



BARRON RIVER FLOOD

February 2000

This report includes some observations on the flood in the Barron River which occurred on Monday 28 February and is subject to confirmation.

Rainfall

- Although there was heavy rainfall in the Barron River in the 24 hours to 9am Saturday 26 February, the flood producing rainfall in the Barron River catchment did not commence until late Sunday night after the crossing of Cyclone Steve.
- Cairns recorded 251mm in the 24 hours to 9am Saturday while, in other parts of the Barron, falls ranged from 65mm in the upper reaches to 120mm in the lower reaches.
- In the 24 hours to 9am Monday 28 February, rainfalls ranged from 111mm at Atherton to 305mm at Copperlode Dam (refer to attached map)
- Highest rainfall totals were recorded in that part of the catchment from Copperlode to Mareeba.
- Most intense recorded one hourly rainfalls were:

38mm at Mareeba	ending 11:50pm Sunday 27 Feb
51 mm at Emerald Crest	ending 00:35am Monday 28 Feb
72mm at Bolton Rd (near Koah)	ending 04:50am Monday 28 Feb
- Intensity- Frequency- Duration Analysis

Station: Bones Knob

ALERT Id: 6802

Rainfall (mm)	Period Ending	ARI (yrs)
22	30 mins 4:05am 28/02/00	< 1
35	1 hours 2:20am 28/02/00	< 1
54	2 hours 2:05am 28/02/00	1-2
80	3 hours 4:20am 28/02/00	2-5
99	4 hours 4:05am 28/02/00	5-10
126	6 hours 5:20am 28/02/00	10-20
181	12 hours 7:15am 28/02/00	20-50

Rainfall (mm)	Period Ending	ARI (yrs)
39	30 mins 0:25am 28/02/00	2-5
51	1 hours 0:35am 28/02/00	2-5
78	2 hours 2:00am 28/02/00	2-5
105	3 hours 2:55am 28/02/00	10
123	4 hours 2:10am 28/02/00	10-20
167	6 hours 2:55am 28/02/00	20-50
256	12 hours 6:25am 28/02/00	20-50

Station: Mareeba

ALERT Id: 6804

Rainfall (mm)	Period Ending	ARI (yrs)
22	30 mins 11:35pm 27/02/00	< 1
38	1 hours 11:50pm 27/02/00	1-2
59	2 hours 11:55pm 27/02/00	1-2
74	3 hours 11:55pm 27/02/00	2-5
82	4 hours 0:35am 28/02/00	2-5
96	6 hours 4:25am 28/02/00	2-5
146	12 hours 6:40am 28/02/00	5-10

Station: Tinaroo Dam

ALERT Id: 6807

Rainfall (mm)	Period Ending	ARI (yrs)
18	30 mins 7:00am 28/02/00	< 1
23	1 hours 7:05am 28/02/00	< 1
31	2 hours 7:00am 28/02/00	< 1
39	3 hours 10:15pm 27/02/00	< 1
47	4 hours 7:00am 28/02/00	< 1
61	6 hours 0:35am 28/02/00	< 1
118	12 hours 7:05am 28/02/00	1-2

Station: Emerald Crest

ALERT Id: 6804

- Rainfall during the most intense periods in the Barron River from 6pm 27 February to 8am 28 February is shown in the table below as millimetres per 30 minutes.

Date/Time	ALERT ID/ Station										
	2510	2520	6802	6807	6810	6804	6814	6817	6800	6830	6812
	Malanda	Mckell Rd	Bones Knob	Tinaroo Dam	Emerald Crest	Mareeba	Bilwon	Bolton Rd	Saddle Mtn	Brinsmead	Copperlode
27/02/00 18:30	4	1	1	1	3	1	5	9	2	1	7
27/02/00 19:00	6	2	2	3	5	2	2	6	3	5	15
27/02/00 19:30	3	4	2	7	6	3	6	8	2	11	10
27/02/00 20:00	6	2	5	7	3	2	2	13	1	7	13
27/02/00 20:30	4	2	3	6	2	2	3	8	1	7	7
27/02/00 21:00	3	4	3	6	4	6	3	10	1	13	23
27/02/00 21:30	4	2	5	5	16	8	2	9	1	3	26
27/02/00 22:00	14	5	9	7	4	8	3	6	2	11	14
27/02/00 22:30	11	4	8	5	17	10	3	3	1	27	24
27/02/00 23:00	5	3	4	3	11	9	7	11	5	12	22
27/02/00 23:30	4	3	7	5	6	21	3	6	2	14	12
28/02/00 00:00	3	4	8	4	10	17	1	4	2	2	12
28/02/00 00:30	5	3	16	5	39	2	2	2	1	1	2
28/02/00 01:00	8	6	5	1	9	1	11	3	1	1	3
28/02/00 01:30	6	5	11	2	12	1	2	2	7	3	4
28/02/00 02:00	2	4	20	2	17	5	1	6	3	1	10
28/02/00 02:30	4	2	8	4	13	1	1	11	2	5	5
28/02/00 03:00	6	5	11	5	12	2	7	5	2	6	17
28/02/00 03:30	9	8	6	9	2	11	15	1	0	1	9
28/02/00 04:00	3	6	19	5	2	11	2	13	2	1	1
28/02/00 04:30	1	3	9	1	8	15	1	42	3	0	1
28/02/00 05:00	1	1	4	1	10	2	0	30	13	0	1
28/02/00 05:30	1	1	8	5	23	2	0	24	4	0	2
28/02/00 06:00	2	1	4	4	16	3	0	9	2	1	10
28/02/00 06:30	1	1	3	4	9	2	1	3	3	1	2
28/02/00 07:00	6	1	3	18	1	1	1	4	14	2	4
28/02/00 07:30	5	8	2	1	1	1	1	7	2	6	9
28/02/00 08:00	1	8	1	1	1	0	1	1	0	0	4

River Heights

- By Friday 25 February, the Barron River was considered to be saturated as a result of the consistent rainfall over the previous weeks.
- Tinaroo Dam was full by 10 February and had been spilling continuously since that time.
- The rainfall in the 24 hours to 9am Saturday produced a minor flood but by noon Sunday river levels had fallen well below minor flood levels. Mareeba peaked at 6.65 metres at 5.30am on Saturday 26 February and Myola at 6.80m at 9.30am the same morning.
- The next day at Mareeba, the river rose very quickly from 4.20 metres at 9.30pm Sunday to a peak of 12.40 metres at 4.30am Monday. (This level is the highest recorded since records began in 1921, 1.3 metres above the previous highest record in March 1977).
- The Barron River at Myola peaked at 10.90 metres at 7.15am Monday.
- A peak of 8.3 metres was recorded at Kamerunga at 8am Monday. This was about 0.35 metres less than the Feb 1999 peak.
- The peak of outflow from Tinaroo Dam was 560 cubic metres per second and occurred about 6am Tuesday 29 February. This was nearly 24 hours **after** the peaks were recorded at Mareeba and Myola.

Further Information

- Contact Peter Baddiley (07 3239 8768) or Terry Malone (07 3239 8765).