



FLOOD WARNING SYSTEM for the BURNETT RIVER

This brochure describes the flood warning system operated by the Australian Government, Bureau of Meteorology for the Burnett 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.



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(Last updated June 2008)

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Burnett River at Mundubbera

Flood Risk

The Burnett River is located on the southern Queensland coast with the mouth of the river sited just north of the City of Bundaberg. The total area of the catchment is about 33,000 square kilometres.

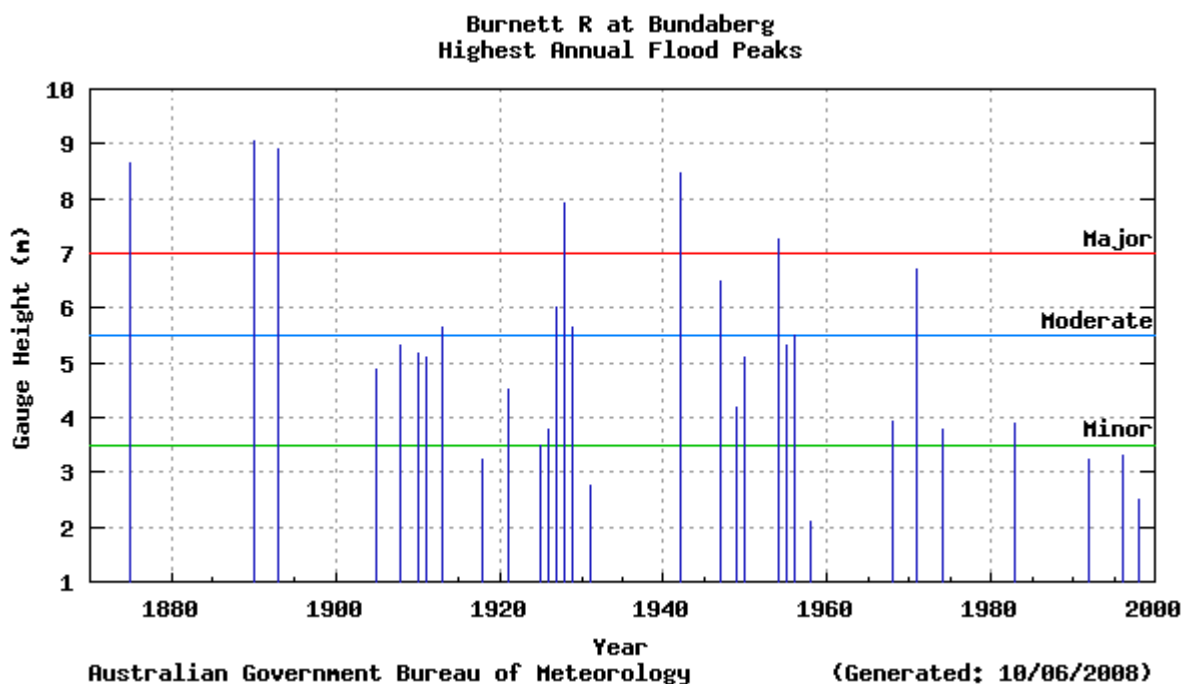
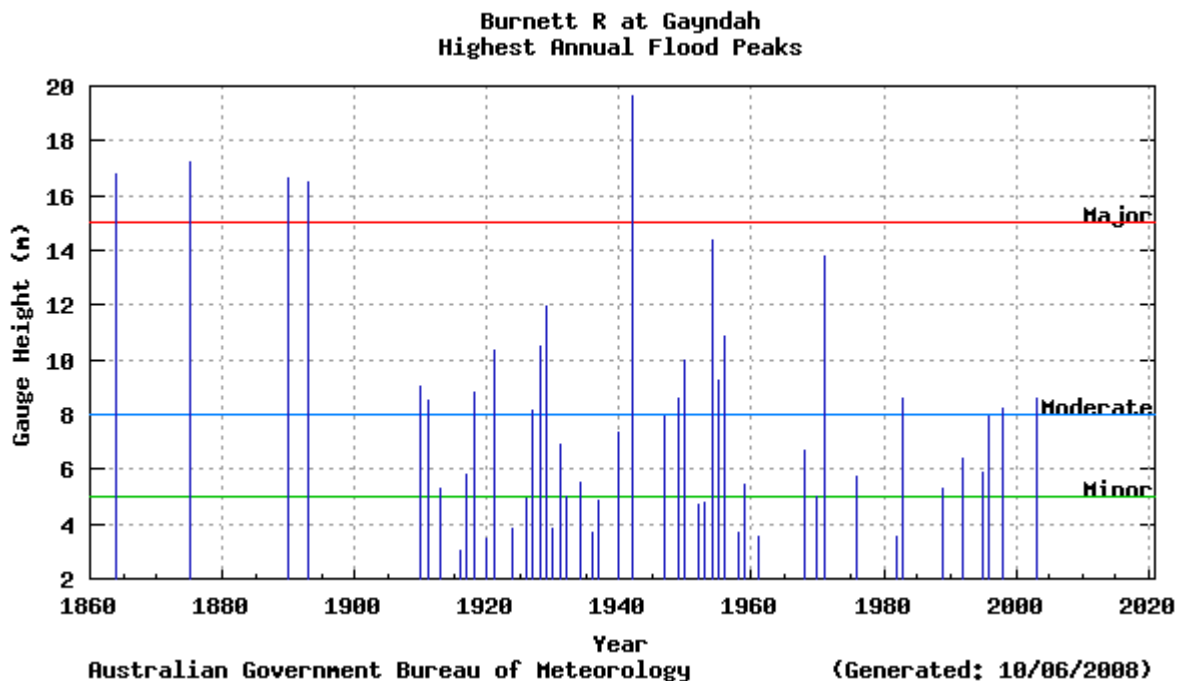
The Burnett River rises in the Dawes Range, just north of Monto and flows south through Eidsvold and Mundubbera. Along the way it is joined by the Nogo and Auburn Rivers which drain large areas in the west of the catchment. Just before Mundubbera, the main river is joined by the Boyne River draining areas from the south and then begins its northeasterly journey to the coast. Between Gayndah and Mt Lawless, the Barker-Barambah Creeks system joins the Burnett River.

Major flooding in the Burnett River is relatively infrequent. However, under favourable meteorological conditions such as a tropical low pressure system, heavy rainfalls can occur throughout the catchment which can result in significant river rises and floods. These floods can cause considerable damage to rural properties along the rivers and to the commercial and residential areas in some of the smaller towns in the area and at Bundaberg.

Previous Flooding

The record of significant floods in the Burnett River extends back to the middle of last century. The flood record at Mundubbera commences with the 1942 flood when the river peaked at 23.62 metres. Since then, floods have been well below this level. At Gayndah, records extend back to 1864 with over 15 events exceeding the 10 metre level.

Major floods have been recorded at Bundaberg in 1875, 1890, 1893 (twice in 2 weeks), 1928, 1942 and 1954. The most recent significant event was in February 1971 when the river rose to 6.70 metres at Bundaberg, about 4.5 metres above Highest Astronomical Tide (HAT). HAT at Bundaberg is 2.19m on the flood gauge in Targo Street.



Flood Forecasting

The Bureau of Meteorology operates a flood warning system for the Burnett River catchment 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 stations, which are operated by both the Bureau of Meteorology and the Department of Natural Resources and Water.

The Bureau's Flood Warning Centre issues Flood Warnings and River Height Bulletins for the Burnett River during flood events. River height predictions are issued when moderate flood levels are likely to be exceeded at a number of key locations. Predictions are also made for Bundaberg when the river level is expected to exceed 6.0 metres on the flood gauge. The objective is to provide between 12 and 24 hours advanced warning of flood heights in Bundaberg.

Local Information

The Local Government is able to provide further information on flooding in your area of the Burnett River catchment.

Flood Warnings and Bulletins

The Bureau of Meteorology issues Flood Warnings and River Height Bulletins for the Burnett River catchment 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/hydro/flood/qld>

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 Burnett River catchment - it contains the flood gauge heights of the more significant recent floods. All heights are in metres on flood gauges.

River height station	Jan 1890	Feb 1893	Feb 1942	Feb 1971	May 1983	Mar 1992	May 1998	Feb 2003
Mundubbera	-	-	23.62	17.45	10.60	8.20	10.20	10.60
Gayndah	16.64	16.46	19.66	13.79	8.60	6.40	8.20	8.60
Walla	23.11	22.84	22.45	18.08	11.90	11.20	9.85	9.76
Bundaberg	9.04	8.91	8.48	6.70	3.88	3.24	2.50	-

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

BURNETT RIVER CATCHMENT - ASSESSMENT OF THE FLOOD POTENTIAL

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

Average catchment rainfalls in excess 200mm in 48 hours, may result in stream rises and the possibility of moderate to major flooding and local traffic disabilities in the middle to lower reaches of the Burnett River extending downstream.

Average catchment rainfalls in excess 300mm in 48 hours, may result in significant stream rises and the possibility of major flooding and local traffic disabilities in the middle to lower reaches of the Burnett River extending downstream.

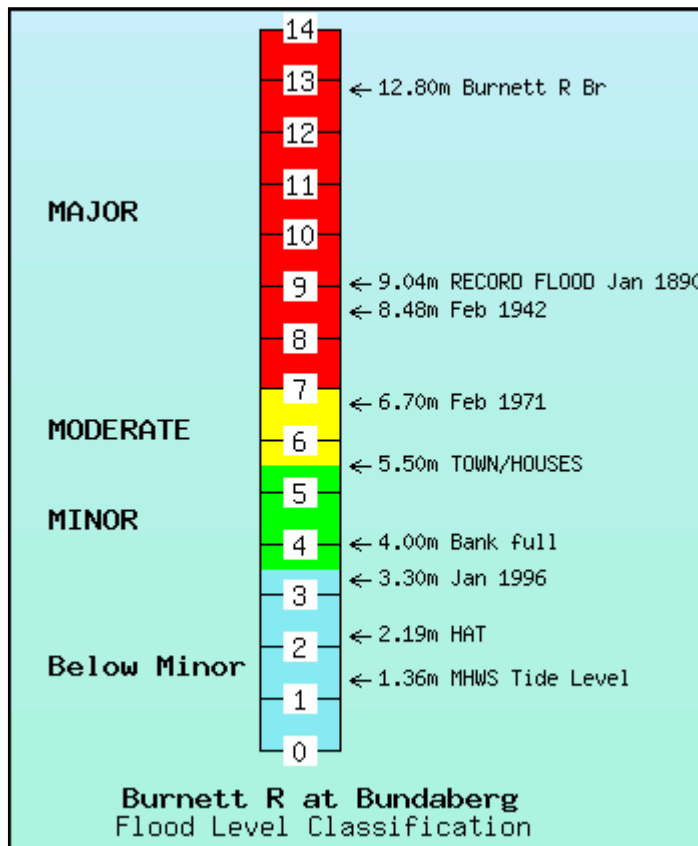
Flood Classifications

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 Burnett River catchment.

River Height Station	First Report Height	Crossing Height	Minor Flood Level	Crops & Grazing	Moderate Flood Level	Towns and Houses	Major Flood Level
Eidsvold Bridge	4.0	6.10 (B)	6.0	6.0 (d/s)	9.0	-	12.0 (d/s)
Glenwood	4.0	4.00 (B)	5.0	12.0	8.0	16.0	12.0
Dunollie	3.0	3.10 (B)	5.0	8.0	6.5	-	8.0
Mundubbera	3.0	17.00 (B)	7.0	11.0	11.0 (d/s)	18.3	18.0
Gayndah	3.0	19.00 (B)	5.0	15.0	8.0	16.3	15.0 (d/s)
Brian Pastures	2.0	10.50 (B)	6.0	8.0	8.0 (d/s)	-	9.0 (d/s)
Walla	3.0	5.50 (O)	6.0	15.0	8.0	-	12.0 (d/s)
Bundaberg	2.5	12.80 (B)	3.5	-	5.5	5.5	7.0

All heights are in metres on flood gauges. (B) = Bridge (O) = Old Bridge (d/s) = Down Stream
 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 Burnett River catchment flood warning network

Click here to view map as: [PNG](#) [PDF](#) (903K bytes)

For further information, contact:

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

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