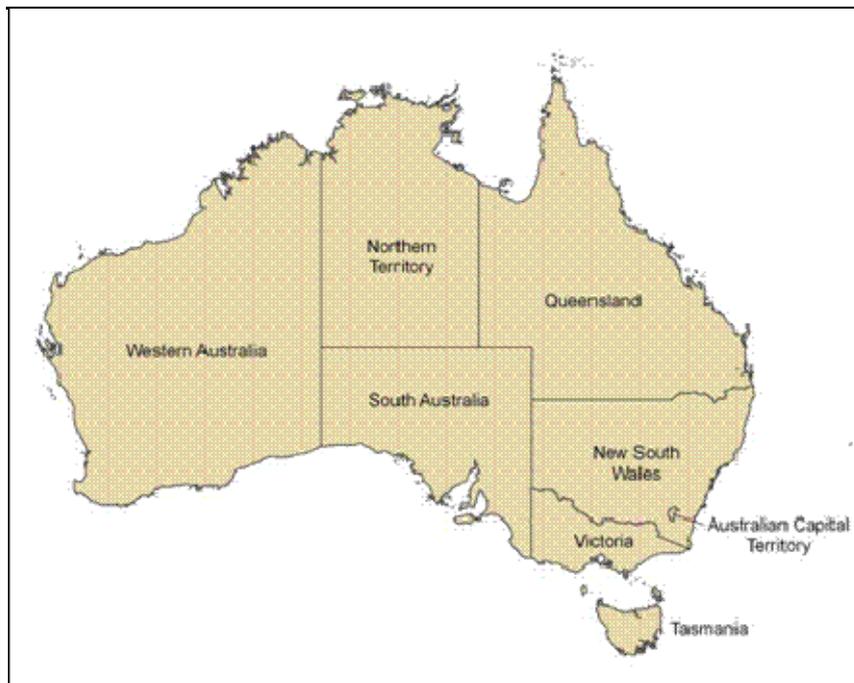




Climate and Agricultural Update

National Report

Issued April 2007



Copyright

Copyright Commonwealth of Australia (Bureau of Rural Sciences) 2007

Copyright in the material contained within the NAMS report vests in the Commonwealth of Australia. You may download, display, print and reproduce material from this report for your personal, non-commercial use, or use within your organisation. Apart from any use as permitted under the Copyright Act 1968, all other rights are reserved. Requests and inquiries concerning reproduction and rights in the NAMS report should be addressed to; The Secretary, Department of Agriculture Fisheries & Forestry, GPO Box 858, CANBERRA ACT 2601, AUSTRALIA.

Disclaimer

The National Agricultural Monitoring System (NAMS) is a decision making tool for Government and Industry bodies in evaluating the impact of climate on primary production, and is only one of a series of tools used in assessing such impacts. By accessing the information presented in this document the reader waives and releases the Commonwealth of Australia and other data contributors (see link to partners in the NAMS website) to the full extent permitted by law from all liability for loss or damage arising from the use of, or reliance on, such material, whether or not caused by any negligence on the part of the Commonwealth of Australia, other data contributors or their agents.

In particular and without limit to the generality of the above:

The quality of the data presented in this system cannot be guaranteed. This information should not be used by itself to support decision making; rather it is intended as context only for broader decision making processes

The Australian Government does not guarantee that this file is free from viruses.

Contacts

For further information visit www.nams.gov.au, or for enquiries/feedback relating to this report contact the NAMS helpdesk at NAMS@nams.gov.au.

Contributors

The information in this report was sourced from the following organisations:

ORGANISATION

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

TABLE OF CONTENTS

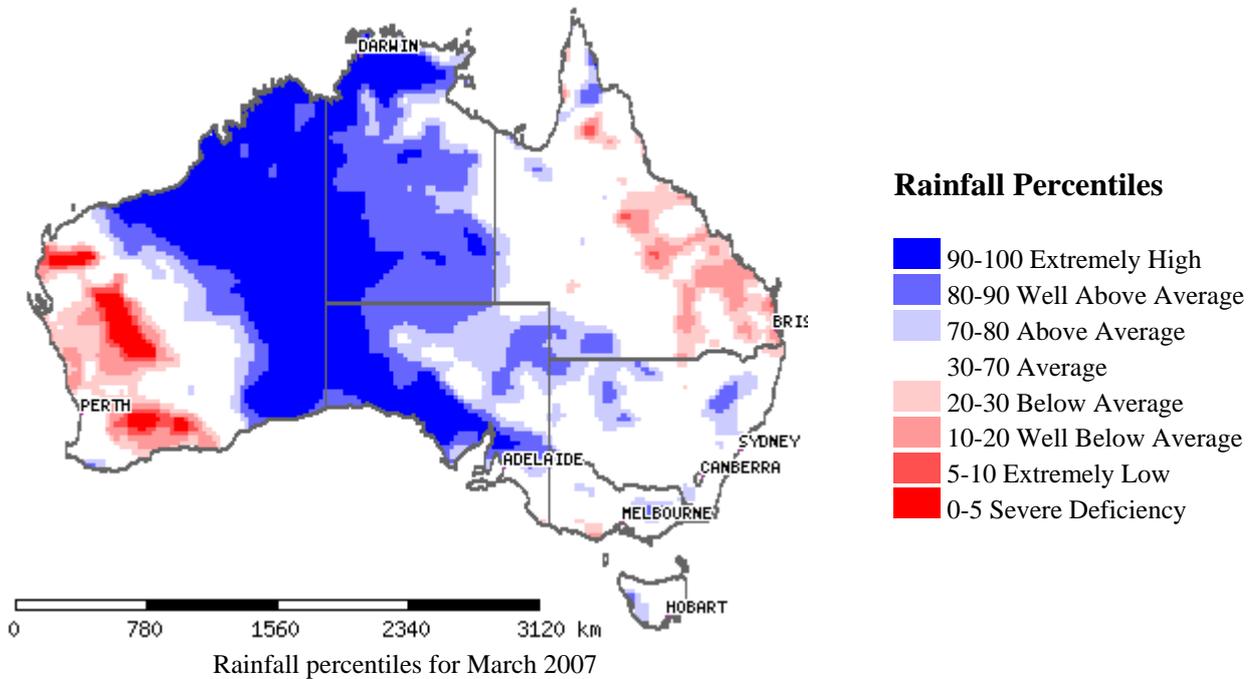
1. RAINFALL AND TEMPERATURE	5
1.1 Rainfall	5
<i>Rainfall over the last month (March 2007)</i>	5
<i>Ongoing or emerging rainfall situations</i>	6
1.2 Maximum and minimum temperature anomalies	7
2.0 WATER STORAGES AND IRRIGATION ALLOCATIONS	8
2.1 Water storages (current to 12 April 2007)	8
2.2 Irrigation allocations for the season	9
3.0 CROP AND LIVESTOCK PRODUCTION	11
3.1 Crops	11
3.2 Livestock	12
4.0 CLIMATE OUTLOOK	13
4.1 Rainfall Outlook	13
4.2 El Nino & Southern Oscillation Index	13
4.3 Temperature Outlook	14

1.0 Rainfall and temperature

1.1 Rainfall

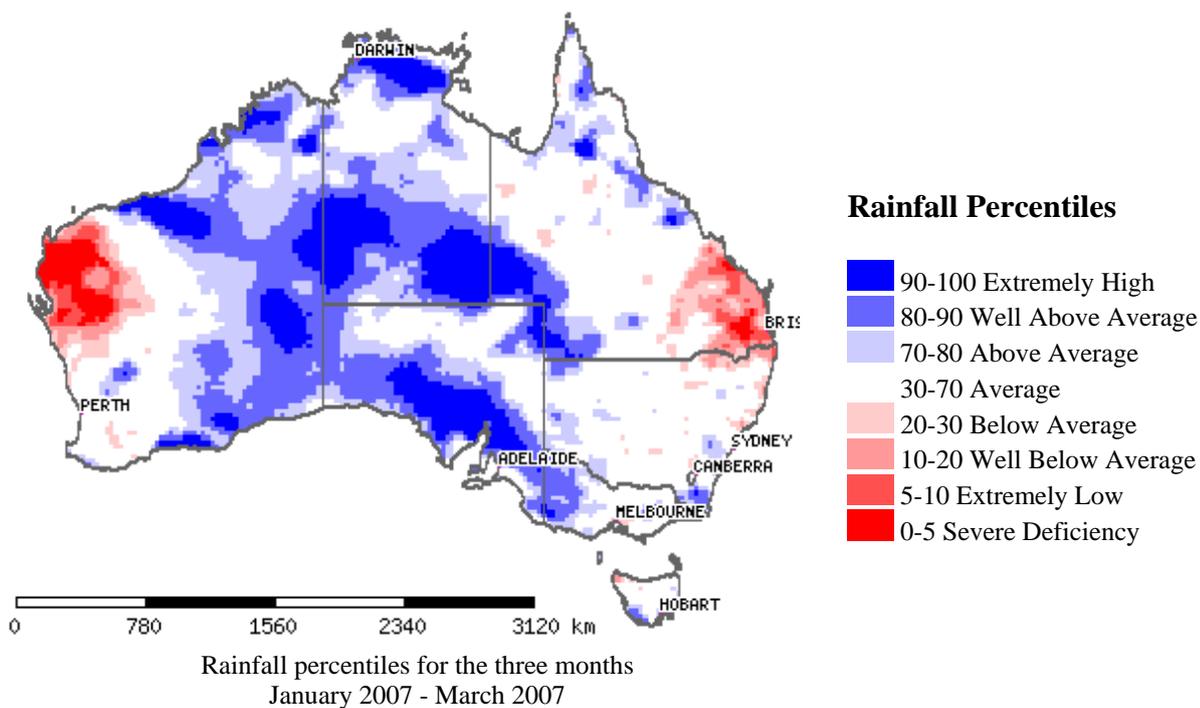
Spatial rainfall analyses are based on historical monthly rainfall data provided by the Bureau of Meteorology. For further information on rainfall data and the interpretation of percentile analyses, go to <http://www.bom.gov.au/climate/austmaps/>

Rainfall over the last month (March 2007)

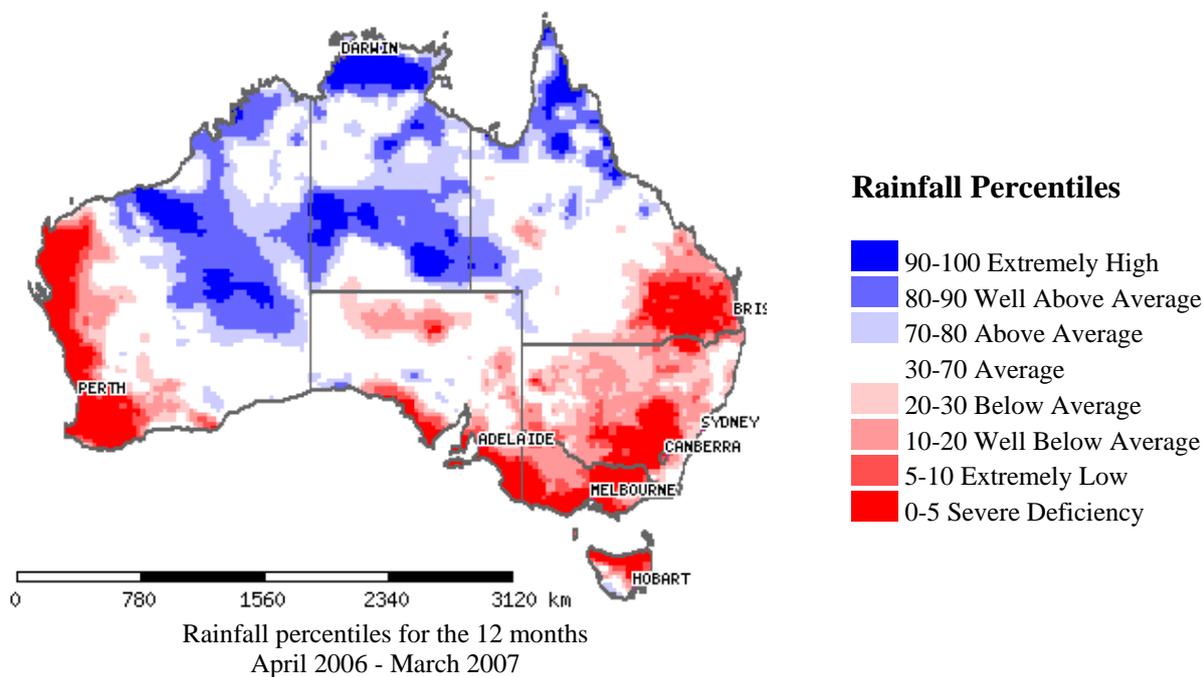


Rainfall in March 2007 was well above average to above average across much of north western and central Australia where numerous records were set. This was due largely to the influence of three tropical cyclones (George, Jacob and Kara). Rainfall over parts of the south east and central coast of Queensland, as well as south west Western Australia were below average to well below average, with some patches receiving rainfall in the lowest decile. Despite dry conditions in these areas, overall Australia was in its 10th wettest March on record.

Ongoing or emerging rainfall situations



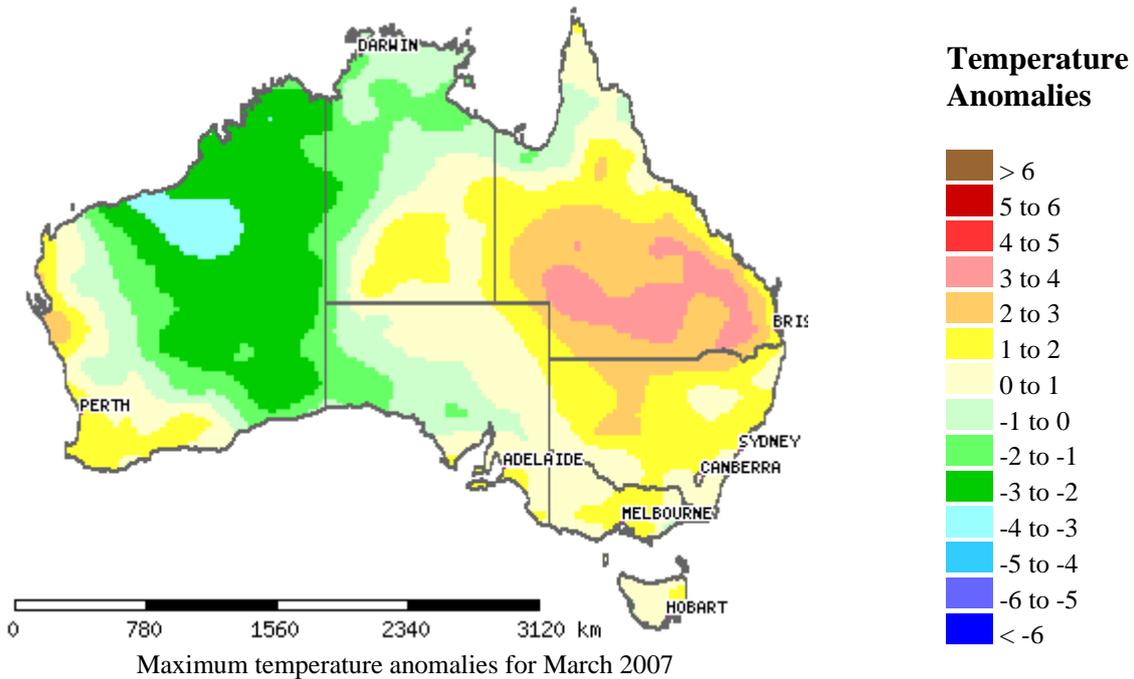
Rainfall in the past three months has been above average to well above average throughout the central part of the continent incorporating the eastern half of Western Australia, much of the Northern Territory and South Australia. This was largely due to rain associated with tropical cyclonic activity. In contrast south east Queensland and the central west coast of Western Australia received well below average to extremely low rainfall. The remainder of the continent, including the south east received mostly average rainfall. This reflects a general trend towards average to above average rainfall in early 2007.



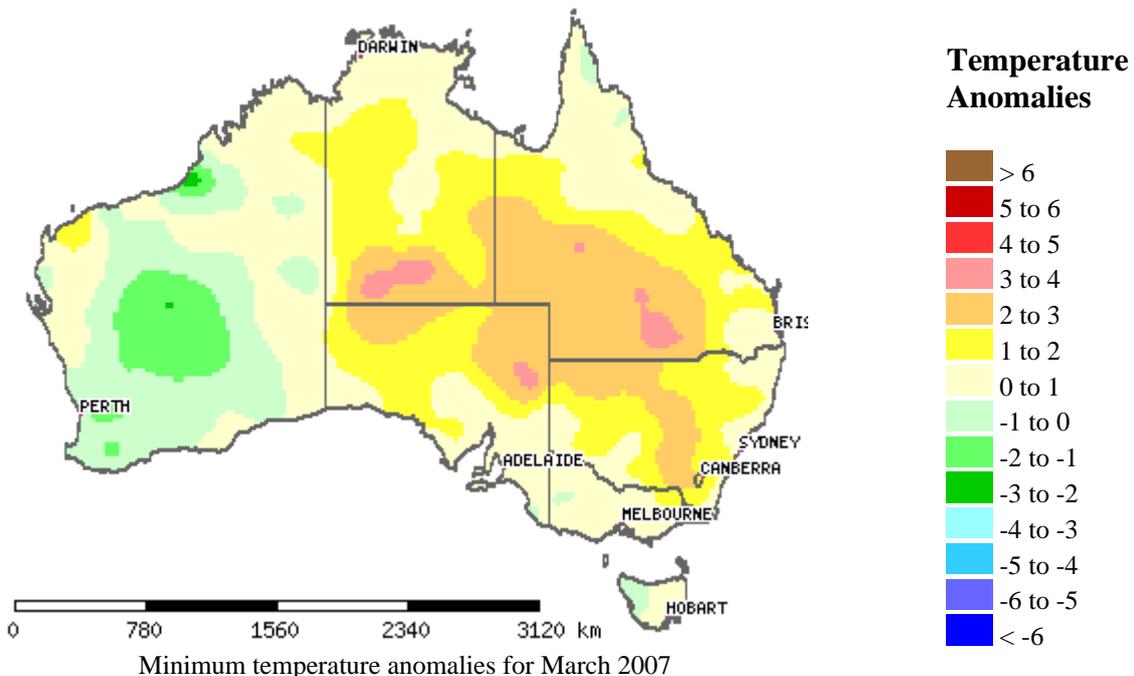
During the first three months of 2007 there has been some contraction in the area of Australia which is experiencing severe rainfall deficiencies and there has been a general trend towards average to above average rainfall. It will take a number of good seasons for large parts of southeast Australia to recover from their driest year on record during 2006 however. This is reflected in the rainfall percentiles for the past twelve months which show below average to severely deficient rainfall over much of southern Australia and the south west. In contrast, much of northern Australia and inland Western Australia have recorded above average to extremely high rainfall conditions at a 12 month time scale.

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 minimum 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/>



Maximum temperatures for March were well above normal over much of eastern Australia and along the west coast. Notably, much of central Queensland experienced anomalies between +2°C to +4°C whilst New South Wales and parts of Victoria experienced anomalies of between +1 and +2°C. In contrast it was a cooler than normal month across much of Western Australia, with record lows in the west Kimberley and anomalies between 0 and -4°C. Large parts of the northern Territory and South Australia were also cool, with anomalies between 0 and -2°C.

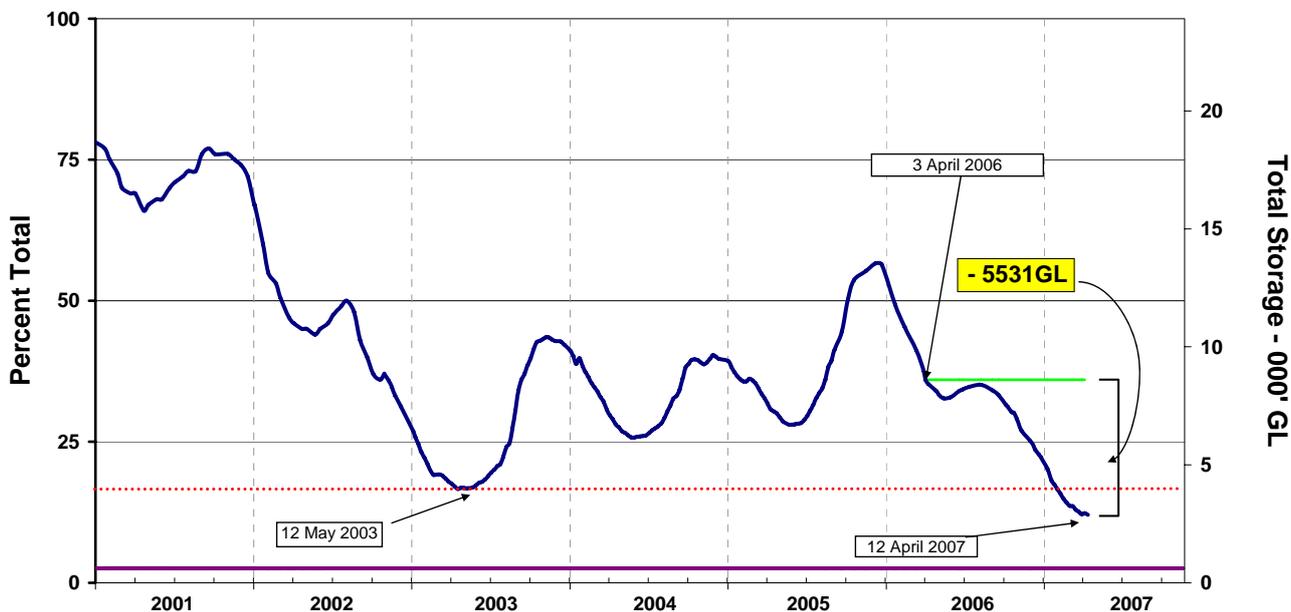


Minimum temperatures were above normal across a large part of the continent encompassing central Queensland, most of New South Wales, northern South Australia and the Northern Territory; with anomalies ranging from +1 to +4°C. This is reflected in a high national mean anomaly of +0.88°C, the eighth highest on record. In contrast a large part of Western Australia recorded lower than normal overnight temperatures, with anomalies ranging from -2 to 0°C.

2.0 Water storages and irrigation allocations

2.1 Water storages (current to 12 April 2007)

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



Irrigation water available in the Murray-Darling Basin from 1 January 2001 to 12 April 2007. The green line indicates the storage level at the same time last year. Source: Bureau of Rural Sciences.

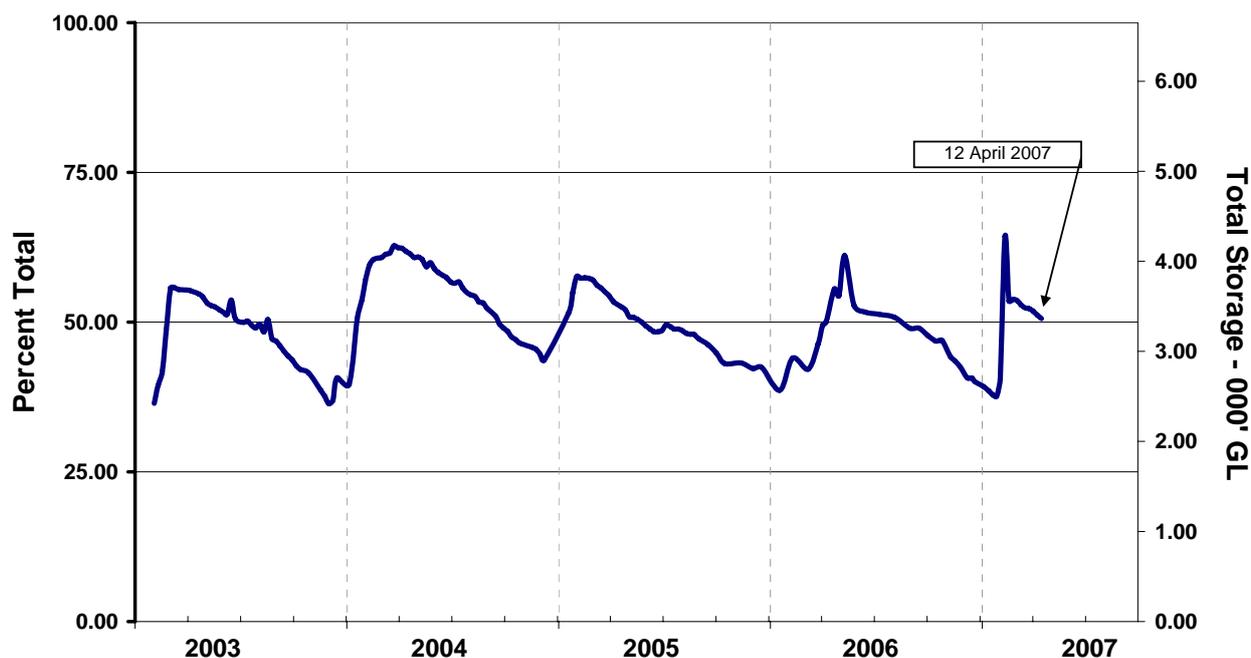
Over the past three months the storage levels within the Murray -Darling Basin have been declining.

April 2007 storage levels for irrigated agriculture were at 2,881 GL (12.05% of total capacity - 23,908 GL), a decrease of 219 GL (0.9% of total capacity) over the month. Allocations and storage levels are at record low positions for this time of the season due to poor rainfall and inflows last year.

Current storage levels are approximately 5,531 GL less than at the same time last year (a decrease of 23.1% of total capacity).

The Murray -Darling Basin storage levels above do not include the capacities of Lake Eucumbene, Tantangara Reservoir and Lake Jindabyne which are reserved for hydro-electricity generation and irrigation purposes. Current storage levels are 1,126 GL (20% of total capacity - 5,700 GL).

Water storage in Queensland



Current water storage level in Queensland as of 12 April 2007. Source: Bureau of Rural Sciences

April 2007 storage levels in Queensland decreased by 123.7 GL to 3,523 GL (50.6% of total capacity - 6,965 GL); this storage level is approximately 39 GL greater than at the same time last year (an increase of 0.6% of total capacity).

2.2 Irrigation allocations for the 2005/06 season

Allocation Outlook for Victorian irrigators in the 2006/07 season (current to 2nd April 2007)

- Goulburn-Murray Water announced updated water allocations and season extensions for all water supply systems on 2nd April 2007.
- The allocation for the Goulburn system has increased by 2% to 29% of Water Right and Licensed Volume since last month, with the season extended to close on 30 April 2007. The increase in allocation has resulted from the cumulative effects of better than forecast loss management following recent rainfall and minor inflows.
- The allocation for the Broken system has increased to 77% of Licensed Volume, an increase of 3% since last month. The increase was the result of light rainfall lowering demand and reducing losses in the system.
- Allocations for the Murray, Campaspe and Loddon systems remain unchanged from the previous month. The Murray system allocation remains at 95% of Water Right and Licensed Volume. The Campaspe and Loddon systems remain without allocation. Season closure dates for the Murray Valley and Torrumbarry gravity distribution systems are the 30 April and 23 April respectively to address the impacts of higher than expected losses.
- Unless otherwise stated the end of season date for all gravity irrigation areas will remain at 30 April 2007. The earlier decisions to shorten the irrigation season helped increase allocations when it was most useful to customers. Goulburn-Murray Water advises that there will not be further extensions to the end of season date for irrigation areas and that any additional resources will be used to increase allocations if possible.

The next allocation announcement is scheduled for Monday 16 April 2007.

Allocation Outlook for New South Wales irrigators in the 2006/07 season (current to 15 March 2007)

- The allocation for NSW general security water users in the Murray and Lower Darling valleys for the 2006-2007 season remains at 0%.
- The NSW Department of Natural Resources (DNR) have indicated there will be no change to allocations for water users in the Murrumbidgee Valley. High security allocations will remain at 90% and general security at 10%, following the re-crediting of 5% to high security accounts. There has been no significant rainfall in the catchments and inflows remained at minimal levels, but we are hoping for an improvement in conditions in the coming months.

For further information on irrigation allocations, go to:

Goulburn-Murray Water

http://www.g-mwater.com.au/news.asp?ContainerID=media_releases

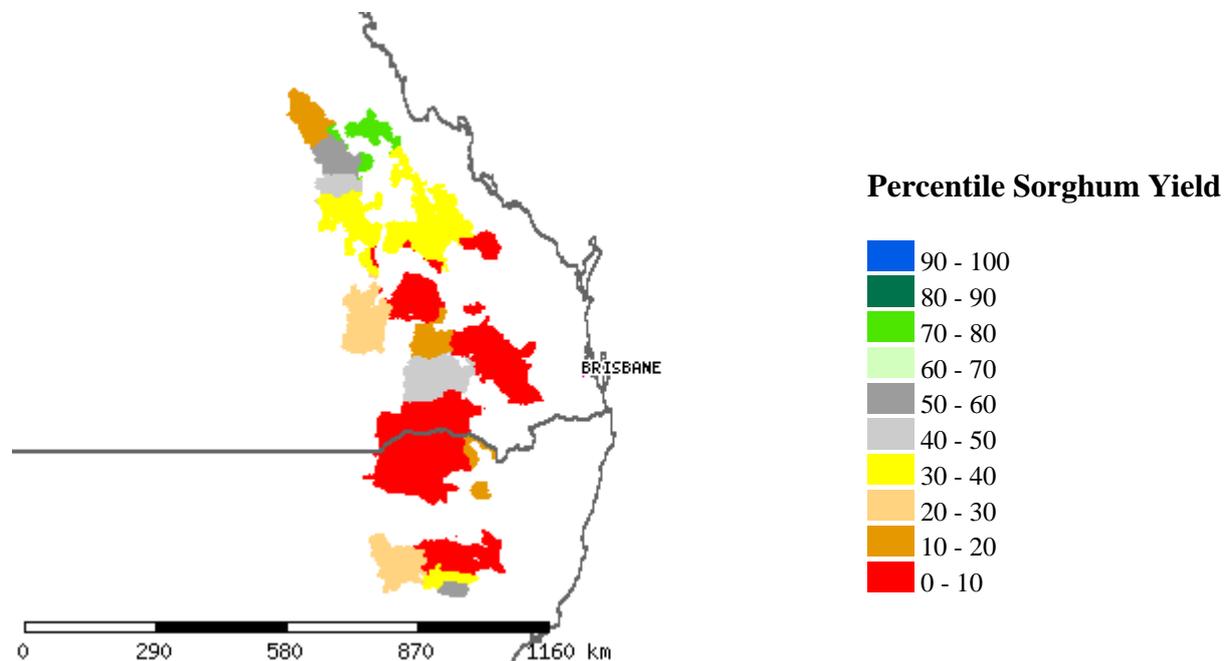
New South Wales Department of Natural Resources

http://www.naturalresources.nsw.gov.au/mediarelnr/mm20060418_3331.html

3.0 Crop and livestock production

3.1 Crops

Predicted sorghum yields are provided by the Queensland Department of Primary Industries and Fisheries. The following figure shows sorghum yield forecasts as percentiles of a 100-year historic data set. For further information on predicted sorghum yields, go to www.agric.wa.gov.au/.



Predicted shire sorghum yields for the 2007 cropping season ranked relative to all years (1906-2006)

Current predictions for shire level sorghum yields for the 2006/2007 growing season are generally below average to extremely low in the sorghum growing region of New South Wales and Queensland, and high average to above average in the northern sorghum growing region of Queensland.

3.2 Livestock

- The March quarter edition of Australian Commodities, released by the Australian Bureau of Agricultural and Resource Economics (ABARE), reported that the weighted average saleyard indicator price of beef cattle is forecast to increase by 10% in 2007-08. This projection reflects increased demand from re-stockers and forecast lower Australian beef production. Both factors are a result of the drought, with 2007-08 production constrained by lower overall cattle numbers, a reduced calf crop and the retaining of stock to build herd numbers. Slaughtering are forecast to decline by 3% (8.6 million), and production to fall by 2% to 2.1 million tonnes. Higher prices in 2007-08 are forecast to lead to a 3% fall in domestic consumption.
- ABARE has also reported that the Australian saleyard lamb and sheep prices are projected to increase in 2007-08, reflecting reduced supplies and the impact of the drought. ABARE forecasts Australian saleyard lamb prices to increase by around 14% in 2007-08, whilst sheep yard prices are forecast to increase by around 15%. Producers are expected to rebuild sheep flocks in 2007-08 contingent on a widespread break of the drought, and a continuation of favourable returns from wool. This is forecast to result in a decrease in the number of slaughtering of adult sheep in 2007-08. The number of lambs slaughtered in 2007-08 is also expected to decrease, due to lower ewe numbers coming out of the drought. This will be reflected in an increase in the price of lambs at the saleyard.
- On the 4th of April, MLA reported that Australian beef exports to Japan during February increased by 10% compared with February 2006 levels, to 25,620 tonnes swt. Imports to the US remained the same (1,641 tonnes), whilst imports into New Zealand and Canada were subdued at 2,517 tonnes (30% lower than last year) and 164 tonnes (215% up compared with February 2006, but 28% lower than January 2007), respectively.
- On the 5th of April MLA reported a 7% decrease in national cattle yardings for March when compared with February, or a 11% reduction in yardings when compared with the same time last year. Cattle throughput decreased in nearly all states across Australia with NSW and Tasmania recording the greatest percentage reduction. This can be attributed to a combination of current price levels, the extensive traditional offload during February, as well as scattered rain instilling producer confidence in the upcoming winter season. Queensland yardings went against this trend with a 25% increase on February numbers. Parts of Queensland, particularly the south are still in the throes of drought and are offloading stock as they enter their typically dry winter.
- MLA reported on the 4th of April, that Australian lamb production during February increased 11% on February 2006 levels, to 35,975 tonnes cwt, (according to the Australian Bureau of Statistics). The rise in production for the month was primarily due to increased slaughter levels and turnoff rates across the southern states, as scattered rains only provided limited relief to producers. Australian lamb slaughter for February jumped 11% on 2006 levels, to 1.7 million head, with the increase driven by a 25% rise in Victoria slaughter, to 797,000 head. Scattered rainfall during late February and early March has seen supplies tighten, with sheep numbers at MLA's NLRS reported saleyards during March falling back 14% nationally, 19% in NSW and 3% in Victoria. Sheep supplies will tighten further in coming months if seasonal conditions continue to improve, with producers holding onto existing breeding numbers in order to start rebuilding drought depleted flocks.
- On the 4th of April MLA reported that Australia exported 893 tonnes swt of lamb to Japan in March 2007 - 36% below the year ago level of 1,400 tonnes (according to the Department of Agriculture, Fisheries and Forestry figures). It is expected that 2007 may not see a repeat of the same intense demand that Australia experienced during 2006, however, some in Japanese trade expect a slow and gradual recovery of lamb consumption in coming months, especially of chilled products.

For further information go to:

Australian Bureau of Statistics
<http://www.abs.gov.au>

ABARE Australian Crop report and ABARE Australian Commodities forecast and issues
<http://abareonlineshop.com/>

Meat and Livestock Australia
<http://www.mla.com.au/>

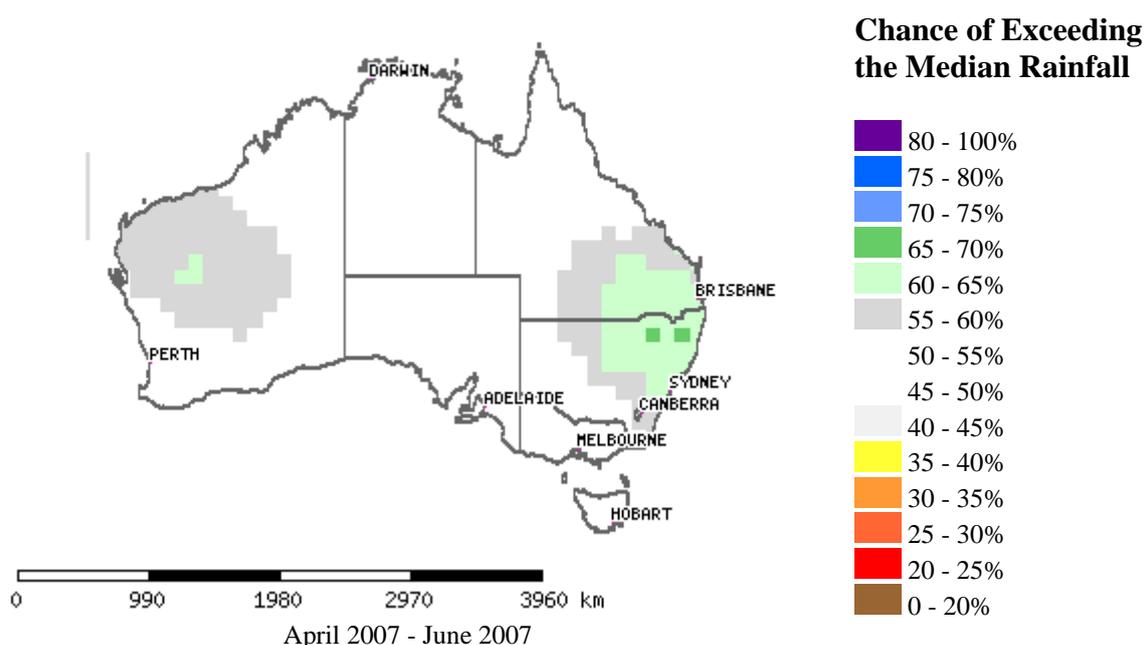
Department of Agriculture Western Australia
<http://www.agric.wa.gov.au/>

New South Wales Department of Primary Industries
<http://www.agric.nsw.gov.au/reader/nsw-grains-report-sept-2005>

4.0 Climate Outlook

4.1 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/temperatures and sea surface temperature records for the tropical Pacific and Indian Oceans. They are not, however, 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 between
01 April 2007 and 30 June 2007

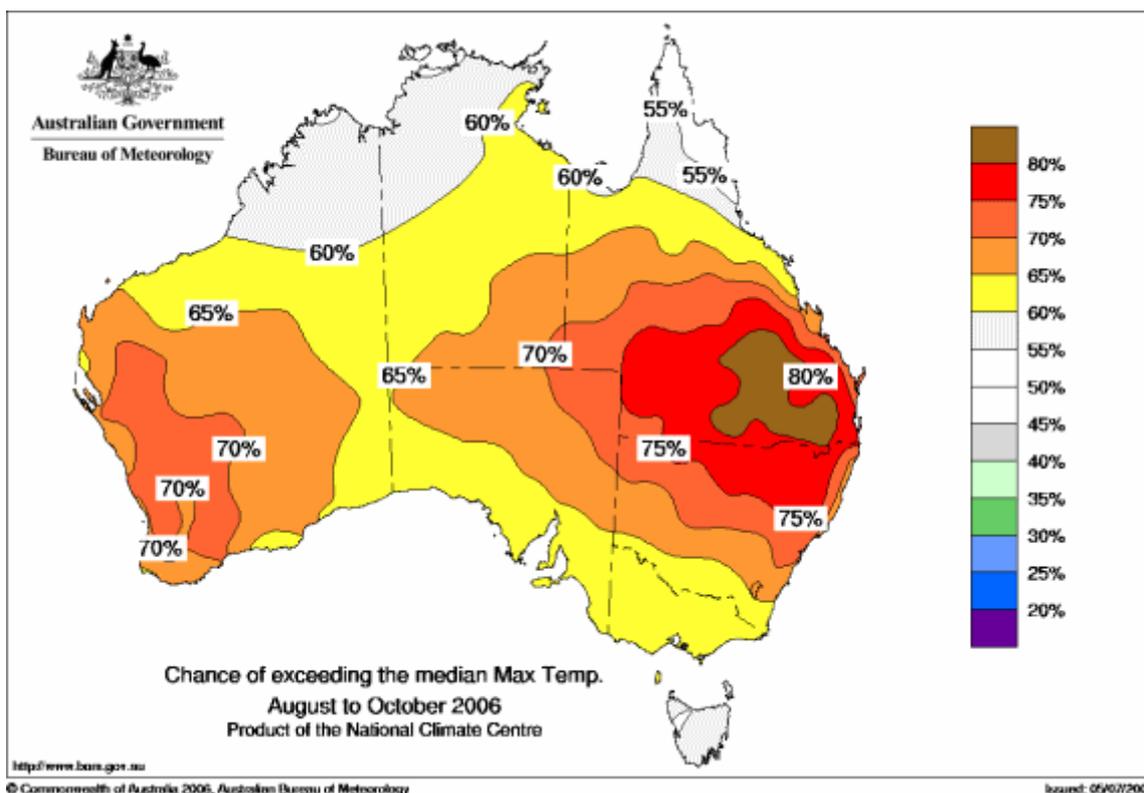
The national outlook for total rainfall during the period April 2007 to June 2007 shows a moderate trend toward above normal rainfall in south east Queensland and north east New South Wales. For the remainder of the country the chance of receiving at least average rainfall over the coming three months is approximately 50%. These trends reflect higher than average temperatures in the tropical/sub-tropical Indian Ocean as well as the equatorial Pacific Ocean.

4.2 El Nino & Southern Oscillation Index

- The Bureau of Meteorology reports that central to eastern Pacific temperatures have remained close to average during March, following the rapid cooling that took place in January/February 2007.
- Current indicators are in a neutral phase. The Trade Winds have mostly been close to or somewhat stronger than average in the western Pacific during February and March, the SOI has been neutral since November until end of March, and then declined to its 11th April value of slightly below minus 10. Cloudiness has shifted to the western Pacific being close to or slightly below average. There would now appear to be little chance of a return to El Niño conditions in 2007, with a continuation of neutral, or a switch to La Niña conditions, the more likely scenarios.
- The Bureau of Meteorology notes that, whilst a rapid cooling of the Pacific at the end of the El Niño would normally be associated with a return to more normal, or in some cases above normal rainfall patterns, it is unlikely such rain will be enough to make up for the long-term rainfall deficiencies experienced through eastern and southern Australia. This particularly applies to water supplies, which in some cases will require several years of average or above average rainfalls to recover to a satisfactory level.

- The Bureau of Meteorology reports that the chance of a La Niña developing in 2007 is thought to be higher than the long-term average (which is about one in five or 20%) because (a) they have a tendency to follow an El Niño; (b) the El Niño has decayed somewhat earlier than normal thereby giving time for a La Niña to begin developing during the critical March to June period; and (c) a large pool of cold sub-surface water remains in the central to eastern tropical Pacific Ocean and is starting to affect surface temperatures in the region. La Niña events are generally associated with wetter than normal conditions across much of the eastern half of the country from about autumn.
- CURRENT STATUS as at 28th March 2007
Next update expected by 25th April 2007 (four weeks after this update)

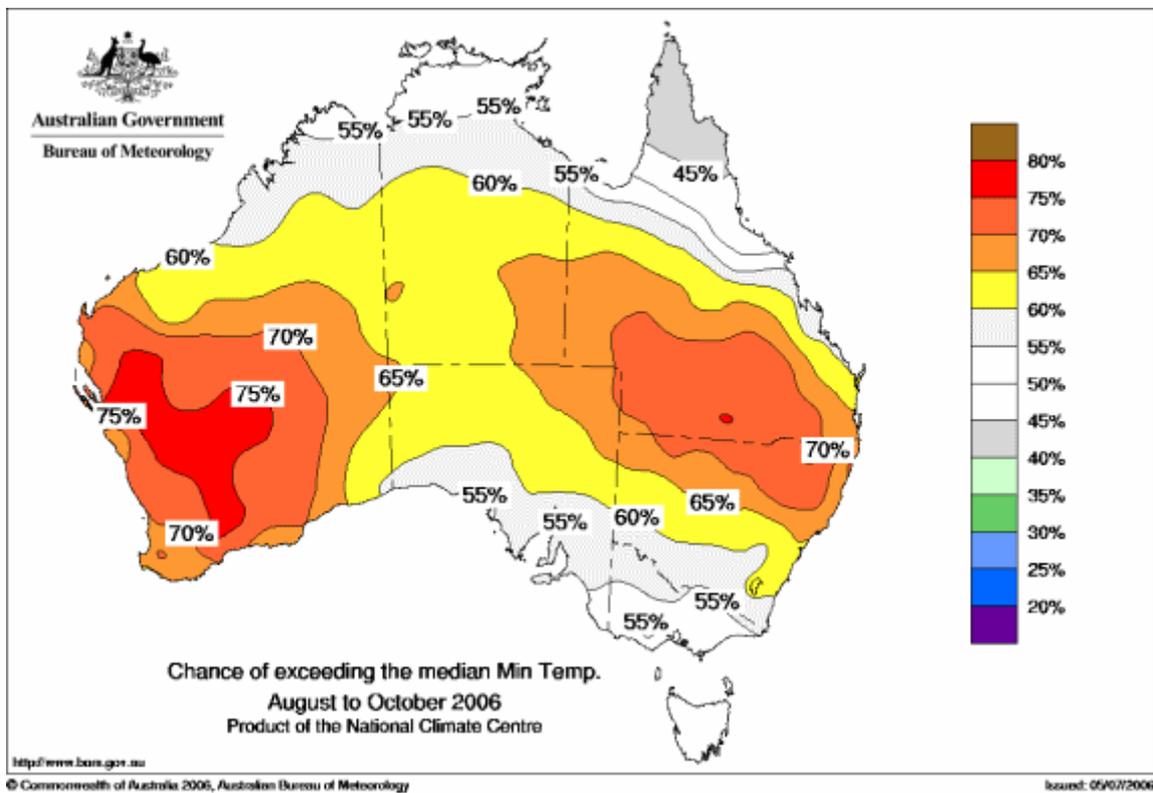
4.3 Temperature Outlook



The chance of exceeding median maximum daytime temperatures between
01 April 2007 and 30 June 2007

The temperature outlook for April to June shows an increased likelihood of above normal maximum temperatures across both northern Australia and western Western Australia. The pattern of seasonal temperature odds across Australia is due to higher than average temperatures in tropical areas of both the Pacific (dominating effect) and Indian Oceans.

Averaged over April to June, the chances are mainly between 60 and 80% for higher than normal maximum temperatures in the northern tropics. Within this region, the chances peak above 80% around parts of the Gulf of Carpentaria (see map). There is also a 60-70% chance of a higher than average seasonal mean in western Western Australia.



The chance of exceeding median minimum daytime temperatures between 01 April 2007 and 30 June 2007

The chances of seasonal minimum temperatures being higher than the median are between 60 and 75% over most of the country. Exceptions to this pattern are in southeastern Australia and southern SA where the outlook probabilities are in the neutral 50 to 60% range.

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