



FLOOD WARNING SYSTEM for the NEBINE, MUNGALLALA AND WALLAM CREEKS

This brochure describes the flood warning system operated by the Australian Government, Bureau of Meteorology for the Nebine, Mungallala and Nebine Creeks. 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.



Wallam Creek at Homeboin

Contained in this document is information about:
(Last updated May 2011)

- [Flood Risk](#)
- [Previous Flooding](#)
- [Flood Forecasting](#)
- [Local Information](#)
- [Flood Warnings and Bulletins](#)
- [Interpreting Flood Warnings and River Height Bulletins](#)
- [Flood Classifications](#)
- [Catchment Map](#)

Flood Risk

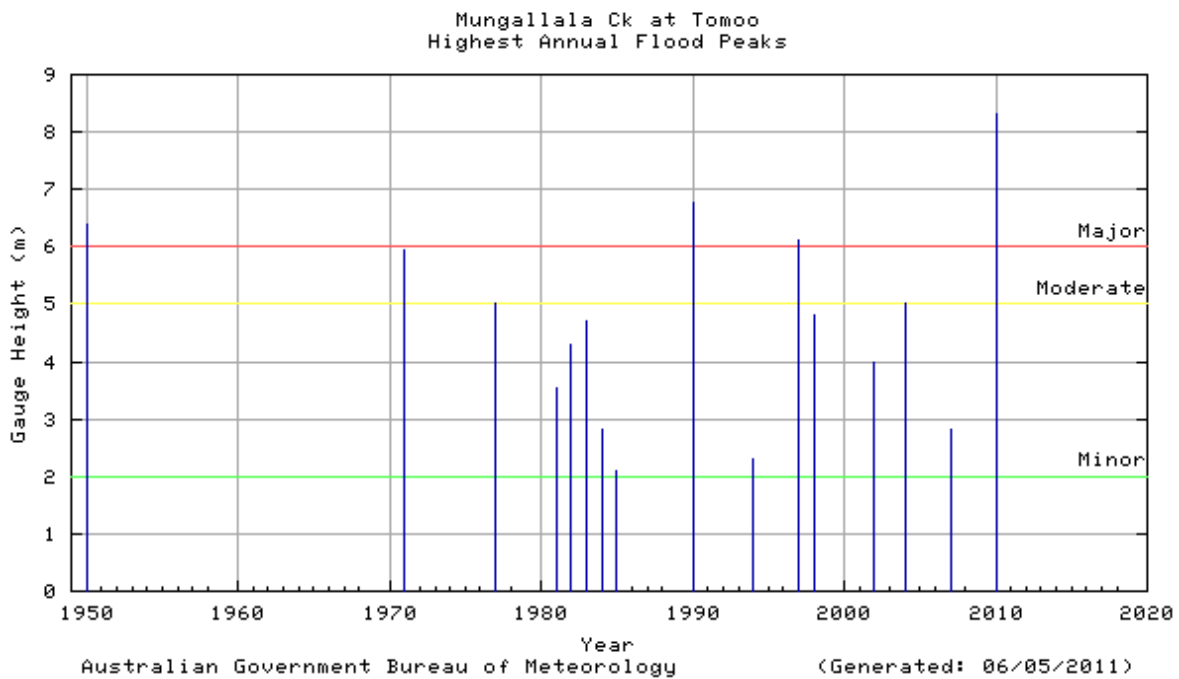
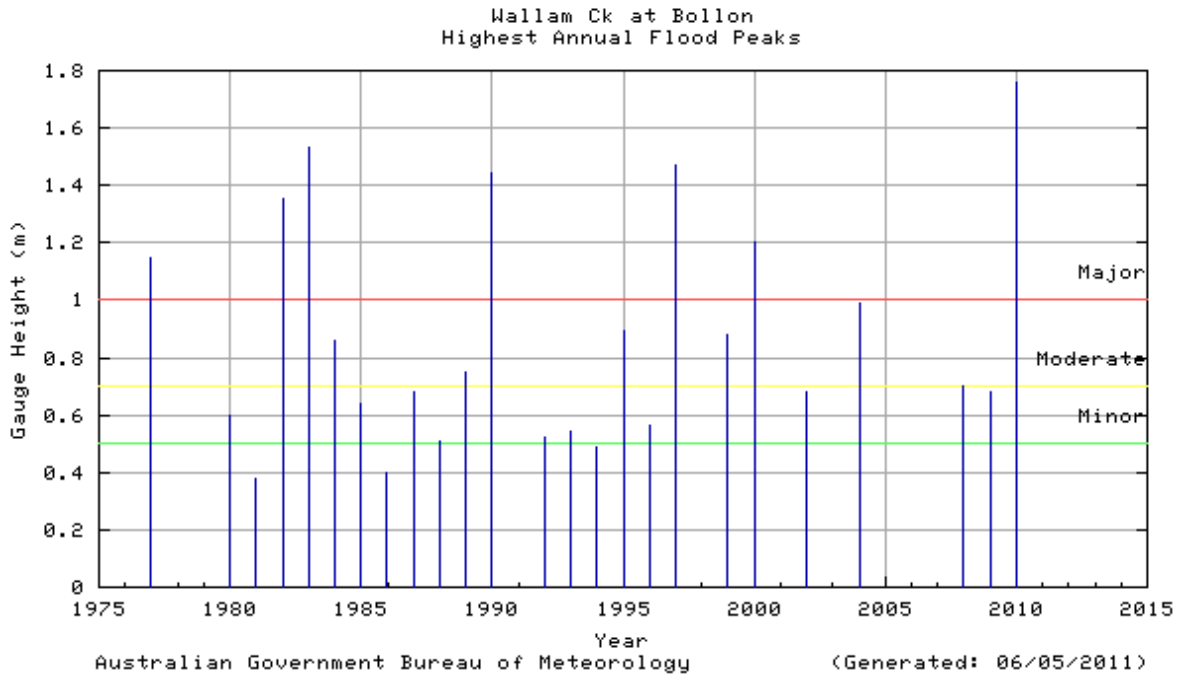
The Nebine, Mungallala and Wallam Creek catchments are located about 100 to 150 kilometres west of St George in southwestern Queensland and drain an area of approximately 36,000 square kilometres. Mungallala Creek rises in the Chesterton Ranges 50 kilometres northwest of Mitchell. The Nebine and Wallam Creeks rise in an area south of a line between Mitchell and Morven. The small townships of Bollon and Mungallala are the only towns in the catchment.

All three creek systems flow in a southerly direction, parallel to each other for some 250 to 300 kilometres, before crossing the Queensland and New South Wales border west of the town of Hebel. They join the Culgoa River prior to entering the Darling River system upstream of Bourke.

Floods normally develop in the headwaters area of Nebine, Mungallala and Wallam Creeks. However, general heavy rainfall situations may occur throughout these vast catchments. In recent years, the catchments have seen extensive flooding particularly in May 1983, April 1990, February 1997 and in March 2010. The flood of March 2010 produced large scale traffic disruption and residential area inundation. There were also localised communities that required evacuation.

Previous Flooding

Previous flood information for the Nebine, Mungallala and Wallam Creek catchments are well documented, with river height records for Homeboin and Tomoo dating back to the 1950's. The record major flood of March 2010 caused widespread traffic difficulties and property inundation.



Flood Forecasting

The Bureau of Meteorology operates a flood warning system for the Nebine, Mungallala and Wallam Creeks 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.

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

Local Information

Local Council's throughout the Nebine, Mungallala and Wallam Creek catchments may be able to provide further details of flooding in your area.

Flood Warnings and Bulletins

The Bureau of Meteorology issues Flood Warnings and River Height Bulletins for the Nebine, Mungallala and Wallam Creek catchments 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 Nebine, Mungallala and Wallam Creek catchments - it contains the flood gauge heights of the more significant recent floods.

River height station	Jun 1950	Mar 1982	May 1983	Apr 1990	Feb 1997	Jan 2004	Mar 2010
Homeboin	3.91	3.60	3.90	4.00	4.15	-	4.70
Bollon	-	1.35	1.53	1.44	1.47	0.99	1.76
Mungallala	-	-	-	-	-	2.90	4.50
Tomoo	6.40	4.30	4.70	6.75	6.10	5.00	8.30
Deelamon		3.20*	3.85*	6.15	5.90	3.85	6.70

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 Nebine, Mungallala and Wallam Creek catchments Floodwarning network, as shown on the map, are available from the Bureau of Meteorology upon request.

NEBINE, MUNGALLALA AND WALLAM CREEK CATCHMENTS - ASSESSMENT OF THE FLOOD POTENTIAL

Major flooding requires a large scale rainfall situation over the Nebine, Mungallala and Wallam Creek catchments. The following can be used as a rough guide to the likelihood of flooding in the catchment :

Average catchment rainfalls in excess of 25mm, with isolated 50mm falls, in 24 hours may result in stream rises and the possibility of minor flooding and local traffic disabilities. If rainfalls have been recorded in the previous 2 to 3 days, then moderate to major flooding may develop.

Average catchment rainfalls in excess of 50mm, with isolated 75 to 100mm falls, in 24 hours may result in significant stream rises with the possibility of moderate to major flooding developing, particularly in the lower reaches of all three catchments and extending downstream to the Queensland and New South Wales border.

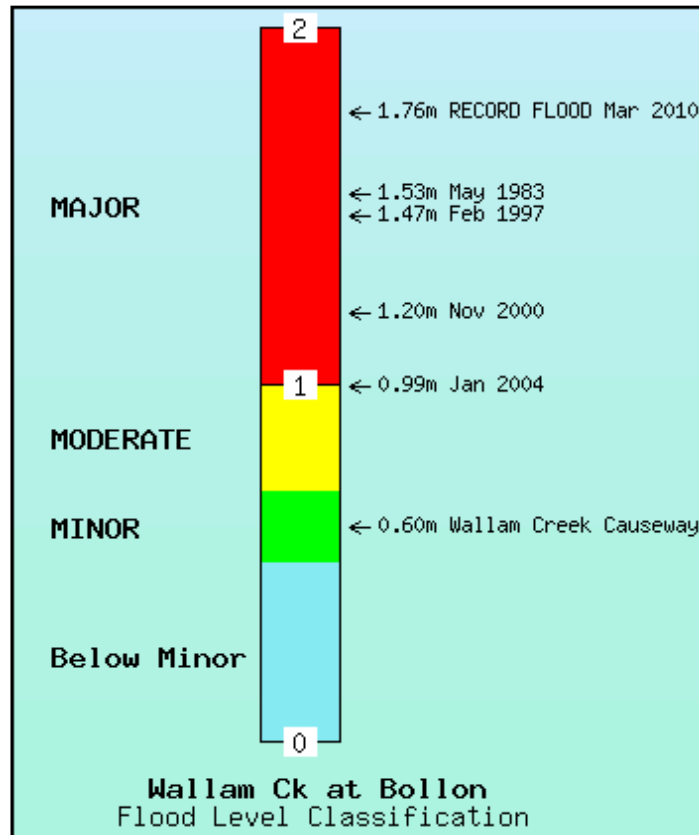
Flood Classifications

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 Nebine, Mungallala and Wallam Creek catchments.

River Height Station	First Report Height	Crossing Height	Minor Flood Level	Crops & Grazing	Moderate Flood Level	Towns and Houses	Major Flood Level
Homeboin	0.5	0.50 (X)	2.0	2.5	2.5	3.5	3.0
Bollon	0.4	0.60 (C)	0.5	-	0.7	1.0	1.0
Mungallala	2.0	4.20 (B)	3.0	-	4.0	-	4.5
Tomoo	0.5	-	2.0	6.0	5.0	6.9	6.0
Deelamon	0.3	0.20 (X)	1.0	2.0	2.0	-	3.5
Bendena	0.5	-	1.0	2.0	2.0	3.0	3.0

All heights are in metres on flood gauges.

(B) = Bridge (C) = Causeway (X) = Crossing

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 Nebine, Mungallala & Wallam Creek flood warning network

Click here to view map as: [PNG](#) [PDF](#) (410K bytes)

For further information, contact:

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

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