



## SIGNIFICANT WEATHER – May 2009

### SUMMARY

A low in southwest Queensland together with a very strong high in the southern Tasman Sea brought gale to storm force east to southeast winds in Queensland. Flooding due to very heavy rainfall was reported in Queensland and New South Wales

### EAST COAST LOW

#### Queensland

Early on the 20th, an east coast low formed near Cape Moreton and moved slowly southwest over the Brisbane area. The low, in conjunction with a very strong high in the southern Tasman Sea brought gale to storm force east to southeast winds to the greater southeast area of Queensland. The Gold Coast Seaway recorded a wind gust of 117 km/h on the 20th, while Cape Moreton Lighthouse recorded 106 km/h. The low system generated very heavy rainfall over southeast Queensland.

A series of smaller lows impacted the coast and caused large seas. As a result, many beaches suffered from significant erosion, and local flooding of low lying areas occurred.

### THUNDERSTORMS/TORNADOES

#### New South Wales

On the 2nd a thunderstorm was recorded during the evening, which affected the south coast of Sydney. Small hail and flash flooding was reported in the Randwick area, associated with this storm. There were reports of local flash flooding (99mm of rain in 2 hours) and wind damage in the Narrabeen/Collaroy area. Caravans in the area were also damaged.

On the 4th there was a report of a water spout at Evans Head at approximately 3:30pm.

### WIND

#### Queensland

On the 20th a wind gust of 117 km/h was recorded at Gold Coast Seaway and a wind gust of 106 km/h at Cape Moreton Lighthouse.

#### New South Wales

On the 20th - 21st a series of small low pressure systems formed on the New South Wales/Queensland border on the 20th, causing strong winds. Thousands of homes lost power. Highest winds during the event were recorded at Byron Bay with a 133 km/h wind gust on the 21st. This is the strongest wind gust recorded at Byron Bay since records commenced in 2004. Other high gusts included; Yamba with 102 km/h and Evans Head with 98 km/h. The highest 10 minute average wind speed was 115 km/h at Byron Bay. This is the highest sustained wind speed recorded at Byron Bay since 1957.

#### Victoria

On the 14th, 15th and 16th a series of cold fronts moved across Victoria in a strong westerly flow. This resulted in strong wind gusts, particularly in coastal and alpine areas. Wilsons Promontory recorded wind gusts of 139 km/h on the 15th and 124 km/h on the 16th. On the 23rd gusty northerly winds developed ahead of a cold front. A wind gust of 96 km/h was recorded in the Grampians.

#### Tasmania

On the 16th a wind gust of 139 km/h was recorded at Cape Grim.

A series of active cold fronts crossed the state between the 14th and 17th, bringing heavy rain to the west and south, strong and gusty winds, large swells, and snowfalls to low levels.

Swells increased to over 6 metres in the south on the 16th, with 6.5 metres observed at Maatsuyker Island and 6 metres at Cape Bruny. The most damaging winds occurred on the morning of the 17th as a front crossed the state. Winds peaked at 124 km/h on Maatsuyker Island, 109 km/h in Hobart and 139 km/h at Droughty Point.

The winds downed trees over roads at Maydena, Miena and West Hobart, and extensive tree, shed and roof damage was reported at Lenah Valley and Mount Stuart. Some power lines were damaged, causing power outages at Cressy, Deloraine and Lenah Valley.

#### Western Australia

A strong cold front and deep low produced heavy rain, severe winds and abnormally high tides/beach erosion across the South West coast on the 21st and 22nd. Many sites recorded wind gusts above 90 km/h

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on both days. Damage consistent with the passage of a tornado was reported near Cranbrook on the 21st ahead of the front. Dust storms were reported ahead of the front in strong and squally northwest winds.

On the 21st a wind gust of 115 km/h was recorded at Rottneest Island.

### FLOODING

#### Queensland

Very heavy rainfall to parts of southeast Queensland resulted in flash flooding, and moderate to major flooding of streams between the Sunshine Coast and the Ipswich area. The 4-day rainfall totals to 9 am on the 22nd were generally between 200 mm and 400 mm, with some of the highest daily rainfall totals exceeding 250 mm across the Brisbane and Ipswich areas, including Godwin Beach with 332 mm and Beerburum with 301.8 mm.

A flood warning for coast streams between Noosa and Coolangatta commenced on the 19th, with a further flood warning commencing on the 20th for the Bremer River, Warrill Creek and Ipswich Creeks. Flood warnings remained in effect until the 22nd.

Major flooding was recorded in the Mooloolah River with minor flooding experienced elsewhere on the Sunshine Coast and adjacent Mary River tributaries.

Moderate to major flooding also occurred in Burpengary Creek in the Pine Rivers basin near Caboolture, with North Pine Dam quickly exceeding the full supply level. Significant flash flooding was recorded throughout the Brisbane suburbs, with moderate to major flooding occurring in Purga, Bundamba, Moggill and Breakfast Creeks. Some minor to moderate flooding occurred in the Stanley River about Wivenhoe Dam, and moderate to major flooding was recorded in the Bremer River and adjacent streams in the Ipswich area. Minor flooding was recorded in parts of the Logan-Albert Rivers and in some smaller Gold Coast creeks. Some minor to moderate flooding also extended across the range into the upper Condamine River, and to the Dumaresq and Macintyre Rivers on the Queensland and New South Wales border.

#### New South Wales

On the 20th an east coast low formed off the southeast Queensland coast on the 20th May. This low, coupled with a very strong high pressure system in the southern Tasman Sea caused gale to storm force east to southeast winds affect a large portion of the northern New South Wales coast. The system provided ideal conditions for very heavy rain over a large part of the northeast between the 19th and 23rd with particularly heavy falls on the 20th and 21st. Flood levels at Grafton and Kempsey, as well as

many other parts of the North Coast, were the highest since March 2001. Up to 35 000 people were isolated by floodwaters in towns and rural areas on the North Coast and Mid North Coast. There was one fatality where a body was found in a flooded creek near a submerged vehicle at Raleigh, near Coffs Harbour. The town of Bellingen was flooded for the 3rd time this year with earlier flooding in February and April. The Macleay River has also experienced flooding three times this year.

#### Tasmania

Heavy rain overnight on the 14th lead to minor flooding of the Huon River at Tahune Bridge. The river height peaked at 4.5 metres around 9 am. Over 200 mm fell at Mount Read over two days (see the rainfall section for more details).

### SNOW

#### Tasmania

Snowfalls descended to around 500 metres early on the 16th, and was even observed falling at Bothwell (350 metres above sea level).

### TEMPERATURE

**Note:** The record tables below are only shown for sites with 30 years or more of observations. (Northern Territory is 20 or more years).

#### Highest Mean Maximum Temperature for May

Station	Actual °C	Previous Highest °C	Year	Years of Record
<b>Western Australia</b>				
Perth Metro	24.4	24.0	2003	112
Bridgetown Comparison	22.7	22.6	1934	108
Donnybrook	23.0	22.4	2003	106
Dwellingup	21.4	21.0	2003	72
Manjimup	20.5	20.4	2003	70
Karnet	22.1	21.7	1996	44
Lancelin	25.5	24.6	2003	42
Jurien Bay	25.7	25.4	2002	40
Kalbarri	28.3	28.2	2006	36

#### Lowest Mean Minimum Temperature for May

Station	Actual °C	Previous Lowest °C	Year	Years of Record
<b>Western Australia</b>				
Eyre	6.2	6.4	2000	50
Wagin	6.1	6.4	1985	35

#### Lowest Daily Maximum Temperature for May

Station	Actual °C	Date	Previous Lowest °C	Year	Years of Record
<b>Northern Territory</b>					
Alice Springs Airport	9.6	30	10.5	1980	68
Kulgera	9.0	30	10.0	1990	28
Watarrka	12.0	30	12.4	2004	20

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## Highest Daily Minimum Temperature for May

Station	Actual °C	Date	Previous Highest °C	Year	Years of Record
<b>Victoria</b>					
Melbourne RO	18.0	25	17.1	1967	155

## Lowest Daily Minimum Temperature for May

Station	Actual °C	Date	Previous Lowest °C	Year	Years of Record
<b>Queensland</b>					
Palmerville	6.5	22	7.8	1896	56
Lockhart River Airport	11.5	23	13.3	1965	44
Weipa	12.7	23	15.0	1960	30

Croydon Council Depot	17.6	21.9	2005	43
Dandenong	16.4	23.8	1990	42
Warrandyte	17.8	19.2	2005	42
Fernbank (Town)	7.6	8.8	1976	41
Burrowye Station	0.2	3.4	2005	40
Rockbank (Melton)	7.9	7.9	1976	40
Reefton (Upper Yarra Dam)	17.8	19.4	1991	37
Glen Waverley Golf Course	16.0	19.2	2005	36
Hawthorn Scotch College	12.4	14.4	1984	35
Vermont Transport Research	16.5	26.4	2001	34
<b>South Australia</b>				
Blinman (Wirrealpa)	0.0	0.0	2006	132
Courela (Lindarnoe)	7.6	7.8	1972	42
Ceduna (Uworra)	5.2	7.6	1996	37
<b>Western Australia</b>				
Salmon Gums Res Stn	1.6	2.1	1964	78
Jerramungup	4.6	9.5	1983	44
Oldfield	18.4	19.4	1991	35
Munglinup Melaleuca	9.4	10.4	2002	33

## RAINFALL

**Note:** The record tables below are only shown for sites with 30 years or more of observations. (Northern Territory is 20 or more years).

## Highest Monthly Rainfall on Record for May

Station	Actual mm	Previous Highest mm	Year	Years of Record
<b>Queensland</b>				
Carawatha	256.4	225.2	1996	97
Beerburum Forest Station	567.8	478.6	19.3	60
Highvale	322.6	318.8	1980	42
<b>New South Wales</b>				
Ebor (The Racecourse)	592.5	447.6	1996	76
Yarrowitch (Maretto)	286.0	264.0	1977	50
Girralong	547.6	632.0	1996	34
Ebor (Maplewood)	653.5	497.2	1996	30
<b>Northern Territory</b>				
Nhulunbuy DTW	405.4	319.6	2004	36
Alyangula Police	143.9	126.4	1990	32
Cape Wessel	594.4	257.8	2000	20

## Lowest Monthly Rainfall on Record for May

Station	Actual mm	Previous Lowest mm	Year	Years of Record
<b>New South Wales</b>				
Jindabyne (Lynwood)	2.4	3.8	1976	95
Woolomin (Culwulla)	0.0	0.0	1984	56
Willow Tree (Cooinda)	0.0	0.0	2006	55
Ganmain (Rosedale)	3.2	4.2	2005	41
Ingebyra (Grosses Plains)	10.2	10.6	1976	38
Mitchell (Exhibition Park)	0.0	0.0	2005	37
Alectown (Goonahra)	0.0	0.0	2005	36
Euberta (East View)	3.4	4.2	2006	36
Gowrie (Lallybroch)	0.0	6.0	1975	35
<b>Victoria</b>				
Mitcham	12.6	18.8	1947	73
Scoresby Research	12.4	16.2	2005	58
Rokewood (Wurrook South)	5.0	8.6	1976	53
Gellibrand River Forestry	12.8	23.6	1996	51
Koo Wee Rup (SRW)	16.6	20.3	2005	51
Erica (Parkers Corner)	19.2	19.6	2001	46
Erica (Philips Bridge)	15.4	15.4	2001	45

## Highest Daily Rainfall on Record for May

Station	Actual mm	Date	Previous Highest mm	Year	Years of Record
<b>Queensland</b>					
Texas PO	58.6	22	52.1	1921	113
Alderley	206.2	21	193.2	1996	103
Carawatha	156.0	22	78.2	1980	97
Mt Brisbane	147.0	20	99.4	1996	97
Peacheater	207.0	20	182.0	1996	93
Lake Manchester	187.0	21	120.0	1996	92
Pechey Forestry	113.6	20	95.6	1996	83
Ourigilla	80.4	20	75.4	1983	74
Somerset Dam	147.6	20	121.2	1996	72
Amberley AMO	142.2	21	121.0	1980	68
Meandarra PO	105.8	20	95.3	1938	68
Beerburum Forest Stn	301.8	20	203.2	1903	63
Wamuran	264.7	20	177.7	1996	54
Glenaven	96.8	20	72.8	1996	48
Ballandean PO	79.2	22	60.6	1980	43
Namarah	74.8	20	68.4	1996	38
Glenlyon Dam	58.0	22	53.0	1980	35
Strathpine Colonial Drive	206.0	20	196.4	1996	33
Mango Hill	181.4	20	140.0	1996	30
<b>New South Wales</b>					
Tenterfield (Federation Park)	101.8	21	79.0	1963	138
Glen Innes PO	122.0	22	111.5	1963	126
Maryland	72.0	21	72.0	1980	126
Deepwater PO	103.8	22	100.6	1963	121
Ulmarra (Newsagency)	209.0	22	198.1	1921	115
Wollomombi (Wallamumbi)	82.0	22	75.4	1963	104
Harwood Island (Harwood Sugar Mill)	275.0	22	212.0	1977	95
Ebor (The Racecourse)	198.0	22	133.8	1980	65
Copmanhurst (Stockyard Ck)	245.0	22	177.8	1963	53
Dundee (Karinga)	143.4	22	119.4	1963	51
Dundee (Wattle Dale)	125.8	22	119.8	1980	51
Emmaville (Glen Oak)	84.5	22	81.5	1963	51
Glen Innes (Lyndale)	147.0	22	99.1	1963	50
Yarrowitch (Maretto)	89.0	22	87.4	1977	50
Cangai (Smelter Ck)	296.4	22	192.0	1980	49
Carnham	188.0	22	173.2	1996	45
Grafton South (Yeerong)	172.0	22	156.0	1996	45
Mount Mitchell (Tirranna)	110.2	22	57.6	1997	44
Grafton Olympic Pool	172.6	22	141.0	1996	43
Green Pigeon (Morning View)	175.4	21	174.0	1996	41
Orama (Darkwood Rd)	212.0	22	203.4	1980	39

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<i>Iluka (Owen St)</i>	230.0	22	160.0	1996	38
<i>Girralong</i>	196.4	22	195.8	1996	34
<i>Ebor (Maplewood)</i>	240.0	22	232.2	1996	33
<i>Black Swamp (Maxwell)</i>	134.0	22	117.6	1980	32
<i>Sandy Hills (Tourello Park)</i>	136.8	22	109.4	1996	32
<b>South Australia</b>					
<i>Karcultaby</i>	33.4	25	32.5	1951	87
<i>Parndana (Turkey Lane)</i>	76.6	25	62.8	2004	50
<i>Ardrossan (Vitana)</i>	21.0	25	21.0	2003	41
<b>Western Australia</b>					
<i>Brunswick Junction</i>	96.2	21	80.3	1945	101

*Note: Some statistical records mentioned in this report are based on data that have yet to be fully validated*