought above average monthly rainfall to a band extending from the eastern Kimberley region (WA) through the southern Northern Territory (NT) into northern SA and the far south-west of Queensland. These are normally dry areas in August and the actual rainfall amounts involved were small (less than 10 millimetres (mm) in WA and 10–30 mm elsewhere).

## *Ongoing or emerging rainfall situations*




**Rainfall percentiles for the last three months**
**June 2008–August 2008 (Winter).**

Total rainfall from June to August was predominantly below average to average across the country. All states and territories had some areas in the lowest tenth percentile range. Above-average rainfall was recorded in a band extending from the north-east corner of WA, through central NT down to the SA and Queensland border. Rainfall was generally average to above average across Queensland.



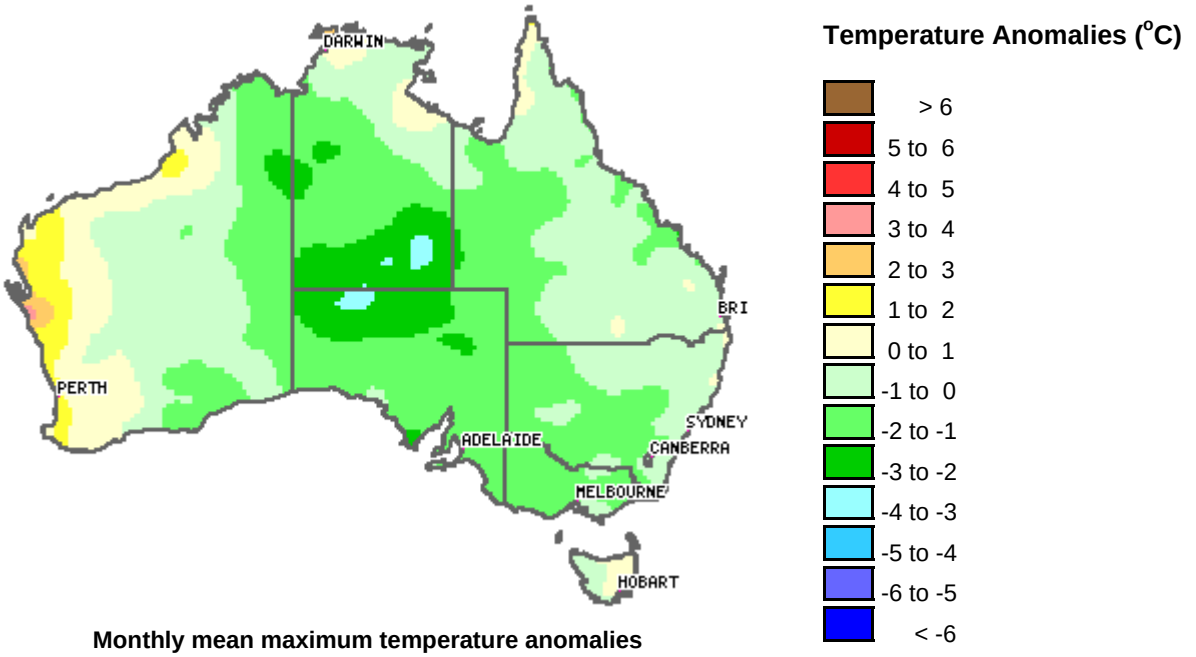

**Rainfall percentiles for the last 12 months**
**September 2007–August 2008.**

Rainfall deficiencies for the central and southern parts of the continent (including most of the agricultural districts) and in northern and eastern Tasmania were evident during the last 12-month period.

Much of Queensland and northern NSW did benefit from above average rainfall associated with the 2007–08 La Niña event.

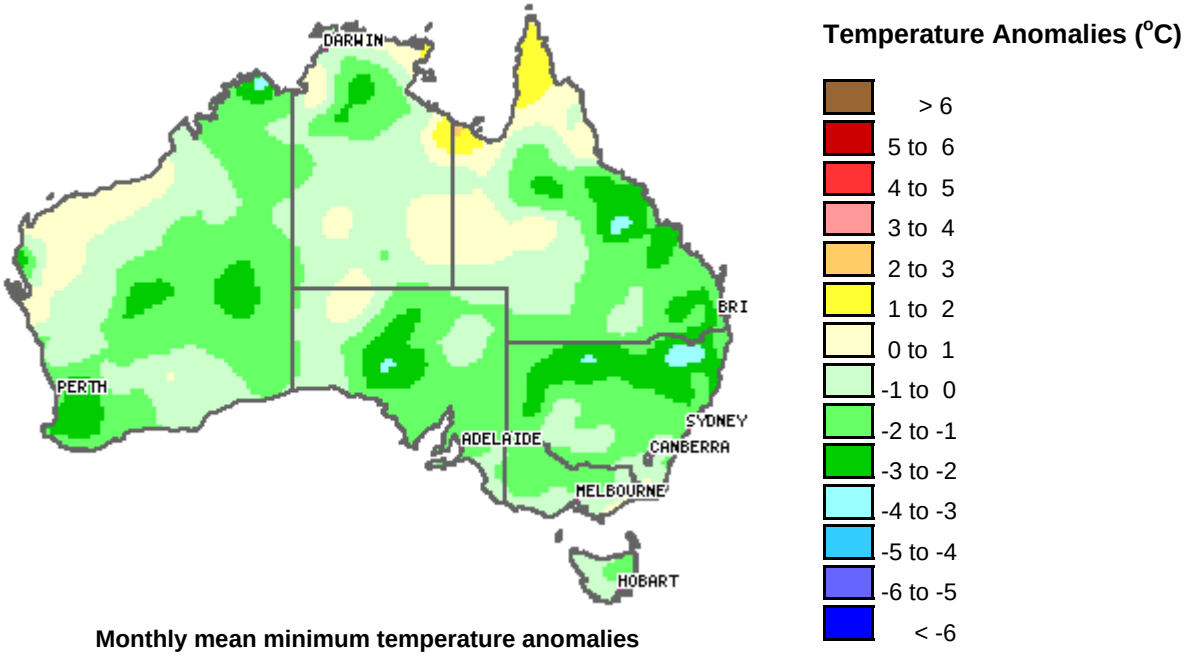
## 1.2 Maximum and minimum temperature anomalies

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 August 2008.**

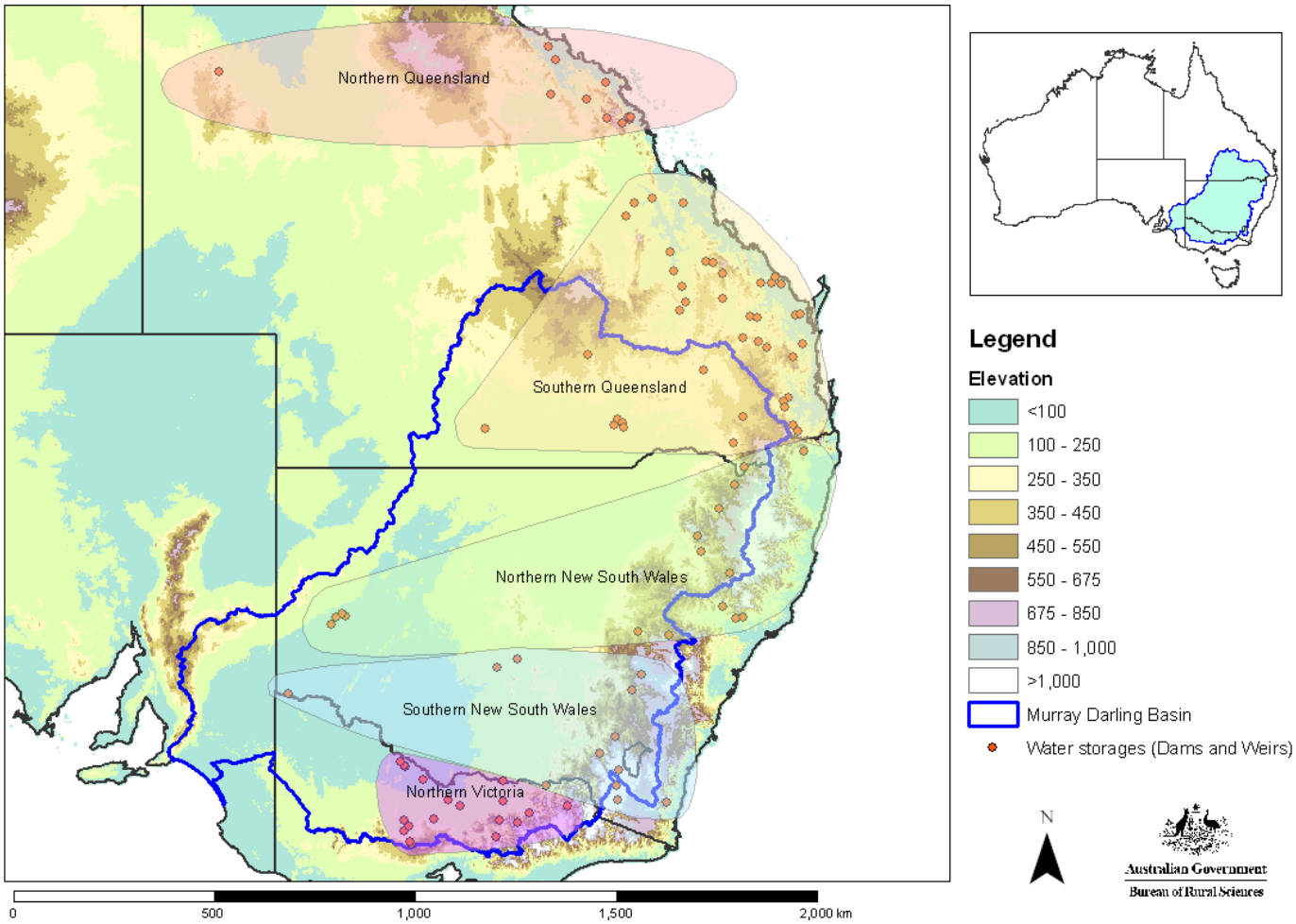
Maximum temperatures averaged over the continent were 0.8°C below the long-term average for August (tenth lowest of 59 years). Temperature maxima in central Australia were 3–4°C below average. In contrast, maximum temperatures were above average along much of the western coast (1–4°C), in eastern Tasmania and in areas of the northern coast, southern Queensland and coastal NSW (0–1°C).




**Monthly mean minimum temperature anomalies August 2008.**

Minimum temperatures were below average over much of Australia, with a national anomaly of –1.08°C (9th lowest of 59 years). Minimum temperatures were below average for all states and territories (averaged over area). Above average anomalies of up to 2°C were recorded in the northern Pilbara and western Kimberley regions of WA, northern and central west Queensland, and in all other states except Tasmania.

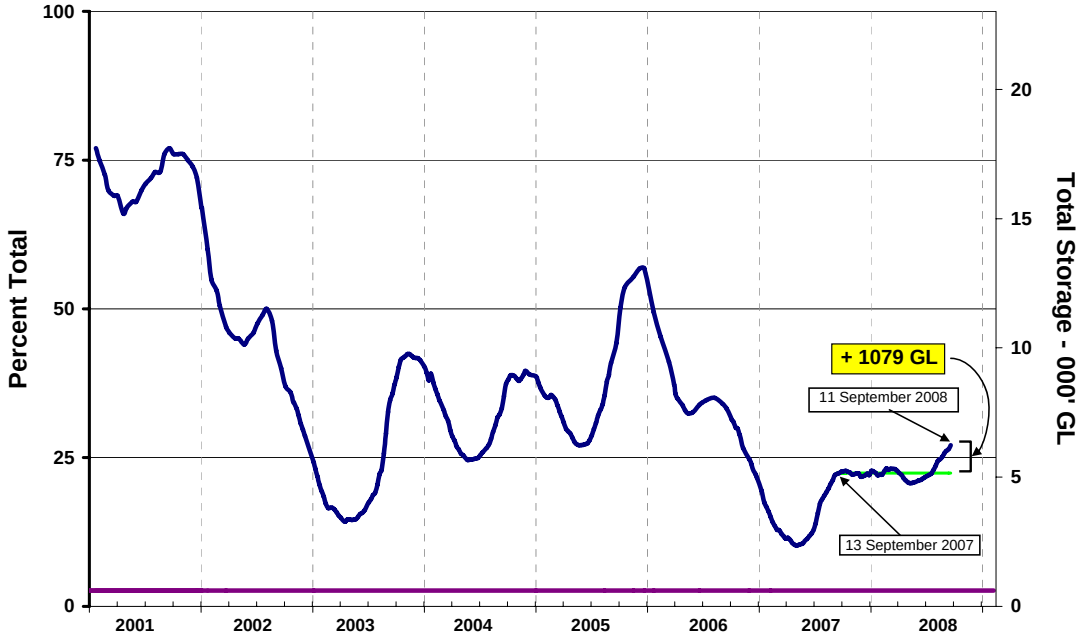
# 2.0 Water storages and announcements




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

## 2.1 Water storages (current to 11 September 2008)

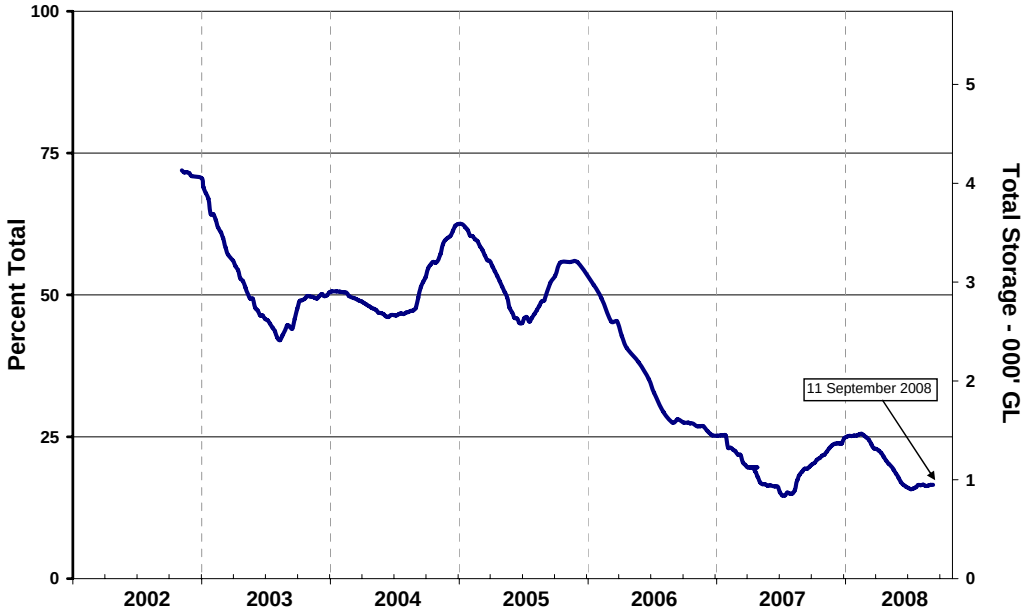
### *Water storage in the MDB (New South Wales, Victoria and Queensland)*




**Water storage levels in the Murray-Darling Basin from 1 January 2001 to 11 September 2008. The green line indicates the storage level at the same time last year. Source: Bureau of Rural Sciences.**

Over the past month storage levels within the Murray-Darling Basin (MDB) have increased, with inflows exceeding releases. At 11 September 2008 storage levels for irrigated agriculture were at 6235 gigalitres (GL) (27.1 per cent of a total capacity of 23 020 GL), an increase of 453 GL (2 per cent of total capacity) over the month. Current storage levels are approximately 1079 GL greater than at the same time last year.

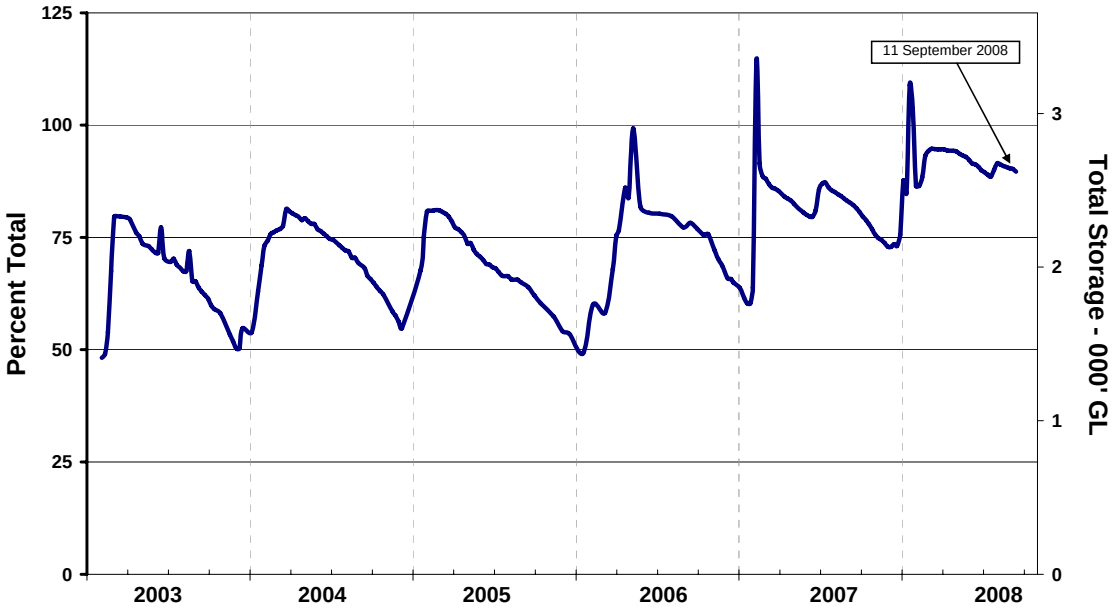
### *Water storage in the Snowy Scheme*




**Water storage levels in the Snowy Scheme from 6 November 2002 to 11 September 2008. 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. Current levels in the Snowy Scheme storages are 949 GL (16.5 per cent of a total capacity of 5744 GL) (see figure above).

## *Water storage in Queensland*



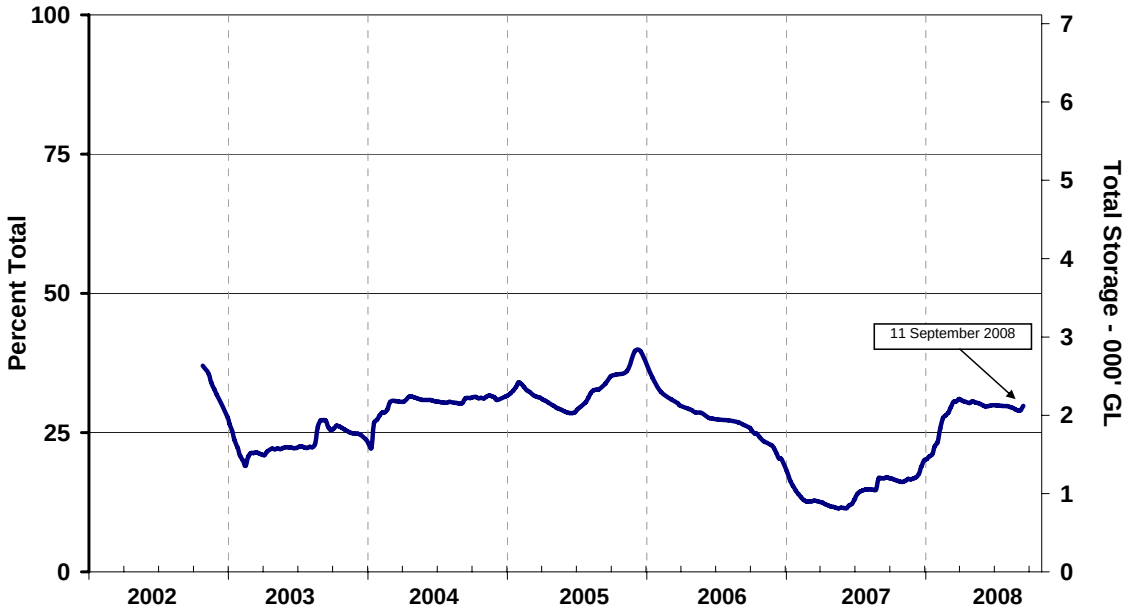

**Water storage levels in northern Queensland from 3 February 2003 to 11 September 2008.**
**Source: Bureau of Rural Sciences.**

Storage levels in northern Queensland decreased by 40 GL to 2868 GL (89.7 per cent of a total capacity of 3199 GL) over the last month (see figure above). This storage level is approximately 238 GL higher than at the same time last year.


**Water storage levels in southern Queensland from 3 February 2003 to 11 September 2008.**
**Source: Bureau of Rural Sciences.**

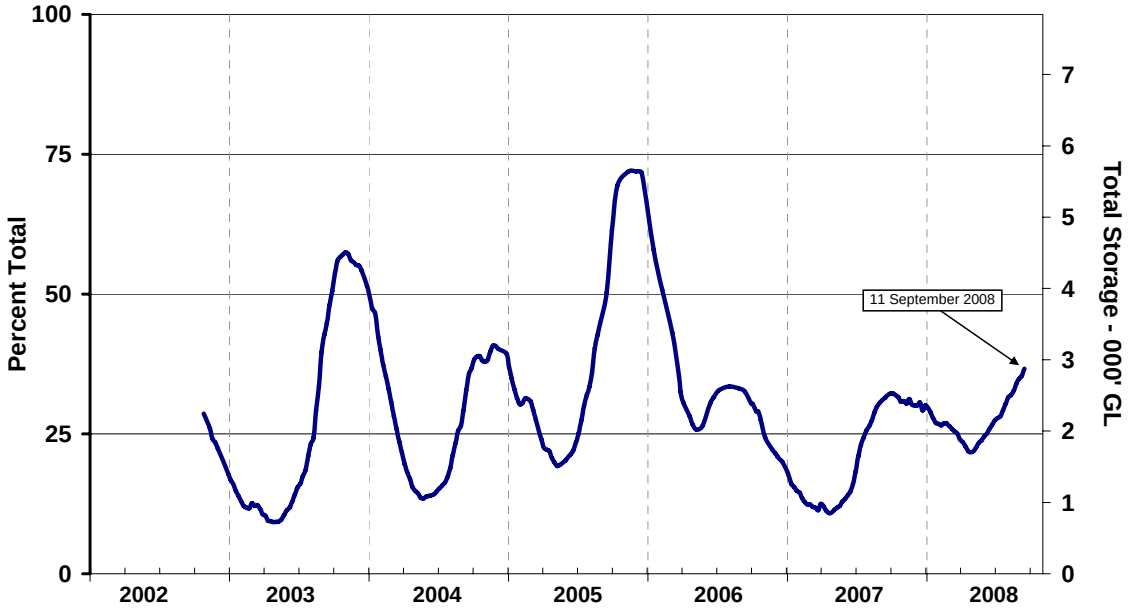
In southern Queensland storage levels increased by 1 GL to 2523 GL (60 per cent of a total capacity of 4203 GL) over the last month (see figure above). This storage level is approximately 1434 GL higher than at the same time last year.

## *Water storage in New South Wales*




**Water storage levels in northern New South Wales from 28 October 2002 to 11 September 2008. Source: Bureau of Rural Sciences.**

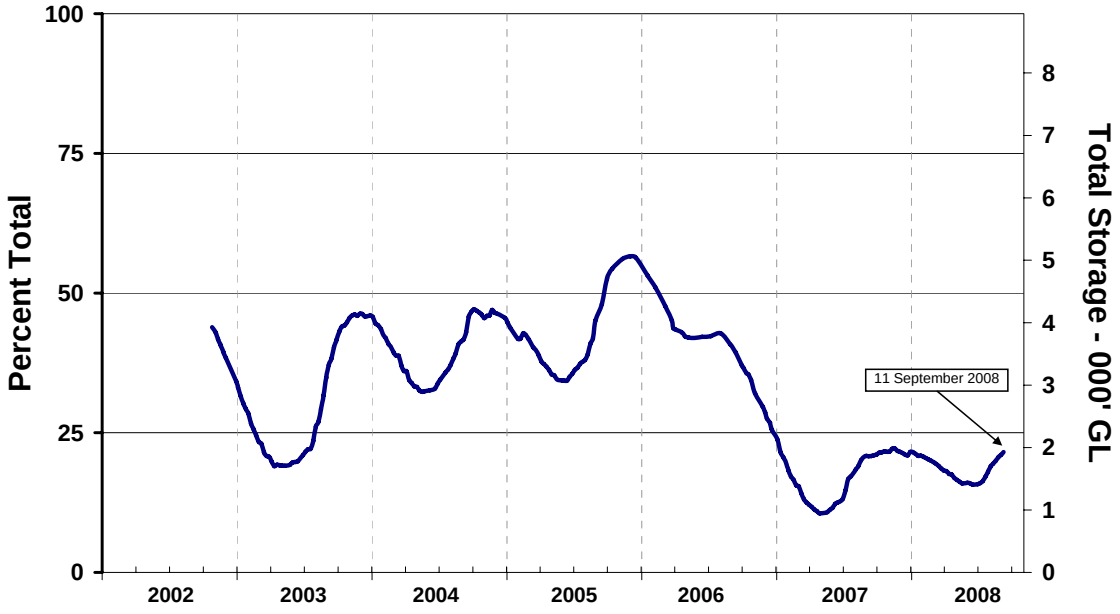
Storage levels in northern NSW increased by 26 GL to 2120 GL (29.8 per cent of a total capacity of 7114 GL) over the last month (see figure above). This storage level is approximately 923 GL higher than at the same time last year.




**Water storage levels in southern New South Wales from 28 October 2002 to 11 September 2008. Source: Bureau of Rural Sciences.**

In southern NSW storage levels increased by 311 GL to 2875 GL (36.7 per cent of a total capacity of 7844 GL) over the last month (see figure above). This storage level is approximately 409 GL higher than at the same time last year.

## *Water storage in Victoria*




**Water storage levels in northern Victoria from 28 October 2002 to 11 September 2008. Source: Bureau of Rural Sciences.**

Storage levels in northern Victoria increased by 190 GL to 1977 GL (22.1 per cent of a total capacity of 8950 GL) over the last month (see figure above). This storage level is approximately 112 GL higher than at the same time last year.

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.statewater.com.au/indexes/index.asp

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

## *Murray-Darling Basin update*

- Murray system inflows for August were about 275 GL. This inflow figure is less than a fifth of the long-term August average of 1550 GL. The combined inflow for the three winter months of 670 GL was the equal fifth lowest in 117 years of records.
- Total Murray-Darling Basin Commission (MDBC) active storage (excluding Menindee Lakes) is 1690 GL (or 20 per cent) which is similar to this time last year (1710 GL) but well below the August long-term average of 5600 GL. A further 500 GL is stored in Menindee Lakes (which remains under NSW control) some of which (about 220 GL) NSW plans to release into the Murray system between September and December 2008.
- Increased inflows saw storage in Dartmouth Reservoir increase by 40 GL during August to 770 GL (20 per cent of capacity). Storage in Hume Reservoir increased by 200 GL and is now 840 GL (28 per cent of capacity). Higher flows in the Kiewa River caused the flow at Doctors Point (near Albury) to rise from 1000 to a temporary peak of 3000 megalitres/day.
- All the water currently in storage and under Commission control is fully committed for critical human needs, individual carryover, announced allocations, and the river and storage losses that will occur while supplying this water. A total of 990 GL is currently committed to South Australia, of which about 350 GL is expected to pass through to the Lower Lakes. This volume represents about half the net annual evaporation for the Lower Lakes, so the water level in the lakes will continue to fall.
- Storage levels are also very low elsewhere in the Basin. The total volume of water in all Basin storages managed by the MDBC and State governments is about 5300 GL, or 23 per cent of capacity. In most valleys, the small volumes of water held in government storages are already earmarked for town water, stock and domestic supplies, carryover or to meet system losses. Storages in the Snowy Mountains (which are managed by Snowy Hydro) also remain at record low levels, similar to this time last year.
- The outlook for the Murray system remains serious. Critical human needs can now be met through to next winter but water available for irrigation remains very low. Prospects for the coming season are dependent on rainfall and run-off during spring. Water use is likely to be well below average and similar to the last two years. Even with above average rainfall in the coming months, inflows are likely to remain well below average because of reduced run-off.

For further information on the Murray-Darling Basin, go to:

Murray-Darling Basin Commission
http://www.mdbc.gov.au/

## 2.2 Water announcements

### *Announcements for New South Wales (current at 9 September 2008)*

- The Department of Water and Energy (DWE) announced on 1 September 2008 an increase in water availability for high security licence holders in the Murrumbidgee Valley to 60 per cent. High security allocation to Murray Valley users will remain on 25 per cent of entitlement.
- Allocation announcements at 9 September 2008 for the major water systems in NSW for the 2008–09 water year are summarised in the table below. Per cent changes in allocations over the previous month are indicated in the table.

| Water system | High Security Licences (%) | Change (%) | General Security Licences (%) | Change (%) |
|---|---|---|---|---|
| NSW Murray Valley | 25 | 0 | 0 | 0 |
| Murrumbidgee Valley | 60 | +30 | 0 | 0 |
| Lower Darling | 100 | 0 | 0 | 0 |
| Macquarie Valley | 100 | 0 | 0 | 0 |
| Hunter Valley | 100 | 0 | 100 | 0 |
| Lachlan Valley | 20 | 0 | 0 | 0 |
| Border Rivers | 100 | 0 | 0 | 0 |
| Peel Valley | 100 | 0 | 55 | +25 |

- Increases in water availability in the Murray and Murrumbidgee Valleys are chiefly the result of increased inflows in the Snowy Mountains. In the Murrumbidgee Valley, inflows were sufficient to increase water availability to high security users, while in the Murray Valley the additional water will enable a flush of fresh water to be released into the central Murray tributaries including the Wakool River and Niemur-Colligen systems. This flush will provide much-needed stock and domestic water and benefit the environment.
- Town water supply and stock and domestic allocations will continue on 50 per cent of entitlement for both the Murray and Murrumbidgee Valleys. General security licence holders in the Murray and Murrumbidgee Valleys will remain on zero per cent of entitlement. Rainfall and stream flows are well below the long-term average in most areas of the southern Basin and with the warmer, drier months approaching, contingency planning is continuing. Detailed information on water assessments in both the Murrumbidgee and Murray Valleys is available in DWE's Critical Water Planning communiqués, released on the fifteenth of each month.
- On 5 September 2008 DWE announced an increase in water availability for general security licence holders in the Peel Valley in northern NSW. Recent rainfall generated good inflows into Chaffey Dam, increasing the storage level to approximately 85 per cent of capacity and enabling more water to be made available for irrigation. The allocation for general security licence holders has been increased from 30 per cent to 55 per cent. Town water supply, high security and stock and domestic water users continue to receive 100 per cent of entitlement and DWE will continue to reserve water for town water supply in 2009–10.

## *Announcements for Victoria (current at 15 September 2008)*

- Goulburn-Murray Water (G-MW) announced the updated season allocations on 15 September 2008 (see below).

| Water system | High-reliability share (%) | Change (%) |
|---|---|---|
| Murray | 6 | +6 |
| Broken | 0 | 0 |
| Goulburn | 4 | +4 |
| Campaspe | 0 | 0 |
| Loddon | 0 | 0 |
| Bullarook Creek | 0 | 0 |

- On 15 September 2008 G-MW announced the first seasonal allocations for the Murray and Goulburn systems. The Murray system will receive an allocation of 6 per cent of high-reliability water shares (HRWS). The Goulburn system has an allocation of 4 per cent HRWS. The allocations for all other water systems in northern Victoria remain at zero.
- Isolated rainfall events have maintained low inflows during the last two weeks. These inflows have been sufficient to meet reduced system operating requirements and the announced allocations in both systems. The delivery of water systems allocations in the Murray and Goulburn systems will require carefull management to minimise operating losses, with some channels expected to remain below normal operating levels for much of the year.
- Allocations remain at zero in the Broken, Campaspe, Loddon and Bullarook systems. Inflows to these smaller systems have remained very low. The priority in these systems is to maintain supply of qualified essential needs through the year. Carryover water will be delivered wherever this is possible.
- These outlooks have been prepared using current inflow conditions and monthly inflow records from seasons with dry autumn and early winter conditions. The terms are defined as: *wet* (inflow volumes that are higher in one year out of every ten years), *average* (inflow volumes that are higher in five years out of every ten years) and *dry* (inflow volumes that are higher in nine years out of every ten years).

**Murray System (% of High-Reliability Water Share at Date Shown)**

| Inflow Conditions | 15 Oct 2008 | 15 Dec 2008 | 15 Feb 2009 |
|---|---|---|---|
| *wet* | 46 | 75 | 98 |
| *average* | 29 | 48 | 57 |
| *dry* | 8 | 12 | 20 |

**Goulburn System (% of High-Reliability Water Share at Date Shown)**

| Inflow Conditions | 15 Oct 2008 | 15 Dec 2008 | 15 Feb 2009 |
|---|---|---|---|
| *wet* | 36 | 88 | 100 |
| *average* | 20 | 45 | 53 |
| *dry* | 8 | 17 | 23 |

- By 15 October 2008, average inflows are expected to produce a seasonal allocation of 29 per cent of high-reliability water shares in the Murray system and a 20 per cent allocation in the Goulburn system
- By 15 February 2009, dry inflow conditions are expected to produce a seasonal allocation of 20 per cent of high-reliability water shares in the Murray system and a 23 per cent allocation in the Goulburn system.
- A repeat of the 2007–08 inflow conditions is expected to produce a seasonal allocation of 37 per cent of high-reliability water shares in the Murray system and a 34 per cent allocation in the Goulburn system.
- Goulburn-Murray Water will announce an update of seasonal allocations for all water systems on 1 October 2008.

## *Announcements for South Australia (current at 15 September 2008)*

- Minister for the River Murray Karlene Maywald announced on 15 September 2008 that River Murray irrigation allocations will increase from six per cent to 11 per cent and 100 per cent of carryover water will be available from 1 October 2008 as a result of small improvements in River Murray inflows during August.
- During August, 280 GL of water flowed into the Murray-Darling Basin, which was well below the long-term August average of 1550 GL. The marginally improved inflows into the basin have allowed this allocation increase.
- The Department of Water, Land and Biodiversity Conservation completed projections for flows to SA on 29 August 2008, based on data provided by the Murray-Darling Basin Commission. The projections show that, depending on how water is allocated by the end of March 2009, there is a 75 per cent chance that allocations will be 34 per cent and a 50 per cent chance that allocations will be 60 per cent.
- The next announcement regarding water resource availability will be on 15 October 2008 and subsequent announcements will be made of the fifteenth of each month, or the next business day.

For further information on water announcements, go to:

Murray-Darling Basin Commission
http://www.mdbc.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/

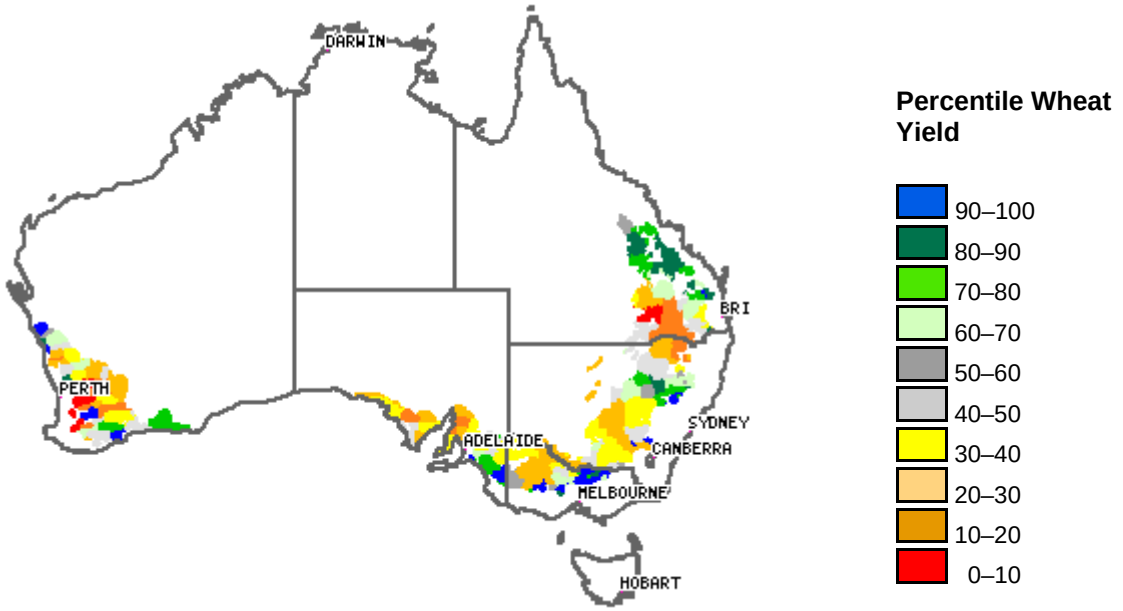
South Australian Department of Water, Land and Biodiversity Conservation
http://www.dwlbc.sa.gov.au/media.html

# 3.0 Crop and livestock production

## 3.1 Crops

### *Winter Crops*

Predicted median wheat yields are provided by the Queensland Department of Primary Industries and Fisheries. The following figure shows shire wheat yield forecasts across Australia as percentiles of a 105 year historic data set (1901 to 2005).




**Predicted shire wheat yields for the 2008 cropping season at 1 September 2008 ranked relative to all years (1901–2005).**

- Australia: The predicted median wheat yield at 1 September 2008 for Australia is 1.94 tonne/hectare (t/ha), which is below the long-term median of 2.07 t/ha. This represents a reduction of 0.07 t/ha on the August prediction. Predicted wheat yields are also slightly below the long-term average in NSW (2.06 t/ha), Queensland (1.30 t/ha), SA (1.74 t/ha), Victoria (2.13 t/ha) and WA (2.00 t/ha). These reductions are due to below average rainfall in August.
- Queensland: Close to average yields are forecast across most of the state's cropping regions, with some regional variation. Below average rainfall during August slightly reduced the yield expectation, especially for late-planted crops in the south-western cropping region. In southern Queensland, September rainfall will assist in the flowering and grain filling stages. In central Queensland, most crops have reached maturity and any further rain will have little impact on final yield outcomes (Queensland Department of Primary Industries and Fisheries, Seasonal Crop Outlook, Wheat – September 2008: http://www.dpi.qld.gov.au/cps/rde/dpi/hs.xsl/26_6256_ENA_HTML.htm).
- Victoria: Near to average rainfall for August has been sufficient for most crops and pastures across the state. Good crops are forecast in the Wimmera, north-central and north-eastern Victoria. A small portion of crops in the south-eastern Mallee has failed due to significant moisture stress in mid-August. Water logging is a problem in western and southern Gippsland where high rainfall has led to excessive soil moisture. Spring rains are still required to ensure the growth of pastures and crops across northern and western Victoria and for horticulturists in eastern Gippsland. Fruit crops in the northern irrigation district are at a critical time and lack of water over the next two weeks could impact negatively on production (Department of Primary Industries Victoria, Dry Season Conditions Report, 4 September 2008: http://www.dpi.vic.gov.au/dpi/nrenfa.nsf/LinkView/C9107D8E8FE1C2F7CA2574BF000FE25480FB9084EA64BEBFCA25748D000B218D/$file/_DSC%20Report%20_81%20Sep%204%20-%202008.pdf).

- SA: Growing season rainfall to date (April to August 2008) remains below average over much of western Eyre Peninsula, southern Yorke Peninsula and parts of the Mallee and South East districts. Nevertheless, stored soil moisture remains good in most areas and crops in most districts have good yield potential. Spring rains and ongoing mild temperatures will be needed to maintain growth. The total crop area is estimated to be 4.02 million hectares (Mha) with crop production currently estimated at 6.49 million tonnes (Mt) (Primary Industries and Resources SA, Crop and Pasture Report, August 2008: http://www.pir.sa.gov.au/__data/assets/pdf_file/0020/80660/aug08cpr.pdf).
- WA: Low August rainfall caused a reduction in yield estimates and relative yield ranking in some areas. The crop estimate at the 4 September 2008 remains near 10.9 Mt, comprising 7.05 Mt wheat, 2.32 Mt barley, 0.61 Mt canola, 0.44Mt lupins, 0.41 Mt oats and 0.07 Mt peas. Harvest estimates depend heavily on September rainfall, with many wheatbelt areas requiring good rain to maintain current yield potential (Department of Agriculture and Food Western Australia, Seasonal Update, August 2008: http://www.agric.wa.gov.au/content/LWE/CLI/SeasonalUpdateSep08.PDF).

## 3.2 Livestock

### *Beef cattle*

- Precipitation in the central, northern and western districts of NSW restricted the sale numbers at NSW centres. Yardings in NSW fell by 38 per cent (Meat and Livestock Australia, Market News, 2 September 2008: http://www.mla.com.au/TopicHierarchy/News/MarketNews/2008/Cattle+market+alert.htm).
- The trend estimate for beef production increased for the sixth consecutive month to 183 000 tonnes and was up 5 per cent compared to the same period last year (ABS 7218.0.55.001 July 2008).
- The trend estimate for cattle slaughterings increased for the sixth consecutive month to 680 000 and was 3 per cent higher than the same time last year (ABS 7218.0.55.001 July 2008).
- The seasonal peak in cattle prices has continued due to the combination of late August rainfall in central and southern Queensland, northern NSW and Victoria and a favourable exchange rate (The Land FarmOnline, 6 September 2008: http://theland.farmonline.com.au/news/nationalrural/livestock/news/rain-and-aussie-dollar-good-news-for-markets/1264469.aspx).
- The imported beef market in the USA remained steady. Australian beef exports to the USA during August experienced their seventh consecutive fall year-on-year, down 44 per cent to 13 432 tonnes (Meat and Livestock Australia, Market News, 5 September 2008: http://www.mla.com.au/TopicHierarchy/News/MarketNews/2008/Cattle+market+alert.htm).

### *Sheep and lambs*

- The trend estimate for lamb production decreased for the ninth consecutive month to 31 000 tonnes, down 14 per cent on the previous year (ABS 7218.0.55.001 July 2008).
- The trend estimate for mutton production decreased for the fourth consecutive month to 21 000 tonnes, up 11 per cent compared to same time last year (ABS 7218.0.55.001 July 2008).
- Sheep slaughterings in the eastern states for August increased by 68 per cent over the previous month. Lamb slaughterings also increased by 44 per cent over the previous month due to new season lambs in the market (Meat and Livestock Australia, Market News, 5 September 2008: http://www.mla.com.au/TopicHierarchy/News/MarketNews/2008/Cattle+market+alert.htm).
- Lamb slaughterings in August 2008 were distributed among the states as follows: Victoria (49 per cent); NSW (31 per cent); SA (17 per cent). These distributions have changed considerably since August 2007: Victoria (48 per cent); NSW (22 per cent); SA (29 per cent) (Meat and Livestock Australia, Market News, 5 September 2008: http://www.mla.com.au/TopicHierarchy/News/MarketNews/2008/Cattle+market+alert.htm).
- The seasonal peak in lamb prices has continued due to the combination of late August rainfall in central and southern Queensland, northern NSW and Victoria and a favourable exchange rate (The Land FarmOnline, 6 September 2008: http://theland.farmonline.com.au/news/nationalrural/livestock/news/rain-and-aussie-dollar-good-news-for-markets/1264469.aspx).

- Pasture growth in SA slowed in August due to the abnormally cold conditions. Paddock feed is adequate for stock requirements and will increase as temperatures rise during spring (Primary Industries and Resources SA, Crop and Pasture Report, August 2008: http://www.pir.sa.gov.au/__data/assets/pdf_file/0020/80660/aug08cpr.pdf).

- The wool market has risen strongly across all micron ranges and wool types in response to the depreciation of the Australian dollar against the US dollar. These gains have eased with the firming of the exchange rate (Australian Wool Industries Secretariat, Market Update September 2008: http://www.wool.com.au/Market_Information/Market_updates/Market_updates/page__9338.aspx).

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/

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/

# 4.0 Climate Outlook

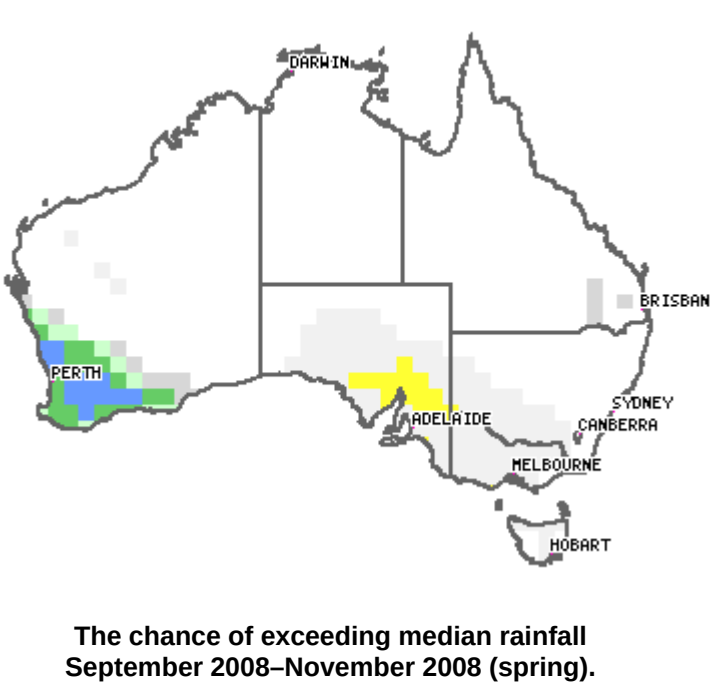
## 4.1 El Niño & Southern Oscillation Index

On 3 September 2008 the Bureau of Meteorology (BoM) reported that the El Niño – Southern Oscillation (ENSO) indicators remain in a neutral state. Over the previous three weeks a slight cooling occurred at the surface and in the central Pacific sub-surface. The cooling coincided with strengthening trade winds in the western equatorial Pacific. The 30 day SOI has risen to +9.

The Bureau of Meteorology advises that there is little potential for an El Niño in 2008. Climate model forecasts indicate that neutral conditions should persist until the end of the year. A weak positive Indian Ocean Dipole exists but is expected to dissipate over the coming months.

## 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. For further information on this rainfall outlook, go to http://www.bom.gov.au/climate/ahead/rain_ahead.shtml.

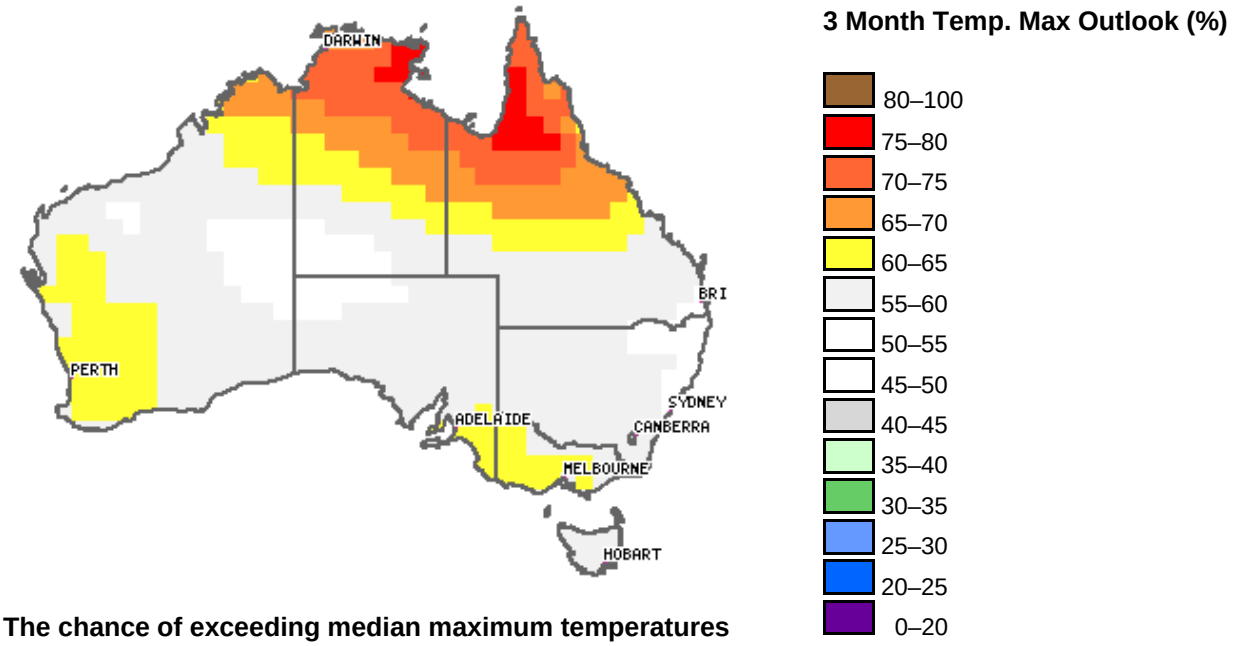



**The chance of exceeding median rainfall September 2008–November 2008 (spring).**

The outlook for total rainfall over the next three months (September to November) is neutral for most of the country. Above average rainfall is favoured for south-western WA. Below average rainfall is favoured for south-central South Australia. Over the remainder of the country, the chances of being wetter than normal are the same as being drier than normal.

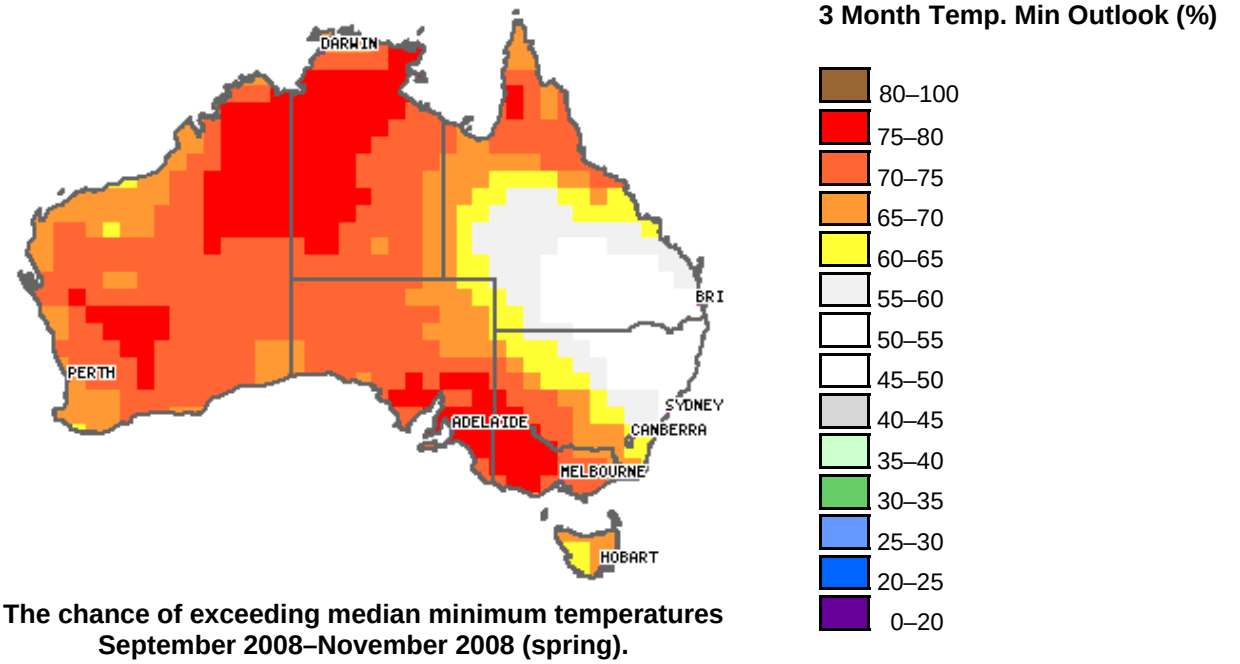
Confidence in these model predictions is better than average across most of Australia at this time of year.

## 4.3 Temperature Outlook




**The chance of exceeding median maximum temperatures September 2008–November 2008 (spring).**

There is a high chance (60 to 80 per cent) of exceeding the median maximum temperatures over most of the tropics during the next three months. There is a 60 to 65 per cent chance of exceeding median maximum temperatures in south-west WA and parts of southern Australia. The rest of the country has an even chance of exceeding median maximum temperatures (45 to 60 per cent). These temperature odds are mostly the result of continued warming in the central to south-eastern Indian Ocean, especially off the west coast of WA.




**The chance of exceeding median minimum temperatures September 2008–November 2008 (spring).**

There is a high chance (60 to 80 per cent) of exceeding the median minimum temperatures over most of Australia during the next three months. The exceptions are southern Queensland and northern NSW which have an even chance of exceeding median maximum temperatures (45 to 60 per cent). Historical records indicate that the oceans' influence on minimum temperatures from September to November is moderately to highly consistent over most of Australia. The effect over south-east and eastern Australia is only mildly consistent.

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