



SIGNIFICANT WEATHER – November 2008

SUMMARY

Low pressure systems in Tasmania lead to above average rainfall across most of the state (except in the west). As a result the month was the wettest for several locations and brought the first good falls for many months. A tornado was sighted in Western Australia and unusually late spring snowfalls fell in New South Wales. Tropical cyclone *Anika* developed off Western Australia but had no impact on the Australian coastline. In New South Wales very heavy rainfall from two severe storms caused major local flash flooding towards the end of the month with many locations experiencing their wettest November day on record.

TROPICAL CYCLONES

Western Australia

During the 17th, a low formed in an active phase of a monsoon trough in the central Indian Ocean. The low developed quickly and was upgraded to tropical cyclone *Anika* on the 19th. *Anika* moved on a steady eastsoutheast path, passing to the northeast of the Cocos Islands. The system reached category 2 early on the 20th before rapidly weakening later that day. *Anika* was downgraded to a tropical low on the 21st well off the Western Australian coast.

THUNDERSTORMS/TORNADOES

Queensland

On the 16th severe thunderstorms caused very extensive damage in many Brisbane suburbs. The main suburbs affected were: The Gap, Keperra, Arana Hills and Ferny Grove. Golf ball sized hail was accompanied by strong winds at Wonglepong. Hail 3-4 cm was reported at Mt Tamborine. Marble to golf ball sized hail and flooded paddocks were experienced around the Gold Coast Hinterland. Trees were uprooted and hail 2-3 cm was reported at Ferny Hills and Ferny Grove. Roofs were uplifted from houses in The Gap, Albany Creek and Ferny Grove areas. A tree fell through the roof of the Ferny Grove police station. There was extensive damage to structures at The Gap.

On the 19th heavy rainfall from severe thunderstorms resulted in flash flooding in the Laidley, Rosewood and Ipswich areas during the evening. There were reports of hail about 3cm in diameter in the Toowoomba area.

On the 20th a severe thunderstorm passed over Blackwater at around 6-7pm with reports of cricket ball sized hail. Approximately 100 houses were damaged, 20 houses unroofed, 40 caravans and cabins damaged and trees uprooted. Toowoomba recorded a maximum wind gust of 100 km/h during the storm.

Within the greater Brisbane area 2-3 cm hail was reported from Kelvin Grove, Manly, Kippa-Ring and Shailer Park. The Scarborough Hotel at Redcliffe sustained roof damage and trees were blown over in the area.

New South Wales

On the 3rd thunderstorms caused heavy rain at Inverell and Glen Innes on the Northern Tablelands. Minor local flooding occurred after 44mm of rain was recorded in 2 hours at Inverell, about a 1 in 10 year event.

On the 15th a thunderstorm and very heavy rain was reported at Glenreagh, near Coffs Harbour on the Mid North Coast where 28mm of rain fell in about 10 minutes.

On the 19th early morning storms caused heavy rain at Tibooburra in the far northwest with 25mm recorded in half an hour. At nearby Wilcannia, 29mm was recorded in about 40 minutes during thunderstorms accompanied by small hail. Storm spotters reported golf ball size hail 10 kilometres from Wilcannia. Flash flooding was reported in the Broken Hill area. In eastern New South Wales, thunderstorms caused heavy rain at Manildra on the Central Western Slopes, with reports of 34mm in 40 minutes causing water damage to buildings. Strong winds brought down trees. In the Sydney Metropolitan area, storms caused heavy rain in parts of the western suburbs with Cabramatta West recording 50mm in 90 minutes.

On the 20th thunderstorms at Laurieton on the Mid North Coast caused strong winds and heavy rain, with 27mm recorded in 20 minutes. Trees were blown over and roofs lifted. Heavy rain from storms at Warialda on the North West Slopes caused creeks to overflow, with 48mm of rain recorded in 1hour.

On the 26th a severe hail storm at Coonabarabran on the Central West Slopes damaged houses, motor vehicles and broke windows and skylights. Both the Coonabarabran hospital and police station were damaged. At Burren Junction on the North West Plains 2cm sized hail and strong winds did considerable damage to the town where hail was 3cm deep on ground. At nearby Rowena, 2cm hail and strong winds damaged buildings with approximately 24 mm of rain recorded in 15 minutes.

On the Central Tablelands, Blackheath reported hail up to 3cm in diameter and Bathurst 2cm in diameter.

On the 28th there were widespread thunderstorms, with many severe. The most damaging was at Glen Morrison, south of Walcha on the Northern Tablelands. Up to 105mm in about 1 hour caused major local flooding and destroyed fences. The highest 24 hour rainfall was 163.6mm at Weabonga (Stonleigh), near Walcha, their wettest day on record for any month since records began in 1913. Trees were uprooted by strong winds or were snapped off in a narrow strip, roofs were damaged, sheds flattened and stock was lost. A similar storm hit Ballengarra, near Telegraph Point on the Mid North Coast, destroying grain sheds, uprooting trees and knocking out power lines. Other reports include 3cm hail at Cassilis (Central Tablelands), 5cm hail at Upper Horton and 3cm hail at Willow Tree, both on the North West Slopes.

On the 29th an evening thunderstorms in Sydney caused brief heavy rain and 3cm hail at Prospect, Parramatta and Gordon, with marble size hail at Penrith. Up to 16mm was recorded in 8 minutes on the northern beaches.

Victoria

On the 27th, severe thunderstorms developed over central and eastern areas of Victoria. Hail 2cm in size was reported at Laverton, Strathmore, Ringwood and Heathmont, there was 2cm hail and flash flooding at Ferntree Gully.

South Australia

On the 2nd a surface based thunderstorm near Spalding resulted in a tornado, which was photographed by a Spalding resident.

A high based thunderstorm produced a wind gust of 91 km/h at Moomba on the 6th.

On the 18th wind gusts of up to 98 km/h were caused by a surface based thunderstorm.

A surface based thunderstorm moved across Marree and resulted in wind gusts to 129 km/h and damage to some housing and infrastructure on the 27th.

Western Australia

On the 12th Warburton Airfield reported a wind gust of 93 km/h during a thunderstorm.

During a heavy rainfall event in the South Coastal district on the 21st, a tornado was reported 13 kilometres north of Ongerup. A tornado was also sighted about 40 kilometres away towards Jerramungup in the late morning. There were reports of significant damage in the area.

On the 26th afternoon thunderstorms in the Kimberley resulted in a wind gust of 93km/h at Wyndham Aerodrome. Severe thunderstorms were

identified near Esperance in the Southeast Coastal District and adjacent Goldfields. Norseman Aerodrome recorded a wind gust of 93 km/h. Golf ball sized hail was reported near Salmon Gums. The highway between Kalgoorlie and Esperance was covered with about 12cm of ice for a kilometre, 20 kilometres north of Salmon Gums. There was a large amount of crop damage to the north of Salmon Gums with estimates of up to 3,000 hectares of crops being destroyed.

On the 29th Fitzroy Crossing reported a wind gust of 93 km/h during a thunderstorm.

Northern Territory

On the 7th, a thunderstorm passed just 7 kilometres north of Alice Springs township, leaving behind a wide damage swathe, trees were stripped of leaves and branches, some trees snapped, others were damaged with golf-ball size dents from large hail.

On the 15th, a slow moving thunderstorm produced 116mm of rain in 3 hours at Palm Valley (a greater than 1 in 100 year event), which caused flash flooding of the Finke River.

On the 8th, a severe thunderstorm caused significant damage to Larrimah. A roof was blown off a house, a rainwater tank was blown several hundred metres away and two cars were pushed along a driveway. Also on the 8th, a severe storm damaged 500 acres of eucalypt trees, with trees uprooted or snapped about 1 metre above the ground.

On the 14th, a severe thunderstorm caused damage to trees and outdoor furniture along the Gorge Road in Katherine.

On the 18th, severe thunderstorms were observed throughout the Alice Springs District with damaging winds and flash flooding reported at Kings Canyon and a 98 km/h wind gust was recorded at Yulara. Later in the day Mount Ebenezer Roadhouse reported golf-ball sized hail, while Alice Springs reported a severe storm that produced an 80 km/h wind gust at the airport which, brought down trees and powerlines in town, and caused flash flooding of the Todd River.

On the 19th, a severe thunderstorm passed over the Alice Springs township, bringing down branches off trees, and causing some power interruptions.

On the 23rd, a large-scale squall line produced a 96 km/h wind gust at Bradshaw AWS, west of Katherine.

On the 24th severe thunderstorms were observed throughout the Alice Springs district, causing minor damage. Ross River Resort was hit by a supercell thunderstorm, which caused extensive damage, and Deep Well Station had half an aircraft hangar roof removed in a storm.

On the 25th, another supercell thunderstorm passed over Santa Theresa (southeast of Alice Springs) early during the evening and caused significant damage. Several roofs came off houses. Roads were flooded, and many trees were either uprooted or snapped.

On the 29th, severe thunderstorms in the Katherine area, produced significant tree damage on Florina Road (west of town) and near the Katherine Rural College (north of town).

WIND

Queensland

Some of the strongest wind gusts were: 93 km/h at Georgetown on the 8th; 96 km/h at Archerfield Airport on the 29th and 100 km/h at Toowoomba Airport on the 20th.

New South Wales

On the 14th a wind gust of 93 km/h was experienced at Sydney Airport during a thunderstorm. This was the highest gust there in November since 1975.

On the 20th a wind gust of 104 km/h was recorded at Narrabri on the North West Plains.

On the 23rd strong winds from an east coast low caused minor damage in western Sydney and lower Blue Mountains with trees falling on power lines, causing power outages to over 1000 homes. The strongest winds were 102 km/h at Mount Boyce in the Blue Mountains and 96 km/h at Bellambi Point near Wollongong.

On the 27th thunderstorms caused very strong winds at Moree. The strongest gust of 122 km/h was the highest November wind speed on record at Moree (records since 1964). It is also the 4th highest on record for any month.

Victoria

On the 7th wind gusts of 124 km/h were recorded at Colac and 113 km/h at Mount Hotham.

A wind gust of 118 km/h was recorded at Wilsons Promontory on the 8th.

On the 13th a wind gust of 122 km/h was recorded at Mount William.

Wind gusts of 137 km/h were recorded at Mount Hotham, 115 km/h at Falls Creek and 113 km/h at Mount William on the 23rd.

Tasmania

A low passing to the south of the state on the 8th brought strong and gusty westerly winds, with gusts up to 135km/h on Mount Wellington. Trees were uprooted at Waratah which blocked the Murchison

Highway, and several areas were left without power after trees fell on powerlines at Mengha (in the northwest) and Forth.

A 35 foot yacht was washed ashore on Sandy Bay Beach when strong winds developed ahead of a cold front on the 13th. Gusts reached 89 km/h in Hobart and 117 km/h on Mount Wellington.

Strong winds (from a front and associated low just south of Tasmania) combined with a king tide in the north on the 15th to cause the Tamar River to break its banks.

A low near Gabo Island on the 22nd directed strong southeasterly winds across northeastern Tasmania, causing minor tree damage and bringing down some powerlines near the Batman Bridge.

South Australia

On the 7th the passage of a front over southern South Australia resulted in a wind gust of 93 km/h at Mt Gambier.

Western Australia

On the 7th the passage of a cold front through southwest Western Australia produced a wind gust of 93 km/h at Cape Leeuwin.

DUST STORMS

New South Wales

Although no dust storms were reported in New South Wales during November, strong winds on the 23rd caused areas of raised dust on parts of the western slopes and plains and the far southwest. Visibility was reduced to 10 kilometres at Moree.

SNOW

New South Wales

On the 22nd and 23rd cold southerly winds caused late spring snowfalls in the Snowy Mountains with about 20cm recorded at higher elevations. On the Central Tablelands, unusually late spring snowfalls of 5-10 cm fell at Orange, Oberon, Millthorpe and on the higher ground between Orange and Bathurst, closing the Great Western Highway. Strong winds flattened fruit trees in the Orange area and the weight of snow destroyed nearly \$3 million of hail netting that protected fruit trees. Snow showers were reported in the Portland and Katoomba areas. On the South West Slopes, 4cm of snow fell at Batlow. The previous snowfall that settled in the town was in 1955.

FLOODING

Queensland

Intense rainfall occurred overnight on the 19th across southeast Queensland, particularly around Ipswich and the Lockyer Valley areas. Flash flooding occurred overnight, while riverine flooding occurred in the Bremer River, the Lockyer, Warrill and Laidley Creeks the following day.

New South Wales

On the 28th very heavy rain from severe thunderstorms caused major local flash flooding at Tamworth, Bendemeer and Loomberah on the North West Slopes. Tamworth was declared a natural disaster area when floodwaters cut the city in two after the Peel river burst its banks and peaked at 6 metres, flooding 120 houses. Cars were washed away and 11 people had to be rescued from flooded causeways and trees. The 24 hour rainfall total of 164mm at Tamworth Airport was the wettest day on record for any month (records since 1876). The previous wettest day was 118mm in January 1968. Weabonga (Stoneleigh), just east of Tamworth, recorded 72mm in 1 hour, which has a greater than 1 in 100 year return period. The total damage bill was about \$7.5 million. Moderate flooding continued in the Peel and Namoi Rivers the next day, inundating parts of Gunnedah.

BUSHFIRES

Tasmania

A bushfire near Pioneer in the northeast burnt more than 760 hectares between the 15th and 17th. It was fuelled by strong westerly winds on the 16th, and destroyed a fuel trailer and fire pump trailer.

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).

Western Australia

Highest Mean Maximum Temperature for November

Station	Actual °C	Previous Highest °C	Year	Years of Record
Queensland				
Collinsville PO	35.2	35.1	2005	50
Low Isles Lighthouse	33.8	33.1	1995	40
Musgrave	37.3	37.1	1995	38
Bunderberg Aero	30.0	29.8	1994	30
Northern Territory				
Gove Airport	33.8	33.8	1967	29

Lowest Mean Maximum Temperature for November

Station	Actual °C	Previous Lowest °C	Year	Years of Record
Western Australia				
Wiluna	30.3	30.7	1931	105
Leonora	27.7	29.3	1999	60
Meekatharra A/P	29.3	30.0	1971	59
Mardie	32.8	32.9	1987	53
Emu Creek Station	33.0	33.4	1981	37
Learmonth A/P	31.7	31.8	1987	34
Yeelirrie	29.2	29.9	1999	34

Highest Mean Minimum Temperature for November

Station	Actual °C	Previous Highest °C	Year	Years of Record
Queensland				
Innisfail	23.0	23.0	2001	100
Cairns Aero	23.8	23.5	1987	66
Low Isles Lighthouse	25.6	25.5	1976	41
Walkamin DPI	20.0	19.8	1988	40
Northern Territory				
Jervois	22.2	21.3	2002	38

Highest Mean Minimum Temperature for November

Station	Actual °C	Previous Highest °C	Year	Years of Record
Western Australia				
Wyndham	28.6	28.2	1983	41
Kuri Bay	27.1	26.8	2003	39
Troughton Island	28.4	28.3	2005	30

Lowest Mean Minimum Temperature for November

Station	Actual °C	Previous Lowest °C	Year	Years of Record
Western Australia				
Roebourne	19.9	20.0	1976	88

Highest Daily Maximum Temperature for November

Station	Actual °C	Date	Previous Highest °C	Year	Years of Record
Queensland					
Mackay MO	36.3	23	34.9	1994	50
Low Isles Lighthouse	37.0	23	35.9	2001	41
Northern Territory					
Elliott	45.0	23	45.0	1990	26
Pirlangimpi AWS	36.2	09	36.2	2000	24

Lowest Daily Maximum Temperature for November

Station	Actual °C	Date	Previous Lowest °C	Year	Years of Record
Western Australia					
Leonora	14.5	14	15.1	1966	52
Emu Creek Station	22.0	22	22.9	1975	37
Learmonth A/P	20.2	21	24.9	1975	34

Highest Daily Minimum Temperature for November

Station	Actual °C	Date	Previous Highest °C	Year	Years of Record
Queensland					
Amberley AMO	23.7	29	23.7	1957	68
Camooweal Township	30.6	22	30.2	2004	68
Lady Elliot Island	25.7	22	25.6	1957	51
Double Island Point Lighthouse	24.2	22	23.9	1971	48
Low Isles Lighthouse	27.7	28	27.5	1988	42
Brigalow Research Stn	26.3	06	25.6	1971	41
Walkamin DPI	24.7	23	24.1	1984	41
Bundaberg Aero	24.7	22	24.6	1992	31

New South Wales

Balranald RSL	25.6	13	24.4	2000	43
Woolbrook	17.5	08	17.0	2003	37
Danglemah Rd					
Victoria					
Longerenong	24.3	13	24.0	1984	44
Northern Territory					
Gove Airport	29.2	23	28.2	1998	29

Lowest Daily Minimum Temperature for November

Station	Actual °C	Date	Previous Lowest °C	Year	Years of Record
New South Wales					
Jerrys Plains PO	3.0	23	4.4	1965	52
Tasmania					
Bushy Park (Bushy Park Estates)	-1.3	05	-1.0	1981	47
Butlers George	-5.5	05	-4.2	1974	34

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).

Western Australia

On the 21st a deep surface trough combined with a middle level trough to produce very heavy rainfall in the South Coastal district. Peaceful Bay, south-southeast of Walpole, recorded 125.6mm in the 24hrs to 9am on the 21st. Albany Town recorded 113.6 mm in the same period, its highest daily rainfall since 1907, whilst King River, northeast of Albany, recorded 109.6 mm.

Highest Monthly Rainfall on Record for November

Station	Actual mm	Previous Highest mm	Year	Years of Record
Queensland				
Jondaryan PO	263.2	208.5	1961	122
Gatton Allan Street	336.8	255.7	1917	114
Harrisville PO	240.4	218.8	1961	113
Rosewood Walloon Rd	429.0	268.2	1959	112
University of Queensland Gatton	321.2	219.1	1995	112
Manly Railway Station	339.3	320.4	1976	111
Clifton PO	232.6	220.0	1976	109
Maryvale Station	229.4	182.6	1981	109
Herberton White St	308.6	269.0	1989	107
Grandchester Symes St	401.8	292.9	1959	105
Oxenford (Oberon Way)	478.8	420.9	1961	101
Lake Manchester	273.6	267.5	1961	92
Lindfield	224.4	214.7	1959	86
Moogerah Dam	300.2	296.7	1981	85
Somberby	220.3	202.3	1931	81
Amberley AMO	280.4	270.5	1981	68
Murrarah	167.0	166.1	1974	57
Ellangowan	238.4	174.2	1995	55
Fordsdale	282.2	238.8	1995	55
Woodspring	169.4	152.0	1974	55
Rocky Point Sugar Mill	344.0	334.6	1961	50
New Beith	402.2	297.6	1981	46
Highvale	284.2	274.5	1976	44
Ballandean PO	187.0	185.4	1974	41
Oakey Aero	252.2	205.8	1995	39
Placid Hills	314.0	239.8	1995	39
Miami Bardon Ave	419.2	340.5	1983	38

New South Wales

Tamworth Airport	283.6	198.5	1917	129
Wakool (Barratta)	117.0	115.6	1971	116
Old Koreelah (McPherson)	229.8	209.0	1959	95
Weabonga (Stoneleigh)	277.2	225.2	2000	82
Brays Creek (Misty Mountain)	287.0	256.4	1963	57
Mumbil (Burrendong Dam)	185.6	171.8	1961	57
Cullendore (Ashglen)	223.8	193.9	1959	53
Loomberah (Pendene)	237.4	201.2	2000	51
Somerton (Glen Burn)	158.2	145.4	1970	51
Woolbrook (Danglemah Road)	203.2	188.1	1961	51
Gowrie South	265.2	258.6	2000	50
Copmanhurst (Stockyard Creek)	247.2	235.6	1995	48
Dungowan (Ravencroft)	247.0	207.6	2000	48
Baradine (Woodville)	166.0	145.0	2000	43
Lillian Rock (Williams Road)	256.0	254.4	1983	43
Coonamble (Myall Downs)	152.2	131.2	2001	42
Kenebri (Ellerslie)	163.4	159.4	1972	42
Elsmore (Elmore Station)	212.0	205.2	2001	41
Copeton dam	201.8	183.2	1995	40
Tamworth (Hillgrove)	287.4	164.2	2000	40
Tabulam (Muirne)	289.6	233.2	1989	39
Hunter Springs (Wondecla)	252.6	236.8	2000	38
Tenterfield (Sandy Hill Boorook)	217.8	180.0	1974	38
Tyalgum (Kerrs Lane)	320.0	269.6	1983	38
Bendemeer (Banalasta)	189.8	166.0	205	33
Northern Territory				
Undoolya	180.6	142.2	1977	79
Ngukurr	121.8	120.0	1997	73
Alice Springs Airport	156.0	132.6	2002	67
Arltunga	164.8	135.7	1902	65
Curtin Springs	92.7	88.5	1971	54
Daly Waters AWS	136.6	132.1	1955	31
Kulgera	128.5	74.7	2000	37
Palm Valley	160.6	130.2	2000	25
Wallace Rock Hole	119.6	75.2	2000	22

Lowest Monthly Rainfall on Record for November

Station	Actual mm	Previous Lowest mm	Year	Years of Record
Victoria				
Koroit	4.0	7.9	1911	119
Western Australia				
Albany	226.1	170.6	1929	132
Challa	65.4	54.6	1916	113
Denmark	153.0	139.0	1992	108
Kendenup	125.0	110.8	1929	108
King River	205.8	141.9	1929	105
Sandstone	80.0	62.2	1982	103
Minnie Creek	28.0	21.1	1902	100
Riverdale	73.2	72.1	1965	96
Barrett Meadows	196.0	148.8	1914	91
Woodburn	217.8	171.4	1929	91
White Gums	115.4	108.5	1929	90
Youngs Siding	150.0	109.0	1992	88
Yuinmery	75.2	66.3	1931	88
Bulloo Downs	61.2	52.6	1919	85
Bulga Downs	112.8	56.6	2003	84
Eyre	95.3	89.3	2000	79
Emu Creek Station	54.2	37.6	1982	78
Ashburton Downs	46.8	39.6	1949	75
Pinnacles	80.8	60.2	2002	74
Mount Vernon	73.4	46.0	1982	69
Pemberton	177.4	160.4	1984	68
Twolganup	100.6	92.2	1971	55
Learmonth A/P	45.0	31.6	1975	53

Redmond	179.2	131.2	1959	53
Frankland	98.6	73.7	1965	51
Pyramid Station	13.4	8.6	1957	51
Chillinup	74.2	65.3	1914	50
Albany Airport	137.2	123.0	1992	46
Mininer	30.6	23.0	1971	45
Denbarker	158.2	140.3	1971	36
Wellstead	125.8	87.4	1974	36
Jandakot Aero	78.6	73.0	1991	35
Little Chorkerup	195.8	134.1	1971	34

Highest Daily Rainfall on Record for November

Station	Actual mm	Date	Previous Highest mm	Year	Years of Record
Queensland					
Inglewood PO	74.4	20	71.9	1953	121
Cambooya PO	103.6	20	83.6	1900	119
Balfes Creek PO	127.6	28	98.8	1950	115
Gatton Allan Street	186.2	20	109.2	1964	115
Rosewood Walloon Rd	250.0	20	104.6	1900	114
Dingo PO	88.0	29	84.6	1906	112
University of Queensland Gatton	170.6	20	108.2	1964	112
Jondaryan PO	97.0	20	93.6	1976	110
Herberton White St	110.0	09	103.4	1957	106
Mt Garnet PO	116.0	27	92.2	1906	106
Grandchester Symes St	208.8	20	120.9	1959	105
Mt Whitestone	102.0	20	68.0	1998	56
Fordsdale	160.0	20	98.6	1995	55
Murrarah	75.6	20	67.0	1974	55
Ooonoona	88.6	28	87.8	1981	50
Homeleigh	74.0	20	62.4	1981	48
New Beith	151.0	20	105.6	1981	48
Walkamin DPI	105.2	26	92.4	1989	44
Miami Bardon Ave	97.4	26	92.0	1983	41
Placid Hills	134.0	20	78.4	1976	39
Fig Tree	60.2	28	59.4	2000	37
Coolmunda Dam	56.0	20	51.2	2007	33
Childers South	92.6	21	64.2	1981	30
New South Wales					
Tamworth A/P	164.2	29	88.9	1892	129
Gunnedah	111.6	29	99.1	1950	127
Wakool (Barratta)	73.0	20	54.6	1899	109
Weabonga (Stoneleigh)	163.6	29	60.7	1966	82
Woodenbong (Unumgar St)	78.6	20	73.7	1959	76
Weabonga (Monomeeth)	131.4	29	63.8	1911	70
Gunnedah Resource Centre	109.4	29	82.6	1950	61
Nundle (Benoni)	79.0	29	72.0	2000	56
Gowrie North	85.2	29	60.0	2000	55
Cullendore (Ashglen)	74.0	20	64.0	2006	51
Gowrie South	92.0	29	51.0	2000	51
Loomberah (Pendene)	128.0	29	83.8	1960	51
Moonbi (Bellevue)	62.0	29	59.6	2001	51
Somerton (Glen Burn)	72.4	29	61.7	1970	51
Woolbrook (Danglemah Road)	82.6	29	54.6	1960	51
Woolomin (Culwulla)	132.4	29	89.4	1960	49
Dungowan (Ravencroft)	132.4	29	98.0	1960	48
Elsmore (Elmore Station)	78.0	03	62.0	2000	45
Baradine (Woodville)	64.0	19	45.0	1984	43
Curban (Ercildoune)	68.0	19	60.8	1986	41
Mullaley (Keigho)	76.8	19	60.2	1966	41
Tamworth (Hillgrove)	171.4	29	53.0	2002	40
Gowrie (Lallybroch)	65.2	29	45.0	2000	38
Nundle (Chaffey Dam)	113.8	29	95.0	2000	32
Victoria					
Giffard	60.0	29	57.2	1974	103
Tubbut	85.0	23	54.6	1965	66
Black Mountain	77.4	23	72.6	1965	56
Wulgulmerang (Pleasant View)	90.4	23	80.2	1988	39
Tasmania					
Blackwood Creek (Kopanica)	80.0	08	49.2	1983	40
Musselboro (Elverton)	47.0	08	43.2	1978	40
Upper Blessington (Heathcote)	40.6	08	37.4	1998	37
Gowrie Park	58.8	08	54.0	2001	35

Western Australia

Challa	47.4	16	46.2	1916	109
Mount Augustus	36.0	22	25.4	1939	104
Albany	113.6	21	78.0	1929	102
King River	109.6	21	71.1	1959	101
Denmark	66.4	21	48.3	1948	98
Minnie Creek	25.0	22	21.0	1994	97
Mount Phillip	27.0	22	26.0	1982	94
Barrett meadows	68.8	21	53.3	1929	91
Yuinmery	40.6	16	37.4	1998	88
Youngs Siding	49.2	21	43.4	1948	85
Bulloo Downs	50.0	23	25.2	1998	84
Emu Creek Station	50.0	22	18.5	1964	74
Pinnacles	49.4	23	36.2	1993	74
Winning	42.5	22	28.7	1943	74
Mount Vernon	44.6	22	38.9	1949	70
Mount Clere	30.0	22	18.3	1965	65
Ashburton Downs	28.6	22	17.8	1971	58
Twolganup	54.0	27	49.5	1971	54
Wittenoom	22.0	23	21.0	2000	54
Redmond	47.2	24	41.9	1959	53
Learmonth Airport	41.8	22	29.6	1975	52
Pyramid Station	13.4	23	8.6	1957	50
Albany Airport	32.4	21	32.2	1987	46
Mininer	22.6	23	18.0	1971	45
Denbarker	49.0	21	34.5	1973	37
Bulga Downs	58.8	16	27.4	2003	33
Little Chorkerup	51.8	24	36.8	1969	33
Tom Price	30.6	23	26.4	2006	32
Frankland	43.0	21	33.0	1974	31

Northern Territory

Artunga	84.0	16	77.0	1902	64
Tarlotn Downs	54.0	08	51.3	1970	50
Warramunga	51.0	26	43.0	1982	37
Kulgera	32.0	25	29.7	1971	36
Timber Creek	80.4	27	67.6	1981	25
Palm Valley	115.8	16	68.2	2001	23
Wallace Rock Hole	36.2	16	27.2	2001	21

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