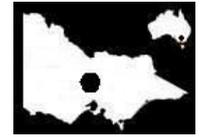


# THE SPRING FORECAST FOR CENTRAL VICTORIA 2009



As predicted by Kevin Long ph. 03 5441 2394

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## **RECENT DEVELOPMENTS IN THE GLOBAL CLIMATE DRIVERS**

During the first 8 months of this year, the El Nino part of our climate cycle slowly developed again. During mid-August, the peak of this El Nino cycle was observed and has been in decline since then. This gives us a good chance of seeing a partly developed La Nina cycle by the Winter of 2010.

For the third consecutive time, the development of the El Nino cycle has been minimized by **The Chinese Effect**, (i.e. the abnormally warm sea area north of New Guinea caused by Asian aerosol pollution).

*See more details of The Chinese Effect at: [www.thelongview.com.au](http://www.thelongview.com.au)*

Although the Chinese Effect has reduced in intensity this year (in accordance with its normal fluctuations), it's remaining energy was still strong enough to stop the full development of current El Nino cycle, as well as continuing to influence the cycle of the Indian Ocean Dipole (IOD).

In recent months the Indian Ocean Dipole returned to the neutral phase. However, the IOD is unlikely to enter the wet-phase for a sustained period due to the "moisture-robbing" forces of The Chinese Effect which has in recent weeks already intensified again. (See the current "sea surface temperature map" on the Long View website "Links Page" to monitor its intensity.)

With the temperature generally trending higher in the Northern Hemisphere compared to the Southern Hemisphere, north-flowing cross-equatorial winds are gaining strength, thereby carrying moisture and energy northwards. Currently the most obvious effects are hurricanes in the Northern Hemisphere increasing in number and intensity, and the cyclones in the Southern Hemisphere decreasing in number.

The end result of this process (i.e. climate change) is less overall rain in the Southern Hemisphere. This is especially so in the southern half of Australia. That is why the rainfall totals during the last four La Nina cycles (1996, 2000, 2003, 2007) have on average been reduced by 30% in Central Victoria.

## **A REVIEW OF WINTER AND THE YEAR SO FAR**

Winter started with a burst of wet weather (25<sup>th</sup> May to 15<sup>th</sup> July). That rain was stimulated by a medium-sized cell of above-average sea surface temperature just off the east coast of Queensland. In Central Victoria, small rains tallied up to about 140% of the average daily rainfall for that six-week period. That area of warm sea cooled in early-July and that rain-producing system shut down by 15<sup>th</sup> July. During the second half of Winter, the rainfall fell away, delivering only about 60% average daily Winter rainfall. Bendigo's Winter rainfall total was 181 mm (104% of the Winter long-term average). Total rainfall 1<sup>st</sup> January to 31<sup>st</sup> August at the Bendigo airport is 251mm (68% of average daily rainfall). All catchments have missed out on most of the good rain events so far. **Record low inflows have resulted.**

## **THE SPRING FORECAST**

Currently, small areas of warm sea anomalies to the north-west of Australia are encouraging. However, there are **no large areas of warm sea** in the right places to stimulate above-average rain.

Therefore I forecast that the below-average rainfall trends of the last decade will continue through this Spring. Given the current situation with the high-pressure cells and the weak cold fronts, only patchy rain can be expected during September. Jetstream moisture flows from the north-west will remain weak during Spring as they have been all year. Given the current conditions, we can expect about **60% of daily average rainfall** to continue for the rest of this year, resulting in most areas of Central Victoria receiving **about 330mm total**. Most irrigation systems will have close to zero allocation well into Spring, and likely the entire season.

During November, thunderstorms should become more active and produce the best rainfall totals for Spring. Cold water anomalies have been the dominant feature in the seas to the south of Australia this year. This condition is likely to produce blocking high-pressure systems in the Tasman Sea during Spring/Summer. Current conditions are similar to those which produced the high bushfire-risk of last Summer.

May the best of the remaining rain, fall on your land. Kevin Long.

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