



FLOOD WARNING SYSTEM for the DAINTREE RIVER

This brochure describes the flood warning system operated by the Australian Government, Bureau of Meteorology for the Daintree River. It includes reference information which will be useful for understanding Flood Warnings and River Height Bulletins issued by the Bureau's Flood Warning Centre during periods of high rainfall and flooding.



*Daintree River in flood, March 1996
Photo: Cairns Post*

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(Last updated May 2011)

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Flood Risk

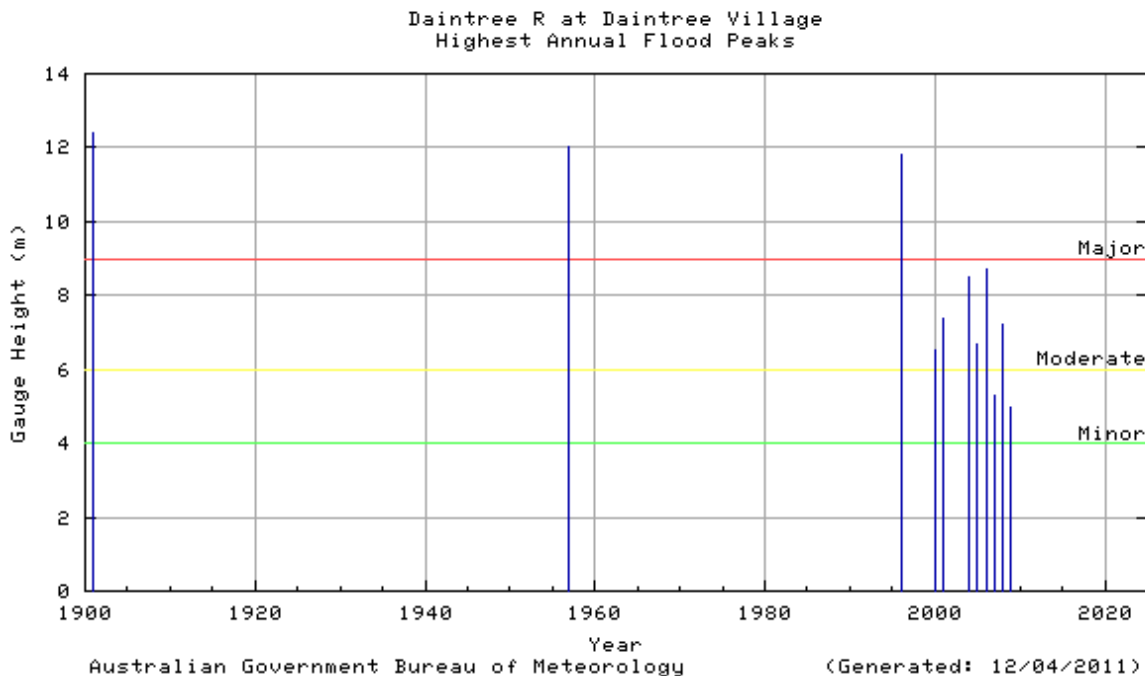
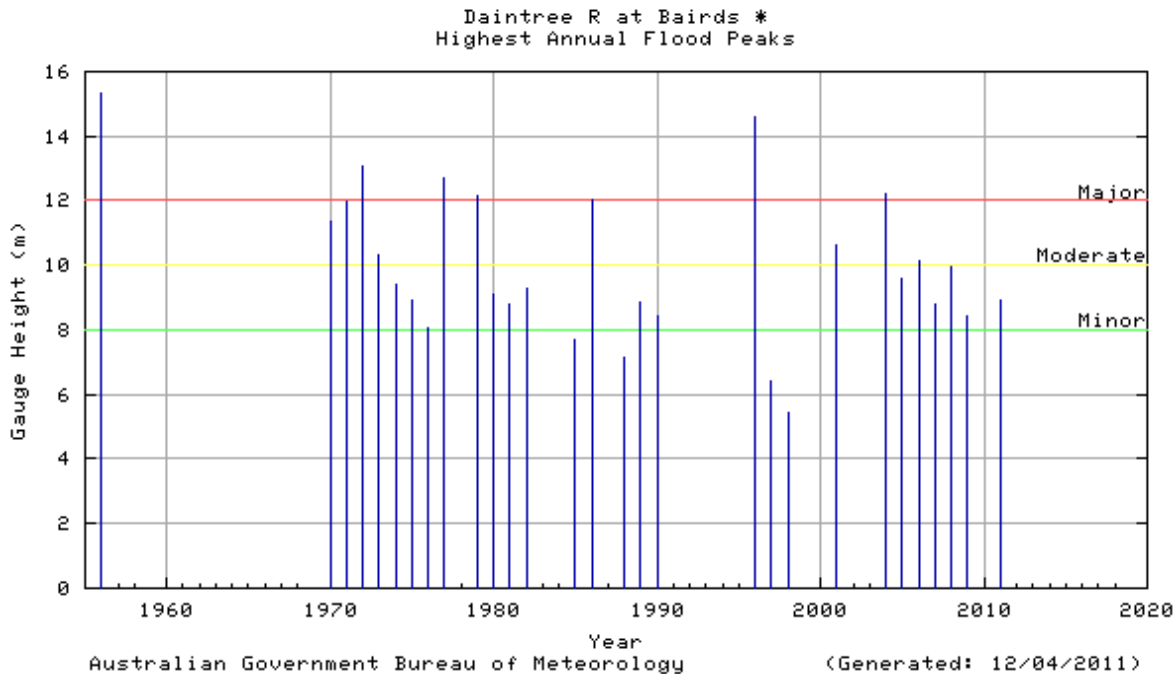
The Daintree River catchment is located about 100 kilometres northwest of Cairns in far north tropical Queensland and drains an area of 2,125 square kilometres. The river rises in the Great Dividing Range, approximately 20 kilometres southwest of Daintree, the largest town within the catchment. It initially flows in a northerly direction, before turning southeast passing Daintree and finally entering the Coral Sea. Floods may develop quickly and with little warning from high rainfalls on the 1000 metre high mountain ranges around the catchment and are often caused by cyclonic influences in the adjacent Coral Sea.

The near record major flood of March 1996 caused widespread inundation of properties and roads throughout the lower reaches of the catchment. The rainfall station at Daintree recorded a total of 606 millimetres in the 24 hours to 9am 6th March.

Previous Flooding

Previous flood information for the Daintree River catchment is limited, however, river height records are available from the automatic river height station at Bairds, with continuous records dating back to 1968.

A new manual reporting floodwarning river height station has now been installed at Daintree. Records from this station are detailed later on in this document.



Flood Forecasting

The Bureau of Meteorology operates a flood warning system for the Daintree River based on a rainfall and river height observations network shown on the map. The network consists of a number of volunteer rainfall and river height observers who forward observations by telephone when the initial flood height has been exceeded at their station, as well as a automatic telephone telemetry station at Bairds, which is operated by the Queensland Department of Environment and Resource Management.

The Bureau's Flood Warning Centre issues Flood Warnings and River Height Bulletins for the Daintree River during flood events. Qualitative flood forecasts are issued when moderate flood levels are likely to be exceeded.

Local Information

Cairns Regional Council is able to provide further information on flooding in your area of the Daintree River catchment.

Flood Warnings and Bulletins

The Bureau of Meteorology issues Flood Warnings and River Height Bulletins for the Daintree River basin, regularly during floods. They are sent to radio stations for broadcast, and to local Councils, emergency services and a large number of other agencies involved in managing flood response activities. Flood Warnings and River Height Bulletins are available via :

Radio

Radio stations, particularly the local ABC, and local commercial stations, broadcast Flood Warnings and River Height Bulletins soon after issue.

Local response organisations

These include the Councils, Police, and State Emergency Services in the local area.

Internet/World Wide Web

Flood Warnings, River Height Bulletins and other weather related data is available on the Bureau's Web page at <http://www.bom.gov.au> . The Queensland Flood Warning Centre website is <http://www.bom.gov.au/qld/flood/> .

Telephone Weather

Flood Warnings are available through a recorded voice retrieval system, along with a wide range of other weather related and climate information.

[Main Directory](#)

Phone 1900 955 360

Flood Warnings

Phone 1300 659 219

Telephone Weather Services Call Charges:

1900 numbers: 77c per minute incl. GST; 1300 numbers: Low call cost - around 27.5c incl. GST.
(More from international, satellite, mobile or public phones)

Interpreting Flood Warnings and River Height Bulletins

Flood Warnings and River Height Bulletins contain observed river heights for a selection of the river height monitoring locations. The time at which the river reading has been taken is given together with its tendency (e.g. rising, falling, steady or at its peak). The Flood Warnings may also contain predictions in the form of minor, moderate or major flooding for a period in the future. River Height Bulletins also give the height above or below the road bridge or causeway for each river station located near a road crossing.

One of the simplest ways of understanding what the actual or predicted river height means is to compare the height given in the Warning or Bulletin with the height of previous floods at that location.

The table below summarises the flood history of the Daintree River basin - it contains the flood gauge heights of the more significant recent floods.

River height station	- 1901	- 1956	Mar 1972	Mar 1996	Mar 2004	Apr 2006	Mar 2008
Bairds	-	15.32	13.09	14.62	12.24	10.12	9.93
Daintree Village	12.40*	-	-	11.81	8.50	8.70	7.20

All heights are in metres on flood gauges.

[*] These heights are taken at old gauge sites and may not relate to flood levels from existing gauge sites

Historical flood heights for all river stations in the Daintree River Floodwarning network, as shown on the map, are available from the Bureau of Meteorology upon request.

DAINTREE RIVER CATCHMENT - ASSESSMENT OF THE FLOOD POTENTIAL

Major flooding requires a large scale rainfall situation over the Daintree River catchment. The following can be used as a rough guide to the likelihood of flooding in the catchment :

Average catchment rainfall in excess of 100mm in 24 hours may result in stream rises and the possibility of minor flooding and local traffic disabilities.

Average catchment rainfalls in excess of 200 to 300mm in 24 hours is likely to result in significant stream rises with the possibility of moderate to major flooding developing, particularly in the lower reaches around Daintree and areas downstream.

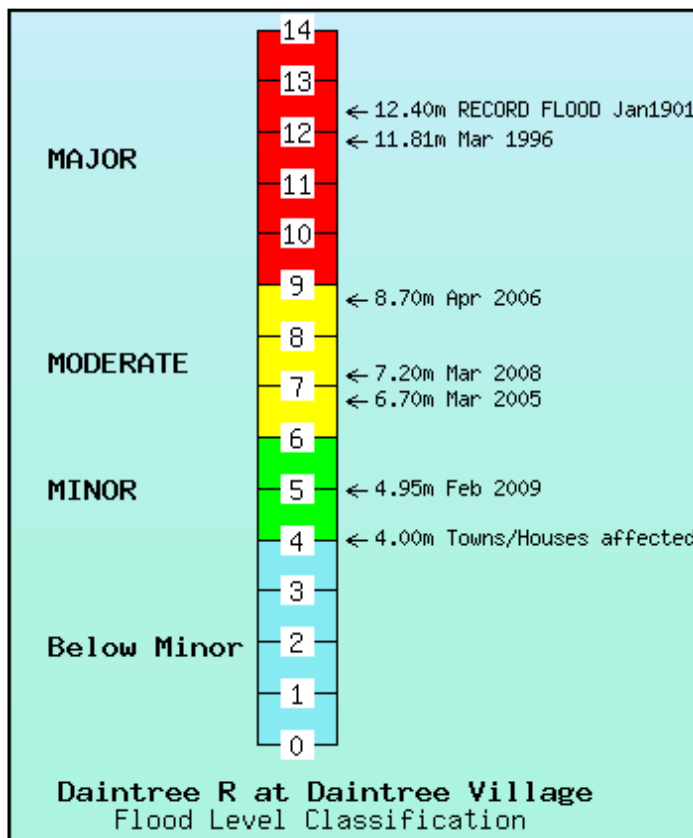
Flood Classifications

At each flood warning river height station, the severity of flooding is described as minor, moderate or major according to the effects caused in the local area or in nearby downstream areas. Terms used in Flood Warnings are based on the following definitions.

Major Flooding : This causes inundation of large areas, isolating towns and cities. Major disruptions occur to road and rail links. Evacuation of many houses and business premises may be required. In rural areas widespread flooding of farmland is likely.

Moderate Flooding : This causes the inundation of low lying areas requiring the removal of stock and/or the evacuation of some houses. Main traffic bridges may be closed by floodwaters.

Minor Flooding : This causes inconvenience such as closing of minor roads and the submergence of low level bridges and makes the removal of pumps located adjacent to the river necessary.



Each river height station has a pre-determined flood classification which details heights on gauges at which minor, moderate and major flooding commences. Other flood heights may also be defined which indicate at what height the local road crossing or town becomes affected by floodwaters.

The table below shows the flood classifications for selected river height stations in the Daintree River catchment.

River Height Station	First Report Height	Crossing Height	Minor Flood Level	Crops & Grazing	Moderate Flood Level	Towns and Houses	Major Flood Level
Bairds	-	-	8.0	-	10.0	-	12.0
Daintree Village	3.5	3.7 (B)	4.0	-	6.0	4.0	9.0

All heights are in metres on flood gauges.

(B) = Bridge (A) = Approaches (C) = Causeway (X) = Crossing (d/s) = Downstream

The above details are correct at the time of preparing this document. Up-to-date flood classifications and other details for all flood warning stations in the network are at:

<http://www.bom.gov.au/hydro/flood/qld/networks/index.shtml>

Catchment Map showing the Daintree River flood warning network

Click here to view map as: [PNG](#) [PDF](#) (544K bytes)

For further information, contact:

The Regional Director, Bureau of Meteorology, GPO Box 413, Brisbane Q 4001

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